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The primary ANTLR guy:

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1.2 libjpeg 6b

1.2.1 Notifications :

This software is based in part on the work of the Independent JPEG Group.

1.2.2 Available under license :

The Independent JPEG Group's JPEG software
==

README for release 6b of 27-Mar-1998
====================================

This distribution contains the sixth public release of the Independent JPEG
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to use it for any purpose, subject to the conditions under LEGAL ISSUES, below.

Serious users of this software (particularly those incorporating it into
larger programs) should contact IJG at jpeg-info@uunet.uu.net to be added to
our electronic mailing list. Mailing list members are notified of updates
and have a chance to participate in technical discussions, etc.

This software is the work of Tom Lane, Philip Gladstone, Jim Boucher,
Lee Crocker, Julian Minguillon, Luis Ortiz, George Phillips, Davide Rossi,
Guido Vollbeding, Ge' Weijers, and other members of the Independent JPEG
Group.

IJG is not affiliated with the official ISO JPEG standards committee.

DOCUMENTATION ROADMAP

====================

This file contains the following sections:

OVERVIEW	General description of JPEG and the IJG software.
LEGAL ISSUES	Copyright, lack of warranty, terms of distribution.
REFERENCES	Where to learn more about JPEG.
ARCHIVE LOCATIONS	Where to find newer versions of this software.
RELATED SOFTWARE	Other stuff you should get.
FILE FORMAT WARS	Software *not* to get.
TO DO	Plans for future IJG releases.

Other documentation files in the distribution are:

User documentation:

install.doc	How to configure and install the IJG software.
usage.doc	Usage instructions for cjpeg, djpeg, jpegtran, rdjpgcom, and wrjpgcom.
*.1	Unix-style man pages for programs (same info as usage.doc).
wizard.doc	Advanced usage instructions for JPEG wizards only.
change.log	Version-to-version change highlights.

Programmer and internal documentation:

libjpeg.doc	How to use the JPEG library in your own programs.
example.c	Sample code for calling the JPEG library.
structure.doc	Overview of the JPEG library's internal structure.
filelist.doc	Road map of IJG files.
coderules.doc	Coding style rules --- please read if you contribute code.

Please read at least the files install.doc and usage.doc. Useful information can also be found in the JPEG FAQ (Frequently Asked Questions) article. See ARCHIVE LOCATIONS below to find out where to obtain the FAQ article.

If you want to understand how the JPEG code works, we suggest reading one or more of the REFERENCES, then looking at the documentation files (in roughly the order listed) before diving into the code.

OVERVIEW

========

This package contains C software to implement JPEG image compression and decompression. JPEG (pronounced "jay-peg") is a standardized compression method for full-color and gray-scale images.

JPEG is intended for compressing "real-world" scenes; line drawings, cartoons and other non-realistic images are not its strong suit. JPEG is lossy, meaning that the output image is not exactly identical to the input image. Hence you must not use JPEG if you have to have identical output bits. However, on typical photographic images, very good compression levels can be obtained with no visible change, and remarkably high compression levels are possible if you can tolerate a low-quality image. For more details, see the references, or just experiment with various compression settings.

This software implements JPEG baseline, extended-sequential, and progressive compression processes. Provision is made for supporting all variants of these processes, although some uncommon parameter settings aren't implemented yet. For legal reasons, we are not distributing code for the arithmetic-coding variants of JPEG; see LEGAL ISSUES. We have made no provision for supporting the
hierarchical or lossless processes defined in the standard.

We provide a set of library routines for reading and writing JPEG image files, plus two sample applications "cjpeg" and "djpeg", which use the library to perform conversion between JPEG and some other popular image file formats. The library is intended to be reused in other applications.

In order to support file conversion and viewing software, we have included considerable functionality beyond the bare JPEG coding/decoding capability; for example, the color quantization modules are not strictly part of JPEG decoding, but they are essential for output to colormapped file formats or colormapped displays. These extra functions can be compiled out of the library if not required for a particular application. We have also included "jpegtran", a utility for lossless transcoding between different JPEG processes, and "rdjpgcom" and "wrjpgcom", two simple applications for inserting and extracting textual comments
in JFIF files.

The emphasis in designing this software has been on achieving portability and flexibility, while also making it fast enough to be useful. In particular, the software is not intended to be read as a tutorial on JPEG. (See the REFERENCES section for introductory material.) Rather, it is intended to be reliable, portable, industrial-strength code. We do not claim to have achieved that goal in every aspect of the software, but we strive for it.

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of any program generated from the IJG code, this does not limit you more than
the foregoing paragraphs do.

The Unix configuration script "configure" was produced with GNU Autoconf.
It is copyright by the Free Software Foundation but is freely distributable.
The same holds for its supporting scripts (config.guess, config.sub,
ltconfig, ltmain.sh). Another support script, install-sh, is copyright
by M.I.T. but is also freely distributable.

It appears that the arithmetic coding option of the JPEG spec is covered by
patents owned by IBM, AT&T, and Mitsubishi. Hence arithmetic
coding cannot
legally be used without obtaining one or more licenses. For this reason,
support for arithmetic coding has been removed from the free JPEG software.
(Since arithmetic coding provides only a marginal gain over the unpatented
Huffman mode, it is unlikely that very many implementations will support it.)
So far as we are aware, there are no patent restrictions on the remaining
code.

The IJG distribution formerly included code to read and write GIF files.
To avoid entanglement with the Unisys LZW patent, GIF reading support has
been removed altogether, and the GIF writer has been simplified to produce
"uncompressed GIFs". This technique does not use the LZW algorithm; the
resulting GIF files are larger than usual, but are readable by all standard
GIF decoders.

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REFERENCES
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We
highly recommend reading one or more of these references before trying to
understand the innards of the JPEG software.

The best short technical introduction to the JPEG compression algorithm is
Wallace, Gregory K. "The JPEG Still Picture Compression Standard",

Communications of the ACM, April 1991 (vol. 34 no. 4), pp. 30-44. (Adjacent articles in that issue discuss MPEG motion picture compression, applications of JPEG, and related topics.) If you don't have the CACM issue handy, a PostScript file containing a revised version of Wallace's article is available at ftp://ftp.uu.net/graphics/jpeg/wallace.ps.gz. The file (actually a preprint for an article that appeared in IEEE Trans. Consumer Electronics) omits the sample images that appeared in CACM, but it includes corrections and some added material. Note: the Wallace article is copyright ACM and IEEE, and it may not be used for commercial purposes.

A somewhat less technical, more leisurely introduction to JPEG can be found in "The Data Compression Book" by Mark Nelson and Jean-loup Gailly, published by M&T Books (New York), 2nd ed. 1996, ISBN 1-55851-434-1. This book provides good explanations and example C code for a multitude of compression methods including JPEG. It is an excellent source if you are comfortable reading C code but don't know much about data compression in general. The book's JPEG sample code is far from industrial-strength, but when you are ready to look at a full implementation, you've got one here...

The best full description of JPEG is the textbook "JPEG Still Image Data Compression Standard" by William B. Pennebaker and Joan L. Mitchell, published by Van Nostrand Reinhold, 1993, ISBN 0-442-01272-1. Price US$59.95, 638 pp. The book includes the complete text of the ISO JPEG standards (DIS 10918-1 and draft DIS 10918-2). This is by far the most complete exposition of JPEG in existence, and we highly recommend it.

The JPEG standard itself is not available electronically; you must order a paper copy through ISO or ITU. (Unless you feel a need to own a certified official copy, we recommend buying the Pennebaker and Mitchell book instead; it's much cheaper and includes a great deal of useful explanatory material.) In the USA, copies of the standard may be ordered from ANSI Sales at (212) 642-4900, or from Global Engineering Documents at (800) 854-7179. (ANSI doesn't take credit card orders, but Global does.) It's not cheap: as of 1992, ANSI was charging $95 for Part 1 and $47 for Part 2, plus 7% shipping/handling. The standard is divided into two parts, Part 1 being the actual specification, while Part 2 covers compliance testing methods. Part 1 is titled "Digital Compression and Coding of Continuous-tone Still Images, Part 1: Requirements and guidelines" and has document numbers ISO/IEC IS 10918-1, ITU-T T.81. Part 2 is titled "Digital Compression and Coding of Continuous-tone Still Images, Part 2: Compliance testing" and has document numbers ISO/IEC IS 10918-2, ITU-T T.83.

Some extensions to the original JPEG standard are defined in JPEG Part 3, a newer ISO standard numbered ISO/IEC IS 10918-3 and ITU-T T.84. IJG currently does not support any Part 3 extensions.

The JPEG standard does not specify all details of an interchangeable file format. For the omitted details we follow the "JFIF" conventions, revision 1.02. A copy of the JFIF spec is available from:

Literature Department
C-Cube Microsystems, Inc.
1778 McCarthy Blvd.
Milpitas, CA 95035
phone (408) 944-6300, fax (408) 944-6314

A PostScript version of this document is available by FTP at ftp://ftp.uu.net/graphics/jpeg/jfif.ps.gz. There is also a plain text version at ftp://ftp.uu.net/graphics/jpeg/jfif.txt.gz, but it is missing the figures.

The TIFF 6.0 file format specification can be obtained by FTP from ftp://ftp.sgi.com/graphics/tiff/TIFF6.ps.gz. The JPEG incorporation scheme found in the TIFF 6.0 spec of 3-June-92 has a number of serious problems. IJG does not recommend use of the TIFF 6.0 design (TIFF Compression tag 6). Instead, we recommend the JPEG design proposed by TIFF Technical Note #2 (Compression tag 7). Copies of this Note can be obtained from ftp.sgi.com or from ftp://ftp.uu.net/graphics/jpeg/. It is expected that the next revision of the TIFF spec will replace the 6.0 JPEG design with the Note's design. Although IJG's own code does not support TIFF/JPEG, the free libtiff library uses our library to implement TIFF/JPEG per the Note. libtiff is available from ftp://ftp.sgi.com/graphics/tiff/.

ARCHIVE LOCATIONS

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The "official" archive site for this software is ftp.uu.net (Internet address 192.48.96.9). The most recent released version can always be found there in directory graphics/jpeg. This particular version will be archived as ftp://ftp.uu.net/graphics/jpeg/jpegsrc.v6b.tar.gz. If you don't have direct Internet access, UUNET's archives are also available via UUCP; contact help@uunet.uu.net for information on retrieving files that way.

Numerous Internet sites maintain copies of the UUNET files. However, only ftp.uu.net is guaranteed to have the latest official version.

You can also obtain this software in DOS-compatible "zip" archive format from the SimTel archives (ftp://ftp.simtel.net/pub/simtelnet/msdos/graphics/), or on CompuServe in the Graphics Support forum (GO CIS:GRAPHSUP), library 12 "JPEG Tools". Again, these versions may sometimes lag behind the ftp.uu.net release.

The JPEG FAQ (Frequently Asked Questions) article is a useful source of general information about JPEG. It is updated constantly and therefore is not included in this distribution. The FAQ is posted every two weeks to Usenet newsgroups comp.graphics.misc, news.answers, and other groups. It is available on the World Wide Web at http://www.faqs.org/faqs/jpeg-faq/ and other news.answers archive sites, including the official news.answers archive at rtfm.mit.edu: ftp://rtfm.mit.edu/pub/usenet/news.answers/jpeg-faq/. If you don't have Web or FTP access, send e-mail to mail-server@rtfm.mit.edu with body

```
 send usenet/news.answers/jpeg-faq/part1
 send usenet/news.answers/jpeg-faq/part2
```

RELATED SOFTWARE

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Numerous viewing and image manipulation programs now support JPEG. (Quite a few of them use this library to do so.) The JPEG FAQ described above lists some of the more popular free and shareware viewers, and tells where to obtain them on Internet.

If you are on a Unix machine, we highly recommend Jef Poskanzer's free PBMPLUS software, which provides many useful operations on PPM-format image files. In particular, it can convert PPM images to and from a wide range of other formats, thus making cjpeg/djpeg considerably more useful. The latest version is distributed by the NetPBM group, and is available from numerous sites, notably ftp://wuarchive.wustl.edu/graphics/graphics/packages/NetPBM/. Unfortunately PBMPLUS/NETPBM is not nearly as portable as the IJG software is; you are likely to have difficulty making it work on any non-Unix machine.

A different free JPEG implementation, written by the PVRG group at Stanford, is available from ftp://havefun.stanford.edu/pub/jpeg/. This program is designed for research and experimentation rather than production use; it is slower, harder to use, and less portable than the IJG code, but it is easier to read and modify. Also, the PVRG code supports lossless JPEG, which we do not. (On the other hand, it doesn't do progressive JPEG.)

FILE FORMAT WARS

================

Some JPEG programs produce files that are not compatible with our library. The root of the problem is that the ISO JPEG committee failed to specify a concrete file format. Some vendors "filled in the blanks" on their own, creating proprietary formats that no one else could read.

(For example, none
of the early commercial JPEG implementations for the Macintosh were able to exchange compressed files.)

The file format we have adopted is called JFIF (see REFERENCES). This format has been agreed to by a number of major commercial JPEG vendors, and it has become the de facto standard. JFIF is a minimal or "low end" representation. We recommend the use of TIFF/JPEG (TIFF revision 6.0 as modified by TIFF Technical Note #2) for "high end" applications that need to record a lot of additional data about an image. TIFF/JPEG is fairly new and not yet widely supported, unfortunately.

The upcoming JPEG Part 3 standard defines a file format called SPIFF. SPIFF is interoperable with JFIF, in the sense that most JFIF decoders should be able to read the most common variant of SPIFF. SPIFF has some technical advantages over JFIF, but its major claim to fame is simply that it is an official standard rather than an informal one. At this point it is unclear whether
SPIFF will supersede JFIF or whether JFIF will remain the de-facto standard. IJG intends to support SPIFF once the standard is frozen, but we have not decided whether it should become our default output format or not. (In any case, our decoder will remain capable of reading JFIF indefinitely.)

Various proprietary file formats incorporating JPEG compression also exist. We have little or no sympathy for the existence of these formats. Indeed, one of the original reasons for developing this free software was to help force convergence on common, open format standards for JPEG files. Don't use a proprietary file format!

TO DO
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The major thrust for v7 will probably be improvement of visual quality. The current method for scaling the quantization tables is known not to be very good at low Q values. We also intend to investigate block boundary smoothing, "poor man's variable quantization", and other means of improving quality-vs-file-size performance without
sacrificing compatibility.

In future versions, we are considering supporting some of the upcoming JPEG Part 3 extensions --- principally, variable quantization and the SPIFF file format.

As always, speeding things up is of great interest.

Please send bug reports, offers of help, etc. to jpeg-info@uunet.uu.net.

1.3 javax-inject 1

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1.6 slf4j 1.6.6

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* /opt/cola/permits/127992493_1695293957.3536224/0/jzlib-1-1-3-sources-zip/com/jcraft/jzlib/Inflate.java
* /opt/cola/permits/127992493_1695293957.3536224/0/jzlib-1-1-3-sources-zip/com/jcraft/jzlib/ZStream.java
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* /opt/cola/permits/127992493_1695293957.3536224/0/jzlib-1-1-3-sources-zip/com/jcraft/jzlib/StaticTree.java
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* /opt/cola/permits/127992493_1695293957.3536224/0/jzlib-1-1-3-sources-zip/com/jcraft/jzlib/GZIPOutputStream.java
* /opt/cola/permits/127992493_1695293957.3536224/0/jzlib-1-1-3-sources-zip/com/jcraft/jzlib/Inflater.java
* /opt/cola/permits/127992493_1695293957.3536224/0/jzlib-1-1-3-sources-zip/com/jcraft/jzlib/DeflaterOutputStream.java
* /opt/cola/permits/127992493_1695293957.3536224/0/jzlib-1-1-3-sources-zip/com/jcraft/jzlib/ZInputStream.java
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* /opt/cola/permits/127992493_1695293957.3536224/0/jzlib-1-1-3-sources-zip/com/jcraft/jzlib/Checksum.java
* /opt/cola/permits/127992493_1695293957.3536224/0/jzlib-1-1-3-sources-zip/com/jcraft/jzlib/Deflater.java

1.10 jeromq 0.3.5

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1.11 dbus-glib 0.100-7.el7

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1.14 iputils 20160308-10.el7

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1.16 ncurses 5.9-14.20130511.el7_4

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Files: install-sh
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1.17 gnupg 2.0.22-5.el7_5

1.17.1 Available under license :

No license file was found, but licenses were detected in source scan.

/opt/cola/permits/183657586_1695337116.0137277/0/gnupg2-2-0-22-5-el7-5-x86-64-rpm-tar-gz/gnupg2-2.0.22-5.el7_5.x86_64.rpm: binary file matches

Found in path(s):
* /bin/grep

1.18 abego-treelayout-core 1.0.3

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1.19 failureaccess 1.0.1

1.20 gobject-introspection 1.56.1-1.el7

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1.21 gpgme 1.3.2-5.el7

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file is unrestricted, regardless of whether it is legally a derivative
work. (Executables containing this object code plus portions of the
Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may
distribute
the object code for the work under the terms of Section 6.
Any executables containing that work also fall under Section 6,
whether or not they are linked directly with the Library itself.
^L
6. As an exception to the Sections above, you may also combine or
link a "work that uses the Library" with the Library to produce a

work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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a)

Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will

operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

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e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the

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^L

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1.22 grep 2.20-3.el7

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1.23 cracklib 2.9.0-11.el7

1.24 latencyutils 2.0.3

1.25 commons-pool 2.6.2

1.26 jaxb-runtime 2.3.1

1.27 javax-ws-rs-api 2.1.1

1.28 bzip2 1.0.8

1.29 j2objc-annotations 1.3

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1.30 commons-collections 4.4

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1.31 objenesis 2.6

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1.33 jsr311-api 1.1.1

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1.34 hystrix-core 1.5.12

1.35 jaxb-api 2.3.1

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1.36 jopt-simple 5.0.4

1.37 commons-math 3.4.1

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The textbook (containing a proof that the shuffle is uniformly random) is
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1.39 leveldb 0.6

1.40 cglib 3.2.9

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Version 2, June 1991

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These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

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1.50 shadow 4.6-5.el7

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1.61 audit-lib 2.8.5-4.el7

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1.70 libcap 2.22-11.el7

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1.71 python-urlgrabber 3.10-10.el7

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must be distributed
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Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file
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functions (ten lines or less in length), then the use of the object
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1.73 pam 1.1.8-23.el7

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1.75 feign-slf4j 8.18.0

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* /opt/ws_local/PERMITS_SQL/1041742352_1590954355.62/0/feign-core-8-18-0-sources-jar/feign/codec/DecodeException.java
* /opt/ws_local/PERMITS_SQL/1041742352_1590954355.62/0/feign-core-8-18-0-sources-jar/feign/Util.java
* /opt/ws_local/PERMITS_SQL/1041742352_1590954355.62/0/feign-core-8-18-0-sources-jar/feign/auth/BasicAuthRequestInterceptor.java
*
 /opt/ws_local/PERMITS_SQL/1041742352_1590954355.62/0/feign-core-8-18-0-sources-jar/feign/MethodMetadata.java
* /opt/ws_local/PERMITS_SQL/1041742352_1590954355.62/0/feign-core-8-18-0-sources-jar/feign/codec/EncodeException.java
* /opt/ws_local/PERMITS_SQL/1041742352_1590954355.62/0/feign-core-8-18-0-sources-jar/feign/FeignException.java
* /opt/ws_local/PERMITS_SQL/1041742352_1590954355.62/0/feign-core-8-18-0-sources-jar/feign/Contract.java
* /opt/ws_local/PERMITS_SQL/1041742352_1590954355.62/0/feign-core-8-18-0-sources-jar/feign/RetryableException.java
* /opt/ws_local/PERMITS_SQL/1041742352_1590954355.62/0/feign-core-8-18-0-sources-jar/feign/Feign.java
* /opt/ws_local/PERMITS_SQL/1041742352_1590954355.62/0/feign-core-8-18-0-sources-

jar/feign/codec/ErrorDecoder.java
* /opt/ws_local/PERMITS_SQL/1041742352_1590954355.62/0/feign-core-8-18-0-sources-jar/feign/Client.java
* /opt/ws_local/PERMITS_SQL/1041742352_1590954355.62/0/feign-core-8-18-0-sources-jar/feign/Response.java
*
/opt/ws_local/PERMITS_SQL/1041742352_1590954355.62/0/feign-core-8-18-0-sources-jar/feign/RequestTemplate.java
* /opt/ws_local/PERMITS_SQL/1041742352_1590954355.62/0/feign-core-8-18-0-sources-jar/feign/auth/Base64.java
* /opt/ws_local/PERMITS_SQL/1041742352_1590954355.62/0/feign-core-8-18-0-sources-jar/feign/Request.java
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* /opt/ws_local/PERMITS_SQL/1041742352_1590954355.62/0/feign-core-8-18-0-sources-jar/feign/Target.java
* /opt/ws_local/PERMITS_SQL/1041742352_1590954355.62/0/feign-core-8-18-0-sources-jar/feign/RequestInterceptor.java
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* /opt/ws_local/PERMITS_SQL/1041742352_1590954355.62/0/feign-core-8-18-0-sources-jar/feign/codec/Decoder.java

1.77 feign-jackson 8.18.0

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* /opt/ws_local/PERMITS_SQL/1041740744_1590954450.45/0/feign-jaxrs-8-18-0-sources-jar/feign/jaxrs/JAXRSContract.java

1.79 guice-multibindings 4.2.2

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1.80 guice-assistedinject 4.2.2

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1.81 jedis 3.3.0

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1.82 error_prone_annotations 2.3.4

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* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-jar/com/google/errorprone/annotations/DoNotMock.java
* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-jar/com/google/errorprone/annotations/CompatibleWith.java
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jar/com/google/errorprone/annotations/MustBeClosed.java
* /opt/ws_local/PERMITS_SQL/1059106420_1592475238.99/0/error-prone-annotations-2-3-4-sources-1-jar/com/google/errorprone/annotations/FormatMethod.java

1.83 fdisk 2.23.2

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```
size: 8388608, sector size: 512, PT: dos, offset: 446, id=0x8f8378c0
---
#1:        32       7648  0x83
#2:      7680       8704  0xa5
#5:      7936       4864  0x7 (freebsd)
#6:     12544       3584  0x7 (freebsd)
```

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```
Initialize empty image
f1c9645dbc14efddc7d8a322685f26eb bsd.img
Create new DOS partition table
57e721e38d1266c2df055067c18f2cf9 bsd.img

---layout----------
__ts_dev__: 10 MB, 10485760 bytes, 20480 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x00000001

    Device Boot      Start         End      Blocks   Id  System
-------------------

Create 1st primary partition
ada64ace122978d00d1d1c0e5ee45d26 bsd.img

---layout----------
__ts_dev__: 10 MB, 10485760 bytes, 20480 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
```

```
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x00000001

   Device Boot      Start         End      Blocks   Id  System
__ts_dev__1            2048        4095        1024   83  Linux
-------------------

Create 2st primary partition
1bebf87248e05d6e4e62b749da65d023
 bsd.img
Set 2nd partition type
2d8e8dff51a88a045db233418dd73fbe bsd.img

---layout----------
__ts_dev__: 10 MB, 10485760 bytes, 20480 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x00000001

   Device Boot      Start         End      Blocks   Id  System
__ts_dev__1            2048        4095        1024   83  Linux
__ts_dev__2            4096       20479        8192   a5  FreeBSD
-------------------

Create default BSD
2e1cee529cb59c9341afef0443f196a1 bsd.img

---layout----------

Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.


Command (m for help):

BSD disklabel command (m for help):
4 partitions:
#       start       end      size     fstype   [fsize bsize   cpg]
 c:     4096     20479     16384     unused        0     0
 d:        0
   16064     16065     unused        0     0

BSD disklabel command (m for help):
Command (m for help):
-------------------
```

```
b5c121c2091b2ff26b880551feac7112 bsd.img

---layout----------

Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.


Command (m for help):

BSD disklabel command (m for help):
4 partitions:
#       start       end      size     fstype   [fsize bsize   cpg]
  a:     4096      6144      2049     4.2BSD        0     0     0
  c:     4096     20479     16384     unused        0     0
  d:        0     16064     16065     unused        0     0

BSD disklabel command (m for help):
Command (m for help):
-------------------



Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.


Command (m for help):

BSD disklabel command (m for help):
0  unused          5  4.1BSD          9  4.4LFS          d  boot
1  swap
          6  Eighth Edition   a  unknown          e  ADOS
2  Version 6       7  4.2BSD          b  HPFS            f  HFS
3  Version 7       8  MS-DOS          c  ISO-9660       10  AdvFS
4  System V

BSD disklabel command (m for help):
```

```
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1.84 yum-utils 1.1.31-54.el7_8

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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/http/cors/OkResponseHandler.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/Http2SettingsReceivedConsumer.java
*
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/Http2ControlFrameLimitEncoder.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/rxtx/RxtxChannelConfig.java
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 /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/DecoratingHttp2ConnectionDecoder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/WeightedFairQueueByteDistributor.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/StreamByteDistributor.java

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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/AbstractInboundHttp2ToHttpAdapterBuilder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/UniformStreamByteDistributor.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/StreamBufferingEncoder.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/Http2Connection.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/collection/CharObjectHashMap.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/package-info.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/DefaultHttp2HeadersDecoder.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/EmptyHttp2Headers.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/collection/CharCollections.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/http2/helloworld/client/Http2Client.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/http2/Http2ExampleUtil.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-

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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/collection/CharObjectMap.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/DefaultHeaders.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/rtsp/RtspResponseEncoder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/stream/ChunkedInput.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/http/helloworld/HttpHelloWorldServer.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/util/package-info.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/compression/ZlibWrapper.java
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 /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/local/package-info.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/buffer/CompositeByteBuf.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/group/ChannelGroupFuture.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/compression/ZlibUtil.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/rtsp/RtspHeaders.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/websocketx/WebSocketClientHandshakerFactory.java

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*
 /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/SslHandshakeTimeoutException.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/buffer/search/package-info.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/haproxy/HAProxyHandler.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/stomp/websocket/StompWebSocketClientPageHandler.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/stomp/websocket/StompWebSocketChatServerInitializer.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/stomp/websocket/StompWebSocketChatServer.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/haproxy/HAProxyClient.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/haproxy/HAProxyServer.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/stomp/websocket/StompWebSocketProtocolCodec.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-

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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/stomp/websocket/StompChatHandler.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/logging/ByteBufFormat.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/stomp/package-info.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/compression/LzfEncoder.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/SniHandler.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/websocketx/extensions/WebSocketClientExtensionHandshaker.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/http/websocketx/client/WebSocketClient.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/mqtt/MqttSubscribeMessage.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/compression/Bzip2Decoder.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/spdy/client/SpdyFrameLogger.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/socksx/v4/Socks4ServerEncoder.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/DnsNameResolver.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/JdkBaseApplicationProtocolNegotiator.java

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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/epoll/EpollServerSocketChannel.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/util/FingerprintTrustManagerFactory.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/Http2InboundFrameLogger.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/spdy/server/SpdyServerHandler.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/socksx/v5/Socks5PasswordAuthResponseDecoder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/xml/XmlDocumentStart.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/mqtt/MqttTopicSubscription.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/stomp/StompClient.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/stomp/DefaultStompHeaders.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/mqtt/MqttConnectPayload.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ipfilter/AbstractRemoteAddressFilter.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/proxy/HttpProxyHandler.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/compression/Bzip2MTFAndRLE2StageEncoder.java
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*/
/**
* Enumeration of supported Base64 dialects.
* <p>
* The internal lookup tables in this class has been derived from
* Robert
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*/

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/**
* Utility class for {@link ByteBuf} that encodes and decodes to and from
* <a href="http://en.wikipedia.org/wiki/Base64">Base64</a> notation.
* <p>
*
 The encoding and decoding algorithm in this class has been derived from
* <a href="http://iharder.sourceforge.net/current/java/base64/">Robert Harder's Public Domain
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* Adaptation of http://bjoern.hoehrmann.de/utf-8/decoder/dfa/
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/MpmcUnboundedXaddArrayQueue.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-

jar/io/netty/util/internal/shaded/org/jctools/queues/SpscUnboundedArrayQueue.java
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 /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/util/InternalAPI.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/maps/NonBlockingSetInt.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/SupportsIterator.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/atomic/BaseSpscLinkedAtomicArrayQueue.java
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 /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/atomic/LinkedQueueAtomicNode.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/maps/ConcurrentAutoTable.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/BaseSpscLinkedArrayQueue.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/MpscChunkedArrayQueue.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/atomic/MpscUnboundedAtomicArrayQueue.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/IndexedQueueSizeUtil.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/MpscLinkedQueue.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/atomic/BaseMpscLinkedAtomicArrayQueue.java
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 /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/atomic/SpscChunkedAtomicArrayQueue.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/spec/ConcurrentQueueSpec.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/atomic/MpscGrowableAtomicArrayQueue.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/util/UnsafeRefArrayAccess.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-

jar/io/netty/util/internal/shaded/org/jctools/queues/ConcurrentCircularArrayQueue.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/QueueFactory.java
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 /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/maps/AbstractEntry.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/spec/Ordering.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/MpscCompoundQueue.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/MpscUnboundedXaddChunk.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/MpscUnboundedArrayQueue.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/atomic/SequencedAtomicReferenceArrayQueue.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/MessagePassingQueueUtil.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/util/Pow2.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/maps/NonBlockingHashMapLong.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/util/UnsafeLongArrayAccess.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/SpscGrowableArrayQueue.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/maps/NonBlockingHashMap.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/util/RangeUtil.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/util/UnsafeAccess.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/MpscGrowableArrayQueue.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/atomic/MpscChunkedAtomicArrayQueue.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/spec/Preference.java
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/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/package-info.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/BaseLinkedQueue.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/atomic/AtomicQueueFactory.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/MessagePassingQueue.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/atomic/SpscAtomicArrayQueue.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/atomic/AtomicReferenceArrayQueue.java
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/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/LinkedQueueNode.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/SpscChunkedArrayQueue.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/MpmcUnboundedXaddChunk.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/util/PortableJvmInfo.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/shaded/org/jctools/queues/atomic/MpscLinkedAtomicQueue.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/Cleaner.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/concurrent/FastThreadLocalRunnable.java
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*/
/**
 * Set the {@code TCP_MD5SIG} option on the socket. See {@code linux/tcp.h} for more details.
 * Keys can only be set on, not read to prevent a potential leak, as they are confidential.
 * Allowing them being read would mean anyone with access to the channel could get them.

 */

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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/Http2ConnectionPrefaceAndSettingsFrameWrittenEvent.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/TraceDnsQueryLifeCycleObserverFactory.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/PriorityQueue.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/bootstrap/FailedChannel.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/ReadOnlyHttpHeaders.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/LongAdderCounter.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/socket/ChannelOutputShutdownException.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/uptime/UptimeServerHandler.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/MultiDnsServerAddressStreamProvider.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-

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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/NoopDnsQueryLifecycleObserver.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/Http2UnknownFrame.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/TraceDnsQueryLifecycleObserver.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/worldclock/WorldClockProtocol.proto
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/sctp/DefaultSctpChannelConfig.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/sctp/SctpChannelConfig.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/sctp/SctpServerChannel.java
*

/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/sctp/nio/NioSctpChannel.java
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* under the License.
*/
/**
* Handles an I/O event or intercepts an I/O operation, and forwards it to its next handler in
* its {@link ChannelPipeline}.
*
* <h3>Sub-types</h3>
* <p>
* {@link ChannelHandler} itself does not provide many methods, but you usually have to implement one of its subtypes:
* <ul>
* <li>{@link
 ChannelInboundHandler} to handle inbound I/O events, and</li>
* <li>{@link ChannelOutboundHandler} to handle outbound I/O operations.</li>
* </ul>
* </p>
* <p>
* Alternatively, the following adapter classes are provided for your convenience:
* <ul>
* <li>{@link ChannelInboundHandlerAdapter} to handle inbound I/O events,</li>
* <li>{@link ChannelOutboundHandlerAdapter} to handle outbound I/O operations, and</li>
* <li>{@link ChannelDuplexHandler} to handle both inbound and outbound events</li>
* </ul>
* </p>
* <p>
* For more information, please refer to the documentation of each subtype.
* </p>
*
* <h3>The context object</h3>
* <p>
* A {@link ChannelHandler} is provided with a {@link ChannelHandlerContext}
```

```
* object.  A {@link ChannelHandler} is supposed to interact with the
* {@link ChannelPipeline} it belongs to via a context object.  Using the
* context object, the {@link ChannelHandler} can pass events upstream or
* downstream, modify the pipeline dynamically,
 or store the information
* (using {@link AttributeKey}s) which is specific to the handler.
*
* <h3>State management</h3>
*
* A {@link ChannelHandler} often needs to store some stateful information.
* The simplest and recommended approach is to use member variables:
* <pre>
* public interface Message {
*     // your methods here
* }
*
* public class DataServerHandler extends {@link SimpleChannelInboundHandler}&lt;Message&gt; {
*
*     <b>private boolean loggedIn;</b>
*
*     {@code @Override}
*     public void channelRead0({@link ChannelHandlerContext} ctx, Message message) {
*         if (message instanceof LoginMessage) {
*             authenticate((LoginMessage) message);
*             <b>loggedIn = true;</b>
*         } else (message instanceof GetDataMessage) {
*             if (<b>loggedIn</b>) {
*                 ctx.writeAndFlush(fetchSecret((GetDataMessage) message));
*             } else {
*                 fail();
*             }
*         }
 *     }
*     ...
* }
* </pre>
* Because the handler instance has a state variable which is dedicated to
* one connection, you have to create a new handler instance for each new
* channel to avoid a race condition where a unauthenticated client can get
* the confidential information:
* <pre>
* // Create a new handler instance per channel.
* // See {@link ChannelInitializer#initChannel(Channel)}.
* public class DataServerInitializer extends {@link ChannelInitializer}&lt;{@link Channel}&gt; {
*     {@code @Override}
*     public void initChannel({@link Channel} channel) {
*         channel.pipeline().addLast("handler", <b>new DataServerHandler()</b>);
*     }
```

```
* }
*
* </pre>
*
* <h4>Using {@link AttributeKey}s</h4>
*
* Although it's recommended to use member variables to store the state of a
* handler, for some reason you might not want to create many handler instances.
* In such a case, you can use {@link AttributeKey}s which is provided by
* {@link ChannelHandlerContext}:
 * <pre>
* public interface Message {
*     // your methods here
* }
*
* {@code @Sharable}
* public class DataServerHandler extends {@link SimpleChannelInboundHandler}&lt;Message&gt; {
*     private final {@link AttributeKey}&lt;{@link Boolean}&gt; auth =
*           {@link AttributeKey#valueOf(String) AttributeKey.valueOf("auth")};
*
*     {@code @Override}
*     public void channelRead({@link ChannelHandlerContext} ctx, Message message) {
*         {@link Attribute}&lt;{@link Boolean}&gt; attr = ctx.attr(auth);
*         if (message instanceof LoginMessage) {
*             authenticate((LoginMessage) o);
*             <b>attr.set(true)</b>;
*         } else (message instanceof GetDataMessage) {
*             if (<b>Boolean.TRUE.equals(attr.get())</b>) {
*                 ctx.writeAndFlush(fetchSecret((GetDataMessage) o));
*             } else {
*                 fail();
*             }
*         }
*     }
*     ...
* }
* </pre>
* Now that the state
 of the handler is attached to the {@link ChannelHandlerContext}, you can add the
* same handler instance to different pipelines:
* <pre>
* public class DataServerInitializer extends {@link ChannelInitializer}&lt;{@link Channel}&gt; {
*
*     private static final DataServerHandler <b>SHARED</b> = new DataServerHandler();
*
*     {@code @Override}
*     public void initChannel({@link Channel} channel) {
*         channel.pipeline().addLast("handler", <b>SHARED</b>);
```

```
*     }
* }
* </pre>
*
*
* <h4>The {@code @Sharable} annotation</h4>
* <p>
* In the example above which used an {@link AttributeKey},
* you might have noticed the {@code @Sharable} annotation.
* <p>
* If a {@link ChannelHandler} is annotated with the {@code @Sharable}
* annotation, it means you can create an instance of the handler just once and
* add it to one or more {@link ChannelPipeline}s multiple times without
* a race condition.
* <p>
* If this annotation is not specified, you have to create
 a new handler
* instance every time you add it to a pipeline because it has unshared state
* such as member variables.
* <p>
* This annotation is provided for documentation purpose, just like
* <a href="http://www.javaconcurrencyinpractice.com/annotations/doc/">the JCIP annotations</a>.
*
* <h3>Additional resources worth reading</h3>
* <p>
* Please refer to the {@link ChannelHandler}, and
* {@link ChannelPipeline} to find out more about inbound and outbound operations,
* what fundamental differences they have, how they flow in a  pipeline,  and how to handle
* the operation in your application.
*/
```

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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/ChannelHandler.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/redis/InlineCommandRedisMessage.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/ByteProcessorUtils.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/websocketx/WebSocket07FrameDecoder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/websocketx/WebSocket13FrameDecoder.java

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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-

jar/io/netty/handler/codec/http/cookie/ClientCookieEncoder.java
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 /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/ApplicationProtocolAccessor.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/HttpScheme.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/HeadersUtils.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/ShuffledDnsServerAddressStream.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/AddressResolver.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DnsSection.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/HostsFileParser.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/SingletonDnsServerAddresses.java
*
 /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/epoll/EpollMode.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/DnsServerAddressStream.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/protobuf/ProtobufVarint32LengthFieldPrepender.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/AbstractDnsRecord.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/DefaultHostsFileEntriesResolver.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DefaultDnsRawRecord.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/ProtocolDetectionState.java
*
 /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/OpenSslSessionTicketKey.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/socksx/SocksPortUnificationServerHandler.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/InetNameResolver.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/buffer/HeapByteBufUtil.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/socksx/v5/Socks5AddressDecoder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/epoll/EpollDomainSocketChannelConfig.java

*

/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/cookie/CookieEncoder.java

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/cookie/ServerCookieEncoder.java

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/pool/AbstractChannelPoolMap.java

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/cookie/CookieHeaderNames.java

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/unix/FileDescriptor.java

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/epoll/EpollServerChannelConfig.java

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/DefaultMaxBytesRecvByteBufAllocator.java

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/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/protobuf/ProtobufVarint32FrameDecoder.java

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/ProtocolDetectionResult.java

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/DefaultAddressResolverGroup.java

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/SequentialDnsServerAddressStream.java

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DnsRecordEncoder.java

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/http2/tiles/Http2OrHttpHandler.java

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/pool/ChannelPoolHandler.java

*

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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/http2/helloworld/server/HelloWorldHttp2HandlerBuilder.java

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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/SslContextBuilder.java

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/pool/ChannelPool.java

*

/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/pool/AbstractChannelPoolHandler.java

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/epoll/EpollRecvByteAllocatorStreamingHandle.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/HttpExpectationFailedEvent.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/protobuf/ProtobufEncoderNano.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/DefaultMaxMessagesRecvByteBufAllocator.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/cookie/ServerCookieDecoder.java
*
 /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DnsResponse.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/buffer/UnpooledUnsafeHeapByteBuf.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DnsRecordType.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/epoll/TcpMd5Util.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/http2/tiles/HttpServer.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/buffer/UnpooledSlicedByteBuf.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DatagramDnsQuery.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/buffer/UnsafeByteBufUtil.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/http2/tiles/ImageCache.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DnsResponseCode.java
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 /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/pool/ChannelHealthChecker.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/buffer/UnpooledDuplicatedByteBuf.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-

jar/io/netty/channel/epoll/AbstractEpollStreamChannel.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/cookie/DefaultCookie.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/http2/tiles/Html.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/unix/ServerDomainSocketChannel.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DatagramDnsResponseEncoder.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/protobuf/ProtobufDecoderNano.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/buffer/PoolSubpageMetric.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/buffer/AbstractUnsafeSwappedByteBuf.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/sctp/multihoming/SctpMultiHomingEchoClient.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DnsQuery.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/epoll/EpollEventArray.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/PriorityQueueNode.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/buffer/PooledUnsafeHeapByteBuf.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/concurrent/AbstractScheduledEventExecutor.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/DnsNameResolverBuilder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DefaultDnsQuestion.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DatagramDnsResponse.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/AbstractHttp2ConnectionHandlerBuilder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DatagramDnsResponseDecoder.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DefaultDnsRecordEncoder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/MaxMessagesRecvByteBufAllocator.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/http2/tiles/FallbackRequestHandler.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/protobuf/ProtobufDecoder.java

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/cookie/package-info.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/HashingStrategy.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/cookie/Cookie.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/unix/DomainSocketAddress.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DnsRawRecord.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/unix/DomainSocketChannelConfig.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/CombinedHttpHeaders.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/InetSocketAddressResolver.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/http2/tiles/Http1RequestHandler.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/epoll/AbstractEpollServerChannel.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/pool/SimpleChannelPool.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/MaxBytesRecvByteBufAllocator.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/epoll/EpollServerDomainSocketChannel.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/EmptyHttpHeaders.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/unix/DomainSocketReadMode.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DefaultDnsQuery.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/buffer/PoolArenaMetric.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DnsQuestion.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/protobuf/ProtobufEncoder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/unix/DomainSocketChannel.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/HostsFileEntriesResolver.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/unix/Errors.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-

jar/io/netty/handler/codec/rtsp/RtspEncoder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/pool/package-info.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/CookieUtil.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DefaultDnsResponse.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/ApplicationProtocolNames.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DnsOpCode.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/AsyncMapping.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DefaultDnsRecordDecoder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/OpenSslJavaxX509Certificate.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/pool/ChannelPoolMap.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/http2/tiles/Http2Server.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/AbstractAddressResolver.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/AbstractDnsMessage.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/LongCounter.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DatagramDnsQueryDecoder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/unix/DatagramSocketAddress.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/Http2ConnectionHandlerBuilder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/DnsQueryContextManager.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/RotationalDnsServerAddresses.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/epoll/EpollDomainSocketChannel.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/buffer/PoolChunkMetric.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/package-info.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/unix/NativeInetAddress.java

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/DomainMappingBuilder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DatagramDnsQueryEncoder.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/epoll/EpollRecvByteAllocatorHandle.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/buffer/PoolChunkListMetric.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/pool/FixedChannelPool.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/ApplicationProtocolNegotiationHandler.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/sctp/multihoming/SctpMultiHomingEchoServer.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/unix/Socket.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/DefaultPriorityQueue.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/socksx/v5/Socks5AddressEncoder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DnsRecordDecoder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DnsRecord.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/DefaultDnsServerAddresses.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/epoll/EpollChannelConfig.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/example/http2/tiles/Http2RequestHandler.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/CompositeNameResolver.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/CharSequenceMap.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/HttpUtil.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http/cookie/CookieDecoder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/dns/DnsMessage.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/UnsupportedValueConverter.java
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* WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the
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* under the License.
*/
/**
    * Set the {@code TCP_MD5SIG} option on the socket. See {@code linux/tcp.h} for more details.
    * Keys can only be set on, not read to prevent a potential leak, as they are confidential.
    * Allowing them being read would mean anyone with access to the channel could get them.

  */
/**
    * Set the {@code TCP_QUICKACK} option on the socket. See <a
href="http://linux.die.net/man/7/tcp">TCP_QUICKACK</a>
    * for more details.
    */
```

Found in path(s):
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/epoll/EpollSocketChannelConfig.java
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* the License.
*/
// https://tools.ietf.org/html/rfc7540#section-8.1.2.2 makes a special exception for TE
```

Found in path(s):

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/HttpConversionUtil.java

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*/
/**
* A decoder that splits the received {@link ByteBuf}s dynamically by the
* value of the length field in the message.  It is particularly useful when you
* decode a binary message which has an integer header field that represents the
* length of the message body or the whole message.
*
 <p>
* {@link LengthFieldBasedFrameDecoder} has many configuration parameters so
* that it can decode any message with a length field, which is often seen in
* proprietary client-server protocols. Here are some example that will give
* you the basic idea on which option does what.
*
* <h3>2 bytes length field at offset 0, do not strip header</h3>
*
* The value of the length field in this example is <tt>12 (0x0C)</tt> which
* represents the length of "HELLO, WORLD".  By default, the decoder assumes
* that the length field represents the number of the bytes that follows the
* length field.  Therefore, it can be decoded with the simplistic parameter
* combination.
* <pre>
* <b>lengthFieldOffset</b>   = <b>0</b>
* <b>lengthFieldLength</b>   = <b>2</b>
* lengthAdjustment    = 0
* initialBytesToStrip = 0 (= do not strip header)
*
* BEFORE DECODE (14 bytes)         AFTER DECODE (14 bytes)
* +--------+----------------+      +--------+----------------+
* | Length | Actual Content
```

```
 |----->| Length | Actual Content |
* | 0x000C | "HELLO, WORLD" |      | 0x000C | "HELLO, WORLD" |
* +--------+----------------+      +--------+----------------+
* </pre>
*
* <h3>2 bytes length field at offset 0, strip header</h3>
*
* Because we can get the length of the content by calling
* {@link ByteBuf#readableBytes()}, you might want to strip the length
* field by specifying <tt>initialBytesToStrip</tt>.  In this example, we
* specified <tt>2</tt>, that is same with the length of the length field, to
* strip the first two bytes.
* <pre>
* lengthFieldOffset   = 0
* lengthFieldLength   = 2
* lengthAdjustment    = 0
* <b>initialBytesToStrip</b> = <b>2</b> (= the length of the Length field)
*
* BEFORE DECODE (14 bytes)         AFTER DECODE (12 bytes)
* +--------+----------------+      +----------------+
* | Length | Actual Content |----->| Actual Content |
* | 0x000C | "HELLO, WORLD" |      | "HELLO, WORLD" |
* +--------+----------------+      +----------------+
 * </pre>
*
* <h3>2 bytes length field at offset 0, do not strip header, the length field
*     represents the length of the whole message</h3>
*
* In most cases, the length field represents the length of the message body
* only, as shown in the previous examples.  However, in some protocols, the
* length field represents the length of the whole message, including the
* message header.  In such a case, we specify a non-zero
* <tt>lengthAdjustment</tt>.  Because the length value in this example message
* is always greater than the body length by <tt>2</tt>, we specify <tt>-2</tt>
* as <tt>lengthAdjustment</tt> for compensation.
* <pre>
* lengthFieldOffset   =  0
* lengthFieldLength   =  2
* <b>lengthAdjustment</b>    = <b>-2</b> (= the length of the Length field)
* initialBytesToStrip =  0
*
* BEFORE DECODE (14 bytes)         AFTER DECODE (14 bytes)
* +--------+----------------+      +--------+----------------+
* | Length | Actual Content |----->| Length | Actual
 Content |
* | 0x000E | "HELLO, WORLD" |      | 0x000E | "HELLO, WORLD" |
* +--------+----------------+      +--------+----------------+
* </pre>
```

```
*
* <h3>3 bytes length field at the end of 5 bytes header, do not strip header</h3>
*
* The following message is a simple variation of the first example.  An extra
* header value is prepended to the message.  <tt>lengthAdjustment</tt> is zero
* again because the decoder always takes the length of the prepended data into
* account during frame length calculation.
* <pre>
* <b>lengthFieldOffset</b>   = <b>2</b> (= the length of Header 1)
* <b>lengthFieldLength</b>   = <b>3</b>
* lengthAdjustment    = 0
* initialBytesToStrip = 0
*
* BEFORE DECODE (17 bytes)                      AFTER DECODE (17 bytes)
* +----------+----------+----------------+      +----------+----------+----------------+
* | Header 1 |  Length  | Actual Content |----->| Header 1 |  Length  | Actual Content |
* |  0xCAFE  | 0x00000C | "HELLO, WORLD" |      |
  0xCAFE  | 0x00000C | "HELLO, WORLD" |
* +----------+----------+----------------+      +----------+----------+----------------+
* </pre>
*
* <h3>3 bytes length field at the beginning of 5 bytes header, do not strip header</h3>
*
* This is an advanced example that shows the case where there is an extra
* header between the length field and the message body.  You have to specify a
* positive <tt>lengthAdjustment</tt> so that the decoder counts the extra
* header into the frame length calculation.
* <pre>
* lengthFieldOffset   = 0
* lengthFieldLength   = 3
* <b>lengthAdjustment</b>    = <b>2</b> (= the length of Header 1)
* initialBytesToStrip = 0
*
* BEFORE DECODE (17 bytes)                      AFTER DECODE (17 bytes)
* +----------+----------+----------------+      +----------+----------+----------------+
* |  Length  | Header 1 | Actual Content |----->|  Length  | Header 1 | Actual Content |
* | 0x00000C |  0xCAFE  | "HELLO, WORLD" |      | 0x00000C |  0xCAFE  | "HELLO,
 WORLD" |
* +----------+----------+----------------+      +----------+----------+----------------+
* </pre>
*
* <h3>2 bytes length field at offset 1 in the middle of 4 bytes header,
*     strip the first header field and the length field</h3>
*
* This is a combination of all the examples above.  There are the prepended
* header before the length field and the extra header after the length field.
* The prepended header affects the <tt>lengthFieldOffset</tt> and the extra
* header affects the <tt>lengthAdjustment</tt>.  We also specified a non-zero
```

```
* <tt>initialBytesToStrip</tt> to strip the length field and the prepended
* header from the frame.  If you don't want to strip the prepended header, you
* could specify <tt>0</tt> for <tt>initialBytesToSkip</tt>.
* <pre>
* lengthFieldOffset   = 1 (= the length of HDR1)
* lengthFieldLength   = 2
* <b>lengthAdjustment</b>    = <b>1</b> (= the length of HDR2)
* <b>initialBytesToStrip</b> = <b>3</b> (= the length of HDR1 + LEN)
 *
* BEFORE DECODE (16 bytes)                       AFTER DECODE (13 bytes)
* +------+--------+------+----------------+      +------+----------------+
* | HDR1 | Length | HDR2 | Actual Content |----->| HDR2 | Actual Content |
* | 0xCA | 0x000C | 0xFE | "HELLO, WORLD" |      | 0xFE | "HELLO, WORLD" |
* +------+--------+------+----------------+      +------+----------------+
* </pre>
*
* <h3>2 bytes length field at offset 1 in the middle of 4 bytes header,
*     strip the first header field and the length field, the length field
*     represents the length of the whole message</h3>
*
* Let's give another twist to the previous example.  The only difference from
* the previous example is that the length field represents the length of the
* whole message instead of the message body, just like the third example.
* We have to count the length of HDR1 and Length into <tt>lengthAdjustment</tt>.
* Please note that we don't need to take the length of HDR2 into account
* because
 the length field already includes the whole header length.
* <pre>
* lengthFieldOffset   =  1
* lengthFieldLength   =  2
* <b>lengthAdjustment</b>    = <b>-3</b> (= the length of HDR1 + LEN, negative)
* <b>initialBytesToStrip</b> = <b> 3</b>
*
* BEFORE DECODE (16 bytes)                       AFTER DECODE (13 bytes)
* +------+--------+------+----------------+      +------+----------------+
* | HDR1 | Length | HDR2 | Actual Content |----->| HDR2 | Actual Content |
* | 0xCA | 0x0010 | 0xFE | "HELLO, WORLD" |      | 0xFE | "HELLO, WORLD" |
* +------+--------+------+----------------+      +------+----------------+
* </pre>
* @see LengthFieldPrepender
*/
```

Found in path(s):
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/LengthFieldBasedFrameDecoder.java
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```
/*
```

Found in path(s):
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/sctp/SctpMessageCompletionHandler.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/sctp/package-info.java
*
 /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/udt/nio/NioUdtByteRendezvousChannel.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/traffic/GlobalTrafficShapingHandler.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/udt/nio/NioUdtProvider.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/udt/nio/NioUdtByteConnectorChannel.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/traffic/ChannelTrafficShapingHandler.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/udt/UdtChannel.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/udt/nio/NioUdtMessageAcceptorChannel.java
*
 /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/traffic/TrafficCounter.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/udt/nio/NioUdtAcceptorChannel.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/sctp/SctpInboundByteStreamHandler.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/traffic/package-info.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/udt/nio/NioUdtMessageConnectorChannel.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/udt/nio/NioUdtMessageRendezvousChannel.java

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/sctp/SctpMessageToMessageDecoder.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/udt/nio/NioUdtByteAcceptorChannel.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/HpackHuffmanDecoder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/HpackUtil.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/HpackDecoder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/HpackHeaderField.java

* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/HpackEncoder.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/HpackHuffmanEncoder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/HpackDynamicTable.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/codec/http2/HpackStaticTable.java
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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/DefaultAuthoritativeDnsServerCache.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/OpenSslKeyMaterialProvider.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/OpenSslX509KeyManagerFactory.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/OpenSslPrivateKey.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/AuthoritativeDnsServerCache.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/internal/tcnative/CertificateCallback.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/AuthoritativeDnsServerCacheAdapter.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/unix/PreferredDirectByteBufAllocator.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/OpenSslKeyMaterial.java
*

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* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/DnsRecordResolveContext.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/DirContextUtils.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/SignatureAlgorithmConverter.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/DnsCnameCache.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/SimpleUserEventChannelHandler.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/socket/nio/NioChannelOption.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/OpenSslX509TrustManagerWrapper.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/DnsAddressDecoder.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/channel/unix/Buffer.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/NoopAuthoritativeDnsServerCache.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/OpenSslSession.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/Cache.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/NameServerComparator.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/OpenSslCachingX509KeyManagerFactory.java
*
/opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/DefaultOpenSslKeyMaterial.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/OpenSslTlsv13X509ExtendedTrustManager.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/DnsAddressResolveContext.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/DefaultDnsCnameCache.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/resolver/dns/NoopDnsCnameCache.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/util/internal/SuppressJava6Requirement.java
* /opt/ws_local/PERMITS_SQL/1073709946_1598983444.54/0/netty-all-4-1-49-final-sources-jar/io/netty/handler/ssl/ExtendedOpenSslSession.java

1.86 jackson-databind 2.10.1

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1.87 jackson 2.10.1

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1.88 jctools-core 3.1.0

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xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/maven-v4_0_0.xsd">
 <modelVersion>4.0.0</modelVersion>

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 <groupId>org.jctools</groupId>
 <version>3.1.0</version>
 <name>Java Concurrency Tools Core Library</name>
 <description>Java Concurrency Tools Core Library</description>
 <packaging>bundle</packaging>

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  <dependency>
   <groupId>org.hamcrest</groupId>
   <artifactId>hamcrest-all</artifactId>
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  </dependency>

  <dependency>
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   <artifactId>junit</artifactId>
   <version>${junit.version}</version>
   <scope>test</scope>
  </dependency>

  <dependency>
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   <artifactId>guava-testlib</artifactId>
   <version>${guava-testlib.version}</version>
   <scope>test</scope>
  </dependency>
 </dependencies>
 <build>
  <plugins>
   <plugin>
    <groupId>org.apache.maven.plugins</groupId>
    <artifactId>maven-surefire-plugin</artifactId>
    <version>3.0.0-M3</version>
    <configuration>
     <includes>
      <include>*</include>
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   <groupId>org.apache.maven.plugins</groupId>
   <artifactId>maven-javadoc-plugin</artifactId>
   <version>3.1.1</version>
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</build>

<distributionManagement>
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<url>https://github.com/JCTools</url>
<inceptionYear>2013</inceptionYear>

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</licenses>

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 <tag>HEAD</tag>
</scm>

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 </developer>
 <developer>
  <url>https://github.com/mjpt777</url>
 </developer>
 <developer>
  <url>https://github.com/RichardWarburton</url>
 </developer>
 <developer>
  <url>https://github.com/kay</url>
 </developer>
 <developer>
  <url>https://github.com/franz1981</url>
 </developer>
</developers>

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</prerequisites>

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  <java.test.version>1.8</java.test.version>

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  <maven.compiler.target>${java.version}</maven.compiler.target>
  <maven.compiler.testSource>${java.test.version}</maven.compiler.testSource>
  <maven.compiler.testTarget>${java.test.version}</maven.compiler.testTarget>

  <hamcrest.version>1.3</hamcrest.version>
  <junit.version>4.12</junit.version>
  <guava-testlib.version>21.0</guava-testlib.version>
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```

Found
 in path(s):
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/META-INF/maven/org.jctools/jctools-core/pom.xml
No license file was found, but licenses were detected in source scan.

```
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* limitations under the License.
*/
```

Found in path(s):
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/spec/Ordering.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/atomic/SpscUnboundedAtomicArrayQueue.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/atomic/SpmcAtomicArrayQueue.java
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 /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/MessagePassingQueueUtil.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/atomic/MpmcAtomicArrayQueue.java
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jar/org/jctools/util/UnsafeJvmInfo.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/atomic/LinkedQueueAtomicNode.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/SpscLinkedQueue.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/MpscUnboundedXaddArrayQueue.java
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*
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* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/SupportsIterator.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/MpmcUnboundedXaddArrayQueue.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/MpscGrowableArrayQueue.java
* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/atomic/BaseSpscLinkedAtomicArrayQueue.java
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*
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* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/atomic/MpscChunkedAtomicArrayQueue.java
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* /opt/ws_local/PERMITS_SQL/1093815924_1601014602.33/0/jctools-core-3-1-0-sources-jar/org/jctools/queues/MpscBlockingConsumerArrayQueue.java
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1.89 lz4 1.8.3-1.el7

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1.90 e2fsprogs 1.42.9-19.el7

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Theodore Ts'o <tytso@mit.edu> on Sat Mar 15 15:33:37 EST 2003

It is part of the main e2fsprogs distribution, which can be found at:

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```
#
# This is a Makefile stub which handles the creation of BSD shared
# libraries.
#
# In order to use this stub, the following makefile variables must be defined.
#
# BSDLIB_VERSION = 1.0
# BSDLIB_IMAGE = libce
# BSDLIB_MYDIR = et
# BSDLIB_INSTALL_DIR = $(SHLIBDIR)
#

all:: image

real-subdirs:: Makefile
```

```
 @echo " MKDIR pic"
 @mkdir -p pic

BSD_LIB = $(BSDLIB_IMAGE).so.$(BSDLIB_VERSION)
BSDLIB_PIC_FLAG = -fpic

image:  $(BSD_LIB)

$(BSD_LIB): $(OBJS)
 (cd pic; ld -Bshareable -o $(BSD_LIB) $(LDFLAGS_SHLIB) $(OBJS))
 $(MV) pic/$(BSD_LIB) .
 $(RM) -f ../$(BSD_LIB)
 (cd ..; $(LN) $(LINK_BUILD_FLAGS) \
  `echo $(my_dir) | sed -e 's;lib/;;'`/$(BSD_LIB) $(BSD_LIB))

install-shlibs install:: $(BSD_LIB)
 @echo " INSTALL_PROGRAM $(BSDLIB_INSTALL_DIR)/$(BSD_LIB)"
 @$(INSTALL_PROGRAM) $(BSD_LIB) \
  $(DESTDIR)$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)
 @-$(LDCONFIG)

install-strip: install

install-shlibs-strip:: install-shlibs

uninstall-shlibs uninstall::
 $(RM) -f $(DESTDIR)$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)

clean::
 $(RM)
 -rf pic
 $(RM) -f $(BSD_LIB)
 $(RM) -f ../$(BSD_LIB)
```

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```
Index: tdbsa/tdb.c
===================================================================
--- tdbsa.orig/tdb.c
+++ tdbsa/tdb.c
@@ -4,11 +4,11 @@ Rev: 23371
Last Changed Date: 2007-06-06 20:14:06 -0400 (Wed, 06 Jun 2007)
*/
 /*
-   Unix SMB/CIFS implementation.
+   trivial database library - standalone version

-   trivial database library - private includes
-
-   Copyright (C) Andrew Tridgell              2005
+   Copyright (C) Andrew Tridgell              1999-2005
+   Copyright (C) Jeremy Allison               2000-2006
+   Copyright (C) Paul `Rusty' Russell         2000

     ** NOTE! The following LGPL license applies to the tdb
     ** library. This does NOT imply that all of Samba is released
```

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Gadi Oxman, August 1995

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Theodore Ts'o
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Theodore Ts'o <tytso@mit.edu> on Sat Mar 15 15:33:37 EST 2003

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license, the GNU Library General Public License, applies to certain designated libraries. This license is quite different from the ordinary one; be sure to read it in full, and don't assume that anything in it is the same as in the ordinary license.

The reason we have a separate public license for some libraries is that they blur the distinction we usually make between modifying or adding to a program and simply using it. Linking a program with a library, without changing the library, is in some sense simply using the library, and is analogous to running a utility program or application program. However, in a textual and legal sense, the linked executable is a combined work, a derivative of the original library, and the ordinary General Public License treats it as such.

Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, while the latter only works together with the library.

Note that it is possible for a library to be covered by the ordinary General Public License rather than by this special one.

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does
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If distribution of object code is made by offering access to copy
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Whether this is true is especially significant if the work can be
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threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data
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functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

d) Verify that the user has already received a copy of these
materials or that you have already sent this user a copy.

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1.92 chkconfig 1.7.6-1.el7

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1.95 d-bus 1.10.24-15.el7

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1.100 feign-httpclient 8.18.0

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* /opt/cola/permits/1103770437_1604350786.27/0/feign-httpclient-8-18-0-sources-jar/feign/httpclient/ApacheHttpClient.java

1.101 httpcomponents-client 4.5.13

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see http://www.cnri.reston.va.us) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see http://www.zope.com). In 2001, the Python Software Foundation (PSF, see http://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

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1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes

2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
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2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
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2.4.3	2.4.2	2006	PSF	yes
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2.5.1	2.5	2007	PSF	yes
2.5.2	2.5.1	2008	PSF	yes
2.5.3	2.5.2	2008	PSF	yes
2.6	2.5	2008	PSF	yes
2.6.1	2.6	2008	PSF	yes
2.6.2	2.6.1	2009	PSF	yes
2.6.3	2.6.2	2009	PSF	yes
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2.7	2.6	2010	PSF	yes

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1.103 iniparse 0.4

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Python was created in the early 1990s by Guido van Rossum at Stichting
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principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for
National Research Initiatives (CNRI, see http://www.cnri.reston.va.us)
in Reston, Virginia where he released several versions of the
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In May 2000, Guido and the Python core development team moved to
BeOpen.com to form the BeOpen PythonLabs team. In October of the same
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1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
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2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
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to attach them to the start of each source file to most effectively
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the "copyright" line and a pointer to where the full notice is found.

```
   <one line to give the program's name and a brief idea of what it does.>
   Copyright (C) 19yy  <name of author>

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 version 2 of the License, or
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```

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when it starts in an interactive mode:

```
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   Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
   This is free software, and you are welcome to redistribute it
   under certain conditions; type `show c' for details.
```

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`Gnomovision' (which makes passes at compilers) written by James Hacker.

<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice

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Version 2.1, February 1999

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1.106 ncurses-libs 5.9-14.20130511.el7_4

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This script is compatible with the BSD install script, but was written from scratch. It can only install one file at a time, a restriction shared with many OS's install programs.

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1.107 info 5.1-5.el7

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When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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with the Library, with the complete machine-readable "work that
uses the Library", as object code and/or source code, so that the
user can modify the Library and then relink to produce a modified
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to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the
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copy of the library already present on the user's computer system,
rather than copying library functions into the executable, and (2)
will
operate properly with a modified version of the library, if
the user installs one, as long as the modified version is
interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at
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1.108 libdb-utils 5.3.21-25.el7

1.108.1 Available under license :

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/opt/cola/permits/1110807414_1680601714.3027513/0/libdb-5-3-21-25-el7-src-zip/libdb-5.3.21-25.el7.src/libdb-5.3.21-25.el7.src.cpio: binary file matches

Found in path(s):
* /bin/grep

1.109 qrencode-libs 3.4.1-3.el7

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1.116 curl 7.29.0-59.el7_9.1

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===

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yassl   http://www.yassl.com/

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axTLS   http://axtls.sourceforge.net/

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c-ares http://daniel.haxx.se/projects/c-ares/license.html

(Used for asynchronous name resolves) Uses an MIT license that is very liberal and imposes no restrictions on any other library or part you may link with.

zlib   http://www.gzip.org/zlib/zlib_license.html

(Used for compressed Transfer-Encoding support) Uses an MIT-style license that shouldn't collide with any other library.

krb4

While nothing in particular says that a Kerberos4 library must use any particular license, the one I've tried and used successfully so far (kth-krb4) is partly Original BSD-licensed with the announcement clause. Some of the code in libcurl that is written to deal with Kerberos4 is Modified BSD-licensed.

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1.117 msg-simple 1.2

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1.119 txw2 2.3.1

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* /opt/cola/permits/1118999868_1608681835.21/0/rxjava-2-1-10-sources-jar/io/reactivex/disposables/package-info.java
* /opt/cola/permits/1118999868_1608681835.21/0/rxjava-2-1-10-sources-jar/io/reactivex/observers/package-info.java
* /opt/cola/permits/1118999868_1608681835.21/0/rxjava-2-1-10-sources-jar/io/reactivex/flowables/package-info.java
* /opt/cola/permits/1118999868_1608681835.21/0/rxjava-2-1-10-sources-jar/io/reactivex/processors/package-info.java
* /opt/cola/permits/1118999868_1608681835.21/0/rxjava-2-1-10-sources-jar/io/reactivex/internal/operators/flowable/FlowableGroupJoin.java
* /opt/cola/permits/1118999868_1608681835.21/0/rxjava-2-1-10-sources-jar/io/reactivex/internal/schedulers/TrampolineScheduler.java
* /opt/cola/permits/1118999868_1608681835.21/0/rxjava-2-1-10-sources-jar/io/reactivex/internal/schedulers/NewThreadScheduler.java
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/opt/cola/permits/1118999868_1608681835.21/0/rxjava-2-1-10-sources-jar/io/reactivex/schedulers/package-info.java
* /opt/cola/permits/1118999868_1608681835.21/0/rxjava-2-1-10-sources-jar/io/reactivex/annotations/package-info.java
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* /opt/cola/permits/1118999868_1608681835.21/0/rxjava-2-1-10-sources-jar/io/reactivex/BackpressureOverflowStrategy.java
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* /opt/cola/permits/1118999868_1608681835.21/0/rxjava-2-1-10-sources-jar/io/reactivex/internal/schedulers/ScheduledDirectPeriodicTask.java
*
/opt/cola/permits/1118999868_1608681835.21/0/rxjava-2-1-10-sources-jar/io/reactivex/internal/schedulers/AbstractDirectTask.java
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1.121 guava 30.1-jre

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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/Quantiles.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/eventbus/Subscriber.java

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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-

jar/com/google/common/util/concurrent/FluentFuture.java
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 /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AggregateFuture.java
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*/
/**
* Holder for extra methods of {@code Objects} only in web. Intended to be empty for regular
* version.
*/

Found in path(s):

* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/ExtraObjectsMethodsForWeb.java

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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableMapEntry.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/MultimapBuilder.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/MoreFiles.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableEntry.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Tables.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/thirdparty/publicsuffix/PublicSuffixPatterns.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Serialization.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/StandardTable.java

* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableListMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/PeekingIterator.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/RegularImmutableMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SingletonImmutableBiMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/RegularImmutableBiMap.java
*
 /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableBiMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableSortedSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableMapValues.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Collections2.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableMapEntrySet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableCollection.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Table.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/EmptyImmutableListMultimap.java
*
 /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/CollectPreconditions.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/HashBasedTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Platform.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/TreeBasedTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/StandardRowSortedTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Range.java
*

/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/UnmodifiableIterator.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableMapKeySet.java
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*/
/**
* Holder for web specializations of methods of {@code Shorts}. Intended to be empty for regular
* version.
*/

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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/ShortsMethodsForWeb.java
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*/
/*
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 * http://code.google.com/p/smhasher/source/browse/trunk/MurmurHash3.cpp, which contained the
 * following header:

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 */

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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/LinearTransformation.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/CharSink.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/LongAddable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/SmoothRateLimiter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/FilteredKeyMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/Parameter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/ByteSink.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/Closer.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/Stats.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-

jar/com/google/common/html/package-info.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/PairedStatsAccumulator.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/Element.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/CharSource.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/package-info.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/ImmutableTypeToInstanceMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/StatsAccumulator.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/escape/package-info.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/MutableTypeToInstanceMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/SipHashFunction.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/TypeCapture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/LongAddable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/ByteSource.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/ChecksumHashFunction.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/Invokable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/RateLimiter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/StandardSystemProperty.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/AbstractByteHasher.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/AbstractInvocationHandler.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/BaseEncoding.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/TypeToInstanceMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/PairedStats.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/LongAddables.java

* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ListenableScheduledFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/LongAddables.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/CartesianList.java
*
 /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/FileWriteMode.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/ClassPath.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/xml/package-info.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableRangeMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ServiceManager.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/BaseGraph.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/Traverser.java
*
 /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ClosingFuture.java
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 * http://code.google.com/p/smhasher/source/browse/trunk/MurmurHash3.cpp, which contained the
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*/
/**
* Outer class that exists solely to let us write {@code Partially.GwtIncompatible} instead of plain
* {@code GwtIncompatible}. This is more accurate for {@link Futures#catching}, which is available
* under GWT but with a slightly different signature.
*

* <p>We can't use {@code PartiallyGwtIncompatible} because then the GWT compiler
 wouldn't recognize
* it as a {@code GwtIncompatible} annotation. And for {@code Futures.catching}, we need the GWT
* compiler to autostrip the normal server method in order to expose the special, inherited GWT
* version.
*/

Found in path(s):
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/Partially.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/ImmutableGraph.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/SuccessorsFunction.java
*
 /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/MutableNetwork.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/ImmutableNetwork.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/Graphs.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/InsecureRecursiveDeleteException.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/Graph.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/RecursiveDeleteOption.java

* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/PredecessorsFunction.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/MutableGraph.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/Network.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/LongAdder.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/Striped64.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/Striped64.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/Shorts.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/Doubles.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/SequentialExecutor.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/CharMatcher.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/FluentIterable.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/Chars.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/net/PercentEscaper.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Joiner.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/Floats.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ListenableFutureTask.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/escape/UnicodeEscaper.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/Bytes.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/MultiReader.java

* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Stopwatch.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Converter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/Longs.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/Ints.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/internal/Finalizer.java
*
 /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/net/InetAddresses.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/escape/Escaper.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/thirdparty/publicsuffix/TrieParser.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractSequentialIterator.java
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 /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingListMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/RowSortedTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-

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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/UnmodifiableListIterator.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SortedMapDifference.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/UnsignedBytes.java
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 /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/net/HostSpecifier.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AbstractExecutionThreadService.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/JdkFutureAdapters.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/SignedBytes.java
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 /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/SettableFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/Callables.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/Service.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/ByteArrayDataOutput.java
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/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/escape/ArrayBasedEscaperMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/LineProcessor.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/xml/XmlEscapers.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/RegularImmutableTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ForwardingListenableFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/annotations/GwtCompatible.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/ByteProcessor.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/escape/ArrayBasedCharEscaper.java
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/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/net/InternetDomainName.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AbstractService.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Splitter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/LocalCache.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/escape/Escapers.java
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*/
/**
  * Not supported. You are attempting to create a map that may contain a non-{@code Comparable}
  * key. Proper calls will resolve to the version in {@code ImmutableSortedMap}, not this dummy
  * version.
  *
  * @throws UnsupportedOperationException always
  * @deprecated Pass a key of type {@code Comparable}
 to use {@link
  *   ImmutableSortedMap#of(Comparable, Object)}.
  */

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*/
/**
* Holder for web specializations of methods of {@code Floats}. Intended to be empty for regular
* version.
*/

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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AtomicLongMap.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/CommonPattern.java
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 /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/JdkPattern.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/AbstractGraph.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/AbstractUndirectedNetworkConnections.java
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 /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/MoreCollectors.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/ImmutableValueGraph.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/ElementOrder.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/ValueGraphBuilder.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/HashMultimapGwtSerializationDependencies.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-

jar/com/google/common/graph/NetworkConnections.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Comparators.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/GraphConstants.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/ForwardingGraph.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/GraphBuilder.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/UndirectedMultiNetworkConnections.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/AbstractValueGraph.java
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/**
* Holder for web specializations of methods of {@code Doubles}. Intended to be empty for regular
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*/

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*/

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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingMapEntry.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractIterator.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Sets.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Multimaps.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/BiMap.java

* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Multisets.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingQueue.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingConcurrentMap.java
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 /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ReverseNaturalOrdering.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SortedSetMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/NullsFirstOrdering.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SingletonImmutableSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/EnumHashBiMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Multiset.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/LinkedListMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractSortedSetMultimap.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ByFunctionOrdering.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SetMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractMapEntry.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/HashMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingCollection.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ClassToInstanceMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Maps.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingSortedSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingObject.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/MapDifference.java
*
 /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/EnumBiMap.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/ImmutableIntArray.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ForwardingLock.java
*
/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/AbstractHashFunction.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/ImmutableLongArray.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ForwardingCondition.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/OverflowAvoidingLockSupport.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/ToDoubleRounder.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/BigDecimalMath.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/Java8Compatibility.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/JdkBackedImmutableSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/ImmutableSupplier.java
*
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 *
 * As of 2010/06/11, this method is identical to the (package private) hash method in OpenJDK 7's
 * java.util.HashMap
class.
 */

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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableSortedMultisetFauxverideShim.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/GeneralRange.java
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 /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingSortedMultiset.java

* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SortedIterable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/RangeSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractRangeSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Count.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SortedIterables.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Optional.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/DescendingImmutableSortedMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Ticker.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Present.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/UnsignedInteger.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/Murmur3_32HashFunction.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/RemovalListeners.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/Types.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/TreeRangeSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/RegularContiguousSet.java

* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Absent.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/RemovalNotification.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AbstractListeningExecutorService.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/Hasher.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/net/HostAndPort.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/Murmur3_128HashFunction.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Enums.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/MathPreconditions.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/MessageDigestHashFunction.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/UnsignedLongs.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/RemovalListener.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ListeningScheduledExecutorService.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/package-info.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/FunctionalEquivalence.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-

jar/com/google/common/util/concurrent/AsyncFunction.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/Cache.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/BloomFilterStrategies.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/BigIntegerMath.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/EmptyContiguousSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/DoubleMath.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/Funnels.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/CacheLoader.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/AbstractNonStreamingHashFunction.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/ParseRequest.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/FutureCallback.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/BloomFilter.java
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/opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/HashFunction.java

No license file was found, but licenses were detected in source scan.

```
/*
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* distributed under the License is distributed on an "AS IS" BASIS,
* WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
* See the License for the specific language governing permissions and
* limitations under the License.
*/
/**
  * Returns an array containing all of the elements in the specified collection. This method
  * returns the elements in the order they are returned by the collection's iterator. The returned
  * array is "safe" in that no references to it are maintained by the collection. The caller is
  * thus free to modify the returned
 array.
  *
  * <p>This method assumes that the collection size doesn't change while the method is running.
  *
  * <p>TODO(kevinb): support concurrently modified collections?
  *
  * @param c the collection for which to return an array of elements
  */
```

Found in path(s):

* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ObjectArrays.java

1.122 aop-alliance 1.0

1.122.1 Available under license :

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1.123 iconv 2.17

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Version 2, June 1991

[This is the first released version of the library GPL. It is numbered 2 because it goes with version 2 of the ordinary GPL.]

Preamble

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they blur the distinction we usually make between modifying or adding to a
program and simply using it. Linking a program with a library, without
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analogous to running a utility program or application program. However, in
a textual and legal sense, the linked executable is a combined work, a
derivative of the original library, and the ordinary General Public License
treats it as such.

Because
of this blurred distinction, using the ordinary General
Public License for libraries did not effectively promote software
sharing, because most developers did not use the libraries. We
concluded that weaker conditions might promote sharing better.

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changes in the actual functions of the Library.) The hope is that this
will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, while the latter only works together with the library.

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medium customarily used for software interchange.

If distribution of object code is made by offering access to copy
from a designated place, then offering equivalent access to copy the
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work of the Library, and
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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of
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d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

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b) Give prominent notice with the combined library of the fact
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```
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```

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1.124 zlib 1.2.8

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*
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* /opt/cola/permits/1125758851_1613553092.69/0/tangdixi-dcpathbutton-2-1-3-0-ge4b13fb-tar-gz/Tangdixi-DCPathButton-39be410/Example/Example/ViewController.m

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* /opt/cola/permits/1125758851_1613553092.69/0/tangdixi-dcpathbutton-2-1-3-0-ge4b13fb-tar-gz/Tangdixi-DCPathButton-39be410/Example/Pods/DCPathButton/DCPathButton/Classes/DCPathButton.m

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* /opt/cola/permits/1125758851_1613553092.69/0/tangdixi-dcpathbutton-2-1-3-0-ge4b13fb-tar-gz/Tangdixi-DCPathButton-39be410/Example-Swift/Example-Swift-Bridging-Header.h
* /opt/cola/permits/1125758851_1613553092.69/0/tangdixi-dcpathbutton-2-1-3-0-ge4b13fb-tar-gz/Tangdixi-DCPathButton-39be410/Example-Swift/Example-SwiftTests/Example_SwiftTests.swift
* /opt/cola/permits/1125758851_1613553092.69/0/tangdixi-dcpathbutton-2-1-3-0-ge4b13fb-tar-gz/Tangdixi-DCPathButton-39be410/Example-Swift/Example-Swift/AppDelegate.swift

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```
Pod::Spec.new do |s|

 s.name         = "DCPathButton"
 s.version      = "2.1.1"
 s.summary      = " A beautiful button copy from Path® "

 s.description  = <<-DESC
   DCPathButton is a menu button, design by an famous App Path®.
   Since Path® 4.0, it return to use a tab bar instead of a side bar,
   and also change the menu button. So I try to implement it and then
   the DCPathButton born :)
                DESC

 s.homepage     = "https://github.com/Tangdixi/DCPathButton"

 s.license      = {
 :type => 'MIT',
 :text => 'The DCPathButton use the MIT license'
 }

 s.author             = { "Tangdixi" => "Tangdixi@gmail.com" }

 s.platform     = :ios, '7.0'

 s.source       = {
 :git => "https://github.com/Tangdixi/DCPathButton.git",
 :tag => "2.1.1"
```

```
 }

 s.source_files  = 'DCPathButton/Classes/*.{h,m}'

 s.resources  = ["DCPathButton/Sounds/*"]

 s.frameworks = 'QuartzCore','AudioToolbox'

  s.requires_arc = true

end
```

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<label opaque="NO" clipsSubviews="YES" userInteractionEnabled="NO" contentMode="left" horizontalHuggingPriority="251" verticalHuggingPriority="251" text=" Copyright (c) 2015 DC. All rights reserved." textAlignment="center" lineBreakMode="tailTruncation" baselineAdjustment="alignBaselines"

minimumFontSize="9" translatesAutoresizingMaskIntoConstraints="NO" id="8ie-xW-0ye">

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DCPathButton

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* /opt/cola/permits/1125758851_1613553092.69/0/tangdixi-dcpathbutton-2-1-3-0-ge4b13fb-tar-gz/Tangdixi-DCPathButton-39be410/Example/Example/BarButtonItemViewController.m
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* /opt/cola/permits/1125758851_1613553092.69/0/tangdixi-dcpathbutton-2-1-3-0-ge4b13fb-tar-gz/Tangdixi-DCPathButton-39be410/README.md

1.126 centos-release 7-9.2009.1.el7.centos

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Special Recognition

One of the key reasons we got delayed on the CentOS-6 release was lack of suitable build resources, especially when we had to repeatedly build large chunks of code. Norwood S came forward and worked with me to setup a large build machine, then tune the build process and help improve the overall build, test and validate process we were using. This build machine he donated to the project was about 5 times more capable than the entire buildsystem we had. And he did this out of his own pocket, from his own time, and has since upgraded the machine as well. It's now a 128GB, 48 core machine, with 4 SSD's and 4 sata disks : but the key metric is that it can build from source, the entire CentOS-7 distro in under 22 hrs.

Having this capability was key in our ability to build, test and deliver CentOS-7 as rapidly as we have been able to.

We'd like to dedicate the CentOS-7 Release to Mr Norwood S, of Phoenix, AZ, USA for his continued support for the project.

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The Red Hat developers, without whom CentOS would look very different

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1.134 commons-logging 1.2

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* /opt/cola/permits/1135840457_1613613080.13/0/commons-logging-1-1-sources-9-jar/org/apache/commons/logging/impl/Log4JLogger.java
* /opt/cola/permits/1135840457_1613613080.13/0/commons-logging-1-1-sources-9-jar/org/apache/commons/logging/impl/LogFactoryImpl.java

*
/opt/cola/permits/1135840457_1613613080.13/0/commons-logging-1-1-sources-9-jar/org/apache/commons/logging/impl/Jdk13LumberjackLogger.java
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1.135 commons-io 2.8.0

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src/test/org/apache/commons/codec/language/DoubleMetaphoneTest.java
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===

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1.137 hibernate-commons-annotations 5.1.2.Final

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1.138 javassist 3.27.0-GA

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```

Found in path(s):
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/tools/rmi/Proxy.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/ast/Visitor.java
*

/opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/ast/Member.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/tools/reflect/CannotInvokeException.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/CtNewWrappedConstructor.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/LoaderClassPath.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/tools/rmi/AppletServer.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/CtConstructor.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/tools/rmi/ObjectNotFoundException.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/ast/ArrayInit.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/Mnemonic.java
*
/opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/CtNewClass.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/SignatureAttribute.java
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* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/util/proxy/DefineClassHelper.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/analysis/SubroutineScanner.java
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* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/URLClassPath.java
*

/opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/util/proxy/ProxyObjectInputStream.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/InstructionPrinter.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/NestMembersAttribute.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/tools/reflect/CannotReflectException.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/scopedpool/ScopedClassPoolFactoryImpl.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/LocalVariableAttribute.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/ast/CallExpr.java
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* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/tools/web/Webserver.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/LongVector.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/util/proxy/ProxyObjectOutputStream.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/ast/CastExpr.java

*
/opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/DeprecatedAttribute.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/CtClass.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/Translator.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/tools/rmi/Sample.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/CodeAttribute.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/expr/NewArray.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/ClassClassPath.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/ast/IntConst.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/util/proxy/MethodHandler.java
*
/opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/convert/TransformNew.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/scopedpool/ScopedClassPoolRepository.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/expr/Cast.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/NoFieldException.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/SyntaxError.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/TokenId.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/util/proxy/RuntimeSupport.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/compiler/ast/Pair.java
*
/opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/convert/TransformWriteField.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/CtNewConstructor.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/ConstPool.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/analysis/MultiType.java
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* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/annotation/MemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/annotation/EnumMemberValue.java
*
 /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/annotation/ByteMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/annotation/ClassMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/annotation/MemberValueVisitor.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/annotation/FloatMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/annotation/IntegerMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/annotation/StringMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/annotation/ArrayMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/annotation/BooleanMemberValue.java
*
 /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/annotation/LongMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/annotation/CharMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/annotation/Annotation.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/annotation/ShortMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/annotation/AnnotationMemberValue.java
* /opt/cola/permits/1135872664_1613621010.52/0/javassist-3-27-0-ga-sources-1-jar/javassist/bytecode/annotation/DoubleMemberValue.java

1.139 classmate 1.5.1

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Other developers who have contributed code are:

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1.140 zt 1.14

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* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/extra/AsiExtraField.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/extra/ZipLong.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/extra/ZipExtraField.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/extra/ZipShort.java

* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/extra/ExtraFieldUtils.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/extra/ZipConstants.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/extra/UnrecognizedExtraField.java

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* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/commons/FileExistsException.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/commons/IOUtils.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/commons/FileUtilsV2_2.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/commons/StringBuilderWriter.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/commons/FilenameUtils.java

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* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/ZTFileUtil.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/ZipInfoCallback.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/NameMapper.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/FileSource.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/ZipEntryUtil.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/timestamps/PreJava8TimestampStrategy.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/Zips.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/timestamps/TimestampStrategy.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/ByteSource.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/timestamps/Java8TimestampStrategy.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/ZipEntrySource.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/IdentityNameMapper.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/ZipUtil.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/timestamps/TimestampStrategyFactory.java
* /opt/cola/permits/1135879776_1613624027.25/0/zt-zip-1-14-sources-1-jar/org/zeroturnaround/zip/ZipEntryCallback.java

1.141 httpcomponents-mime 4.5.12

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* /opt/cola/permits/1135880235_1613624044.2/0/jakarta-validation-api-2-0-2-sources-3-jar/javax/validation/metadata/CascadableDescriptor.java
* /opt/cola/permits/1135880235_1613624044.2/0/jakarta-validation-api-2-0-2-sources-3-jar/javax/validation/ConstraintTarget.java
* /opt/cola/permits/1135880235_1613624044.2/0/jakarta-validation-api-2-0-2-sources-3-jar/javax/validation/constraints/FutureOrPresent.java
* /opt/cola/permits/1135880235_1613624044.2/0/jakarta-validation-api-2-0-2-sources-3-jar/javax/validation/constraints/Null.java
* /opt/cola/permits/1135880235_1613624044.2/0/jakarta-validation-api-2-0-2-sources-3-jar/javax/validation/ConstraintValidatorContext.java
*
/opt/cola/permits/1135880235_1613624044.2/0/jakarta-validation-api-2-0-2-sources-3-jar/javax/validation/metadata/ExecutableDescriptor.java

* /opt/cola/permits/1135880235_1613624044.2/0/jakarta-validation-api-2-0-2-sources-3-jar/javax/validation/groups/Default.java
* /opt/cola/permits/1135880235_1613624044.2/0/jakarta-validation-api-2-0-2-sources-3-jar/javax/validation/MessageInterpolator.java
* /opt/cola/permits/1135880235_1613624044.2/0/jakarta-validation-api-2-0-2-sources-3-jar/javax/validation/metadata/package-info.java
* /opt/cola/permits/1135880235_1613624044.2/0/jakarta-validation-api-2-0-2-sources-3-jar/javax/validation/valueextraction/Unwrapping.java
* /opt/cola/permits/1135880235_1613624044.2/0/jakarta-validation-api-2-0-2-sources-3-jar/javax/validation/valueextraction/ValueExtractor.java
* /opt/cola/permits/1135880235_1613624044.2/0/jakarta-validation-api-2-0-2-sources-3-jar/javax/validation/constraintvalidation/ValidationTarget.java
*
 /opt/cola/permits/1135880235_1613624044.2/0/jakarta-validation-api-2-0-2-sources-3-jar/javax/validation/metadata/MethodDescriptor.java
* /opt/cola/permits/1135880235_1613624044.2/0/jakarta-validation-api-2-0-2-sources-3-jar/javax/validation/package-info.java
* /opt/cola/permits/1135880235_1613624044.2/0/jakarta-validation-api-2-0-2-sources-3-jar/javax/validation/UnexpectedTypeException.java
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1.146 fluent-hc 4.5.13

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Found in path(s):
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/v8dtoa/DoubleConversion.java
No license file was found, but licenses were detected in source scan.

/*
* @(#)TreeTableModelAdapter.java   1.2 98/10/27
*
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* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/tools/debugger/treetable/TreeTableModelAdapter.java
No license file was found, but licenses were detected in source scan.

/* -*- Mode: java; tab-width: 8; indent-tabs-mode: nil; c-basic-offset: 4 -*-

*
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* License, v. 2.0. If a copy of the MPL was not distributed with this
* file, You can obtain one at http://mozilla.org/MPL/2.0/. */
/**
* This is interface defines a protocol for the reporting of
* errors during JavaScript translation in IDE-mode.
* If the {@link org.mozilla.javascript.Parser}'s error reporter is
* set to an instance of this interface, then this interface's
* {@link #warning} and {@link #error} methods are called instead
* of the {@link org.mozilla.javascript.ErrorReporter} versions. <p>
*
* These methods take a source char offset and a length. The
* rationale is that in interactive IDE-type environments, the source
* is available and the IDE will want to indicate where the error
* occurred and how much code participates in it. The start
 and length
* are generally chosen to fit within a single line, for readability,
* but the client is free to use the AST to determine the affected
* node(s) from the start position and change the error or warning's
* display bounds.<p>
*
* @author Steve Yegge
*/

Found in path(s):
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/IdeErrorReporter.java
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* License, v. 2.0. If a copy of the MPL was not distributed with this
* file, You can obtain one at http://mozilla.org/MPL/2.0/. */
/*
        * During the great date rewrite of 1.3, we tried to track the
        * evolving ECMA standard, which then had a definition of
        * getYear which always subtracted 1900. Which we
        * implemented, not realizing that it was incompatible with
        * the old behavior... now, rather than thrash the behavior
        * yet again, we've decided to leave it with the - 1900
        * behavior and point people to the getFullYear method. But
        * we try to protect existing scripts that have specified a
        * version...
        */

Found in path(s):

* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ContextFactory.java
No license file was found, but licenses were detected in source scan.

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* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/debug/DebuggableObject.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/NewExpression.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/regexp/SubString.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/typedarrays/NativeInt8Array.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/NativeJavaConstructor.java
*
/opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/xml/XMLObject.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/typedarrays/NativeArrayBuffer.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ClassShutter.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/RegExpLiteral.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/Function.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/InterfaceAdapter.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/tools/debugger/SwingGui.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/WithStatement.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/VariableInitializer.java
*
/opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/XmlElemRef.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/RhinoException.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/JavaAdapter.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/xml/XMLLib.java

* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/tools/shell/JavaPolicySecurity.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/xmlimpl/XMLCtor.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/NativeGlobal.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/RefCallable.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/NativeSymbol.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/tools/shell/SecurityProxy.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/DefaultErrorReporter.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/NodeTransformer.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/ForLoop.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/tools/debugger/Dim.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/serialize/ScriptableOutputStream.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/XmlMemberGet.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/debug/Debugger.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/XmlExpression.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/IRFactory.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/Scope.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/XmlLiteral.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/Block.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/xmlimpl/XML.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/tools/shell/ConsoleTextArea.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/tools/debugger/GuiCallback.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/LetNode.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/regexp/NativeRegExpCtor.java
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jar/org/mozilla/javascript/tools/shell/JSConsole.java
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* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/FunctionObject.java
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* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/LabeledStatement.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/IfStatement.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/ForInLoop.java
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/opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/ArrayLiteral.java
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* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/TokenStream.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/NativeBoolean.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/jdk13/VMBridge_jdk13.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/XmlRef.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/WrappedException.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/Wrapper.java
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/opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/Jump.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/EmptyExpression.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/Parser.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/NodeVisitor.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/Kit.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/PropertyGet.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ArrowFunction.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/AstNode.java
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/opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/WrapFactory.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/tools/shell/ShellLine.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ScriptRuntimeES6.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/DoLoop.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/classfile/ByteCode.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/BreakStatement.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/serialize/ScriptableInputStream.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/BaseFunction.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ErrorReporter.java
*
/opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/xmlimpl/XMLName.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/Scriptable.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/ThrowStatement.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/Callable.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/JavaScriptException.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/xmlimpl/QName.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/Delegator.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/Name.java
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/opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/SecurityController.java

* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/EmptyStatement.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/Assignment.java
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* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/KeywordLiteral.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/typedarrays/NativeArrayBufferView.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/VMBridge.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/RegExpProxy.java
*
 /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/Undefined.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/LazilyLoadedCtor.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/debug/DebuggableScript.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/GeneratedClassLoader.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/optimizer/Codegen.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/tools/debugger/ScopeProvider.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/typedarrays/NativeInt32Array.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/ast/ErrorCollector.java
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 /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/Decompiler.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/SymbolScriptable.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/xmlimpl/XMLWithScope.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/UintMap.java
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* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/Interpreter.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/typedarrays/NativeTypedArrayIterator.java
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 /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/xmlimpl/XMLLibImpl.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/Ref.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/regexp/RegExpImpl.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/EvaluatorException.java
* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/NativeJavaTopPackage.java
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* /opt/cola/permits/1136701711_1613864192.24/0/rhino-1-7-7-2-sources-3-jar/org/mozilla/javascript/tools/debugger/treetable/JTreeTable.java

1.150 lcms 2.12

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1.153 asm 9.1

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1.154 pygobject 3.22.0-1.el7_4.1

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When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits
such linking only if the
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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

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Version 3, 29 June 2007

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Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and modification follow.

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1. Source Code.

The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

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which are not part of the work. For example, Corresponding Source
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If such an object file uses only numerical parameters, data
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This is an attempt to acknowledge early contributions to the garbage collector. Later contributions should instead be mentioned in README.changes.

HISTORY -

Early versions of this collector were developed as a part of research projects supported in part by the National Science Foundation and the Defense Advance Research Projects Agency.

The garbage collector originated as part of the run-time system for the Russell programming language implementation. The first version of the garbage collector was written primarily by Al Demers. It was then refined and mostly rewritten, primarily by Hans-J. Boehm, at Cornell U., the University of Washington, Rice University (where it was first used for C and assembly code), Xerox PARC, SGI, and HP Labs. However, significant contributions have also been made by many others.

Some other contributors:

More recent contributors are mentioned in the modification history in README.changes. My apologies for any omissions.

The SPARC specific code was
originally contributed by Mark Weiser.
The Encore Multimax modifications were supplied by Kevin Kenny (kenny@m.cs.uiuc.edu). The adaptation to the IBM PC/RT is largely due to Vernon Lee, on machines made available to Rice by IBM.
Much of the HP specific code and a number of good suggestions for improving the

generic code are due to Walter Underwood.
Robert Brazile (brazile@diamond.bbn.com) originally supplied the ULTRIX code.
Al Dosser (dosser@src.dec.com) and Regis Cridlig (Regis.Cridlig@cl.cam.ac.uk)
subsequently provided updates and information on variation between ULTRIX
systems. Parag Patel (parag@netcom.com) supplied the A/UX code.
Jesper Peterson(jep@mtiame.mtia.oz.au), Michel Schinz, and
Martin Tauchmann (martintauchmann@bigfoot.com) supplied the Amiga port.
Thomas Funke (thf@zelator.in-berlin.de(?)) and
Brian D.Carlstrom (bdc@clark.lcs.mit.edu) supplied the NeXT ports.
Douglas Steel (doug@wg.icl.co.uk) provided ICL DRS6000 code.
Bill Janssen (janssen@parc.xerox.com) supplied
the SunOS dynamic loader
specific code. Manuel Serrano (serrano@cornas.inria.fr) supplied linux and
Sony News specific code. Al Dosser provided Alpha/OSF/1 code. He and
Dave Detlefs(detlefs@src.dec.com) also provided several generic bug fixes.
Alistair G. Crooks(agc@uts.amdahl.com) supplied the NetBSD and 386BSD ports.
Jeffrey Hsu (hsu@soda.berkeley.edu) provided the FreeBSD port.
Brent Benson (brent@jade.ssd.csd.harris.com) ported the collector to
a Motorola 88K processor running CX/UX (Harris NightHawk).
Ari Huttunen (Ari.Huttunen@hut.fi) generalized the OS/2 port to
nonIBM development environments (a nontrivial task).
Patrick Beard (beard@cs.ucdavis.edu) provided the initial MacOS port.
David Chase, then at Olivetti Research, suggested several improvements.
Scott Schwartz (schwartz@groucho.cse.psu.edu) supplied some of the
code to save and print call stacks for leak detection on a SPARC.
Jesse Hull and John Ellis supplied the C++ interface code.
Zhong Shao performed much of the
experimentation that led to the
current typed allocation facility. (His dynamic type inference code hasn't
made it into the released version of the collector, yet.)

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation
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d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a
"work that uses the
library". The executable is therefore covered by this License.
Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute
the object code for the work under the terms of Section 6.
Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.
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6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the

Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2)

will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

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For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on

which the executable runs, unless that component itself accompanies
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It may happen that this requirement contradicts the license
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Version 2.1, February 1999

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a) The modified work must itself be a software library.

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c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves,
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In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

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4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

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For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

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```
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This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.
```

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table, the facility still operates, and performs whatever part of
its purpose remains meaningful.

(For example, a function in a library to compute square roots has
a purpose that is entirely well-defined independent of the
application. Therefore, Subsection 2d requires that any
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root function must still
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work.
(Executables containing this object code plus portions of the
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@item
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uses the Library'', as object code and/or source code, so that the
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Use a suitable shared library mechanism for linking with the Library. A
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Version 2, June 1991

[This is the first released version of the library GPL. It is numbered 2 because it goes with version 2 of the ordinary GPL.]

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The reason we have a separate public license for some libraries is that
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Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

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(For example, a function in a library to compute square roots has
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any
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1.159 archaius-core 0.7.6

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1.163 basesystem 10.0-7.el7.centos

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Summary: The skeleton package which defines a simple CentOS Linux system
Name: basesystem
Version: 10.0
Release: 7%{?dist}
License: Public Domain
Group: System Environment/Base
Requires(pre): setup filesystem
BuildRoot: %(mktemp -ud %{_tmppath}/%{name}-%{version}-%{release}-XXXXXX)
BuildArch: noarch

```
%description
Basesystem defines the components of a basic CentOS Linux
system (for example, the package installation order to use during
bootstrapping). Basesystem should be in every installation of a system,
and it should never be removed.

%prep

%build

%install

%clean

%files
%defattr(-,root,root,-)

%changelog
* Fri Jun 27 2014 Johnny Hughes <johnny@centos.org> - 10.0-7.el7.centos
- Roll in CentOS Branding

* Fri Dec 27 2013 Daniel Mach <dmach@redhat.com> - 10.0-7
- Mass rebuild 2013-12-27

* Tue Mar 06 2012 Ondrej Vasik <ovasik@redhat.com> 10.0-6
- remove again reference to Fedora after RHEL-7 import(#800464)

* Thu
 Jun 23 2011 Ondrej Vasik <ovasik@redhat.com> 10.0-5
- fix FTBFS typo (#715640), add disttag

* Fri May 21 2010 Ondrej Vasik <ovasik@redhat.com> - 10.0-4
- remove reference to Fedora, add dist tag
Related: rhbz#566527

* Mon Apr 26 2010 Dennis Gregorovic <dgregor@redhat.com> - 10.0-3.2
- Rebuilt for RHEL 6
Related: rhbz#566527

* Mon Apr 26 2010 Dennis Gregorovic <dgregor@redhat.com> - 10.0-3.1
- Rebuilt for RHEL 6
Related: rhbz#566527

* Fri Jul 24 2009 Fedora Release Engineering <rel-eng@lists.fedoraproject.org> - 10.0-3
- Rebuilt for https://fedoraproject.org/wiki/Fedora_12_Mass_Rebuild

* Mon Feb 23 2009 Fedora Release Engineering <rel-eng@lists.fedoraproject.org> - 10.0-2
```

- Rebuilt for https://fedoraproject.org/wiki/Fedora_11_Mass_Rebuild

* Mon Oct 20 2008 Phil Knirsch <pknirsch@redhat.com> 10.0-1
- Bump version and rebuild for Fedora 10 (#451289)

* Fri Mar 02 2007 Phil Knirsch <pknirsch@redhat.com> - 8.1-1
- Cleanup per package review (#225608)

* Wed Jul 12 2006 Jesse Keating
<jkeating@redhat.com> - 8.0-5.1.1
- rebuild

* Fri Dec 09 2005 Jesse Keating <jkeating@redhat.com>
- rebuilt

* Wed Sep 22 2004 Bill Nottingham <notting@redhat.com>
- rebuilt

* Fri Feb 13 2004 Elliot Lee <sopwith@redhat.com>
- rebuilt

* Wed Jan 22 2003 Tim Powers <timp@redhat.com>
- rebuilt

* Wed Aug 21 2002 Bill Nottingham <notting@redhat.com>
- bump rev

* Fri Jun 21 2002 Tim Powers <timp@redhat.com>
- automated rebuild

* Thu May 23 2002 Tim Powers <timp@redhat.com>
- automated rebuild

* Wed Jan 09 2002 Tim Powers <timp@redhat.com>
- automated rebuild

* Wed Jul 12 2000 Prospector <bugzilla@redhat.com>
- automatic rebuild

* Tue Jun 6 2000 Bill Nottingham <notting@redhat.com>
- rebuild. Wheee.

* Sun Mar 21 1999 Cristian Gafton <gafton@redhat.com>
- auto rebuild in the new build environment (release 4)

* Tue Mar 16 1999 Cristian Gafton <gafton@redhat.com>
- don't require rpm (breaks dependency chain)

* Tue Mar 16 1999 Erik Troan <ewt@redhat.com>
- require rpm

* Wed Dec 30
 1998 Cristian Gafton <gafton@redhat.com>
- build for 6.0

* Tue Aug 11 1998 Jeff Johnson <jbj@redhat.com>
- build root

* Mon Apr 27 1998 Prospector System <bugs@redhat.com>
- translations modified for de, fr, tr

* Tue Sep 23 1997 Erik Troan <ewt@redhat.com>
- made a noarch package

Found in path(s):
* /opt/cola/permits/1151233448_1617817524.04/0/basesystem-10.0-7.el7.centos.src.rpm-cosi-expand-archive-tqrtl4Z0/basesystem.spec

1.164 gpg-pubkey f4a80eb5-53a7ff4b

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* DNS resolver (dirmngr/dns.c)

 dns.c - Recursive, Reentrant DNS Resolver.
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1993 Christopher Seiwald seiwald@vix.com
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1.166 util-linux 2.23.2-65.el7_9.1

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```
size: 8388608, sector size: 512, PT: dos, offset: 446, id=0x8f8378c0
---
#1:         32       7648  0x83
#2:       7680       8704  0xa5
#5:       7936       4864  0x7 (freebsd)
#6:      12544       3584  0x7 (freebsd)
```

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```
Initialize empty image
f1c9645dbc14efddc7d8a322685f26eb bsd.img
Create new DOS partition table
57e721e38d1266c2df055067c18f2cf9 bsd.img

---layout----------
__ts_dev__: 10 MB, 10485760 bytes, 20480 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x00000001

    Device Boot      Start         End      Blocks   Id  System
-------------------

Create 1st primary partition
ada64ace122978d00d1d1c0e5ee45d26 bsd.img

---layout----------
__ts_dev__: 10 MB, 10485760 bytes, 20480 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x00000001
```

```
   Device Boot      Start         End      Blocks   Id  System
__ts_dev__1            2048        4095        1024   83  Linux
-------------------

Create 2st primary partition
1bebf87248e05d6e4e62b749da65d023
 bsd.img
Set 2nd partition type
2d8e8dff51a88a045db233418dd73fbe bsd.img

---layout----------
__ts_dev__: 10 MB, 10485760 bytes, 20480 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x00000001

   Device Boot      Start         End      Blocks   Id  System
__ts_dev__1            2048        4095        1024   83  Linux
__ts_dev__2            4096       20479        8192   a5  FreeBSD
-------------------

Create default BSD
2e1cee529cb59c9341afef0443f196a1 bsd.img

---layout----------

Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.


Command (m for help):

BSD disklabel command (m for help):
4 partitions:
#       start       end      size     fstype   [fsize bsize   cpg]
 c:     4096     20479     16384     unused        0     0
 d:        0
   16064     16065     unused        0     0

BSD disklabel command (m for help):
Command (m for help):
-------------------

b5c121c2091b2ff26b880551feac7112 bsd.img

---layout----------
```

```
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.


Command (m for help):

BSD disklabel command (m for help):
4 partitions:
#       start       end      size     fstype   [fsize bsize   cpg]
  a:     4096      6144      2049     4.2BSD        0     0     0
  c:     4096     20479     16384     unused        0     0
  d:        0     16064     16065     unused        0     0

BSD disklabel command (m for help):
Command (m for help):
-------------------




Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.


Command (m for help):

BSD disklabel command (m for help):
0  unused          5  4.1BSD          9  4.4LFS          d  boot
1  swap
            6  Eighth Edition   a  unknown          e  ADOS
2  Version 6       7  4.2BSD          b  HPFS            f  HFS
3  Version 7       8  MS-DOS          c  ISO-9660        10  AdvFS
4  System V

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Java UUID generator library has been written by Tatu Saloranta (tatu.saloranta@iki.fi)

Other developers who have contributed code are:

* Eric Bie contributed extensive unit test suite which has helped ensure high implementation
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1.168 velocity 2.3

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1.169 velocity-engine-core 2.3

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1.170 javax-persistence-api 2.2

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* /opt/cola/permits/1157317056_1654022855.910856/0/javax-persistence-api-2-2-sources-2-jar/javax/persistence/AttributeOverride.java
*
 /opt/cola/permits/1157317056_1654022855.910856/0/javax-persistence-api-2-2-sources-2-jar/javax/persistence/SecondaryTable.java
* /opt/cola/permits/1157317056_1654022855.910856/0/javax-persistence-api-2-2-sources-2-jar/javax/persistence/SqlResultSetMapping.java
* /opt/cola/permits/1157317056_1654022855.910856/0/javax-persistence-api-2-2-sources-2-jar/javax/persistence/JoinColumn.java
* /opt/cola/permits/1157317056_1654022855.910856/0/javax-persistence-api-2-2-sources-2-jar/javax/persistence/PersistenceUnit.java
* /opt/cola/permits/1157317056_1654022855.910856/0/javax-persistence-api-2-2-sources-2-jar/javax/persistence/PrimaryKeyJoinColumn.java
* /opt/cola/permits/1157317056_1654022855.910856/0/javax-persistence-api-2-2-sources-2-jar/javax/persistence/NamedNativeQuery.java
* /opt/cola/permits/1157317056_1654022855.910856/0/javax-persistence-api-2-2-sources-2-jar/javax/persistence/MapKeyJoinColumn.java
* /opt/cola/permits/1157317056_1654022855.910856/0/javax-persistence-api-2-2-sources-2-jar/javax/persistence/NamedQuery.java
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* /opt/cola/permits/1157317056_1654022855.910856/0/javax-persistence-api-2-2-sources-2-jar/javax/persistence/Query.java
*
 /opt/cola/permits/1157317056_1654022855.910856/0/javax-persistence-api-2-2-sources-2-jar/javax/persistence/SequenceGenerator.java
* /opt/cola/permits/1157317056_1654022855.910856/0/javax-persistence-api-2-2-sources-2-jar/javax/persistence/TableGenerator.java
* /opt/cola/permits/1157317056_1654022855.910856/0/javax-persistence-api-2-2-sources-2-jar/javax/persistence/TypedQuery.java
* /opt/cola/permits/1157317056_1654022855.910856/0/javax-persistence-api-2-2-sources-2-jar/javax/persistence/spi/PersistenceProviderResolverHolder.java
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1.172 pyxattr 0.5.1

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1.173 json-smart 2.4.7

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* /opt/cola/permits/1160226211_1620275398.98/0/json-smart-2-4-7-sources-jar/net/minidev/json/parser/ParseException.java
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* /opt/cola/permits/1160226211_1620275398.98/0/json-smart-2-4-7-sources-jar/net/minidev/json/JSONArray.java
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1.174 jta 1.3

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1.175 jackson-coreutils-equivalence 1.0

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1.176 json-schema-core 1.2.14

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limitations under the License.
Fabio Di Fabio

* Allow to disable schema caching (except for preloaded schemas)

Randy Watler

* Support for reading schemas from non standard JSON (comments etc).

Matt Bishop

* OSGi support for Maven (now deprecated).

1.177 uritemplate 0.10

1.177.1 Available under license :

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1.178 json-schema-validator 2.2.14

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Pablo Pinhero

* Add a "lib" target to the build: jar with all dependencies builtin.

Corey Sciuto

* Tests for date-time format attribute; date-time-millis format attribute (now superseded by date-time itself).

Matt Bishop:

* Initial OSGi support for maven (now superseded by Gradle).

Kelvin Pho

* Pointer collectors for draft v4 keywords (since then moved to -core).

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1.179 glib 2.56.1-9.el7_9

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1.181 commons-lang3 3.12.0

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1.182 libgcc 4.8.5-44.el7

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```
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```
@ignore
@c Set file name and title for man page.
@setfilename gpl
@settitle GNU General Public License
@c man begin SEEALSO
gfdl(7), fsf-funding(7).
@c man end
@c man begin COPYRIGHT
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@c man end
@end ignore
@node Copying
@c man begin DESCRIPTION
@unnumbered GNU General Public License
@center Version 3, 29 June 2007

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@item
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Otherwise, if the work is a derivative of the Library, you may
distribute
the object code for the work under the terms of Section 6.
Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.
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b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2)

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d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

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which the executable runs, unless that component itself accompanies
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Version 1, February 1989

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Source code for a work means the preferred form of the work for making modifications to it. For an executable file, complete source code means all the source code for all modules it contains; but, as a special exception, it need not include source code for modules which are standard libraries that accompany the operating system on which the executable file runs, or for standard header files or definitions files that accompany that operating system.

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Appendix: How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to humanity, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

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@page
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Version 3.1, 31 March 2009

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```
 ftp://gcc.gnu.org/pub/gcc/releases/  (for full releases)
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```

The current gcc-4.8 source package is taken from the SVN gcc-4_8-branch.

Changes: See changelog.Debian.gz

Debian splits the GNU Compiler Collection into packages for each language,
library, and documentation as follows:

Language	Compiler package	Library package	Documentation
Ada	gnat-4.8	libgnat-4.8	gnat-4.8-doc
C	gcc-4.8		gcc-4.8-doc
C++	g++-4.8	libstdc++6	libstdc++6-4.8-doc
D	gdc-4.8		
Fortran 95	gfortran-4.8	libgfortran3	gfortran-4.8-doc
Go	gccgo-4.8	libgo0	
Java	gcj-4.8	libgcj10	libgcj-doc
Objective C	gobjc-4.8	libobjc2	
Objective C++	gobjc++-4.8		

For some language run-time libraries, Debian provides source files, development files, debugging symbols and libraries containing position-independent code in separate packages:

Language	Sources	Development	Debugging	Position-Independent
C++			libstdc++6-4.8-dbg	libstdc++6-4.8-pic
D		libphobos-4.8-dev		
Java	libgcj10-src	libgcj10-dev	libgcj10-dbg	

Additional packages include:

All languages:

libgcc1, libgcc2, libgcc4	GCC intrinsics (platform-dependent)
gcc-4.8-base	Base files common to all compilers
gcc-4.8-soft-float	Software floating point (ARM only)
gcc-4.8-source	The sources with patches

Ada:

libgnatvsn-dev, libgnatvsn4.8	GNAT version library
libgnatprj-dev, libgnatprj4.8	GNAT Project Manager library

C:

cpp-4.8, cpp-4.8-doc	GNU C Preprocessor
libmudflap0-dev, libmudflap0	Library for instrumenting pointers
libssp0-dev, libssp0	GCC stack smashing protection library
libquadmath0	Math routines for the __float128 type
fixincludes	Fix non-ANSI header files
protoize	Create/remove ANSI prototypes from C code

Java:

gij	The Java bytecode interpreter and VM
libgcj-common	Common files for the Java run-time

libgcj10-awt   The Abstract Windowing Toolkit
libgcj10-jar   Java ARchive
 for the Java run-time

C, C++ and Fortran 95:
libgomp1-dev, libgomp1 GCC OpenMP (GOMP) support library
libitm1-dev, libitm1 GNU Transactional Memory Library

Biarch support: On some 64-bit platforms which can also run 32-bit code, Debian provides additional packages containing 32-bit versions of some libraries. These packages have names beginning with 'lib32' instead of 'lib', for example lib32stdc++6. Similarly, on some 32-bit platforms which can also run 64-bit code, Debian provides additional packages with names beginning with 'lib64' instead of 'lib'. These packages contain 64-bit versions of the libraries. (At this time, not all platforms and not all libraries support biarch.) The license terms for these lib32 or lib64 packages are identical to the ones for the lib packages.

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- libatomic
- libdecnumber
- libgomp
- libitm
- libssp
- libstdc++-v3
- libobjc
- libmudflap
- libgfortran
- The libgnat-4.8 Ada support library and libgnatvsn library.
- Various config files in gcc/config/ used in runtime libraries.

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D:

gdc-4.8	GNU D Compiler
libphobos-4.8-dev	D standard runtime library

The D source package is made up of the following components.

The D front-end for GCC:
- d/*

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The DMD Compiler implementation of the D programming language:
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The Zlib data compression library:
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The Phobos standard runtime library:
- d/phobos/*

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This is an attempt to acknowledge early contributions to the garbage collector. Later contributions should instead be mentioned in README.changes.

HISTORY -

Early versions of this collector were developed as a part of research projects supported in part by the National Science Foundation and the Defense Advance Research Projects Agency.

The garbage collector originated as part of the run-time system for the Russell programming language implementation. The first version of the garbage collector was written primarily by Al Demers. It was then refined and mostly rewritten, primarily by Hans-J. Boehm, at Cornell U., the University of Washington, Rice University (where it was first used for C and assembly code), Xerox PARC, SGI, and HP Labs. However, significant contributions have also been made by many others.

Some other contributors:

More recent contributors are mentioned in the modification history in README.changes. My apologies for any omissions.

The SPARC specific code was
originally contributed by Mark Weiser.
The Encore Multimax modifications were supplied by
Kevin Kenny (kenny@m.cs.uiuc.edu). The adaptation to the IBM PC/RT is largely
due to Vernon Lee, on machines made available to Rice by IBM.
Much of the HP specific code and a number of good suggestions for improving the
generic code are due to Walter Underwood.
Robert Brazile (brazile@diamond.bbn.com) originally supplied the ULTRIX code.
Al Dosser (dosser@src.dec.com) and Regis Cridlig (Regis.Cridlig@cl.cam.ac.uk)
subsequently provided updates and information on variation between ULTRIX
systems. Parag Patel (parag@netcom.com) supplied the A/UX code.
Jesper Peterson(jep@mtiame.mtia.oz.au), Michel Schinz, and
Martin Tauchmann (martintauchmann@bigfoot.com) supplied the Amiga port.
Thomas Funke (thf@zelator.in-berlin.de(?)) and
Brian D.Carlstrom (bdc@clark.lcs.mit.edu) supplied the NeXT ports.
Douglas Steel (doug@wg.icl.co.uk) provided ICL DRS6000 code.
Bill Janssen (janssen@parc.xerox.com) supplied
the SunOS dynamic loader
specific code. Manuel Serrano (serrano@cornas.inria.fr) supplied linux and
Sony News specific code. Al Dosser provided Alpha/OSF/1 code. He and
Dave Detlefs(detlefs@src.dec.com) also provided several generic bug fixes.
Alistair G. Crooks(agc@uts.amdahl.com) supplied the NetBSD and 386BSD ports.
Jeffrey Hsu (hsu@soda.berkeley.edu) provided the FreeBSD port.
Brent Benson (brent@jade.ssd.csd.harris.com) ported the collector to
a Motorola 88K processor running CX/UX (Harris NightHawk).

Ari Huttunen (Ari.Huttunen@hut.fi) generalized the OS/2 port to
nonIBM development environments (a nontrivial task).
Patrick Beard (beard@cs.ucdavis.edu) provided the initial MacOS port.
David Chase, then at Olivetti Research, suggested several improvements.
Scott Schwartz (schwartz@groucho.cse.psu.edu) supplied some of the
code to save and print call stacks for leak detection on a SPARC.
Jesse Hull and John Ellis supplied the C++ interface code.
Zhong Shao performed much of the
experimentation that led to the
current typed allocation facility. (His dynamic type inference code hasn't
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David Megginson,
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1998-05-11

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David Megginson, david@megginson.com
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* m4/ax_func_which_gethostbyname_r.m4

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If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

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```
<one line to give the program's name and a brief idea of what it does.>
Copyright (C) <year>  <name of author>

This program is free software: you can redistribute it and/or modify
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the Free Software Foundation, either version 3 of the License, or
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```

Also add information on how to contact you by electronic and paper mail.

If the program does terminal interaction, make it output a short notice like this when it starts in an interactive mode:

```
<program>  Copyright (C) <year>  <name of author>
This program comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.
```

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, your program's commands might be different; for a GUI interface, you would use an "about box".

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Version 3, 29 June 2007

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The object code form of an Application may incorporate material from a header file that is part of the Library. You may convey such object code under terms of your choice, provided that, if the incorporated material is not limited to numerical parameters, data
structure
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1) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (a) uses at run time a copy of the Library already present on the user's computer system, and (b) will operate properly with a modified version of the Library that is interface-compatible with the Linked Version.

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1.183 libcurl 7.29.0-59.el7_9.1

1.183.1 Available under license :

License Mixing with apps, libcurl and Third Party Libraries
==

libcurl can be built to use a fair amount of various third party libraries, libraries that are written and provided by other parties that are distributed using their own licenses. Even libcurl itself contains code that may cause problems to some. This document attempts to describe what licenses libcurl and the other libraries use and what possible dilemmas linking and mixing them all can lead to for end users.

I am not a lawyer and this is not legal advice!

One common dilemma is that GPL[1]-licensed code is not allowed to be linked with code licensed under the Original BSD license (with the announcement clause). You may still build your own copies that use them all, but distributing them as binaries would be to violate the GPL license - unless you accompany your license with an exception[2]. This particular problem was addressed when the Modified BSD
license was created, which does not have the
announcement clause that collides with GPL.

libcurl http://curl.haxx.se/docs/copyright.html

Uses an MIT (or Modified BSD)-style license that is as liberal as possible. Some of the source files that deal with KRB4 have Original BSD-style announce-clause licenses. You may not distribute binaries with krb4-enabled libcurl that also link with GPL-licensed code!

OpenSSL http://www.openssl.org/source/license.html

(May be used for SSL/TLS support) Uses an Original BSD-style license with an announcement clause that makes it "incompatible" with GPL. You are not allowed to ship binaries that link with OpenSSL that includes GPL code (unless that specific GPL code includes an exception for OpenSSL - a habit that is growing more and more common). If OpenSSL's licensing is a problem for you, consider using GnuTLS or yassl instead.

GnuTLS http://www.gnutls.org/

(May be used for SSL/TLS support) Uses the LGPL[3] license. If this is a problem for you, consider using OpenSSL instead. Also note that GnuTLS itself depends on and uses other libs (libgcrypt and libgpg-error) and they too are LGPL- or GPL-licensed.

yassl http://www.yassl.com/

(May be used for SSL/TLS support) Uses the GPL[1] license. If this is a problem for you, consider using OpenSSL or GnuTLS instead.

NSS http://www.mozilla.org/projects/security/pki/nss/

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axTLS http://axtls.sourceforge.net/

(May be used for SSL/TLS support) Uses a Modified BSD-style license.

c-ares http://daniel.haxx.se/projects/c-ares/license.html

(Used for asynchronous name resolves) Uses an MIT license that is very liberal and imposes no restrictions on any other library or part you may link with.

zlib http://www.gzip.org/zlib/zlib_license.html

(Used for compressed Transfer-Encoding support) Uses an MIT-style license that shouldn't collide with any other library.

krb4

While nothing in particular says that a Kerberos4 library must use any particular license, the one I've tried and used successfully so far (kth-krb4) is partly Original BSD-licensed with the announcement clause. Some of the code in libcurl that is written to deal with Kerberos4 is Modified BSD-licensed.

MIT Kerberos http://web.mit.edu/kerberos/www/dist/

(May be used for GSS support) MIT licensed, that shouldn't collide with any other parts.

Heimdal http://www.pdc.kth.se/heimdal/

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GNU GSS http://www.gnu.org/software/gss/

(May be used for GSS support) GNU GSS is GPL licensed. Note that you may not distribute binary curl packages that uses this if you build curl to also link and use any Original BSD licensed libraries!

fbopenssl

(Used for SPNEGO support) Unclear license. Based on its name, I assume that it uses the OpenSSL license and thus shares the same issues as described for OpenSSL above.

libidn http://josefsson.org/libidn/

(Used for IDNA support) Uses the GNU Lesser General Public License [3]. LGPL is a variation of GPL with slightly less aggressive "copyleft". This license requires more requirements to be met when distributing binaries, see the license for details. Also note that if you distribute a binary that includes this library, you must also include the
full LGPL license text. Please properly point out what parts of the distributed package that the license addresses.

OpenLDAP http://www.openldap.org/software/release/license.html

(Used for LDAP support) Uses a Modified BSD-style license. Since libcurl uses OpenLDAP as a shared library only, I have not heard of anyone that ships OpenLDAP linked with libcurl in an app.

libssh2 http://www.libssh2.org/

(Used for scp and sftp support) libssh2 uses a Modified BSD-style license.

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1.184 libstdc++ 4.8.5-44.el7

1.184.1 Available under license :

Jan 21, 2002

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Version 2.1, February 1999

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library does the same job as widely used non-free libraries. In this
case, there is little to gain by limiting the
free library to free
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d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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considered independent and separate works in
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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

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6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

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could make it effectively proprietary. To prevent this, the GPL
assures that patents cannot be used to render the program non-free.

The precise
 terms and conditions for copying, distribution and
modification follow.

@heading TERMS AND CONDITIONS

@enumerate 0
@item Definitions.

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To ``propagate'' a work means to do anything with it that, without
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 this criterion.

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The ``source code'' for a work means the preferred form of the work for making modifications to it.  ``Object code'' means any non-source form of a work.

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The ``System Libraries'' of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A ``Major Component'', in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if
 any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

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@end enumerate

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@enumerate
a
@item
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@item
Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.

@item
Convey individual copies of the object code with a copy of the written
offer

to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.

@item
Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.

@item
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solely because modification has been made.

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@end enumerate

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Version 2.1, February 1999

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We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

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Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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4. You may copy and distribute the Library (or a portion or
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distributed under the terms of Sections 1 and 2 above on a
medium customarily used for software interchange.

If distribution of object code is made by offering access to copy
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source code from the same place satisfies the requirement to
distribute the source code, even though third parties are not
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5. A program that contains no derivative of any portion of the
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However, linking a "work that uses the Library" with the Library
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library". The executable is therefore covered
by this License.
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When a "work that uses the Library" uses material from a header file
that is part of the Library, the object code for the work may be a
derivative work of the Library even though the source code is not.
Whether this is true is especially significant if the work can be
linked without the Library, or if the work is itself a library. The

threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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Version 2.1, February 1999

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is invoked, then you must make a good faith effort to ensure that,
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table, the facility still operates, and performs whatever part of
its purpose remains meaningful.

(For example, a function in a library to compute square roots has
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libraries. In addition, Debian provides the gdc compiler, either in
the same source package, or built from a separate same source package.
Packaging is done by the Debian GCC Maintainers
<debian-gcc@lists.debian.org>, with sources obtained from:

ftp://gcc.gnu.org/pub/gcc/releases/ (for full releases)

svn://gcc.gnu.org/svn/gcc/ (for prereleases)
http://bitbucket.org/goshawk/gdc (for D)

The current gcc-4.8 source package is taken from the SVN gcc-4_8-branch.

Changes: See changelog.Debian.gz

Debian splits the GNU Compiler Collection into packages for each language, library, and documentation as follows:

Language	Compiler package	Library package	Documentation
Ada	gnat-4.8	libgnat-4.8	gnat-4.8-doc
C	gcc-4.8		gcc-4.8-doc
C++	g++-4.8	libstdc++6	libstdc++6-4.8-doc
D	gdc-4.8		
Fortran 95	gfortran-4.8	libgfortran3	gfortran-4.8-doc
Go	gccgo-4.8	libgo0	
Java	gcj-4.8	libgcj10	libgcj-doc
Objective C	gobjc-4.8	libobjc2	
Objective C++	gobjc++-4.8		

For some language run-time libraries, Debian provides source files, development files, debugging symbols and libraries containing position-independent code in separate packages:

Language	Sources	Development	Debugging	Position-Independent
C++			libstdc++6-4.8-dbg	libstdc++6-4.8-pic
D		libphobos-4.8-dev		
Java	libgcj10-src	libgcj10-dev	libgcj10-dbg	

Additional packages include:

All languages:
libgcc1, libgcc2, libgcc4
GCC intrinsics (platform-dependent)
gcc-4.8-base Base files common to all compilers
gcc-4.8-soft-float Software floating point (ARM only)
gcc-4.8-source The sources with patches

Ada:
libgnatvsn-dev, libgnatvsn4.8 GNAT version library
libgnatprj-dev, libgnatprj4.8 GNAT Project Manager library

C:
cpp-4.8, cpp-4.8-doc GNU C Preprocessor

libmudflap0-dev, libmudflap0	Library for instrumenting pointers
libssp0-dev, libssp0	GCC stack smashing protection library
libquadmath0	Math routines for the __float128 type
fixincludes	Fix non-ANSI header files
protoize	Create/remove ANSI prototypes from C code

Java:

gij	The Java bytecode interpreter and VM
libgcj-common	Common files for the Java run-time
libgcj10-awt	The Abstract Windowing Toolkit
libgcj10-jar	Java ARchive for the Java run-time

C, C++ and Fortran 95:

libgomp1-dev, libgomp1	GCC OpenMP (GOMP) support library
libitm1-dev, libitm1	GNU Transactional Memory Library

Biarch support: On some 64-bit platforms which can also run 32-bit code, Debian provides additional packages containing 32-bit versions of some libraries. These packages have names beginning with 'lib32' instead of 'lib', for example lib32stdc++6. Similarly, on some 32-bit platforms which can also run 64-bit code, Debian provides additional packages with names beginning with 'lib64' instead of 'lib'. These packages contain 64-bit versions of the libraries. (At this time, not all platforms and not all libraries support biarch.) The license terms for these lib32 or lib64 packages are identical to the ones for the lib packages.

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- libitm
- libssp
- libstdc++-v3
- libobjc
- libmudflap
- libgfortran
- The libgnat-4.8 Ada support library and libgnatvsn library.
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gcc/go/gofrontend, libgo:

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D:

gdc-4.8	GNU D Compiler
libphobos-4.8-dev	D standard runtime library

The D source package is made up of the following components.

The D front-end for GCC:
- d/*

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The DMD Compiler implementation of the D programming language:
- d/dmd/*

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The Zlib data compression library:
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The Phobos standard runtime library:
- d/phobos/*

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By plainly marking modifications, something along the lines of adding to each file that has been changed a "Modified by Foo Bar" line underneath the "Written by" line would be adequate.
This is an attempt to acknowledge early contributions to the garbage collector. Later contributions should instead be mentioned in README.changes.

HISTORY -

Early versions of this collector were developed as a part of research projects supported in part by the National Science Foundation and the Defense Advance Research Projects Agency.

The garbage collector originated as part of the run-time system for the Russell programming language implementation. The first version of the garbage collector was written primarily by Al Demers. It was then refined and mostly rewritten, primarily by Hans-J. Boehm, at Cornell U., the University of Washington, Rice University (where it was first used for C and assembly code), Xerox PARC, SGI, and HP Labs. However, significant contributions have also been made by many others.

Some other contributors:

More recent contributors are mentioned in the modification history in README.changes. My apologies for any omissions.

The SPARC specific code was
originally contributed by Mark Weiser.
The Encore Multimax modifications were supplied by
Kevin Kenny (kenny@m.cs.uiuc.edu). The adaptation to the IBM PC/RT is largely due to Vernon Lee, on machines made available to Rice by IBM.
Much of the HP specific code and a number of good suggestions for improving the generic code are due to Walter Underwood.
Robert Brazile (brazile@diamond.bbn.com) originally supplied the ULTRIX code.
Al Dosser (dosser@src.dec.com) and Regis Cridlig (Regis.Cridlig@cl.cam.ac.uk) subsequently provided updates and information on variation between ULTRIX systems. Parag Patel (parag@netcom.com) supplied the A/UX code.
Jesper Peterson(jep@mtiame.mtia.oz.au), Michel Schinz, and
Martin Tauchmann (martintauchmann@bigfoot.com) supplied the Amiga port.
Thomas Funke (thf@zelator.in-berlin.de(?)) and
Brian D.Carlstrom (bdc@clark.lcs.mit.edu) supplied the NeXT ports.
Douglas Steel (doug@wg.icl.co.uk) provided ICL DRS6000 code.

Bill Janssen (janssen@parc.xerox.com) supplied
the SunOS dynamic loader
specific code. Manuel Serrano (serrano@cornas.inria.fr) supplied linux and
Sony News specific code. Al Dosser provided Alpha/OSF/1 code. He and
Dave Detlefs(detlefs@src.dec.com) also provided several generic bug fixes.
Alistair G. Crooks(agc@uts.amdahl.com) supplied the NetBSD and 386BSD ports.
Jeffrey Hsu (hsu@soda.berkeley.edu) provided the FreeBSD port.
Brent Benson (brent@jade.ssd.csd.harris.com) ported the collector to
a Motorola 88K processor running CX/UX (Harris NightHawk).
Ari Huttunen (Ari.Huttunen@hut.fi) generalized the OS/2 port to
nonIBM development environments (a nontrivial task).
Patrick Beard (beard@cs.ucdavis.edu) provided the initial MacOS port.
David Chase, then at Olivetti Research, suggested several improvements.
Scott Schwartz (schwartz@groucho.cse.psu.edu) supplied some of the
code to save and print call stacks for leak detection on a SPARC.
Jesse Hull and John Ellis supplied the C++ interface code.
Zhong Shao performed much of the
experimentation that led to the
current typed allocation facility. (His dynamic type inference code hasn't
made it into the released version of the collector, yet.)
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* m4/ax_func_which_gethostbyname_r.m4

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```
size: 8388608, sector size: 512, PT: dos, offset: 446, id=0x8f8378c0
---
#1:         32       7648  0x83
#2:       7680       8704  0xa5
#5:       7936       4864  0x7 (freebsd)
#6:      12544       3584  0x7 (freebsd)
```

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```
Initialize empty image
f1c9645dbc14efddc7d8a322685f26eb bsd.img
Create new DOS partition table
57e721e38d1266c2df055067c18f2cf9 bsd.img

---layout----------
__ts_dev__: 10 MB, 10485760 bytes, 20480 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x00000001

    Device Boot      Start         End      Blocks   Id  System
-------------------

Create 1st primary partition
ada64ace122978d00d1d1c0e5ee45d26 bsd.img

---layout----------
__ts_dev__: 10 MB, 10485760 bytes, 20480 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
```

```
Disk identifier: 0x00000001

   Device Boot      Start         End      Blocks   Id  System
__ts_dev__1            2048        4095        1024   83  Linux
-------------------

Create 2st primary partition
1bebf87248e05d6e4e62b749da65d023
 bsd.img
Set 2nd partition type
2d8e8dff51a88a045db233418dd73fbe bsd.img

---layout----------
__ts_dev__: 10 MB, 10485760 bytes, 20480 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x00000001

   Device Boot      Start         End      Blocks   Id  System
__ts_dev__1            2048        4095        1024   83  Linux
__ts_dev__2            4096       20479        8192   a5  FreeBSD
-------------------

Create default BSD
2e1cee529cb59c9341afef0443f196a1 bsd.img

---layout----------

Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.


Command (m for help):

BSD disklabel command (m for help):
4 partitions:
#       start       end      size     fstype   [fsize bsize   cpg]
 c:     4096     20479     16384     unused        0     0
 d:        0
  16064     16065     unused        0     0

BSD disklabel command (m for help):
Command (m for help):
-------------------

b5c121c2091b2ff26b880551feac7112 bsd.img
```

```
---layout----------

Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.


Command (m for help):

BSD disklabel command (m for help):
4 partitions:
#       start       end      size     fstype   [fsize bsize   cpg]
  a:     4096      6144      2049     4.2BSD        0     0     0
  c:     4096     20479     16384     unused        0     0
  d:        0     16064     16065     unused        0     0

BSD disklabel command (m for help):
Command (m for help):
-------------------



Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.


Command (m for help):

BSD disklabel command (m for help):
0  unused          5  4.1BSD          9  4.4LFS          d  boot
1  swap
           6  Eighth Edition   a  unknown          e  ADOS
2  Version 6       7  4.2BSD          b  HPFS            f  HFS
3  Version 7       8  MS-DOS          c  ISO-9660       10  AdvFS
4  System V

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1.186 libcom-err 1.42.9-19.el7

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This package was added to the e2fsprogs debian source package by
Theodore Ts'o <tytso@mit.edu> on Fri Dec 14 22:24:35 EST 2007

It is part of the main e2fsprogs distribution, which can be found at:

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1.187 libmount 2.23.2-65.el7_9.1

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```
size: 8388608, sector size: 512, PT: dos, offset: 446, id=0x8f8378c0
---
#1:         32       7648  0x83
#2:       7680       8704  0xa5
#5:       7936       4864  0x7 (freebsd)
#6:      12544       3584  0x7 (freebsd)
```

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```
Initialize empty image
f1c9645dbc14efddc7d8a322685f26eb bsd.img
Create new DOS partition table
57e721e38d1266c2df055067c18f2cf9 bsd.img

---layout----------
__ts_dev__: 10 MB, 10485760 bytes, 20480 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x00000001

    Device Boot      Start         End      Blocks   Id  System
-------------------

Create 1st primary partition
ada64ace122978d00d1d1c0e5ee45d26 bsd.img

---layout----------
__ts_dev__: 10 MB, 10485760 bytes, 20480 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x00000001

    Device Boot      Start         End      Blocks   Id  System
__ts_dev__1           2048        4095        1024   83  Linux
-------------------

Create 2st primary partition
1bebf87248e05d6e4e62b749da65d023
 bsd.img
Set 2nd partition type
2d8e8dff51a88a045db233418dd73fbe bsd.img
```

```
---layout----------
__ts_dev__: 10 MB, 10485760 bytes, 20480 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x00000001

    Device Boot      Start         End      Blocks   Id  System
__ts_dev__1            2048        4095        1024   83  Linux
__ts_dev__2            4096       20479        8192   a5  FreeBSD
-------------------

Create default BSD
2e1cee529cb59c9341afef0443f196a1 bsd.img

---layout----------

Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.


Command (m for help):

BSD disklabel command (m for help):
4 partitions:
#       start       end      size     fstype   [fsize bsize   cpg]
  c:     4096     20479     16384     unused        0     0
  d:        0
   16064     16065     unused        0     0

BSD disklabel command (m for help):
Command (m for help):
-------------------

b5c121c2091b2ff26b880551feac7112 bsd.img

---layout----------

Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.


Command (m for help):

BSD disklabel command (m for help):
4 partitions:
#       start       end      size     fstype   [fsize bsize   cpg]
```

```
 a:     4096      6144      2049     4.2BSD        0     0     0
 c:     4096     20479     16384     unused        0     0
 d:        0     16064     16065     unused        0     0

BSD disklabel command (m for help):
Command (m for help):
-------------------




Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.



Command (m for help):

BSD disklabel command (m for help):
0  unused          5  4.1BSD          9  4.4LFS          d  boot
1  swap
           6  Eighth Edition   a  unknown          e  ADOS
2  Version 6       7  4.2BSD          b  HPFS            f  HFS
3  Version 7       8  MS-DOS          c  ISO-9660        10  AdvFS
4  System V

BSD disklabel command (m for help):
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* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/WorkProcessor.java
*
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* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/YieldingWaitStrategy.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-

jar/com/lmax/disruptor/EventTranslatorTwoArg.java
*
/opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/NoOpEventProcessor.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/SequenceBarrier.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/SingleProducerSequencer.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/PhasedBackoffWaitStrategy.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/RingBuffer.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/EventProcessor.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/BusySpinWaitStrategy.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/FatalExceptionHandler.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/dsl/ConsumerRepository.java
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* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/MultiProducerSequencer.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/SequenceReportingEventHandler.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/EventTranslator.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/AggregateEventHandler.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/dsl/EventProcessorInfo.java
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* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/dsl/Disruptor.java
*
/opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/ProcessingSequenceBarrier.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/SleepingWaitStrategy.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/EventFactory.java
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* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/InsufficientCapacityException.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/Sequencer.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/DataProvider.java
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/opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/SequenceGroups.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/Sequence.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/Cursored.java
* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/FixedSequenceGroup.java

* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/dsl/ProducerType.java
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* /opt/cola/permits/1185279897_1627734845.86/0/disruptor-3-4-4-sources-jar/com/lmax/disruptor/ExceptionHandlers.java

1.189 kmod-libs 20-28.el7

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To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the program's name and a brief idea of what it does.>
Copyright (C) <year> <name of author>

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Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) year name of author
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute
it
under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may

be called something other than `show w' and `show c'; they could even be
mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your
school, if any, to sign a "copyright disclaimer" for the program, if
necessary. Here is a sample; alter the names:

 Yoyodyne, Inc., hereby disclaims all copyright interest in the program
 `Gnomovision' (which makes passes at compilers) written by James Hacker.

 <signature of Ty Coon>, 1 April 1989
 Ty Coon, President of Vice

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Version 2.1, February 1999

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Finally, software

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We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

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is invoked, then you must make a good faith effort to ensure that,
in the event an application does not supply such function or
table, the facility still operates, and performs whatever part of
its purpose remains meaningful.

(For example, a function in a library to compute square roots has
a purpose that is entirely well-defined independent of the
application. Therefore, Subsection 2d requires that any
application-supplied function or table used by this function must
be optional: if the application does not supply it, the square
root function must still compute square roots.)

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or

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When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany

the work with the complete corresponding
machine-readable source code for the Library including whatever
changes were used in the work (which must be distributed under
Sections 1 and 2 above); and, if the work is an executable linked
with the Library, with the complete machine-readable "work that
uses the Library", as object code and/or source code, so that the
user can modify the Library and then relink to produce a modified
executable containing the modified Library. (It is understood
that the user who changes the contents of definitions files in the
Library will not necessarily be able to recompile the application
to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the
Library. A suitable mechanism is one that (1) uses at run time a
copy of the library already present on the user's computer system,
rather than copying library functions into the executable, and (2)
will operate
properly with a modified version of the library, if
the user installs one, as long as the modified version is
interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at
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than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy
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e) Verify that the user has already received a copy of these
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distributed (in either source or binary form) with the major
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It may happen that this requirement contradicts the license
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1.191 commons-compress 1.21

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The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

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```
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```

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```
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   Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
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```

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1.193 device-mapper-libs 1.02.170-6.el7_9.5

1.193.1 Available under license :

This package was debianized by Andres Salomon <dilinger@mp3revolution.net> on Wed, 20 Feb 2002 03:17:25 -0500.

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Version 2, June 1991

[This is the first released version of the library GPL. It is numbered 2 because it goes with version 2 of the ordinary GPL.]

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This option is useful when you wish to copy part of the code of the
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* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/schedulers/SchedulerLifecycle.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OnSubscribeReduce.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/util/SuppressAnimalSniffer.java
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/opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OnSubscribeTakeLastOne.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/DeferredScalarSubscriber.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/util/ExceptionsUtils.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OnSubscribeConcatMap.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OnSubscribeCollect.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/SingleOnSubscribeUsing.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OnSubscribeFromCallable.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/DeferredScalarSubscriberSafe.java
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/opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/SingleOperatorOnErrorResumeNext.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OnSubscribeReduceSeed.java

* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OnSubscribePublishMulticast.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/SingleOperatorZip.java
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* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/subjects/BehaviorSubject.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/functions/Action6.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/observables/GroupedObservable.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/schedulers/EventLoopsScheduler.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OnSubscribeAutoConnect.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/BlockingOperatorToFuture.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/plugins/RxJavaObservableExecutionHookDefault.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/subjects/ReplaySubject.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OperatorDoOnUnsubscribe.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/functions/Action2.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/CompletableOnSubscribeMergeIterable.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OperatorTimeInterval.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/functions/Func5.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OnSubscribeRedo.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-

jar/rx/internal/operators/OnSubscribeFilter.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/BlockingOperatorToIterator.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/observers/SafeSubscriber.java
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/opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/CompletableOnSubscribeMergeDelayErrorArray.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/schedulers/GenericScheduledExecutorService.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OperatorTakeLastTimed.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/CachedObservable.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/util/LinkedArrayList.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OperatorTakeUntilPredicate.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/functions/Func1.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/subscriptions/Subscriptions.java
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/opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/exceptions/Exceptions.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/subscriptions/SerialSubscription.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/subscriptions/CompositeSubscription.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OperatorSkipLastTimed.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OperatorMerge.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/exceptions/CompositeException.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/exceptions/OnErrorThrowable.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/schedulers/NewThreadScheduler.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/subjects/UnicastSubject.java
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/opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/exceptions/OnErrorFailedException.java
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* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/subjects/TestSubject.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/subjects/AsyncSubject.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/BlockingOperatorNext.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/functions/ActionN.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OperatorOnErrorResumeNextViaFunction.java
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* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/functions/FuncN.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OperatorScan.java
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* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/observables/AsyncOnSubscribe.java
*
/opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/util/BlockingUtils.java
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* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/SingleEmitter.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/CompletableFromEmitter.java
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This package contains code that relies on sun.misc.Unsafe. Before using it you MUST assert UnsafeAccess.isUnsafeAvailable() == true

Much of the code in this package comes from or is inspired by the JCTools project: https://github.com/JCTools/JCTools

JCTools has now published artifacts (https://github.com/JCTools/JCTools/issues/17) so RxJava could add JCTools as a "shadow" dependency (https://github.com/ReactiveX/RxJava/issues/1735).
RxJava has a "zero dependency" policy for the core library, so if we do add it as a dependency, it won't be an externally visible dependency that results in a separate jar.

The license for the JCTools code is https://github.com/JCTools/JCTools/blob/master/LICENSE

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*/

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* 2.  You may wrap/decorate an {@link Action0}, before it is handed off to a Scheduler.  The
 system-
* supplied Schedulers (Schedulers.ioScheduler, Schedulers.computationScheduler,
* Scheduler.newThreadScheduler) all use this hook, so it's a convenient way to
* modify Scheduler functionality without redefining Schedulers wholesale.
*
* Also, when redefining Schedulers, you are free to use/not use the onSchedule decoration hook.
* <p>
* See {@link RxJavaPlugins} or the RxJava GitHub Wiki for information on configuring plugins:
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* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/observers/SafeCompletableSubscriber.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/util/ActionObserver.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OnSubscribeThrow.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/observers/package-info.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/SingleTakeUntilCompletable.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/CompletableFlatMapSingleToCompletable.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/annotations/package-info.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/util/InternalObservableUtils.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/BackpressureOverflow.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/plugins/RxJavaCompletableExecutionHook.java
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* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/subscriptions/Unsubscribed.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OnSubscribeLift.java
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jar/rx/internal/operators/OnSubscribeOnAssemblyCompletable.java
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* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/SingleFromFuture.java
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/opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/NeverObservableHolder.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/observers/AsyncCompletableSubscriber.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-

jar/rx/internal/schedulers/SchedulePeriodicHelper.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/OnSubscribeFlattenIterable.java
* /opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/plugins/RxJavaHooks.java
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/opt/cola/permits/1199767188_1630583074.7/0/rxjava-1-3-8-sources-4-jar/rx/internal/operators/SingleDoOnSubscribe.java
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of this blurred distinction, using the ordinary General
Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference
between a
"work based on the library" and a "work that uses the library". The former contains code derived from the library, while the latter only works together with the library.

Note that it is possible for a library to be covered by the ordinary General Public License rather than by this special one.

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TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Library General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed
under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent
of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must
itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2,

instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the
Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative
work of the Library, and
therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline

functions (ten lines or less in length), then the use of
the object
file is unrestricted, regardless of whether it is legally a derivative
work. (Executables containing this object code plus portions of the
Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply
a copy of this License. If the work
during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Accompany the
work with a written offer, valid for at
least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by

modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

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11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in

certain countries either by patents or by copyrighted interfaces, the
original copyright holder who places the Library under this License may add
an explicit geographical distribution limitation excluding those countries,
so that distribution is permitted only in or among countries not thus
excluded. In such case, this License incorporates the limitation as if
written in the body of this License.

13. The Free Software Foundation may publish revised and/or new
versions of the Library General Public License from time to time.
Such new versions will be similar in spirit to the present version,
but may differ in detail to address new problems or concerns.

Each
version is given a distinguishing version number. If the Library
specifies a version number of this License which applies to it and
"any later version", you have the option of following the terms and
conditions either of that version or of any later version published by
the Free Software Foundation. If the Library does not specify a
license version number, you may choose any version ever published by
the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free
programs whose distribution conditions are incompatible with these,
write to the author to ask for permission. For software which is
copyrighted by the Free Software Foundation, write to the Free
Software Foundation; we sometimes make exceptions for this. Our
decision will be guided by the two goals of preserving the free status
of all derivatives of our free software and of promoting the sharing
and reuse of software generally.

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15. BECAUSE THE LIBRARY
IS LICENSED FREE OF CHARGE, THERE IS NO
WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW.
EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR
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KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE
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FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

Appendix: How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>
Copyright (C) <year>
<name of author>

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Library General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Library General Public License for more details.

You should have received a copy of the GNU Library General Public License along with this library; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary.
Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the
library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

That's all there is to it!

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Version 3, 29 June 2007

Preamble

The GNU General Public License is a free, copyleft license for software and other kinds of works.

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When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for them if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs, and that you know you can do these things.

To protect your rights, we need to prevent others from denying you these rights or asking you to surrender the rights. Therefore, you have certain responsibilities if you distribute copies of the software, or if you modify it: responsibilities to respect the freedom of others.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must pass on to the recipients the same freedoms that you received. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

Developers that use the GNU GPL protect your rights with two steps:

(1)
assert copyright on the software, and (2) offer you this License
giving you legal permission to copy, distribute and/or modify it.

For the developers' and authors' protection, the GPL clearly explains
that there is no warranty for this free software. For both users' and
authors' sake, the GPL requires that modified versions be marked as
changed, so that their problems will not be attributed erroneously to
authors of previous versions.

Some devices are designed to deny users access to install or run
modified versions of the software inside them, although the manufacturer
can do so. This is fundamentally incompatible with the aim of
protecting users' freedom to change the software. The systematic
pattern of such abuse occurs in the area of products for individuals to
use, which is precisely where it is most unacceptable. Therefore, we
have designed this version of the GPL to prohibit the practice for those
products. If such problems arise substantially in other domains, we
stand
ready to extend this provision to those domains in future versions
of the GPL, as needed to protect the freedom of users.

Finally, every program is threatened constantly by software patents.
States should not allow patents to restrict development and use of
software on general-purpose computers, but in those that do, we wish to
avoid the special danger that patents applied to a free program could
make it effectively proprietary. To prevent this, the GPL assures that
patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and
modification follow.

TERMS AND CONDITIONS

0. Definitions.

"This License" refers to version 3 of the GNU General Public License.

"Copyright" also means copyright-like laws that apply to other kinds of
works, such as semiconductor masks.

"The Program" refers to any copyrightable work licensed under this
License. Each licensee is addressed as "you". "Licensees"
and
"recipients" may be individuals or organizations.

To "modify" a work means to copy from or adapt all or part of the work
in a fashion requiring copyright permission, other than the making of an

exact copy. The resulting work is called a "modified version" of the earlier work or a work "based on" the earlier work.

A "covered work" means either the unmodified Program or a work based on the Program.

To "propagate" a work means to do anything with it that, without permission, would make you directly or secondarily liable for infringement under applicable copyright law, except executing it on a computer or modifying a private copy. Propagation includes copying, distribution (with or without modification), making available to the public, and in some countries other activities as well.

To "convey" a work means any kind of propagation that enables other parties to make or receive copies. Mere interaction with a user through a computer network, with no transfer of a copy, is
not conveying.

An interactive user interface displays "Appropriate Legal Notices" to the extent that it includes a convenient and prominently visible feature that (1) displays an appropriate copyright notice, and (2) tells the user that there is no warranty for the work (except to the extent that warranties are provided), that licensees may convey the work under this License, and how to view a copy of this License. If the interface presents a list of user commands or options, such as a menu, a prominent item in the list meets this criterion.

1. Source Code.

The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The
"System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to

produce the work, or an object code interpreter used to run it.

The "Corresponding Source" for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work's System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work.

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source.

The Corresponding Source for a work in source code form is that same work.

2. Basic Permissions.

All rights granted under this License are granted for the term of copyright on the Program, and are irrevocable provided the stated conditions are met. This License explicitly affirms your unlimited permission to run the unmodified Program. The output from running a covered work is covered by this License only if the output, given its content, constitutes a covered work. This License acknowledges your rights of fair use or other equivalent, as provided by copyright law.

You may make, run and propagate covered works that you do not convey, without conditions so long as your license otherwise remains in force. You may convey covered works to others for the sole purpose of having them make modifications exclusively for you, or provide you with facilities for running those works, provided that you comply with the terms of this License in conveying all material for which you do not control copyright. Those thus making or running the covered works for you must do so exclusively on your behalf, under your direction and control, on terms that prohibit them from making any copies of your copyrighted material outside their relationship with you.

Conveying under any other circumstances is permitted solely under the conditions stated below. Sublicensing is not allowed;

section 10
makes it unnecessary.

3. Protecting Users' Legal Rights From Anti-Circumvention Law.

No covered work shall be deemed part of an effective technological measure under any applicable law fulfilling obligations under article 11 of the WIPO copyright treaty adopted on 20 December 1996, or similar laws prohibiting or restricting circumvention of such measures.

When you convey a covered work, you waive any legal power to forbid circumvention of technological measures to the extent such circumvention is effected by exercising rights under this License with respect to the covered work, and you disclaim any intention to limit operation or modification of the work as a means of enforcing, against the work's users, your or third parties' legal rights to forbid circumvention of technological measures.

4. Conveying Verbatim Copies.

You may convey verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately
publish on each copy an appropriate copyright notice;
keep intact all notices stating that this License and any
non-permissive terms added in accord with section 7 apply to the code;
keep intact all notices of the absence of any warranty; and give all
recipients a copy of this License along with the Program.

You may charge any price or no price for each copy that you convey, and you may offer support or warranty protection for a fee.

5. Conveying Modified Source Versions.

You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions:

a) The work must carry prominent notices stating that you modified it, and giving a relevant date.

b) The work must carry prominent notices stating that it is released under this License and any conditions added under section 7. This requirement modifies the requirement in section
4 to
"keep intact all notices".

c) You must license the entire work, as a whole, under this License to anyone who comes into possession of a copy. This License will therefore apply, along with any applicable section 7 additional terms, to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permission to license the work in any other way, but it does not invalidate such permission if you have separately received it.

d) If the work has interactive user interfaces, each must display Appropriate Legal Notices; however, if the Program has interactive interfaces that do not display Appropriate Legal Notices, your work need not make them do so.

A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger program, in or on a volume of a storage or distribution medium, is called an "aggregate" if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this License to apply to the other parts of the aggregate.

6. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

a) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.

b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.

c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.

d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.

e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

A "User Product" is either (1) a "consumer product", which means any tangible personal property which is normally used for personal, family, or household purposes, or (2) anything designed or sold for incorporation into a dwelling. In determining whether a product is a consumer product, doubtful cases shall be resolved in favor of coverage. For a particular product received by a particular user, "normally used" refers to a typical or common use of that class of product, regardless of the status of the particular user or of the way in which the particular user actually uses, or expects or is expected to use, the product. A product is a consumer product regardless of whether the product has substantial commercial, industrial or non-consumer uses, unless such uses represent the only significant mode of use of the product.

"Installation Information" for a User Product means any methods, procedures, authorization keys, or other information required to install and execute modified versions of a covered work in that User Product from a modified version of its Corresponding Source. The information must suffice to ensure that the continued functioning of the modified object code is in no case prevented or interfered with solely because modification has been made.

If you convey an object code work under this section in, or with, or specifically for use in, a User Product, and the conveying occurs as part of a transaction in which the right of possession and use of the User Product is transferred to the recipient in perpetuity or for a fixed term (regardless of how the transaction is characterized), the Corresponding Source conveyed under this section must be accompanied by the Installation Information. But this requirement does not apply if neither you nor any third party retains the ability to install modified object code on the User Product (for example, the work has been installed in
ROM).

The requirement to provide Installation Information does not include a requirement to continue to provide support service, warranty, or updates for a work that has been modified or installed by the recipient, or for the User Product in which it has been modified or installed. Access to a network may be denied when the modification itself materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network.

Corresponding Source conveyed, and Installation Information provided, in accord with this section must be in a format that is publicly documented (and with an implementation available to the public in source code form), and must require no special password or key for unpacking, reading or copying.

7. Additional Terms.

"Additional permissions" are terms that supplement the terms of this License by making exceptions from one or more of its conditions. Additional permissions that are applicable to the
entire Program shall
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it with the complete corresponding machine-readable source code, which
must be distributed under the terms of Sections 1 and 2 above on a
medium customarily used for software interchange.

If distribution of object code is made by offering access to copy
from a designated place, then offering equivalent access to copy the
source code from the same place satisfies the requirement to
distribute the source code, even though third parties are not
compelled to copy the source along with the object code.

@item
A program that contains no derivative of any portion of the
Library, but is designed to work with the Library by being compiled or
linked with it, is called a ``work that uses the Library". Such a
work, in isolation, is not a derivative work of the Library, and
therefore falls outside the scope of this License.

However,
linking a ``work that uses the Library" with the Library
creates an executable that is a derivative of the Library (because it
contains portions of the Library), rather than a ``work that uses the
library". The executable is therefore covered by this License.

Section 6 states terms for distribution of such executables.

When a ``work that uses the Library'' uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work.
(Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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As an exception to the Sections above, you may also combine or link a ``work that uses the Library'' with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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you must include the
copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

@enumerate a
@item
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executable containing the modified Library. (It is understood
that the user who changes the contents of definitions files in the
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@item
Use a suitable shared library mechanism for linking with the Library. A
suitable mechanism is one that (1) uses at run time
a copy of the
library already present on the user's computer system, rather than
copying library functions into the executable, and (2) will operate
properly with a modified version of the library, if the user installs
one, as long as the modified version is interface-compatible with the
version that the work was made with.

@item
Accompany the work with a written offer, valid for at
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@item
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from a designated place, offer equivalent access to copy the above
specified materials from the same place.

@item
Verify that the user has already received a copy of these
materials or that you have already sent this user a copy.
@end enumerate

For an executable, the required form of the ``work that uses the
Library" must include any data and utility programs needed for
reproducing
the executable from it. However, as a special exception,
the materials to be distributed need not include anything that is
normally distributed (in either source or binary form) with the major
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which the executable runs, unless that component itself accompanies the
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It may happen that this requirement contradicts the license
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@item

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@enumerate a
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@end enumerate

@iftex
@heading END OF TERMS AND CONDITIONS
@end iftex
@ifinfo
@center END OF TERMS AND CONDITIONS
@end ifinfo

@page
@appendixsubsec How to Apply These Terms to Your New Libraries

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@end smallexample

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your

school, if any, to sign a ``copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

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`Frob' (a library for tweaking knobs) written by James Random Hacker.

@var{signature of Ty Coon}, 1 April 1990
Ty Coon, President of Vice
@end smallexample

That's all there is to it!
(This file is under construction.)   -*- text -*-

If you've contributed to gas and your name isn't listed here, it is not meant as a slight. I just don't know about it. Email me, nickc@redhat.com and I'll correct the situation.

This file will eventually be deleted: The general info will go into the documentation, and info on specific files will go into an AUTHORS file, as requested by the FSF.

++++++++++++++++

Dean Elsner wrote the original gas for vax. [more details?]

Jay Fenlason maintained gas for a while, adding support for gdb-specific debug information and the 68k series machines, most of the preprocessing pass, and extensive changes in messages.c, input-file.c, write.c.

K. Richard Pixley maintained gas for a while, adding various enhancements and many bug fixes, including merging support for several processors, breaking gas up to handle multiple object file format backends (including heavy rewrite, testing, an integration of the coff and b.out backends), adding configuration
 including heavy testing and
verification of cross assemblers and file splits and renaming, converted gas to strictly ansi C including full prototypes, added support for m680[34]0 & cpu32, considerable work on i960 including a coff port (including considerable amounts of reverse engineering), a sparc opcode file rewrite, decstation, rs6000, and hp300hpux host ports, updated "know" assertions and made them work, much other reorganization, cleanup, and lint.

Ken Raeburn wrote the high-level BFD interface code to replace most of the code in format-specific I/O modules.

The original Vax-VMS support was contributed by David L. Kashtan.
Eric Youngdale and Pat Rankin have done much work with it since.

The Intel 80386 machine description was written by Eliot Dresselhaus.

Minh Tran-Le at IntelliCorp contributed some AIX 386 support.

The Motorola 88k machine description was contributed by Devon Bowen of Buffalo University and Torbjorn Granlund of the Swedish Institute of Computer Science.

Keith
 Knowles at the Open Software Foundation wrote the original MIPS back end (tc-mips.c, tc-mips.h), and contributed Rose format support that hasn't been merged in yet. Ralph Campbell worked with the MIPS code to support a.out format.

Support for the Zilog Z8k and Hitachi H8/300, H8/500 and SH processors (tc-z8k, tc-h8300, tc-h8500, tc-sh), and IEEE 695 object file format (obj-ieee), was written by Steve Chamberlain of Cygnus Solutions. Steve also modified the COFF back end (obj-coffbfd) to use BFD for some low-level operations, for use with the Hitachi, 29k and Zilog targets.

John Gilmore built the AMD 29000 support, added .include support, and simplified the configuration of which versions accept which pseudo-ops. He updated the 68k machine description so that Motorola's opcodes always produced fixed-size instructions (e.g. jsr), while synthetic instructions remained shrinkable (jbsr). John fixed many bugs, including true tested cross-compilation support, and one bug in relaxation
 that took a week and required the proverbial one-bit fix.

Ian Lance Taylor of Cygnus Solutions merged the Motorola and MIT syntaxes for the 68k, completed support for some COFF targets (68k, i386 SVR3, and SCO Unix), wrote the ECOFF support based on Michael Meissner's mips-tfile program, wrote the PowerPC and RS/6000 support, and made a few other minor patches. He handled the binutils releases for versions 2.7 through 2.9.

David Edelsohn contributed fixes for the PowerPC and AIX support.

Steve Chamberlain made gas able to generate listings.

Support for the HP9000/300 was contributed by Glenn Engel of HP.

Support for ELF format files has been worked on by Mark Eichin of Cygnus Solutions (original, incomplete implementation), Pete

Hoogenboom at the University of Utah (HPPA mainly), Michael Meissner
of the Open Software Foundation (i386 mainly), and Ken Raeburn of
Cygnus Solutions (sparc, initial 64-bit support).

Several engineers at Cygnus Solutions have also provided many
small
bug fixes and configuration enhancements.

The initial Alpha support was contributed by Carnegie-Mellon
University. Additional work was done by Ken Raeburn of Cygnus
Solutions. Richard Henderson then rewrote much of the Alpha support.

Ian Dall updated the support code for the National Semiconductor 32000
series, and added support for Mach 3 and NetBSD running on the PC532.

Klaus Kaempf ported the assembler and the binutils to openVMS/Alpha.

Steve Haworth contributed the support for the Texas Instruction c30
(tms320c30).

H.J. Lu has contributed many patches and much testing.

Alan Modra reworked much of the i386 backend, improving the error
checking, updating the code, and improving the 16 bit support, using
patches from the work of Martynas Kunigelis and H.J. Lu.

Many others have contributed large or small bugfixes and enhancements. If
you've contributed significant work and are not mentioned on this list, and
want to be, let us know. Some of the history has been lost;
we aren't
intentionally leaving anyone out.

1.206 icu4j 69.1

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In addition, mere aggregation of another work not based on the Program
with the Program (or with a work based on the Program) on a volume of
a storage or distribution medium does not bring the other work under
the scope of this License.

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under Section 2) in object code or executable form under the terms of
Sections 1 and 2 above provided that you also
do one of the following:

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source code, which must be distributed under the terms of Sections
1 and 2 above on a medium customarily used for software interchange; or,

b) Accompany it with a written offer, valid for at least three
years, to give any third party, for a charge no more than your
cost of physically performing source distribution, a complete
machine-readable copy of the corresponding source code, to be
distributed under the terms of Sections 1 and 2 above on a medium
customarily used for software interchange; or,

c) Accompany it with the information you received as to the offer
to distribute corresponding source code. (This alternative is
allowed only for noncommercial distribution and only if you
received the program in object code or executable form with such
an offer, in accord with Subsection b above.)

The source code for a work means the preferred
form of the work for
making modifications to it. For an executable work, complete source
code means all the source code for all modules it contains, plus any
associated interface definition files, plus the scripts used to
control compilation and installation of the executable. However, as a
special exception, the source code distributed need not include
anything that is normally distributed (in either source or binary
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operating system on which the executable runs, unless that component
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If distribution of executable or object code is made by offering
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```
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```

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the same as in the ordinary license.

The reason we have a separate public license for some libraries is that
they blur the distinction we usually make between modifying or adding to a
program and simply using it. Linking a program with a library, without
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a textual and legal sense, the linked executable is a combined work, a
derivative of the original library, and the ordinary General Public License
treats it as such.

Because of this blurred distinction, using the ordinary General
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libraries did not effectively promote software
sharing, because most developers did not use the libraries. We
concluded that weaker conditions might promote sharing better.

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This option is useful when you wish to copy part of the code of
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4. You may copy and distribute
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medium customarily used for software interchange.

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When a "work that uses the Library" uses material from a header file

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(Executables containing this object code plus portions of the Library will still fall under Section 6.)

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That's all there is to it!

1.210 jackson 2.15.0

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Jackson JSON processor

Jackson is a high-performance, Free/Open Source JSON processing library.
It was originally written by Tatu Saloranta (tatu.saloranta@iki.fi), and has
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1.212 httpasyncclient 4.1.5

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1.216 log4j-api 2.17.1

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1.217 apache-log4j 2.17.1

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1.219 unzip 6.0-24.el7_9

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- -

There are currently two explicit copyrights on portions of UnZip code (at least, of which Info-ZIP is aware):
Jim Luther's Mac OS File Manager interface code; and Christopher Evans' MacBinaryIII coding code (for the MacOS port).. These copyrights are discussed in more detail below.

All remaining code is now (starting with UnZip version 5.41) covered by the new Info-ZIP license. For details, please read the acompaning file LICENSE. The terms and conditions in this license supersede the copyright conditions of the contributions by Igor Mandrichenko (vms/vms.c), Greg Roelofs (zipinfo.c, new version of unshrink.c), Mike White (Windows DLL code in "windll/*"), Steve P. Miller (Pocket UnZip GUI "wince/*"), and Mark Adler (inflate/explode decompresseion

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Frequently Asked Questions regarding (re)distribution of Zip and UnZip
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There are no known patents on any of the code in UnZip. Unisys
claims a patent on LZW encoding and on LZW decoding _in an apparatus
that performs LZW encoding_, but the patent appears to exempt a stand-
alone decoder (as in UnZip's unshrink.c). Unisys has publicly claimed
otherwise, but the issue has never been tested in court. Since this
point is unclear, unshrinking is not enabled by default. It is the
responsibility of the user to make his or her peace with Unisys and
its licensing requirements. (unshrink.c may be removed from future
releases altogether.)

The original unzip source code has been extensively modified and
almost entirely rewritten (changes include random zipfile access
rather than sequential; replacement of unimplode() with explode();
replacement of old unshrink() with new (unrelated) unshrink(); re-
placement of output routines; addition of inflate(), wildcards,
filename-mapping, text translation, ...; etc.). As far as we can
tell, only the core code of the unreduce method remained substantially
similar to Mr. Smith's original source. As of UnZip
5.42, the complete
core code is now covered by the Info-ZIP Licence. Therefore, support
for the reduce method has been removed.
The drop of the reduce method should only affect some test archives,
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For pathologic cases where support for reduced archive entries is
needed, the unreduce code copyrighted by Samuel H. Smith is available
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The following copyright applies to the Mac OS File Manager interface code
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 * MoreFiles
 *
 * A collection of File Manager and related routines
 *
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 * with significant code contributions by Nitin Ganatra
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*
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*
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* --
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"He says that he thought that whoever contacted him understood that he has no objection to the Info-ZIP group's inclusion of his code. His primary concern is that it remain freely distributable, he said."

Despite the fact that our "normal" code has been entirely rewritten and by default
no longer contains any of Mr. Smith's code, Info-ZIP remains indebted and grateful to him. We hope he finds our contributions as useful as we have his.

Note that the third and fourth stipulations still apply to any company that wishes to incorporate the unreduce code into its products; if you wish to do so, you must contact Mr. Smith directly regarding licensing.

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The decompression core code for the deflate method (inflate.[ch], explode.c) was originally written by Mark Adler who submitted it as public domain code.

1.220 hikaricp 4.0.3

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* /opt/cola/permits/1257217757_1642790274.61/0/hikaricp-4-0-3-sources-jar/com/zaxxer/hikari/pool/ProxyResultSet.java
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 /opt/cola/permits/1257217757_1642790274.61/0/hikaricp-4-0-3-sources-jar/com/zaxxer/hikari/hibernate/HikariConnectionProvider.java
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* /opt/cola/permits/1257217757_1642790274.61/0/hikaricp-4-0-3-sources-jar/com/zaxxer/hikari/metrics/PoolStats.java
* /opt/cola/permits/1257217757_1642790274.61/0/hikaricp-4-0-3-sources-jar/com/zaxxer/hikari/util/ClockSource.java

1.221 dom 1.0

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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ElementEditAS.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASNotationDeclaration.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASObject.java
*
 /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/CharacterDataEditAS.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/DOMImplementationAS.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASModel.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/DocumentAS.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASAttributeDeclaration.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASElementDeclaration.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASEntityDeclaration.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASNamedObjectMap.java
*

/opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASDataType.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASContentModel.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/DOMASWriter.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/DocumentEditAS.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASObjectList.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/DOMASBuilder.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/DOMASException.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/NodeEditAS.java
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*/
/**
* Checks if this content model has had its min/maxOccurs values reduced for
* purposes of speeding up UPA. If
so, this content model should not be used
* for any purpose other than checking unique particle attribution
*
* @return a boolean that says whether this content has been compacted for UPA
*/

Found in path(s):
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/models/XSCMValidator.java
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```
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*/
/**
  * DOM Level 3 LS CR - Experimental.
    * Create a new <code>LSParser</code>. The newly constructed parser may
    *
 then be configured by means of its <code>DOMConfiguration</code>
    * object, and used to parse documents by means of its <code>parse</code>
    *  method.
    * @param mode  The <code>mode</code> argument is either
    *   <code>MODE_SYNCHRONOUS</code> or <code>MODE_ASYNCHRONOUS</code>, if
    *   <code>mode</code> is <code>MODE_SYNCHRONOUS</code> then the
    *   <code>LSParser</code> that is created will operate in synchronous
    *   mode, if it's <code>MODE_ASYNCHRONOUS</code> then the
    *   <code>LSParser</code> that is created will operate in asynchronous
    *   mode.
    * @param schemaType  An absolute URI representing the type of the schema
    *   language used during the load of a <code>Document</code> using the
    *   newly created <code>LSParser</code>. Note that no lexical checking
    *   is done on the absolute URI. In order to create a
    *   <code>LSParser</code> for any kind of schema types (i.e. the
    *   LSParser will be free to use any schema
 found), use the value
    *   <code>null</code>.
    * <p ><b>Note:</b>    For W3C XML Schema [<a href='http://www.w3.org/TR/2001/REC-xmlschema-1-
20010502/'>XML Schema Part 1</a>]
    *   , applications must use the value
    *   <code>"http://www.w3.org/2001/XMLSchema"</code>. For XML DTD [<a
href='http://www.w3.org/TR/2000/REC-xml-20001006'>XML 1.0</a>],
    *   applications must use the value
    *   <code>"http://www.w3.org/TR/REC-xml"</code>. Other Schema languages
    *   are outside the scope of the W3C and therefore should recommend an
    *   absolute URI in order to use this method.
    * @return  The newly created <code>LSParser</code> object. This
```

```
    *   <code>LSParser</code> is either synchronous or asynchronous
    *   depending on the value of the <code>mode</code> argument.
    * <p ><b>Note:</b>    By default, the newly created <code>LSParser</code>
    *    does not contain a <code>DOMErrorHandler</code>, i.e. the value of
    *   the "<a href='http://www.w3.org/TR/2003/WD-DOM-Level-3-Core-20030609/core.html#parameter-error-
handler'>
     *   error-handler</a>" configuration parameter is <code>null</code>. However, implementations
    *   may provide a default error handler at creation time. In that case,
    *   the initial value of the <code>"error-handler"</code> configuration
    *   parameter on the new created <code>LSParser</code> contains a
    *   reference to the default error handler.
    * @exception DOMException
    *    NOT_SUPPORTED_ERR: Raised if the requested mode or schema type is
    *   not supported.
  */
```

Found in path(s):
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom/CoreDOMImplementationImpl.java
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/traversers/XSDocumentInfo.java
*
 /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/traversers/XSDElementTraverser.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xni/parser/XMLErrorHandler.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/html/dom/HTMLFrameElementImpl.java

* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/util/XMLEntityDescriptionImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/util/ShadowedSymbolTable.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/util/ObjectListImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/dom/WMLImgElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/WMLOptgroupElement.java
*
/opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xni/parser/XMLInputSource.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/WMLImgElement.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom/DeferredCDATASectionImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/traversers/XSDAbstractIDConstraintTraverser.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/dom/WMLTimerElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xs/XSParticle.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/dom/WMLWmlElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dv/xs/AnySimpleDV.java
*
/opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xs/StringList.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/WMLTimerElement.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xpath/regex/CaseInsensitiveMap.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/opti/SchemaDOMImplementation.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/opti/DefaultXMLDocumentHandler.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom/DeferredElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/WMLAnchorElement.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xml/serialize/HTMLSerializer.java
*
/opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/html/dom/HTMLHtmlElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-

jar/org/apache/xerces/stax/DefaultNamespaceContext.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xinclude/MultipleScopeNamespaceSupport.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/opti/SchemaParsingConfig.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dtd/XML11NSDTDValidator.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xpointer/XPointerMessageFormatter.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xs/XSException.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/dom/WMLMetaElementImpl.java
*
 /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/html/dom/HTMLQuoteElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/util/EncodingMap.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xinclude/XIncludeTextReader.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom/DOMInputImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/html/dom/ObjectFactory.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xpointer/XPointerHandler.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/util/XMLCatalogResolver.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/jaxp/TeeXMLDocumentFilterImpl.java
*
 /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/html/dom/HTMLTableSectionElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dtd/models/CMStateSet.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dv/xs/Base64BinaryDV.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/jaxp/validation/DraconianErrorHandler.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/jaxp/JAXPValidatorComponent.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/html/dom/HTMLTitleElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/parsers/XML11NonValidatingConfiguration.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom/ElementDefinitionImpl.java
*

/opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dtd/XMLElementDecl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/XSAttributeGroupDecl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/parsers/AbstractDOMParser.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/html/dom/HTMLSelectElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/html/dom/HTMLLabelElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/html/dom/HTMLFieldSetElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/dom/WMLCardElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/util/ShortListImpl.java
*
/opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dv/util/Base64.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom/CDATASectionImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/jaxp/validation/XSGrammarPoolContainer.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/models/CMBuilder.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/WMLMetaElement.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dv/XSSimpleType.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dv/xs/XSSimpleTypeDelegate.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/opti/SchemaDOMParser.java
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/opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xpath/regex/RegularExpression.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/opti/ElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom/events/UIEventImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xml/serialize/Method.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/stax/events/EntityReferenceImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xs/datatypes/ByteList.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/html/dom/HTMLBodyElementImpl.java

* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dtd/XMLNSDTDValidator.java
*
 /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/models/XSCMBinOp.java
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/html/dom/HTMLOptionElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/WMLElement.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/html/dom/HTMLParamElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom/TreeWalkerImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dv/dtd/XML11DTDDVFactoryImpl.java
*
 /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xpath/regex/ParseException.java

* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xni/parser/XMLDTDFilter.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dtd/XMLDTDValidator.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/traversers/XSDNotationTraverser.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xni/grammars/XMLSchemaDescription.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/jaxp/validation/DOMResultBuilder.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/dom/WMLAnchorElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/html/dom/HTMLModElementImpl.java
*
/opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/dom/WMLDocumentImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom/DeferredElementNSImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/html/dom/HTMLTableCaptionElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/XMLEntityHandler.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/parsers/StandardParserConfiguration.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/models/XSAllCM.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/opti/AttrImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/dom/WMLFieldsetElementImpl.java
*
/opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/dom/WMLDoElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xpath/regex/RangeToken.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/parsers/DOMASBuilderImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/html/dom/NameNodeListImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/dom/WMLDOMImplementationImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/io/UCSReader.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/parsers/XIncludeAwareParserConfiguration.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/RevalidationHandler.java

*
 /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xs/XSValue.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom/NodeImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dv/dtd/XML11IDREFDatatypeValidator.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xni/parser/XMLConfigurationException.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/util/AttributesProxy.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/jaxp/validation/ValidatorImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/parsers/XMLGrammarParser.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dtd/XMLSimpleType.java
*
 /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/SchemaNamespaceSupport.java
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*/
/**
    * used to check the 3 constraints against each complex type
    * (should be each model group):
    * Unique Particle
 Attribution, Particle Derivation (Restriction),
    * Element Declrations Consistent.
    */

Found in path(s):
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/XSConstraints.java
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*
 /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dv/xs/YearDV.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/traversers/XSDKeyrefTraverser.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dv/xs/DateDV.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-

jar/org/apache/xerces/impl/dv/xs/DateTimeDV.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/traversers/XSDUniqueOrKeyTraverser.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dv/xs/MonthDV.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dv/xs/DurationDV.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dv/xs/MonthDayDV.java
*
 /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dv/xs/TimeDV.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/traversers/XSAttributeChecker.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dv/xs/YearMonthDV.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/XSModelGroupImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dv/xs/XSSimpleTypeDecl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/traversers/XSDHandler.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dv/xs/DayDV.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/XMLSchemaValidator.java
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xpath/regex/message.properties
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/msg/DOMMessages.properties
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/msg/XPointerMessages.properties
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/msg/DatatypeMessages.properties
*
 /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xpath/regex/message_fr.properties

* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/msg/SAXMessages.properties
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/msg/XIncludeMessages.properties
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/msg/XMLMessages.properties
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/msg/XMLSerializerMessages.properties
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xpath/regex/message_ja.properties
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/msg/JAXPValidationMessages.properties

1.222 hdrhistogram 2.1.8

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* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/Version.java
* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/RecordedValuesIterator.java
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* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/AbstractHistogramIterator.java
* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/SingleWriterRecorder.java
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* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/HistogramLogProcessor.java
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* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/ShortCountsHistogram.java
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 /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/ZigZagEncoding.java
* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/LogarithmicIterator.java
* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/LinearIterator.java
* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/DoubleAllValuesIterator.java
* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/Recorder.java
* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/DoubleHistogram.java
* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/AtomicHistogram.java
* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/DoubleRecorder.java
*

/opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/AbstractHistogram.java
* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/SingleWriterDoubleRecorder.java
* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/ConcurrentDoubleHistogram.java
* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/PercentileIterator.java
* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/AllValuesIterator.java
* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/DoubleRecordedValuesIterator.java
* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/DoubleLogarithmicIterator.java
* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/ConcurrentHistogram.java
* /opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/AbstractHistogramLogReader.java
*
/opt/cola/permits/1257262326_1642793354.36/0/hdrhistogram-2-1-8-sources-jar/org/HdrHistogram/EncodableHistogram.java

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*
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package org.HdrHistogram;

final class Version {
   public static final String version="$VERSION$";
   public static final String build_time="$BUILD_TIME$";
}
```

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1.223 opentracing-noop 0.31.0

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* /opt/cola/permits/1257262334_1642793362.32/0/opentracing-noop-0-31-0-sources-jar/io/opentracing/noop/NoopSpan.java
* /opt/cola/permits/1257262334_1642793362.32/0/opentracing-noop-0-31-0-sources-jar/io/opentracing/noop/NoopScopeManager.java
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 /opt/cola/permits/1257262334_1642793362.32/0/opentracing-noop-0-31-0-sources-jar/io/opentracing/noop/NoopSpanContext.java
* /opt/cola/permits/1257262334_1642793362.32/0/opentracing-noop-0-31-0-sources-jar/io/opentracing/noop/NoopTracer.java
* /opt/cola/permits/1257262334_1642793362.32/0/opentracing-noop-0-31-0-sources-jar/io/opentracing/noop/NoopTracerFactory.java
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* /opt/cola/permits/1257262334_1642793362.32/0/opentracing-noop-0-31-0-sources-jar/META-INF/maven/io.opentracing/opentracing-noop/pom.xml

1.224 jetty-setuid-java 1.0.4

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* /opt/cola/permits/1257333122_1642801905.86/0/jetty-setuid-java-1-0-4-sources-jar/org/eclipse/jetty/setuid/SetUIDListener.java
* /opt/cola/permits/1257333122_1642801905.86/0/jetty-setuid-java-1-0-4-sources-jar/org/eclipse/jetty/setuid/SetUIDServer.java
* /opt/cola/permits/1257333122_1642801905.86/0/jetty-setuid-java-1-0-4-sources-jar/org/eclipse/jetty/setuid/SetUID.java
* /opt/cola/permits/1257333122_1642801905.86/0/jetty-setuid-java-1-0-4-sources-jar/org/eclipse/jetty/setuid/Group.java
* /opt/cola/permits/1257333122_1642801905.86/0/jetty-setuid-java-1-0-4-sources-jar/org/eclipse/jetty/setuid/RLimit.java
*
 /opt/cola/permits/1257333122_1642801905.86/0/jetty-setuid-java-1-0-4-sources-jar/org/eclipse/jetty/setuid/Passwd.java

1.225 profiler 1.1.1

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jar/com/google/appengine/tools/appstats/MiniProfilerAppstats.java
* /opt/cola/permits/1257333100_1642801922.15/0/gae-mini-profiler-1-1-1-sources-jar/ca/jimr/gae/profiler/MiniProfiler.java
* /opt/cola/permits/1257333100_1642801922.15/0/gae-mini-profiler-1-1-1-sources-jar/ca/jimr/gae/profiler/MiniProfilerFilter.java
* /opt/cola/permits/1257333100_1642801922.15/0/gae-mini-profiler-1-1-1-sources-jar/ca/jimr/gae/profiler/resources/MiniProfilerResourceLoader.java
* /opt/cola/permits/1257333100_1642801922.15/0/gae-mini-profiler-1-1-1-sources-jar/ca/jimr/gae/profiler/MiniProfilerServlet.java

1.226 jackson-module-afterburner 2.10.5

1.226.1 Available under license :

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1.227 accessors-smart 2.4.7

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* /opt/cola/permits/1257367618_1642806643.41/0/accessors-smart-2-4-7-sources-jar/net/minidev/asm/DynamicClassLoader.java
* /opt/cola/permits/1257367618_1642806643.41/0/accessors-smart-2-4-7-sources-jar/net/minidev/asm/BeansAccess.java
*
 /opt/cola/permits/1257367618_1642806643.41/0/accessors-smart-2-4-7-sources-jar/net/minidev/asm/ASMUtil.java

1.228 dagger 2.4

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* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/internal/MapFactory.java
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/Component.java
*
/opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/internal/InstanceFactory.java
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/internal/SingleCheck.java
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/internal/Factory.java
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* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/multibindings/IntKey.java
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/multibindings/StringKey.java
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/opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/multibindings/LongKey.java
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/internal/Beta.java
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/multibindings/ClassKey.java
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* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/Binds.java
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/internal/Preconditions.java
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/opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/internal/DoubleCheck.java
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-
jar/dagger/multibindings/ElementsIntoSet.java
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/multibindings/IntoMap.java
* /opt/cola/permits/1257772315_1643010337.24/0/dagger-2-4-sources-jar/dagger/multibindings/package-info.java
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1.229 paranamer 2.5.1

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* /opt/cola/permits/1257772269_1643010353.74/0/paranamer-2-5-1-sources-jar/com/thoughtworks/paranamer/ParameterNamesNotFoundException.java
*
/opt/cola/permits/1257772269_1643010353.74/0/paranamer-2-5-1-sources-jar/com/thoughtworks/paranamer/CachingParanamer.java
* /opt/cola/permits/1257772269_1643010353.74/0/paranamer-2-5-1-sources-jar/com/thoughtworks/paranamer/DefaultParanamer.java
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* /opt/cola/permits/1257772269_1643010353.74/0/paranamer-2-5-1-sources-jar/com/thoughtworks/paranamer/JavadocParanamer.java

1.230 jctools-core 3.3.0

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* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/atomic/AtomicQueueFactory.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/ConcurrentCircularArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/atomic/SequencedAtomicReferenceArrayQueue.java
*
/opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/spec/Preference.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/package-info.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/spec/Ordering.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/IndexedQueueSizeUtil.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/atomic/SpscChunkedAtomicArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/MpmcUnboundedXaddChunk.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/atomic/SpscAtomicArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/util/RangeUtil.java
*
/opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/util/PaddedAtomicLong.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/atomic/BaseLinkedAtomicQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/QueueFactory.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/LinkedQueueNode.java

* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/atomic/MpscAtomicArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/MpscUnboundedXaddArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/MessagePassingQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/MpscBlockingConsumerArrayQueue.java
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* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/MpscLinkedQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/MpscChunkedArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/SpscArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/util/UnsafeRefArrayAccess.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/maps/AbstractEntry.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/maps/NonBlockingSetInt.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/ConcurrentSequencedCircularArrayQueue.java
*
 /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/atomic/SpscUnboundedAtomicArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/atomic/MpscUnboundedAtomicArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/SpmcArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/BaseSpscLinkedArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/BaseLinkedQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/maps/NonBlockingHashSet.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/util/UnsafeJvmInfo.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/atomic/BaseMpscLinkedAtomicArrayQueue.java
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 /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/MessagePassingQueueUtil.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/MpscCompoundQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-

jar/org/jctools/maps/NonBlockingIdentityHashMap.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/atomic/AtomicReferenceArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/MpscUnboundedXaddChunk.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/maps/ConcurrentAutoTable.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/atomic/LinkedQueueAtomicNode.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/atomic/SpscLinkedAtomicQueue.java
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* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/SpscLinkedQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/MpscGrowableArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/spec/ConcurrentQueueSpec.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/util/UnsafeAccess.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/MpscUnboundedArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/MpmcArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/SupportsIterator.java
*
/opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/MpscArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/MpmcUnboundedXaddArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/SpscChunkedArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/util/UnsafeLongArrayAccess.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/atomic/BaseSpscLinkedAtomicArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/atomic/MpscChunkedAtomicArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/SpscUnboundedArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/util/InternalAPI.java
*
/opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/maps/NonBlockingHashMap.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/atomic/MpscGrowableAtomicArrayQueue.java

* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/SpscGrowableArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/atomic/SpscGrowableAtomicArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/util/PortableJvmInfo.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/BaseMpscLinkedArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/queues/atomic/SpmcAtomicArrayQueue.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/maps/NonBlockingHashMapLong.java
* /opt/cola/permits/1257772382_1643010290.62/0/jctools-core-3-3-0-sources-jar/org/jctools/util/Pow2.java

1.231 grpc-protobuf-lite 1.37.0

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* /opt/cola/permits/1257772239_1643010288.95/0/grpc-protobuf-lite-1-37-0-sources-jar/io/grpc/protobuf/lite/ProtoLiteUtils.java
* /opt/cola/permits/1257772239_1643010288.95/0/grpc-protobuf-lite-1-37-0-sources-jar/io/grpc/protobuf/lite/ProtoInputStream.java

1.232 grpc-protobuf 1.37.0

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* /opt/cola/permits/1257772115_1643010331.15/0/grpc-protobuf-1-37-0-sources-jar/io/grpc/protobuf/StatusProto.java
* /opt/cola/permits/1257772115_1643010331.15/0/grpc-protobuf-1-37-0-sources-jar/io/grpc/protobuf/package-info.java
*
 /opt/cola/permits/1257772115_1643010331.15/0/grpc-protobuf-1-37-0-sources-jar/io/grpc/protobuf/ProtoMethodDescriptorSupplier.java

1.233 jcip-annotation 1.0-1

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* /opt/cola/permits/1257847088_1643019261.83/0/jcip-annotations-1-0-1-sources-jar/net/jcip/annotations/NotThreadSafe.java
* /opt/cola/permits/1257847088_1643019261.83/0/jcip-annotations-1-0-1-sources-jar/net/jcip/annotations/ThreadSafe.java
*
/opt/cola/permits/1257847088_1643019261.83/0/jcip-annotations-1-0-1-sources-jar/net/jcip/annotations/GuardedBy.java

1.234 netty-codec 4.1.70.Final

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* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/protobuf/ProtobufEncoderNano.java
*
 /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/ProtocolDetectionResult.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/HeadersUtils.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/protobuf/ProtobufEncoder.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/protobuf/ProtobufVarint32FrameDecoder.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/UnsupportedValueConverter.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/protobuf/ProtobufVarint32LengthFieldPrepender.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/protobuf/ProtobufDecoder.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/ProtocolDetectionState.java
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* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-

jar/io/netty/handler/codec/CodecOutputList.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/DatagramPacketDecoder.java
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/opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/string/LineEncoder.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/DatagramPacketEncoder.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/compression/CompressionUtil.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/DateFormatter.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/compression/ByteBufChecksum.java
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* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/xml/XmlFrameDecoder.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/compression/Crc32c.java
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* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/compression/ZstdOptions.java
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* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/compression/Zstd.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/compression/BrotliDecoder.java

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* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/compression/ZstdConstants.java
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* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/compression/Lz4FrameDecoder.java
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/*
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* https://creativecommons.org/licenses/publicdomain
*/
/**
* Utility class for {@link ByteBuf} that encodes and decodes to and from
* Base64 notation.
* <p>
 * The encoding and decoding algorithm in this class has been derived from
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* Base64 Encoder/Decoder.
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* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/MessageToMessageDecoder.java
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* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/marshalling/package-info.java
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 /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/serialization/ClassResolver.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/LengthFieldPrepender.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/DecoderException.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/serialization/CompatibleObjectEncoder.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/ByteToMessageCodec.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/LineBasedFrameDecoder.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-

jar/io/netty/handler/codec/compression/ZlibUtil.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/marshalling/MarshallingDecoder.java
*
/opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/marshalling/ContextBoundUnmarshallerProvider.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/serialization/ClassLoaderClassResolver.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/serialization/ObjectEncoder.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/serialization/CompactObjectInputStream.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/MessageAggregator.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/compression/Snappy.java
*
/opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/marshalling/ThreadLocalMarshallerProvider.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/serialization/ObjectDecoder.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/UnsupportedMessageTypeException.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/marshalling/ChannelBufferByteOutput.java
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* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/META-INF/maven/io.netty/netty-codec/pom.xml
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* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/ValueConverter.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/CharSequenceValueConverter.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/DefaultHeadersImpl.java
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*/
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*/
/**
* Enumeration of supported Base64 dialects.
* <p>
* The internal lookup tables in this class has been derived from
* Robert

Harder's Public Domain
* Base64 Encoder/Decoder.
*/

Found in path(s):
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/base64/Base64Dialect.java
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* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/DefaultHeaders.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/EmptyHeaders.java
* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/Headers.java
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```
*/
/**
* A decoder that splits the received {@link ByteBuf}s dynamically by the
* value of the length field in the message.  It is particularly useful when you
* decode a binary message which has an integer header field that represents the
* length of the message body or the whole message.
*
 <p>
* {@link LengthFieldBasedFrameDecoder} has many configuration parameters so
* that it can decode any message with a length field, which is often seen in
* proprietary client-server protocols. Here are some example that will give
* you the basic idea on which option does what.
*
* <h3>2 bytes length field at offset 0, do not strip header</h3>
*
* The value of the length field in this example is <tt>12 (0x0C)</tt> which
* represents the length of "HELLO, WORLD".  By default, the decoder assumes
* that the length field represents the number of the bytes that follows the
* length field.  Therefore, it can be decoded with the simplistic parameter
* combination.
* <pre>
* <b>lengthFieldOffset</b>   = <b>0</b>
* <b>lengthFieldLength</b>   = <b>2</b>
* lengthAdjustment    = 0
* initialBytesToStrip = 0 (= do not strip header)
*
* BEFORE DECODE (14 bytes)         AFTER DECODE (14 bytes)
* +--------+----------------+      +--------+----------------+
* | Length | Actual Content
 |----->| Length | Actual Content |
* | 0x000C | "HELLO, WORLD" |      | 0x000C | "HELLO, WORLD" |
* +--------+----------------+      +--------+----------------+
* </pre>
*
* <h3>2 bytes length field at offset 0, strip header</h3>
*
* Because we can get the length of the content by calling
* {@link ByteBuf#readableBytes()}, you might want to strip the length
* field by specifying <tt>initialBytesToStrip</tt>.  In this example, we
* specified <tt>2</tt>, that is same with the length of the length field, to
* strip the first two bytes.
* <pre>
* lengthFieldOffset   = 0
* lengthFieldLength   = 2
* lengthAdjustment    = 0
* <b>initialBytesToStrip</b> = <b>2</b> (= the length of the Length field)
*
* BEFORE DECODE (14 bytes)         AFTER DECODE (12 bytes)
```

```
* +--------+----------------+      +----------------+
* | Length | Actual Content |----->| Actual Content |
* | 0x000C | "HELLO, WORLD" |      | "HELLO, WORLD" |
* +--------+----------------+      +----------------+
 * </pre>
*
* <h3>2 bytes length field at offset 0, do not strip header, the length field
*     represents the length of the whole message</h3>
*
* In most cases, the length field represents the length of the message body
* only, as shown in the previous examples.  However, in some protocols, the
* length field represents the length of the whole message, including the
* message header.  In such a case, we specify a non-zero
* <tt>lengthAdjustment</tt>.  Because the length value in this example message
* is always greater than the body length by <tt>2</tt>, we specify <tt>-2</tt>
* as <tt>lengthAdjustment</tt> for compensation.
* <pre>
* lengthFieldOffset   =  0
* lengthFieldLength   =  2
* <b>lengthAdjustment</b>    = <b>-2</b> (= the length of the Length field)
* initialBytesToStrip =  0
*
* BEFORE DECODE (14 bytes)         AFTER DECODE (14 bytes)
* +--------+----------------+      +--------+----------------+
* | Length | Actual Content |----->| Length | Actual
 Content |
* | 0x000E | "HELLO, WORLD" |      | 0x000E | "HELLO, WORLD" |
* +--------+----------------+      +--------+----------------+
* </pre>
*
* <h3>3 bytes length field at the end of 5 bytes header, do not strip header</h3>
*
* The following message is a simple variation of the first example.  An extra
* header value is prepended to the message.  <tt>lengthAdjustment</tt> is zero
* again because the decoder always takes the length of the prepended data into
* account during frame length calculation.
* <pre>
* <b>lengthFieldOffset</b>   = <b>2</b> (= the length of Header 1)
* <b>lengthFieldLength</b>   = <b>3</b>
* lengthAdjustment    = 0
* initialBytesToStrip = 0
*
* BEFORE DECODE (17 bytes)                      AFTER DECODE (17 bytes)
* +----------+----------+----------------+      +----------+----------+----------------+
* | Header 1 |  Length  | Actual Content |----->| Header 1 |  Length  | Actual Content |
* |  0xCAFE  | 0x00000C | "HELLO, WORLD" |
 |  0xCAFE  | 0x00000C | "HELLO, WORLD" |
* +----------+----------+----------------+      +----------+----------+----------------+
```

```
* </pre>
*
* <h3>3 bytes length field at the beginning of 5 bytes header, do not strip header</h3>
*
* This is an advanced example that shows the case where there is an extra
* header between the length field and the message body.  You have to specify a
* positive <tt>lengthAdjustment</tt> so that the decoder counts the extra
* header into the frame length calculation.
* <pre>
* lengthFieldOffset   = 0
* lengthFieldLength   = 3
* <b>lengthAdjustment</b>    = <b>2</b> (= the length of Header 1)
* initialBytesToStrip = 0
*
* BEFORE DECODE (17 bytes)                      AFTER DECODE (17 bytes)
* +----------+----------+----------------+      +----------+----------+----------------+
* |  Length  | Header 1 | Actual Content |----->|  Length  | Header 1 | Actual Content |
* | 0x00000C |  0xCAFE  | "HELLO, WORLD" |      | 0x00000C |  0xCAFE  | "HELLO,
 WORLD" |
* +----------+----------+----------------+      +----------+----------+----------------+
* </pre>
*
* <h3>2 bytes length field at offset 1 in the middle of 4 bytes header,
*     strip the first header field and the length field</h3>
*
* This is a combination of all the examples above.  There are the prepended
* header before the length field and the extra header after the length field.
* The prepended header affects the <tt>lengthFieldOffset</tt> and the extra
* header affects the <tt>lengthAdjustment</tt>.  We also specified a non-zero
* <tt>initialBytesToStrip</tt> to strip the length field and the prepended
* header from the frame.  If you don't want to strip the prepended header, you
* could specify <tt>0</tt> for <tt>initialBytesToSkip</tt>.
* <pre>
* lengthFieldOffset   = 1 (= the length of HDR1)
* lengthFieldLength   = 2
* <b>lengthAdjustment</b>    = <b>1</b> (= the length of HDR2)
* <b>initialBytesToStrip</b> = <b>3</b> (= the length of HDR1 +
 LEN)
*
* BEFORE DECODE (16 bytes)                       AFTER DECODE (13 bytes)
* +------+--------+------+----------------+      +------+----------------+
* | HDR1 | Length | HDR2 | Actual Content |----->| HDR2 | Actual Content |
* | 0xCA | 0x000C | 0xFE | "HELLO, WORLD" |      | 0xFE | "HELLO, WORLD" |
* +------+--------+------+----------------+      +------+----------------+
* </pre>
*
* <h3>2 bytes length field at offset 1 in the middle of 4 bytes header,
*     strip the first header field and the length field, the length field
```

```
*     represents the length of the whole message</h3>
*
* Let's give another twist to the previous example.  The only difference from
* the previous example is that the length field represents the length of the
* whole message instead of the message body, just like the third example.
* We have to count the length of HDR1 and Length into <tt>lengthAdjustment</tt>.
* Please note that we don't need to take the length of HDR2 into account
* because
 the length field already includes the whole header length.
* <pre>
* lengthFieldOffset   =  1
* lengthFieldLength   =  2
* <b>lengthAdjustment</b>    = <b>-3</b> (= the length of HDR1 + LEN, negative)
* <b>initialBytesToStrip</b> = <b> 3</b>
*
* BEFORE DECODE (16 bytes)                       AFTER DECODE (13 bytes)
* +------+--------+------+----------------+      +------+----------------+
* | HDR1 | Length | HDR2 | Actual Content |----->| HDR2 | Actual Content |
* | 0xCA | 0x0010 | 0xFE | "HELLO, WORLD" |      | 0xFE | "HELLO, WORLD" |
* +------+--------+------+----------------+      +------+----------------+
* </pre>
* @see LengthFieldPrepender
*/
```

Found in path(s):

* /opt/cola/permits/1257888635_1643019970.33/0/netty-codec-4-1-70-final-sources-jar/io/netty/handler/codec/LengthFieldBasedFrameDecoder.java

1.235 netty-transport 4.1.70.Final

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* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/PendingWriteQueue.java
*
 /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/ReflectiveChannelFactory.java
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* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/embedded/EmbeddedChannel.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-

jar/io/netty/channel/ChannelFutureListener.java
*
/opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/DefaultChannelPromise.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/local/package-info.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/embedded/EmbeddedSocketAddress.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/DefaultChannelPipeline.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/oio/OioDatagramChannel.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/nio/NioDatagramChannelConfig.java
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/opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/oio/AbstractOioChannel.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/embedded/package-info.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/EventLoopGroup.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/local/LocalEventLoopGroup.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/embedded/EmbeddedEventLoop.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/DefaultChannelConfig.java
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* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/AdaptiveRecvByteBufAllocator.java
*
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* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/DatagramPacket.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/DefaultSocketChannelConfig.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/nio/NioServerSocketChannel.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/AbstractChannel.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/ChannelMetadata.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/VoidChannelPromise.java

*
 /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/EventLoop.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/DefaultServerSocketChannelConfig.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/ServerChannel.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/oio/AbstractOioByteChannel.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/group/ChannelGroupFuture.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/ChannelHandlerContext.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/local/LocalChannel.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/ChannelFlushPromiseNotifier.java
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 /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/ChannelInboundHandler.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/ServerSocketChannelConfig.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/CombinedChannelDuplexHandler.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/bootstrap/package-info.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/SocketChannelConfig.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/nio/NioDatagramChannel.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/nio/AbstractNioChannel.java
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* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/ChannelPipelineException.java
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* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/nio/NioEventLoop.java
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* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/DefaultMaxMessagesRecvByteBufAllocator.java
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* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/pool/ChannelHealthChecker.java
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```
*/
/**
* Handles an I/O event or intercepts an I/O operation, and forwards it to its next handler in
* its {@link ChannelPipeline}.
*
* <h3>Sub-types</h3>
* <p>
* {@link ChannelHandler} itself does not provide many methods, but you usually have to implement one of its
subtypes:
* <ul>
* <li>{@link
 ChannelInboundHandler} to handle inbound I/O events, and</li>
* <li>{@link ChannelOutboundHandler} to handle outbound I/O operations.</li>
* </ul>
* </p>
* <p>
* Alternatively, the following adapter classes are provided for your convenience:
* <ul>
* <li>{@link ChannelInboundHandlerAdapter} to handle inbound I/O events,</li>
* <li>{@link ChannelOutboundHandlerAdapter} to handle outbound I/O operations, and</li>
* <li>{@link ChannelDuplexHandler} to handle both inbound and outbound events</li>
* </ul>
* </p>
* <p>
* For more information, please refer to the documentation of each subtype.
* </p>
*
* <h3>The context object</h3>
* <p>
* A {@link ChannelHandler} is provided with a {@link ChannelHandlerContext}
* object.  A {@link ChannelHandler} is supposed to interact with the
* {@link ChannelPipeline} it belongs to via a context object.  Using the
* context object, the {@link ChannelHandler} can pass events upstream or
* downstream, modify the pipeline dynamically,
 or store the information
* (using {@link AttributeKey}s) which is specific to the handler.
*
* <h3>State management</h3>
*
* A {@link ChannelHandler} often needs to store some stateful information.
* The simplest and recommended approach is to use member variables:
* <pre>
* public interface Message {
*     // your methods here
* }
*
* public class DataServerHandler extends {@link SimpleChannelInboundHandler}&lt;Message&gt; {
*
```

```
*     <b>private boolean loggedIn;</b>
*
*     {@code @Override}
*     public void channelRead0({@link ChannelHandlerContext} ctx, Message message) {
*         if (message instanceof LoginMessage) {
*             authenticate((LoginMessage) message);
*             <b>loggedIn = true;</b>
*         } else (message instanceof GetDataMessage) {
*             if (<b>loggedIn</b>) {
*                 ctx.writeAndFlush(fetchSecret((GetDataMessage) message));
*             } else {
*                 fail();
*             }
*
 }
*     }
*     ...
* }
* </pre>
* Because the handler instance has a state variable which is dedicated to
* one connection, you have to create a new handler instance for each new
* channel to avoid a race condition where a unauthenticated client can get
* the confidential information:
* <pre>
* // Create a new handler instance per channel.
* // See {@link ChannelInitializer#initChannel(Channel)}.
* public class DataServerInitializer extends {@link ChannelInitializer}&lt;{@link Channel}&gt; {
*     {@code @Override}
*     public void initChannel({@link Channel} channel) {
*         channel.pipeline().addLast("handler", <b>new DataServerHandler()</b>);
*     }
* }
*
* </pre>
*
* <h4>Using {@link AttributeKey}s</h4>
*
* Although it's recommended to use member variables to store the state of a
* handler, for some reason you might not want to create many handler instances.
* In such a case, you can use {@link AttributeKey}s which is provided by
* {@link ChannelHandlerContext}:
 * <pre>
* public interface Message {
*     // your methods here
* }
*
* {@code @Sharable}
* public class DataServerHandler extends {@link SimpleChannelInboundHandler}&lt;Message&gt; {
```

```
*     private final {@link AttributeKey}&lt;{@link Boolean}&gt; auth =
*           {@link AttributeKey#valueOf(String) AttributeKey.valueOf("auth")};
*
*     {@code @Override}
*     public void channelRead({@link ChannelHandlerContext} ctx, Message message) {
*         {@link Attribute}&lt;{@link Boolean}&gt; attr = ctx.attr(auth);
*         if (message instanceof LoginMessage) {
*             authenticate((LoginMessage) o);
*             <b>attr.set(true)</b>;
*         } else (message instanceof GetDataMessage) {
*             if (<b>Boolean.TRUE.equals(attr.get())</b>) {
*                 ctx.writeAndFlush(fetchSecret((GetDataMessage) o));
*             } else {
*                 fail();
*             }
*         }
*     }
*     ...
* }
* </pre>
* Now that the
 state of the handler is attached to the {@link ChannelHandlerContext}, you can add the
* same handler instance to different pipelines:
* <pre>
* public class DataServerInitializer extends {@link ChannelInitializer}&lt;{@link Channel}&gt; {
*
*     private static final DataServerHandler <b>SHARED</b> = new DataServerHandler();
*
*     {@code @Override}
*     public void initChannel({@link Channel} channel) {
*         channel.pipeline().addLast("handler", <b>SHARED</b>);
*     }
* }
* </pre>
*
*
* <h4>The {@code @Sharable} annotation</h4>
* <p>
* In the example above which used an {@link AttributeKey},
* you might have noticed the {@code @Sharable} annotation.
* <p>
* If a {@link ChannelHandler} is annotated with the {@code @Sharable}
* annotation, it means you can create an instance of the handler just once and
* add it to one or more {@link ChannelPipeline}s multiple times without
* a race condition.
* <p>
* If this annotation is not specified, you have to create
```

a new handler
* instance every time you add it to a pipeline because it has unshared state
* such as member variables.
* <p>
* This annotation is provided for documentation purpose, just like
* the JCIP annotations.
*
* <h3>Additional resources worth reading</h3>
* <p>
* Please refer to the {@link ChannelHandler}, and
* {@link ChannelPipeline} to find out more about inbound and outbound operations,
* what fundamental differences they have, how they flow in a pipeline, and how to handle
* the operation in your application.
*/

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* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/ChannelHandler.java
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* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/nio/NioChannelOption.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/SimpleUserEventChannelHandler.java
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* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/ChannelInboundInvoker.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/ChannelOutboundInvoker.java
*
/opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/SelectStrategy.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/bootstrap/BootstrapConfig.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/bootstrap/ServerBootstrapConfig.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/PreferHeapByteBufAllocator.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/group/VoidChannelGroupFuture.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/SelectStrategyFactory.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/DefaultSelectStrategyFactory.java
*
/opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/bootstrap/AbstractBootstrapConfig.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/DuplexChannel.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/DefaultSelectStrategy.java
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* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/ChannelOutputShutdownEvent.java
*
/opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/internal/ChannelUtils.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/oio/OioDatagramChannelConfig.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/ChannelInputShutdownReadComplete.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/bootstrap/FailedChannel.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/oio/DefaultOioDatagramChannelConfig.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/DelegatingChannelPromiseNotifier.java

* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/nio/SelectedSelectionKeySetSelector.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/PendingBytesTracker.java
*
 /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/ChannelOutputShutdownException.java
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* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/DefaultAddressedEnvelope.java
*
/opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/AddressedEnvelope.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/nio/SelectedSelectionKeySet.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/group/ChannelGroupException.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/group/DefaultChannelGroup.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/oio/DefaultOioServerSocketChannelConfig.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/ChannelProgressivePromise.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/ConnectTimeoutException.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/ChannelOutboundBuffer.java
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/opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/DefaultMessageSizeEstimator.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/group/ChannelMatchers.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/ChannelId.java

* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/oio/OioServerSocketChannelConfig.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/SimpleChannelInboundHandler.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/bootstrap/ChannelFactory.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/ChannelProgressiveFuture.java
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 /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/DefaultChannelProgressivePromise.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/group/ChannelGroup.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/AbstractEventLoopGroup.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/ChannelProgressiveFutureListener.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/MessageSizeEstimator.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/group/ChannelMatcher.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/DefaultChannelId.java
* /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/socket/oio/DefaultOioSocketChannelConfig.java
*
 /opt/cola/permits/1257888664_1643019966.4/0/netty-transport-4-1-70-final-sources-jar/io/netty/channel/ChannelHandlerAdapter.java

1.236 netty-resolver 4.1.70.Final

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* /opt/cola/permits/1257888705_1643019972.09/0/netty-resolver-4-1-70-final-sources-jar/io/netty/resolver/NoopAddressResolver.java
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/opt/cola/permits/1257888705_1643019972.09/0/netty-resolver-4-1-70-final-sources-jar/io/netty/resolver/SimpleNameResolver.java
* /opt/cola/permits/1257888705_1643019972.09/0/netty-resolver-4-1-70-final-sources-jar/io/netty/resolver/NoopAddressResolverGroup.java
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* /opt/cola/permits/1257888705_1643019972.09/0/netty-resolver-4-1-70-final-sources-jar/io/netty/resolver/AddressResolver.java
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 /opt/cola/permits/1257888705_1643019972.09/0/netty-resolver-4-1-70-final-sources-jar/io/netty/resolver/DefaultHostsFileEntriesResolver.java
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* /opt/cola/permits/1257888705_1643019972.09/0/netty-resolver-4-1-70-final-sources-jar/io/netty/resolver/AbstractAddressResolver.java
* /opt/cola/permits/1257888705_1643019972.09/0/netty-resolver-4-1-70-final-sources-jar/io/netty/resolver/HostsFileEntriesResolver.java
* /opt/cola/permits/1257888705_1643019972.09/0/netty-resolver-4-1-70-final-sources-jar/io/netty/resolver/InetSocketAddressResolver.java

1.237 netty-handler 4.1.70.Final

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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/pcap/package-info.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/pcap/IPPacket.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/pcap/PcapWriteHandler.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/logging/LoggingHandler.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/stream/ChunkedNioFile.java
* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/timeout/WriteTimeoutException.java
* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/timeout/IdleStateEvent.java
* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/package-info.java
* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/timeout/ReadTimeoutHandler.java
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*
 /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/NotSslRecordException.java
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 /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/timeout/ReadTimeoutException.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/util/package-info.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/BouncyCastleAlpnSslEngine.java
*
 /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/BouncyCastle.java
* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/SslContextOption.java
* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/Ciphers.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/OpenSslSessionCache.java
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 /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/OpenSslContextOption.java
* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/OpenSslSessionId.java
* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/BouncyCastleAlpnSslUtils.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/util/KeyManagerFactoryWrapper.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/SniCompletionEvent.java

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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/util/FingerprintTrustManagerFactoryBuilder.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/ApplicationProtocolAccessor.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/traffic/GlobalChannelTrafficCounter.java
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/opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/OpenSslDefaultApplicationProtocolNegotiator.java

* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/JdkSslContext.java
* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/OpenSslSessionContext.java
* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/JdkSslClientContext.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/IdentityCipherSuiteFilter.java
* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/ApplicationProtocolUtil.java
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 /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/OpenSslNpnApplicationProtocolNegotiator.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/OpenSslApplicationProtocolNegotiator.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/JdkApplicationProtocolNegotiator.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ipfilter/UniqueIpFilter.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/ReferenceCountedOpenSslEngine.java
* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/OpenSslCertificateException.java
* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/util/X509TrustManagerWrapper.java
* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/ReferenceCountedOpenSslClientContext.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/ReferenceCountedOpenSslContext.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/PemPrivateKey.java
* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/ssl/Java8SslUtils.java
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* /opt/cola/permits/1257888733_1643019979.68/0/netty-handler-4-1-70-final-sources-jar/io/netty/handler/traffic/ChannelTrafficShapingHandler.java
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1.238 jackson-annotations 2.10.1

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* /opt/cola/permits/1258804304_1643113379.94/0/opentracing-api-0-31-0-sources-jar/io/opentracing/propagation/TextMap.java
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1.242 annotations 4.1.1.4

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1.243 jboss-logging 3.4.3.Final

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* /opt/cola/permits/1258847893_1643112599.64/0/jandex-2-4-2-final-sources-jar/org/jboss/jandex/Utils.java
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 /opt/cola/permits/1258847893_1643112599.64/0/jandex-2-4-2-final-sources-jar/org/jboss/jandex/RecordComponentInternal.java
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* /opt/cola/permits/1258847893_1643112599.64/0/jandex-2-4-2-final-sources-jar/org/jboss/jandex/JarIndexer.java
* /opt/cola/permits/1258847893_1643112599.64/0/jandex-2-4-2-final-sources-jar/org/jboss/jandex/AnnotationValue.java
* /opt/cola/permits/1258847893_1643112599.64/0/jandex-2-4-2-final-sources-jar/org/jboss/jandex/IndexView.java
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* /opt/cola/permits/1258847893_1643112599.64/0/jandex-2-4-2-final-sources-jar/org/jboss/jandex/JandexAntTask.java
* /opt/cola/permits/1258847893_1643112599.64/0/jandex-2-4-2-final-sources-jar/org/jboss/jandex/ClassInfo.java
* /opt/cola/permits/1258847893_1643112599.64/0/jandex-2-4-2-final-sources-jar/org/jboss/jandex/IndexReader.java
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* /opt/cola/permits/1258847893_1643112599.64/0/jandex-2-4-2-final-sources-jar/org/jboss/jandex/Index.java
* /opt/cola/permits/1258847893_1643112599.64/0/jandex-2-4-2-final-sources-jar/org/jboss/jandex/MethodParameterInfo.java
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* /opt/cola/permits/1258847893_1643112599.64/0/jandex-2-4-2-final-sources-jar/org/jboss/jandex/IndexWriterV1.java
* /opt/cola/permits/1258847893_1643112599.64/0/jandex-2-4-2-final-sources-jar/org/jboss/jandex/PackedDataInputStream.java
* /opt/cola/permits/1258847893_1643112599.64/0/jandex-2-4-2-final-sources-jar/org/jboss/jandex/PrimitiveType.java
* /opt/cola/permits/1258847893_1643112599.64/0/jandex-2-4-2-final-sources-jar/org/jboss/jandex/StrongInternPool.java
* /opt/cola/permits/1258847893_1643112599.64/0/jandex-2-4-2-final-sources-jar/org/jboss/jandex/Indexer.java

1.245 animal-sniffer-annotation 1.19

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1.246 stax-ex 1.8

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https://github.com/eclipse-ee4j/injection-tck

Third-party Content

This project
leverages the following third party content.

None

Cryptography

None

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1.252 error_prone_annotations 2.3.3

1.252.1 Available under license :

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Found in path(s):
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/CompatibleWith.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/FormatMethod.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-

jar/com/google/errorprone/annotations/MustBeClosed.java
*
/opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/RestrictedApi.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/FormatString.java
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Found in path(s):
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/OverridingMethodsMustInvokeSuper.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/DoNotCall.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/concurrent/GuardedBy.java
*
/opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/CheckReturnValue.java
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* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/NoAllocation.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/concurrent/LockMethod.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/concurrent/UnlockMethod.java
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Found in path(s):
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/CompileTimeConstant.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/SuppressPackageLocation.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/Immutable.java
*
 /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/RequiredModifiers.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/Var.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/ForOverride.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/concurrent/LazyInit.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-jar/com/google/errorprone/annotations/CanIgnoreReturnValue.java
* /opt/cola/permits/1264660152_1643871085.34/0/error-prone-annotations-2-3-3-sources-

jar/com/google/errorprone/annotations/IncompatibleModifiers.java

1.253 kotlin 1.6.10

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{"version":3,"file":"kotlin.js","sources":["wrapper.js","js/arrayUtils.js","js/callableReferenceUtils.js","js/conversions.js","js/core.js","js/long.js","js/markerFunctions.js","js/misc.js","js/polyfills.js","js/rtti.js","runtime/arrayUtils.kt","runtime/Enum.kt","primitiveCompanionObjects.kt","common/src/generated/_Arrays.kt","common/src/generated/_Ranges.kt","unsigned/src/kotlin/UByte.kt","unsigned/src/kotlin/UInt.kt","unsigned/src/kotlin/UShort.kt","builtin-sources/Ranges.kt","src/kotlin/collections/Collections.kt","src/kotlin/collections/Maps.kt","src/kotlin/collections/Sets.kt","src/kotlin/text/StringNumberConversions.kt","src/kotlin/time/Duration.kt","unsigned/src/kotlin/UnsignedUtils.kt","src/kotlin/collections/Iterables.kt","src/kotlin/collections/Sequences.kt","src/kotlin/util/Preconditions.kt","js/src/generated/_ArraysJs.kt","src/kotlin/comparisons/Comparisons.kt","src/kotlin/util/Standard.kt","js/src/generated/_ComparisonsJs.kt","unsigned/src/kotlin/ULong.kt","common/src/generated/_Collections.kt","js/src/kotlin/collections.kt","src/kotlin/collections/Iterators.kt","common/src/generated/_Comparisons.kt","common/src/generated/_Maps.kt","common/src/generated/_OneToManyTitlecaseMappings.kt","js/src/kotlin/text/char.kt","js/src/kotlin/text/string.kt","src/kotlin/text/Char.kt","src/kotlin/CharCode.kt","common/src/generated/_Sequences.kt","common/src/generated/_Sets.kt","common/src/generated/_Strings.kt","src/kotlin/text/Strings.kt","unsigned/src/kotlin/UByteArray.kt","unsigned/src/kotlin/UIntArray.kt","unsigned/src/kotlin/ULongArray.kt","unsigned/src/kotlin/UShortArray.kt","common/src/generated/_UArrays.kt","common/src/generated/_UCollections.kt","common/src/generated/_UComparisons.kt","common/src/generated/_URanges.kt","common/src/generated/_USequences.kt","common/src/kotlin/ExceptionsH.kt","common/src/kotlin/JsAnnotationsH.kt","common/src/kotlin/ioH.kt","builtin-sources/Collections.kt","builtin-sources/Iterators.kt","builtin-sources/ProgressionIterators.kt","builtin-sources/Progressions.kt","builtin-sources/Range.kt","builtin-sources/Unit.kt","builtin-sources/annotation/Annotations.kt","builtin-sources/internal/InternalAnnotations.kt","builtin-sources/internal/progressionUtil.kt","src/kotlin/builtins.kt","src/kotlin/jsTypeOf.kt","src/kotlin/kotlin.kt","src/kotlin/charCode_js-v1.kt","src/kotlin/coroutines/CoroutineImpl.kt","src/kotlin/util/Result.kt","src/kotlin/coroutines/Continuation.kt","src/kotlin/coroutines/intrinsics/IntrinsicsJs.kt","src/kotlin/currentBeMisc.kt","src/kotlin/exceptions.kt","src/kotlin/jsOperators.kt","src/kotlin/math_js-v1.kt","src/kotlin/numbers_js-v1.kt","src/kotlin/reflection_js-v1.kt","src/kotlin/text/numberConversions_js-v1.kt","js/src/generated/_CharCategories.kt","js/src/generated/_CollectionsJs.kt","js/src/generated/_DigitChars.kt","js/src/generated/_LetterChars.kt","js/src/generated/_OtherLowercaseChars.kt","js/src/generated/_OtherUppercaseChars.kt","js/src/generated/_StringsJs.kt","js/src/generated/_TitlecaseMappings.kt","js/src/generated/_UArraysJs.kt","js/src/generated/_WhitespaceChars.kt","js/src/kotlin/Comparator.kt","js/src/kotlin/annotations.kt","js/src/kotlin/annotationsJVM.kt","js/src/kotlin/collections/AbstractMutableCollection.kt","js/src/kotlin/collections/AbstractMutableList.kt","js/src/kotlin/collections/AbstractMutableMap.kt","js/src/kotlin/collections/AbstractMutableSet.kt","js/src/kotlin/collections/ArrayList.kt","js/src/kotlin/collections/ArraySorting.kt","js/src/kotlin/collections/ArraysJs.kt","js/src/kotlin/collections/EqualityComparator.kt","js/src/kotlin/collections/HashMap.kt","js/src/kotlin/collections/HashSet.kt","js/src/kotlin/collections/InternalHashCodeMap.kt","js/src/kotlin/collections/InternalMap.kt","js/src/kotlin/collections/InternalStringMap.kt","js/src/kotlin/collections/LinkedHashMap.kt","js/src/kotlin/collections/LinkedHashSet.kt","js/src/kotlin/concurrent.kt","js/src/kotlin/console.kt","js/src/kotlin/coroutines/SafeContinuationJs.kt","js/src/kotlin/coroutines/cancellation/CancellationException.kt","js/src/kotlin/coroutines/js/internal/EmptyContinuation.kt","js/src/kotlin/date.kt","js/src/kotlin/dom/Builders.kt","js/src/kotlin/dom/Classes.kt","js/src/kotlin/dom/Dom.kt","js/src/kotlin/dom/EventListener.kt","js/src/kotlin/dom/ItemArrayLike.kt","js/src/kotlin/dom/Mutations.kt","js/src/kotlin/dynam

ic.kt","js/src/kotlin/exceptionUtils.kt","js/src/kotlin/grouping.kt","src/kotlin/collections/Grouping.kt","js/src/kotlin/json.kt","js/src/kotlin/math.kt","js/src/kotlin/numbers.kt","js/src/kotlin/promise.kt","js/src/kotlin/random/PlatformRandom.kt","js/src/kotlin/reflect/AssociatedObjects.kt","js/src/kotlin/reflect/JsClass.kt","js/src/kotlin/reflect/KClassImpl.kt","js/src/kotlin/reflect/KClassesImpl.kt","js/src/kotlin/reflect/KTypeHelpers.kt","js/src/kotlin/reflect/KTypeImpl.kt","js/src/kotlin/reflect/KTypeParameterImpl.kt","js/src/kotlin/reflect/primitives.kt","js/src/kotlin/reflect/reflection.kt","js/src/kotlin/regexp.kt","js/src/kotlin/sequence.kt","js/src/kotlin/text/CharCategoryJS.kt","js/src/kotlin/text/CharacterCodingExceptionJs.kt","js/src/kotlin/text/StringBuilderJs.kt","js/src/kotlin/text/numberConversions.kt","js/src/kotlin/text/regex.kt","src/kotlin/text/StringBuilder.kt","js/src/kotlin/text/stringsCode.kt","js/src/kotlin/text/utf8Encoding.kt","js/src/kotlin/throwableExtensions.kt","js/src/kotlin/time/DurationJs.kt","js/src/kotlin/time/DurationUnit.kt","js/src/kotlin/time/MonoTimeSource.kt","js/src/kotlinx/dom/Builders.kt","js/src/kotlinx/dom/Classes.kt","src/kotlin/text/regex/RegexExtensions.kt","js/src/kotlinx/dom/Dom.kt","js/src/kotlinx/dom/Mutations.kt","js/src/org.w3c/deprecated.kt","js/src/org.w3c/org.khronos.webgl.kt","js/src/org.w3c/org.w3c.dom.clipboard.kt","js/src/org.w3c/org.w3c.dom.css.kt","js/src/org.w3c/org.w3c.dom.encryptedmedia.kt","js/src/org.w3c/org.w3c.dom.events.kt","js/src/org.w3c/org.w3c.dom.kt","js/src/org.w3c/org.w3c.fetch.kt","js/src/org.w3c/org.w3c.dom.mediacapture.kt","js/src/org.w3c/org.w3c.dom.mediasource.kt","js/src/org.w3c/org.w3c.dom.pointerevents.kt","js/src/org.w3c/org.w3c.dom.svg.kt","js/src/org.w3c/org.w3c.files.kt","js/src/org.w3c/org.w3c.notifications.kt","js/src/org.w3c/org.w3c.workers.kt","js/src/org.w3c/org.w3c.xhr.kt","src/kotlin/annotations/Experimental.kt","src/kotlin/annotations/ExperimentalStdlibApi.kt","src/kotlin/annotations/Inference.kt","src/kotlin/annotations/Multiplatform.kt","src/kotlin/annotations/OptIn.kt","src/kotlin/collections/AbstractCollection.kt","src/kotlin/collections/AbstractIterator.kt","src/kotlin/collections/AbstractList.kt","src/kotlin/collections/AbstractMap.kt","src/kotlin/collections/AbstractSet.kt","src/kotlin/collections/ArrayDeque.kt","src/kotlin/collections/Arrays.kt","src/kotlin/collections/BrittleContainsOptimization.kt","src/kotlin/collections/IndexedValue.kt","src/kotlin/collections/MapAccessors.kt","src/kotlin/collections/MapWithDefault.kt","src/kotlin/collections/MutableCollections.kt","src/kotlin/collections/ReversedViews.kt","src/kotlin/collections/SequenceBuilder.kt","src/kotlin/collections/SlidingWindow.kt","src/kotlin/collections/UArraySorting.kt","src/kotlin/comparisons/compareTo.kt","src/kotlin/contracts/ContractBuilder.kt","src/kotlin/coroutines/ContinuationInterceptor.kt","src/kotlin/coroutines/CoroutineContext.kt","src/kotlin/coroutines/CoroutineContextImpl.kt","src/kotlin/coroutines/intrinsics/Intrinsics.kt","src/kotlin/experimental/bitwiseOperations.kt","src/kotlin/experimental/inferenceMarker.kt","src/kotlin/internal/Annotations.kt","src/kotlin/properties/Delegates.kt","src/kotlin/properties/Interfaces.kt","src/kotlin/properties/ObservableProperty.kt","src/kotlin/properties/PropertyReferenceDelegates.kt","src/kotlin/random/Random.kt","src/kotlin/random/URandom.kt","src/kotlin/random/XorWowRandom.kt","src/kotlin/ranges/Ranges.kt","src/kotlin/reflect/KClasses.kt","src/kotlin/reflect/KTypeProjection.kt","src/kotlin/reflect/KVariance.kt","src/kotlin/reflect/typeOf.kt","src/kotlin/text/Appendable.kt","src/kotlin/text/Indent.kt","src/kotlin/text/Typography.kt","src/kotlin/text/regex/MatchResult.kt","src/kotlin/time/DurationUnit.kt","src/kotlin/time/ExperimentalTime.kt","src/kotlin/time/TimeSource.kt","src/kotlin/time/TimeSources.kt","src/kotlin/time/measureTime.kt","src/kotlin/util/DeepRecursive.kt","src/kotlin/util/FloorDivMod.kt","src/kotlin/util/HashCode.kt","src/kotlin/util/KotlinVersion.kt","src/kotlin/util/Lateinit.kt","src/kotlin/util/Lazy.kt","src/kotlin/util/Numbers.kt","src/kotlin/util/Suspend.kt","src/kotlin/util/Tuples.kt","unsigned/src/kotlin/UIntRange.kt","unsigned/src/kotlin/UIterators.kt","unsigned/src/kotlin/ULongRange.kt","unsigned/src/kotlin/UMath.kt","unsigned/src/kotlin/UNumbers.kt","unsigned/src/kotlin/UProgressionUtil.kt","unsigned/src/kotlin/UStrings.kt","unsigned/src/kotlin/annotations/Unsigned.kt","common/src/kotlin/MathH.kt"],"sourcesContent":["(function
 (root, factory) {\n
    if (typeof define === 'function' && define.amd) {\n   define('kotlin', ['exports'], factory);\n   }\n   else if (typeof exports === 'object') {\n   factory(module.exports);\n   }\n   else {\n   root.kotlin = {};\n   factory(root.kotlin);\n   }\n}(this, function (Kotlin) {\n   var _ = Kotlin;\n\n   insertContent();\n}));\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\nKotlin.isBooleanArray = function (a) {\n   return (Array.isArray(a) || a instanceof Int8Array) && a.$type$ === \"BooleanArray\"\n};\n\nKotlin.isByteArray = function (a) {\n   return a instanceof Int8Array && a.$type$

```
!== \"BooleanArray\"\n};\n\nKotlin.isShortArray = function (a) {\n    return a instanceof
Int16Array\n};\n\nKotlin.isCharArray = function (a) {\n    return a instanceof Uint16Array && a.$type$ ===
\"CharArray\"\n};\n\nKotlin.isIntArray
 = function (a) {\n    return a instanceof Int32Array\n};\n\nKotlin.isFloatArray = function (a) {\n    return a
instanceof Float32Array\n};\n\nKotlin.isDoubleArray = function (a) {\n    return a instanceof
Float64Array\n};\n\nKotlin.isLongArray = function (a) {\n    return Array.isArray(a) && a.$type$ ===
\"LongArray\"\n};\n\nKotlin.isArray = function (a) {\n    return Array.isArray(a) &&
!a.$type$;\n};\n\nKotlin.isArrayish = function (a) {\n    return Array.isArray(a) ||
ArrayBuffer.isView(a)\n};\n\nKotlin.arrayToString = function (a) {\n    if (a === null) return \"null\"\n    var
toString = Kotlin.isCharArray(a) ? String.fromCharCode : Kotlin.toString;\n    return \"[\" +
Array.prototype.map.call(a, function(e) { return toString(e); }).join(\", \") + \"]\";\n};\n\nKotlin.arrayDeepToString
= function (arr) {\n    return Kotlin.kotlin.collections.contentDeepToStringImpl(arr);\n};\n\nKotlin.arrayEquals =
function (a, b) {\n    if (a === b) {\n        return true;\n
    }\n    if (a === null || b === null || !Kotlin.isArrayish(b) || a.length !== b.length) {\n        return false;\n    }\n\n
for (var i = 0, n = a.length; i < n; i++) {\n        if (!Kotlin.equals(a[i], b[i])) {\n            return false;\n        }\n    }\n
return true;\n};\n\nKotlin.arrayDeepEquals = function (a, b) {\n    return
Kotlin.kotlin.collections.contentDeepEqualsImpl(a, b);\n};\n\nKotlin.arrayHashCode = function (arr) {\n    if (arr
=== null) return 0\n    var result = 1;\n    for (var i = 0, n = arr.length; i < n; i++) {\n        result = ((31 * result | 0) +
Kotlin.hashCode(arr[i])) | 0;\n    }\n    return result;\n};\n\nKotlin.arrayDeepHashCode = function (arr) {\n    return
Kotlin.kotlin.collections.contentDeepHashCodeImpl(arr);\n};\n\nKotlin.primitiveArraySort = function (array) {\n
array.sort(Kotlin.doubleCompareTo)\n};\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors. \n * Use of this source code is governed
 by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\nKotlin.getCallableRef =
function(name, f) {\n    f.callableName = name;\n    return f;\n};\n\nKotlin.getPropertyCallableRef = function(name,
paramCount, getter, setter) {\n    getter.get = getter;\n    getter.set = setter;\n    getter.callableName = name;\n
return getPropertyRefClass(getter, setter, propertyRefClassMetadataCache[paramCount]);\n};\n\nfunction
getPropertyRefClass(obj, setter, cache) {\n    obj.$metadata$ = getPropertyRefMetadata(typeof setter ===
\"function\" ? cache.mutable : cache.immutable);\n    obj.constructor = obj;\n    return obj;\n}\n\nvar
propertyRefClassMetadataCache = [\n    {\n        mutable: { value: null, implementedInterface: function () {\n
return Kotlin.kotlin.reflect.KMutableProperty0 }\n        },\n        immutable: { value: null, implementedInterface:
function () {\n            return Kotlin.kotlin.reflect.KProperty0 }\n        }\n    },\n    {\n
     mutable: { value: null, implementedInterface: function () {\n            return
Kotlin.kotlin.reflect.KMutableProperty1 }\n        },\n        immutable: { value: null, implementedInterface: function
() {\n            return Kotlin.kotlin.reflect.KProperty1 }\n        }\n    }\n];\n\nfunction getPropertyRefMetadata(cache)
{\n    if (cache.value === null) {\n        cache.value = {\n            interfaces: [cache.implementedInterface()],\n
baseClass: null,\n            functions: {},\n            properties: {},\n            types: {},\n            staticMembers: {}\n
};\n    }\n    return cache.value;\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\nKotlin.toShort = function (a) {\n    return (a & 0xFFFF) << 16 >>
16;\n};\n\nKotlin.toByte = function (a) {\n    return (a & 0xFF) << 24 >> 24;\n};\n\nKotlin.toChar
 = function (a) {\n    return a & 0xFFFF;\n};\n\nKotlin.numberToLong = function (a) {\n    return a instanceof
Kotlin.Long ? a : Kotlin.Long.fromNumber(a);\n};\n\nKotlin.numberToInt = function (a) {\n    return a instanceof
Kotlin.Long ? a.toInt() : Kotlin.doubleToInt(a);\n};\n\nKotlin.numberToShort = function (a) {\n    return
Kotlin.toShort(Kotlin.numberToInt(a));\n};\n\nKotlin.numberToByte = function (a) {\n    return
Kotlin.toByte(Kotlin.numberToInt(a));\n};\n\nKotlin.numberToDouble = function (a) {\n    return
+a;\n};\n\nKotlin.numberToChar = function (a) {\n    return
Kotlin.toChar(Kotlin.numberToInt(a));\n};\n\nKotlin.doubleToInt = function(a) {\n    if (a > 2147483647) return
2147483647;\n    if (a < -2147483648) return -2147483648;\n    return a | 0;\n};\n\nKotlin.toBoxedChar = function
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(a) {\n   if (a == null) return a;\n   if (a instanceof Kotlin.BoxedChar) return a;\n   return new Kotlin.BoxedChar(a);\n};\n\nKotlin.unboxChar = function(a) {\n   if (a ==
null) return a;\n   return Kotlin.toChar(a);\n};\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\nKotlin.equals = function (obj1, obj2) {\n   if (obj1 == null) {\n   return obj2 == null;\n   }\n\n   if (obj2 == null) {\n   return false;\n   }\n\n   if (obj1 !== obj1) {\n   return obj2 !== obj2;\n   }\n\n   if (typeof obj1 === \"object\" && typeof obj1.equals === \"function\") {\n   return obj1.equals(obj2);\n   }\n\n   if (typeof obj1 === \"number\" && typeof obj2 === \"number\") {\n   return obj1 === obj2 && (obj1 !== 0 || 1 / obj1 === 1 / obj2)\n   }\n\n   return obj1 === obj2;\n};\n\nKotlin.hashCode = function (obj) {\n   if (obj == null) {\n   return 0;\n   }\n   var objType = typeof obj;\n   if (\"object\" === objType) {\n   return \"function\" === typeof obj.hashCode
? obj.hashCode() : getObjectHashCode(obj);\n   }\n   if (\"function\" === objType) {\n   return getObjectHashCode(obj);\n   }\n   if (\"number\" === objType) {\n   return Kotlin.numberHashCode(obj);\n   }\n   if (\"boolean\" === objType) {\n   return Number(obj)\n   }\n\n   var str = String(obj);\n   return getStringHashCode(str);\n};\n\n\nKotlin.toString = function (o) {\n   if (o == null) {\n   return \"null\";\n   }\n   else if (Kotlin.isArrayish(o)) {\n   return \"[...]\";\n   }\n   else {\n   return o.toString();\n   }\n};\n\n/** @const */\nvar POW_2_32 = 4294967296;\n// TODO: consider switching to Symbol type once we are on ES6.\n/** @const */\nvar OBJECT_HASH_CODE_PROPERTY_NAME = \"kotlinHashCodeValue$\";\n\nfunction getObjectHashCode(obj) {\n   if (!(OBJECT_HASH_CODE_PROPERTY_NAME in obj)) {\n   var hash = (Math.random() * POW_2_32) | 0; // Make 32-bit singed integer.\n   Object.defineProperty(obj, OBJECT_HASH_CODE_PROPERTY_NAME,
{ value: hash, enumerable: false });\n   }\n   return obj[OBJECT_HASH_CODE_PROPERTY_NAME];\n}\n\nfunction getStringHashCode(str) {\n   var hash = 0;\n   for (var i = 0; i < str.length; i++) {\n   var code = str.charCodeAt(i);\n   hash = (hash * 31 + code) | 0; // Keep it 32-bit.\n   }\n   return hash;\n}\n\nKotlin.identityHashCode = getObjectHashCode;\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Copyright 2009 The Closure Library Authors. All Rights Reserved.\n//\n// Licensed under the Apache License, Version 2.0 (the \"License\");\n// you may not use this file except in compliance with the License.\n// You may obtain a copy of the License at\n//\n// http://www.apache.org/licenses/LICENSE-2.0\n//\n// Unless required by applicable law or agreed to in writing, software\n//
distributed under the License is distributed on an \"AS-IS\" BASIS,\n// WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.\n\n/**\n * Constructs a 64-bit two's-complement integer, given its low and high 32-bit\n * values as *signed* integers. See the from* functions below for more\n * convenient ways of constructing Longs.\n *\n * The internal representation of a long is the two given signed, 32-bit values.\n * We use 32-bit pieces because these are the size of integers on which\n * Javascript performs bit-operations. For operations like addition and\n * multiplication, we split each number into 16-bit pieces, which can easily be\n * multiplied within Javascript's floating-point representation without overflow\n * or change in sign.\n *\n * In the algorithms below, we frequently reduce the negative case to the\n * positive case by negating the input(s) and then post-processing the result.\n * Note that we must ALWAYS check specially whether those values are MIN_VALUE\n
* (-2^63) because -MIN_VALUE == MIN_VALUE (since 2^63 cannot be represented as\n * a positive number, it overflows back into a negative). Not handling this\n * case would often result in infinite recursion.\n *\n * @param {number} low The low (signed) 32 bits of the long.\n * @param {number} high The high (signed) 32 bits of the long.\n * @constructor\n * @final\n */\nKotlin.Long = function(low, high) {\n /**\n   * @type {number}\n   * @private\n   */\n this.low_ = low | 0; // force into 32 signed bits.\n\n /**\n   * @type {number}\n   * @private\n   */\n this.high_ = high | 0; // force into 32 signed bits.\n};\n\nKotlin.Long.$metadata$ = {\n   kind: \"class\",\n   simpleName: \"Long\",\n   interfaces:[]\n};\n\n\n// NOTE: Common constant values ZERO, ONE, NEG_ONE, etc.

are defined below the\n// from* methods on which they depend.\n\n\n/**\n * A cache of the Long representations of small integer values.\n * @type {!Object}\n * @private\n */\nKotlin.Long.IntCache_ = {};\n\n\n/**\n * Returns a Long representing the given (32-bit) integer value.\n * @param {number} value The 32-bit integer in question.\n * @return {!Kotlin.Long} The corresponding Long value.\n */\nKotlin.Long.fromInt = function(value) {\n if (-128 <= value && value < 128) {\n   var cachedObj = Kotlin.Long.IntCache_[value];\n   if (cachedObj) {\n   return cachedObj;\n   }\n }\n\n var obj = new Kotlin.Long(value | 0, value < 0 ? -1 : 0);\n if (-128 <= value && value < 128) {\n   Kotlin.Long.IntCache_[value] = obj;\n }\n return obj;\n};\n\n\n/**\n * Converts this number value to `Long`.\n * The fractional part, if any, is rounded down towards zero.\n * Returns zero if this `Double` value is `NaN`, `Long.MIN_VALUE` if it's less than `Long.MIN_VALUE`,\n * `Long.MAX_VALUE` if it's bigger than `Long.MAX_VALUE`.\n * @param {number} value The number in question.\n * @return {!Kotlin.Long} The corresponding Long value.\n */\nKotlin.Long.fromNumber = function(value) {\n if (isNaN(value)) {\n   return Kotlin.Long.ZERO;\n } else if (value <= -Kotlin.Long.TWO_PWR_63_DBL_) {\n   return Kotlin.Long.MIN_VALUE;\n } else if (value + 1 >= Kotlin.Long.TWO_PWR_63_DBL_) {\n   return Kotlin.Long.MAX_VALUE;\n } else if (value < 0) {\n   return Kotlin.Long.fromNumber(-value).negate();\n } else {\n   return new Kotlin.Long(\n   (value % Kotlin.Long.TWO_PWR_32_DBL_) | 0,\n   (value / Kotlin.Long.TWO_PWR_32_DBL_) | 0);\n }\n};\n\n\n/**\n * Returns a Long representing the 64-bit integer that comes by concatenating\n * the given high and low bits. Each is assumed to use 32 bits.\n * @param {number} lowBits The low 32-bits.\n * @param {number} highBits The high 32-bits.\n * @return {!Kotlin.Long} The corresponding Long value.\n */\nKotlin.Long.fromBits = function(lowBits, highBits) {\n return new Kotlin.Long(lowBits, highBits);\n};\n\n\n/**\n * Returns a Long representation of the given string, written using the given\n * radix.\n * @param {string} str The textual representation of the Long.\n * @param {number=} opt_radix The radix in which the text is written.\n * @return {!Kotlin.Long} The corresponding Long value.\n */\nKotlin.Long.fromString = function(str, opt_radix) {\n if (str.length == 0) {\n   throw Error('number format error: empty string');\n }\n\n var radix = opt_radix || 10;\n if (radix < 2 || 36 < radix) {\n   throw Error('radix out of range: ' + radix);\n }\n\n if (str.charAt(0) == '-') {\n   return Kotlin.Long.fromString(str.substring(1), radix).negate();\n } else if (str.indexOf('-') >= 0) {\n   throw Error('number format error: interior \"-\" character: ' + str);\n }\n\n // Do several (8) digits each time through the loop, so as to\n // minimize the calls to the very expensive emulated div.\n var radixToPower = Kotlin.Long.fromNumber(Math.pow(radix, 8));\n\n var result = Kotlin.Long.ZERO;\n for (var i = 0; i < str.length; i += 8) {\n   var size = Math.min(8, str.length - i);\n   var value = parseInt(str.substring(i, i + size), radix);\n   if (size < 8) {\n   var power = Kotlin.Long.fromNumber(Math.pow(radix, size));\n   result = result.multiply(power).add(Kotlin.Long.fromNumber(value));\n   } else {\n   result = result.multiply(radixToPower);\n   result = result.add(Kotlin.Long.fromNumber(value));\n   }\n }\n return result;\n};\n\n\n// NOTE: the compiler should inline these constant values below and then remove\n// these variables, so there should be no runtime penalty for these.\n\n\n/**\n * Number used repeated below in calculations. This must appear before the\n * first call to any from* function below.\n * @type {number}\n * @private\n */\nKotlin.Long.TWO_PWR_16_DBL_ = 1 << 16;\n\n\n/**\n * @type {number}\n * @private\n */\nKotlin.Long.TWO_PWR_24_DBL_ = 1 << 24;\n\n\n/**\n * @type {number}\n * @private\n */\nKotlin.Long.TWO_PWR_32_DBL_ =\n   Kotlin.Long.TWO_PWR_16_DBL_ * Kotlin.Long.TWO_PWR_16_DBL_;\n\n\n/**\n * @type {number}\n * @private\n */\nKotlin.Long.TWO_PWR_31_DBL_ =\n   Kotlin.Long.TWO_PWR_32_DBL_ / 2;\n\n\n/**\n * @type {number}\n * @private\n */\nKotlin.Long.TWO_PWR_48_DBL_ =\n   Kotlin.Long.TWO_PWR_32_DBL_ * Kotlin.Long.TWO_PWR_16_DBL_;\n\n\n/**\n * @type {number}\n * @private\n */\nKotlin.Long.TWO_PWR_64_DBL_ =\n   Kotlin.Long.TWO_PWR_32_DBL_ * Kotlin.Long.TWO_PWR_32_DBL_;\n\n\n/**\n * @type {number}\n * @private\n */\nKotlin.Long.TWO_PWR_63_DBL_ =\n   Kotlin.Long.TWO_PWR_64_DBL_ / 2;\n\n\n/** @type {!Kotlin.Long} */\nKotlin.Long.ZERO = Kotlin.Long.fromInt(0);\n\n\n/** @type {!Kotlin.Long}

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*/\nKotlin.Long.ONE = Kotlin.Long.fromInt(1);\n\n\n/** @type {!Kotlin.Long} */\nKotlin.Long.NEG_ONE =
Kotlin.Long.fromInt(-1);\n\n\n/** @type {!Kotlin.Long} */\nKotlin.Long.MAX_VALUE =\n
Kotlin.Long.fromBits(0xFFFFFFFF | 0, 0x7FFFFFFF | 0);\n\n\n/** @type {!Kotlin.Long}
*/\nKotlin.Long.MIN_VALUE = Kotlin.Long.fromBits(0, 0x80000000 | 0);\n\n\n/**\n * @type {!Kotlin.Long}\n *
@private\n */\nKotlin.Long.TWO_PWR_24_ = Kotlin.Long.fromInt(1
 << 24);\n\n\n/** @return {number} The value, assuming it is a 32-bit integer. */\nKotlin.Long.prototype.toInt =
function() {\n  return this.low_;\n};\n\n\n/** @return {number} The closest floating-point representation to this
value. */\nKotlin.Long.prototype.toNumber = function() {\n  return this.high_ *
Kotlin.Long.TWO_PWR_32_DBL_ +\n         this.getLowBitsUnsigned();\n};\n\n/** @return {number} The 32-bit
hashCode of this value. */\nKotlin.Long.prototype.hashCode = function() {\n  return this.high_ ^
this.low_;\n};\n\n/**\n * @param {number=} opt_radix The radix in which the text should be written.\n * @return
{string} The textual representation of this value.\n * @override\n */\nKotlin.Long.prototype.toString =
function(opt_radix) {\n  var radix = opt_radix || 10;\n  if (radix < 2 || 36 < radix) {\n    throw Error('radix out of
range: ' + radix);\n  }\n\n  if (this.isZero()) {\n    return '0';\n  }\n\n  if (this.isNegative()) {\n    if
(this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n
     // We need to change the Long value before it can be negated, so we remove\n      // the bottom-most digit in this
base and then recurse to do the rest.\n      var radixLong = Kotlin.Long.fromNumber(radix);\n      var div =
this.div(radixLong);\n      var rem = div.multiply(radixLong).subtract(this);\n      return div.toString(radix) +
rem.toInt().toString(radix);\n    } else {\n      return '-' + this.negate().toString(radix);\n    }\n  }\n\n  // Do several (6)
digits each time through the loop, so as to\n  // minimize the calls to the very expensive emulated div.\n  var
radixToPower = Kotlin.Long.fromNumber(Math.pow(radix, 6));\n\n  var rem = this;\n  var result = '';\n  while (true)
{\n    var remDiv = rem.div(radixToPower);\n    var intval =
rem.subtract(remDiv.multiply(radixToPower)).toInt();\n    var digits = intval.toString(radix);\n\n    rem = remDiv;\n
 if (rem.isZero()) {\n      return digits + result;\n    } else {\n      while (digits.length < 6) {\n        digits = '0'
 + digits;\n      }\n      result = '' + digits + result;\n    }\n  }\n};\n\n\n/** @return {number} The high 32-bits as a
signed value. */\nKotlin.Long.prototype.getHighBits = function() {\n  return this.high_;\n};\n\n\n/** @return
{number} The low 32-bits as a signed value. */\nKotlin.Long.prototype.getLowBits = function() {\n  return
this.low_;\n};\n\n\n/** @return {number} The low 32-bits as an unsigned value.
*/\nKotlin.Long.prototype.getLowBitsUnsigned = function() {\n  return (this.low_ >= 0) ?\n      this.low_ :
Kotlin.Long.TWO_PWR_32_DBL_ + this.low_;\n};\n\n\n/**\n * @return {number} Returns the number of bits
needed to represent the absolute\n *     value of this Long.\n */\nKotlin.Long.prototype.getNumBitsAbs = function()
{\n  if (this.isNegative()) {\n    if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n      return 64;\n    } else {\n
return this.negate().getNumBitsAbs();\n    }\n  } else {\n    var val = this.high_ != 0 ? this.high_ : this.low_;\n    for
(var bit = 31;
 bit > 0; bit--) {\n      if ((val & (1 << bit)) != 0) {\n        break;\n      }\n    }\n    return this.high_ != 0 ? bit + 33 : bit
+ 1;\n  }\n};\n\n\n/** @return {boolean} Whether this value is zero. */\nKotlin.Long.prototype.isZero = function()
{\n  return this.high_ == 0 && this.low_ == 0;\n};\n\n\n/** @return {boolean} Whether this value is negative.
*/\nKotlin.Long.prototype.isNegative = function() {\n  return this.high_ < 0;\n};\n\n\n/** @return {boolean}
Whether this value is odd. */\nKotlin.Long.prototype.isOdd = function() {\n  return (this.low_ & 1) ==
1;\n};\n\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this
Long equals the other.\n */\nKotlin.Long.prototype.equalsLong = function(other) {\n  return (this.high_ ==
other.high_) && (this.low_ == other.low_);\n};\n\n\n/**\n * @param {Kotlin.Long} other Long to compare
against.\n * @return {boolean} Whether this Long does not equal the other.\n
*/\nKotlin.Long.prototype.notEqualsLong
 = function(other) {\n  return (this.high_ != other.high_) || (this.low_ != other.low_);\n};\n\n\n/**\n * @param
{Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long is less than the other.\n
*/\nKotlin.Long.prototype.lessThan = function(other) {\n  return this.compare(other) < 0;\n};\n\n\n/**\n * @param
{Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long is less than or equal to the
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other.\n */\nKotlin.Long.prototype.lessThanOrEqual = function(other) {\n return this.compare(other) <= 0;\n};\n\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long is greater than the other.\n */\nKotlin.Long.prototype.greaterThan = function(other) {\n return this.compare(other) > 0;\n};\n\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long is greater than or equal to the other.\n */\nKotlin.Long.prototype.greaterThanOrEqual = function(other)
 {\n return this.compare(other) >= 0;\n};\n\n\n/**\n * Compares this Long with the given one.\n * @param {Kotlin.Long} other Long to compare against.\n * @return {number} 0 if they are the same, 1 if the this is greater, and -1\n *   if the given one is greater.\n */\nKotlin.Long.prototype.compare = function(other) {\n if (this.equalsLong(other)) {\n   return 0;\n }\n\n var thisNeg = this.isNegative();\n var otherNeg = other.isNegative();\n if (thisNeg && !otherNeg) {\n   return -1;\n }\n if (!thisNeg && otherNeg) {\n   return 1;\n }\n\n // at this point, the signs are the same, so subtraction will not overflow\n if (this.subtract(other).isNegative()) {\n   return -1;\n } else {\n   return 1;\n }\n};\n\n\n/** @return {!Kotlin.Long} The negation of this value. */\nKotlin.Long.prototype.negate = function() {\n if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   return Kotlin.Long.MIN_VALUE;\n } else {\n   return this.not().add(Kotlin.Long.ONE);\n }\n};\n\n\n/**\n
 * Returns the sum of this and the given Long.\n * @param {Kotlin.Long} other Long to add to this one.\n * @return {!Kotlin.Long} The sum of this and the given Long.\n */\nKotlin.Long.prototype.add = function(other) {\n // Divide each number into 4 chunks of 16 bits, and then sum the chunks.\n\n var a48 = this.high_ >>> 16;\n var a32 = this.high_ & 0xFFFF;\n var a16 = this.low_ >>> 16;\n var a00 = this.low_ & 0xFFFF;\n\n var b48 = other.high_ >>> 16;\n var b32 = other.high_ & 0xFFFF;\n var b16 = other.low_ >>> 16;\n var b00 = other.low_ & 0xFFFF;\n\n var c48 = 0, c32 = 0, c16 = 0, c00 = 0;\n c00 += a00 + b00;\n c16 += c00 >>> 16;\n c00 &= 0xFFFF;\n c16 += a16 + b16;\n c32 += c16 >>> 16;\n c16 &= 0xFFFF;\n c32 += a32 + b32;\n c48 += c32 >>> 16;\n c32 &= 0xFFFF;\n c48 += a48 + b48;\n c48 &= 0xFFFF;\n return Kotlin.Long.fromBits((c16 << 16) | c00, (c48 << 16) | c32);\n};\n\n\n/**\n * Returns the difference of this and the given Long.\n * @param {Kotlin.Long} other
 Long to subtract from this.\n * @return {!Kotlin.Long} The difference of this and the given Long.\n */\nKotlin.Long.prototype.subtract = function(other) {\n return this.add(other.negate());\n};\n\n\n/**\n * Returns the product of this and the given long.\n * @param {Kotlin.Long} other Long to multiply with this.\n * @return {!Kotlin.Long} The product of this and the other.\n */\nKotlin.Long.prototype.multiply = function(other) {\n if (this.isZero()) {\n   return Kotlin.Long.ZERO;\n } else if (other.isZero()) {\n   return Kotlin.Long.ZERO;\n }\n\n if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   return other.isOdd() ? Kotlin.Long.MIN_VALUE : Kotlin.Long.ZERO;\n } else if (other.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   return this.isOdd() ? Kotlin.Long.MIN_VALUE : Kotlin.Long.ZERO;\n }\n\n if (this.isNegative()) {\n   if (other.isNegative()) {\n   return this.negate().multiply(other.negate());\n   } else {\n   return this.negate().multiply(other).negate();\n   }\n } else if (other.isNegative()) {\n   return this.multiply(other.negate()).negate();\n }\n\n // If both longs are small, use float multiplication\n if (this.lessThan(Kotlin.Long.TWO_PWR_24_) &&\n   other.lessThan(Kotlin.Long.TWO_PWR_24_)) {\n   return Kotlin.Long.fromNumber(this.toNumber() * other.toNumber());\n }\n\n // Divide each long into 4 chunks of 16 bits, and then add up 4x4 products.\n // We can skip products that would overflow.\n\n var a48 = this.high_ >>> 16;\n var a32 = this.high_ & 0xFFFF;\n var a16 = this.low_ >>> 16;\n var a00 = this.low_ & 0xFFFF;\n\n var b48 = other.high_ >>> 16;\n var b32 = other.high_ & 0xFFFF;\n var b16 = other.low_ >>> 16;\n var b00 = other.low_ & 0xFFFF;\n\n var c48 = 0, c32 = 0, c16 = 0, c00 = 0;\n c00 += a00 * b00;\n c16 += c00 >>> 16;\n c00 &= 0xFFFF;\n c16 += a16 * b00;\n c32 += c16 >>> 16;\n c16 &= 0xFFFF;\n c16 += a00 * b16;\n c32 += c16 >>> 16;\n c16 &= 0xFFFF;\n c32 += a32 * b00;\n c48 += c32 >>> 16;\n c32
 &= 0xFFFF;\n c32 += a16 * b16;\n c48 += c32 >>> 16;\n c32 &= 0xFFFF;\n c32 += a00 * b32;\n c48 += c32 >>> 16;\n c32 &= 0xFFFF;\n c48 += a48 * b00 + a32 * b16 + a16 * b32 + a00 * b48;\n c48 &= 0xFFFF;\n return Kotlin.Long.fromBits((c16 << 16) | c00, (c48 << 16) | c32);\n};\n\n\n/**\n * Returns this Long divided by the given one.\n * @param {Kotlin.Long} other Long by which to divide.\n * @return {!Kotlin.Long} This Long divided by

the given one.\n */\nKotlin.Long.prototype.div = function(other) {\n if (other.isZero()) {\n   throw Error('division by zero');\n } else if (this.isZero()) {\n   return Kotlin.Long.ZERO;\n }\n\n if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   if (other.equalsLong(Kotlin.Long.ONE) ||\n other.equalsLong(Kotlin.Long.NEG_ONE)) {\n   return Kotlin.Long.MIN_VALUE; // recall that -MIN_VALUE == MIN_VALUE\n   } else if (other.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   return Kotlin.Long.ONE;\n   } else {\n   // At this point, we have

|other| >= 2, so |this/other| < |MIN_VALUE|.\n   var halfThis = this.shiftRight(1);\n   var approx = halfThis.div(other).shiftLeft(1);\n   if (approx.equalsLong(Kotlin.Long.ZERO)) {\n   return other.isNegative() ? Kotlin.Long.ONE : Kotlin.Long.NEG_ONE;\n   } else {\n   var rem = this.subtract(other.multiply(approx));\n   var result = approx.add(rem.div(other));\n   return result;\n   }\n   }\n } else if (other.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   return Kotlin.Long.ZERO;\n }\n\n if (this.isNegative()) {\n if (other.isNegative()) {\n   return this.negate().div(other.negate());\n   } else {\n   return this.negate().div(other).negate();\n   }\n } else if (other.isNegative()) {\n   return this.div(other.negate()).negate();\n }\n\n // Repeat the following until the remainder is less than other: find a\n // floating-point that approximates remainder / other *from below*, add this\n // into the result, and subtract it from the remainder.

It is critical that\n // the approximate value is less than or equal to the real value so that the\n // remainder never becomes negative.\n var res = Kotlin.Long.ZERO;\n var rem = this;\n while (rem.greaterThanOrEqual(other)) {\n // Approximate the result of division. This may be a little greater or\n   // smaller than the actual value.\n   var approx = Math.max(1, Math.floor(rem.toNumber() / other.toNumber()));\n\n   // We will tweak the approximate result by changing it in the 48-th digit or\n   // the smallest non-fractional digit, whichever is larger.\n   var log2 = Math.ceil(Math.log(approx) / Math.LN2);\n   var delta = (log2 <= 48) ? 1 : Math.pow(2, log2 - 48);\n\n   // Decrease the approximation until it is smaller than the remainder. Note\n   // that if it is too large, the product overflows and is negative.\n   var approxRes = Kotlin.Long.fromNumber(approx);\n   var approxRem = approxRes.multiply(other);\n   while (approxRem.isNegative() || approxRem.greaterThan(rem))

{\n   approx -= delta;\n   approxRes = Kotlin.Long.fromNumber(approx);\n   approxRem = approxRes.multiply(other);\n   }\n\n   // We know the answer can't be zero... and actually, zero would cause\n   // infinite recursion since we would make no progress.\n   if (approxRes.isZero()) {\n   approxRes = Kotlin.Long.ONE;\n   }\n\n   res = res.add(approxRes);\n   rem = rem.subtract(approxRem);\n }\n return res;\n};\n\n\n/**\n * Returns this Long modulo the given one.\n * @param {Kotlin.Long} other Long by which to mod.\n * @return {!Kotlin.Long} This Long modulo the given one.\n */\nKotlin.Long.prototype.modulo = function(other) {\n return this.subtract(this.div(other).multiply(other));\n};\n\n\n/** @return {!Kotlin.Long} The bitwise-NOT of this value. */\nKotlin.Long.prototype.not = function() {\n return Kotlin.Long.fromBits(~this.low_, ~this.high_);\n};\n\n\n/**\n * Returns the bitwise-AND of this Long and the given one.\n * @param {Kotlin.Long} other The Long with which to AND.\n * @return {!Kotlin.Long} The bitwise-AND of this and the other.\n */\nKotlin.Long.prototype.and = function(other) {\n return Kotlin.Long.fromBits(this.low_ & other.low_,\n

this.high_ & other.high_);\n};\n\n\n/**\n * Returns the bitwise-OR of this Long and the given one.\n * @param {Kotlin.Long} other The Long with which to OR.\n * @return {!Kotlin.Long} The bitwise-OR of this and the other.\n */\nKotlin.Long.prototype.or = function(other) {\n return Kotlin.Long.fromBits(this.low_ | other.low_,\n   this.high_ | other.high_);\n};\n\n\n/**\n * Returns the bitwise-XOR of this Long and the given one.\n * @param {Kotlin.Long} other The Long with which to XOR.\n * @return {!Kotlin.Long} The bitwise-XOR of this and the other.\n */\nKotlin.Long.prototype.xor = function(other) {\n return Kotlin.Long.fromBits(this.low_ ^ other.low_,\n   this.high_ ^ other.high_);\n};\n\n\n/**\n

* Returns this Long with bits shifted to the left by the given amount.\n * @param {number} numBits The number of bits by which to shift.\n * @return {!Kotlin.Long} This shifted to the left by the given amount.\n */\nKotlin.Long.prototype.shiftLeft = function(numBits) {\n numBits &= 63;\n if (numBits == 0) {\n   return this;\n } else {\n   var low = this.low_;\n   if (numBits < 32) {\n   var high = this.high_;\n   return Kotlin.Long.fromBits(\n   low << numBits,\n   (high << numBits) | (low >>> (32 - numBits)));\n   } else

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{\n      return Kotlin.Long.fromBits(0, low << (numBits - 32));\n    }\n  }\n};\n\n\n/**\n * Returns this Long with
bits shifted to the right by the given amount.\n * @param {number} numBits The number of bits by which to shift.\n
* @return {!Kotlin.Long} This shifted to the right by the given amount.\n */\nKotlin.Long.prototype.shiftRight =
function(numBits) {\n  numBits &= 63;\n  if (numBits == 0) {\n    return this;\n  } else
 {\n    var high = this.high_;\n    if (numBits < 32) {\n      var low = this.low_;\n      return Kotlin.Long.fromBits(\n
    (low >>> numBits) | (high << (32 - numBits)),\n          high >> numBits);\n    } else {\n      return
Kotlin.Long.fromBits(\n          high >> (numBits - 32),\n          high >= 0 ? 0 : -1);\n    }\n  }\n};\n\n\n/**\n * Returns
this Long with bits shifted to the right by the given amount, with\n * zeros placed into the new leading bits.\n *
@param {number} numBits The number of bits by which to shift.\n * @return {!Kotlin.Long} This shifted to the
right by the given amount, with\n *     zeros placed into the new leading bits.\n
*/\nKotlin.Long.prototype.shiftRightUnsigned = function(numBits) {\n  numBits &= 63;\n  if (numBits == 0) {\n
return this;\n  } else {\n    var high = this.high_;\n    if (numBits < 32) {\n      var low = this.low_;\n      return
Kotlin.Long.fromBits(\n          (low >>> numBits) | (high << (32 - numBits)),\n          high >>> numBits);\n
    } else if (numBits == 32) {\n      return Kotlin.Long.fromBits(high, 0);\n    } else {\n      return
Kotlin.Long.fromBits(high >>> (numBits - 32), 0);\n    }\n  }\n};\n\n// Support for
Kotlin\nKotlin.Long.prototype.equals = function (other) {\n    return other instanceof Kotlin.Long &&
this.equalsLong(other);\n};\n\nKotlin.Long.prototype.compareTo_11rb$ =
Kotlin.Long.prototype.compare;\n\nKotlin.Long.prototype.inc = function() {\n    return
this.add(Kotlin.Long.ONE);\n};\n\nKotlin.Long.prototype.dec = function() {\n    return
this.add(Kotlin.Long.NEG_ONE);\n};\n\nKotlin.Long.prototype.valueOf = function() {\n    return
this.toNumber();\n};\n\nKotlin.Long.prototype.unaryPlus = function() {\n    return
this;\n};\n\nKotlin.Long.prototype.unaryMinus = Kotlin.Long.prototype.negate;\nKotlin.Long.prototype.inv =
Kotlin.Long.prototype.not;\n\nKotlin.Long.prototype.rangeTo = function (other) {\n    return new
Kotlin.kotlin.ranges.LongRange(this, other);\n};","/*\n * Copyright 2010-2018
 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/**\n * @param {string} id\n *
@param {Object} declaration\n */\nKotlin.defineModule = function (id, declaration)
{\n};\n\nKotlin.defineInlineFunction = function(tag, fun) {\n    return fun;\n};\n\nKotlin.wrapFunction =
function(fun) {\n    var f = function() {\n        f = fun();\n        return f.apply(this, arguments);\n    };\n    return
function() {\n        return f.apply(this, arguments);\n    };\n};\n\nKotlin.isTypeOf = function(type) {\n    return
function (object) {\n        return typeof object === type;\n    }\n};\n\nKotlin.isInstanceOf = function (klass) {\n
return function (object) {\n        return Kotlin.isType(object, klass);\n    }\n};\n\nKotlin.orNull = function (fn) {\n
return function (object) {\n        return object == null || fn(object);\n    }\n};\n\nKotlin.andPredicate
 = function (a, b) {\n    return function (object) {\n        return a(object) && b(object);\n
}\n};\n\nKotlin.kotlinModuleMetadata = function (abiVersion, moduleName, data) {\n};\n\nKotlin.suspendCall =
function(value) {\n    return value;\n};\n\nKotlin.coroutineResult = function(qualifier) {\n
throwMarkerError();\n};\n\nKotlin.coroutineController = function(qualifier) {\n
throwMarkerError();\n};\n\nKotlin.coroutineReceiver = function(qualifier) {\n
throwMarkerError();\n};\n\nKotlin.setCoroutineResult = function(value, qualifier) {\n
throwMarkerError();\n};\n\nKotlin.getReifiedTypeParameterKType = function(typeParameter) {\n
throwMarkerError();\n};\n\nfunction throwMarkerError() {\n    throw new Error(\n        \"This marker function
should never been called. \" +\n        \"Looks like compiler did not eliminate it properly. \" +\n        \"Please, report
an issue if you caught this exception.\");\n}\n\nKotlin.getFunctionById = function(id, defaultValue) {\n
 return function() {\n        return defaultValue;\n    }\n};","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\nKotlin.compareTo = function (a, b) {\n    var typeA = typeof a;\n    if
(typeA === \"number\") {\n        if (typeof b === \"number\") {\n            return Kotlin.doubleCompareTo(a, b);\n
 }\n        return Kotlin.primitiveCompareTo(a, b);\n    }\n    if (typeA === \"string\" || typeA === \"boolean\") {\n
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return Kotlin.primitiveCompareTo(a, b);\n    }\n    return
a.compareTo_11rb$(b);\n};\n\nKotlin.primitiveCompareTo = function (a, b) {\n    return a < b ? -1 : a > b ? 1 :
0;\n};\n\nKotlin.doubleCompareTo = function (a, b) {\n    if (a < b) return -1;\n    if (a > b) return 1;\n\n    if (a ===
b) {\n        if (a !== 0) return 0;\n\n        var ia = 1 / a;\n        return ia === 1 / b ? 0 : (ia < 0
 ? -1 : 1);\n    }\n\n    return a !== a ? (b !== b ? 0 : 1) : -1\n};\n\nKotlin.charInc = function (value) {\n    return
Kotlin.toChar(value+1);\n};\n\nKotlin.charDec = function (value) {\n    return Kotlin.toChar(value-
1);\n};\n\nKotlin.imul = Math.imul || imul;\n\nKotlin.imulEmulated = imul;\n\nfunction imul(a, b) {\n    return ((a &
0xffff0000) * (b & 0xffff) + (a & 0xffff) * (b | 0)) | 0;\n}\n\n(function() {\n    var buf = new ArrayBuffer(8);\n    var
bufFloat64 = new Float64Array(buf);\n    var bufFloat32 = new Float32Array(buf);\n    var bufInt32 = new
Int32Array(buf);\n    var lowIndex = 0;\n    var highIndex = 1;\n\n    bufFloat64[0] = -1; // bff00000_00000000\n    if
(bufInt32[lowIndex] !== 0) {\n        lowIndex = 1;\n        highIndex = 0;\n    }\n\n    Kotlin.doubleToBits =
function(value) {\n        return Kotlin.doubleToRawBits(isNaN(value) ? NaN : value);\n    };\n\n
Kotlin.doubleToRawBits = function(value) {\n        bufFloat64[0] = value;\n        return
Kotlin.Long.fromBits(bufInt32[lowIndex],
 bufInt32[highIndex]);\n    };\n\n    Kotlin.doubleFromBits = function(value) {\n        bufInt32[lowIndex] =
value.low_;\n        bufInt32[highIndex] = value.high_;\n        return bufFloat64[0];\n    };\n\n    Kotlin.floatToBits =
function(value) {\n        return Kotlin.floatToRawBits(isNaN(value) ? NaN : value);\n    };\n\n
Kotlin.floatToRawBits = function(value) {\n        bufFloat32[0] = value;\n        return bufInt32[0];\n    };\n\n
Kotlin.floatFromBits = function(value) {\n        bufInt32[0] = value;\n        return bufFloat32[0];\n    };\n\n    //
returns zero value for number with positive sign bit and non-zero value for number with negative sign bit.\n
Kotlin.doubleSignBit = function(value) {\n        bufFloat64[0] = value;\n        return bufInt32[highIndex] &
0x80000000;\n    };\n\n    Kotlin.numberHashCode = function(obj) {\n        if ((obj | 0) === obj) {\n            return
obj | 0;\n        }\n        else {\n            bufFloat64[0]
 = obj;\n            return (bufInt32[highIndex] * 31 | 0) + bufInt32[lowIndex] | 0;\n        }\n
}\n})();\n\nKotlin.ensureNotNull = function(x) {\n    return x != null ? x : Kotlin.throwNPE();\n};\n","/*\n *
Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is
governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\nif (typeof
String.prototype.startsWith === \"undefined\") {\n    Object.defineProperty(String.prototype, \"startsWith\", {\n
value: function (searchString, position) {\n            position = position || 0;\n            return
this.lastIndexOf(searchString, position) === position;\n        }\n    });\n}\nif (typeof String.prototype.endsWith ===
\"undefined\") {\n    Object.defineProperty(String.prototype, \"endsWith\", {\n        value: function (searchString,
position) {\n            var subjectString = this.toString();\n            if (position === undefined
 || position > subjectString.length) {\n                position = subjectString.length;\n            }\n            position -=
searchString.length;\n            var lastIndex = subjectString.indexOf(searchString, position);\n            return lastIndex
!== -1 && lastIndex === position;\n        }\n    });\n}\n// ES6 Math polyfills\nif (typeof Math.sign ===
\"undefined\") {\n    Math.sign = function(x) {\n        x = +x; // convert to a number\n        if (x === 0 || isNaN(x))
{\n            return Number(x);\n        }\n        return x > 0 ? 1 : -1;\n    };\n}\nif (typeof Math.trunc === \"undefined\")
{\n    Math.trunc = function(x) {\n        if (isNaN(x)) {\n            return NaN;\n        }\n        if (x > 0) {\n
return Math.floor(x);\n        }\n        return Math.ceil(x);\n    };\n}\n\n(function() {\n    var epsilon =
2.220446049250313E-16;\n    var taylor_2_bound = Math.sqrt(epsilon);\n    var taylor_n_bound =
Math.sqrt(taylor_2_bound);\n    var upper_taylor_2_bound
 = 1/taylor_2_bound;\n    var upper_taylor_n_bound = 1/taylor_n_bound;\n\n    if (typeof Math.sinh ===
\"undefined\") {\n        Math.sinh = function(x) {\n            if (Math.abs(x) < taylor_n_bound) {\n                var result
= x;\n                if (Math.abs(x) > taylor_2_bound) {\n                    result += (x * x * x) / 6;\n                }\n
return result;\n            } else {\n                var y = Math.exp(x);\n                var y1 = 1 / y;\n                if (!isFinite(y))
return Math.exp(x - Math.LN2);\n                if (!isFinite(y1)) return -Math.exp(-x - Math.LN2);\n                return (y
- y1) / 2;\n            }\n        };\n    }\n    if (typeof Math.cosh === \"undefined\") {\n        Math.cosh = function(x) {\n
        var y = Math.exp(x);\n            var y1 = 1 / y;\n            if (!isFinite(y) || !isFinite(y1)) return
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Math.exp(Math.abs(x) - Math.LN2);\n            return (y + y1) / 2;\n        };\n    }\n\n    if (typeof Math.tanh
 === \"undefined\") {\n        Math.tanh = function(x){\n            if (Math.abs(x) < taylor_n_bound) {\n                var
result = x;\n                if (Math.abs(x) > taylor_2_bound) {\n                    result -= (x * x * x) / 3;\n                }\n
    return result;\n            }\n            else {\n                var a = Math.exp(+x), b = Math.exp(-x);\n                return a
=== Infinity ? 1 : b === Infinity ? -1 : (a - b) / (a + b);\n            }\n        };\n    }\n\n    // Inverse hyperbolic function
implementations derived from boost special math functions,\n    // Copyright Eric Ford & Hubert Holin 2001.\n\n
if (typeof Math.asinh === \"undefined\") {\n        var asinh = function(x) {\n            if (x >= +taylor_n_bound)\n
   {\n                if (x > upper_taylor_n_bound)\n                {\n                    if (x > upper_taylor_2_bound)\n
{\n                        // approximation by laurent series in 1/x
 at 0+ order from -1 to 0\n                        return Math.log(x) + Math.LN2;\n                    }\n                    else\n
       {\n                        // approximation by laurent series in 1/x at 0+ order from -1 to 1\n                        return
Math.log(x * 2 + (1 / (x * 2)));\n                    }\n                }\n                else\n                {\n                    return
Math.log(x + Math.sqrt(x * x + 1));\n                }\n            }\n            else if (x <= -taylor_n_bound)\n            {\n
      return -asinh(-x);\n            }\n            else\n            {\n                // approximation by taylor series in x at 0 up to
order 2\n                var result = x;\n                if (Math.abs(x) >= taylor_2_bound)\n                {\n                    var x3 =
x * x * x;\n                    // approximation by taylor series in x at 0 up to order 4\n                    result -= x3 / 6;\n
    }\n
        return result;\n            }\n        };\n        Math.asinh = asinh;\n    }\n    if (typeof Math.acosh === \"undefined\")
{\n        Math.acosh = function(x) {\n            if (x < 1)\n            {\n                return NaN;\n            }\n            else if
(x - 1 >= taylor_n_bound)\n            {\n                if (x > upper_taylor_2_bound)\n                {\n                    //
approximation by laurent series in 1/x at 0+ order from -1 to 0\n                    return Math.log(x) + Math.LN2;\n
    }\n                else\n                {\n                    return Math.log(x + Math.sqrt(x * x - 1));\n                }\n            }\n
       else\n            {\n                var y = Math.sqrt(x - 1);\n                // approximation by taylor series in y at 0 up to
order 2\n                var result = y;\n                if (y >= taylor_2_bound)\n                {\n                    var y3 = y * y *
y;\n                    // approximation
 by taylor series in y at 0 up to order 4\n                    result -= y3 / 12;\n                }\n\n                return Math.sqrt(2)
* result;\n            }\n        };\n    }\n    if (typeof Math.atanh === \"undefined\") {\n        Math.atanh = function(x) {\n
        if (Math.abs(x) < taylor_n_bound) {\n                var result = x;\n                if (Math.abs(x) > taylor_2_bound)
{\n                    result += (x * x * x) / 3;\n                }\n                return result;\n            }\n            return Math.log((1
+ x) / (1 - x)) / 2;\n        };\n    }\n    if (typeof Math.log1p === \"undefined\") {\n        Math.log1p = function(x) {\n
       if (Math.abs(x) < taylor_n_bound) {\n                var x2 = x * x;\n                var x3 = x2 * x;\n                var x4 =
x3 * x;\n                // approximation by taylor series in x at 0 up to order 4\n                return (-x4 / 4 + x3 / 3 - x2 / 2
+ x);\n            }\n            return Math.log(x
 + 1);\n        };\n    }\n    if (typeof Math.expm1 === \"undefined\") {\n        Math.expm1 = function(x) {\n            if
(Math.abs(x) < taylor_n_bound) {\n                var x2 = x * x;\n                var x3 = x2 * x;\n                var x4 = x3 *
x;\n                // approximation by taylor series in x at 0 up to order 4\n                return (x4 / 24 + x3 / 6 + x2 / 2 +
x);\n            }\n            return Math.exp(x) - 1;\n        };\n    }\n})();\nif (typeof Math.hypot === \"undefined\") {\n
Math.hypot = function() {\n        var y = 0;\n        var length = arguments.length;\n\n        for (var i = 0; i < length;
i++) {\n            if (arguments[i] === Infinity || arguments[i] === -Infinity) {\n                return Infinity;\n            }\n
        y += arguments[i] * arguments[i];\n        }\n        return Math.sqrt(y);\n    };\n}\nif (typeof Math.log10 ===
\"undefined\") {\n    Math.log10 = function(x) {\n        return Math.log(x) * Math.LOG10E;\n
  };\n}\nif (typeof Math.log2 === \"undefined\") {\n    Math.log2 = function(x) {\n        return Math.log(x) *
Math.LOG2E;\n    };\n}\nif (typeof Math.clz32 === \"undefined\") {\n    Math.clz32 = (function(log, LN2) {\n
return function(x) {\n            var asUint = x >>> 0;\n            if (asUint === 0) {\n                return 32;\n            }\n
    return 31 - (log(asUint) / LN2 | 0) | 0; // the \"| 0\" acts like math.floor\n        };\n    })(Math.log,
Math.LN2);\n}\n\n// For HtmlUnit and PhantomJs\nif (typeof ArrayBuffer.isView === \"undefined\") {\n
ArrayBuffer.isView = function(a) {\n        return a != null && a.__proto__ != null && a.__proto__.__proto__ ===
Int8Array.prototype.__proto__;\n    };\n}\n\nif (typeof Array.prototype.fill === \"undefined\") {\n    // Polyfill from
```

```
https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Array/fill#Polyfill\n
Object.defineProperty(Array.prototype, 'fill', {\n        value: function (value)
 {\n\n            // Steps 1-2.\n            if (this == null) {\n                throw new TypeError('this is null or not defined');\n
        }\n\n            var O = Object(this);\n\n            // Steps 3-5.\n            var len = O.length >>> 0;\n\n            // Steps
6-7.\n            var start = arguments[1];\n            var relativeStart = start >> 0;\n\n            // Step 8.\n            var k =
relativeStart < 0 ?\n                    Math.max(len + relativeStart, 0) :\n                    Math.min(relativeStart, len);\n\n
   // Steps 9-10.\n            var end = arguments[2];\n            var relativeEnd = end === undefined ?\n
 len : end >> 0;\n\n            // Step 11.\n            var finalValue = relativeEnd < 0 ?\n                            Math.max(len +
relativeEnd, 0) :\n                            Math.min(relativeEnd, len);\n\n            // Step 12.\n            while (k <
finalValue) {\n                O[k] = value;\n
              k++;\n            }\n\n            // Step 13.\n            return O;\n        }\n    });\n}\n\n(function() {\n    function
normalizeOffset(offset, length) {\n        if (offset < 0) return Math.max(0, offset + length);\n        return
Math.min(offset, length);\n    }\n    function typedArraySlice(begin, end) {\n        if (typeof end === \"undefined\")
{\n            end = this.length;\n        }\n        begin = normalizeOffset(begin || 0, this.length);\n        end =
Math.max(begin, normalizeOffset(end, this.length));\n        return new this.constructor(this.subarray(begin, end));\n
}\n\n    var arrays = [Int8Array, Int16Array, Uint16Array, Int32Array, Float32Array, Float64Array];\n    for (var i =
0; i < arrays.length; ++i) {\n        var TypedArray = arrays[i];\n        if (typeof TypedArray.prototype.fill ===
\"undefined\") {\n            Object.defineProperty(TypedArray.prototype, 'fill', {\n                value:
Array.prototype.fill\n            });\n
     }\n        if (typeof TypedArray.prototype.slice === \"undefined\") {\n
Object.defineProperty(TypedArray.prototype, 'slice', {\n                value: typedArraySlice\n            });\n        }\n
}\n\n    // Patch apply to work with TypedArrays if needed.\n    try {\n        (function() {}).apply(null, new
Int32Array(0))\n    } catch (e) {\n        var apply = Function.prototype.apply;\n
Object.defineProperty(Function.prototype, 'apply', {\n            value: function(self, array) {\n                return
apply.call(this, self, [].slice.call(array));\n            }\n        });\n    }\n\n\n    // Patch map to work with TypedArrays if
needed.\n    for (var i = 0; i < arrays.length; ++i) {\n        var TypedArray = arrays[i];\n        if (typeof
TypedArray.prototype.map === \"undefined\") {\n            Object.defineProperty(TypedArray.prototype, 'map', {\n
          value: function(callback, self) {\n                    return [].slice.call(this).map(callback,
 self);\n                }\n            });\n        }\n    }\n\n    // Patch sort to work with TypedArrays if needed.\n    // TODO:
consider to remove following function and replace it with `Kotlin.doubleCompareTo` (see misc.js)\n    var
totalOrderComparator = function (a, b) {\n        if (a < b) return -1;\n        if (a > b) return 1;\n\n        if (a === b) {\n
        if (a !== 0) return 0;\n\n            var ia = 1 / a;\n            return ia === 1 / b ? 0 : (ia < 0 ? -1 : 1);\n        }\n\n
return a !== a ? (b !== b ? 0 : 1) : -1\n    };\n\n    for (var i = 0; i < arrays.length; ++i) {\n        var TypedArray =
arrays[i];\n        if (typeof TypedArray.prototype.sort === \"undefined\") {\n
Object.defineProperty(TypedArray.prototype, 'sort', {\n                value: function(compareFunction) {\n
return Array.prototype.sort.call(this, compareFunction || totalOrderComparator);\n                }\n            });\n        }\n
 }\n})();\n","/*\n
 * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source
code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\nKotlin.Kind =
{\n    CLASS: \"class\",\n    INTERFACE: \"interface\",\n    OBJECT: \"object\"\n};\n\nKotlin.callGetter = function
(thisObject, klass, propertyName) {\n    var propertyDescriptor = Object.getOwnPropertyDescriptor(klass,
propertyName);\n    if (propertyDescriptor != null && propertyDescriptor.get != null) {\n        return
propertyDescriptor.get.call(thisObject);\n    }\n\n    propertyDescriptor =
Object.getOwnPropertyDescriptor(thisObject, propertyName);\n    if (propertyDescriptor != null && \"value\" in
propertyDescriptor) {\n        return thisObject[propertyName];\n    }\n\n    return Kotlin.callGetter(thisObject,
Object.getPrototypeOf(klass), propertyName);\n};\n\nKotlin.callSetter = function (thisObject, klass, propertyName,
value) {\n    var propertyDescriptor
```

```
 = Object.getOwnPropertyDescriptor(klass, propertyName);\n    if (propertyDescriptor != null &&
propertyDescriptor.set != null) {\n        propertyDescriptor.set.call(thisObject, value);\n        return;\n    }\n\n
propertyDescriptor = Object.getOwnPropertyDescriptor(thisObject, propertyName);\n    if (propertyDescriptor !=
null && \"value\" in propertyDescriptor) {\n        thisObject[propertyName] = value;\n        return\n    }\n\n
Kotlin.callSetter(thisObject, Object.getPrototypeOf(klass), propertyName, value);\n};\n\nfunction
isInheritanceFromInterface(ctor, iface) {\n    if (ctor === iface) return true;\n\n    var metadata = ctor.$metadata$;\n
if (metadata != null) {\n        var interfaces = metadata.interfaces;\n        for (var i = 0; i < interfaces.length; i++) {\n
        if (isInheritanceFromInterface(interfaces[i], iface)) {\n                return true;\n            }\n        }\n    }\n\n    var
superPrototype = ctor.prototype != null ? Object.getPrototypeOf(ctor.prototype)
 : null;\n    var superConstructor = superPrototype != null ? superPrototype.constructor : null;\n    return
superConstructor != null && isInheritanceFromInterface(superConstructor, iface);\n}\n\n/**\n *\n * @param {*}
object\n * @param {Function|Object} klass\n * @returns {Boolean}\n */\nKotlin.isType = function (object, klass)
{\n    if (klass === Object) {\n        switch (typeof object) {\n            case \"string\":\n            case \"number\":\n
  case \"boolean\":\n            case \"function\":\n                return true;\n            default:\n                return object
instanceof Object;\n        }\n    }\n\n    if (object == null || klass == null || (typeof object !== 'object' && typeof
object !== 'function')) {\n        return false;\n    }\n\n    if (typeof klass === \"function\" && object instanceof klass)
{\n        return true;\n    }\n\n    var proto = Object.getPrototypeOf(klass);\n    var constructor = proto != null ?
proto.constructor
 : null;\n    if (constructor != null && \"$metadata$\" in constructor) {\n        var metadata =
constructor.$metadata$;\n        if (metadata.kind === Kotlin.Kind.OBJECT) {\n            return object === klass;\n
 }\n    }\n\n    var klassMetadata = klass.$metadata$;\n\n    // In WebKit (JavaScriptCore) for some interfaces from
DOM typeof returns \"object\", nevertheless they can be used in RHS of instanceof\n    if (klassMetadata == null)
{\n        return object instanceof klass;\n    }\n\n    if (klassMetadata.kind === Kotlin.Kind.INTERFACE &&
object.constructor != null) {\n        return isInheritanceFromInterface(object.constructor, klass);\n    }\n\n    return
false;\n};\n\nKotlin.isNumber = function (a) {\n    return typeof a == \"number\" || a instanceof
Kotlin.Long;\n};\n\nKotlin.isChar = function (value) {\n    return value instanceof
Kotlin.BoxedChar\n};\n\nKotlin.isComparable = function (value) {\n    var type = typeof value;\n\n    return type
=== \"string\"
 ||\n           type === \"boolean\" ||\n           Kotlin.isNumber(value) ||\n           Kotlin.isType(value,
Kotlin.kotlin.Comparable);\n};\n\nKotlin.isCharSequence = function (value) {\n    return typeof value === \"string\"
|| Kotlin.isType(value, Kotlin.kotlin.CharSequence);\n};","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\n// a package is omitted to get declarations directly under the
module\n\n@PublishedApi\nexternal internal fun <T> Array(size: Int): Array<T>\n\n@JsName(\"newArray\")\nfun
<T> newArray(size: Int, initValue: T) = fillArrayVal(Array<T>(size),
initValue)\n\n@JsName(\"newArrayF\")\ninline fun <T> arrayWithFun(size: Int, init: (Int) -> T) =
fillArrayFun(Array<T>(size), init)\n\n@JsName(\"fillArray\")\ninline fun <T> fillArrayFun(array: Array<T>, init:
(Int) -> T): Array<T> {\n    for (i in 0..array.size
 - 1) {\n        array[i] = init(i)\n    }\n    return array\n}\n\n@JsName(\"booleanArray\")\nfun booleanArray(size: Int,
init: dynamic): Array<Boolean> {\n    val result: dynamic = Array<Boolean>(size)\n    result.`$type$` =
\"BooleanArray\"\n    return when (init) {\n        null, true -> fillArrayVal(result, false)\n        false -> result\n
else -> fillArrayFun<Boolean>(result, init)\n    }\n}\n\n@JsName(\"booleanArrayF\")\ninline fun
booleanArrayWithFun(size: Int, init: (Int) -> Boolean): Array<Boolean> = fillArrayFun(booleanArray(size, false),
init)\n\n@JsName(\"charArray\")\n@Suppress(\"UNUSED_PARAMETER\")\nfun charArray(size: Int, init:
dynamic): Array<Char> {\n    val result = js(\"new Uint16Array(size)\")\n    result.`$type$` = \"CharArray\"\n
return when (init) {\n        null, true, false -> result // For consistency\n        else -> fillArrayFun<Char>(result,
init)\n    }\n}\n\n@JsName(\"charArrayF\")\ninline fun charArrayWithFun(size: Int, init: (Int)
```

-> Char): Array<Char> {\n   val array = charArray(size, null)\n   for (i in 0..array.size - 1) {\n
@Suppress(\"UNUSED_VARIABLE\") // used in js block\n   val value = init(i)\n   js(\"array[i] = value;\")\n
}\n   return array\n}\n\n@JsName(\"untypedCharArrayF\")\ninline fun untypedCharArrayWithFun(size: Int, init:
(Int) -> Char): Array<Char> {\n   val array = Array<Char>(size)\n   for (i in 0..array.size - 1) {\n
@Suppress(\"UNUSED_VARIABLE\") // used in js block\n   val value = init(i)\n   js(\"array[i] = value;\")\n
}\n   return array\n}\n\n@JsName(\"longArray\")\nfun longArray(size: Int, init: dynamic): Array<Long> {\n   val
result: dynamic = Array<Long>(size)\n   result.`$type$` = \"LongArray\"\n   return when (init) {\n   null, true ->
fillArrayVal(result, 0L)\n   false -> result\n   else -> fillArrayFun<Long>(result, init)\n
}\n}\n\n@JsName(\"longArrayF\")\ninline fun longArrayWithFun(size: Int, init: (Int) -> Long):
Array<Long> = fillArrayFun(longArray(size, false), init)\n\nprivate fun <T> fillArrayVal(array: Array<T>,
initValue: T): Array<T> {\n   for (i in 0..array.size - 1) {\n   array[i] = initValue\n   }\n   return array\n}","/*\n *
Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is
governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin\n\npublic class Enum<T : Enum<T>> : Comparable<Enum<T>> {\n   @JsName(\"name$\") private var
_name: String = \"\"\n   @JsName(\"ordinal$\") private var _ordinal: Int = 0\n\n   val name: String\n   get() =
_name\n\n   val ordinal: Int\n   get() = _ordinal\n\n   override fun compareTo(other: Enum<T>) =
ordinal.compareTo(other.ordinal)\n\n   override fun equals(other: Any?) = this === other\n\n   override fun
hashCode(): Int = js(\"Kotlin.identityHashCode\")(this)\n\n   override fun toString() = name\n\n   companion
object\n}","/*\n
* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.js.internal\n\n@JsName(\"DoubleCompanionObject\")\ninternal object DoubleCompanionObject {\n
@JsName(\"MIN_VALUE\")\n   const val MIN_VALUE: Double = 4.9E-324\n\n
@JsName(\"MAX_VALUE\")\n   const val MAX_VALUE: Double = 1.7976931348623157E308\n\n
@JsName(\"POSITIVE_INFINITY\")\n   @Suppress(\"DIVISION_BY_ZERO\")\n   const val
POSITIVE_INFINITY: Double = 1.0 / 0.0\n\n   @JsName(\"NEGATIVE_INFINITY\")\n
@Suppress(\"DIVISION_BY_ZERO\")\n   const val NEGATIVE_INFINITY: Double = -1.0 / 0.0\n\n
@JsName(\"NaN\")\n   @Suppress(\"DIVISION_BY_ZERO\")\n   const val NaN: Double = -(0.0 / 0.0)\n\n
@JsName(\"SIZE_BYTES\")\n   const val SIZE_BYTES = 8\n\n   @JsName(\"SIZE_BITS\")\n   const val
SIZE_BITS = 64\n}\n\n@JsName(\"FloatCompanionObject\")\ninternal
object FloatCompanionObject {\n   @JsName(\"MIN_VALUE\")\n   const val MIN_VALUE: Float = 1.4E-
45F\n\n   @JsName(\"MAX_VALUE\")\n   const val MAX_VALUE: Float = 3.4028235E38F\n\n
@JsName(\"POSITIVE_INFINITY\")\n   @Suppress(\"DIVISION_BY_ZERO\")\n   const val
POSITIVE_INFINITY: Float = 1.0F / 0.0F\n\n   @JsName(\"NEGATIVE_INFINITY\")\n
@Suppress(\"DIVISION_BY_ZERO\")\n   const val NEGATIVE_INFINITY: Float = -1.0F / 0.0F\n\n
@JsName(\"NaN\")\n   @Suppress(\"DIVISION_BY_ZERO\")\n   const val NaN: Float = -(0.0F / 0.0F)\n\n
@JsName(\"SIZE_BYTES\")\n   const val SIZE_BYTES = 4\n\n   @JsName(\"SIZE_BITS\")\n   const val
SIZE_BITS = 32\n}\n\n@JsName(\"IntCompanionObject\")\ninternal object IntCompanionObject {\n
@JsName(\"MIN_VALUE\")\n   val MIN_VALUE: Int = -2147483647 - 1\n\n   @JsName(\"MAX_VALUE\")\n
val MAX_VALUE: Int = 2147483647\n\n   @JsName(\"SIZE_BYTES\")\n   const val SIZE_BYTES = 4\n\n
@JsName(\"SIZE_BITS\")\n   const
val SIZE_BITS = 32\n}\n\n@JsName(\"LongCompanionObject\")\ninternal object LongCompanionObject {\n
@JsName(\"MIN_VALUE\")\n   val MIN_VALUE: Long = js(\"Kotlin.Long.MIN_VALUE\")\n\n
@JsName(\"MAX_VALUE\")\n   val MAX_VALUE: Long = js(\"Kotlin.Long.MAX_VALUE\")\n\n
@JsName(\"SIZE_BYTES\")\n   const val SIZE_BYTES = 8\n\n   @JsName(\"SIZE_BITS\")\n   const val
SIZE_BITS = 64\n}\n\n@JsName(\"ShortCompanionObject\")\ninternal object ShortCompanionObject {\n
@JsName(\"MIN_VALUE\")\n   val MIN_VALUE: Short = -32768\n\n   @JsName(\"MAX_VALUE\")\n   val
MAX_VALUE: Short = 32767\n\n   @JsName(\"SIZE_BYTES\")\n   const val SIZE_BYTES = 2\n\n

@JsName(\"SIZE_BITS\")\n   const val SIZE_BITS = 16\n}\n\n@JsName(\"ByteCompanionObject\")\ninternal object ByteCompanionObject {\n   @JsName(\"MIN_VALUE\")\n   val MIN_VALUE: Byte = -128\n\n   @JsName(\"MAX_VALUE\")\n   val MAX_VALUE: Byte = 127\n\n   @JsName(\"SIZE_BYTES\")\n   const val SIZE_BYTES = 1\n\n   @JsName(\"SIZE_BITS\")\n

    const val SIZE_BITS = 8\n}\n\n@JsName(\"CharCompanionObject\")\ninternal object CharCompanionObject {\n   @JsName(\"MIN_VALUE\")\n   public const val MIN_VALUE: Char = '\\u0000'\n\n   @JsName(\"MAX_VALUE\")\n   public const val MAX_VALUE: Char = '\\uFFFF'\n\n   @JsName(\"MIN_HIGH_SURROGATE\")\n   public const val MIN_HIGH_SURROGATE: Char = '\\uD800'\n\n   @JsName(\"MAX_HIGH_SURROGATE\")\n   public const val MAX_HIGH_SURROGATE: Char = '\\uDBFF'\n\n   @JsName(\"MIN_LOW_SURROGATE\")\n   public const val MIN_LOW_SURROGATE: Char = '\\uDC00'\n\n   @JsName(\"MAX_LOW_SURROGATE\")\n   public const val MAX_LOW_SURROGATE: Char = '\\uDFFF'\n\n   @JsName(\"MIN_SURROGATE\")\n   public const val MIN_SURROGATE: Char = MIN_HIGH_SURROGATE\n\n   @JsName(\"MAX_SURROGATE\")\n   public const val MAX_SURROGATE: Char = MAX_LOW_SURROGATE\n\n   @JsName(\"SIZE_BYTES\")\n   const val SIZE_BYTES = 2\n\n   @JsName(\"SIZE_BITS\")\n   const val SIZE_BITS = 16\n}\n\ninternal object

 StringCompanionObject {}\n\ninternal object BooleanCompanionObject {}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"ArraysKt\")\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component1(): T {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the

 array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component1(): Byte {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component1(): Short {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component1(): Int {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws

 an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component1(): Long {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component1(): Float {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component1(): Double {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where

 the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component1(): Boolean {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component1():

Char {\n   return get(0)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less
than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component2(): T {\n   return
get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@kotlin.internal.InlineOnly\npublic
inline operator fun ByteArray.component2(): Byte {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the
array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n
* where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun
ShortArray.component2(): Short {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If
the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the
behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component2(): Int
{\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than
2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component2():
Long {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less
than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component2(): Float {\n   return
get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component2(): Double {\n   return
get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component2(): Boolean {\n   return
get(1)\n}\n\n/**\n * Returns 2nd
element from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException]
except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator
fun CharArray.component2(): Char {\n   return get(1)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n *
If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the
behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out
T>.component3(): T {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of
this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is
unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component3(): Byte {\n
return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array
is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is
unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component3(): Short {\n
return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3,
throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component3(): Int {\n   return
get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component3(): Long {\n   return
get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an
[IndexOutOfBoundsException] except in
Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun
FloatArray.component3(): Float {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If
the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the
behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component3():

Double {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component3(): Boolean {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component3(): Char {\n   return get(2)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component4(): T {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component4(): Byte {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component4(): Short {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component4(): Int {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component4(): Long {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component4(): Float {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component4(): Double {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component4(): Boolean {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component4(): Char {\n   return get(3)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component5(): T {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component5(): Byte {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component5(): Short {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component5(): Int {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component5(): Long {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component5(): Float {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component5(): Double {\n return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component5(): Boolean {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component5(): Char {\n   return get(4)\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun <@kotlin.internal.OnlyInputTypes T> Array<out T>.contains(element: T): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun ByteArray.contains(element: Byte): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun ShortArray.contains(element: Short): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun IntArray.contains(element: Int): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun LongArray.contains(element: Long): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\n@Deprecated(\"The function has unclear behavior when searching for NaN or zero values and will be removed soon. Use 'any { it == element }' instead to continue using this behavior, or '.asList().contains(element: T)' to get the same search behavior as in a list.\", ReplaceWith(\"any { it == element }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\n@Suppress(\"DEPRECATION_ERROR\")\npublic operator fun FloatArray.contains(element: Float): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\n@Deprecated(\"The function has unclear behavior when searching for NaN or zero values and will be removed soon. Use 'any { it == element }' instead to continue using this behavior, or '.asList().contains(element: T)' to get the same search behavior as in a list.\", ReplaceWith(\"any { it == element }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\n@Suppress(\"DEPRECATION_ERROR\")\npublic operator fun DoubleArray.contains(element: Double): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun BooleanArray.contains(element: Boolean): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun CharArray.contains(element: Char): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun <T> Array<out T>.elementAt(index: Int): T\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun ByteArray.elementAt(index: Int): Byte\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun ShortArray.elementAt(index: Int): Short\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun IntArray.elementAt(index:

Int): Int\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun LongArray.elementAt(index: Int): Long\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun FloatArray.elementAt(index: Int): Float\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic
expect fun DoubleArray.elementAt(index: Int): Double\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun BooleanArray.elementAt(index: Int): Boolean\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun CharArray.elementAt(index: Int): Char\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n   return if (index >= 0 && index <= lastIndex)
get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Byte): Byte {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Short): Short {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling
the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Int): Int {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Long): Long {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Float): Float {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Double): Double {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.elementAtOrElse(index:
Int, defaultValue: (Int) -> Boolean): Boolean {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue]

function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Char): Char {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.elementAtOrNull(index: Int): T? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.elementAtOrNull(index: Int): Byte? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.elementAtOrNull(index: Int): Short? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.elementAtOrNull(index: Int): Int? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.elementAtOrNull(index: Int): Long? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.elementAtOrNull(index: Int): Float? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.elementAtOrNull(index: Int): Double? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.elementAtOrNull(index: Int): Boolean? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.elementAtOrNull(index: Int): Char? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.find(predicate: (T) -> Boolean): T? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.find(predicate: (Byte) -> Boolean): Byte? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.find(predicate: (Short) -> Boolean): Short? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.find(predicate: (Int) -> Boolean): Int? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.find(predicate:

(Long) -> Boolean): Long? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.find(predicate: (Float) -> Boolean): Float? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.find(predicate: (Double) -> Boolean): Double? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.find(predicate: (Boolean) -> Boolean): Boolean? {\n

return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.find(predicate: (Char) -> Boolean): Char? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.findLast(predicate: (T) -> Boolean): T? {\n return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.findLast(predicate: (Byte) -> Boolean): Byte? {\n return lastOrNull(predicate)\n}\n\n/**\n

* Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.findLast(predicate: (Short) -> Boolean): Short? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.findLast(predicate: (Int) -> Boolean): Int? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.findLast(predicate: (Long) -> Boolean): Long? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the

given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.findLast(predicate: (Float) -> Boolean): Float? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.findLast(predicate: (Double) -> Boolean): Double? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.findLast(predicate: (Boolean) -> Boolean): Boolean? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null`

if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.findLast(predicate: (Char) -> Boolean): Char? {\n return lastOrNull(predicate)\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun <T> Array<out T>.first(): T {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun ByteArray.first(): Byte {\n   if (isEmpty())\n throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun ShortArray.first(): Short {\n   if

(isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns first element.\n
 * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun IntArray.first(): Int {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun LongArray.first(): Long {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun FloatArray.first(): Float {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun DoubleArray.first(): Double {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if
 the array is empty.\n */\npublic fun BooleanArray.first(): Boolean {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun CharArray.first(): Char {\n   if (isEmpty())\n throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun <T> Array<out T>.first(predicate: (T) -> Boolean): T {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun ByteArray.first(predicate: (Byte) -> Boolean): Byte {\n
   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun ShortArray.first(predicate: (Short) -> Boolean): Short {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun IntArray.first(predicate: (Int) -> Boolean): Int {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException]
 if no such element is found.\n */\npublic inline fun LongArray.first(predicate: (Long) -> Boolean): Long {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun FloatArray.first(predicate: (Float) -> Boolean): Float {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun DoubleArray.first(predicate: (Double) -> Boolean): Double {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the
 predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun BooleanArray.first(predicate: (Boolean) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun CharArray.first(predicate: (Char) -> Boolean): Char {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to

elements of this array in iteration order,\n * or throws [NoSuchElementException] if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any> Array<out T>.firstNotNullOf(transform: (T) -> R?): R {\n   return firstNotNullOfOrNull(transform) ?: throw NoSuchElementException(\"No element of the array was transformed to a non-null value.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to elements of this array in iteration order,\n * or `null` if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any> Array<out T>.firstNotNullOfOrNull(transform: (T) -> R?): R? {\n   for (element in this) {\n   val result = transform(element)\n   if (result != null) {\n   return result\n   }\n   }\n   return null\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun <T> Array<out T>.firstOrNull(): T? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun ByteArray.firstOrNull(): Byte? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun ShortArray.firstOrNull(): Short? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun IntArray.firstOrNull(): Int? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun LongArray.firstOrNull(): Long? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun FloatArray.firstOrNull(): Float? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun DoubleArray.firstOrNull(): Double? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun BooleanArray.firstOrNull(): Boolean? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun CharArray.firstOrNull(): Char? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun <T> Array<out T>.firstOrNull(predicate: (T) -> Boolean): T? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun ByteArray.firstOrNull(predicate: (Byte) -> Boolean): Byte? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun ShortArray.firstOrNull(predicate: (Short) -> Boolean): Short? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun IntArray.firstOrNull(predicate: (Int) -> Boolean): Int? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun LongArray.firstOrNull(predicate: (Long) -> Boolean): Long? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun FloatArray.firstOrNull(predicate: (Float) -> Boolean): Float? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun DoubleArray.firstOrNull(predicate: (Double) -> Boolean): Double? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun BooleanArray.firstOrNull(predicate: (Boolean) -> Boolean): Boolean? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun CharArray.firstOrNull(predicate: (Char) -> Boolean): Char? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.getOrElse(index: Int, defaultValue: (Int) -> T): T {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.getOrElse(index: Int, defaultValue: (Int) -> Byte): Byte {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.getOrElse(index: Int, defaultValue: (Int) -> Short): Short {\n   return if (index >= 0

&& index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.getOrElse(index: Int, defaultValue: (Int) -> Int): Int {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.getOrElse(index: Int, defaultValue: (Int) -> Long): Long {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.getOrElse(index:

Int, defaultValue: (Int) -> Float): Float {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.getOrElse(index: Int, defaultValue: (Int) -> Double): Double {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.getOrElse(index: Int, defaultValue: (Int) -> Boolean): Boolean {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index]

is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.getOrElse(index: Int, defaultValue: (Int) -> Char): Char {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun <T> Array<out T>.getOrNull(index: Int): T? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun ByteArray.getOrNull(index: Int): Byte? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n

*/\npublic fun ShortArray.getOrNull(index: Int): Short? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun IntArray.getOrNull(index: Int): Int? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun LongArray.getOrNull(index: Int): Long? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun FloatArray.getOrNull(index:

Int): Float? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun DoubleArray.getOrNull(index: Int): Double? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun BooleanArray.getOrNull(index: Int): Boolean? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun CharArray.getOrNull(index: Int): Char? {\n   return if (index >= 0 && index
<= lastIndex) get(index) else null\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun <@kotlin.internal.OnlyInputTypes T> Array<out T>.indexOf(element: T): Int {\n   if (element == null) {\n   for (index in indices) {\n   if (this[index] == null) {\n   return index\n   }\n   }\n   } else {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun ByteArray.indexOf(element: Byte): Int {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun ShortArray.indexOf(element: Short): Int {\n   for (index in indices)
{\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun IntArray.indexOf(element: Int): Int {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun LongArray.indexOf(element: Long): Int {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\n@Deprecated(\"The function has unclear behavior when searching for NaN or zero values and will be removed soon. Use 'indexOfFirst { it == element }' instead to continue using this behavior, or '.asList().indexOf(element: T)' to get the same
search behavior as in a list.\", ReplaceWith(\"indexOfFirst { it == element }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic fun FloatArray.indexOf(element: Float): Int {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\n@Deprecated(\"The function has unclear behavior when searching for NaN or zero values and will be removed soon. Use 'indexOfFirst { it == element }' instead to continue using this behavior, or '.asList().indexOf(element: T)' to get the same search behavior as in a list.\", ReplaceWith(\"indexOfFirst { it == element }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic fun DoubleArray.indexOf(element: Double): Int {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n
return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun BooleanArray.indexOf(element: Boolean): Int {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun CharArray.indexOf(element: Char): Int {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun <T> Array<out T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate],

or -1 if the array does not contain such element.\n */\npublic inline fun ByteArray.indexOfFirst(predicate: (Byte) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun ShortArray.indexOfFirst(predicate: (Short) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun IntArray.indexOfFirst(predicate: (Int) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching

the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun LongArray.indexOfFirst(predicate: (Long) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun FloatArray.indexOfFirst(predicate: (Float) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun DoubleArray.indexOfFirst(predicate: (Double) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns

index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun BooleanArray.indexOfFirst(predicate: (Boolean) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun CharArray.indexOfFirst(predicate: (Char) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun <T> Array<out T>.indexOfLast(predicate: (T) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n

}\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun ByteArray.indexOfLast(predicate: (Byte) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun ShortArray.indexOfLast(predicate: (Short) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun IntArray.indexOfLast(predicate: (Int) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if

(predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun LongArray.indexOfLast(predicate: (Long) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun FloatArray.indexOfLast(predicate: (Float) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun DoubleArray.indexOfLast(predicate: (Double) -> Boolean):

Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun BooleanArray.indexOfLast(predicate: (Boolean) -> Boolean): Int {\n for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun CharArray.indexOfLast(predicate: (Char) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> Array<out T>.last(): T {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun ByteArray.last(): Byte {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun ShortArray.last(): Short {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun IntArray.last(): Int {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun LongArray.last(): Long {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun FloatArray.last(): Float {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun DoubleArray.last(): Double {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun BooleanArray.last(): Boolean {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun CharArray.last(): Char {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Array<out T>.last(predicate: (T) -> Boolean): T {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun ByteArray.last(predicate: (Byte) -> Boolean): Byte {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun ShortArray.last(predicate: (Short) -> Boolean): Short {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun IntArray.last(predicate: (Int) -> Boolean): Int {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun LongArray.last(predicate: (Long) -> Boolean): Long {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun FloatArray.last(predicate: (Float) -> Boolean): Float {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun DoubleArray.last(predicate: (Double) -> Boolean): Double {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun BooleanArray.last(predicate: (Boolean) -> Boolean): Boolean {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun CharArray.last(predicate: (Char) -> Boolean): Char {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun <@kotlin.internal.OnlyInputTypes T> Array<out T>.lastIndexOf(element: T): Int {\n   if (element == null) {\n   for (index in indices.reversed()) {\n   if (this[index] == null) {\n   return index\n   }\n   }\n   } else {\n   for (index in indices.reversed()) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   }\n   return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun ByteArray.lastIndexOf(element: Byte): Int {\n   for (index in indices.reversed()) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun ShortArray.lastIndexOf(element: Short): Int {\n   for (index in indices.reversed()) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun IntArray.lastIndexOf(element: Int): Int {\n   for (index in indices.reversed()) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun LongArray.lastIndexOf(element: Long): Int {\n   for (index in indices.reversed()) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\n@Deprecated(\"The function has unclear behavior when searching for NaN or zero values and will be removed soon. Use 'indexOfLast { it == element }' instead to continue using this behavior, or '.asList().lastIndexOf(element: T)' to get the same search behavior as in a list.\", ReplaceWith(\"indexOfLast { it == element }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic fun FloatArray.lastIndexOf(element: Float): Int {\n for (index in indices.reversed()) {\n if (element == this[index]) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\n@Deprecated(\"The function has unclear behavior when searching for NaN or zero values and will be removed soon. Use 'indexOfLast { it == element }' instead to continue using this behavior, or '.asList().lastIndexOf(element: T)' to get

the same search behavior as in a list.\", ReplaceWith(\"indexOfLast { it == element }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic fun DoubleArray.lastIndexOf(element: Double): Int {\n for (index in indices.reversed()) {\n if (element == this[index]) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun BooleanArray.lastIndexOf(element: Boolean): Int {\n for (index in indices.reversed()) {\n if (element == this[index]) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun CharArray.lastIndexOf(element: Char): Int {\n for (index in indices.reversed()) {\n if (element == this[index]) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns the last element, or `null`

if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> Array<out T>.lastOrNull(): T? {\n return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun ByteArray.lastOrNull(): Byte? {\n return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun ShortArray.lastOrNull(): Short? {\n return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun IntArray.lastOrNull(): Int? {\n return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n

*/\npublic fun LongArray.lastOrNull(): Long? {\n return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun FloatArray.lastOrNull(): Float? {\n return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun DoubleArray.lastOrNull(): Double? {\n return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun BooleanArray.lastOrNull(): Boolean? {\n return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n

*/\npublic fun CharArray.lastOrNull(): Char? {\n return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Array<out T>.lastOrNull(predicate: (T) -> Boolean): T? {\n for (index in this.indices.reversed()) {\n val element = this[index]\n if (predicate(element)) return element\n }\n return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun ByteArray.lastOrNull(predicate: (Byte) -> Boolean): Byte? {\n for (index in this.indices.reversed()) {\n val element = this[index]\n if (predicate(element)) return element\n }\n return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null`

if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun ShortArray.lastOrNull(predicate: (Short) -> Boolean): Short? {\n for (index in this.indices.reversed()) {\n val element = this[index]\n if (predicate(element)) return element\n }\n return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample

samples.collections.Collections.Elements.last\n */\npublic inline fun IntArray.lastOrNull(predicate: (Int) -> Boolean): Int? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun LongArray.lastOrNull(predicate: (Long) -> Boolean): Long?
 {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun FloatArray.lastOrNull(predicate: (Float) -> Boolean): Float? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun DoubleArray.lastOrNull(predicate: (Double) -> Boolean): Double? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n
 * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun BooleanArray.lastOrNull(predicate: (Boolean) -> Boolean): Boolean? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun CharArray.lastOrNull(predicate: (Char) -> Boolean): Char? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic
 inline fun <T> Array<out T>.random(): T {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.random(): Byte {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.random(): Short {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.random(): Int {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic
 inline fun LongArray.random(): Long {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.random(): Float {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.random(): Double {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.random(): Boolean {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic
 inline fun CharArray.random(): Char {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun <T> Array<out T>.random(random: Random): T {\n   if

(isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun ByteArray.random(random: Random): Byte {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun ShortArray.random(random: Random): Short {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun IntArray.random(random: Random): Int {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun LongArray.random(random: Random): Long {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun FloatArray.random(random: Random): Float {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun DoubleArray.random(random: Random): Double {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun BooleanArray.random(random: Random): Boolean {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun CharArray.random(random: Random): Char {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.randomOrNull(): T? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.randomOrNull(): Byte? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.randomOrNull(): Short? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.randomOrNull(): Int? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.randomOrNull(): Long? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli c inline fun FloatArray.randomOrNull(): Float? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.randomOrNull(): Double? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.randomOrNull(): Boolean? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.randomOrNull(): Char? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> Array<out T>.randomOrNull(random: Random): T? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun ByteArray.randomOrNull(random: Random): Byte? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun ShortArray.randomOrNull(random: Random): Short? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun IntArray.randomOrNull(random: Random): Int? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun LongArray.randomOrNull(random: Random): Long? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun FloatArray.randomOrNull(random: Random): Float? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun DoubleArray.randomOrNull(random: Random): Double? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun BooleanArray.randomOrNull(random: Random): Boolean? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun CharArray.randomOrNull(random: Random): Char? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun <T> Array<out T>.single(): T {\n   return when (size) {\n   0 -> throw

NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun ByteArray.single(): Byte {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun ShortArray.single(): Short {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun IntArray.single(): Int {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun LongArray.single(): Long {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun FloatArray.single(): Float {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun DoubleArray.single(): Double {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun BooleanArray.single(): Boolean {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun CharArray.single(): Char {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun <T> Array<out T>.single(predicate: (T) -> Boolean): T {\n   var single: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return single as T\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun ByteArray.single(predicate: (Byte) -> Boolean): Byte {\n   var single: Byte? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return single as Byte\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun ShortArray.single(predicate: (Short) -> Boolean): Short {\n   var single: Short? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Short\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun IntArray.single(predicate: (Int) -> Boolean): Int {\n var single: Int? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Int\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun LongArray.single(predicate: (Long) -> Boolean): Long {\n var single: Long? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Long\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun FloatArray.single(predicate: (Float) -> Boolean): Float {\n var single: Float? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Float\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun DoubleArray.single(predicate: (Double) -> Boolean): Double {\n var single: Double? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Double\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun BooleanArray.single(predicate: (Boolean) -> Boolean): Boolean {\n var single: Boolean? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Boolean\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun CharArray.single(predicate: (Char) -> Boolean): Char {\n var single: Char? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Char\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun <T> Array<out T>.singleOrNull(): T? {\n return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun ByteArray.singleOrNull(): Byte? {\n return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun ShortArray.singleOrNull(): Short? {\n return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun IntArray.singleOrNull(): Int? {\n return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun LongArray.singleOrNull(): Long? {\n   return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun FloatArray.singleOrNull(): Float? {\n   return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun DoubleArray.singleOrNull(): Double? {\n   return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun BooleanArray.singleOrNull(): Boolean? {\n   return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun CharArray.singleOrNull(): Char? {\n   return if (size == 1) this[0] else null\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun <T> Array<out T>.singleOrNull(predicate: (T) -> Boolean): T? {\n   var single: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun ByteArray.singleOrNull(predicate: (Byte) -> Boolean): Byte? {\n   var single: Byte? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun ShortArray.singleOrNull(predicate: (Short) -> Boolean): Short? {\n   var single: Short? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun IntArray.singleOrNull(predicate: (Int) -> Boolean): Int? {\n   var single: Int? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun LongArray.singleOrNull(predicate: (Long) -> Boolean): Long? {\n   var single: Long? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun FloatArray.singleOrNull(predicate: (Float) -> Boolean): Float? {\n   var single: Float? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun DoubleArray.singleOrNull(predicate: (Double) -> Boolean): Double? {\n   var single: Double? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun BooleanArray.singleOrNull(predicate: (Boolean) -> Boolean): Boolean? {\n   var single: Boolean? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun CharArray.singleOrNull(predicate: (Char) -> Boolean): Char? {\n   var single: Char? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n

found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*/\npublic fun <T> Array<out T>.drop(n: Int): List<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun ByteArray.drop(n: Int): List<Byte> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun ShortArray.drop(n: Int): List<Short> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n
* Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun IntArray.drop(n: Int): List<Int> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun LongArray.drop(n: Int): List<Long> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*/\npublic fun FloatArray.drop(n: Int): List<Float> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun DoubleArray.drop(n: Int): List<Double> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun BooleanArray.drop(n: Int): List<Boolean> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns
a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun CharArray.drop(n: Int): List<Char> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun <T> Array<out T>.dropLast(n: Int): List<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun ByteArray.dropLast(n:
Int): List<Byte> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun ShortArray.dropLast(n: Int): List<Short> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size -

n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun IntArray.dropLast(n: Int): List<Int> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun LongArray.dropLast(n: Int): List<Long> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun FloatArray.dropLast(n: Int): List<Float> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun DoubleArray.dropLast(n: Int): List<Double> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun BooleanArray.dropLast(n: Int): List<Boolean> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun CharArray.dropLast(n: Int): List<Char> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun <T> Array<out T>.dropLastWhile(predicate: (T) -> Boolean): List<T> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun ByteArray.dropLastWhile(predicate: (Byte) -> Boolean): List<Byte> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun ShortArray.dropLastWhile(predicate: (Short) -> Boolean): List<Short> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun IntArray.dropLastWhile(predicate: (Int) -> Boolean): List<Int> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun LongArray.dropLastWhile(predicate: (Long) -> Boolean): List<Long> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun FloatArray.dropLastWhile(predicate: (Float) -> Boolean): List<Float> {\n   for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun DoubleArray.dropLastWhile(predicate: (Double) -> Boolean): List<Double> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun BooleanArray.dropLastWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun CharArray.dropLastWhile(predicate: (Char) -> Boolean): List<Char> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun <T> Array<out T>.dropWhile(predicate: (T) -> Boolean): List<T> {\n var yielding = false\n val list = ArrayList<T>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun ByteArray.dropWhile(predicate: (Byte) -> Boolean): List<Byte> {\n var yielding = false\n val list = ArrayList<Byte>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun ShortArray.dropWhile(predicate: (Short) -> Boolean): List<Short> {\n var yielding = false\n val list = ArrayList<Short>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun IntArray.dropWhile(predicate: (Int) -> Boolean): List<Int> {\n var yielding = false\n val list = ArrayList<Int>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun LongArray.dropWhile(predicate: (Long) -> Boolean): List<Long> {\n var yielding = false\n val list = ArrayList<Long>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun FloatArray.dropWhile(predicate: (Float) -> Boolean): List<Float> {\n var yielding = false\n val list = ArrayList<Float>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun DoubleArray.dropWhile(predicate: (Double) -> Boolean): List<Double> {\n var yielding = false\n val list = ArrayList<Double>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic

inline fun BooleanArray.dropWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n var yielding = false\n val list = ArrayList<Boolean>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding =
true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun CharArray.dropWhile(predicate: (Char) -> Boolean): List<Char> {\n var yielding = false\n val list = ArrayList<Char>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun <T> Array<out T>.filter(predicate: (T) -> Boolean): List<T> {\n return filterTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n
*/\npublic inline fun ByteArray.filter(predicate: (Byte) -> Boolean): List<Byte> {\n return filterTo(ArrayList<Byte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun ShortArray.filter(predicate: (Short) -> Boolean): List<Short> {\n return filterTo(ArrayList<Short>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun IntArray.filter(predicate: (Int) -> Boolean): List<Int> {\n return filterTo(ArrayList<Int>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun LongArray.filter(predicate: (Long) -> Boolean): List<Long> {\n return filterTo(ArrayList<Long>(), predicate)\n}\n\n/**\n
* Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun FloatArray.filter(predicate: (Float) -> Boolean): List<Float> {\n return filterTo(ArrayList<Float>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun DoubleArray.filter(predicate: (Double) -> Boolean): List<Double> {\n return filterTo(ArrayList<Double>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun BooleanArray.filter(predicate: (Boolean) -> Boolean): List<Boolean> {\n return filterTo(ArrayList<Boolean>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n
*/\npublic inline fun CharArray.filter(predicate: (Char) -> Boolean): List<Char> {\n return filterTo(ArrayList<Char>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun <T> Array<out T>.filterIndexed(predicate: (index: Int, T) -> Boolean): List<T> {\n return filterIndexedTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun ByteArray.filterIndexed(predicate:
(index: Int, Byte) -> Boolean): List<Byte> {\n return filterIndexedTo(ArrayList<Byte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun ShortArray.filterIndexed(predicate: (index: Int, Short) -> Boolean): List<Short> {\n return filterIndexedTo(ArrayList<Short>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the

given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun IntArray.filterIndexed(predicate: (index: Int, Int) -> Boolean): List<Int> {\n   return filterIndexedTo(ArrayList<Int>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun LongArray.filterIndexed(predicate: (index: Int, Long) -> Boolean): List<Long> {\n   return filterIndexedTo(ArrayList<Long>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun FloatArray.filterIndexed(predicate: (index: Int, Float) -> Boolean): List<Float> {\n   return filterIndexedTo(ArrayList<Float>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun DoubleArray.filterIndexed(predicate: (index: Int, Double) -> Boolean): List<Double> {\n   return filterIndexedTo(ArrayList<Double>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun BooleanArray.filterIndexed(predicate: (index: Int, Boolean) -> Boolean): List<Boolean> {\n   return filterIndexedTo(ArrayList<Boolean>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun CharArray.filterIndexed(predicate: (index: Int, Char) -> Boolean): List<Char> {\n   return filterIndexedTo(ArrayList<Char>(), predicate)\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Array<out T>.filterIndexedTo(destination: C, predicate: (index: Int, T) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Byte>> ByteArray.filterIndexedTo(destination: C, predicate: (index: Int, Byte) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Short>> ShortArray.filterIndexedTo(destination: C, predicate: (index: Int, Short) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Int>>

IntArray.filterIndexedTo(destination: C, predicate: (index: Int, Int) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the
 given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Long>> LongArray.filterIndexedTo(destination: C, predicate: (index: Int, Long) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Float>> FloatArray.filterIndexedTo(destination: C, predicate: (index: Int, Float) -> Boolean):
 C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Double>> DoubleArray.filterIndexedTo(destination: C, predicate: (index: Int, Double) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on
 the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Boolean>> BooleanArray.filterIndexedTo(destination: C, predicate: (index: Int, Boolean) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Char>> CharArray.filterIndexedTo(destination: C, predicate: (index: Int, Char) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n
 * Returns a list containing all elements that are instances of specified type parameter R.\n * \n * @sample samples.collections.Collections.Filtering.filterIsInstance\n */\npublic inline fun <reified R> Array<*>.filterIsInstance(): List<@kotlin.internal.NoInfer R> {\n   return filterIsInstanceTo(ArrayList<R>())\n}\n\n/**\n * Appends all elements that are instances of specified type parameter R to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterIsInstanceTo\n */\npublic inline fun <reified R, C : MutableCollection<in R>> Array<*>.filterIsInstanceTo(destination: C): C {\n   for (element in this) if (element is R) destination.add(element)\n   return destination\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun <T> Array<out T>.filterNot(predicate: (T) -> Boolean): List<T> {\n   return filterNotTo(ArrayList<T>(), predicate)\n}\n\n/**\n
 * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun ByteArray.filterNot(predicate: (Byte) -> Boolean): List<Byte> {\n   return filterNotTo(ArrayList<Byte>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun ShortArray.filterNot(predicate: (Short) -> Boolean): List<Short> {\n   return

filterNotTo(ArrayList<Short>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun IntArray.filterNot(predicate: (Int) -> Boolean): List<Int> {\n   return filterNotTo(ArrayList<Int>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun LongArray.filterNot(predicate: (Long) -> Boolean): List<Long> {\n   return filterNotTo(ArrayList<Long>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun FloatArray.filterNot(predicate: (Float) -> Boolean): List<Float> {\n   return filterNotTo(ArrayList<Float>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun DoubleArray.filterNot(predicate: (Double) -> Boolean): List<Double> {\n   return filterNotTo(ArrayList<Double>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun BooleanArray.filterNot(predicate: (Boolean) -> Boolean): List<Boolean> {\n   return filterNotTo(ArrayList<Boolean>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun CharArray.filterNot(predicate: (Char) -> Boolean): List<Char> {\n   return filterNotTo(ArrayList<Char>(), predicate)\n}\n\n/**\n * Returns a list containing all elements that are not `null`.\n * \n * @sample samples.collections.Collections.Filtering.filterNotNull\n */\npublic fun <T : Any> Array<out T?>.filterNotNull(): List<T> {\n   return filterNotNullTo(ArrayList<T>())\n}\n\n/**\n * Appends all elements that are not `null` to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterNotNullTo\n */\npublic fun <C : MutableCollection<in T>, T : Any> Array<out T?>.filterNotNullTo(destination: C): C {\n   for (element in this) if (element != null) destination.add(element)\n
    return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Array<out T>.filterNotTo(destination: C, predicate: (T) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Byte>> ByteArray.filterNotTo(destination: C, predicate: (Byte) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic
 inline fun <C : MutableCollection<in Short>> ShortArray.filterNotTo(destination: C, predicate: (Short) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Int>> IntArray.filterNotTo(destination: C, predicate: (Int) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Long>> LongArray.filterNotTo(destination: C, predicate: (Long) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return
 destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Float>> FloatArray.filterNotTo(destination: C, predicate: (Float) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not

matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Double>> DoubleArray.filterNotTo(destination: C, predicate: (Double) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Boolean>> BooleanArray.filterNotTo(destination: C, predicate: (Boolean) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Char>> CharArray.filterNotTo(destination: C, predicate: (Char) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Array<out T>.filterTo(destination: C, predicate: (T) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Byte>> ByteArray.filterTo(destination: C, predicate: (Byte) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Short>> ShortArray.filterTo(destination: C, predicate: (Short) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Int>> IntArray.filterTo(destination: C, predicate: (Int) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Long>> LongArray.filterTo(destination: C, predicate: (Long) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Float>> FloatArray.filterTo(destination: C, predicate: (Float) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Double>> DoubleArray.filterTo(destination: C, predicate: (Double) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Boolean>> BooleanArray.filterTo(destination: C, predicate: (Boolean) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Char>> CharArray.filterTo(destination: C, predicate: (Char) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun <T> Array<out T>.slice(indices: IntRange): List<T> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun ByteArray.slice(indices: IntRange): List<Byte> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun ShortArray.slice(indices: IntRange): List<Short> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun IntArray.slice(indices: IntRange): List<Int> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun LongArray.slice(indices: IntRange): List<Long> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun FloatArray.slice(indices: IntRange): List<Float> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun DoubleArray.slice(indices: IntRange): List<Double> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun BooleanArray.slice(indices: IntRange): List<Boolean> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun CharArray.slice(indices: IntRange): List<Char> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun <T> Array<out T>.slice(indices: Iterable<Int>): List<T> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<T>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun ByteArray.slice(indices: Iterable<Int>): List<Byte> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Byte>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun ShortArray.slice(indices: Iterable<Int>): List<Short> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Short>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun IntArray.slice(indices: Iterable<Int>): List<Int> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Int>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun LongArray.slice(indices: Iterable<Int>): List<Long> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Long>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun FloatArray.slice(indices: Iterable<Int>): List<Float> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Float>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun DoubleArray.slice(indices: Iterable<Int>): List<Double> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Double>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun BooleanArray.slice(indices: Iterable<Int>): List<Boolean> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Boolean>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun CharArray.slice(indices: Iterable<Int>): List<Char> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Char>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun <T> Array<T>.sliceArray(indices: Collection<Int>): Array<T> {\n   val result = arrayOfNulls(this, indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun ByteArray.sliceArray(indices: Collection<Int>): ByteArray {\n   val result = ByteArray(indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun ShortArray.sliceArray(indices: Collection<Int>): ShortArray {\n   val result = ShortArray(indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun IntArray.sliceArray(indices: Collection<Int>): IntArray {\n   val result = IntArray(indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun LongArray.sliceArray(indices: Collection<Int>): LongArray {\n   val result = LongArray(indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun FloatArray.sliceArray(indices: Collection<Int>): FloatArray {\n   val result = FloatArray(indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun DoubleArray.sliceArray(indices: Collection<Int>): DoubleArray {\n   val result = DoubleArray(indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun BooleanArray.sliceArray(indices: Collection<Int>): BooleanArray {\n   val result = BooleanArray(indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun CharArray.sliceArray(indices: Collection<Int>): CharArray {\n   val result = CharArray(indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun <T> Array<T>.sliceArray(indices: IntRange): Array<T> {\n   if (indices.isEmpty()) return copyOfRange(0, 0)\n   return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun ByteArray.sliceArray(indices: IntRange): ByteArray {\n   if (indices.isEmpty()) return ByteArray(0)\n   return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun ShortArray.sliceArray(indices: IntRange): ShortArray {\n   if (indices.isEmpty()) return ShortArray(0)\n   return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun IntArray.sliceArray(indices: IntRange): IntArray {\n   if (indices.isEmpty()) return IntArray(0)\n   return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun LongArray.sliceArray(indices: IntRange): LongArray {\n   if (indices.isEmpty()) return LongArray(0)\n   return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun FloatArray.sliceArray(indices: IntRange): FloatArray {\n   if (indices.isEmpty()) return FloatArray(0)\n   return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun DoubleArray.sliceArray(indices: IntRange): DoubleArray {\n   if (indices.isEmpty()) return DoubleArray(0)\n   return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n

* Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun BooleanArray.sliceArray(indices: IntRange): BooleanArray {\n   if (indices.isEmpty()) return BooleanArray(0)\n   return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun CharArray.sliceArray(indices: IntRange): CharArray {\n   if (indices.isEmpty()) return CharArray(0)\n   return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun <T> Array<out T>.take(n: Int): List<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n

var count = 0\n   val list = ArrayList<T>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun ByteArray.take(n: Int): List<Byte> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Byte>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun ShortArray.take(n: Int): List<Short> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Short>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun IntArray.take(n: Int): List<Int> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Int>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n

* Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun LongArray.take(n: Int): List<Long> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Long>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun FloatArray.take(n: Int): List<Float> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n

if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Float>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun DoubleArray.take(n: Int): List<Double> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Double>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n

*/\npublic fun BooleanArray.take(n: Int): List<Boolean> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Boolean>(n)\n   for (item in this) {\n   list.add(item)\n

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  if (++count == n)\n            break\n    }\n    return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n *
\n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic fun CharArray.take(n: Int): List<Char> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    if (n >=
size) return toList()\n    if (n == 1) return listOf(this[0])\n    var count = 0\n    val list = ArrayList<Char>(n)\n    for
(item in this) {\n        list.add(item)\n        if (++count
 == n)\n            break\n    }\n    return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic fun <T> Array<out T>.takeLast(n: Int): List<T>
{\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val
size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list =
ArrayList<T>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n * Returns
a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic fun ByteArray.takeLast(n: Int): List<Byte> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n
   val size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list =
ArrayList<Byte>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n *
Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n *
@sample samples.collections.Collections.Transformations.take\n */\npublic fun ShortArray.takeLast(n: Int):
List<Short> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return
emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list
= ArrayList<Short>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n *
Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n *
@sample samples.collections.Collections.Transformations.take\n
 */\npublic fun IntArray.takeLast(n: Int): List<Int> {\n    require(n >= 0) { \"Requested element count $n is less than
zero.\" }\n    if (n == 0) return emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return
listOf(this[size - 1])\n    val list = ArrayList<Int>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n
 return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if
[n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun
LongArray.takeLast(n: Int): List<Long> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\"
}\n    if (n == 0) return emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return
listOf(this[size - 1])\n    val list = ArrayList<Long>(n)\n    for (index in size - n until size)\n
list.add(this[index])\n    return list\n}\n\n/**\n * Returns
 a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic fun FloatArray.takeLast(n: Int): List<Float> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val size =
size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list = ArrayList<Float>(n)\n
for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last
[n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic fun DoubleArray.takeLast(n: Int): List<Double>
{\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val
size = size\n    if (n >= size) return toList()\n
  if (n == 1) return listOf(this[size - 1])\n    val list = ArrayList<Double>(n)\n    for (index in size - n until size)\n
list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic fun BooleanArray.takeLast(n: Int):
List<Boolean> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return
emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list
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= ArrayList<Boolean>(n)\n   for (index in size - n until size)\n   list.add(this[index])\n   return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun CharArray.takeLast(n: Int): List<Char> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   val size = size\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[size - 1])\n   val list = ArrayList<Char>(n)\n   for (index in size - n until size)\n   list.add(this[index])\n   return list\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun <T> Array<out T>.takeLastWhile(predicate: (T) -> Boolean): List<T> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun ByteArray.takeLastWhile(predicate: (Byte) -> Boolean): List<Byte> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun ShortArray.takeLastWhile(predicate: (Short) -> Boolean): List<Short> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun IntArray.takeLastWhile(predicate: (Int) -> Boolean): List<Int> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun LongArray.takeLastWhile(predicate: (Long) -> Boolean): List<Long> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun FloatArray.takeLastWhile(predicate: (Float) -> Boolean): List<Float> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun DoubleArray.takeLastWhile(predicate: (Double) -> Boolean): List<Double> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun BooleanArray.takeLastWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun CharArray.takeLastWhile(predicate: (Char) -> Boolean): List<Char> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun <T> Array<out T>.takeWhile(predicate: (T) -> Boolean): List<T> {\n   val list = ArrayList<T>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun ByteArray.takeWhile(predicate: (Byte) -> Boolean): List<Byte> {\n   val list = ArrayList<Byte>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun ShortArray.takeWhile(predicate: (Short) -> Boolean): List<Short> {\n   val list = ArrayList<Short>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun IntArray.takeWhile(predicate: (Int) -> Boolean): List<Int> {\n   val list = ArrayList<Int>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun LongArray.takeWhile(predicate: (Long) -> Boolean): List<Long> {\n   val list = ArrayList<Long>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun FloatArray.takeWhile(predicate: (Float) -> Boolean): List<Float> {\n   val list = ArrayList<Float>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun DoubleArray.takeWhile(predicate: (Double) -> Boolean): List<Double> {\n   val list = ArrayList<Double>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun BooleanArray.takeWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n   val list = ArrayList<Boolean>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun CharArray.takeWhile(predicate: (Char) -> Boolean): List<Char> {\n   val list = ArrayList<Char>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun <T> Array<T>.reverse(): Unit {\n   val midPoint = (size / 2) - 1\n   if (midPoint < 0) return\n   var reverseIndex = lastIndex\n   for (index in 0..midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun ByteArray.reverse(): Unit {\n   val midPoint = (size / 2) - 1\n   if (midPoint < 0) return\n   var reverseIndex = lastIndex\n   for (index in 0..midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun ShortArray.reverse(): Unit {\n   val midPoint = (size / 2) - 1\n   if (midPoint < 0) return\n   var reverseIndex = lastIndex\n   for (index in 0..midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun IntArray.reverse(): Unit {\n   val midPoint = (size / 2) - 1\n   if (midPoint < 0) return\n   var reverseIndex = lastIndex\n   for (index in 0..midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun LongArray.reverse(): Unit {\n   val midPoint = (size / 2) - 1\n   if (midPoint < 0) return\n   var reverseIndex = lastIndex\n   for (index in 0..midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun FloatArray.reverse(): Unit {\n   val midPoint = (size / 2) - 1\n   if (midPoint < 0) return\n   var reverseIndex = lastIndex\n   for (index in 0..midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun DoubleArray.reverse(): Unit {\n   val midPoint = (size / 2) - 1\n   if (midPoint < 0) return\n   var reverseIndex = lastIndex\n   for (index in 0..midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n

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   reverseIndex--\n    }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun
BooleanArray.reverse(): Unit {\n    val midPoint = (size / 2) - 1\n    if (midPoint < 0) return\n    var reverseIndex =
lastIndex\n    for (index in 0..midPoint) {\n        val tmp = this[index]\n        this[index] = this[reverseIndex]\n
this[reverseIndex] = tmp\n        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements in the array in-place.\n
*/\npublic fun CharArray.reverse(): Unit {\n    val midPoint = (size / 2) - 1\n    if (midPoint < 0) return\n    var
reverseIndex = lastIndex\n    for (index in 0..midPoint) {\n        val tmp = this[index]\n        this[index] =
this[reverseIndex]\n        this[reverseIndex]
 = tmp\n        reverseIndex--\n    }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n
* @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range
(exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex]
is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than
[toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Array<T>.reverse(fromIndex: Int, toIndex: Int): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val midPoint = (fromIndex + toIndex) / 2\n    if
(fromIndex == midPoint) return\n    var reverseIndex = toIndex - 1\n    for (index in fromIndex until midPoint) {\n
   val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n        reverseIndex--\n
  }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n
 * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range
(exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex]
is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than
[toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val midPoint = (fromIndex + toIndex) / 2\n    if
(fromIndex == midPoint) return\n    var reverseIndex = toIndex - 1\n    for (index in fromIndex until midPoint) {\n
   val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n        reverseIndex--\n
  }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start
of the range (inclusive) to reverse.\n * @param toIndex the end of the
 range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or
[toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than
[toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val midPoint = (fromIndex + toIndex) / 2\n    if
(fromIndex == midPoint) return\n    var reverseIndex = toIndex - 1\n    for (index in fromIndex until midPoint) {\n
   val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n        reverseIndex--\n
  }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start
of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex]
 is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than
[toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val midPoint = (fromIndex + toIndex) / 2\n    if
(fromIndex == midPoint) return\n    var reverseIndex = toIndex - 1\n    for (index in fromIndex until midPoint) {\n
   val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n        reverseIndex--\n
  }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start
of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *
@throws IllegalArgumentException if [fromIndex] is greater than
 [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    val midPoint = (fromIndex + toIndex) / 2\n    if
(fromIndex == midPoint) return\n    var reverseIndex = toIndex - 1\n    for (index in fromIndex until midPoint) {\n
   val tmp = this[index]\n        this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n        reverseIndex--\n
  }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start
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of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun BooleanArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun <T> Array<out T>.reversed(): List<T> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun ByteArray.reversed(): List<Byte> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun ShortArray.reversed(): List<Short> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun IntArray.reversed(): List<Int> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun LongArray.reversed(): List<Long> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun FloatArray.reversed(): List<Float> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun DoubleArray.reversed(): List<Double> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun BooleanArray.reversed(): List<Boolean> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun

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CharArray.reversed(): List<Char> {\n    if (isEmpty()) return emptyList()\n    val list = toMutableList()\n
    list.reverse()\n    return list\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n
*/\npublic fun <T> Array<T>.reversedArray(): Array<T> {\n    if (isEmpty()) return this\n    val result =
arrayOfNulls(this, size)\n    val lastIndex = lastIndex\n    for (i in 0..lastIndex)\n        result[lastIndex - i] = this[i]\n
return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun
ByteArray.reversedArray(): ByteArray {\n    if (isEmpty()) return this\n    val result = ByteArray(size)\n    val
lastIndex = lastIndex\n    for (i in 0..lastIndex)\n        result[lastIndex - i] = this[i]\n    return result\n}\n\n/**\n *
Returns an array with elements of this array in reversed order.\n */\npublic fun ShortArray.reversedArray():
ShortArray {\n    if (isEmpty()) return this\n    val result = ShortArray(size)\n    val lastIndex = lastIndex\n    for (i in
0..lastIndex)\n        result[lastIndex - i] = this[i]\n
    return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun
IntArray.reversedArray(): IntArray {\n    if (isEmpty()) return this\n    val result = IntArray(size)\n    val lastIndex =
lastIndex\n    for (i in 0..lastIndex)\n        result[lastIndex - i] = this[i]\n    return result\n}\n\n/**\n * Returns an array
with elements of this array in reversed order.\n */\npublic fun LongArray.reversedArray(): LongArray {\n    if
(isEmpty()) return this\n    val result = LongArray(size)\n    val lastIndex = lastIndex\n    for (i in 0..lastIndex)\n
result[lastIndex - i] = this[i]\n    return result\n}\n\n/**\n * Returns an array with elements of this array in reversed
order.\n */\npublic fun FloatArray.reversedArray(): FloatArray {\n    if (isEmpty()) return this\n    val result =
FloatArray(size)\n    val lastIndex = lastIndex\n    for (i in 0..lastIndex)\n        result[lastIndex - i] = this[i]\n    return
result\n}\n\n/**\n * Returns
 an array with elements of this array in reversed order.\n */\npublic fun DoubleArray.reversedArray(): DoubleArray
{\n    if (isEmpty()) return this\n    val result = DoubleArray(size)\n    val lastIndex = lastIndex\n    for (i in
0..lastIndex)\n        result[lastIndex - i] = this[i]\n    return result\n}\n\n/**\n * Returns an array with elements of this
array in reversed order.\n */\npublic fun BooleanArray.reversedArray(): BooleanArray {\n    if (isEmpty()) return
this\n    val result = BooleanArray(size)\n    val lastIndex = lastIndex\n    for (i in 0..lastIndex)\n        result[lastIndex
- i] = this[i]\n    return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n
*/\npublic fun CharArray.reversedArray(): CharArray {\n    if (isEmpty()) return this\n    val result =
CharArray(size)\n    val lastIndex = lastIndex\n    for (i in 0..lastIndex)\n        result[lastIndex - i] = this[i]\n    return
result\n}\n\n/**\n * Randomly shuffles elements in this
 array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Array<T>.shuffle(): Unit {\n
shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.shuffle(): Unit {\n    shuffle(Random)\n}\n\n/**\n * Randomly
shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.shuffle(): Unit {\n
shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun IntArray.shuffle(): Unit {\n    shuffle(Random)\n}\n\n/**\n * Randomly
shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.shuffle(): Unit {\n
shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.shuffle(): Unit {\n    shuffle(Random)\n}\n\n/**\n * Randomly
shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.shuffle():
 Unit {\n    shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun BooleanArray.shuffle(): Unit {\n    shuffle(Random)\n}\n\n/**\n * Randomly
shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.shuffle(): Unit {\n
shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random]
instance as the source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n
*/\n@SinceKotlin(\"1.4\")\npublic fun <T> Array<T>.shuffle(random: Random): Unit {\n    for (i in lastIndex
downTo 1) {\n        val j = random.nextInt(i + 1)\n        val copy = this[i]\n        this[i] = this[j]\n        this[j] = copy\n
  }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the
source of randomness.\n * \n * See:
```

https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\npublic fun BooleanArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Sorts elements in the array in-place according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>> Array<out T>.sortBy(crossinline selector: (T) -> R?): Unit {\n   if (size > 1) sortWith(compareBy(selector))\n}\n\n/**\n * Sorts elements in the array in-place descending according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>> Array<out T>.sortByDescending(crossinline selector: (T) -> R?): Unit {\n   if (size > 1) sortWith(compareByDescending(selector))\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n * \n * The sort is _stable_. It means that

equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Array<out T>.sortDescending(): Unit {\n   sortWith(reverseOrder())\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun ByteArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts
elements in the array in-place descending according to their natural sort order.\n */\npublic fun ShortArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun IntArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun LongArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun FloatArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun DoubleArray.sortDescending(): Unit {\n
if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun CharArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Array<out T>.sorted(): List<T> {\n   return sortedArray().asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun ByteArray.sorted(): List<Byte> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun ShortArray.sorted(): List<Short> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns
a list of all elements sorted according to their natural sort order.\n */\npublic fun IntArray.sorted(): List<Int> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun LongArray.sorted(): List<Long> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun FloatArray.sorted(): List<Float> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun DoubleArray.sorted(): List<Double> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun CharArray.sorted(): List<Char> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns an array with all elements
of this array sorted according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Array<T>.sortedArray(): Array<T> {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun ByteArray.sortedArray(): ByteArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun ShortArray.sortedArray(): ShortArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun IntArray.sortedArray(): IntArray {\n   if (isEmpty()) return
this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun LongArray.sortedArray(): LongArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun FloatArray.sortedArray(): FloatArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun DoubleArray.sortedArray(): DoubleArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun CharArray.sortedArray(): CharArray {\n

if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Array<T>.sortedArrayDescending(): Array<T> {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortWith(reverseOrder()) }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun ByteArray.sortedArrayDescending(): ByteArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun ShortArray.sortedArrayDescending(): ShortArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun IntArray.sortedArrayDescending(): IntArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun LongArray.sortedArrayDescending(): LongArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun FloatArray.sortedArrayDescending(): FloatArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun DoubleArray.sortedArrayDescending(): DoubleArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun CharArray.sortedArrayDescending(): CharArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according the specified [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T> Array<out T>.sortedArrayWith(comparator: Comparator<in T>): Array<out T> {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortWith(comparator) }\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <T, R : Comparable<R>> Array<out T>.sortedBy(crossinline selector: (T) -> R?): List<T> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> ByteArray.sortedBy(crossinline selector: (Byte) -> R?): List<Byte> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> ShortArray.sortedBy(crossinline selector: (Short) -> R?): List<Short> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> IntArray.sortedBy(crossinline selector: (Int) -> R?): List<Int> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> LongArray.sortedBy(crossinline selector: (Long) -> R?): List<Long> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> FloatArray.sortedBy(crossinline selector: (Float) -> R?): List<Float> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n

* Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> DoubleArray.sortedBy(crossinline selector: (Double) -> R?): List<Double> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> BooleanArray.sortedBy(crossinline selector: (Boolean) -> R?): List<Boolean> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>>

CharArray.sortedBy(crossinline selector: (Char) -> R?): List<Char> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>> Array<out T>.sortedByDescending(crossinline selector: (T) -> R?): List<T> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> ByteArray.sortedByDescending(crossinline selector: (Byte) -> R?): List<Byte> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the

value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> ShortArray.sortedByDescending(crossinline selector: (Short) -> R?): List<Short> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> IntArray.sortedByDescending(crossinline selector: (Int) -> R?): List<Int> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> LongArray.sortedByDescending(crossinline selector: (Long) -> R?): List<Long> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned

by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> FloatArray.sortedByDescending(crossinline selector: (Float) -> R?): List<Float> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> DoubleArray.sortedByDescending(crossinline selector: (Double) -> R?): List<Double> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> BooleanArray.sortedByDescending(crossinline selector: (Boolean) -> R?): List<Boolean> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned

by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> CharArray.sortedByDescending(crossinline selector: (Char) -> R?): List<Char> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Array<out T>.sortedDescending():

List<T> {\n   return sortedWith(reverseOrder())\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun ByteArray.sortedDescending(): List<Byte> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun ShortArray.sortedDescending(): List<Short> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns
 a list of all elements sorted descending according to their natural sort order.\n */\npublic fun IntArray.sortedDescending(): List<Int> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun LongArray.sortedDescending(): List<Long> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun FloatArray.sortedDescending(): List<Float> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun DoubleArray.sortedDescending(): List<Double> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun CharArray.sortedDescending(): List<Char> {\n   return
 copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T> Array<out T>.sortedWith(comparator: Comparator<in T>): List<T> {\n   return sortedArrayWith(comparator).asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun ByteArray.sortedWith(comparator: Comparator<in Byte>): List<Byte> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun ShortArray.sortedWith(comparator: Comparator<in Short>): List<Short> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun IntArray.sortedWith(comparator:
 Comparator<in Int>): List<Int> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun LongArray.sortedWith(comparator: Comparator<in Long>): List<Long> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun FloatArray.sortedWith(comparator: Comparator<in Float>): List<Float> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun DoubleArray.sortedWith(comparator: Comparator<in Double>): List<Double> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun BooleanArray.sortedWith(comparator:
 Comparator<in Boolean>): List<Boolean> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun CharArray.sortedWith(comparator: Comparator<in Char>): List<Char> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun <T> Array<out T>.asList(): List<T>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun ByteArray.asList(): List<Byte>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun ShortArray.asList(): List<Short>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun IntArray.asList(): List<Int>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun LongArray.asList(): List<Long>\n\n/**\n * Returns a [List] that wraps the original array.\n
 */\npublic expect fun FloatArray.asList(): List<Float>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun DoubleArray.asList(): List<Double>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun BooleanArray.asList(): List<Boolean>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun CharArray.asList(): List<Char>\n\n/**\n * Returns `true` if the two specified arrays are *deeply* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * If two corresponding elements are nested arrays, they are also compared deeply.\n * If any of arrays contains

itself on any nesting level the behavior is undefined.\n * \n * The elements of other types are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic expect infix fun <T> Array<out T>.contentDeepEquals(other: Array<out T>): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *deeply* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The specified arrays are also considered deeply equal if both are `null`.\n * \n * If two corresponding elements are nested arrays, they are also compared deeply.\n * If any of arrays contains itself on any nesting level the behavior is undefined.\n * \n * The elements of other types are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun <T> Array<out T>?.contentDeepEquals(other: Array<out T>?): Boolean\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level the behavior is undefined.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic expect fun <T> Array<out T>.contentDeepHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level the behavior is undefined.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T> Array<out T>?.contentDeepHashCode(): Int\n\n/**\n * Returns a string representation of the contents of this array as if it is a [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level that reference\n * is rendered as `\"[...]\"` to prevent recursion.\n * \n * @sample samples.collections.Arrays.ContentOperations.contentDeepToString\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic expect fun <T> Array<out T>.contentDeepToString(): String\n\n/**\n * Returns a string representation of the contents of this array as if it is a [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level that reference\n * is rendered as `\"[...]\"` to prevent recursion.\n * \n * @sample samples.collections.Arrays.ContentOperations.contentDeepToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T> Array<out T>?.contentDeepToString(): String\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun <T> Array<out T>.contentEquals(other: Array<out T>): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun ByteArray.contentEquals(other: ByteArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun ShortArray.contentEquals(other: ShortArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic

expect infix fun IntArray.contentEquals(other: IntArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n *
 The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun LongArray.contentEquals(other: LongArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun FloatArray.contentEquals(other: FloatArray): Boolean\n\n/**\n
 * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun DoubleArray.contentEquals(other: DoubleArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
 warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun BooleanArray.contentEquals(other: BooleanArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun CharArray.contentEquals(other: CharArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n
 * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun <T> Array<out T>?.contentEquals(other: Array<out T>?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun ByteArray?.contentEquals(other: ByteArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN`
 is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun ShortArray?.contentEquals(other: ShortArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun IntArray?.contentEquals(other: IntArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it

means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun LongArray?.contentEquals(other: LongArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun FloatArray?.contentEquals(other: FloatArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun DoubleArray?.contentEquals(other: DoubleArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun BooleanArray?.contentEquals(other: BooleanArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun CharArray?.contentEquals(other: CharArray?): Boolean\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun <T> Array<out T>.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun ByteArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun ShortArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun IntArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun LongArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun FloatArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun DoubleArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun BooleanArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun CharArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T> Array<out T>?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect

fun ByteArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic
 expect fun ShortArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun IntArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun LongArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun FloatArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun DoubleArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun BooleanArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n
 */\n@SinceKotlin(\"1.4\")\npublic expect fun CharArray?.contentHashCode(): Int\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun <T> Array<out T>.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun ByteArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
 */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun ShortArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun IntArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun LongArray.contentToString(): String\n\n/**\n
 * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun FloatArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun DoubleArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
 warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun BooleanArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun CharArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array

as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T> Array<out T>?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun ByteArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun ShortArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun IntArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun LongArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun FloatArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun DoubleArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun BooleanArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun CharArray?.contentToString(): String\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun <T> Array<out T>.copyInto(destination: Array<T>, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): Array<T>\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun ByteArray.copyInto(destination: ByteArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ByteArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun ShortArray.copyInto(destination: ShortArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ShortArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun IntArray.copyInto(destination: IntArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): IntArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun LongArray.copyInto(destination: LongArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): LongArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun FloatArray.copyInto(destination: FloatArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): FloatArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun DoubleArray.copyInto(destination: DoubleArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): DoubleArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun BooleanArray.copyInto(destination: BooleanArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): BooleanArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun CharArray.copyInto(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): CharArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect fun <T> Array<T>.copyOf(): Array<T>\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun ByteArray.copyOf(): ByteArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun ShortArray.copyOf(): ShortArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun IntArray.copyOf(): IntArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun LongArray.copyOf(): LongArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun FloatArray.copyOf(): FloatArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun DoubleArray.copyOf(): DoubleArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun BooleanArray.copyOf(): BooleanArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun CharArray.copyOf(): CharArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun ByteArray.copyOf(newSize: Int): ByteArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun ShortArray.copyOf(newSize: Int): ShortArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun IntArray.copyOf(newSize: Int): IntArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun LongArray.copyOf(newSize: Int): LongArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun FloatArray.copyOf(newSize: Int): FloatArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun DoubleArray.copyOf(newSize: Int): DoubleArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with `false` values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with `false` values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun BooleanArray.copyOf(newSize: Int): BooleanArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with null char (`\\u0000`) values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with null char (`\\u0000`) values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun CharArray.copyOf(newSize: Int): CharArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with `null` values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with `null` values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizingCopyOf\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect fun <T> Array<T>.copyOf(newSize: Int): Array<T?>\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to

copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException
if [fromIndex] is greater than [toIndex].\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect fun <T> Array<T>.copyOfRange(fromIndex: Int, toIndex: Int): Array<T>\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun ByteArray.copyOfRange(fromIndex: Int, toIndex: Int): ByteArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or
[toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun ShortArray.copyOfRange(fromIndex: Int, toIndex: Int): ShortArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun IntArray.copyOfRange(fromIndex: Int, toIndex: Int): IntArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException
if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun LongArray.copyOfRange(fromIndex: Int, toIndex: Int): LongArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun FloatArray.copyOfRange(fromIndex: Int, toIndex: Int): FloatArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n
* \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun DoubleArray.copyOfRange(fromIndex: Int, toIndex: Int): DoubleArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun BooleanArray.copyOfRange(fromIndex: Int, toIndex: Int): BooleanArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex
the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun CharArray.copyOfRange(fromIndex: Int, toIndex: Int): CharArray\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than

[toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun <T> Array<T>.fill(element: T, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun ByteArray.fill(element: Byte, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun ShortArray.fill(element: Short, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun IntArray.fill(element: Int, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun LongArray.fill(element: Long, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun FloatArray.fill(element: Float, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun DoubleArray.fill(element: Double, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun BooleanArray.fill(element: Boolean, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun CharArray.fill(element: Char, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val <T> Array<out T>.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val ByteArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n

 */\npublic val ShortArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val IntArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val LongArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val FloatArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val DoubleArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val BooleanArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val CharArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic
 inline fun <T> Array<out T>.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.isEmpty():
 Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.isNotEmpty():
 Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns the last valid index for the array.\n */\npublic val <T> Array<out T>.lastIndex: Int\n   get() = size
 - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val ByteArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val ShortArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val IntArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val LongArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val FloatArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val DoubleArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val BooleanArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val CharArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns an array containing

all elements of the original array and then the given [element].\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect operator fun <T> Array<T>.plus(element: T): Array<T>\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun ByteArray.plus(element: Byte): ByteArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun ShortArray.plus(element: Short): ShortArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun IntArray.plus(element: Int): IntArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun LongArray.plus(element: Long): LongArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic

expect operator fun FloatArray.plus(element: Float): FloatArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun DoubleArray.plus(element: Double): DoubleArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun BooleanArray.plus(element: Boolean): BooleanArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun CharArray.plus(element: Char): CharArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect operator fun <T> Array<T>.plus(elements: Collection<T>): Array<T>\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n

*/\npublic expect operator fun ByteArray.plus(elements: Collection<Byte>): ByteArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun ShortArray.plus(elements: Collection<Short>): ShortArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun IntArray.plus(elements: Collection<Int>): IntArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun LongArray.plus(elements: Collection<Long>): LongArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun FloatArray.plus(elements: Collection<Float>): FloatArray\n\n/**\n * Returns an array

containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun DoubleArray.plus(elements: Collection<Double>): DoubleArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun BooleanArray.plus(elements: Collection<Boolean>): BooleanArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun CharArray.plus(elements: Collection<Char>): CharArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect operator fun <T> Array<T>.plus(elements: Array<out T>): Array<T>\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given

[elements] array.\n */\npublic expect operator fun ByteArray.plus(elements: ByteArray): ByteArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun ShortArray.plus(elements: ShortArray): ShortArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun IntArray.plus(elements: IntArray): IntArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun LongArray.plus(elements: LongArray): LongArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun FloatArray.plus(elements: FloatArray): FloatArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun DoubleArray.plus(elements: DoubleArray): DoubleArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun BooleanArray.plus(elements: BooleanArray): BooleanArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun CharArray.plus(elements: CharArray): CharArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect fun <T> Array<T>.plusElement(element: T): Array<T>\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun IntArray.sort(): Unit\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun LongArray.sort(): Unit\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun ByteArray.sort(): Unit\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun ShortArray.sort(): Unit\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun DoubleArray.sort(): Unit\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun FloatArray.sort(): Unit\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun CharArray.sort(): Unit\n\n/**\n * Sorts the array in-place according to the natural order of its elements.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @sample samples.collections.Arrays.Sorting.sortArrayOfComparable\n */\npublic expect fun <T : Comparable<T>> Array<out T>.sort(): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArrayOfComparable\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T : Comparable<T>> Array<out T>.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun ByteArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun ShortArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun IntArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException

if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun LongArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun FloatArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the

array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun DoubleArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than

[toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun CharArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Array<out T>.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sortWith(reverseOrder(), fromIndex, toIndex)\n}\n\n/**\n * Sorts elements

of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex]

is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n

 * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic expect fun <T> Array<out T>.sortWith(comparator: Comparator<in T>): Unit\n\n/**\n * Sorts a range in the array in-place with the given [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun <T> Array<out T>.sortWith(comparator: Comparator<in T>, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Returns an array of Boolean containing all of the elements of this generic array.\n */\npublic fun Array<out Boolean>.toBooleanArray(): BooleanArray {\n   return BooleanArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Byte containing all of the elements of this generic array.\n */\npublic fun Array<out Byte>.toByteArray(): ByteArray {\n   return ByteArray(size) { index
 -> this[index] }\n}\n\n/**\n * Returns an array of Char containing all of the elements of this generic array.\n */\npublic fun Array<out Char>.toCharArray(): CharArray {\n   return CharArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Double containing all of the elements of this generic array.\n */\npublic fun Array<out Double>.toDoubleArray(): DoubleArray {\n   return DoubleArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Float containing all of the elements of this generic array.\n */\npublic fun Array<out Float>.toFloatArray(): FloatArray {\n   return FloatArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Int containing all of the elements of this generic array.\n */\npublic fun Array<out Int>.toIntArray(): IntArray {\n   return IntArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Long containing all of the elements of this generic array.\n */\npublic fun Array<out Long>.toLongArray(): LongArray

{\n   return LongArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Short containing all of the elements of this generic array.\n */\npublic fun Array<out Short>.toShortArray(): ShortArray {\n   return ShortArray(size) { index -> this[index] }\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun ByteArray.toTypedArray(): Array<Byte>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun ShortArray.toTypedArray(): Array<Short>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun IntArray.toTypedArray(): Array<Int>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun LongArray.toTypedArray(): Array<Long>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive
array.\n */\npublic expect fun FloatArray.toTypedArray(): Array<Float>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun DoubleArray.toTypedArray(): Array<Double>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun BooleanArray.toTypedArray(): Array<Boolean>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun CharArray.toTypedArray(): Array<Char>\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <T, K, V> Array<out T>.associate(transform:
(T) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> ByteArray.associate(transform: (Byte) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added
to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> ShortArray.associate(transform: (Short) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> IntArray.associate(transform: (Int) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity),
transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> LongArray.associate(transform: (Long) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample

samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n

*/\npublic inline fun <K, V> FloatArray.associate(transform: (Float) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> DoubleArray.associate(transform: (Double) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n

* \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> BooleanArray.associate(transform: (Boolean) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> CharArray.associate(transform: (Char) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n

return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <T, K> Array<out T>.associateBy(keySelector: (T) -> K): Map<K, T> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, T>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector]

the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> ByteArray.associateBy(keySelector: (Byte) -> K): Map<K, Byte> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Byte>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> ShortArray.associateBy(keySelector: (Short) -> K): Map<K, Short> {\n   val capacity

= mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Short>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K>

IntArray.associateBy(keySelector: (Int) -> K): Map<K, Int> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Int>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned
 by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> LongArray.associateBy(keySelector: (Long) -> K): Map<K, Long> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Long>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> FloatArray.associateBy(keySelector: (Float) -> K): Map<K, Float> {\n   val
 capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Float>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> DoubleArray.associateBy(keySelector: (Double) -> K): Map<K, Double> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Double>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have
 the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> BooleanArray.associateBy(keySelector: (Boolean) -> K): Map<K, Boolean> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Boolean>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> CharArray.associateBy(keySelector: (Char)
 -> K): Map<K, Char> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Char>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <T, K, V> Array<out T>.associateBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions
 applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the

original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> ByteArray.associateBy(keySelector: (Byte) -> K, valueTransform: (Byte) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> ShortArray.associateBy(keySelector: (Short) -> K, valueTransform: (Short) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> IntArray.associateBy(keySelector: (Int) -> K, valueTransform: (Int) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> LongArray.associateBy(keySelector: (Long) -> K, valueTransform: (Long) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have

the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> FloatArray.associateBy(keySelector: (Float) -> K, valueTransform: (Float) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> DoubleArray.associateBy(keySelector: (Double) -> K, valueTransform: (Double) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> BooleanArray.associateBy(keySelector: (Boolean) -> K, valueTransform: (Boolean) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n

 * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> CharArray.associateBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have
 the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <T, K, M : MutableMap<in K, in T>> Array<out T>.associateByTo(destination: M, keySelector: (T) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Byte>> ByteArray.associateByTo(destination: M, keySelector: (Byte) -> K): M {\n   for (element in this)
 {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Short>> ShortArray.associateByTo(destination: M, keySelector: (Short) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n
 * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Int>> IntArray.associateByTo(destination: M, keySelector: (Int) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Long>> LongArray.associateByTo(destination: M, keySelector: (Long) -> K):
 M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Float>> FloatArray.associateByTo(destination: M, keySelector: (Float) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value

is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Double>> DoubleArray.associateByTo(destination: M, keySelector: (Double) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Boolean>> BooleanArray.associateByTo(destination:

M, keySelector: (Boolean) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Char>> CharArray.associateByTo(destination: M, keySelector: (Char) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value

is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Array<out T>.associateByTo(destination: M, keySelector: (T) -> K, valueTransform: (T) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n

*/\npublic inline fun <K, V, M : MutableMap<in K, in V>> ByteArray.associateByTo(destination: M, keySelector: (Byte) -> K, valueTransform: (Byte) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> ShortArray.associateByTo(destination: M, keySelector: (Short) -> K, valueTransform: (Short) -> V): M {\n

for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> IntArray.associateByTo(destination: M, keySelector: (Int) -> K, valueTransform: (Int) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable

map with key-value pairs,\n * where key is provided
by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> LongArray.associateByTo(destination: M, keySelector: (Long) -> K, valueTransform: (Long) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added
to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> FloatArray.associateByTo(destination: M, keySelector: (Float) -> K, valueTransform: (Float) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> DoubleArray.associateByTo(destination: M, keySelector: (Double) -> K, valueTransform: (Double) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> BooleanArray.associateByTo(destination: M, keySelector: (Boolean) -> K, valueTransform: (Boolean) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination]
mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> CharArray.associateByTo(destination: M, keySelector: (Char) -> K, valueTransform: (Char) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n
*/\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Array<out T>.associateTo(destination: M, transform: (T) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> ByteArray.associateTo(destination: M, transform: (Byte) -> Pair<K, V>): M {\n   for

(element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> ShortArray.associateTo(destination: M, transform: (Short) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> IntArray.associateTo(destination: M, transform: (Int) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> LongArray.associateTo(destination: M, transform: (Long) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> FloatArray.associateTo(destination: M, transform: (Float) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> DoubleArray.associateTo(destination: M, transform: (Double) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> BooleanArray.associateTo(destination: M, transform: (Boolean) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> CharArray.associateTo(destination: M, transform: (Char) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <K, V> Array<out K>.associateWith(valueSelector: (K) -> V): Map<K, V> {\n   val result = LinkedHashMap<K, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> ByteArray.associateWith(valueSelector: (Byte) -> V): Map<Byte, V> {\n   val result = LinkedHashMap<Byte, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> ShortArray.associateWith(valueSelector: (Short) -> V): Map<Short, V> {\n   val result = LinkedHashMap<Short, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> IntArray.associateWith(valueSelector: (Int) -> V): Map<Int, V> {\n   val result = LinkedHashMap<Int, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> LongArray.associateWith(valueSelector: (Long) -> V): Map<Long, V> {\n   val result = LinkedHashMap<Long, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> FloatArray.associateWith(valueSelector: (Float) -> V): Map<Float, V> {\n   val result = LinkedHashMap<Float, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> DoubleArray.associateWith(valueSelector: (Double) -> V): Map<Double, V> {\n   val result = LinkedHashMap<Double, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> BooleanArray.associateWith(valueSelector: (Boolean) -> V): Map<Boolean, V> {\n   val result = LinkedHashMap<Boolean, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result,

valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> CharArray.associateWith(valueSelector: (Char) -> V): Map<Char, V> {\n   val result = LinkedHashMap<Char, V>(mapCapacity(size.coerceAtMost(128)).coerceAtLeast(16))\n
    return associateWithTo(result, valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <K, V, M : MutableMap<in K, in V>> Array<out K>.associateWithTo(destination: M, valueSelector: (K) -> V): M {\n   for (element in this) {\n destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to
 that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Byte, in V>> ByteArray.associateWithTo(destination: M, valueSelector: (Byte) -> V): M {\n   for (element in this) {\n destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Short,
 in V>> ShortArray.associateWithTo(destination: M, valueSelector: (Short) -> V): M {\n   for (element in this) {\n
    destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Int, in V>> IntArray.associateWithTo(destination: M, valueSelector: (Int) -> V): M {\n   for (element in this) {\n destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs
 for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Long, in V>> LongArray.associateWithTo(destination: M, valueSelector: (Long) -> V): M {\n   for (element in this) {\n destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n
 */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Float, in V>> FloatArray.associateWithTo(destination: M, valueSelector: (Float) -> V): M {\n   for (element in this) {\n

destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Double, in V>> DoubleArray.associateWithTo(destination: M, valueSelector: (Double) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Boolean, in V>> BooleanArray.associateWithTo(destination: M, valueSelector: (Boolean) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Char, in V>> CharArray.associateWithTo(destination: M, valueSelector: (Char) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <T, C : MutableCollection<in T>> Array<out T>.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Byte>> ByteArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Short>> ShortArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Int>> IntArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Long>> LongArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Float>> FloatArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Double>> DoubleArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Boolean>> BooleanArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Char>> CharArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun <T> Array<out T>.toHashSet(): HashSet<T> {\n   return toCollection(HashSet<T>(mapCapacity(size)))\n}\n\n/**\n

* Returns a new [HashSet] of all elements.\n */\npublic fun ByteArray.toHashSet(): HashSet<Byte> {\n   return toCollection(HashSet<Byte>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun ShortArray.toHashSet(): HashSet<Short> {\n   return toCollection(HashSet<Short>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun IntArray.toHashSet(): HashSet<Int> {\n   return toCollection(HashSet<Int>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun LongArray.toHashSet(): HashSet<Long> {\n   return toCollection(HashSet<Long>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun FloatArray.toHashSet(): HashSet<Float> {\n   return toCollection(HashSet<Float>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun DoubleArray.toHashSet(): HashSet<Double> {\n   return toCollection(HashSet<Double>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun BooleanArray.toHashSet(): HashSet<Boolean> {\n   return toCollection(HashSet<Boolean>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun CharArray.toHashSet(): HashSet<Char> {\n   return toCollection(HashSet<Char>(mapCapacity(size.coerceAtMost(128))))\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun <T> Array<out T>.toList(): List<T> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun ByteArray.toList(): List<Byte> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun ShortArray.toList(): List<Short> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun IntArray.toList(): List<Int> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun LongArray.toList(): List<Long> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun FloatArray.toList(): List<Float> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun DoubleArray.toList(): List<Double> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun BooleanArray.toList(): List<Boolean> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun CharArray.toList(): List<Char> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun <T> Array<out T>.toMutableList(): MutableList<T> {\n   return ArrayList(this.asCollection())\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun ByteArray.toMutableList(): MutableList<Byte> {\n   val list = ArrayList<Byte>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun ShortArray.toMutableList(): MutableList<Short> {\n   val list = ArrayList<Short>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun IntArray.toMutableList(): MutableList<Int> {\n   val list = ArrayList<Int>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun LongArray.toMutableList(): MutableList<Long> {\n   val list = ArrayList<Long>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun FloatArray.toMutableList(): MutableList<Float> {\n   val list = ArrayList<Float>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun

DoubleArray.toMutableList():
 MutableList<Double> {\n   val list = ArrayList<Double>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun BooleanArray.toMutableList(): MutableList<Boolean> {\n   val list = ArrayList<Boolean>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun CharArray.toMutableList(): MutableList<Char> {\n   val list = ArrayList<Char>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun <T> Array<out T>.toSet(): Set<T> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<T>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of
 all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun ByteArray.toSet(): Set<Byte> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Byte>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun ShortArray.toSet(): Set<Short> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Short>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun IntArray.toSet(): Set<Int> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Int>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns
 a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun LongArray.toSet(): Set<Long> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Long>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun FloatArray.toSet(): Set<Float> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Float>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun DoubleArray.toSet(): Set<Double> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Double>(mapCapacity(size)))\n
    }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun BooleanArray.toSet(): Set<Boolean> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Boolean>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun CharArray.toSet(): Set<Char> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Char>(mapCapacity(size.coerceAtMost(128))))\n   }\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <T, R> Array<out T>.flatMap(transform: (T)
 -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> ByteArray.flatMap(transform: (Byte) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> ShortArray.flatMap(transform: (Short) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n

 */\npublic inline fun <R> IntArray.flatMap(transform: (Int) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> LongArray.flatMap(transform: (Long) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> FloatArray.flatMap(transform: (Float) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element

 of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> DoubleArray.flatMap(transform: (Double) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> BooleanArray.flatMap(transform: (Boolean) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> CharArray.flatMap(transform: (Char) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of

 all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapSequence\")\npublic inline fun <T, R> Array<out T>.flatMap(transform: (T) -> Sequence<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Array<out T>.flatMapIndexed(transform:

 (index: Int, T) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.flatMapIndexed(transform: (index: Int, Byte) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic

 inline fun <R> ShortArray.flatMapIndexed(transform: (index: Int, Short) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n

*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> IntArray.flatMapIndexed(transform: (index: Int, Int) -> Iterable<R>): List<R> {\n   return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all
elements yielded from results of [transform] function being invoked on each element\n * and its index in the
original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> LongArray.flatMapIndexed(transform: (index: Int, Long) -> Iterable<R>): List<R> {\n   return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> FloatArray.flatMapIndexed(transform: (index: Int, Float) -> Iterable<R>): List<R> {\n   return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> DoubleArray.flatMapIndexed(transform: (index: Int, Double) -> Iterable<R>): List<R> {\n   return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> BooleanArray.flatMapIndexed(transform: (index: Int, Boolean) -> Iterable<R>): List<R> {\n
return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded
from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
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*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> CharArray.flatMapIndexed(transform: (index: Int, Char) -> Iterable<R>): List<R> {\n   return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedSequence\")\n@kotlin.internal.InlineOnly\npubli
c inline fun <T, R> Array<out T>.flatMapIndexed(transform: (index: Int, T) -> Sequence<R>): List<R> {\n   return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of
[transform] function being invoked on each element\n * and its index in the original array, to the given
[destination].\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npubli
c
inline fun <T, R, C : MutableCollection<in R>> Array<out T>.flatMapIndexedTo(destination: C, transform: (index:
Int, T) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++,
element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from

results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> ByteArray.flatMapIndexedTo(destination: C, transform: (index: Int, Byte) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n

destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> ShortArray.flatMapIndexedTo(destination: C, transform: (index: Int, Short) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic

inline fun <R, C : MutableCollection<in R>> IntArray.flatMapIndexedTo(destination: C, transform: (index: Int, Int) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> LongArray.flatMapIndexedTo(destination: C, transform: (index: Int, Long) -> Iterable<R>): C {\n   var index

= 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> FloatArray.flatMapIndexedTo(destination: C, transform: (index: Int, Float) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the

given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> DoubleArray.flatMapIndexedTo(destination: C, transform: (index: Int, Double) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npubli

c inline fun <R, C : MutableCollection<in R>> BooleanArray.flatMapIndexedTo(destination:
 C, transform: (index: Int, Boolean) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> CharArray.flatMapIndexedTo(destination: C, transform: (index: Int, Char) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform]
 function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedSequenceTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.flatMapIndexedTo(destination: C, transform: (index: Int, T) -> Sequence<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.flatMapTo(destination: C, transform: (T) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> ByteArray.flatMapTo(destination: C, transform: (Byte) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> ShortArray.flatMapTo(destination: C, transform: (Short) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked
 on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> IntArray.flatMapTo(destination: C, transform: (Int) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> LongArray.flatMapTo(destination: C, transform: (Long) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> FloatArray.flatMapTo(destination: C,
 transform: (Float) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> DoubleArray.flatMapTo(destination: C, transform: (Double) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> BooleanArray.flatMapTo(destination: C, transform: (Boolean) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n

}\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> CharArray.flatMapTo(destination: C, transform: (Char) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapSequenceTo\")\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.flatMapTo(destination: C, transform: (T) -> Sequence<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n

}\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K> Array<out T>.groupBy(keySelector: (T) -> K): Map<K, List<T>> {\n   return groupByTo(LinkedHashMap<K, MutableList<T>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n

*/\npublic inline fun <K> ByteArray.groupBy(keySelector: (Byte) -> K): Map<K, List<Byte>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Byte>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> ShortArray.groupBy(keySelector: (Short) -> K): Map<K, List<Short>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Short>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n

* \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> IntArray.groupBy(keySelector: (Int) -> K): Map<K, List<Int>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Int>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> LongArray.groupBy(keySelector: (Long) -> K): Map<K, List<Long>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Long>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the

given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> FloatArray.groupBy(keySelector: (Float) -> K): Map<K, List<Float>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Float>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> DoubleArray.groupBy(keySelector: (Double) -> K): Map<K, List<Double>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Double>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> BooleanArray.groupBy(keySelector: (Boolean) -> K): Map<K, List<Boolean>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Boolean>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> CharArray.groupBy(keySelector: (Char) -> K): Map<K, List<Char>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Char>>(), keySelector)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <T, K, V> Array<out T>.groupBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> ByteArray.groupBy(keySelector: (Byte) -> K, valueTransform: (Byte) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> ShortArray.groupBy(keySelector: (Short) -> K, valueTransform: (Short) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> IntArray.groupBy(keySelector: (Int) -> K, valueTransform: (Int) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> LongArray.groupBy(keySelector: (Long) -> K, valueTransform: (Long) -> V): Map<K, List<V>> {\n   return

groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with
 a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> FloatArray.groupBy(keySelector: (Float) -> K, valueTransform: (Float) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> DoubleArray.groupBy(keySelector: (Double)
 -> K, valueTransform: (Double) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> BooleanArray.groupBy(keySelector: (Boolean) -> K, valueTransform: (Boolean) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given
 [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> CharArray.groupBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K, M : MutableMap<in K, MutableList<T>>> Array<out T>.groupByTo(destination:
 M, keySelector: (T) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<T>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Byte>>> ByteArray.groupByTo(destination: M, keySelector: (Byte) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Byte>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector]
 function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Short>>> ShortArray.groupByTo(destination: M, keySelector: (Short) -> K): M {\n   for (element in

this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Short>() }\n list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Int>>>
 IntArray.groupByTo(destination: M, keySelector: (Int) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Int>() }\n   list.add(element)\n   }\n
 return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Long>>> LongArray.groupByTo(destination: M, keySelector: (Long) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Long>() }\n list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key
 returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Float>>> FloatArray.groupByTo(destination: M, keySelector: (Float) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Float>() }\n
   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M
 : MutableMap<in K, MutableList<Double>>> DoubleArray.groupByTo(destination: M, keySelector: (Double) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Double>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Boolean>>> BooleanArray.groupByTo(destination: M, keySelector: (Boolean) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Boolean>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n
 * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Char>>> CharArray.groupByTo(destination: M, keySelector: (Char) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Char>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The
 [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <T, K, V, M : MutableMap<in K, MutableList<V>>> Array<out T>.groupByTo(destination: M, keySelector: (T) -> K, valueTransform: (T) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given

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samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> ShortArray.groupByTo(destination: M, keySelector: (Short) -> K, valueTransform: (Short) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> IntArray.groupByTo(destination: M, keySelector: (Int) -> K, valueTransform: (Int) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> LongArray.groupByTo(destination: M, keySelector: (Long) -> K, valueTransform: (Long) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> FloatArray.groupByTo(destination: M, keySelector: (Float) -> K, valueTransform: (Float) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> DoubleArray.groupByTo(destination: M, keySelector: (Double) -> K, valueTransform: (Double) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> BooleanArray.groupByTo(destination: M, keySelector: (Boolean) -> K, valueTransform: (Boolean) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>()

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 * using the specified [keySelector] function to extract a key from each element.\n * \n * @sample samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K> Array<out T>.groupingBy(crossinline keySelector: (T) -> K): Grouping<T, K> {\n   return object : Grouping<T, K> {\n   override fun sourceIterator(): Iterator<T> = this@groupingBy.iterator()\n   override fun keyOf(element: T): K = keySelector(element)\n   }\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <T, R> Array<out T>.map(transform: (T) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n

 */\npublic inline fun <R> ByteArray.map(transform: (Byte) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> ShortArray.map(transform: (Short) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> IntArray.map(transform: (Int) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n

 */\npublic inline fun <R> LongArray.map(transform: (Long) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> FloatArray.map(transform: (Float) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> DoubleArray.map(transform: (Double) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n

 */\npublic inline fun <R> BooleanArray.map(transform: (Boolean) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> CharArray.map(transform: (Char)

-> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T, R> Array<out T>.mapIndexed(transform: (index: Int, T) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results
 of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> ByteArray.mapIndexed(transform: (index: Int, Byte) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> ShortArray.mapIndexed(transform: (index: Int, Short) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index
 in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> IntArray.mapIndexed(transform: (index: Int, Int) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> LongArray.mapIndexed(transform: (index: Int, Long) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index
 of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> FloatArray.mapIndexed(transform: (index: Int, Float) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> DoubleArray.mapIndexed(transform: (index: Int, Double) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the
 transform applied to the element.\n */\npublic inline fun <R> BooleanArray.mapIndexed(transform: (index: Int, Boolean) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> CharArray.mapIndexed(transform: (index: Int, Char) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline
 fun <T, R : Any> Array<out T>.mapIndexedNotNull(transform: (index: Int, T) -> R?): List<R> {\n   return mapIndexedNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends only the non-null results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T, R : Any, C : MutableCollection<in R>> Array<out

T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R?): C {\n   forEachIndexed { index, element -> transform(index, element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.mapIndexedTo(destination: C, transform: (index: Int, T) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> ByteArray.mapIndexedTo(destination: C, transform: (index: Int, Byte) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> ShortArray.mapIndexedTo(destination: C, transform: (index: Int, Short) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> IntArray.mapIndexedTo(destination: C, transform: (index: Int, Int) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> LongArray.mapIndexedTo(destination: C, transform: (index: Int, Long) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> FloatArray.mapIndexedTo(destination: C, transform: (index: Int, Float) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> DoubleArray.mapIndexedTo(destination: C, transform: (index: Int, Double) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> BooleanArray.mapIndexedTo(destination: C, transform: (index: Int, Boolean) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> CharArray.mapIndexedTo(destination: C, transform: (index: Int, Char) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.mapNotNull\n */\npublic inline fun <T, R : Any> Array<out T>.mapNotNull(transform: (T) -> R?): List<R> {\n   return mapNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each element in the original array\n * and appends only the non-null results to the given [destination].\n */\npublic inline fun <T, R : Any, C : MutableCollection<in R>> Array<out T>.mapNotNullTo(destination: C, transform: (T) -> R?): C {\n   forEach { element -> transform(element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.mapTo(destination: C, transform: (T) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> ByteArray.mapTo(destination: C, transform: (Byte) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> ShortArray.mapTo(destination: C, transform: (Short) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> IntArray.mapTo(destination: C, transform: (Int) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> LongArray.mapTo(destination: C, transform: (Long) -> R): C {\n   for (item in this)\n destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> FloatArray.mapTo(destination: C, transform: (Float) -> R): C {\n   for (item in this)\n destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> DoubleArray.mapTo(destination: C, transform: (Double) -> R): C {\n for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> BooleanArray.mapTo(destination: C, transform: (Boolean) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> CharArray.mapTo(destination: C, transform: (Char) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun <T> Array<out T>.withIndex(): Iterable<IndexedValue<T>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun ByteArray.withIndex(): Iterable<IndexedValue<Byte>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun ShortArray.withIndex(): Iterable<IndexedValue<Short>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun IntArray.withIndex():

Iterable<IndexedValue<Int>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun LongArray.withIndex(): Iterable<IndexedValue<Long>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun FloatArray.withIndex(): Iterable<IndexedValue<Float>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun DoubleArray.withIndex(): Iterable<IndexedValue<Double>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps
each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun BooleanArray.withIndex(): Iterable<IndexedValue<Boolean>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun CharArray.withIndex(): Iterable<IndexedValue<Char>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * Among equal elements of the given array, only the first one will be present in the resulting list.\n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun <T> Array<out T>.distinct(): List<T> {\n   return this.toMutableSet().toList()\n}\n\n/**\n
* Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun ByteArray.distinct(): List<Byte> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun ShortArray.distinct(): List<Short> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n
*/\npublic fun IntArray.distinct(): List<Int> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun LongArray.distinct(): List<Long> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun FloatArray.distinct(): List<Float> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were
in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun DoubleArray.distinct(): List<Double> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun BooleanArray.distinct(): List<Boolean> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun CharArray.distinct(): List<Char> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing

only elements from
 the given array\n * having distinct keys returned by the given [selector] function.\n * \n * Among elements of the given array with equal keys, only the first one will be present in the resulting list.\n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <T, K> Array<out T>.distinctBy(selector: (T) -> K): List<T> {\n   val set = HashSet<K>()\n   val list = ArrayList<T>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic
 inline fun <K> ByteArray.distinctBy(selector: (Byte) -> K): List<Byte> {\n   val set = HashSet<K>()\n   val list = ArrayList<Byte>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> ShortArray.distinctBy(selector: (Short) -> K): List<Short> {\n   val set = HashSet<K>()\n   val list = ArrayList<Short>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given
 [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> IntArray.distinctBy(selector: (Int) -> K): List<Int> {\n   val set = HashSet<K>()\n   val list = ArrayList<Int>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> LongArray.distinctBy(selector: (Long) -> K): List<Long> {\n   val set = HashSet<K>()\n   val list = ArrayList<Long>()\n   for (e in this) {\n   val key
 = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> FloatArray.distinctBy(selector: (Float) -> K): List<Float> {\n   val set = HashSet<K>()\n   val list = ArrayList<Float>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n
 */\npublic inline fun <K> DoubleArray.distinctBy(selector: (Double) -> K): List<Double> {\n   val set = HashSet<K>()\n   val list = ArrayList<Double>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> BooleanArray.distinctBy(selector: (Boolean) -> K): List<Boolean> {\n   val set = HashSet<K>()\n   val list = ArrayList<Boolean>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n

}\n   return list\n}\n\n/**\n * Returns a list containing only elements from the

given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> CharArray.distinctBy(selector: (Char) -> K): List<Char> {\n   val set = HashSet<K>()\n   val list = ArrayList<Char>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n

return list\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun <T> Array<out T>.intersect(other: Iterable<T>): Set<T> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n

    return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun ByteArray.intersect(other: Iterable<Byte>): Set<Byte> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun ShortArray.intersect(other: Iterable<Short>): Set<Short> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n *

Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun IntArray.intersect(other: Iterable<Int>): Set<Int> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun LongArray.intersect(other: Iterable<Long>): Set<Long> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are

contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun FloatArray.intersect(other: Iterable<Float>): Set<Float> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun DoubleArray.intersect(other: Iterable<Double>): Set<Double> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the

specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun BooleanArray.intersect(other: Iterable<Boolean>): Set<Boolean> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun CharArray.intersect(other: Iterable<Char>): Set<Char> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n

 * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun <T> Array<out T>.subtract(other: Iterable<T>): Set<T> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n

return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun ByteArray.subtract(other: Iterable<Byte>): Set<Byte> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun ShortArray.subtract(other: Iterable<Short>): Set<Short> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n

 * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun IntArray.subtract(other: Iterable<Int>): Set<Int> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun LongArray.subtract(other: Iterable<Long>): Set<Long> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun FloatArray.subtract(other:

 Iterable<Float>): Set<Float> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun DoubleArray.subtract(other: Iterable<Double>): Set<Double> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun BooleanArray.subtract(other: Iterable<Boolean>): Set<Boolean> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified

 collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun CharArray.subtract(other: Iterable<Char>): Set<Char> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun <T> Array<out T>.toMutableSet(): MutableSet<T> {\n   return toCollection(LinkedHashSet<T>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun ByteArray.toMutableSet(): MutableSet<Byte> {\n   return toCollection(LinkedHashSet<Byte>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves

 the element iteration order of the original array.\n */\npublic fun ShortArray.toMutableSet(): MutableSet<Short> {\n   return toCollection(LinkedHashSet<Short>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun IntArray.toMutableSet(): MutableSet<Int> {\n   return toCollection(LinkedHashSet<Int>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun LongArray.toMutableSet(): MutableSet<Long> {\n   return toCollection(LinkedHashSet<Long>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic

 fun FloatArray.toMutableSet(): MutableSet<Float> {\n   return toCollection(LinkedHashSet<Float>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun DoubleArray.toMutableSet(): MutableSet<Double> {\n   return toCollection(LinkedHashSet<Double>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun BooleanArray.toMutableSet(): MutableSet<Boolean> {\n   return toCollection(LinkedHashSet<Boolean>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun CharArray.toMutableSet(): MutableSet<Char> {\n

    return toCollection(LinkedHashSet<Char>(mapCapacity(size.coerceAtMost(128))))\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun <T> Array<out T>.union(other: Iterable<T>): Set<T> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in

both collections use [intersect].\n */\npublic infix fun ByteArray.union(other: Iterable<Byte>): Set<Byte> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun ShortArray.union(other: Iterable<Short>): Set<Short> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in

the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun IntArray.union(other: Iterable<Int>): Set<Int> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun LongArray.union(other: Iterable<Long>): Set<Long> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original

array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun FloatArray.union(other: Iterable<Float>): Set<Float> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun DoubleArray.union(other: Iterable<Double>): Set<Double> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct

elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun BooleanArray.union(other: Iterable<Boolean>): Set<Boolean> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun CharArray.union(other: Iterable<Char>): Set<Char> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun <T> Array<out T>.all(predicate: (T) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun ByteArray.all(predicate: (Byte) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun ShortArray.all(predicate: (Short) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun IntArray.all(predicate: (Int) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun LongArray.all(predicate: (Long) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun FloatArray.all(predicate: (Float) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun DoubleArray.all(predicate: (Double) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun BooleanArray.all(predicate: (Boolean) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun CharArray.all(predicate: (Char) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun <T> Array<out T>.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun ByteArray.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun ShortArray.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun IntArray.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun LongArray.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun FloatArray.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun DoubleArray.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun BooleanArray.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun CharArray.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun <T> Array<out T>.any(predicate: (T) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n

 */\npublic inline fun ByteArray.any(predicate: (Byte) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun ShortArray.any(predicate: (Short) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun IntArray.any(predicate: (Int) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline

 fun LongArray.any(predicate: (Long) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun FloatArray.any(predicate: (Float) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun DoubleArray.any(predicate: (Double) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun BooleanArray.any(predicate:

 (Boolean) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun CharArray.any(predicate: (Char) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic

 inline fun IntArray.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun <T> Array<out T>.count(predicate: (T) -> Boolean): Int

 {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun ByteArray.count(predicate: (Byte) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun ShortArray.count(predicate: (Short) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun IntArray.count(predicate: (Int) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun LongArray.count(predicate: (Long) -> Boolean): Int

{\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun FloatArray.count(predicate: (Float) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun DoubleArray.count(predicate: (Double) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun BooleanArray.count(predicate: (Boolean) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun CharArray.count(predicate: (Char) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Array<out T>.fold(initial: R, operation: (acc: R, T) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> ByteArray.fold(initial: R, operation: (acc: R, Byte) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> ShortArray.fold(initial: R, operation: (acc: R, Short) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> IntArray.fold(initial: R, operation: (acc: R, Int) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> LongArray.fold(initial: R, operation: (acc: R, Long) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> FloatArray.fold(initial: R, operation: (acc: R, Float) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> DoubleArray.fold(initial: R, operation: (acc: R, Double) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> BooleanArray.fold(initial: R, operation: (acc: R, Boolean) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n

 * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> CharArray.fold(initial: R, operation: (acc: R, Char) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Array<out T>.foldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++,

 accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> ByteArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Byte) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the

 array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> ShortArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Short) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> IntArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Int) -> R): R {\n

    var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> LongArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Long) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each

 element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> FloatArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Float) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and

each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic
 inline fun <R> DoubleArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Double) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> BooleanArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Boolean) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value
 starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> CharArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates
 the next accumulator value.\n */\npublic inline fun <T, R> Array<out T>.foldRight(initial: R, operation: (T, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> ByteArray.foldRight(initial: R, operation: (Byte, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value
 and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> ShortArray.foldRight(initial: R, operation: (Short, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> IntArray.foldRight(initial: R, operation:
 (Int, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> LongArray.foldRight(initial: R, operation: (Long, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n *

Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> FloatArray.foldRight(initial: R, operation: (Float, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> DoubleArray.foldRight(initial: R, operation: (Double, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> BooleanArray.foldRight(initial: R, operation: (Boolean, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> CharArray.foldRight(initial: R, operation: (Char, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Array<out T>.foldRightIndexed(initial: R, operation: (index: Int, T, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> ByteArray.foldRightIndexed(initial: R, operation: (index: Int, Byte, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> ShortArray.foldRightIndexed(initial: R, operation: (index: Int, Short, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> IntArray.foldRightIndexed(initial: R, operation: (index: Int, Int, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> LongArray.foldRightIndexed(initial: R, operation: (index: Int, Long, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> FloatArray.foldRightIndexed(initial: R, operation: (index: Int, Float, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> DoubleArray.foldRightIndexed(initial: R, operation: (index: Int, Double, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> BooleanArray.foldRightIndexed(initial: R, operation: (index: Int, Boolean, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> CharArray.foldRightIndexed(initial: R, operation: (index: Int, Char, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun <T> Array<out T>.forEach(action: (T) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun ByteArray.forEach(action: (Byte) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun ShortArray.forEach(action: (Short) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun IntArray.forEach(action: (Int) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun LongArray.forEach(action: (Long) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun FloatArray.forEach(action: (Float) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun DoubleArray.forEach(action: (Double) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun BooleanArray.forEach(action: (Boolean) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun CharArray.forEach(action: (Char) -> Unit):

Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun <T> Array<out T>.forEachIndexed(action: (index: Int, T) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun ByteArray.forEachIndexed(action: (index: Int, Byte) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun ShortArray.forEachIndexed(action: (index: Int, Short) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun IntArray.forEachIndexed(action: (index: Int, Int) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun LongArray.forEachIndexed(action: (index: Int, Long) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun FloatArray.forEachIndexed(action: (index: Int, Float) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun DoubleArray.forEachIndexed(action: (index: Int, Double) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun BooleanArray.forEachIndexed(action: (index: Int, Boolean) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun CharArray.forEachIndexed(action: (index: Int, Char) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Array<out Double>.max(): Double? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Array<out Float>.max(): Float? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T : Comparable<T>> Array<out T>.max(): T? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun ByteArray.max(): Byte? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun ShortArray.max(): Short? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\",

hiddenSince = \"1.6\")\npublic fun IntArray.max(): Int? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use
maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\",
errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun LongArray.max(): Long? {\n   return
maxOrNull()\n}\n\n@Deprecated(\"Use
maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\",
errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun FloatArray.max(): Float? {\n   return
maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\",
ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\",
hiddenSince = \"1.6\")\npublic fun DoubleArray.max(): Double? {\n   return
maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\",
ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\",
hiddenSince = \"1.6\")\npublic fun CharArray.max(): Char? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use
maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <T, R : Comparable<R>> Array<out
T>.maxBy(selector: (T) -> R): T? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use
maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince
= \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>>
ByteArray.maxBy(selector: (Byte) -> R): Byte? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use
maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>>
ShortArray.maxBy(selector: (Short) -> R): Short? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use
maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>>
IntArray.maxBy(selector: (Int) -> R): Int? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use
maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince
= \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>>
LongArray.maxBy(selector: (Long) -> R): Long? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use
maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>>
FloatArray.maxBy(selector: (Float) -> R): Float? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use
maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>>
DoubleArray.maxBy(selector: (Double) -> R): Double? {\n   return
maxByOrNull(selector)\n}\n\n@Deprecated(\"Use maxByOrNull instead.\",
ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\",
errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>>
BooleanArray.maxBy(selector: (Boolean) -> R): Boolean? {\n   return
maxByOrNull(selector)\n}\n\n@Deprecated(\"Use maxByOrNull instead.\",
ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince =
\"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> CharArray.maxBy(selector: (Char) -> R):
Char? {\n   return maxByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the largest value of the
given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R :
Comparable<R>> Array<out T>.maxByOrNull(selector: (T) -> R): T? {\n   if (isEmpty()) return null\n   var
maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue =
selector(maxElem)\n   for (i in 1..lastIndex)
{\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue
= v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given

function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> ByteArray.maxByOrNull(selector: (Byte) -> R): Byte? {\n if (isEmpty()) return null\n var maxElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return maxElem\n var maxValue = selector(maxElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (maxValue < v) {\n maxElem = e\n maxValue = v\n }\n }\n return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> ShortArray.maxByOrNull(selector: (Short) -> R): Short? {\n if (isEmpty()) return null\n var maxElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return maxElem\n var maxValue = selector(maxElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (maxValue < v) {\n maxElem = e\n maxValue = v\n }\n }\n return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> IntArray.maxByOrNull(selector: (Int) -> R): Int? {\n if (isEmpty()) return null\n var maxElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return maxElem\n var maxValue = selector(maxElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (maxValue < v) {\n maxElem = e\n maxValue = v\n }\n }\n return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> LongArray.maxByOrNull(selector: (Long) -> R): Long? {\n if (isEmpty()) return null\n var maxElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return maxElem\n var maxValue = selector(maxElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (maxValue < v) {\n maxElem = e\n maxValue = v\n }\n }\n return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> FloatArray.maxByOrNull(selector: (Float) -> R): Float? {\n if (isEmpty()) return null\n var maxElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return maxElem\n var maxValue = selector(maxElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (maxValue < v) {\n maxElem = e\n maxValue = v\n }\n }\n return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> DoubleArray.maxByOrNull(selector: (Double) -> R): Double? {\n if (isEmpty()) return null\n var maxElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return maxElem\n var maxValue = selector(maxElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (maxValue < v) {\n maxElem = e\n maxValue = v\n }\n }\n return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> BooleanArray.maxByOrNull(selector: (Boolean) -> R): Boolean? {\n if (isEmpty()) return null\n var maxElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return maxElem\n var maxValue = selector(maxElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (maxValue < v) {\n maxElem = e\n maxValue = v\n }\n }\n return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> CharArray.maxByOrNull(selector: (Char) -> R): Char? {\n if (isEmpty()) return null\n var maxElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return maxElem\n var maxValue =

selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException
 if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.maxOf(selector: (T) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.maxOf(selector: (Byte)
 -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.maxOf(selector: (Short) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n
 * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.maxOf(selector: (Int) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException
 if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.maxOf(selector: (Long) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.maxOf(selector: (Float) -> Double): Double
 {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return

maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.maxOf(selector: (Double) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.maxOf(selector: (Boolean) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.maxOf(selector: (Char) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.maxOf(selector: (T) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.maxOf(selector: (Byte) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.maxOf(selector: (Short) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is

`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.maxOf(selector: (Int) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.maxOf(selector: (Long) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.maxOf(selector: (Float) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.maxOf(selector: (Double) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.maxOf(selector: (Boolean) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.maxOf(selector: (Char) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Array<out T>.maxOf(selector: (T) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (maxValue < v) {\n

maxValue = v\n }\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n
 * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ByteArray.maxOf(selector: (Byte) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (maxValue < v) {\n maxValue = v\n }\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ShortArray.maxOf(selector: (Short) -> R): R {\n if (isEmpty())
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 (Float) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (maxValue < v) {\n maxValue = v\n }\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> DoubleArray.maxOf(selector: (Double) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (maxValue < v) {\n maxValue = v\n }\n }\n return maxValue\n}\n\n/**\n * Returns the largest
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maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> CharArray.maxOf(selector: (Char) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.maxOfOrNull(selector: (T) -> Double): Double? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.maxOfOrNull(selector: (Byte) -> Double): Double? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.maxOfOrNull(selector: (Short) -> Double): Double? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.maxOfOrNull(selector: (Int) -> Double): Double? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.maxOfOrNull(selector: (Long) -> Double): Double? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

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ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.maxOfOrNull(selector: (Float) -
> Double): Double? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex)
{\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n *
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ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
 inline fun DoubleArray.maxOfOrNull(selector: (Double) -> Double): Double? {\n    if (isEmpty()) return null\n
var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue =
maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced
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(Boolean) -> Double): Double? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in
1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return
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*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.maxOfOrNull(selector: (Char) ->
Double): Double? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n
    val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns
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ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
 inline fun <T> Array<out T>.maxOfOrNull(selector: (T) -> Float): Float? {\n    if (isEmpty()) return null\n    var
maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue =
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ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.maxOfOrNull(selector: (Byte) ->
Float): Float? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex)
 {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n *
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ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.maxOfOrNull(selector: (Short) -
> Float): Float? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n
val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns
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any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.maxOfOrNull(selector: (Int) -> Float): Float? {\n if (isEmpty()) return null\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.maxOfOrNull(selector: (Long) -> Float): Float? {\n if (isEmpty()) return null\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.maxOfOrNull(selector: (Float) -> Float): Float? {\n if (isEmpty()) return null\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.maxOfOrNull(selector: (Double) -> Float): Float? {\n if (isEmpty()) return null\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.maxOfOrNull(selector: (Boolean) -> Float): Float? {\n if (isEmpty()) return null\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.maxOfOrNull(selector: (Char) -> Float): Float? {\n if (isEmpty()) return null\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Array<out T>.maxOfOrNull(selector: (T) -> R): R? {\n if (isEmpty()) return null\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (maxValue < v) {\n maxValue = v\n }\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n

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to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Array<out T>.maxOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <R> ByteArray.maxOfWith(comparator: Comparator<in R>, selector: (Byte) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.maxOfWith(comparator: Comparator<in R>, selector: (Short) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex)
{\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> IntArray.maxOfWith(comparator: Comparator<in R>, selector: (Int) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n
* among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.maxOfWith(comparator: Comparator<in R>, selector: (Long) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic

inline fun <R> FloatArray.maxOfWith(comparator: Comparator<in R>, selector: (Float) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.maxOfWith(comparator: Comparator<in R>, selector: (Double) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.maxOfWith(comparator: Comparator<in R>, selector: (Boolean) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.maxOfWith(comparator: Comparator<in R>, selector: (Char) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Array<out T>.maxOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Byte) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Short) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n

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 * among all values produced by [selector] function applied to each element in the array or `null` if there are no
elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
IntArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Int) -> R): R? {\n    if (isEmpty()) return
null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(maxValue, v) < 0) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n *
Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
 inline fun <R> LongArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Long) -> R): R? {\n    if
(isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        if (comparator.compare(maxValue, v) < 0) {\n            maxValue = v\n        }\n    }\n    return
maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values
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ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
FloatArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Float) -> R): R? {\n    if (isEmpty())
return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(maxValue,
 v) < 0) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value
according to the provided [comparator]\n * among all values produced by [selector] function applied to each
element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
DoubleArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Double) -> R): R? {\n    if (isEmpty())
return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(maxValue, v) < 0) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n *
Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or
 `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
BooleanArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Boolean) -> R): R? {\n    if (isEmpty())
return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(maxValue, v) < 0) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n *
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function applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
CharArray.maxOfWithOrNull(comparator: Comparator<in R>,
 selector: (Char) -> R): R? {\n    if (isEmpty()) return null\n    var maxValue = selector(this[0])\n    for (i in
1..lastIndex) {\n        val v = selector(this[i])\n        if (comparator.compare(maxValue, v) < 0) {\n            maxValue
= v\n        }\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n
* \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Array<out
Double>.maxOrNull(): Double? {\n    if (isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n
  val e = this[i]\n        max = maxOf(max, e)\n    }\n    return max\n}\n\n/**\n * Returns the largest element or `null`
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if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Array<out Float>.maxOrNull(): Float? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Array<out T>.maxOrNull(): T? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.maxOrNull(): Byte? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.maxOrNull(): Short? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.maxOrNull(): Int? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.maxOrNull(): Long? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.maxOrNull(): Float? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.maxOrNull(): Double? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.maxOrNull(): Char? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T> Array<out T>.maxWith(comparator: Comparator<in T>): T? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun ByteArray.maxWith(comparator: Comparator<in Byte>): Byte? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun ShortArray.maxWith(comparator: Comparator<in Short>): Short? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun IntArray.maxWith(comparator: Comparator<in Int>): Int? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun LongArray.maxWith(comparator: Comparator<in Long>): Long? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun FloatArray.maxWith(comparator: Comparator<in Float>): Float? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun DoubleArray.maxWith(comparator: Comparator<in Double>): Double? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun BooleanArray.maxWith(comparator: Comparator<in Boolean>): Boolean? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun CharArray.maxWith(comparator: Comparator<in Char>): Char? {\n   return maxWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Array<out T>.maxWithOrNull(comparator: Comparator<in T>): T? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.maxWithOrNull(comparator: Comparator<in Byte>): Byte? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.maxWithOrNull(comparator: Comparator<in Short>): Short? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.maxWithOrNull(comparator: Comparator<in Int>): Int? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.maxWithOrNull(comparator: Comparator<in Long>): Long? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.maxWithOrNull(comparator: Comparator<in Float>): Float? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.maxWithOrNull(comparator: Comparator<in Double>): Double? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun BooleanArray.maxWithOrNull(comparator: Comparator<in Boolean>): Boolean? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.maxWithOrNull(comparator: Comparator<in Char>): Char? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Array<out Double>.min(): Double? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Array<out Float>.min(): Float? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\", 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ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <T, R : Comparable<R>> Array<out T>.minBy(selector: (T) -> R): T? {\n   return minByOrNull(selector)\n}\n\n@Deprecated(\"Use minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> ByteArray.minBy(selector: (Byte) -> R): Byte? {\n   return minByOrNull(selector)\n}\n\n@Deprecated(\"Use minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> ShortArray.minBy(selector: (Short) -> R): Short? {\n   return minByOrNull(selector)\n}\n\n@Deprecated(\"Use minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> IntArray.minBy(selector: (Int) -> R): Int? {\n   return minByOrNull(selector)\n}\n\n@Deprecated(\"Use minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> LongArray.minBy(selector: (Long) -> R): Long? {\n   return minByOrNull(selector)\n}\n\n@Deprecated(\"Use minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> FloatArray.minBy(selector: (Float) -> R): Float? {\n   return minByOrNull(selector)\n}\n\n@Deprecated(\"Use minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince 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samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R : Comparable<R>> Array<out T>.minByOrNull(selector: (T) -> R): T? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> ByteArray.minByOrNull(selector: (Byte) -> R): Byte? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for 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samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> IntArray.minByOrNull(selector: (Int) -> R): Int? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> LongArray.minByOrNull(selector: (Long) -> R): Long? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i 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 (Long) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.minOf(selector: (Float) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n

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(Char) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Array<out T>.minOf(selector: (T) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ByteArray.minOf(selector: (Byte) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ShortArray.minOf(selector: (Short) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> IntArray.minOf(selector: (Int) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> LongArray.minOf(selector: (Long) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> FloatArray.minOf(selector: (Float) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>

DoubleArray.minOf(selector: (Double) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n

   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> BooleanArray.minOf(selector: (Boolean) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
 inline fun <R : Comparable<R>> CharArray.minOf(selector: (Char) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.minOfOrNull(selector: (T) -> Double): Double? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n
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 (Int) -> Double): Double? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function

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among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.minOfOrNull(selector: (Float) -> Double): Double? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic

inline fun DoubleArray.minOfOrNull(selector: (Double) -> Double): Double? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.minOfOrNull(selector: (Boolean) -> Double): Double? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n

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Float? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.minOfOrNull(selector: (Short) -> Float): Float? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n
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Float): Float? {\n   if (isEmpty()) return null\n   var minValue =
selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Array<out T>.minOfOrNull(selector: (T) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
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        if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> IntArray.minOfOrNull(selector: (Int) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
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    }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> DoubleArray.minOfOrNull(selector: (Double) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n

minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> BooleanArray.minOfOrNull(selector: (Boolean) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> CharArray.minOfOrNull(selector: (Char) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Array<out T>.minOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.minOfWith(comparator: Comparator<in R>, selector: (Byte) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.minOfWith(comparator: Comparator<in R>, selector: (Short) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> IntArray.minOfWith(comparator: Comparator<in R>, selector: (Int) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n

*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.minOfWith(comparator: Comparator<in R>, selector: (Long) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException
 if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.minOfWith(comparator: Comparator<in R>, selector: (Float) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.minOfWith(comparator:
 Comparator<in R>, selector: (Double) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.minOfWith(comparator: Comparator<in R>, selector: (Boolean) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if
 (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.minOfWith(comparator: Comparator<in R>, selector: (Char) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function
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Comparator<in R>, selector: (Byte) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Short) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> IntArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Int) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Long) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Float) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Double) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Boolean) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Char) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Array<out Double>.minOrNull(): Double? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Array<out Float>.minOrNull(): Float? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Array<out T>.minOrNull(): T? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.minOrNull(): Byte? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.minOrNull(): Short? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.minOrNull(): Int? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.minOrNull(): Long? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.minOrNull(): Float? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.minOrNull(): Double? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.minOrNull(): Char? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T> Array<out T>.minWith(comparator: Comparator<in T>): T? {\n   return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun ByteArray.minWith(comparator: Comparator<in Byte>): Byte? {\n   return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun ShortArray.minWith(comparator: Comparator<in Short>): Short? {\n   return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun IntArray.minWith(comparator: Comparator<in Int>): Int? {\n   return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use

minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun LongArray.minWith(comparator: Comparator<in Long>): Long? {\n return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun FloatArray.minWith(comparator: Comparator<in Float>): Float? {\n return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun DoubleArray.minWith(comparator: Comparator<in Double>): Double? {\n   return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince

= \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun BooleanArray.minWith(comparator: Comparator<in Boolean>): Boolean? {\n   return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun CharArray.minWith(comparator: Comparator<in Char>): Char? {\n return minWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Array<out T>.minWithOrNull(comparator: Comparator<in T>): T? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first

element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.minWithOrNull(comparator: Comparator<in Byte>): Byte? {\n if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.minWithOrNull(comparator: Comparator<in Short>): Short? {\n if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic

fun IntArray.minWithOrNull(comparator: Comparator<in Int>): Int? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.minWithOrNull(comparator: Comparator<in Long>): Long? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.minWithOrNull(comparator: Comparator<in Float>): Float? {\n if (isEmpty()) return null\n   var min

= this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.minWithOrNull(comparator: Comparator<in Double>): Double? {\n   if (isEmpty()) return null\n var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min =

e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun BooleanArray.minWithOrNull(comparator: Comparator<in Boolean>): Boolean? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.minWithOrNull(comparator: Comparator<in Char>): Char? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun <T> Array<out T>.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun ByteArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun ShortArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun IntArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun LongArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun FloatArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun DoubleArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun BooleanArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun CharArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun <T> Array<out T>.none(predicate: (T) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun ByteArray.none(predicate: (Byte) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun ShortArray.none(predicate: (Short) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun IntArray.none(predicate: (Int) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun LongArray.none(predicate: (Long) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun FloatArray.none(predicate: (Float) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun DoubleArray.none(predicate: (Double) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun BooleanArray.none(predicate: (Boolean) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun CharArray.none(predicate: (Char) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.onEach(action: (T) -> Unit): Array<out T> {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.onEach(action: (Byte) -> Unit): ByteArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.onEach(action: (Short) -> Unit): ShortArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.onEach(action: (Int) -> Unit): IntArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.onEach(action: (Long) -> Unit): LongArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.onEach(action: (Float) -> Unit): FloatArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.onEach(action: (Double) -> Unit): DoubleArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.onEach(action: (Boolean) -> Unit): BooleanArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.onEach(action: (Char) -> Unit): CharArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.onEachIndexed(action: (index: Int, T) -> Unit): Array<out T> {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.onEachIndexed(action: (index: Int, Byte) -> Unit): ByteArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.onEachIndexed(action: (index: Int, Short) -> Unit): ShortArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.onEachIndexed(action: (index: Int, Int) -> Unit): IntArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.onEachIndexed(action: (index: Int, Long) -> Unit): LongArray {\n   return apply { forEachIndexed(action)

}\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.onEachIndexed(action: (index: Int, Float) -> Unit): FloatArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.onEachIndexed(action: (index: Int, Double) -> Unit): DoubleArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs

the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.onEachIndexed(action: (index: Int, Boolean) -> Unit): BooleanArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.onEachIndexed(action: (index: Int, Char) -> Unit): CharArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Accumulates value starting with the first element and

applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun <S, T : S> Array<out T>.reduce(operation: (acc: S, T) -> S): S {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator: S = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws

an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun ByteArray.reduce(operation: (acc: Byte, Byte) -> Byte): Byte {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull]

instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun ShortArray.reduce(operation: (acc: Short, Short) -> Short): Short {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun IntArray.reduce(operation: (acc: Int, Int) -> Int): Int {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun LongArray.reduce(operation: (acc: Long, Long) -> Long): Long {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun FloatArray.reduce(operation: (acc: Float, Float) -> Float): Float {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun DoubleArray.reduce(operation: (acc: Double, Double) -> Double): Double {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun BooleanArray.reduce(operation: (acc: Boolean, Boolean) -> Boolean): Boolean {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n *

@sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun CharArray.reduce(operation: (acc: Char, Char) -> Char): Char {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates

value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun <S, T : S> Array<out T>.reduceIndexed(operation: (index: Int, acc: S, T) -> S): S {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator: S = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates

value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun ByteArray.reduceIndexed(operation: (index: Int, acc: Byte, Byte) -> Byte): Byte {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value

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{\n   var index = lastIndex\n   if (index < 0) return null\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R> Array<out T>.runningFold(initial: R, operation: (acc: R, T) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (element in this) {\n   accumulator = operation(accumulator, element)\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.runningFold(initial: R, operation: (acc: R, Byte) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (element in this) {\n   accumulator = operation(accumulator, element)\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.runningFold(initial: R, operation: (acc: R, Short) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (element in this) {\n   accumulator = operation(accumulator, element)\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should

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-> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (index in indices) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Boolean) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (index in indices) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (index in indices) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and the element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S> Array<out T>.runningReduce(operation: (acc: S, T) -> S): List<S> {\n   if (isEmpty()) return emptyList()\n   var accumulator: S = this[0]\n   val result = ArrayList<S>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.runningReduce(operation: (acc: Byte, Byte) -> Byte): List<Byte> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Byte>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.runningReduce(operation: (acc: Short, Short) -> Short): List<Short> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Short>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.runningReduce(operation: (acc: Int, Int) -> Int): List<Int> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Int>(size).apply { add(accumulator) 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(acc: Long, Long) -> Long): List<Long> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Long>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.runningReduce(operation: (acc: Float, Float) -> Float): List<Float> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Float>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.runningReduce(operation: (acc: Double, Double) -> Double): List<Double> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Double>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, 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the original array and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.runningReduceIndexed(operation: (index: Int, acc: Short, Short) -> Short): List<Short> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Short>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.runningReduceIndexed(operation: (index: Int, acc: Int, Int) -> Int): List<Int> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Int>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.runningReduceIndexed(operation: (index: Int, acc: Long, Long) -> Long): List<Long> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Long>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.runningReduceIndexed(operation: (index: Int, acc: Float, Float) -> Float): List<Float> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Float>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and

current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.runningReduceIndexed(operation: (index: Int, acc: Double, Double) -> Double): List<Double> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Double>(size).apply { add(accumulator) }\n   for
 (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.runningReduceIndexed(operation: (index: Int, acc: Boolean, Boolean) -> Boolean): List<Boolean> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Boolean>(size).apply { add(accumulator) }\n   for (index in 1
 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.runningReduceIndexed(operation: (index: Int, acc: Char, Char) -> Char): List<Char> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Char>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator
 = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <T, R> Array<out T>.scan(initial: R, operation: (acc: R, T) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to
 right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.scan(initial: R, operation: (acc: R, Byte) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would
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samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.scan(initial: R, operation: (acc: R, Short) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> IntArray.scan(initial: R, operation: (acc: R, Int) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.scan(initial: R, operation: (acc: R, Long) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.scan(initial: R, operation: (acc: R, Float) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.scan(initial: R, operation: (acc: R, Double) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.scan(initial: R, operation: (acc: R, Boolean) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n *

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inline fun <T, R> Array<out T>.scanIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): List<R> {\n return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Byte)

-> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Short) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list

containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> IntArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Int) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each

element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Long) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current

accumulator value that starts with [initial] value.\n
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*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Float) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise
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*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Double) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes
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*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Boolean) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates
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*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun <T> Array<out T>.sumBy(selector: (T) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince
 = \"1.5\")\npublic inline fun ByteArray.sumBy(selector: (Byte) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun ShortArray.sumBy(selector: (Short) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun

IntArray.sumBy(selector: (Int) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n
    }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun LongArray.sumBy(selector: (Long) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun FloatArray.sumBy(selector: (Float) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use
 sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun DoubleArray.sumBy(selector: (Double) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun BooleanArray.sumBy(selector: (Boolean) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun CharArray.sumBy(selector:
 (Char) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun <T> Array<out T>.sumByDouble(selector: (T) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun ByteArray.sumByDouble(selector: (Byte) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n
    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun ShortArray.sumByDouble(selector: (Short) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun IntArray.sumByDouble(selector: (Int) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n
    sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n
 */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun LongArray.sumByDouble(selector: (Long) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun

FloatArray.sumByDouble(selector: (Float) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun DoubleArray.sumByDouble(selector: (Double) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun BooleanArray.sumByDouble(selector: (Boolean) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun CharArray.sumByDouble(selector: (Char) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.sumOf(selector: (T) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of 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applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.sumOf(selector: (T) -> Int): Int {\n var sum: Int = 0.toInt()\n for (element in this) {\n sum += selector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.sumOf(selector: (Byte) -> Int): Int {\n var sum: Int = 0.toInt()\n for (element in this) {\n sum += selector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.sumOf(selector: (Short) -> Int): Int {\n var sum: Int = 0.toInt()\n for (element in this) {\n sum += selector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.sumOf(selector: (Int) -> Int): Int {\n var sum: Int = 0.toInt()\n for (element in this) {\n sum += selector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.sumOf(selector: (Long) -> Int): Int {\n var sum: Int = 0.toInt()\n for (element in this) {\n sum += selector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.sumOf(selector: (Float) -> Int): Int {\n var sum: Int = 0.toInt()\n for (element in this) {\n sum += selector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.sumOf(selector: (Double) -> Int): Int {\n var sum: Int = 0.toInt()\n for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.sumOf(selector: (Boolean) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.sumOf(selector: (Char) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.sumOf(selector: (T) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.sumOf(selector: (Byte) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.sumOf(selector: (Short) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.sumOf(selector: (Int) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.sumOf(selector: (Long) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.sumOf(selector: (Float) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.sumOf(selector: (Double) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n 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*/\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.sumOf(selector: (T) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.sumOf(selector: (Byte) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.sumOf(selector: (Short) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.sumOf(selector: (Int) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.sumOf(selector: (Long) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.sumOf(selector: (Float) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.sumOf(selector: (Double) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n 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IntArray.sumOf(selector: (Int) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.sumOf(selector: (Long) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n 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sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n
*/\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic
inline fun DoubleArray.sumOf(selector: (Double) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n
*/\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.sumOf(selector: (Boolean) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n
*/\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.sumOf(selector: (Char) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns an original collection containing all the non-`null` elements, throwing an [IllegalArgumentException] if there are any `null` elements.\n */\npublic fun <T : Any> Array<T?>.requireNoNulls(): Array<T> {\n   for (element in this) {\n   if (element == null) {\n   throw IllegalArgumentException(\"null element found in $this.\")\n   }\n   }\n
@Suppress(\"UNCHECKED_CAST\")\n   return this as Array<T>\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun <T> Array<out T>.partition(predicate: (T) -> Boolean): Pair<List<T>, List<T>> {\n   val first = ArrayList<T>()\n   val second = ArrayList<T>()\n   for (element in this) {\n   if (predicate(element)) {\n   first.add(element)\n   } else {\n   second.add(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun ByteArray.partition(predicate: (Byte) -> Boolean): Pair<List<Byte>, List<Byte>> {\n   val first = ArrayList<Byte>()\n   val second = ArrayList<Byte>()\n   for (element in this) {\n   if (predicate(element)) {\n   first.add(element)\n   } else {\n   second.add(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun ShortArray.partition(predicate: (Short) -> Boolean): Pair<List<Short>, List<Short>> {\n   val first = ArrayList<Short>()\n   val second = ArrayList<Short>()\n   for (element in this) {\n   if (predicate(element)) {\n   first.add(element)\n   } else {\n   second.add(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Splits the original array into pair of lists,\n
* where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun IntArray.partition(predicate: (Int) -> Boolean): Pair<List<Int>, List<Int>> {\n   val first = ArrayList<Int>()\n   val second = ArrayList<Int>()\n   for (element in this) {\n   if (predicate(element)) {\n   first.add(element)\n   } else {\n   second.add(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Splits the original

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array into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while
*second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample
samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun
LongArray.partition(predicate: (Long) -> Boolean): Pair<List<Long>,
 List<Long>> {\n    val first = ArrayList<Long>()\n    val second = ArrayList<Long>()\n    for (element in this) {\n
    if (predicate(element)) {\n            first.add(element)\n        } else {\n            second.add(element)\n        }\n    }\n
return Pair(first, second)\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list contains
elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate]
yielded `false`.\n * \n * @sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n
*/\npublic inline fun FloatArray.partition(predicate: (Float) -> Boolean): Pair<List<Float>, List<Float>> {\n    val
first = ArrayList<Float>()\n    val second = ArrayList<Float>()\n    for (element in this) {\n        if
(predicate(element)) {\n            first.add(element)\n        } else {\n            second.add(element)\n        }\n    }\n
return Pair(first, second)\n}\n\n/**\n * Splits
 the original array into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n *
while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample
samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun
DoubleArray.partition(predicate: (Double) -> Boolean): Pair<List<Double>, List<Double>> {\n    val first =
ArrayList<Double>()\n    val second = ArrayList<Double>()\n    for (element in this) {\n        if (predicate(element))
{\n            first.add(element)\n        } else {\n            second.add(element)\n        }\n    }\n    return Pair(first,
second)\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which
[predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n *
@sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline
 fun BooleanArray.partition(predicate: (Boolean) -> Boolean): Pair<List<Boolean>, List<Boolean>> {\n    val first
= ArrayList<Boolean>()\n    val second = ArrayList<Boolean>()\n    for (element in this) {\n        if
(predicate(element)) {\n            first.add(element)\n        } else {\n            second.add(element)\n        }\n    }\n
return Pair(first, second)\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list contains
elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate]
yielded `false`.\n * \n * @sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n
*/\npublic inline fun CharArray.partition(predicate: (Char) -> Boolean): Pair<List<Char>, List<Char>> {\n    val
first = ArrayList<Char>()\n    val second = ArrayList<Char>()\n    for (element in this) {\n        if
(predicate(element)) {\n            first.add(element)\n        } else {\n            second.add(element)\n
        }\n    }\n    return Pair(first, second)\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array
and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n *
@sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <T, R> Array<out T>.zip(other:
Array<out R>): List<Pair<T, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs
built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of
the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun
<R> ByteArray.zip(other: Array<out R>): List<Pair<Byte, R>> {\n    return zip(other) { t1, t2 -> t1 to t2
}\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same
index.\n * The returned list has length of the shortest collection.\n
 * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R>
ShortArray.zip(other: Array<out R>): List<Pair<Short, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n
* Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The
returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> IntArray.zip(other: Array<out R>):
List<Pair<Int, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the
elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest
collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R>
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LongArray.zip(other: Array<out R>): List<Pair<Long, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> FloatArray.zip(other: Array<out R>): List<Pair<Float, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> DoubleArray.zip(other: Array<out R>): List<Pair<Double, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> BooleanArray.zip(other: Array<out R>): List<Pair<Boolean, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> CharArray.zip(other: Array<out R>): List<Pair<Char, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <T, R, V> Array<out T>.zip(other: Array<out R>, transform: (a: T, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> ByteArray.zip(other: Array<out R>, transform: (a: Byte, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the 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other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> LongArray.zip(other: Array<out R>, transform: (a: Long, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> FloatArray.zip(other: Array<out R>, transform: (a: Float, b: R) -> V): List<V> {\n val size = minOf(size, other.size)\n val list = ArrayList<V>(size)\n for (i in 0 until size) {\n list.add(transform(this[i], other[i]))\n }\n return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> DoubleArray.zip(other: Array<out R>, transform: (a: Double, b: R) -> V): List<V> {\n val size = minOf(size, other.size)\n val list = ArrayList<V>(size)\n for (i in 0 until size) {\n list.add(transform(this[i], other[i]))\n }\n return list\n}\n\n/**\n * 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Array<out R>, transform: (a: Char, b: R) -> V): List<V> {\n val size = minOf(size, other.size)\n val list = ArrayList<V>(size)\n for (i in 0 until size) {\n list.add(transform(this[i], other[i]))\n }\n return list\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <T, R> Array<out T>.zip(other: Iterable<R>): List<Pair<T, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> ByteArray.zip(other: Iterable<R>): List<Pair<Byte, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> ShortArray.zip(other: Iterable<R>): List<Pair<Short, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> IntArray.zip(other: Iterable<R>): List<Pair<Int, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> LongArray.zip(other: Iterable<R>): List<Pair<Long, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> FloatArray.zip(other: Iterable<R>): List<Pair<Float, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> DoubleArray.zip(other: Iterable<R>): List<Pair<Double, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> BooleanArray.zip(other: Iterable<R>): List<Pair<Boolean, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> CharArray.zip(other: Iterable<R>): List<Pair<Char, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <T, R, V> Array<out T>.zip(other: Iterable<R>, transform: (a: T, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> ByteArray.zip(other: Iterable<R>, transform: (a: Byte, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> ShortArray.zip(other: Iterable<R>, transform: (a: Short, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> IntArray.zip(other: Iterable<R>, transform: (a: Int, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> LongArray.zip(other: Iterable<R>, transform: (a: Long, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> FloatArray.zip(other: Iterable<R>, transform: (a: Float, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the 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inline fun <R, V> BooleanArray.zip(other: Iterable<R>, transform: (a: Boolean, b: R) -> V): List<V> {\n val arraySize = size\n val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n var i = 0\n for (element in other) {\n if (i >= arraySize) break\n list.add(transform(this[i++], element))\n }\n return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> CharArray.zip(other: Iterable<R>, transform: (a: Char, b: R) -> V): List<V> {\n val arraySize = size\n val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n var i = 0\n for (element in other) {\n if (i >= arraySize) break\n list.add(transform(this[i++], element))\n }\n return list\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun ByteArray.zip(other: ByteArray): List<Pair<Byte, Byte>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun ShortArray.zip(other: ShortArray): List<Pair<Short, Short>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun IntArray.zip(other: IntArray): List<Pair<Int, Int>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun LongArray.zip(other: LongArray): List<Pair<Long, Long>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun FloatArray.zip(other: FloatArray): List<Pair<Float, Float>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun DoubleArray.zip(other: DoubleArray): List<Pair<Double, Double>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun BooleanArray.zip(other: BooleanArray): List<Pair<Boolean, Boolean>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun CharArray.zip(other: CharArray): List<Pair<Char, Char>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> ByteArray.zip(other: ByteArray, transform: (a: Byte, b: Byte) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied

to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> ShortArray.zip(other: ShortArray, transform: (a: Short, b: Short) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> IntArray.zip(other: IntArray, transform: (a: Int, b: Int) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size)

{\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> LongArray.zip(other: LongArray, transform: (a: Long, b: Long) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n

*/\npublic inline fun <V> FloatArray.zip(other: FloatArray, transform: (a: Float, b: Float) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> DoubleArray.zip(other: DoubleArray, transform: (a: Double, b: Double) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built

from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> BooleanArray.zip(other: BooleanArray, transform: (a: Boolean, b: Boolean) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> CharArray.zip(other: CharArray, transform:

(a: Char, b: Char) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <T, A : Appendable> Array<out T>.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): A {\n buffer.append(prefix)\n var count = 0\n for (element in this) {\n if (++count > 1) buffer.append(separator)\n if (limit < 0 || count <= limit) {\n buffer.appendElement(element, transform)\n } else break\n }\n if (limit >= 0 && count > limit) buffer.append(truncated)\n buffer.append(postfix)\n return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> ByteArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Byte) -> CharSequence)? = null): A {\n buffer.append(prefix)\n var count = 0\n for (element in this) {\n if (++count > 1) buffer.append(separator)\n if (limit < 0 || count <= limit) {\n if (transform != null)\n buffer.append(transform(element))\n else\n buffer.append(element.toString())\n } else break\n }\n if (limit >= 0 && count > limit) buffer.append(truncated)\n buffer.append(postfix)\n return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> ShortArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Short) -> CharSequence)? = null): A {\n buffer.append(prefix)\n var count = 0\n for (element in this) {\n if (++count > 1) buffer.append(separator)\n if (limit < 0 || count <= limit) {\n if (transform != null)\n buffer.append(transform(element))\n else\n buffer.append(element.toString())\n } else break\n }\n if (limit >= 0 && count > limit) buffer.append(truncated)\n buffer.append(postfix)\n return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> IntArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Int) -> CharSequence)? = null): A {\n buffer.append(prefix)\n var count = 0\n for (element in this) {\n if (++count > 1) buffer.append(separator)\n if (limit < 0 || count <= limit) {\n if (transform != null)\n buffer.append(transform(element))\n else\n buffer.append(element.toString())\n } else break\n }\n if (limit >= 0 && count > limit) buffer.append(truncated)\n buffer.append(postfix)\n return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> LongArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Long) -> CharSequence)? = null): A {\n buffer.append(prefix)\n var count = 0\n for (element in this) {\n if (++count > 1) buffer.append(separator)\n if (limit < 0 || count <= limit) {\n if (transform != null)\n buffer.append(transform(element))\n else\n buffer.append(element.toString())\n } else break\n }\n if (limit >= 0 && count > limit) buffer.append(truncated)\n buffer.append(postfix)\n return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> FloatArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Float) -> CharSequence)? = null): A {\n buffer.append(prefix)\n var count = 0\n for (element in this) {\n if (++count > 1) buffer.append(separator)\n if (limit < 0 || count <= limit) {\n if (transform != null)\n buffer.append(transform(element))\n else\n buffer.append(element.toString())\n } else break\n }\n if (limit >= 0 && count > limit) buffer.append(truncated)\n buffer.append(postfix)\n return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> DoubleArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Double) -> CharSequence)? = null): A {\n buffer.append(prefix)\n var count = 0\n for (element in this) {\n if (++count > 1) buffer.append(separator)\n if (limit < 0 || count <= limit) {\n if (transform != null)\n buffer.append(transform(element))\n else\n buffer.append(element.toString())\n } else break\n }\n if (limit >= 0 && count > limit) buffer.append(truncated)\n buffer.append(postfix)\n return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> BooleanArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Boolean) -> CharSequence)? = null): A {\n buffer.append(prefix)\n var count = 0\n for (element in this) {\n if (++count > 1) buffer.append(separator)\n if (limit < 0 || count <= limit) {\n if (transform != null)\n buffer.append(transform(element))\n else\n buffer.append(element.toString())\n } else break\n }\n if (limit >= 0 && count > limit) buffer.append(truncated)\n buffer.append(postfix)\n return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> CharArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Char) -> CharSequence)? = null): A {\n buffer.append(prefix)\n var count = 0\n for (element in this) {\n if (++count > 1) buffer.append(separator)\n if (limit < 0 || count <= limit) {\n if (transform != null)\n buffer.append(transform(element))\n else\n buffer.append(element)\n } else break\n }\n if (limit >= 0 && count > limit) buffer.append(truncated)\n buffer.append(postfix)\n return buffer\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun <T> Array<out T>.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun ByteArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Byte) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun ShortArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Short) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun IntArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Int) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun LongArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Long) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun FloatArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Float) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun DoubleArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Double) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n

* Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun BooleanArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Boolean) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative

value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun CharArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Char) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun <T> Array<out T>.asIterable(): Iterable<T> {\n   if (isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun ByteArray.asIterable(): Iterable<Byte>

{\n   if (isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun ShortArray.asIterable(): Iterable<Short> {\n   if (isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun IntArray.asIterable(): Iterable<Int> {\n   if (isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun LongArray.asIterable(): Iterable<Long> {\n   if (isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun FloatArray.asIterable():

Iterable<Float> {\n   if (isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun DoubleArray.asIterable(): Iterable<Double> {\n   if (isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun BooleanArray.asIterable(): Iterable<Boolean> {\n   if (isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun CharArray.asIterable(): Iterable<Char> {\n   if (isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements

when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun <T> Array<out T>.asSequence(): Sequence<T> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun ByteArray.asSequence(): Sequence<Byte> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun ShortArray.asSequence(): Sequence<Short> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements

when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun IntArray.asSequence(): Sequence<Int> {\n   if (isEmpty()) return emptySequence()\n   return Sequence {

this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun LongArray.asSequence(): Sequence<Long> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun FloatArray.asSequence(): Sequence<Float> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun DoubleArray.asSequence(): Sequence<Double> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun BooleanArray.asSequence(): Sequence<Boolean> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun CharArray.asSequence(): Sequence<Char> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Returns an average value of elements in the array.\n */\n@kotlin.jvm.JvmName(\"averageOfByte\")\npublic fun Array<out Byte>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\n@kotlin.jvm.JvmName(\"averageOfShort\")\npublic fun Array<out Short>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\n@kotlin.jvm.JvmName(\"averageOfInt\")\npublic fun Array<out Int>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\n@kotlin.jvm.JvmName(\"averageOfLong\")\npublic fun Array<out Long>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\n@kotlin.jvm.JvmName(\"averageOfFloat\")\npublic fun Array<out Float>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\n@kotlin.jvm.JvmName(\"averageOfDouble\")\npublic fun Array<out Double>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun ByteArray.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun ShortArray.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun IntArray.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun LongArray.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun FloatArray.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum /

count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun DoubleArray.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfByte\")\npublic fun Array<out Byte>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfShort\")\npublic fun Array<out Short>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfInt\")\npublic fun Array<out Int>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfLong\")\npublic fun Array<out Long>.sum(): Long {\n   var sum: Long = 0L\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfFloat\")\npublic fun Array<out Float>.sum(): Float {\n   var sum: Float = 0.0f\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfDouble\")\npublic fun Array<out Double>.sum(): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun ByteArray.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun ShortArray.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun IntArray.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun LongArray.sum(): Long {\n   var sum: Long = 0L\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun FloatArray.sum(): Float {\n   var sum: Float = 0.0f\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun DoubleArray.sum(): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"RangesKt\")\n\npackage kotlin.ranges\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n * Returns a random element from this range.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun IntRange.random(): Int {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this range.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun LongRange.random(): Long {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this range.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun CharRange.random(): Char {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun IntRange.random(random: Random): Int {\n   try {\n   return random.nextInt(this)\n   } catch(e: IllegalArgumentException) {\n   throw NoSuchElementException(e.message)\n   }\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun LongRange.random(random: Random): Long {\n   try {\n   return random.nextLong(this)\n   } catch(e: IllegalArgumentException) {\n   throw NoSuchElementException(e.message)\n   }\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun CharRange.random(random: Random): Char {\n   try {\n   return random.nextInt(first.code, last.code + 1).toChar()\n   } catch(e: IllegalArgumentException) {\n   throw NoSuchElementException(e.message)\n   }\n}\n\n/**\n * Returns a random element from this range, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun IntRange.randomOrNull(): Int? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun LongRange.randomOrNull(): Long? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharRange.randomOrNull(): Char? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun IntRange.randomOrNull(random: Random): Int? {\n   if (isEmpty())\n   return null\n   return random.nextInt(this)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun LongRange.randomOrNull(random: Random): Long? {\n   if (isEmpty())\n   return null\n   return random.nextLong(this)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun CharRange.randomOrNull(random: Random): Char? {\n   if (isEmpty())\n   return null\n   return random.nextInt(first.code, last.code + 1).toChar()\n}\n\n/**\n * Returns `true` if this range contains the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline operator fun IntRange.contains(element: Int?): Boolean {\n   return element != null && contains(element)\n}\n\n/**\n * Returns `true` if this range contains the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline operator fun LongRange.contains(element: Long?): Boolean {\n   return element != null && contains(element)\n}\n\n/**\n * Returns `true` if this range contains the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline operator fun CharRange.contains(element: Char?): Boolean {\n   return element != null && contains(element)\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"intRangeContains\")\npublic operator fun ClosedRange<Int>.contains(value: Byte): Boolean {\n   return contains(value.toInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"longRangeContains\")\npublic operator fun ClosedRange<Long>.contains(value: Byte): Boolean {\n   return contains(value.toLong())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"shortRangeContains\")\npublic operator fun ClosedRange<Short>.contains(value: Byte): Boolean {\n   return contains(value.toShort())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"doubleRangeContains\")\npublic operator fun ClosedRange<Double>.contains(value: Byte): Boolean {\n   return contains(value.toDouble())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"floatRangeContains\")\npublic operator fun ClosedRange<Float>.contains(value: Byte): Boolean {\n   return contains(value.toFloat())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"intRangeContains\")\npublic operator fun ClosedRange<Int>.contains(value: Double): Boolean {\n   return value.toIntExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"longRangeContains\")\npublic operator fun ClosedRange<Long>.contains(value: Double): Boolean {\n   return value.toLongExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"byteRangeContains\")\npublic operator fun ClosedRange<Byte>.contains(value: Double): Boolean {\n   return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"shortRangeContains\")\npublic operator fun ClosedRange<Short>.contains(value: Double): Boolean {\n   return value.toShortExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"floatRangeContains\")\npublic operator fun ClosedRange<Float>.contains(value: Double): Boolean {\n   return contains(value.toFloat())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"intRangeContains\")\npublic operator fun ClosedRange<Int>.contains(value: Float): Boolean {\n   return value.toIntExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"longRangeContains\")\npublic operator fun ClosedRange<Long>.contains(value: Float): Boolean {\n   return value.toLongExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"byteRangeContains\")\npublic operator fun ClosedRange<Byte>.contains(value: Float): Boolean {\n   return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"shortRangeContains\")\npublic operator fun ClosedRange<Short>.contains(value: Float): Boolean {\n   return value.toShortExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n

*/\n@kotlin.jvm.JvmName(\"doubleRangeContains\")\npublic operator fun ClosedRange<Double>.contains(value: Float): Boolean {\n   return contains(value.toDouble())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"longRangeContains\")\npublic operator fun ClosedRange<Long>.contains(value: Int): Boolean {\n   return contains(value.toLong())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"byteRangeContains\")\npublic operator fun ClosedRange<Byte>.contains(value: Int): Boolean {\n   return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"shortRangeContains\")\npublic operator fun ClosedRange<Short>.contains(value: Int): Boolean {\n   return value.toShortExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"doubleRangeContains\")\npublic operator fun ClosedRange<Double>.contains(value: Int): Boolean {\n   return contains(value.toDouble())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"floatRangeContains\")\npublic operator fun ClosedRange<Float>.contains(value: Int): Boolean {\n   return contains(value.toFloat())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"intRangeContains\")\npublic operator fun ClosedRange<Int>.contains(value: Long): Boolean {\n   return value.toIntExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"byteRangeContains\")\npublic operator fun ClosedRange<Byte>.contains(value: Long): Boolean {\n   return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"shortRangeContains\")\npublic operator fun ClosedRange<Short>.contains(value: Long): Boolean {\n   return value.toShortExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"doubleRangeContains\")\npublic operator fun ClosedRange<Double>.contains(value: Long): Boolean {\n   return contains(value.toDouble())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"floatRangeContains\")\npublic operator fun ClosedRange<Float>.contains(value: Long): Boolean {\n   return contains(value.toFloat())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"intRangeContains\")\npublic operator fun ClosedRange<Int>.contains(value: Short): Boolean {\n   return contains(value.toInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"longRangeContains\")\npublic operator fun ClosedRange<Long>.contains(value: Short): Boolean {\n   return contains(value.toLong())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"byteRangeContains\")\npublic operator fun ClosedRange<Byte>.contains(value: Short): Boolean {\n   return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"doubleRangeContains\")\npublic operator fun ClosedRange<Double>.contains(value: Short): Boolean {\n   return

contains(value.toDouble())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"floatRangeContains\")\npublic operator fun ClosedRange<Float>.contains(value: Short): Boolean {\n   return contains(value.toFloat())\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Int.downTo(to: Byte): IntProgression {\n   return IntProgression.fromClosedRange(this, to.toInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Long.downTo(to: Byte): LongProgression {\n   return LongProgression.fromClosedRange(this, to.toLong(), -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Byte.downTo(to: Byte): IntProgression {\n   return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Short.downTo(to: Byte): IntProgression {\n   return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Char.downTo(to: Char): CharProgression {\n   return CharProgression.fromClosedRange(this, to, -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Int.downTo(to: Int): IntProgression {\n   return IntProgression.fromClosedRange(this, to, -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Long.downTo(to: Int): LongProgression {\n   return LongProgression.fromClosedRange(this, to.toLong(), -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Byte.downTo(to: Int): IntProgression {\n   return IntProgression.fromClosedRange(this.toInt(), to, -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Short.downTo(to: Int): IntProgression {\n   return IntProgression.fromClosedRange(this.toInt(), to, -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Int.downTo(to: Long): LongProgression {\n   return LongProgression.fromClosedRange(this.toLong(), to, -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Long.downTo(to: Long): LongProgression {\n   return LongProgression.fromClosedRange(this, to, -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Byte.downTo(to: Long): LongProgression {\n   return LongProgression.fromClosedRange(this.toLong(), to, -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Short.downTo(to: Long): LongProgression {\n   return LongProgression.fromClosedRange(this.toLong(), to, -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Int.downTo(to: Short): IntProgression {\n   return IntProgression.fromClosedRange(this, to.toInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Long.downTo(to: Short): LongProgression {\n   return LongProgression.fromClosedRange(this, to.toLong(), -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Byte.downTo(to: Short): IntProgression {\n   return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Short.downTo(to: Short): IntProgression {\n   return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the same step.\n */\npublic fun IntProgression.reversed(): IntProgression {\n   return IntProgression.fromClosedRange(last, first, -step)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the same step.\n */\npublic fun LongProgression.reversed(): LongProgression {\n   return LongProgression.fromClosedRange(last, first, -step)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the same step.\n */\npublic fun CharProgression.reversed(): CharProgression {\n   return CharProgression.fromClosedRange(last, first, -step)\n}\n\n/**\n * Returns a progression that goes over the same range with the given step.\n */\npublic infix fun IntProgression.step(step: Int): IntProgression {\n   checkStepIsPositive(step > 0, step)\n   return IntProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/**\n * Returns a progression that goes over the same range with the given step.\n */\npublic infix fun LongProgression.step(step: Long): LongProgression {\n   checkStepIsPositive(step > 0, step)\n   return LongProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/**\n * Returns a progression that goes over the same range with the given step.\n */\npublic infix fun CharProgression.step(step: Int): CharProgression {\n   checkStepIsPositive(step > 0, step)\n   return CharProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\ninternal fun Int.toByteExactOrNull(): Byte? {\n   return if (this in Byte.MIN_VALUE.toInt()..Byte.MAX_VALUE.toInt()) this.toByte() else null\n}\n\ninternal fun Long.toByteExactOrNull(): Byte? {\n   return if (this in Byte.MIN_VALUE.toLong()..Byte.MAX_VALUE.toLong()) this.toByte() else null\n}\n\ninternal fun Short.toByteExactOrNull(): Byte? {\n   return if (this in Byte.MIN_VALUE.toShort()..Byte.MAX_VALUE.toShort()) this.toByte() else null\n}\n\ninternal fun Double.toByteExactOrNull(): Byte? {\n   return if (this in Byte.MIN_VALUE.toDouble()..Byte.MAX_VALUE.toDouble()) this.toInt().toByte() else null\n}\n\ninternal fun Float.toByteExactOrNull(): Byte? {\n   return if (this in Byte.MIN_VALUE.toFloat()..Byte.MAX_VALUE.toFloat()) this.toInt().toByte() else null\n}\n\ninternal fun Long.toIntExactOrNull(): Int? {\n   return if (this in Int.MIN_VALUE.toLong()..Int.MAX_VALUE.toLong()) this.toInt() else null\n}\n\ninternal fun Double.toIntExactOrNull(): Int? {\n   return if (this in Int.MIN_VALUE.toDouble()..Int.MAX_VALUE.toDouble()) this.toInt() else null\n}\n\ninternal fun Float.toIntExactOrNull(): Int? {\n   return if (this in Int.MIN_VALUE.toFloat()..Int.MAX_VALUE.toFloat()) this.toInt() else null\n}\n\ninternal fun Double.toLongExactOrNull(): Long? {\n   return if (this in

Long.MIN_VALUE.toDouble()..Long.MAX_VALUE.toDouble()) this.toLong() else null\n}\n\ninternal fun Float.toLongExactOrNull(): Long? {\n   return if (this in Long.MIN_VALUE.toFloat()..Long.MAX_VALUE.toFloat()) this.toLong() else null\n}\n\ninternal fun Int.toShortExactOrNull(): Short? {\n   return if (this in Short.MIN_VALUE.toInt()..Short.MAX_VALUE.toInt()) this.toShort() else null\n}\n\ninternal fun Long.toShortExactOrNull(): Short? {\n   return if (this in Short.MIN_VALUE.toLong()..Short.MAX_VALUE.toLong()) this.toShort() else null\n}\n\ninternal fun Double.toShortExactOrNull(): Short? {\n   return if (this in Short.MIN_VALUE.toDouble()..Short.MAX_VALUE.toDouble()) this.toInt().toShort() else null\n}\n\ninternal fun Float.toShortExactOrNull(): Short? {\n   return if (this in Short.MIN_VALUE.toFloat()..Short.MAX_VALUE.toFloat()) this.toInt().toShort() else null\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Int.until(to: Byte): IntRange {\n   return this .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Long.until(to: Byte): LongRange {\n   return this .. (to.toLong() - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Byte.until(to: Byte): IntRange {\n return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Short.until(to: Byte): IntRange {\n   return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Char.until(to: Char): CharRange {\n   if (to <= '\\u0000') return CharRange.EMPTY\n   return this .. (to - 1).toChar()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Int.until(to: Int): IntRange {\n   if (to <= Int.MIN_VALUE) return IntRange.EMPTY\n   return this .. (to - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Long.until(to: Int): LongRange {\n   return this .. (to.toLong() - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Byte.until(to: Int): IntRange {\n   if (to <= Int.MIN_VALUE) return IntRange.EMPTY\n   return this.toInt() .. (to - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Short.until(to: Int): IntRange {\n   if (to <= Int.MIN_VALUE) return IntRange.EMPTY\n   return this.toInt() .. (to - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Int.until(to: Long): LongRange {\n   if (to <= Long.MIN_VALUE) return LongRange.EMPTY\n   return this.toLong() .. (to - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Long.until(to: Long): LongRange {\n   if (to <= Long.MIN_VALUE) return LongRange.EMPTY\n   return this .. (to - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Byte.until(to: Long): LongRange {\n   if (to <= Long.MIN_VALUE) return LongRange.EMPTY\n   return this.toLong() .. (to - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Short.until(to: Long): LongRange {\n   if (to <= Long.MIN_VALUE) return LongRange.EMPTY\n   return this.toLong() .. (to - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Int.until(to: Short): IntRange {\n   return this .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but

excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Long.until(to: Short): LongRange {\n   return this .. (to.toLong() - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Byte.until(to: Short): IntRange {\n   return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Short.until(to: Short): IntRange {\n   return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue]

or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeastComparable\n */\npublic fun <T : Comparable<T>> T.coerceAtLeast(minimumValue: T): T {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Byte.coerceAtLeast(minimumValue: Byte): Byte {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Short.coerceAtLeast(minimumValue: Short): Short {\n   return if (this < minimumValue)

minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Int.coerceAtLeast(minimumValue: Int): Int {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Long.coerceAtLeast(minimumValue: Long): Long {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n

* \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Float.coerceAtLeast(minimumValue: Float): Float {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Double.coerceAtLeast(minimumValue: Double): Double {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMostComparable\n */\npublic fun <T : Comparable<T>> T.coerceAtMost(maximumValue: T): T {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n

* Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Byte.coerceAtMost(maximumValue: Byte): Byte {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample

samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Short.coerceAtMost(maximumValue: Short): Short {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMost\n

 */\npublic fun Int.coerceAtMost(maximumValue: Int): Int {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Long.coerceAtMost(maximumValue: Long): Long {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Float.coerceAtMost(maximumValue: Float): Float {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n

 * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Double.coerceAtMost(maximumValue: Double): Double {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceInComparable\n */\npublic fun <T : Comparable<T>> T.coerceIn(minimumValue: T?, maximumValue: T?): T {\n   if (minimumValue !== null && maximumValue !== null) {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue)

 return minimumValue\n   if (this > maximumValue) return maximumValue\n   }\n   else {\n   if (minimumValue !== null && this < minimumValue) return minimumValue\n   if (maximumValue !== null && this > maximumValue) return maximumValue\n   }\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Byte.coerceIn(minimumValue: Byte, maximumValue: Byte): Byte {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n *

 Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Short.coerceIn(minimumValue: Short, maximumValue: Short): Short {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n

 */\npublic fun Int.coerceIn(minimumValue: Int, maximumValue: Int): Int {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum

$maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Long.coerceIn(minimumValue: Long, maximumValue: Long): Long {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue)

 return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Float.coerceIn(minimumValue: Float, maximumValue: Float): Float {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue],

 or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Double.coerceIn(minimumValue: Double, maximumValue: Double): Double {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n * @return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceInFloatingPointRange\n */\n@SinceKotlin(\"1.1\")\npublic fun <T : Comparable<T>> T.coerceIn(range: ClosedFloatingPointRange<T>): T {\n   if (range.isEmpty()) throw IllegalArgumentException(\"Cannot

 coerce value to an empty range: $range.\")\n   return when {\n   // this < start equiv to this <= start && !(this >= start)\n   range.lessThanOrEquals(this, range.start) && !range.lessThanOrEquals(range.start, this) -> range.start\n   // this > end equiv to this >= end && !(this <= end)\n   range.lessThanOrEquals(range.endInclusive, this) && !range.lessThanOrEquals(this, range.endInclusive) -> range.endInclusive\n   else -> this\n   }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n * @return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceInComparable\n */\npublic fun <T : Comparable<T>> T.coerceIn(range: ClosedRange<T>): T {\n   if (range is ClosedFloatingPointRange) {\n   return this.coerceIn<T>(range)\n   }\n   if (range.isEmpty()) throw

 IllegalArgumentException(\"Cannot coerce value to an empty range: $range.\")\n   return when {\n   this < range.start -> range.start\n   this > range.endInclusive -> range.endInclusive\n   else -> this\n   }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n * @return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Int.coerceIn(range: ClosedRange<Int>): Int {\n   if (range is ClosedFloatingPointRange) {\n   return this.coerceIn<Int>(range)\n   }\n   if (range.isEmpty()) throw IllegalArgumentException(\"Cannot coerce value to an empty range: $range.\")\n   return when {\n   this < range.start -> range.start\n   this > range.endInclusive -> range.endInclusive\n   else -> this\n   }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n * @return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Long.coerceIn(range: ClosedRange<Long>): Long {\n   if (range is ClosedFloatingPointRange) {\n   return this.coerceIn<Long>(range)\n   }\n   if (range.isEmpty()) throw IllegalArgumentException(\"Cannot coerce value to an empty range: $range.\")\n   return when {\n   this < range.start -> range.start\n   this > range.endInclusive -> range.endInclusive\n   else -> this\n   }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.experimental.*\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@JvmInline\npublic value class UByte @PublishedApi internal constructor(@PublishedApi internal val data: Byte) : Comparable<UByte> {\n\n   companion object {\n   /**\n   * A constant holding the minimum value an instance of UByte can have.\n   */\n   public const val MIN_VALUE: UByte = UByte(0)\n\n   /**\n   * A constant holding the maximum value an instance of UByte can have.\n   */\n   public const val MAX_VALUE: UByte = UByte(-1)\n\n   /**\n   * The number of bytes used to represent an instance of UByte in a binary form.\n   */\n   public const val SIZE_BYTES: Int = 1\n\n   /**\n   * The number of bits used to represent an instance of UByte in a binary form.\n   */\n   public const val SIZE_BITS: Int = 8\n   }\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns

zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   @Suppress(\"OVERRIDE_BY_INLINE\")\n   public override inline operator fun compareTo(other: UByte): Int = this.toInt().compareTo(other.toInt())\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other: UShort): Int = this.toInt().compareTo(other.toInt())\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n

*/\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other: UInt): Int = this.toUInt().compareTo(other)\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other: ULong): Int = this.toULong().compareTo(other)\n\n   /** Adds the other value to this value. */\n

@kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UByte): UInt = this.toUInt().plus(other.toUInt())\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UShort): UInt = this.toUInt().plus(other.toUInt())\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UInt):

UInt = this.toUInt().plus(other)\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: ULong): ULong = this.toULong().plus(other)\n\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UByte): UInt = this.toUInt().minus(other.toUInt())\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UShort): UInt = this.toUInt().minus(other.toUInt())\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UInt): UInt = this.toUInt().minus(other)\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: ULong): ULong = this.toULong().minus(other)\n\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n

public inline operator fun times(other: UByte): UInt = this.toUInt().times(other.toUInt())\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UShort): UInt

= this.toUInt().times(other.toUInt())\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UInt): UInt = this.toUInt().times(other)\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: ULong): ULong = this.toULong().times(other)\n\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UByte): UInt = this.toUInt().div(other.toUInt())\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UShort): UInt = this.toUInt().div(other.toUInt())\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UInt): UInt = this.toUInt().div(other)\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: ULong): ULong = this.toULong().div(other)\n\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UByte): UInt = this.toUInt().rem(other.toUInt())\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UShort): UInt = this.toUInt().rem(other.toUInt())\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UInt): UInt = this.toUInt().rem(other)\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: ULong): ULong = this.toULong().rem(other)\n\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UByte): UInt = this.toUInt().floorDiv(other.toUInt())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UShort): UInt = this.toUInt().floorDiv(other.toUInt())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UInt): UInt = this.toUInt().floorDiv(other)\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: ULong): ULong = this.toULong().floorDiv(other)\n\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UByte): UByte = this.toUInt().mod(other.toUInt()).toUByte()\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UShort): UShort = this.toUInt().mod(other.toUInt()).toUShort()\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UInt): UInt = this.toUInt().mod(other)\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: ULong): ULong = this.toULong().mod(other)\n\n /**\n * Returns this value incremented by one.\n *\n * @sample samples.misc.Builtins.inc\n */\n @kotlin.internal.InlineOnly\n public inline operator fun inc(): UByte = UByte(data.inc())\n\n

/**\n * Returns this value decremented by one.\n *\n * @sample samples.misc.Builtins.dec\n */\n @kotlin.internal.InlineOnly\n public inline operator fun dec(): UByte = UByte(data.dec())\n\n /** Creates a range from this value to the specified [other] value. */\n @kotlin.internal.InlineOnly\n public inline operator fun rangeTo(other: UByte): UIntRange = UIntRange(this.toUInt(), other.toUInt())\n\n /** Performs a bitwise AND operation between the two values. */\n @kotlin.internal.InlineOnly\n public inline infix fun and(other: UByte): UByte = UByte(this.data and other.data)\n /** Performs a bitwise OR operation between the two values. */\n @kotlin.internal.InlineOnly\n public inline infix fun or(other: UByte): UByte = UByte(this.data or other.data)\n /** Performs a bitwise XOR operation between the two values. */\n @kotlin.internal.InlineOnly\n public inline infix fun xor(other: UByte): UByte = UByte(this.data xor other.data)\n

/** Inverts the bits in this value. */\n @kotlin.internal.InlineOnly\n public inline fun inv(): UByte = UByte(data.inv())\n\n /**\n * Converts this [UByte] value to [Byte].\n *\n * If this value is less than or equals to [Byte.MAX_VALUE], the resulting `Byte` value represents\n * the same numerical value as this `UByte`. Otherwise the result is negative.\n *\n * The resulting `Byte` value has the same binary representation as this `UByte` value.\n */\n @kotlin.internal.InlineOnly\n public inline fun toByte(): Byte = data\n /**\n * Converts this [UByte] value to [Short].\n *\n * The resulting `Short` value represents the same numerical value as this `UByte`.\n *\n * The least significant 8 bits of the resulting `Short` value are the same as the bits of this `UByte` value,\n * whereas the most significant 8 bits are filled with zeros.\n */\n @kotlin.internal.InlineOnly\n public inline fun toShort():

Short = data.toShort() and 0xFF\n /**\n * Converts this [UByte] value to [Int].\n *\n * The resulting `Int` value represents the same numerical value as this `UByte`.\n *\n * The least significant 8 bits of the resulting `Int` value are the same as the bits of this `UByte` value,\n * whereas the most significant 24 bits are filled with zeros.\n */\n @kotlin.internal.InlineOnly\n public inline fun toInt(): Int = data.toInt() and 0xFF\n /**\n * Converts this [UByte] value to [Long].\n *\n * The resulting `Long` value represents the same numerical value as this `UByte`.\n *\n * The least significant 8 bits of the resulting `Long` value are the same as the bits of this `UByte` value,\n * whereas the most significant 56 bits are filled with zeros.\n */\n @kotlin.internal.InlineOnly\n public inline fun toLong(): Long = data.toLong() and 0xFF\n\n /** Returns this value. */\n @kotlin.internal.InlineOnly\n public

inline fun toUByte(): UByte = this\n /**\n * Converts this [UByte] value to [UShort].\n *\n * The resulting `UShort` value represents the same numerical value as this `UByte`.\n *\n * The least significant 8 bits of the resulting `UShort` value are the same as the bits of this `UByte` value,\n * whereas the most significant 8 bits are filled with zeros.\n */\n @kotlin.internal.InlineOnly\n public inline fun toUShort(): UShort = UShort(data.toShort() and 0xFF)\n /**\n * Converts this [UByte] value to [UInt].\n *\n * The resulting `UInt` value represents the same numerical value as this `UByte`.\n *\n * The least significant 8 bits of the resulting `UInt` value are the same as the bits of this `UByte` value,\n * whereas the most significant 24 bits are filled with zeros.\n */\n @kotlin.internal.InlineOnly\n public inline fun toUInt(): UInt = UInt(data.toInt() and 0xFF)\n /**\n * Converts this [UByte] value

to [ULong].\n *\n * The resulting `ULong` value represents the same numerical value as this `UByte`.\n *\n * The least significant 8 bits of the resulting `ULong` value are the same as the bits of this `UByte` value,\n * whereas the most significant 56 bits are filled with zeros.\n */\n @kotlin.internal.InlineOnly\n public inline fun toULong(): ULong = ULong(data.toLong() and 0xFF)\n\n /**\n * Converts this [UByte] value to [Float].\n *\n * The resulting `Float` value represents the same numerical value as this `UByte`.\n */\n @kotlin.internal.InlineOnly\n public inline fun toFloat(): Float = this.toInt().toFloat()\n /**\n * Converts this [UByte] value to [Double].\n *\n * The resulting `Double` value represents the same numerical value as this `UByte`.\n */\n @kotlin.internal.InlineOnly\n public inline fun toDouble(): Double = this.toInt().toDouble()\n\n public override fun toString(): String = toInt().toString()\n\n}\n\n/**\n

 * Converts this [Byte] value to [UByte].\n *\n * If this value is positive, the resulting `UByte` value represents the same numerical value as this `Byte`.\n *\n * The resulting `UByte` value has the same binary representation as this `Byte` value.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.toUByte(): UByte = UByte(this)\n/**\n * Converts this [Short] value to [UByte].\n *\n * If this value is positive and less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\n * the same numerical value as this `Short`.\n *\n * The resulting `UByte` value is represented by the least significant 8 bits of this `Short` value.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.toUByte(): UByte = UByte(this.toByte())\n/**\n * Converts this [Int] value to [UByte].\n *\n * If this value
 is positive and less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\n * the same numerical value as this `Int`.\n *\n * The resulting `UByte` value is represented by the least significant 8 bits of this `Int` value.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Int.toUByte(): UByte = UByte(this.toByte())\n/**\n * Converts this [Long] value to [UByte].\n *\n * If this value is positive and less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\n * the same numerical value as this `Long`.\n *\n * The resulting `UByte` value is represented by the least significant 8 bits of this `Long` value.\n
/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Long.toUByte(): UByte = UByte(this.toByte())\n","/\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n
 * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.experimental.*\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@JvmInline\npublic value class UInt @PublishedApi internal constructor(@PublishedApi internal val data: Int) : Comparable<UInt> {\n\n   companion object {\n   /**\n   * A constant holding the minimum value an instance of UInt can have.\n   */\n   public const val MIN_VALUE: UInt = UInt(0)\n\n   /**\n   * A constant holding the maximum value an instance of UInt can have.\n   */\n   public const val MAX_VALUE: UInt = UInt(-1)\n\n   /**\n   * The number of bytes used to represent an instance of UInt in a binary form.\n   */\n   public const val SIZE_BYTES: Int = 4\n\n   /**\n   * The number of bits used
 to represent an instance of UInt in a binary form.\n   */\n   public const val SIZE_BITS: Int = 32\n   }\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other: UByte): Int = this.compareTo(other.toUInt())\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other: UShort): Int = this.compareTo(other.toUInt())\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value
 is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   @Suppress(\"OVERRIDE_BY_INLINE\")\n   public override inline operator fun compareTo(other: UInt): Int = uintCompare(this.data, other.data)\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other: ULong): Int = this.toULong().compareTo(other)\n\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UByte): UInt = this.plus(other.toUInt())\n   /** Adds the other value to this

value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UShort): UInt = this.plus(other.toUInt())\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UInt): UInt = UInt(this.data.plus(other.data))\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: ULong): ULong = this.toULong().plus(other)\n\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UByte): UInt = this.minus(other.toUInt())\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UShort): UInt = this.minus(other.toUInt())\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UInt): UInt = UInt(this.data.minus(other.data))\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: ULong): ULong = this.toULong().minus(other)\n\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UByte): UInt = this.times(other.toUInt())\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UShort): UInt = this.times(other.toUInt())\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UInt): UInt = UInt(this.data.times(other.data))\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: ULong): ULong = this.toULong().times(other)\n\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UByte): UInt = this.div(other.toUInt())\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UShort): UInt = this.div(other.toUInt())\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UInt): UInt = uintDivide(this, other)\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: ULong): ULong = this.toULong().div(other)\n\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UByte): UInt = this.rem(other.toUInt())\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UShort): UInt = this.rem(other.toUInt())\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UInt): UInt = uintRemainder(this, other)\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: ULong): ULong = this.toULong().rem(other)\n\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UByte): UInt = this.floorDiv(other.toUInt())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UShort): UInt = this.floorDiv(other.toUInt())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UInt): UInt = div(other)\n   /**\n   * Divides this value by the other value, flooring the result

to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: ULong): ULong = this.toULong().floorDiv(other)\n\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UByte): UByte = this.mod(other.toUInt()).toUByte()\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n
    public inline fun mod(other: UShort): UShort = this.mod(other.toUInt()).toUShort()\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UInt): UInt = rem(other)\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: ULong): ULong = this.toULong().mod(other)\n\n   /**\n   * Returns this value incremented by one.\n   *\n   * @sample samples.misc.Builtins.inc\n   */\n   @kotlin.internal.InlineOnly\n
public inline operator fun inc(): UInt = UInt(data.inc())\n\n   /**\n   * Returns this value decremented by one.\n   *\n   * @sample samples.misc.Builtins.dec\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun dec(): UInt = UInt(data.dec())\n\n   /** Creates a range from this value to the specified [other] value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rangeTo(other: UInt): UIntRange = UIntRange(this, other)\n\n   /**\n   * Shifts this value left by the [bitCount] number of bits.\n   *\n   * Note that only the five lowest-order bits of the [bitCount] are used as the shift distance.\n   * The shift distance actually used is therefore always in the range `0..31`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline infix fun shl(bitCount: Int): UInt = UInt(data shl bitCount)\n\n   /**\n   * Shifts this value right by the [bitCount] number of bits, filling the leftmost bits with zeros.\n   *\n   * Note that
only the five lowest-order bits of the [bitCount] are used as the shift distance.\n   * The shift distance actually used is therefore always in the range `0..31`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline infix fun shr(bitCount: Int): UInt = UInt(data ushr bitCount)\n\n   /** Performs a bitwise AND operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun and(other: UInt): UInt = UInt(this.data and other.data)\n   /** Performs a bitwise OR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun or(other: UInt): UInt = UInt(this.data or other.data)\n   /** Performs a bitwise XOR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun xor(other: UInt): UInt = UInt(this.data xor other.data)\n   /** Inverts the bits in this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun inv(): UInt = UInt(data.inv())\n\n   /**\n   * Converts
this [UInt] value to [Byte].\n   *\n   * If this value is less than or equals to [Byte.MAX_VALUE], the resulting `Byte` value represents\n   * the same numerical value as this `UInt`.\n   *\n   * The resulting `Byte` value is represented by the least significant 8 bits of this `UInt` value.\n   * Note that the resulting `Byte` value may be negative.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toByte(): Byte = data.toByte()\n   /**\n   * Converts this [UInt] value to [Short].\n   *\n   * If this value is less than or equals to [Short.MAX_VALUE], the resulting `Short` value represents\n   * the same numerical value as this `UInt`.\n   *\n   * The resulting `Short` value is represented by the least significant 16 bits of this `UInt` value.\n   * Note that the resulting `Short` value may be negative.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toShort(): Short = data.toShort()\n   /**\n   * Converts this [UInt]
value to [Int].\n   *\n   * If this value is less than or equals to [Int.MAX_VALUE], the resulting `Int` value represents\n   * the same numerical value as this `UInt`. Otherwise the result is negative.\n   *\n   * The resulting `Int` value has the same binary representation as this `UInt` value.\n   */\n   @kotlin.internal.InlineOnly\n   public

inline fun toInt(): Int = data\n /**\n * Converts this [UInt] value to [Long].\n *\n * The resulting `Long` value represents the same numerical value as this `UInt`.\n *\n * The least significant 32 bits of the resulting `Long` value are the same as the bits of this `UInt` value,\n * whereas the most significant 32 bits are filled with zeros.\n */\n @kotlin.internal.InlineOnly\n public inline fun toLong(): Long = data.toLong() and 0xFFFF_FFFF\n\n /**\n * Converts this [UInt] value to [UByte].\n *\n * If this value is less than or equals to [UByte.MAX_VALUE], the resulting `UByte`

value represents\n * the same numerical value as this `UInt`.\n *\n * The resulting `UByte` value is represented by the least significant 8 bits of this `UInt` value.\n */\n @kotlin.internal.InlineOnly\n public inline fun toUByte(): UByte = data.toUByte()\n /**\n * Converts this [UInt] value to [UShort].\n *\n * If this value is less than or equals to [UShort.MAX_VALUE], the resulting `UShort` value represents\n * the same numerical value as this `UInt`.\n *\n * The resulting `UShort` value is represented by the least significant 16 bits of this `UInt` value.\n */\n @kotlin.internal.InlineOnly\n public inline fun toUShort(): UShort = data.toUShort()\n /** Returns this value. */\n @kotlin.internal.InlineOnly\n public inline fun toUInt(): UInt = this\n /**\n * Converts this [UInt] value to [ULong].\n *\n * The resulting `ULong` value represents the same numerical value as this `UInt`.\n *\n * The

least significant 32 bits of the resulting `ULong` value are the same as the bits of this `UInt` value,\n * whereas the most significant 32 bits are filled with zeros.\n */\n @kotlin.internal.InlineOnly\n public inline fun toULong(): ULong = ULong(data.toLong() and 0xFFFF_FFFF)\n\n /**\n * Converts this [UInt] value to [Float].\n *\n * The resulting value is the closest `Float` to this `UInt` value.\n * In case when this `UInt` value is exactly between two `Float`s,\n * the one with zero at least significant bit of mantissa is selected.\n */\n @kotlin.internal.InlineOnly\n public inline fun toFloat(): Float = this.toDouble().toFloat()\n /**\n * Converts this [UInt] value to [Double].\n *\n * The resulting `Double` value represents the same numerical value as this `UInt`.\n */\n @kotlin.internal.InlineOnly\n public inline fun toDouble(): Double = uintToDouble(data)\n\n public override fun toString(): String = toLong().toString()\n\n}\n\n/**\n

* Converts this [Byte] value to [UInt].\n *\n * If this value is positive, the resulting `UInt` value represents the same numerical value as this `Byte`.\n *\n * The least significant 8 bits of the resulting `UInt` value are the same as the bits of this `Byte` value,\n * whereas the most significant 24 bits are filled with the sign bit of this value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.toUInt(): UInt = UInt(this.toInt())\n/**\n * Converts this [Short] value to [UInt].\n *\n * If this value is positive, the resulting `UInt` value represents the same numerical value as this `Short`.\n *\n * The least significant 16 bits of the resulting `UInt` value are the same as the bits of this `Short` value,\n * whereas the most significant 16 bits are filled with the sign bit of this value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic

inline fun Short.toUInt(): UInt = UInt(this.toInt())\n/**\n * Converts this [Int] value to [UInt].\n *\n * If this value is positive, the resulting `UInt` value represents the same numerical value as this `Int`.\n *\n * The resulting `UInt` value has the same binary representation as this `Int` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Int.toUInt(): UInt = UInt(this)\n/**\n * Converts this [Long] value to [UInt].\n *\n * If this value is positive and less than or equals to [UInt.MAX_VALUE], the resulting `UInt` value represents\n * the same numerical value as this `Long`.\n *\n * The resulting `UInt` value is represented by the least significant 32 bits of this `Long` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Long.toUInt(): UInt = UInt(this.toInt())\n\n/**\n * Converts

this [Float] value to [UInt].\n *\n * The fractional part, if any, is rounded down towards zero.\n * Returns zero if this `Float` value is negative or `NaN`, [UInt.MAX_VALUE] if it's bigger than `UInt.MAX_VALUE`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Float.toUInt(): UInt = doubleToUInt(this.toDouble())\n/**\n * Converts this [Double] value to

[UInt].\n *\n * The fractional part, if any, is rounded down towards zero.\n * Returns zero if this `Double` value is negative or `NaN`, [UInt.MAX_VALUE] if it's bigger than `UInt.MAX_VALUE`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Double.toUInt(): UInt = doubleToUInt(this)\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt
file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.experimental.*\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@JvmInline\npublic value class UShort @PublishedApi internal constructor(@PublishedApi internal val data: Short) : Comparable<UShort> {\n\n   companion object {\n   /**\n   * A constant holding the minimum value an instance of UShort can have.\n   */\n   public const val MIN_VALUE: UShort = UShort(0)\n\n   /**\n   * A constant holding the maximum value an instance of UShort can have.\n   */\n   public const val MAX_VALUE: UShort = UShort(-1)\n\n   /**\n   * The number of bytes used to represent an instance of UShort in a binary form.\n   */\n   public const val SIZE_BYTES: Int = 2\n\n   /**\n   * The number of bits used to represent an instance of UShort in a binary form.\n   */\n   public const val
SIZE_BITS: Int = 16\n   }\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other: UByte): Int = this.toInt().compareTo(other.toInt())\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   @Suppress(\"OVERRIDE_BY_INLINE\")\n   public override inline operator fun compareTo(other: UShort): Int = this.toInt().compareTo(other.toInt())\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other
value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other: UInt): Int = this.toUInt().compareTo(other)\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other: ULong): Int = this.toULong().compareTo(other)\n\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UByte): UInt = this.toUInt().plus(other.toUInt())\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UShort): UInt = this.toUInt().plus(other.toUInt())\n   /** Adds the
other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UInt): UInt = this.toUInt().plus(other)\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: ULong): ULong = this.toULong().plus(other)\n\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UByte): UInt = this.toUInt().minus(other.toUInt())\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UShort): UInt = this.toUInt().minus(other.toUInt())\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UInt): UInt = this.toUInt().minus(other)\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: ULong):
ULong = this.toULong().minus(other)\n\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UByte): UInt = this.toUInt().times(other.toUInt())\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UShort): UInt = this.toUInt().times(other.toUInt())\n   /** Multiplies this value by the other value. */\n

@kotlin.internal.InlineOnly\n public inline operator fun times(other: UInt): UInt = this.toUInt().times(other)\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: ULong): ULong = this.toULong().times(other)\n\n /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: UByte): UInt = this.toUInt().div(other.toUInt())\n /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: UShort): UInt = this.toUInt().div(other.toUInt())\n /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: UInt): UInt = this.toUInt().div(other)\n /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: ULong): ULong = this.toULong().div(other)\n\n /**\n * Calculates the remainder of truncating division of this value by the other value.\n * \n * The result is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun rem(other: UByte): UInt = this.toUInt().rem(other.toUInt())\n /**\n * Calculates the remainder of truncating division of this value by the other value.\n * \n * The result is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun rem(other: UShort): UInt = this.toUInt().rem(other.toUInt())\n /**\n * Calculates the remainder of truncating division of this value by the other value.\n * \n * The result is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun rem(other: UInt): UInt = this.toUInt().rem(other)\n /**\n * Calculates the remainder of truncating division of this value by the other value.\n * \n * The result is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun rem(other: ULong): ULong = this.toULong().rem(other)\n\n /**\n * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n * \n * For unsigned types, the results of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other: UByte): UInt = this.toUInt().floorDiv(other.toUInt())\n /**\n * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n * \n * For unsigned types, the results of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other: UShort): UInt = this.toUInt().floorDiv(other.toUInt())\n /**\n * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n * \n * For unsigned types, the results of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other: UInt): UInt = this.toUInt().floorDiv(other)\n /**\n * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n * \n * For unsigned types, the results of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other: ULong): ULong = this.toULong().floorDiv(other)\n\n /**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is always less than the divisor.\n * \n * For unsigned types, the remainders of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun mod(other: UByte): UByte = this.toUInt().mod(other.toUInt()).toUByte()\n /**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is always less than the divisor.\n * \n * For unsigned types, the remainders of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun mod(other: UShort): UShort = this.toUInt().mod(other.toUInt()).toUShort()\n /**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is always less than the divisor.\n * \n * For unsigned types, the remainders of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun mod(other: UInt): UInt = this.toUInt().mod(other)\n /**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is always less than the divisor.\n * \n * For unsigned types, the remainders of flooring division and truncating division are the same.\n */\n

@kotlin.internal.InlineOnly\n   public inline fun mod(other: ULong): ULong = this.toULong().mod(other)\n\n   /**\n   * Returns this value incremented by one.\n   *\n   * @sample samples.misc.Builtins.inc\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun inc(): UShort = UShort(data.inc())\n\n   /**\n   * Returns this value decremented by one.\n   *\n   * @sample samples.misc.Builtins.dec\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun dec(): UShort = UShort(data.dec())\n\n   /** Creates a range from this value to the specified [other] value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rangeTo(other: UShort): UIntRange = UIntRange(this.toUInt(), other.toUInt())\n\n   /** Performs a bitwise AND operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun and(other: UShort): UShort = UShort(this.data and other.data)\n   /** Performs a bitwise OR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun or(other: UShort): UShort = UShort(this.data or other.data)\n   /** Performs a bitwise XOR operation between the two values.

*/\n   @kotlin.internal.InlineOnly\n   public inline infix fun xor(other: UShort): UShort = UShort(this.data xor other.data)\n   /** Inverts the bits in this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun inv(): UShort = UShort(data.inv())\n\n   /**\n   * Converts this [UShort] value to [Byte].\n   *\n   * If this value is less than or equals to [Byte.MAX_VALUE], the resulting `Byte` value represents\n   * the same numerical value as this `UShort`.\n   *\n   * The resulting `Byte` value is represented by the least significant 8 bits of this `UShort` value.\n   * Note that the resulting `Byte` value may be negative.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toByte(): Byte = data.toByte()\n   /**\n   * Converts this [UShort] value to [Short].\n   *\n   * If this value is less than or equals to [Short.MAX_VALUE], the resulting `Short` value represents\n   * the same numerical value as this `UShort`. Otherwise the

result is negative.\n   *\n   * The resulting `Short` value has the same binary representation as this `UShort` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toShort(): Short = data\n   /**\n   * Converts this [UShort] value to [Int].\n   *\n   * The resulting `Int` value represents the same numerical value as this `UShort`.\n   *\n   * The least significant 16 bits of the resulting `Int` value are the same as the bits of this `UShort` value,\n   * whereas the most significant 16 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toInt(): Int = data.toInt() and 0xFFFF\n   /**\n   * Converts this [UShort] value to [Long].\n   *\n   * The resulting `Long` value represents the same numerical value as this `UShort`.\n   *\n   * The least significant 16 bits of the resulting `Long` value are the same as the bits of this `UShort` value,\n   * whereas the most significant 48 bits are filled with

zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toLong(): Long = data.toLong() and 0xFFFF\n\n   /**\n   * Converts this [UShort] value to [UByte].\n   *\n   * If this value is less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\n   * the same numerical value as this `UShort`.\n   *\n   * The resulting `UByte` value is represented by the least significant 8 bits of this `UShort` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUByte(): UByte = data.toUByte()\n   /** Returns this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun toUShort(): UShort = this\n   /**\n   * Converts this [UShort] value to [UInt].\n   *\n   * The resulting `UInt` value represents the same numerical value as this `UShort`.\n   *\n   * The least significant 16 bits of the resulting `UInt` value are the same as the bits of this `UShort` value,\n   * whereas the most significant 16 bits are filled

with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUInt(): UInt = UInt(data.toInt() and 0xFFFF)\n   /**\n   * Converts this [UShort] value to [ULong].\n   *\n   * The resulting `ULong` value represents the same numerical value as this `UShort`.\n   *\n   * The least significant 16 bits of the resulting `ULong` value are the same as the bits of this `UShort` value,\n   * whereas the most significant 48 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toULong(): ULong = ULong(data.toLong() and 0xFFFF)\n\n   /**\n   * Converts this [UShort] value to [Float].\n   *\n   * The resulting `Float` value represents the same numerical value as this `UShort`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toFloat(): Float = this.toInt().toFloat()\n   /**\n   * Converts this [UShort] value to [Double].\n   *\n   * The resulting `Double` value represents the same numerical value as this `UShort`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toDouble(): Double = this.toInt().toDouble()\n\n   public override fun toString(): String = toInt().toString()\n\n}\n\n/**\n * Converts this [Byte] value to [UShort].\n *\n * If this value is positive, the resulting `UShort` value represents the same numerical value as this `Byte`.\n *\n * The least significant 8 bits of the resulting `UShort` value are the same as the bits of this `Byte` value,\n * whereas the most significant 8 bits are filled with the sign bit of this value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.toUShort(): UShort = UShort(this.toShort())\n/**\n * Converts this [Short] value to [UShort].\n *\n * If this value is positive, the resulting `UShort` value represents the same numerical value as this `Short`.\n *\n * The resulting `UShort` value has the same binary representation as this `Short` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.toUShort(): UShort = UShort(this)\n/**\n * Converts this [Int] value to [UShort].\n *\n * If this value is positive and less than or equals to [UShort.MAX_VALUE], the resulting `UShort` value represents\n * the same numerical value as this `Int`.\n *\n * The resulting `UShort` value is represented by the least significant 16 bits of this `Int` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Int.toUShort(): UShort = UShort(this.toShort())\n/**\n * Converts this [Long] value to [UShort].\n *\n * If this value is positive and less than or equals to [UShort.MAX_VALUE], the resulting `UShort` value represents\n * the same numerical value as this `Long`.\n *\n * The resulting `UShort` value is represented by the least significant 16 bits of this `Long` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic

inline fun Long.toUShort(): UShort = UShort(this.toShort())\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.ranges\n\n/**\n * A range of values of type `Char`.\n */\npublic class CharRange(start: Char, endInclusive: Char) : CharProgression(start, endInclusive, 1), ClosedRange<Char> {\n   override val start: Char get() = first\n   override val endInclusive: Char get() = last\n\n   override fun contains(value: Char): Boolean = first <= value && value <= last\n\n   /** \n   * Checks whether the range is empty.\n   *\n   * The range is empty if its start value is greater than the end value.\n   */\n   override fun isEmpty(): Boolean = first > last\n\n

override fun equals(other: Any?): Boolean =\n   other is CharRange && (isEmpty() && other.isEmpty() ||\n

first == other.first && last == other.last)\n\n   override fun hashCode(): Int =\n   if (isEmpty()) -1 else (31 * first.code + last.code)\n\n   override fun toString(): String = \"$first..$last\"\n\n   companion object {\n   /** An empty range of values of type Char. */\n   public val EMPTY: CharRange = CharRange(1.toChar(), 0.toChar())\n   }\n}\n\n/**\n * A range of values of type `Int`.\n */\npublic class IntRange(start: Int, endInclusive: Int) : IntProgression(start, endInclusive, 1), ClosedRange<Int> {\n   override val start: Int get() = first\n   override val endInclusive: Int get() = last\n\n   override fun contains(value: Int): Boolean = first <= value && value <= last\n\n   /** \n   * Checks whether the range is empty.\n   *\n   * The range is empty if its start value is greater than the end value.\n   */\n   override fun isEmpty():

Boolean = first > last\n\n   override fun equals(other: Any?): Boolean =\n   other is IntRange && (isEmpty() && other.isEmpty() ||\n   first == other.first && last == other.last)\n\n   override fun hashCode(): Int =\n   if (isEmpty()) -1 else (31 * first + last)\n\n   override fun toString(): String = \"$first..$last\"\n\n   companion object {\n   /** An empty range of values of type Int. */\n   public val EMPTY: IntRange = IntRange(1, 0)\n   }\n}\n\n/**\n * A range of values of type `Long`.\n */\npublic class LongRange(start: Long, endInclusive: Long) : LongProgression(start, endInclusive, 1), ClosedRange<Long> {\n   override val start: Long get() = first\n   override val endInclusive: Long get() = last\n\n   override fun contains(value: Long): Boolean = first <= value && value <= last\n\n   /** \n   * Checks whether the range is empty.\n   *\n   * The range is empty if its start value is greater than the end value.\n   */\n   override fun isEmpty(): Boolean = first > last\n\n   override fun equals(other: Any?): Boolean =\n   other is LongRange && (isEmpty() && other.isEmpty() ||\n   first == other.first && last == other.last)\n\n   override fun hashCode(): Int =\n   if (isEmpty()) -1 else (31 * (first xor (first ushr 32)) + (last xor (last ushr 32))).toInt()\n\n   override fun toString(): String = \"$first..$last\"\n\n   companion object {\n   /** An empty range of values of type Long. */\n   public val EMPTY: LongRange = LongRange(1, 0)\n   }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CollectionsKt\")\n@file:OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n\npackage kotlin.collections\n\nimport kotlin.contracts.*\nimport kotlin.random.Random\n\ninternal object EmptyIterator : ListIterator<Nothing> {\n   override fun hasNext(): Boolean = false\n   override fun hasPrevious(): Boolean = false\n   override fun nextIndex(): Int = 0\n   override fun previousIndex(): Int = -1\n   override fun next(): Nothing = throw NoSuchElementException()\n   override fun previous(): Nothing = throw NoSuchElementException()\n}\n\ninternal object EmptyList : List<Nothing>, Serializable, RandomAccess {\n   private const val serialVersionUID: Long = -7390468764508069838L\n\n   override fun equals(other: Any?): Boolean = other is List<*> && other.isEmpty()\n   override fun hashCode(): Int = 1\n   override fun toString(): String = \"[]\"\n\n   override val size: Int get() = 0\n   override fun isEmpty(): Boolean = true\n   override fun contains(element: Nothing): Boolean = false\n   override fun containsAll(elements: Collection<Nothing>): Boolean = elements.isEmpty()\n\n   override fun get(index: Int): Nothing = throw IndexOutOfBoundsException(\"Empty list doesn't contain element at index $index.\")\n   override fun indexOf(element: Nothing): Int = -1\n   override fun lastIndexOf(element: Nothing): Int = -1\n\n   override fun iterator(): Iterator<Nothing> = EmptyIterator\n   override fun listIterator(): ListIterator<Nothing> = EmptyIterator\n   override fun listIterator(index: Int): ListIterator<Nothing> {\n   if (index != 0) throw IndexOutOfBoundsException(\"Index: $index\")\n   return EmptyIterator\n   }\n\n   override fun subList(fromIndex: Int, toIndex: Int): List<Nothing> {\n   if (fromIndex == 0 && toIndex == 0) return this\n   throw IndexOutOfBoundsException(\"fromIndex: $fromIndex, toIndex: $toIndex\")\n   }\n\n   private fun readResolve(): Any = EmptyList\n}\n\ninternal fun <T> Array<out T>.asCollection(): Collection<T> = ArrayAsCollection(this, isVarargs = false)\n\nprivate class ArrayAsCollection<T>(val values: Array<out T>, val isVarargs: Boolean) : Collection<T> {\n   override val size: Int get() = values.size\n   override fun isEmpty(): Boolean = values.isEmpty()\n   override fun contains(element: T): Boolean = values.contains(element)\n   override fun containsAll(elements: Collection<T>): Boolean = elements.all { contains(it) }\n   override fun iterator(): Iterator<T> = values.iterator()\n   // override hidden toArray implementation to prevent copying of values array\n   public fun toArray(): Array<out Any?> = values.copyToArrayOfAny(isVarargs)\n}\n\n/**\n * Returns an empty read-only list. The returned list is serializable (JVM).\n * @sample samples.collections.Collections.Lists.emptyReadOnlyList\n */\npublic fun <T> emptyList(): List<T> = EmptyList\n\n/**\n * Returns a new read-only list of given elements. The returned list is serializable (JVM).\n * @sample samples.collections.Collections.Lists.readOnlyList\n */\npublic fun <T> listOf(vararg elements: T): List<T> = if (elements.size > 0) elements.asList() else emptyList()\n\n/**\n * Returns an empty read-only list. The returned list is serializable (JVM).\n * @sample samples.collections.Collections.Lists.emptyReadOnlyList\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> listOf(): List<T> = emptyList()\n\n/**\n * Returns an empty new [MutableList].\n * @sample samples.collections.Collections.Lists.emptyMutableList\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> mutableListOf(): MutableList<T> = ArrayList()\n\n/**\n * Returns an empty new [ArrayList].\n * @sample samples.collections.Collections.Lists.emptyArrayList\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> arrayListOf(): ArrayList<T> = ArrayList()\n\n/**\n * Returns a new [MutableList] with the given elements.\n * @sample samples.collections.Collections.Lists.mutableList\n */\npublic fun <T> mutableListOf(vararg elements: T): MutableList<T> =\n   if (elements.size == 0) ArrayList() else ArrayList(ArrayAsCollection(elements, isVarargs =

```
true))\n\n/**\n
 * Returns a new [ArrayList] with the given elements.\n * @sample samples.collections.Collections.Lists.arrayList\n
*/\npublic fun <T> arrayListOf(vararg elements: T): ArrayList<T> =\n    if (elements.size == 0) ArrayList() else
ArrayList(ArrayAsCollection(elements, isVarargs = true))\n\n/**\n * Returns a new read-only list either of single
given element, if it is not null, or empty list if the element is null. The returned list is serializable (JVM).\n *
@sample samples.collections.Collections.Lists.listOfNotNull\n */\npublic fun <T : Any> listOfNotNull(element:
T?): List<T> = if (element != null) listOf(element) else emptyList()\n\n/**\n * Returns a new read-only list only of
those given elements, that are not null.  The returned list is serializable (JVM).\n * @sample
samples.collections.Collections.Lists.listOfNotNull\n */\npublic fun <T : Any> listOfNotNull(vararg elements: T?):
List<T> = elements.filterNotNull()\n\n/**\n * Creates a new read-only list with the specified
 [size], where each element is calculated by calling the specified\n * [init] function.\n *\n * The function [init] is
called for each list element sequentially starting from the first one.\n * It should return the value for a list element
given its index.\n *\n * @sample samples.collections.Collections.Lists.readOnlyListFromInitializer\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> List(size: Int, init: (index: Int) -> T):
List<T> = MutableList(size, init)\n\n/**\n * Creates a new mutable list with the specified [size], where each element
is calculated by calling the specified\n * [init] function.\n *\n * The function [init] is called for each list element
sequentially starting from the first one.\n * It should return the value for a list element given its index.\n *\n *
@sample samples.collections.Collections.Lists.mutableListFromInitializer\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> MutableList(size: Int, init:
 (index: Int) -> T): MutableList<T> {\n    val list = ArrayList<T>(size)\n    repeat(size) { index ->
list.add(init(index)) }\n    return list\n}\n\n/**\n * Builds a new read-only [List] by populating a [MutableList] using
the given [builderAction]\n * and returning a read-only list with the same elements.\n *\n * The list passed as a
receiver to the [builderAction] is valid only inside that function.\n * Using it outside of the function produces an
unspecified behavior.\n *\n * The returned list is serializable (JVM).\n *\n * @sample
samples.collections.Builders.Lists.buildListSample\n
*/\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun <E> buildList(@BuilderInference builderAction: MutableList<E>.() -> Unit): List<E> {\n    contract {
callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n    return
buildListInternal(builderAction)\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninter
nal
 expect inline fun <E> buildListInternal(builderAction: MutableList<E>.() -> Unit): List<E>\n\n/**\n * Builds a
new read-only [List] by populating a [MutableList] using the given [builderAction]\n * and returning a read-only list
with the same elements.\n *\n * The list passed as a receiver to the [builderAction] is valid only inside that
function.\n * Using it outside of the function produces an unspecified behavior.\n *\n * The returned list is
serializable (JVM).\n *\n * [capacity] is used to hint the expected number of elements added in the
[builderAction].\n *\n * @throws IllegalArgumentException if the given [capacity] is negative.\n *\n * @sample
samples.collections.Builders.Lists.buildListSampleWithCapacity\n
*/\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun <E> buildList(capacity: Int, @BuilderInference builderAction: MutableList<E>.() -> Unit): List<E> {\n
  contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE)
 }\n    return buildListInternal(capacity,
builderAction)\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal expect inline
fun <E> buildListInternal(capacity: Int, builderAction: MutableList<E>.() -> Unit): List<E>\n\n/**\n * Returns an
[IntRange] of the valid indices for this collection.\n * @sample
samples.collections.Collections.Collections.indicesOfCollection\n */\npublic val Collection<*>.indices: IntRange\n
 get() = 0..size - 1\n\n/**\n * Returns the index of the last item in the list or -1 if the list is empty.\n *\n * @sample
samples.collections.Collections.Lists.lastIndexOfList\n */\npublic val <T> List<T>.lastIndex: Int\n    get() =
this.size - 1\n\n/**\n * Returns `true` if the collection is not empty.\n * @sample
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samples.collections.Collections.Collections.collectionIsNotEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>.isNotEmpty(): Boolean = !isEmpty()\n\n/**\n * Returns `true` if this nullable
collection is either null or empty.\n * @sample
samples.collections.Collections.Collections.collectionIsNullOrEmpty\n
*/\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>?.isNullOrEmpty(): Boolean {\n   contract {\n   returns(false) implies (this@isNullOrEmpty != null)\n   }\n\n   return this == null || this.isEmpty()\n}\n\n/**\n * Returns this Collection if it's not `null` and the empty list otherwise.\n * @sample samples.collections.Collections.Collections.collectionOrEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>?.orEmpty(): Collection<T> = this ?: emptyList()\n\n/**\n * Returns this List if it's not `null` and the empty list otherwise.\n * @sample samples.collections.Collections.Lists.listOrEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>?.orEmpty(): List<T> = this ?: emptyList()\n\n/**\n * Returns this collection if it's not empty\n * or the result of calling [defaultValue] function
if the collection is empty.\n *\n * @sample samples.collections.Collections.Collections.collectionIfEmpty\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <C, R> C.ifEmpty(defaultValue: () -> R): R where C : Collection<*>, C : R =\n   if (isEmpty()) defaultValue() else this\n\n\n/**\n * Checks if all elements in the specified collection are contained in this collection.\n *\n * Allows to overcome type-safety restriction of `containsAll` that requires to pass a collection of type `Collection<E>`.\n * @sample samples.collections.Collections.Collections.collectionContainsAll\n */\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\") // false warning, extension takes precedence in some cases\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes T> Collection<T>.containsAll(elements: Collection<T>): Boolean = this.containsAll(elements)\n\n\n/**\n * Returns a new list with the elements of this list randomly shuffled\n * using the specified [random]
instance as the source of randomness.\n */\n@SinceKotlin(\"1.3\")\npublic fun <T> Iterable<T>.shuffled(random: Random): List<T> = toMutableList().apply { shuffle(random) }\n\n\ninternal fun <T> List<T>.optimizeReadOnlyList() = when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this\n}\n\n/**\n * Searches this list or its range for the provided [element] using the binary search algorithm.\n * The list is expected to be sorted into ascending order according to the Comparable natural ordering of its elements,\n * otherwise the result is undefined.\n *\n * If the list contains multiple elements equal to the specified [element], there is no guarantee which one will be found.\n *\n * `null` value is considered to be less than any non-null value.\n *\n * @return the index of the element, if it is contained in the list within the specified range;\n * otherwise, the inverted insertion point `(-insertion point - 1)`.\n * The insertion point is defined as the index
at which the element should be inserted,\n * so that the list (or the specified subrange of list) still remains sorted.\n * @sample samples.collections.Collections.Lists.binarySearchOnComparable\n * @sample samples.collections.Collections.Lists.binarySearchWithBoundaries\n */\npublic fun <T : Comparable<T>> List<T?>.binarySearch(element: T?, fromIndex: Int = 0, toIndex: Int = size): Int {\n   rangeCheck(size, fromIndex, toIndex)\n\n   var low = fromIndex\n   var high = toIndex - 1\n\n   while (low <= high) {\n   val mid = (low + high).ushr(1) // safe from overflows\n   val midVal = get(mid)\n   val cmp = compareValues(midVal, element)\n\n   if (cmp < 0)\n   low = mid + 1\n   else if (cmp > 0)\n   high = mid - 1\n   else\n   return mid // key found\n   }\n   return -(low + 1) // key not found\n}\n\n/**\n * Searches this list or its range for the provided [element] using the binary search algorithm.\n * The list is expected
to be sorted into ascending order according to the specified [comparator],\n * otherwise the result is undefined.\n *\n * If the list contains multiple elements equal to the specified [element], there is no guarantee which one will be found.\n *\n * `null` value is considered to be less than any non-null value.\n *\n * @return the index of the element, if it is contained in the list within the specified range;\n * otherwise, the inverted insertion point `(-insertion point - 1)`.\n * The insertion point is defined as the index at which the element should be inserted,\n * so that the list (or the specified subrange of list) still remains sorted according to the specified [comparator].\n * @sample samples.collections.Collections.Lists.binarySearchWithComparator\n */\npublic fun <T> List<T>.binarySearch(element: T, comparator: Comparator<in T>, fromIndex: Int = 0, toIndex: Int = size): Int {\n

rangeCheck(size, fromIndex, toIndex)\n\n   var low = fromIndex\n   var high = toIndex - 1\n\n   while (low <= high) {\n   val mid = (low + high).ushr(1) // safe from overflows\n   val midVal = get(mid)\n   val cmp = comparator.compare(midVal, element)\n\n   if (cmp < 0)\n   low = mid + 1\n   else if (cmp > 0)\n   high = mid - 1\n   else\n   return mid // key found\n   }\n   return -(low + 1) // key not found\n}\n\n/**\n * Searches this list or its range for an element having the key returned by the specified [selector] function\n * equal to the provided [key] value using the binary search algorithm.\n * The list is expected to be sorted into ascending order according to the Comparable natural ordering of keys of its elements.\n * otherwise the result is undefined.\n *\n * If the list contains multiple elements with the specified [key], there is no guarantee which one will be found.\n *\n * `null` value is considered to be less than any non-null value.\n *\n * @return the index of the element with the specified [key],
 if it is contained in the list within the specified range;\n * otherwise, the inverted insertion point `(-insertion point - 1)`.\n * The insertion point is defined as the index at which the element should be inserted,\n * so that the list (or the specified subrange of list) still remains sorted.\n * @sample samples.collections.Collections.Lists.binarySearchByKey\n */\npublic inline fun <T, K : Comparable<K>> List<T>.binarySearchBy(\n   key: K?,\n   fromIndex: Int = 0,\n   toIndex: Int = size,\n   crossinline selector: (T) -> K?\n): Int =\n   binarySearch(fromIndex, toIndex) { compareValues(selector(it), key) }\n\n// do not introduce this overload --- too rare\n//public fun <T, K> List<T>.binarySearchBy(key: K, comparator: Comparator<K>, fromIndex: Int = 0, toIndex: Int = size(), selector: (T) -> K): Int =\n//   binarySearch(fromIndex, toIndex) { comparator.compare(selector(it), key) }\n\n\n/**\n * Searches this list or its range for an element for which the given [comparison]
 function returns zero using the binary search algorithm.\n *\n * The list is expected to be sorted so that the signs of the [comparison] function's return values ascend on the list elements,\n * i.e. negative values come before zero and zeroes come before positive values.\n * Otherwise, the result is undefined.\n *\n * If the list contains multiple elements for which [comparison] returns zero, there is no guarantee which one will be found.\n *\n * @param comparison function that returns zero when called on the list element being searched.\n * On the elements coming before the target element, the function must return negative values;\n * on the elements coming after the target element, the function must return positive values.\n *\n * @return the index of the found element, if it is contained in the list within the specified range;\n * otherwise, the inverted insertion point `(-insertion point - 1)`.\n * The insertion point is defined as the index at which the element should be inserted,\n
 * so that the list (or the specified subrange of list) still remains sorted.\n * @sample samples.collections.Collections.Lists.binarySearchWithComparisonFunction\n */\npublic fun <T> List<T>.binarySearch(fromIndex: Int = 0, toIndex: Int = size, comparison: (T) -> Int): Int {\n   rangeCheck(size, fromIndex, toIndex)\n\n   var low = fromIndex\n   var high = toIndex - 1\n\n   while (low <= high) {\n   val mid = (low + high).ushr(1) // safe from overflows\n   val midVal = get(mid)\n   val cmp = comparison(midVal)\n\n   if (cmp < 0)\n   low = mid + 1\n   else if (cmp > 0)\n   high = mid - 1\n   else\n   return mid // key found\n   }\n   return -(low + 1) // key not found\n}\n\n/**\n * Checks that `from` and `to` are in\n * the range of [0..size] and throws an appropriate exception, if they aren't.\n */\nprivate fun rangeCheck(size: Int, fromIndex: Int, toIndex: Int) {\n   when {\n   fromIndex > toIndex -> throw IllegalArgumentException(\"fromIndex
 ($fromIndex) is greater than toIndex ($toIndex).\")\n   fromIndex < 0 -> throw IndexOutOfBoundsException(\"fromIndex ($fromIndex) is less than zero.\")\n   toIndex > size -> throw IndexOutOfBoundsException(\"toIndex ($toIndex) is greater than size ($size).\")\n   }\n}\n\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal expect fun checkIndexOverflow(index: Int): Int\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal expect fun checkCountOverflow(count: Int): Int\n\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal fun throwIndexOverflow() { throw ArithmeticException(\"Index overflow has happened.\") }\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal fun throwCountOverflow() { throw ArithmeticException(\"Count overflow has happened.\") }\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed

by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"MapsKt\")\n@file:OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n\npackage kotlin.collections\n\nimport kotlin.contracts.*\n\nprivate object EmptyMap : Map<Any?, Nothing>, Serializable {\n   private const val serialVersionUID: Long = 8246714829545688274\n\n   override fun equals(other: Any?): Boolean = other is Map<*, *> && other.isEmpty()\n   override fun hashCode(): Int = 0\n   override fun toString(): String = \"{}\"\n\n   override val size: Int get() = 0\n   override fun isEmpty(): Boolean = true\n\n   override fun containsKey(key: Any?): Boolean = false\n   override fun containsValue(value: Nothing): Boolean = false\n   override fun get(key: Any?): Nothing? = null\n   override val entries: Set<Map.Entry<Any?, Nothing>> get() = EmptySet\n   override val keys: Set<Any?> get() = EmptySet\n   override val values: Collection<Nothing> get() = EmptyList\n\n   private fun readResolve(): Any

 = EmptyMap\n}\n\n/**\n * Returns an empty read-only map of specified type.\n *\n * The returned map is serializable (JVM).\n * @sample samples.collections.Maps.Instantiation.emptyReadOnlyMap\n */\npublic fun <K, V> emptyMap(): Map<K, V> = @Suppress(\"UNCHECKED_CAST\") (EmptyMap as Map<K, V>)\n\n/**\n * Returns a new read-only map with the specified contents, given as a list of pairs\n * where the first value is the key and the second is the value.\n *\n * If multiple pairs have the same key, the resulting map will contain the value from the last of those pairs.\n *\n * Entries of the map are iterated in the order they were specified.\n *\n * The returned map is serializable (JVM).\n *\n * @sample samples.collections.Maps.Instantiation.mapFromPairs\n */\npublic fun <K, V> mapOf(vararg pairs: Pair<K, V>): Map<K, V> =\n   if (pairs.size > 0) pairs.toMap(LinkedHashMap(mapCapacity(pairs.size))) else emptyMap()\n\n/**\n * Returns an empty read-only map.\n *\n * The returned map is serializable

 (JVM).\n * @sample samples.collections.Maps.Instantiation.emptyReadOnlyMap\n */\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> mapOf(): Map<K, V> = emptyMap()\n\n/**\n * Returns an empty new [MutableMap].\n *\n * The returned map preserves the entry iteration order.\n * @sample samples.collections.Maps.Instantiation.emptyMutableMap\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> mutableMapOf(): MutableMap<K, V> = LinkedHashMap()\n\n/**\n * Returns a new [MutableMap] with the specified contents, given as a list of pairs\n * where the first component is the key and the second is the value.\n *\n * If multiple pairs have the same key, the resulting map will contain the value from the last of those pairs.\n *\n * Entries of the map are iterated in the order they were specified.\n *\n * @sample samples.collections.Maps.Instantiation.mutableMapFromPairs\n * @sample samples.collections.Maps.Instantiation.emptyMutableMap\n */\npublic fun <K, V>

 mutableMapOf(vararg pairs: Pair<K, V>): MutableMap<K, V> =\n   LinkedHashMap<K, V>(mapCapacity(pairs.size)).apply { putAll(pairs) }\n\n/**\n * Returns an empty new [HashMap].\n *\n * @sample samples.collections.Maps.Instantiation.emptyHashMap\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> hashMapOf(): HashMap<K, V> = HashMap<K, V>()\n\n/**\n * Returns a new [HashMap] with the specified contents, given as a list of pairs\n * where the first component is the key and the second is the value.\n *\n * @sample samples.collections.Maps.Instantiation.hashMapFromPairs\n */\npublic fun <K, V> hashMapOf(vararg pairs: Pair<K, V>): HashMap<K, V> = HashMap<K, V>(mapCapacity(pairs.size)).apply { putAll(pairs) }\n\n/**\n * Returns an empty new [LinkedHashMap].\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> linkedMapOf(): LinkedHashMap<K, V> = LinkedHashMap<K, V>()\n\n/**\n * Returns a new [LinkedHashMap] with the specified contents,

 given as a list of pairs\n * where the first component is the key and the second is the value.\n *\n * If multiple pairs have the same key, the resulting map will contain the value from the last of those pairs.\n *\n * Entries of the map are iterated in the order they were specified.\n *\n * @sample samples.collections.Maps.Instantiation.linkedMapFromPairs\n */\npublic fun <K, V> linkedMapOf(vararg pairs: Pair<K, V>): LinkedHashMap<K, V> = pairs.toMap(LinkedHashMap(mapCapacity(pairs.size)))\n\n/**\n * Builds a new read-only [Map] by populating a [MutableMap] using the given [builderAction]\n * and returning a read-only map with the same key-value pairs.\n *\n * The map passed as a receiver to the [builderAction] is valid only inside that function.\n * Using it outside of the function produces an unspecified behavior.\n *\n * Entries of the map are iterated in the order they were added by the [builderAction].\n *\n * The returned map is serializable (JVM).\n *\n * @sample samples.collections.Builders.Maps.buildMapSample\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> buildMap(@BuilderInference builderAction: MutableMap<K, V>.() -> Unit): Map<K, V> {\n contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n return buildMapInternal(builderAction)\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal expect inline fun <K, V> buildMapInternal(builderAction: MutableMap<K, V>.() -> Unit): Map<K, V>\n\n/**\n * Builds a new read-only [Map] by populating a [MutableMap] using the given [builderAction]\n * and returning a read-only map with the same key-value pairs.\n *\n * The map passed as a receiver to the [builderAction] is valid only inside that function.\n * Using it outside of the function produces an unspecified behavior.\n *\n * [capacity] is used to hint the expected number of pairs added in the [builderAction].\n *\n * Entries of the map are iterated in the order they were added by the [builderAction].\n *\n * The returned map is serializable (JVM).\n *\n * @throws IllegalArgumentException if the given [capacity] is negative.\n *\n * @sample samples.collections.Builders.Maps.buildMapSample\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> buildMap(capacity: Int, @BuilderInference builderAction: MutableMap<K, V>.() -> Unit): Map<K, V> {\n contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n return buildMapInternal(capacity, builderAction)\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal expect inline fun <K, V> buildMapInternal(capacity: Int, builderAction: MutableMap<K, V>.() -> Unit): Map<K, V>\n\n/**\n * Calculate the initial capacity of a map.\n */\n@PublishedApi\ninternal expect fun mapCapacity(expectedSize: Int): Int\n\n/**\n * Returns `true` if this map is not empty.\n * @sample samples.collections.Maps.Usage.mapIsNotEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.isNotEmpty(): Boolean = !isEmpty()\n\n/**\n * Returns `true` if this nullable map is either null or empty.\n * @sample samples.collections.Maps.Usage.mapIsNullOrEmpty\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>?.isNullOrEmpty(): Boolean {\n contract {\n returns(false) implies (this@isNullOrEmpty != null)\n }\n\n return this == null || isEmpty()\n}\n\n/**\n * Returns the [Map] if its not `null`, or the empty [Map] otherwise.\n *\n * @sample samples.collections.Maps.Usage.mapOrEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<K, V>?.orEmpty(): Map<K, V> = this ?: emptyMap()\n\n/**\n * Returns this map if it's not empty\n * or the result of calling [defaultValue] function if the map is empty.\n *\n * @sample samples.collections.Maps.Usage.mapIfEmpty\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <M, R> M.ifEmpty(defaultValue: () -> R): R where M : Map<*, *>, M : R =\n if (isEmpty()) defaultValue() else this\n\n/**\n * Checks if the map contains the given key.\n *\n * This method allows to use the `x in map` syntax for checking whether an object is contained in the map.\n *\n * @sample samples.collections.Maps.Usage.containsKey\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <@kotlin.internal.OnlyInputTypes K, V> Map<out K, V>.contains(key: K): Boolean = containsKey(key)\n\n/**\n * Returns the value corresponding to the given [key], or `null` if such a key is not present in the map.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <@kotlin.internal.OnlyInputTypes K, V> Map<out K, V>.get(key: K): V? =\n @Suppress(\"UNCHECKED_CAST\") (this as Map<K, V>).get(key)\n\n/**\n * Allows to use the index operator for storing values in a mutable map.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<K, V>.set(key: K, value: V): Unit {\n put(key, value)\n}\n\n/**\n * Returns `true` if the map contains the specified [key].\n *\n * Allows to overcome type-safety restriction of `containsKey` that requires

to pass a key of type `K`.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes K> Map<out K, *>.containsKey(key: K): Boolean =\n   @Suppress(\"UNCHECKED_CAST\") (this as Map<K, *>).containsKey(key)\n\n/**\n * Returns `true` if the map maps one or more keys to the specified [value].\n *\n * Allows to overcome type-safety restriction of `containsValue` that requires to pass a value of type `V`.\n *\n * @sample samples.collections.Maps.Usage.containsValue\n
*/\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\") // false warning, extension takes precedence in some cases\n@kotlin.internal.InlineOnly\npublic inline fun <K, @kotlin.internal.OnlyInputTypes V> Map<K, V>.containsValue(value: V): Boolean = this.containsValue(value)\n\n\n/**\n
 * Removes the specified key and its corresponding value from this map.\n *\n * @return the previous value associated with the key, or `null` if the key was not present in the map.\n\n * Allows to overcome type-safety restriction of `remove` that requires to pass a key of type `K`.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes K, V> MutableMap<out K, V>.remove(key: K): V? =\n @Suppress(\"UNCHECKED_CAST\") (this as MutableMap<K, V>).remove(key)\n\n/**\n * Returns the key component of the map entry.\n *\n * This method allows to use destructuring declarations when working with maps, for example:\n * ```\n * for ((key, value) in map) {\n *   // do something with the key and the value\n * }\n * ```\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> Map.Entry<K, V>.component1(): K = key\n\n/**\n * Returns the value component of the map entry.\n *\n * This method allows to use destructuring declarations when working with maps, for
 example:\n * ```\n * for ((key, value) in map) {\n *   // do something with the key and the value\n * }\n * ```\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> Map.Entry<K, V>.component2(): V = value\n\n/**\n * Converts entry to [Pair] with key being first component and value being second.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map.Entry<K, V>.toPair(): Pair<K, V> = Pair(key, value)\n\n/**\n * Returns the value for the given key, or the result of the [defaultValue] function if there was no entry for the given key.\n *\n * @sample samples.collections.Maps.Usage.getOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<K, V>.getOrElse(key: K, defaultValue: () -> V): V = get(key) ?: defaultValue()\n\n\ninternal inline fun <K, V> Map<K, V>.getOrElseNullable(key: K, defaultValue: () -> V): V {\n   val value = get(key)\n   if (value == null && !containsKey(key)) {\n   return defaultValue()\n   } else {\n   @Suppress(\"UNCHECKED_CAST\")\n
        return value as V\n   }\n}\n\n/**\n * Returns the value for the given [key] or throws an exception if there is no such key in the map.\n *\n * If the map was created by [withDefault], resorts to its `defaultValue` provider function\n * instead of throwing an exception.\n *\n * @throws NoSuchElementException when the map doesn't contain a value for the specified key and\n * no implicit default value was provided for that map.\n */\n@SinceKotlin(\"1.1\")\npublic fun <K, V> Map<K, V>.getValue(key: K): V = getOrImplicitDefault(key)\n\n/**\n * Returns the value for the given key. If the key is not found in the map, calls the [defaultValue] function,\n * puts its result into the map under the given key and returns it.\n *\n * Note that the operation is not guaranteed to be atomic if the map is being modified concurrently.\n *\n * @sample samples.collections.Maps.Usage.getOrPut\n */\npublic inline fun <K, V> MutableMap<K, V>.getOrPut(key: K, defaultValue: () -> V):
 V {\n   val value = get(key)\n   return if (value == null) {\n   val answer = defaultValue()\n   put(key, answer)\n   answer\n   } else {\n   value\n   }\n}\n\n/**\n * Returns an [Iterator] over the entries in the [Map].\n *\n * @sample samples.collections.Maps.Usage.forOverEntries\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> Map<out K, V>.iterator(): Iterator<Map.Entry<K, V>> = entries.iterator()\n\n/**\n * Returns a [MutableIterator] over the mutable entries in the [MutableMap].\n *\n */\n@kotlin.jvm.JvmName(\"mutableIterator\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<K, V>.iterator(): MutableIterator<MutableMap.MutableEntry<K, V>> = entries.iterator()\n\n/**\n * Populates the given [destination] map with entries having the keys of this map and the values obtained\n * by applying the [transform] function to each entry in this [Map].\n */\npublic inline fun <K, V, R, M : MutableMap<in K, in R>> Map<out

K, V>.mapValuesTo(destination: M, transform: (Map.Entry<K, V>) -> R): M {\n   return entries.associateByTo(destination, { it.key }, transform)\n}\n\n/**\n * Populates the given [destination] map with entries having the keys obtained\n * by applying the [transform] function to each entry in this [Map] and the values of this map.\n *\n * In case if any two entries are mapped to the equal keys, the value of the latter one will overwrite\n * the value associated with the former one.\n */\npublic inline fun <K, V, R, M : MutableMap<in R, in V>> Map<out K, V>.mapKeysTo(destination: M, transform: (Map.Entry<K, V>) -> R): M {\n   return entries.associateByTo(destination, transform, { it.value })\n}\n\n/**\n * Puts all the given [pairs] into this [MutableMap] with the first component in the pair being the key and the second the value.\n */\npublic fun <K, V> MutableMap<in K, in V>.putAll(pairs: Array<out Pair<K, V>>): Unit {\n   for ((key, value) in pairs) {\n   put(key, value)\n
}\n}\n\n/**\n * Puts all the elements of the given collection into this [MutableMap] with the first component in the pair being the key and the second the value.\n */\npublic fun <K, V> MutableMap<in K, in V>.putAll(pairs: Iterable<Pair<K, V>>): Unit {\n   for ((key, value) in pairs) {\n   put(key, value)\n   }\n}\n\n/**\n * Puts all the elements of the given sequence into this [MutableMap] with the first component in the pair being the key and the second the value.\n */\npublic fun <K, V> MutableMap<in K, in V>.putAll(pairs: Sequence<Pair<K, V>>): Unit {\n   for ((key, value) in pairs) {\n   put(key, value)\n   }\n}\n\n/**\n * Returns a new map with entries having the keys of this map and the values obtained by applying the [transform]\n * function to each entry in this [Map].\n *\n * The returned map preserves the entry iteration order of the original map.\n *\n * @sample samples.collections.Maps.Transformations.mapValues\n */\npublic inline fun <K, V, R> Map<out K, V>.mapValues(transform:
(Map.Entry<K, V>) -> R): Map<K, R> {\n   return mapValuesTo(LinkedHashMap<K, R>(mapCapacity(size)), transform) // .optimizeReadOnlyMap()\n}\n\n/**\n * Returns a new Map with entries having the keys obtained by applying the [transform] function to each entry in this\n * [Map] and the values of this map.\n *\n * In case if any two entries are mapped to the equal keys, the value of the latter one will overwrite\n * the value associated with the former one.\n *\n * The returned map preserves the entry iteration order of the original map.\n *\n * @sample samples.collections.Maps.Transformations.mapKeys\n */\npublic inline fun <K, V, R> Map<out K, V>.mapKeys(transform: (Map.Entry<K, V>) -> R): Map<R, V> {\n   return mapKeysTo(LinkedHashMap<R, V>(mapCapacity(size)), transform) // .optimizeReadOnlyMap()\n}\n\n/**\n * Returns a map containing all key-value pairs with keys matching the given [predicate].\n *\n * The returned map preserves the entry iteration order of the original
map.\n * @sample samples.collections.Maps.Filtering.filterKeys\n */\npublic inline fun <K, V> Map<out K, V>.filterKeys(predicate: (K) -> Boolean): Map<K, V> {\n   val result = LinkedHashMap<K, V>()\n   for (entry in this) {\n   if (predicate(entry.key)) {\n   result.put(entry.key, entry.value)\n   }\n   }\n   return result\n}\n\n/**\n * Returns a map containing all key-value pairs with values matching the given [predicate].\n *\n * The returned map preserves the entry iteration order of the original map.\n * @sample samples.collections.Maps.Filtering.filterValues\n */\npublic inline fun <K, V> Map<out K, V>.filterValues(predicate: (V) -> Boolean): Map<K, V> {\n   val result = LinkedHashMap<K, V>()\n   for (entry in this) {\n   if (predicate(entry.value)) {\n   result.put(entry.key, entry.value)\n   }\n   }\n   return result\n}\n\n\n/**\n * Appends all entries matching the given [predicate] into the mutable map given as [destination]
parameter.\n *\n * @return the destination map.\n * @sample samples.collections.Maps.Filtering.filterTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> Map<out K, V>.filterTo(destination: M, predicate: (Map.Entry<K, V>) -> Boolean): M {\n   for (element in this) {\n   if (predicate(element)) {\n   destination.put(element.key, element.value)\n   }\n   }\n   return destination\n}\n\n/**\n * Returns a new map containing all key-value pairs matching the given [predicate].\n *\n * The returned map preserves the entry iteration order of the original map.\n * @sample samples.collections.Maps.Filtering.filter\n */\npublic inline fun <K, V> Map<out K, V>.filter(predicate: (Map.Entry<K, V>) -> Boolean): Map<K, V> {\n   return filterTo(LinkedHashMap<K, V>(), predicate)\n}\n\n/**\n * Appends all entries not matching the given [predicate] into the given [destination].\n *\n * @return the destination map.\n * @sample

samples.collections.Maps.Filtering.filterNotTo\n

*/\npublic inline fun <K, V, M : MutableMap<in K, in V>> Map<out K, V>.filterNotTo(destination: M, predicate: (Map.Entry<K, V>) -> Boolean): M {\n   for (element in this) {\n   if (!predicate(element)) {\n   destination.put(element.key, element.value)\n   }\n   }\n   return destination\n}\n\n/**\n * Returns a new map containing all key-value pairs not matching the given [predicate].\n *\n * The returned map preserves the entry iteration order of the original map.\n * @sample samples.collections.Maps.Filtering.filterNot\n */\npublic inline fun <K, V> Map<out K, V>.filterNot(predicate: (Map.Entry<K, V>) -> Boolean): Map<K, V> {\n   return filterNotTo(LinkedHashMap<K, V>(), predicate)\n}\n\n/**\n * Returns a new map containing all key-value pairs from the given collection of pairs.\n *\n * The returned map preserves the entry iteration order of the original collection.\n * If any of two pairs would have the same key the last one gets added to the map.\n */\npublic

fun <K, V> Iterable<Pair<K, V>>.toMap(): Map<K, V> {\n   if (this is Collection) {\n   return when (size) {\n   0 -> emptyMap()\n   1 -> mapOf(if (this is List) this[0] else iterator().next())\n   else -> toMap(LinkedHashMap<K, V>(mapCapacity(size)))\n   }\n   }\n   return toMap(LinkedHashMap<K, V>()).optimizeReadOnlyMap()\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs from the given collection of pairs.\n */\npublic fun <K, V, M : MutableMap<in K, in V>> Iterable<Pair<K, V>>.toMap(destination: M): M =\n   destination.apply { putAll(this@toMap) }\n\n/**\n * Returns a new map containing all key-value pairs from the given array of pairs.\n *\n * The returned map preserves the entry iteration order of the original array.\n * If any of two pairs would have the same key the last one gets added to the map.\n */\npublic fun <K, V> Array<out Pair<K, V>>.toMap(): Map<K, V> = when (size) {\n   0 -> emptyMap()\n   1 -> mapOf(this[0])\n   else -> toMap(LinkedHashMap<K, V>(mapCapacity(size)))\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs from the given array of pairs.\n */\npublic fun <K, V, M : MutableMap<in K, in V>> Array<out Pair<K, V>>.toMap(destination: M): M =\n   destination.apply { putAll(this@toMap) }\n\n/**\n * Returns a new map containing all key-value pairs from the given sequence of pairs.\n *\n * The returned map preserves the entry iteration order of the original sequence.\n * If any of two pairs would have the same key the last one gets added to the map.\n */\npublic fun <K, V> Sequence<Pair<K, V>>.toMap(): Map<K, V> = toMap(LinkedHashMap<K, V>()).optimizeReadOnlyMap()\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs from the given sequence of pairs.\n */\npublic fun <K, V, M : MutableMap<in K, in V>> Sequence<Pair<K, V>>.toMap(destination: M): M =\n   destination.apply { putAll(this@toMap) }\n\n/**\n

* Returns a new read-only map containing all key-value pairs from the original map.\n *\n * The returned map preserves the entry iteration order of the original map.\n */\n@SinceKotlin(\"1.1\")\npublic fun <K, V> Map<out K, V>.toMap(): Map<K, V> = when (size) {\n   0 -> emptyMap()\n   1 -> toSingletonMap()\n   else -> toMutableMap()\n}\n\n/**\n * Returns a new mutable map containing all key-value pairs from the original map.\n *\n * The returned map preserves the entry iteration order of the original map.\n */\n@SinceKotlin(\"1.1\")\npublic fun <K, V> Map<out K, V>.toMutableMap(): MutableMap<K, V> = LinkedHashMap(this)\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs from the given map.\n */\n@SinceKotlin(\"1.1\")\npublic fun <K, V, M : MutableMap<in K, in V>> Map<out K, V>.toMap(destination: M): M =\n   destination.apply { putAll(this@toMap) }\n\n/**\n * Creates a new read-only map by replacing or adding an entry to this map from a given key-value

[pair].\n *\n * The returned map preserves the entry iteration order of the original map.\n * The [pair] is iterated in the end if it has a unique key.\n */\npublic operator fun <K, V> Map<out K, V>.plus(pair: Pair<K, V>): Map<K, V> =\n   if (this.isEmpty()) mapOf(pair) else LinkedHashMap(this).apply { put(pair.first, pair.second) }\n\n/**\n * Creates a new read-only map by replacing or adding entries to this map from a given collection of key-value [pairs].\n *\n * The returned map preserves the entry iteration order of the original map.\n * Those [pairs] with unique keys are iterated in the end in the order of [pairs] collection.\n */\npublic operator fun <K, V> Map<out K, V>.plus(pairs: Iterable<Pair<K, V>>): Map<K, V> =\n   if (this.isEmpty()) pairs.toMap() else LinkedHashMap(this).apply { putAll(pairs) }\n\n/**\n * Creates a new read-only map by replacing or adding entries to this map from a given array of key-value [pairs].\n *\n * The returned map preserves the entry iteration

order of the original map.\n * Those [pairs] with unique keys are iterated in the end in the order of [pairs] array.\n */\npublic operator fun <K, V> Map<out K, V>.plus(pairs: Array<out Pair<K, V>>): Map<K, V> =\n   if (this.isEmpty()) pairs.toMap() else LinkedHashMap(this).apply { putAll(pairs) }\n\n/**\n * Creates a new read-only map by replacing or adding entries to this map from a given sequence of key-value [pairs].\n *\n * The returned map preserves the entry iteration order of the original map.\n * Those [pairs] with unique keys are iterated in the end in the order of [pairs] sequence.\n */\npublic operator fun <K, V> Map<out K, V>.plus(pairs: Sequence<Pair<K, V>>): Map<K, V> =\n   LinkedHashMap(this).apply { putAll(pairs) }.optimizeReadOnlyMap()\n\n/**\n * Creates a new read-only map by replacing or adding entries to this map from another [map].\n *\n * The returned map preserves the entry iteration order of the original map.\n * Those entries of another [map] that are missing

in this map are iterated in the end in the order of that [map].\n */\npublic operator fun <K, V> Map<out K, V>.plus(map: Map<out K, V>): Map<K, V> =\n   LinkedHashMap(this).apply { putAll(map) }\n\n\n/**\n * Appends or replaces the given [pair] in this mutable map.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pair: Pair<K, V>) {\n   put(pair.first, pair.second)\n}\n\n/**\n * Appends or replaces all pairs from the given collection of [pairs] in this mutable map.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pairs: Iterable<Pair<K, V>>) {\n   putAll(pairs)\n}\n\n/**\n * Appends or replaces all pairs from the given array of [pairs] in this mutable map.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pairs: Array<out Pair<K, V>>) {\n   putAll(pairs)\n}\n\n/**\n * Appends or replaces all pairs from the given sequence

of [pairs] in this mutable map.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pairs: Sequence<Pair<K, V>>) {\n   putAll(pairs)\n}\n\n/**\n * Appends or replaces all entries from the given [map] in this mutable map.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(map: Map<K, V>) {\n   putAll(map)\n}\n\n/**\n * Returns a map containing all entries of the original map except the entry with the given [key].\n *\n * The returned map preserves the entry iteration order of the original map.\n */\n@SinceKotlin(\"1.1\")\npublic operator fun <K, V> Map<out K, V>.minus(key: K): Map<K, V> =\n   this.toMutableMap().apply { minusAssign(key) }.optimizeReadOnlyMap()\n\n/**\n * Returns a map containing all entries of the original map except those entries\n * the keys of which are contained in the given [keys] collection.\n *\n * The returned map preserves the entry iteration order of the

original map.\n */\n@SinceKotlin(\"1.1\")\npublic operator fun <K, V> Map<out K, V>.minus(keys: Iterable<K>): Map<K, V> =\n   this.toMutableMap().apply { minusAssign(keys) }.optimizeReadOnlyMap()\n\n/**\n * Returns a map containing all entries of the original map except those entries\n * the keys of which are contained in the given [keys] array.\n *\n * The returned map preserves the entry iteration order of the original map.\n */\n@SinceKotlin(\"1.1\")\npublic operator fun <K, V> Map<out K, V>.minus(keys: Array<out K>): Map<K, V> =\n   this.toMutableMap().apply { minusAssign(keys) }.optimizeReadOnlyMap()\n\n/**\n * Returns a map containing all entries of the original map except those entries\n * the keys of which are contained in the given [keys] sequence.\n *\n * The returned map preserves the entry iteration order of the original map.\n */\n@SinceKotlin(\"1.1\")\npublic operator fun <K, V> Map<out K, V>.minus(keys: Sequence<K>): Map<K, V> =\n   this.toMutableMap().apply { minusAssign(keys)

}.optimizeReadOnlyMap()\n\n/**\n * Removes the entry with the given [key] from this mutable map.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<K, V>.minusAssign(key: K) {\n   remove(key)\n}\n\n/**\n * Removes all entries the keys of which are contained in the given [keys] collection from this mutable map.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<K, V>.minusAssign(keys: Iterable<K>) {\n   this.keys.removeAll(keys)\n}\n\n/**\n * Removes all entries the keys of which are contained in the given [keys] array from this mutable map.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<K, V>.minusAssign(keys: Array<out K>) {\n   this.keys.removeAll(keys)\n}\n\n/**\n * Removes all entries from the keys of which are contained in the given [keys] sequence from this mutable map.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<K, V>.minusAssign(keys: Sequence<K>) {\n this.keys.removeAll(keys)\n}\n\n\n// do not expose for now @PublishedApi\ninternal fun <K, V> Map<K, V>.optimizeReadOnlyMap() = when (size) {\n   0 -> emptyMap()\n   1 -> toSingletonMapOrSelf()\n   else -> this\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"SetsKt\")\n@file:OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n\npackage kotlin.collections\n\nimport kotlin.contracts.*\n\ninternal object EmptySet : Set<Nothing>, Serializable {\n   private const val serialVersionUID: Long = 3406603774387020532\n\n   override fun equals(other: Any?): Boolean = other is Set<*> && other.isEmpty()\n override fun hashCode(): Int = 0\n   override fun toString(): String = \"[]\"\n\n   override val size: Int get() = 0\n   override fun isEmpty(): Boolean = true\n   override fun contains(element: Nothing): Boolean = false\n   override fun containsAll(elements: Collection<Nothing>): Boolean = elements.isEmpty()\n\n   override fun iterator(): Iterator<Nothing> = EmptyIterator\n\n   private fun readResolve(): Any = EmptySet\n}\n\n\n/**\n * Returns an empty read-only set. The returned set is serializable (JVM).\n * @sample samples.collections.Collections.Sets.emptyReadOnlySet\n */\npublic fun <T> emptySet(): Set<T> = EmptySet\n\n/**\n * Returns a new read-only set with the given elements.\n * Elements of the set are iterated in the order they were specified.\n * The returned set is serializable (JVM).\n * @sample samples.collections.Collections.Sets.readOnlySet\n */\npublic fun <T> setOf(vararg elements: T): Set<T> = if (elements.size > 0) elements.toSet() else emptySet()\n\n/**\n * Returns an empty read-only set. The returned set is serializable (JVM).\n * @sample samples.collections.Collections.Sets.emptyReadOnlySet\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> setOf(): Set<T> = emptySet()\n\n/**\n * Returns an empty new [MutableSet].\n *\n * The returned set preserves the element iteration order.\n * @sample samples.collections.Collections.Sets.emptyMutableSet\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> mutableSetOf(): MutableSet<T> = LinkedHashSet()\n\n/**\n * Returns a new [MutableSet] with the given elements.\n * Elements of the set are iterated in the order they were specified.\n * @sample samples.collections.Collections.Sets.mutableSet\n */\npublic fun <T> mutableSetOf(vararg elements: T): MutableSet<T> = elements.toCollection(LinkedHashSet(mapCapacity(elements.size)))\n\n/** Returns an empty new [HashSet]. */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> hashSetOf(): HashSet<T> = HashSet()\n\n/** Returns a new [HashSet] with the given elements. */\npublic fun <T> hashSetOf(vararg elements: T): HashSet<T> = elements.toCollection(HashSet(mapCapacity(elements.size)))\n\n/**\n * Returns an empty new [LinkedHashSet].\n * @sample samples.collections.Collections.Sets.emptyLinkedHashSet\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> linkedSetOf(): LinkedHashSet<T> = LinkedHashSet()\n\n/**\n * Returns a new [LinkedHashSet] with the given elements.\n * Elements of the set are iterated in the order they were specified.\n * @sample samples.collections.Collections.Sets.linkedHashSet\n */\npublic fun <T> linkedSetOf(vararg elements: T): LinkedHashSet<T> = elements.toCollection(LinkedHashSet(mapCapacity(elements.size)))\n\n/**\n * Returns a new read-only set either with single given element, if it is not null, or empty set if the element is null.\n * The returned set is serializable (JVM).\n * @sample samples.collections.Collections.Sets.setOfNotNull\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Any> setOfNotNull(element: T?): Set<T> = if (element != null) setOf(element) else emptySet()\n\n/**\n * Returns a new read-only set only with those given elements, that are not null.\n * Elements of the set are iterated in the order they were specified.\n * The returned set is serializable (JVM).\n * @sample samples.collections.Collections.Sets.setOfNotNull\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Any> setOfNotNull(vararg elements: T?): Set<T> {\n   return elements.filterNotNullTo(LinkedHashSet())\n}\n\n/**\n * Builds a new read-only [Set] by populating a [MutableSet] using the given [builderAction]\n * and returning a read-only set with the same elements.\n *\n * The set passed as a receiver to the [builderAction] is valid only inside that function.\n * Using it outside of the function produces an unspecified behavior.\n *\n * Elements of the set are iterated in the order they were added by the [builderAction].\n *\n * The returned set is serializable (JVM).\n *\n * @sample samples.collections.Builders.Sets.buildSetSample\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <E> buildSet(@BuilderInference builderAction: MutableSet<E>.() -> Unit): Set<E> {\n   contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n   return buildSetInternal(builderAction)\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal expect inline fun <E> buildSetInternal(builderAction: MutableSet<E>.() -> Unit): Set<E>\n\n/**\n * Builds a new read-only [Set] by populating a [MutableSet] using the given [builderAction]\n * and returning a read-only set with the same elements.\n *\n * The set passed as a receiver to the [builderAction] is valid only inside that function.\n * Using it outside of the function produces an unspecified behavior.\n *\n * [capacity] is used to hint the expected number of elements added in the [builderAction].\n *\n * Elements of the set are iterated in the order they were added by the [builderAction].\n *\n * The returned set is serializable (JVM).\n *\n * @throws IllegalArgumentException if the given [capacity] is negative.\n *\n * @sample samples.collections.Builders.Sets.buildSetSample\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <E> buildSet(capacity: Int, @BuilderInference builderAction: MutableSet<E>.() -> Unit): Set<E> {\n   contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n   return buildSetInternal(capacity, builderAction)\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal expect inline fun <E> buildSetInternal(capacity: Int, builderAction: MutableSet<E>.() -> Unit): Set<E>\n\n\n/** Returns this Set if it's not `null` and the empty set otherwise. */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Set<T>?.orEmpty(): Set<T> = this ?: emptySet()\n\ninternal fun <T> Set<T>.optimizeReadOnlySet() = when (size) {\n   0 -> emptySet()\n   1 -> setOf(iterator().next())\n   else -> this\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n@file:Suppress(\"PLATFORM_CLASS_MAPPED_TO_KOTLIN\")\n\npackage kotlin.text\n\n/**\n * Parses the string as a signed [Byte] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toByteOrNull(): Byte? = toByteOrNull(radix = 10)\n\n/**\n * Parses the string as a signed [Byte] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toByteOrNull(radix: Int): Byte? {\n   val int = this.toIntOrNull(radix) ?: return null\n   if (int < Byte.MIN_VALUE || int > Byte.MAX_VALUE) return null\n   return int.toByte()\n}\n\n/**\n * Parses the string as a [Short] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toShortOrNull(): Short? = toShortOrNull(radix = 10)\n\n/**\n * Parses the string as a [Short] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toShortOrNull(radix: Int): Short? {\n   val int = this.toIntOrNull(radix) ?: return null\n   if (int < Short.MIN_VALUE || int > Short.MAX_VALUE) return null\n   return int.toShort()\n}\n\n/**\n * Parses the string as an [Int] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toIntOrNull(): Int? = toIntOrNull(radix = 10)\n\n/**\n * Parses the string as an [Int] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toIntOrNull(radix: Int): Int? {\n   checkRadix(radix)\n\n   val length = this.length\n   if (length == 0) return null\n\n   val start: Int\n   val isNegative: Boolean\n   val limit: Int\n\n   val firstChar = this[0]\n if (firstChar < '0') { // Possible leading sign\n if (length == 1) return null // non-digit (possible sign) only, no digits after\n\n start = 1\n\n if (firstChar == '-') {\n isNegative = true\n limit = Int.MIN_VALUE\n } else if (firstChar == '+') {\n isNegative = false\n limit = -Int.MAX_VALUE\n } else\n return null\n } else {\n start = 0\n isNegative = false\n limit = -Int.MAX_VALUE\n }\n\n\n val limitForMaxRadix = (-Int.MAX_VALUE) / 36\n\n var limitBeforeMul = limitForMaxRadix\n var result = 0\n for (i in start until length) {\n val digit = digitOf(this[i], radix)\n\n if (digit < 0) return null\n if (result < limitBeforeMul) {\n if (limitBeforeMul == limitForMaxRadix) {\n limitBeforeMul = limit / radix\n\n if (result < limitBeforeMul) {\n return null\n }\n } else {\n return null\n }\n }\n\n result *= radix\n\n if (result < limit + digit) return null\n\n result -= digit\n }\n\n return if (isNegative) result else -result\n}\n\n/**\n * Parses the string as a [Long] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toLongOrNull(): Long? = toLongOrNull(radix = 10)\n\n/**\n * Parses the string as a [Long] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toLongOrNull(radix: Int): Long? {\n checkRadix(radix)\n\n val length = this.length\n if (length == 0) return null\n\n val start: Int\n val isNegative: Boolean\n val limit: Long\n\n val firstChar = this[0]\n if (firstChar < '0') { // Possible leading sign\n if (length == 1) return null // non-digit (possible sign) only, no digits after\n\n start = 1\n\n if (firstChar == '-') {\n isNegative = true\n limit = Long.MIN_VALUE\n } else if (firstChar == '+') {\n isNegative = false\n limit = -Long.MAX_VALUE\n } else\n return null\n } else {\n start = 0\n isNegative = false\n limit = -Long.MAX_VALUE\n }\n\n\n val limitForMaxRadix = (-Long.MAX_VALUE) / 36\n\n var limitBeforeMul = limitForMaxRadix\n var result = 0L\n for (i in start until length) {\n val digit = digitOf(this[i], radix)\n\n if (digit < 0) return null\n if (result < limitBeforeMul) {\n if (limitBeforeMul == limitForMaxRadix) {\n limitBeforeMul = limit / radix\n\n if (result < limitBeforeMul) {\n return null\n }\n } else {\n return null\n }\n }\n\n result *= radix\n\n if (result < limit + digit) return null\n\n result -= digit\n }\n\n return if (isNegative) result else -result\n}\n\n\ninternal fun numberFormatError(input: String): Nothing = throw NumberFormatException(\"Invalid number format: '$input'\")\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\nimport kotlin.contracts.*\nimport kotlin.jvm.JvmInline\nimport kotlin.math.*\n\n/**\n * Represents the amount of time one instant of time is away from another instant.\n *\n * A negative duration is possible in a situation when the second instant is earlier than the first one.\n *\n * The type can store duration values up to \u00b1146 years with nanosecond precision,\n * and up to \u00b1146 million years with millisecond precision.\n * If a duration-returning operation provided in `kotlin.time` produces a duration value that doesn't fit into the above range,\n * the returned `Duration` is infinite.\n *\n * An infinite duration value [Duration.INFINITE] can be used to represent infinite timeouts.\n *\n * To construct a duration use either the extension function [toDuration],\n * or the extension properties [hours], [minutes], [seconds], and so on,\n * available on [Int], [Long], and [Double] numeric types.\n *\n * To get the value of this duration expressed in a particular [duration units][DurationUnit]\n * use the functions [toInt], [toLong], and [toDouble]\n * or the properties [inWholeHours], [inWholeMinutes], [inWholeSeconds], [inWholeNanoseconds], and so on.\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\n@JvmInline\npublic value class Duration internal constructor(private val rawValue: Long) : Comparable<Duration> {\n\n private val value: Long get() = rawValue shr 1\n private inline val unitDiscriminator: Int get() = rawValue.toInt() and 1\n private fun isInNanos() = unitDiscriminator == 0\n private fun isInMillis() = unitDiscriminator == 1\n private val storageUnit get() = if (isInNanos()) DurationUnit.NANOSECONDS else DurationUnit.MILLISECONDS\n\n init {\n if (durationAssertionsEnabled) {\n if (isInNanos()) {\n if (value !in -MAX_NANOS..MAX_NANOS) throw AssertionError(\"$value ns is out of nanoseconds range\")\n } else {\n if (value !in -MAX_MILLIS..MAX_MILLIS) throw AssertionError(\"$value ms is out of milliseconds range\")\n if (value in -MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS) throw AssertionError(\"$value ms is denormalized\")\n }\n }\n }\n\n companion object {\n /** The duration equal to exactly 0 seconds. */\n public val ZERO: Duration = Duration(0L)\n\n /** The duration whose value is positive infinity. It is useful for representing timeouts that should never expire. */\n public val INFINITE: Duration = durationOfMillis(MAX_MILLIS)\n internal val NEG_INFINITE: Duration = durationOfMillis(-MAX_MILLIS)\n\n /** Converts the given time duration [value] expressed in the specified [sourceUnit] into the specified [targetUnit]. */\n @ExperimentalTime\n public fun convert(value: Double, sourceUnit: DurationUnit, targetUnit: DurationUnit): Double =\n convertDurationUnit(value, sourceUnit, targetUnit)\n\n // Duration construction extension properties in Duration companion scope\n\n /** Returns a [Duration] equal to this [Int] number of nanoseconds. */\n @kotlin.internal.InlineOnly\n public inline val Int.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)\n\n /** Returns a [Duration] equal to this [Long] number of nanoseconds. */\n @kotlin.internal.InlineOnly\n public inline val Long.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)\n\n /**\n * Returns a [Duration] equal to this [Double] number of nanoseconds.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)\n\n\n /** Returns a [Duration] equal to this [Int] number of microseconds. */\n @kotlin.internal.InlineOnly\n public inline val Int.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n /** Returns a [Duration] equal to this [Long] number of microseconds. */\n @kotlin.internal.InlineOnly\n public inline val Long.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n /**\n * Returns a [Duration] equal to this [Double] number of microseconds.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n\n /** Returns a [Duration] equal to this [Int] number of milliseconds. */\n @kotlin.internal.InlineOnly\n public inline val Int.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n /** Returns a [Duration] equal to this [Long] number of milliseconds. */\n @kotlin.internal.InlineOnly\n public inline val Long.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n /**\n * Returns a [Duration] equal to this [Double] number of milliseconds.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n\n /** Returns a [Duration] equal to this [Int] number of seconds. */\n @kotlin.internal.InlineOnly\n public inline val Int.seconds get() = toDuration(DurationUnit.SECONDS)\n\n /** Returns a [Duration] equal to this [Long] number of seconds. */\n @kotlin.internal.InlineOnly\n public inline val Long.seconds get() = toDuration(DurationUnit.SECONDS)\n\n /**\n * Returns a [Duration] equal to this [Double] number of seconds.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.seconds get() = toDuration(DurationUnit.SECONDS)\n\n\n /** Returns a [Duration] equal to this [Int] number of minutes. */\n @kotlin.internal.InlineOnly\n public inline val Int.minutes get() = toDuration(DurationUnit.MINUTES)\n\n

/** Returns a [Duration] equal to this [Long] number of minutes. */\n @kotlin.internal.InlineOnly\n public inline val Long.minutes get() = toDuration(DurationUnit.MINUTES)\n\n /**\n * Returns a [Duration] equal to this [Double] number of minutes.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.minutes get() = toDuration(DurationUnit.MINUTES)\n\n\n /** Returns a [Duration] equal to this [Int] number of hours. */\n @kotlin.internal.InlineOnly\n public inline val Int.hours get() = toDuration(DurationUnit.HOURS)\n\n /** Returns a [Duration] equal to this [Long] number of hours. */\n @kotlin.internal.InlineOnly\n public inline val Long.hours
get() = toDuration(DurationUnit.HOURS)\n\n /**\n * Returns a [Duration] equal to this [Double] number of hours.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.hours get() = toDuration(DurationUnit.HOURS)\n\n\n /** Returns a [Duration] equal to this [Int] number of days. */\n @kotlin.internal.InlineOnly\n public inline val Int.days get() = toDuration(DurationUnit.DAYS)\n\n /** Returns a [Duration] equal to this [Long] number of days. */\n @kotlin.internal.InlineOnly\n public inline val Long.days get() = toDuration(DurationUnit.DAYS)\n\n /**\n * Returns a [Duration] equal to this [Double] number of days.\n *\n * Depending on its magnitude, the value is
rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.days get() = toDuration(DurationUnit.DAYS)\n\n\n // deprecated static factory functions\n\n /** Returns a [Duration] representing the specified [value] number of nanoseconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Int.nanoseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.nanoseconds\", \"kotlin.time.Duration.Companion.nanoseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun nanoseconds(value: Int): Duration = value.toDuration(DurationUnit.NANOSECONDS)\n\n /** Returns a [Duration] representing the specified [value] number of nanoseconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use
'Long.nanoseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.nanoseconds\", \"kotlin.time.Duration.Companion.nanoseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun nanoseconds(value: Long): Duration = value.toDuration(DurationUnit.NANOSECONDS)\n\n /**\n * Returns a [Duration] representing the specified [value] number of nanoseconds.\n *\n * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Double.nanoseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.nanoseconds\", \"kotlin.time.Duration.Companion.nanoseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun nanoseconds(value: Double): Duration = value.toDuration(DurationUnit.NANOSECONDS)\n\n\n /** Returns a [Duration] representing the specified [value] number of microseconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Int.microseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.microseconds\", \"kotlin.time.Duration.Companion.microseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun microseconds(value: Int): Duration = value.toDuration(DurationUnit.MICROSECONDS)\n\n /** Returns a [Duration] representing the specified [value] number of microseconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Long.microseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.microseconds\", \"kotlin.time.Duration.Companion.microseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun microseconds(value: Long): Duration = value.toDuration(DurationUnit.MICROSECONDS)\n\n /**\n * Returns a [Duration] representing

the specified [value] number of microseconds.\n *\n * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Double.microseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.microseconds\", \"kotlin.time.Duration.Companion.microseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun microseconds(value: Double): Duration = value.toDuration(DurationUnit.MICROSECONDS)\n\n\n /** Returns a [Duration] representing the specified [value] number of milliseconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Int.milliseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.milliseconds\", \"kotlin.time.Duration.Companion.milliseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun milliseconds(value: Int): Duration = value.toDuration(DurationUnit.MILLISECONDS)\n\n /** Returns a [Duration] representing the specified [value] number of milliseconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Long.milliseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.milliseconds\", \"kotlin.time.Duration.Companion.milliseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun milliseconds(value: Long): Duration = value.toDuration(DurationUnit.MILLISECONDS)\n\n /**\n * Returns a [Duration] representing the specified [value] number of milliseconds.\n *\n * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Double.milliseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.milliseconds\", \"kotlin.time.Duration.Companion.milliseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun milliseconds(value: Double): Duration = value.toDuration(DurationUnit.MILLISECONDS)\n\n\n /** Returns a [Duration] representing the specified [value] number of seconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Int.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun seconds(value: Int): Duration = value.toDuration(DurationUnit.SECONDS)\n\n /** Returns a [Duration] representing the specified [value] number of seconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Long.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun seconds(value: Long): Duration = value.toDuration(DurationUnit.SECONDS)\n\n /**\n * Returns a [Duration] representing the specified [value] number of seconds.\n *\n * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Double.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun seconds(value: Double): Duration = value.toDuration(DurationUnit.SECONDS)\n\n\n /** Returns a [Duration] representing the specified [value] number of minutes. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Int.minutes' extension property from Duration.Companion instead.\", ReplaceWith(\"value.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun minutes(value: Int): Duration = value.toDuration(DurationUnit.MINUTES)\n\n /** Returns a [Duration] representing the specified [value] number of minutes. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Long.minutes' extension property from Duration.Companion instead.\", ReplaceWith(\"value.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun minutes(value: Long): Duration = value.toDuration(DurationUnit.MINUTES)\n\n /**\n * Returns a [Duration] representing the specified [value] number of minutes.\n *\n * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use

'Double.minutes'
extension property from Duration.Companion instead.\", ReplaceWith(\"value.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n   @DeprecatedSinceKotlin(warningSince = \"1.6\")\n   public fun minutes(value: Double): Duration = value.toDuration(DurationUnit.MINUTES)\n\n\n   /** Returns a [Duration] representing the specified [value] number of hours. */\n   @SinceKotlin(\"1.5\")\n   @ExperimentalTime\n   @Deprecated(\"Use 'Int.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"value.hours\", \"kotlin.time.Duration.Companion.hours\"))\n   @DeprecatedSinceKotlin(warningSince = \"1.6\")\n   public fun hours(value: Int): Duration = value.toDuration(DurationUnit.HOURS)\n\n   /** Returns a [Duration] representing the specified [value] number of hours. */\n   @SinceKotlin(\"1.5\")\n   @ExperimentalTime\n   @Deprecated(\"Use 'Long.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"value.hours\", \"kotlin.time.Duration.Companion.hours\"))\n   @DeprecatedSinceKotlin(warningSince = \"1.6\")\n   public fun hours(value: Long): Duration = value.toDuration(DurationUnit.HOURS)\n\n   /**\n   * Returns a [Duration] representing the specified [value] number of hours.\n   *\n   * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n   */\n   @SinceKotlin(\"1.5\")\n   @ExperimentalTime\n   @Deprecated(\"Use 'Double.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"value.hours\", \"kotlin.time.Duration.Companion.hours\"))\n   @DeprecatedSinceKotlin(warningSince = \"1.6\")\n   public fun hours(value: Double): Duration = value.toDuration(DurationUnit.HOURS)\n\n\n   /** Returns a [Duration] representing the specified [value] number of days. */\n   @SinceKotlin(\"1.5\")\n   @ExperimentalTime\n   @Deprecated(\"Use 'Int.days' extension property
from Duration.Companion instead.\", ReplaceWith(\"value.days\", \"kotlin.time.Duration.Companion.days\"))\n   @DeprecatedSinceKotlin(warningSince = \"1.6\")\n   public fun days(value: Int): Duration = value.toDuration(DurationUnit.DAYS)\n\n   /** Returns a [Duration] representing the specified [value] number of days. */\n   @SinceKotlin(\"1.5\")\n   @ExperimentalTime\n   @Deprecated(\"Use 'Long.days' extension property from Duration.Companion instead.\", ReplaceWith(\"value.days\", \"kotlin.time.Duration.Companion.days\"))\n   @DeprecatedSinceKotlin(warningSince = \"1.6\")\n   public fun days(value: Long): Duration = value.toDuration(DurationUnit.DAYS)\n\n   /**\n   * Returns a [Duration] representing the specified [value] number of days.\n   *\n   * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n   */\n   @SinceKotlin(\"1.5\")\n   @ExperimentalTime\n   @Deprecated(\"Use
'Double.days' extension property from Duration.Companion instead.\", ReplaceWith(\"value.days\", \"kotlin.time.Duration.Companion.days\"))\n   @DeprecatedSinceKotlin(warningSince = \"1.6\")\n   public fun days(value: Double): Duration = value.toDuration(DurationUnit.DAYS)\n\n   /**\n   * Parses a string that represents a duration and returns the parsed [Duration] value.\n   *\n   * The following formats are accepted:\n   *\n   * - ISO-8601 Duration format, e.g. `P1DT2H3M4.058S`, see [toIsoString] and [parseIsoString].\n   * - The format of string returned by the default [Duration.toString] and `toString` in a specific unit,\n   *   e.g. `10s`, `1h 30m` or `-(1h 30m)`.\n   *\n   * @throws IllegalArgumentException if the string doesn't represent a duration in any of the supported formats.\n   * @sample samples.time.Durations.parse\n   */\n   public fun parse(value: String): Duration = try {\n   parseDuration(value, strictIso = false)\n   } catch (e: IllegalArgumentException) {\n   throw IllegalArgumentException(\"Invalid duration string format: '$value'.\", e)\n   }\n\n   /**\n   * Parses a string that represents a duration in ISO-8601 format and returns the parsed [Duration] value.\n   *\n   * @throws IllegalArgumentException if the string doesn't represent a duration in ISO-8601 format.\n   * @sample samples.time.Durations.parseIsoString\n   */\n   public fun parseIsoString(value: String): Duration = try {\n   parseDuration(value, strictIso = true)\n   } catch (e: IllegalArgumentException) {\n   throw IllegalArgumentException(\"Invalid ISO duration string format: '$value'.\", e)\n   }\n\n   /**\n   * Parses a string that represents a duration and returns the parsed [Duration] value,\n   * or `null` if the string doesn't

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represent a duration in any of the supported formats.\n
        *\n         * The following formats are accepted:\n         *\n         * - ISO-8601 Duration format, e.g.
`P1DT2H3M4.058S`, see [toIsoString] and [parseIsoString].\n         * - The format of string returned by the default
[Duration.toString] and `toString` in a specific unit,\n         *   e.g. `10s`, `1h 30m` or `-(1h 30m)`.\n         *
@sample samples.time.Durations.parse\n         */\n        public fun parseOrNull(value: String): Duration? = try {\n
     parseDuration(value, strictIso = false)\n        } catch (e: IllegalArgumentException) {\n            null\n        }\n\n
  /**\n         * Parses a string that represents a duration in ISO-8601 format and returns the parsed [Duration] value,\n
      * or `null` if the string doesn't represent a duration in ISO-8601 format.\n         * @sample
samples.time.Durations.parseIsoString\n         */\n        public fun parseIsoStringOrNull(value: String): Duration? =
try {\n            parseDuration(value,
 strictIso = true)\n        } catch (e: IllegalArgumentException) {\n            null\n        }\n    }\n\n    // arithmetic
operators\n\n    /** Returns the negative of this value. */\n    public operator fun unaryMinus(): Duration =
durationOf(-value, unitDiscriminator)\n\n    /**\n     * Returns a duration whose value is the sum of this and [other]
duration values.\n     *\n     * @throws IllegalArgumentException if the operation results in an undefined value for
the given arguments,\n     * e.g. when adding infinite durations of different sign.\n     */\n    public operator fun
plus(other: Duration): Duration {\n        when {\n            this.isInfinite() -> {\n                if (other.isFinite() ||
(this.rawValue xor other.rawValue >= 0))\n                    return this\n                else\n                    throw
IllegalArgumentException(\"Summing infinite durations of different signs yields an undefined result.\")\n            }\n
         other.isInfinite() -> return
 other\n        }\n\n        return when {\n            this.unitDiscriminator == other.unitDiscriminator -> {\n                val
result = this.value + other.value // never overflows long, but can overflow long63\n                when {\n
isInNanos() ->\n                        durationOfNanosNormalized(result)\n                    else ->\n
durationOfMillisNormalized(result)\n                }\n            }\n            this.isInMillis() ->\n
addValuesMixedRanges(this.value, other.value)\n            else ->\n                addValuesMixedRanges(other.value,
this.value)\n        }\n    }\n\n    private fun addValuesMixedRanges(thisMillis: Long, otherNanos: Long): Duration
{\n        val otherMillis = nanosToMillis(otherNanos)\n        val resultMillis = thisMillis + otherMillis\n        return if
(resultMillis in -MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS) {\n            val otherNanoRemainder =
otherNanos - millisToNanos(otherMillis)\n
            durationOfNanos(millisToNanos(resultMillis) + otherNanoRemainder)\n        } else {\n
durationOfMillis(resultMillis.coerceIn(-MAX_MILLIS, MAX_MILLIS))\n        }\n    }\n\n    /**\n     * Returns a
duration whose value is the difference between this and [other] duration values.\n     *\n     * @throws
IllegalArgumentException if the operation results in an undefined value for the given arguments,\n     * e.g. when
subtracting infinite durations of the same sign.\n     */\n    public operator fun minus(other: Duration): Duration =
this + (-other)\n\n    /**\n     * Returns a duration whose value is this duration value multiplied by the given [scale]
number.\n     *\n     * @throws IllegalArgumentException if the operation results in an undefined value for the given
arguments,\n     * e.g. when multiplying an infinite duration by zero.\n     */\n    public operator fun times(scale: Int):
Duration {\n        if (isInfinite()) {\n            return when {\n
                scale == 0 -> throw IllegalArgumentException(\"Multiplying infinite duration by zero yields an undefined
result.\")\n                scale > 0 -> this\n                else -> -this\n            }\n        }\n        if (scale == 0) return
ZERO\n\n        val value = value\n        val result = value * scale\n        return if (isInNanos()) {\n            if (value in
(MAX_NANOS / Int.MIN_VALUE)..(-MAX_NANOS / Int.MIN_VALUE)) {\n                // can't overflow nanos
range for any scale\n                durationOfNanos(result)\n            } else {\n                if (result / scale == value) {\n
             durationOfNanosNormalized(result)\n                } else {\n                    val millis = nanosToMillis(value)\n
              val remNanos = value - millisToNanos(millis)\n                    val resultMillis = millis * scale\n
val totalMillis = resultMillis + nanosToMillis(remNanos * scale)\n                    if (resultMillis
 / scale == millis && totalMillis xor resultMillis >= 0) {\n                        durationOfMillis(totalMillis.coerceIn(-
MAX_MILLIS..MAX_MILLIS))\n                    } else {\n                        if (value.sign * scale.sign > 0) INFINITE
else NEG_INFINITE\n                    }\n                }\n            }\n        } else {\n            if (result / scale == value) {\n
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durationOfMillis(result.coerceIn(-MAX_MILLIS..MAX_MILLIS))\n   } else {\n   if (value.sign * scale.sign > 0) INFINITE else NEG_INFINITE\n   }\n   }\n   }\n\n   /**\n   * Returns a duration whose value is this duration value multiplied by the given [scale] number.\n   *\n   * The operation may involve rounding when the result cannot be represented exactly with a [Double] number.\n   *\n   * @throws IllegalArgumentException if the operation results in an undefined value for the given arguments,\n   * e.g. when multiplying an infinite duration by zero.\n

*/\n   public operator fun times(scale: Double): Duration {\n   val intScale = scale.roundToInt()\n   if (intScale.toDouble() == scale) {\n   return times(intScale)\n   }\n\n   val unit = storageUnit\n   val result = toDouble(unit) * scale\n   return result.toDuration(unit)\n   }\n\n   /**\n   * Returns a duration whose value is this duration value divided by the given [scale] number.\n   *\n   * @throws IllegalArgumentException if the operation results in an undefined value for the given arguments,\n   * e.g. when dividing zero duration by zero.\n   */\n   public operator fun div(scale: Int): Duration {\n   if (scale == 0) {\n   return when {\n   isPositive() -> INFINITE\n   isNegative() -> NEG_INFINITE\n   else -> throw IllegalArgumentException(\"Dividing zero duration by zero yields an undefined result.\")\n   }\n   }\n   if (isInNanos()) {\n

return durationOfNanos(value / scale)\n   } else {\n   if (isInfinite())\n   return this * scale.sign\n\n   val result = value / scale\n\n   if (result in -MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS) {\n   val rem = millisToNanos(value - (result * scale)) / scale\n   return durationOfNanos(millisToNanos(result) + rem)\n   }\n   return durationOfMillis(result)\n   }\n   }\n\n   /**\n   * Returns a duration whose value is this duration value divided by the given [scale] number.\n   *\n   * @throws IllegalArgumentException if the operation results in an undefined value for the given arguments,\n   * e.g. when dividing an infinite duration by infinity or zero duration by zero.\n   */\n   public operator fun div(scale: Double): Duration {\n   val intScale = scale.roundToInt()\n   if (intScale.toDouble() == scale && intScale != 0) {\n   return div(intScale)\n

}\n\n   val unit = storageUnit\n   val result = toDouble(unit) / scale\n   return result.toDuration(unit)\n   }\n\n   /** Returns a number that is the ratio of this and [other] duration values. */\n   public operator fun div(other: Duration): Double {\n   val coarserUnit = maxOf(this.storageUnit, other.storageUnit)\n   return this.toDouble(coarserUnit) / other.toDouble(coarserUnit)\n   }\n\n   /** Returns true, if the duration value is less than zero. */\n   public fun isNegative(): Boolean = rawValue < 0\n\n   /** Returns true, if the duration value is greater than zero. */\n   public fun isPositive(): Boolean = rawValue > 0\n\n   /** Returns true, if the duration value is infinite. */\n   public fun isInfinite(): Boolean = rawValue == INFINITE.rawValue || rawValue == NEG_INFINITE.rawValue\n\n   /** Returns true, if the duration value is finite. */\n   public fun isFinite(): Boolean = !isInfinite()\n\n   /** Returns the absolute value of this value.

The returned value is always non-negative. */\n   public val absoluteValue: Duration get() = if (isNegative()) -this else this\n\n   override fun compareTo(other: Duration): Int {\n   val compareBits = this.rawValue xor other.rawValue\n   if (compareBits < 0 || compareBits.toInt() and 1 == 0) // different signs or same sign/same range\n   return this.rawValue.compareTo(other.rawValue)\n   // same sign/different ranges\n   val r = this.unitDiscriminator - other.unitDiscriminator // compare ranges\n   return if (isNegative()) -r else r\n   }\n\n\n   // splitting to components\n\n   /**\n   * Splits this duration into days, hours, minutes, seconds, and nanoseconds and executes the given [action] with these components.\n   * The result of [action] is returned as the result of this function.\n   *\n   * - `nanoseconds` represents the whole number of nanoseconds in this duration, and its absolute value is less than 1_000_000_000;\n   * -

`seconds` represents the whole number of seconds in this duration, and its absolute value is less than 60;\n   * - `minutes` represents the whole number of minutes in this duration, and its absolute value is less than 60;\n   * - `hours` represents the whole number of hours in this duration, and its absolute value is less than 24;\n   * - `days` represents the whole number of days in this duration.\n   *\n   *   Infinite durations are represented as either [Long.MAX_VALUE] days, or [Long.MIN_VALUE] days (depending on the sign of infinity),\n   *   and zeroes in the lower components.\n   */\n   public inline fun <T> toComponents(action: (days: Long, hours: Int, minutes: Int,

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seconds: Int, nanoseconds: Int) -> T): T {\n        contract { callsInPlace(action, InvocationKind.EXACTLY_ONCE)
}\n        return action(inWholeDays, hoursComponent, minutesComponent, secondsComponent,
nanosecondsComponent)\n    }\n\n    /**\n     * Splits this duration into hours, minutes, seconds,
 and nanoseconds and executes the given [action] with these components.\n     * The result of [action] is returned as
the result of this function.\n     *\n     * - `nanoseconds` represents the whole number of nanoseconds in this duration,
and its absolute value is less than 1_000_000_000;\n     * - `seconds` represents the whole number of seconds in this
duration, and its absolute value is less than 60;\n     * - `minutes` represents the whole number of minutes in this
duration, and its absolute value is less than 60;\n     * - `hours` represents the whole number of hours in this
duration.\n     *\n     *   Infinite durations are represented as either [Long.MAX_VALUE] hours, or
[Long.MIN_VALUE] hours (depending on the sign of infinity),\n     *   and zeroes in the lower components.\n
*/\n    public inline fun <T> toComponents(action: (hours: Long, minutes: Int, seconds: Int, nanoseconds: Int) -> T):
T {\n        contract { callsInPlace(action, InvocationKind.EXACTLY_ONCE) }\n
   return action(inWholeHours, minutesComponent, secondsComponent, nanosecondsComponent)\n    }\n\n    /**\n
 * Splits this duration into minutes, seconds, and nanoseconds and executes the given [action] with these
components.\n     * The result of [action] is returned as the result of this function.\n     *\n     * - `nanoseconds`
represents the whole number of nanoseconds in this duration, and its absolute value is less than 1_000_000_000;\n
* - `seconds` represents the whole number of seconds in this duration, and its absolute value is less than 60;\n     * -
`minutes` represents the whole number of minutes in this duration.\n     *\n     *   Infinite durations are represented as
either [Long.MAX_VALUE] minutes, or [Long.MIN_VALUE] minutes (depending on the sign of infinity),\n     *
and zeroes in the lower components.\n     */\n    public inline fun <T> toComponents(action: (minutes: Long,
seconds: Int, nanoseconds: Int) -> T): T {\n        contract { callsInPlace(action, InvocationKind.EXACTLY_ONCE)
 }\n        return action(inWholeMinutes, secondsComponent, nanosecondsComponent)\n    }\n\n    /**\n     * Splits
this duration into seconds, and nanoseconds and executes the given [action] with these components.\n     * The result
of [action] is returned as the result of this function.\n     *\n     * - `nanoseconds` represents the whole number of
nanoseconds in this duration, and its absolute value is less than 1_000_000_000;\n     * - `seconds` represents the
whole number of seconds in this duration.\n     *\n     *   Infinite durations are represented as either
[Long.MAX_VALUE] seconds, or [Long.MIN_VALUE] seconds (depending on the sign of infinity),\n     *   and
zero nanoseconds.\n     */\n    public inline fun <T> toComponents(action: (seconds: Long, nanoseconds: Int) -> T):
T {\n        contract { callsInPlace(action, InvocationKind.EXACTLY_ONCE) }\n        return
action(inWholeSeconds, nanosecondsComponent)\n    }\n\n    @PublishedApi\n    internal
 val hoursComponent: Int\n        get() = if (isInfinite()) 0 else (inWholeHours % 24).toInt()\n\n    @PublishedApi\n
internal val minutesComponent: Int\n        get() = if (isInfinite()) 0 else (inWholeMinutes % 60).toInt()\n\n
@PublishedApi\n    internal val secondsComponent: Int\n        get() = if (isInfinite()) 0 else (inWholeSeconds %
60).toInt()\n\n    @PublishedApi\n    internal val nanosecondsComponent: Int\n        get() = when {\n
isInfinite() -> 0\n            isInMillis() -> millisToNanos(value % 1_000).toInt()\n            else -> (value %
1_000_000_000).toInt()\n        }\n\n\n    // conversion to units\n\n    /**\n     * Returns the value of this duration
expressed as a [Double] number of the specified [unit].\n     *\n     * The operation may involve rounding when the
result cannot be represented exactly with a [Double] number.\n     *\n     * An infinite duration value is converted
either to [Double.POSITIVE_INFINITY] or [Double.NEGATIVE_INFINITY] depending
 on its sign.\n     */\n    public fun toDouble(unit: DurationUnit): Double {\n        return when (rawValue) {\n
INFINITE.rawValue -> Double.POSITIVE_INFINITY\n            NEG_INFINITE.rawValue ->
Double.NEGATIVE_INFINITY\n            else -> {\n                // TODO: whether it's ok to convert to Double before
scaling\n                convertDurationUnit(value.toDouble(), storageUnit, unit)\n            }\n        }\n    }\n\n    /**\n     *
Returns the value of this duration expressed as a [Long] number of the specified [unit].\n     *\n     * If the result
doesn't fit in the range of [Long] type, it is coerced into that range:\n     * - [Long.MIN_VALUE] is returned if it's
less than `Long.MIN_VALUE`,\n     * - [Long.MAX_VALUE] is returned if it's greater than
`Long.MAX_VALUE`.\n     *\n     * An infinite duration value is converted either to [Long.MAX_VALUE] or
[Long.MIN_VALUE] depending on its sign.\n     */\n    public fun toLong(unit: DurationUnit): Long {\n
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return when (rawValue) {\n INFINITE.rawValue -> Long.MAX_VALUE\n NEG_INFINITE.rawValue -> Long.MIN_VALUE\n else -> convertDurationUnit(value, storageUnit, unit)\n }\n }\n\n /**\n * Returns the value of this duration expressed as an [Int] number of the specified [unit].\n *\n * If the result doesn't fit in the range of [Int] type, it is coerced into that range:\n * - [Int.MIN_VALUE] is returned if it's less than `Int.MIN_VALUE`,\n * - [Int.MAX_VALUE] is returned if it's greater than `Int.MAX_VALUE`.\n *\n * An infinite duration value is converted either to [Int.MAX_VALUE] or [Int.MIN_VALUE] depending on its sign.\n */\n public fun toInt(unit: DurationUnit): Int =\n toLong(unit).coerceIn(Int.MIN_VALUE.toLong(), Int.MAX_VALUE.toLong()).toInt()\n\n /** The value of this duration expressed as a [Double] number of days. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeDays property instead

or convert toDouble(DAYS) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.DAYS)\"))\n public val inDays: Double get() = toDouble(DurationUnit.DAYS)\n\n /** The value of this duration expressed as a [Double] number of hours. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeHours property instead or convert toDouble(HOURS) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.HOURS)\"))\n public val inHours: Double get() = toDouble(DurationUnit.HOURS)\n\n /** The value of this duration expressed as a [Double] number of minutes. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeMinutes property instead or convert toDouble(MINUTES) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.MINUTES)\"))\n public val inMinutes: Double get() = toDouble(DurationUnit.MINUTES)\n\n /** The value of this duration expressed as a [Double] number of seconds. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeSeconds

property instead or convert toDouble(SECONDS) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.SECONDS)\"))\n public val inSeconds: Double get() = toDouble(DurationUnit.SECONDS)\n\n /** The value of this duration expressed as a [Double] number of milliseconds. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeMilliseconds property instead or convert toDouble(MILLISECONDS) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.MILLISECONDS)\"))\n public val inMilliseconds: Double get() = toDouble(DurationUnit.MILLISECONDS)\n\n /** The value of this duration expressed as a [Double] number of microseconds. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeMicroseconds property instead or convert toDouble(MICROSECONDS) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.MICROSECONDS)\"))\n public val inMicroseconds: Double get() = toDouble(DurationUnit.MICROSECONDS)\n\n /** The value of this duration expressed

as a [Double] number of nanoseconds. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeNanoseconds property instead or convert toDouble(NANOSECONDS) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.NANOSECONDS)\"))\n public val inNanoseconds: Double get() = toDouble(DurationUnit.NANOSECONDS)\n\n\n /**\n * The value of this duration expressed as a [Long] number of days.\n *\n * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n */\n public val inWholeDays: Long\n get() = toLong(DurationUnit.DAYS)\n\n /**\n * The value of this duration expressed as a [Long] number of hours.\n *\n * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n */\n public val inWholeHours: Long\n get() = toLong(DurationUnit.HOURS)\n\n /**\n * The value of this duration expressed as a [Long] number of

minutes.\n *\n * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n */\n public val inWholeMinutes: Long\n get() = toLong(DurationUnit.MINUTES)\n\n /**\n * The value of this duration expressed as a [Long] number of seconds.\n *\n * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n */\n public val inWholeSeconds: Long\n get() = toLong(DurationUnit.SECONDS)\n\n /**\n * The value of this duration expressed as a [Long] number of milliseconds.\n *\n * An infinite duration value is converted either to [Long.MAX_VALUE] or

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[Long.MIN_VALUE] depending on its sign.\n     */\n    public val inWholeMilliseconds: Long\n        get() {\n
return if (isInMillis() && isFinite()) value else toLong(DurationUnit.MILLISECONDS)\n        }\n\n    /**\n     *
The value of this duration expressed as a [Long] number
 of microseconds.\n     *\n     * If the result doesn't fit in the range of [Long] type, it is coerced into that range:\n     *
- [Long.MIN_VALUE] is returned if it's less than `Long.MIN_VALUE`,\n     * - [Long.MAX_VALUE] is returned
if it's greater than `Long.MAX_VALUE`.\n     *\n     * An infinite duration value is converted either to
[Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n     */\n    public val inWholeMicroseconds:
Long\n        get() = toLong(DurationUnit.MICROSECONDS)\n\n    /**\n     * The value of this duration expressed
as a [Long] number of nanoseconds.\n     *\n     * If the result doesn't fit in the range of [Long] type, it is coerced
into that range:\n     * - [Long.MIN_VALUE] is returned if it's less than `Long.MIN_VALUE`,\n     * -
[Long.MAX_VALUE] is returned if it's greater than `Long.MAX_VALUE`.\n     *\n     * An infinite duration value
is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n     */\n    public val
 inWholeNanoseconds: Long\n        get() {\n            val value = value\n            return when {\n                isInNanos()
-> value\n                value > Long.MAX_VALUE / NANOS_IN_MILLIS -> Long.MAX_VALUE\n                value
< Long.MIN_VALUE / NANOS_IN_MILLIS -> Long.MIN_VALUE\n                else -> millisToNanos(value)\n
     }\n        }\n\n    // shortcuts\n\n    /**\n     * Returns the value of this duration expressed as a [Long] number of
nanoseconds.\n     *\n     * If the value doesn't fit in the range of [Long] type, it is coerced into that range, see the
conversion [Double.toLong] for details.\n     *\n     * The range of durations that can be expressed as a `Long`
number of nanoseconds is approximately \u00b1292 years.\n     */\n    @ExperimentalTime\n    @Deprecated(\"Use
inWholeNanoseconds property instead.\", ReplaceWith(\"this.inWholeNanoseconds\"))\n    public fun
toLongNanoseconds(): Long = inWholeNanoseconds\n\n    /**\n     * Returns the value of this
 duration expressed as a [Long] number of milliseconds.\n     *\n     * The value is coerced to the range of [Long]
type, if it doesn't fit in that range, see the conversion [Double.toLong] for details.\n     *\n     * The range of
durations that can be expressed as a `Long` number of milliseconds is approximately \u00b1292 million years.\n
*/\n    @ExperimentalTime\n    @Deprecated(\"Use inWholeMilliseconds property instead.\",
ReplaceWith(\"this.inWholeMilliseconds\"))\n    public fun toLongMilliseconds(): Long = inWholeMilliseconds\n\n
  /**\n     * Returns a string representation of this duration value\n     * expressed as a combination of numeric
components, each in its own unit.\n     *\n     * Each component is a number followed by the unit abbreviated name:
`d`, `h`, `m`, `s`:\n     * `5h`, `1d 12h`, `1h 0m 30.340s`.\n     * The last component, usually seconds, can be a
number with a fractional part.\n     *\n     * If the duration is less than a second, it is represented
 as a single number\n     * with one of sub-second units: `ms` (milliseconds), `us` (microseconds), or `ns`
(nanoseconds):\n     * `140.884ms`, `500us`, `24ns`.\n     *\n     * A negative duration is prefixed with `-` sign and, if
it consists of multiple components, surrounded with parentheses:\n     * `-12m` and `-(1h 30m)`.\n     *\n     * Special
cases:\n     *  - an infinite duration is formatted as `\"Infinity\"` or `\"-Infinity\"` without a unit.\n     *\n     * It's
recommended to use [toIsoString] that uses more strict ISO-8601 format instead of this `toString`\n     * when you
want to convert a duration to a string in cases of serialization, interchange, etc.\n     *\n     * @sample
samples.time.Durations.toStringDefault\n     */\n    override fun toString(): String = when (rawValue) {\n        0L ->
\"0s\"\n        INFINITE.rawValue -> \"Infinity\"\n        NEG_INFINITE.rawValue -> \"-Infinity\"\n        else -> {\n
      val isNegative = isNegative()\n            buildString
 {\n                if (isNegative) append('-')\n                absoluteValue.toComponents { days, hours, minutes, seconds,
nanoseconds ->\n                    val hasDays = days != 0L\n                    val hasHours = hours != 0\n                    val
hasMinutes = minutes != 0\n                    val hasSeconds = seconds != 0 || nanoseconds != 0\n                    var
components = 0\n                    if (hasDays) {\n                        append(days).append('d')\n
components++\n                    }\n                    if (hasHours || (hasDays && (hasMinutes || hasSeconds))) {\n
     if (components++ > 0) append(' ')\n                        append(hours).append('h')\n                    }\n                    if
(hasMinutes || (hasSeconds && (hasHours || hasDays))) {\n                        if (components++ > 0) append(' ')\n
          append(minutes).append('m')\n                    }\n                    if
```

(hasSeconds) {\n if (components++ > 0) append(' ')\n when {\n seconds != 0 || hasDays || hasHours || hasMinutes ->\n appendFractional(seconds, nanoseconds, 9, \"s\", isZeroes = false)\n nanoseconds >= 1_000_000 ->\n appendFractional(nanoseconds / 1_000_000, nanoseconds % 1_000_000, 6, \"ms\", isZeroes = false)\n nanoseconds >= 1_000 ->\n appendFractional(nanoseconds / 1_000, nanoseconds % 1_000, 3, \"us\", isZeroes = false)\n else ->\n append(nanoseconds).append(\"ns\")\n }\n }\n if (isNegative && components > 1) insert(1, '(').append(')')\n }\n }\n }\n }\n\n private fun StringBuilder.appendFractional(whole: Int, fractional: Int, fractionalSize: Int, unit: String, isZeroes: Boolean) {\n append(whole)\n if (fractional != 0) {\n append('.')\n val fracString = fractional.toString().padStart(fractionalSize, '0')\n val nonZeroDigits = fracString.indexOfLast { it != '0' } + 1\n when {\n !isZeroes && nonZeroDigits < 3 -> appendRange(fracString, 0, nonZeroDigits)\n else -> appendRange(fracString, 0, ((nonZeroDigits + 2) / 3) * 3)\n }\n }\n append(unit)\n }\n\n /**\n * Returns a string representation of this duration value expressed in the given [unit]\n * and formatted with the specified [decimals] number of digits after decimal point.\n *\n * Special cases:\n * - an infinite duration is formatted as `\"Infinity\"` or `\"-Infinity\"` without a unit.\n *\n * @param decimals the number of digits after decimal point to show. The value must be non-negative.\n * No more than 12 decimals will be shown, even if a larger number is requested.\n *\n * @return the value of duration in the specified [unit] followed by that unit abbreviated name: `d`, `h`, `m`, `s`, `ms`, `us`, or `ns`.\n *\n * @throws IllegalArgumentException if [decimals] is less than zero.\n *\n * @sample samples.time.Durations.toStringDecimals\n */\n public fun toString(unit: DurationUnit, decimals: Int = 0): String {\n require(decimals >= 0) { \"decimals must be not negative, but was $decimals\" }\n val number = toDouble(unit)\n if (number.isInfinite()) return number.toString()\n return formatToExactDecimals(number, decimals.coerceAtMost(12)) + unit.shortName()\n }\n\n\n /**\n * Returns an ISO-8601 based string representation of this duration.\n *\n * The returned value is presented in the format `PThHmMs.fS`, where `h`, `m`, `s` are the integer components of this duration (see [toComponents])\n * and `f` is a fractional part of second. Depending on the roundness of the value the fractional part can be formatted with either\n * 0, 3, 6, or 9 decimal digits.\n *\n * The infinite duration is represented as `\"PT9999999999999H\"` which is larger than any possible finite duration in Kotlin.\n *\n * Negative durations are indicated with the sign `-` in the beginning of the returned string, for example, `\"-PT5M30S\"`.\n *\n * @sample samples.time.Durations.toIsoString\n */\n public fun toIsoString(): String = buildString {\n if (isNegative()) append('-')\n append(\"PT\")\n this@Duration.absoluteValue.toComponents { hours, minutes, seconds, nanoseconds ->\n @Suppress(\"NAME_SHADOWING\")\n var hours = hours\n if (isInfinite()) {\n // use large enough value instead of Long.MAX_VALUE\n hours = 9_999_999_999_999\n }\n val hasHours = hours != 0L\n val hasSeconds = seconds != 0 || nanoseconds != 0\n val hasMinutes = minutes != 0 || (hasSeconds && hasHours)\n if (hasHours) {\n append(hours).append('H')\n }\n if (hasMinutes) {\n append(minutes).append('M')\n }\n if (hasSeconds || (!hasHours && !hasMinutes)) {\n appendFractional(seconds, nanoseconds, 9, \"S\", isZeroes = true)\n }\n }\n }\n\n}\n\n// constructing from number of units\n// extension functions\n\n/** Returns a [Duration] equal to this [Int] number of the specified [unit]. */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\npublic fun Int.toDuration(unit: DurationUnit): Duration {\n return if (unit <= DurationUnit.SECONDS) {\n durationOfNanos(convertDurationUnitOverflow(this.toLong(), unit, DurationUnit.NANOSECONDS))\n } else\n toLong().toDuration(unit)\n}\n\n/** Returns a [Duration] equal to this [Long] number of the specified [unit]. */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\npublic fun Long.toDuration(unit: DurationUnit): Duration {\n val maxNsInUnit = convertDurationUnitOverflow(MAX_NANOS, DurationUnit.NANOSECONDS, unit)\n if (this in -maxNsInUnit..maxNsInUnit) {\n return

durationOfNanos(convertDurationUnitOverflow(this, unit, DurationUnit.NANOSECONDS))\n   } else {\n   val millis = convertDurationUnit(this, unit, DurationUnit.MILLISECONDS)\n   return durationOfMillis(millis.coerceIn(-MAX_MILLIS, MAX_MILLIS))\n   }\n}\n\n/**\n * Returns a [Duration] equal to this [Double] number of the specified [unit].\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this `Double` value is `NaN`.\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\npublic fun Double.toDuration(unit: DurationUnit): Duration
 {\n   val valueInNs = convertDurationUnit(this, unit, DurationUnit.NANOSECONDS)\n   require(!valueInNs.isNaN()) { \"Duration value cannot be NaN.\" }\n   val nanos = valueInNs.roundToLong()\n   return if (nanos in -MAX_NANOS..MAX_NANOS) {\n   durationOfNanos(nanos)\n   } else {\n   val millis = convertDurationUnit(this, unit, DurationUnit.MILLISECONDS).roundToLong()\n   durationOfMillisNormalized(millis)\n   }\n}\n\n// constructing from number of units\n// deprecated extension properties\n\n/** Returns a [Duration] equal to this [Int] number of nanoseconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.nanoseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.nanoseconds\", \"kotlin.time.Duration.Companion.nanoseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)\n\n/** Returns a [Duration] equal to this [Long] number of nanoseconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use
 'Long.nanoseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.nanoseconds\", \"kotlin.time.Duration.Companion.nanoseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)\n\n/**\n * Returns a [Duration] equal to this [Double] number of nanoseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.nanoseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.nanoseconds\", \"kotlin.time.Duration.Companion.nanoseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)\n\n\n/** Returns a [Duration] equal to this [Int] number of microseconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.microseconds' extension
 property from Duration.Companion instead.\", ReplaceWith(\"this.microseconds\", \"kotlin.time.Duration.Companion.microseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n/** Returns a [Duration] equal to this [Long] number of microseconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.microseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.microseconds\", \"kotlin.time.Duration.Companion.microseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n/**\n * Returns a [Duration] equal to this [Double] number of microseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.microseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.microseconds\",
 \"kotlin.time.Duration.Companion.microseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n\n/** Returns a [Duration] equal to this [Int] number of milliseconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.milliseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.milliseconds\", \"kotlin.time.Duration.Companion.milliseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n/** Returns a [Duration] equal to this [Long] number of milliseconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.milliseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.milliseconds\", \"kotlin.time.Duration.Companion.milliseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n/**\n

* Returns a [Duration] equal to this [Double] number of milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.milliseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.milliseconds\", \"kotlin.time.Duration.Companion.milliseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n\n/** Returns a [Duration] equal to this [Int] number of seconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.seconds get() = toDuration(DurationUnit.SECONDS)\n\n/** Returns a [Duration] equal to this [Long] number of seconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.seconds get() = toDuration(DurationUnit.SECONDS)\n\n/**\n * Returns a [Duration] equal to this [Double] number of seconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.seconds get() = toDuration(DurationUnit.SECONDS)\n\n\n/** Returns a [Duration] equal to this [Int] number of minutes. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.minutes' extension property from Duration.Companion instead.\", ReplaceWith(\"this.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.minutes get() = toDuration(DurationUnit.MINUTES)\n\n/** Returns a [Duration] equal to this [Long] number of minutes. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.minutes' extension property from Duration.Companion instead.\", ReplaceWith(\"this.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.minutes get() = toDuration(DurationUnit.MINUTES)\n\n/**\n * Returns a [Duration] equal to this [Double] number of minutes.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.minutes' extension property from Duration.Companion instead.\", ReplaceWith(\"this.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.minutes get() = toDuration(DurationUnit.MINUTES)\n\n\n/** Returns a [Duration] equal to this [Int] number of hours. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"this.hours\", \"kotlin.time.Duration.Companion.hours\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.hours get() = toDuration(DurationUnit.HOURS)\n\n/** Returns a [Duration] equal to this [Long] number of hours. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"this.hours\", \"kotlin.time.Duration.Companion.hours\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.hours get() = toDuration(DurationUnit.HOURS)\n\n/**\n * Returns a [Duration] equal to this [Double] number of hours.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"this.hours\", \"kotlin.time.Duration.Companion.hours\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.hours get() = toDuration(DurationUnit.HOURS)\n\n\n/** Returns a [Duration] equal to this [Int] number of days. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.days' extension property from Duration.Companion instead.\", ReplaceWith(\"this.days\", \"kotlin.time.Duration.Companion.days\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.days

get() = toDuration(DurationUnit.DAYS)\n\n/** Returns a [Duration] equal to this [Long] number of days. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.days' extension property from Duration.Companion instead.\", ReplaceWith(\"this.days\", \"kotlin.time.Duration.Companion.days\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.days get() = toDuration(DurationUnit.DAYS)\n\n/**\n
 * Returns a [Duration] equal to this [Double] number of days.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.days' extension property from Duration.Companion instead.\", ReplaceWith(\"this.days\", \"kotlin.time.Duration.Companion.days\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.days get() = toDuration(DurationUnit.DAYS)\n\n\n/** Returns a duration whose value is the specified [duration] value multiplied by this number. */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\n@kotlin.internal.InlineOnly\npublic inline operator fun Int.times(duration: Duration): Duration = duration * this\n\n/**\n * Returns a duration whose value is the specified [duration] value multiplied by this number.\n *\n * The operation may involve rounding when the result cannot be represented exactly with a [Double] number.\n *\n * @throws IllegalArgumentException
 if the operation results in a `NaN` value.\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\n@kotlin.internal.InlineOnly\npublic inline operator fun Double.times(duration: Duration): Duration = duration * this\n\n\n\nprivate fun parseDuration(value: String, strictIso: Boolean): Duration {\n   var length = value.length\n   if (length == 0) throw IllegalArgumentException(\"The string is empty\")\n   var index = 0\n   var result = Duration.ZERO\n   val infinityString = \"Infinity\"\n   when (value[index]) {\n   '+', '-' -> index++\n   }\n   val hasSign = index > 0\n   val isNegative = hasSign && value.startsWith('-')\n   when {\n   length <= index ->\n   throw IllegalArgumentException(\"No components\")\n   value[index] == 'P' -> {\n   if (++index == length) throw IllegalArgumentException()\n   val nonDigitSymbols = \"+-.\"\n   var isTimeComponent = false\n   var prevUnit: DurationUnit?
 = null\n   while (index < length) {\n   if (value[index] == 'T') {\n   if (isTimeComponent || ++index == length) throw IllegalArgumentException()\n   isTimeComponent = true\n   continue\n   }\n   val component = value.substringWhile(index) { it in '0'..'9' || it in nonDigitSymbols }\n   if (component.isEmpty()) throw IllegalArgumentException()\n   index += component.length\n   val unitChar = value.getOrElse(index) { throw IllegalArgumentException(\"Missing unit for value $component\") }\n   index++\n   val unit = durationUnitByIsoChar(unitChar, isTimeComponent)\n   if (prevUnit != null && prevUnit <= unit) throw IllegalArgumentException(\"Unexpected order of duration components\")\n   prevUnit = unit\n   val dotIndex = component.indexOf('.')\n   if (unit == DurationUnit.SECONDS
 && dotIndex > 0) {\n   val whole = component.substring(0, dotIndex)\n   result += parseOverLongIsoComponent(whole).toDuration(unit)\n   result += component.substring(dotIndex).toDouble().toDuration(unit)\n   } else {\n   result += parseOverLongIsoComponent(component).toDuration(unit)\n   }\n   }\n   }\n   strictIso ->\n   throw IllegalArgumentException()\n   value.regionMatches(index, infinityString, 0, length = maxOf(length - index, infinityString.length), ignoreCase = true) -> {\n   result = Duration.INFINITE\n   }\n   else -> {\n   // parse default string format\n   var prevUnit: DurationUnit? = null\n   var afterFirst = false\n   var allowSpaces = !hasSign\n   if (hasSign && value[index] == '(' && value.last() == ')') {\n   allowSpaces = true\n   if (++index
 == --length) throw IllegalArgumentException(\"No components\")\n   }\n   while (index < length) {\n   if (afterFirst && allowSpaces) {\n   index = value.skipWhile(index) { it == ' ' }\n   }\n   afterFirst = true\n   val component = value.substringWhile(index) { it in '0'..'9' || it == '.' }\n   if (component.isEmpty()) throw IllegalArgumentException()\n   index += component.length\n   val unitName = value.substringWhile(index) { it in 'a'..'z' }\n   index += unitName.length\n   val unit =

durationUnitByShortName(unitName)\n if (prevUnit != null && prevUnit <= unit) throw IllegalArgumentException(\"Unexpected order of duration components\")\n prevUnit = unit\n val dotIndex = component.indexOf('.')\n if (dotIndex > 0) {\n val whole = component.substring(0, dotIndex)\n result += whole.toLong().toDuration(unit)\n result += component.substring(dotIndex).toDouble().toDuration(unit)\n if (index < length) throw IllegalArgumentException(\"Fractional component must be last\")\n } else {\n result += component.toLong().toDuration(unit)\n }\n }\n }\n }\n return if (isNegative) -result else result\n}\n\n\nprivate fun parseOverLongIsoComponent(value: String): Long {\n val length = value.length\n var startIndex = 0\n if (length > 0 && value[0] in \"+-\") startIndex++\n if ((length - startIndex) > 16 && (startIndex..value.lastIndex).all { value[it] in '0'..'9' }) {\n // all chars are digits, but more than ceiling(log10(MAX_MILLIS / 1000)) of them\n return if (value[0] == '-') Long.MIN_VALUE else Long.MAX_VALUE\n }\n // TODO: replace with just toLong after min JDK becomes 8\n return if (value.startsWith(\"+\")) value.drop(1).toLong() else value.toLong()\n}\n\n\n\nprivate inline fun String.substringWhile(startIndex: Int, predicate: (Char) -> Boolean): String =\n substring(startIndex, skipWhile(startIndex, predicate))\n\nprivate inline fun String.skipWhile(startIndex: Int, predicate: (Char) -> Boolean): Int {\n var i = startIndex\n while (i < length && predicate(this[i])) i++\n return i\n}\n\n\n\n\n\n// The ranges are chosen so that they are:\n// - symmetric relative to zero: this greatly simplifies operations with sign, e.g. unaryMinus and minus.\n// - non-overlapping, but adjacent: the first value that doesn't fit in nanos range, can be exactly represented in millis.\n\ninternal const val NANOS_IN_MILLIS = 1_000_000\n// maximum number duration can store in nanosecond range\ninternal const val MAX_NANOS = Long.MAX_VALUE / 2 / NANOS_IN_MILLIS * NANOS_IN_MILLIS - 1 // ends in ..._999_999\n// maximum number duration can store in millisecond range, also encodes an infinite value\ninternal const val MAX_MILLIS = Long.MAX_VALUE / 2\n// MAX_NANOS expressed in milliseconds\nprivate const val MAX_NANOS_IN_MILLIS = MAX_NANOS / NANOS_IN_MILLIS\n\nprivate fun nanosToMillis(nanos: Long): Long = nanos / NANOS_IN_MILLIS\nprivate fun millisToNanos(millis: Long): Long = millis * NANOS_IN_MILLIS\n\nprivate fun durationOfNanos(normalNanos: Long) = Duration(normalNanos shl 1)\nprivate fun durationOfMillis(normalMillis: Long) = Duration((normalMillis shl 1) + 1)\nprivate fun durationOf(normalValue: Long, unitDiscriminator: Int) = Duration((normalValue shl 1) + unitDiscriminator)\nprivate fun durationOfNanosNormalized(nanos: Long) =\n if (nanos in -MAX_NANOS..MAX_NANOS) {\n durationOfNanos(nanos)\n } else {\n durationOfMillis(nanosToMillis(nanos))\n }\n\nprivate fun durationOfMillisNormalized(millis: Long) =\n if (millis in -MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS) {\n durationOfNanos(millisToNanos(millis))\n } else {\n durationOfMillis(millis.coerceIn(-MAX_MILLIS, MAX_MILLIS))\n }\n\ninternal expect val durationAssertionsEnabled: Boolean\n\ninternal expect fun formatToExactDecimals(value: Double, decimals: Int): String\ninternal expect fun formatUpToDecimals(value: Double, decimals: Int): String","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n@file:kotlin.jvm.JvmName(\"UnsignedKt\")\npackage kotlin\n\n@PublishedApi\ninternal fun uintCompare(v1: Int, v2: Int): Int = (v1 xor Int.MIN_VALUE).compareTo(v2 xor Int.MIN_VALUE)\n@PublishedApi\ninternal fun ulongCompare(v1: Long, v2: Long): Int = (v1 xor Long.MIN_VALUE).compareTo(v2 xor Long.MIN_VALUE)\n\n@PublishedApi\ninternal fun uintDivide(v1: UInt, v2: UInt): UInt = (v1.toLong() / v2.toLong()).toUInt()\n@PublishedApi\ninternal fun uintRemainder(v1: UInt, v2: UInt): UInt = (v1.toLong() % v2.toLong()).toUInt()\n\n// Division and remainder are based on Guava's UnsignedLongs implementation\n// Copyright 2011 The Guava Authors\n\n@PublishedApi\ninternal fun ulongDivide(v1: ULong, v2: ULong): ULong {\n val dividend = v1.toLong()\n val divisor = v2.toLong()\n if (divisor < 0) { // i.e., divisor >= 2^63:\n return if (v1 < v2) ULong(0) else ULong(1)\n }\n\n // Optimization - use signed division if both dividend and divisor < 2^63\n if (dividend >= 0) {\n return ULong(dividend / divisor)\n }\n\n // Otherwise, approximate the quotient, check, and correct if necessary.\n   val quotient = ((dividend ushr 1) / divisor) shl 1\n   val rem = dividend - quotient * divisor\n   return ULong(quotient + if (ULong(rem) >= ULong(divisor)) 1 else 0)\n\n}\n\n@PublishedApi\ninternal fun ulongRemainder(v1: ULong, v2: ULong): ULong {\n   val dividend = v1.toLong()\n   val divisor = v2.toLong()\n   if (divisor < 0) { // i.e., divisor >= 2^63:\n return if (v1 < v2) {\n   v1 // dividend < divisor\n   } else {\n   v1 - v2 // dividend >= divisor\n   }\n }\n\n   // Optimization - use signed modulus if both dividend and divisor < 2^63\n   if (dividend >= 0) {\n return ULong(dividend % divisor)\n   }\n\n   // Otherwise, approximate the quotient, check, and correct if necessary.\n   val quotient = ((dividend ushr 1) / divisor) shl 1\n   val rem = dividend - quotient * divisor\n   return ULong(rem - if (ULong(rem) >= ULong(divisor)) divisor else 0)\n}\n\n@PublishedApi\ninternal fun doubleToUInt(v: Double): UInt = when {\n   v.isNaN() -> 0u\n   v <= UInt.MIN_VALUE.toDouble() -> UInt.MIN_VALUE\n   v >= UInt.MAX_VALUE.toDouble() -> UInt.MAX_VALUE\n   v <= Int.MAX_VALUE -> v.toInt().toUInt()\n   else -> (v - Int.MAX_VALUE).toInt().toUInt() + Int.MAX_VALUE.toUInt()   // Int.MAX_VALUE < v < UInt.MAX_VALUE\n}\n\n@PublishedApi\ninternal fun doubleToULong(v: Double): ULong = when {\n   v.isNaN() -> 0u\n   v <= ULong.MIN_VALUE.toDouble() -> ULong.MIN_VALUE\n   v >= ULong.MAX_VALUE.toDouble() -> ULong.MAX_VALUE\n   v < Long.MAX_VALUE -> v.toLong().toULong()\n\n   // Real values from Long.MAX_VALUE to (Long.MAX_VALUE + 1) are not representable in Double, so don't handle them.\n   else -> (v - 9223372036854775808.0).toLong().toULong() + 9223372036854775808uL   // Long.MAX_VALUE + 1 < v < ULong.MAX_VALUE\n}\n\n\n@PublishedApi\ninternal fun uintToDouble(v: Int): Double = (v and Int.MAX_VALUE).toDouble() + (v ushr 31 shl 30).toDouble() * 2\n\n@PublishedApi\ninternal fun ulongToDouble(v: Long): Double = (v ushr 11).toDouble() * 2048 + (v and 2047)\n\n\ninternal fun ulongToString(v: Long): String = ulongToString(v, 10)\n\ninternal fun ulongToString(v: Long, base: Int): String {\n if (v >= 0) return v.toString(base)\n\n   var quotient = ((v ushr 1) / base) shl 1\n   var rem = v - quotient * base\n if (rem >= base) {\n   rem -= base\n   quotient += 1\n }\n   return quotient.toString(base) + rem.toString(base)\n}\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CollectionsKt\")\n\npackage kotlin.collections\n\n/**\n * Given an [iterator] function constructs an [Iterable] instance that returns values through the [Iterator]\n * provided by that function.\n * @sample samples.collections.Iterables.Building.iterable\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable(crossinline iterator: () -> Iterator<T>): Iterable<T> = object : Iterable<T> {\n   override fun iterator(): Iterator<T> = iterator()\n}\n\n/**\n * A wrapper over another [Iterable] (or any other object that can produce an [Iterator]) that returns\n * an indexing iterator.\n */\ninternal class IndexingIterable<out T>(private val iteratorFactory: () -> Iterator<T>) : Iterable<IndexedValue<T>> {\n   override fun iterator(): Iterator<IndexedValue<T>> = IndexingIterator(iteratorFactory())\n}\n\n\n/**\n * Returns the size of this iterable if it is known, or `null` otherwise.\n */\n@PublishedApi\ninternal fun <T> Iterable<T>.collectionSizeOrNull(): Int? = if (this is Collection<*>) this.size else null\n\n/**\n * Returns the size of this iterable if it is known, or the specified [default] value otherwise.\n */\n@PublishedApi\ninternal fun <T> Iterable<T>.collectionSizeOrDefault(default: Int): Int = if (this is Collection<*>) this.size else default\n\n\n/**\n * Returns a single list of all elements from all collections in the given collection.\n * @sample samples.collections.Iterables.Operations.flattenIterable\n */\npublic fun <T> Iterable<Iterable<T>>.flatten(): List<T> {\n   val result = ArrayList<T>()\n   for (element in this) {\n result.addAll(element)\n   }\n   return result\n}\n\n/**\n * Returns a pair of lists, where\n * *first* list is built from the first values of each pair from this collection,\n * *second* list is built from the second values of each pair from this collection.\n * @sample samples.collections.Iterables.Operations.unzipIterable\n */\npublic fun <T, R> Iterable<Pair<T, R>>.unzip(): Pair<List<T>, List<R>> {\n   val expectedSize = collectionSizeOrDefault(10)\n   val listT =

ArrayList<T>(expectedSize)\n   val listR = ArrayList<R>(expectedSize)\n   for (pair in this) {\n
listT.add(pair.first)\n   listR.add(pair.second)\n   }\n   return listT to listR\n}\n","/*\n * Copyright 2010-2020
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"SequencesKt\")\n\npackage
kotlin.sequences\n\nimport kotlin.random.Random\n\n/**\n * Given an [iterator] function constructs
a [Sequence] that returns values through the [Iterator]\n * provided by that function.\n * The values are evaluated
lazily, and the sequence is potentially infinite.\n *\n * @sample
samples.collections.Sequences.Building.sequenceFromIterator\n */\n@kotlin.internal.InlineOnly\npublic inline fun
<T> Sequence(crossinline iterator: () -> Iterator<T>): Sequence<T> = object : Sequence<T> {\n   override fun
iterator(): Iterator<T> = iterator()\n}\n\n/**\n * Creates a sequence that returns all elements from this iterator. The
sequence is constrained to be iterated only once.\n *\n * @sample
samples.collections.Sequences.Building.sequenceFromIterator\n */\npublic fun <T> Iterator<T>.asSequence():
Sequence<T> = Sequence { this }.constrainOnce()\n\n/**\n * Creates a sequence that returns the specified values.\n
*\n * @sample samples.collections.Sequences.Building.sequenceOfValues\n */\npublic fun <T> sequenceOf(vararg
elements: T): Sequence<T> = if (elements.isEmpty()) emptySequence() else elements.asSequence()\n\n/**\n
* Returns an empty sequence.\n */\npublic fun <T> emptySequence(): Sequence<T> = EmptySequence\n\nprivate
object EmptySequence : Sequence<Nothing>, DropTakeSequence<Nothing> {\n   override fun iterator():
Iterator<Nothing> = EmptyIterator\n   override fun drop(n: Int) = EmptySequence\n   override fun take(n: Int) =
EmptySequence\n}\n\n/**\n * Returns this sequence if it's not `null` and the empty sequence otherwise.\n *
@sample samples.collections.Sequences.Usage.sequenceOrEmpty\n
*/\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>?.orEmpty():
Sequence<T> = this ?: emptySequence()\n\n\n/**\n * Returns a sequence that iterates through the elements either of
this sequence\n * or, if this sequence turns out to be empty, of the sequence returned by [defaultValue] function.\n
*\n * @sample samples.collections.Sequences.Usage.sequenceIfEmpty\n */\n@SinceKotlin(\"1.3\")\npublic fun
<T> Sequence<T>.ifEmpty(defaultValue: () ->
Sequence<T>): Sequence<T> = sequence {\n   val iterator = this@ifEmpty.iterator()\n   if (iterator.hasNext()) {\n
yieldAll(iterator)\n   } else {\n   yieldAll(defaultValue())\n   }\n}\n\n/**\n * Returns a sequence of all
elements from all sequences in this sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n *\n *
@sample samples.collections.Sequences.Transformations.flattenSequenceOfSequences\n */\npublic fun <T>
Sequence<Sequence<T>>.flatten(): Sequence<T> = flatten { it.iterator() }\n\n/**\n * Returns a sequence of all
elements from all iterables in this sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n *\n *
@sample samples.collections.Sequences.Transformations.flattenSequenceOfLists\n
*/\n@kotlin.jvm.JvmName(\"flattenSequenceOfIterable\")\npublic fun <T> Sequence<Iterable<T>>.flatten():
Sequence<T> = flatten { it.iterator() }\n\nprivate fun <T, R> Sequence<T>.flatten(iterator: (T) -> Iterator<R>):
Sequence<R> {\n   if (this is
TransformingSequence<*, *>) {\n   return (this as TransformingSequence<*, T>).flatten(iterator)\n   }\n
return FlatteningSequence(this, { it }, iterator)\n}\n\n/**\n * Returns a pair of lists, where\n * *first* list is built
from the first values of each pair from this sequence,\n * *second* list is built from the second values of each pair
from this sequence.\n *\n * The operation is _terminal_.\n *\n * @sample
samples.collections.Sequences.Transformations.unzip\n */\npublic fun <T, R> Sequence<Pair<T, R>>.unzip():
Pair<List<T>, List<R>> {\n   val listT = ArrayList<T>()\n   val listR = ArrayList<R>()\n   for (pair in this) {\n
listT.add(pair.first)\n   listR.add(pair.second)\n   }\n   return listT to listR\n}\n\n/**\n * Returns a sequence that
yields elements of this sequence randomly shuffled.\n *\n * Note that every iteration of the sequence returns
elements in a different order.\n *\n * The operation is _intermediate_ and _stateful_.\n
*/\n@SinceKotlin(\"1.4\")\npublic
fun <T> Sequence<T>.shuffled(): Sequence<T> = shuffled(Random)\n\n/**\n * Returns a sequence that yields
elements of this sequence randomly shuffled\n * using the specified [random] instance as the source of

randomness.\n *\n * Note that every iteration of the sequence returns elements in a different order.\n *\n * The operation is _intermediate_ and _stateful_.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Sequence<T>.shuffled(random: Random): Sequence<T> = sequence<T> {\n   val buffer = toMutableList()\n   while (buffer.isNotEmpty()) {\n   val j = random.nextInt(buffer.size)\n   val last = buffer.removeLast()\n   val value = if (j < buffer.size) buffer.set(j, last) else last\n   yield(value)\n   }\n}\n\n\n/**\n * A sequence that returns the values from the underlying [sequence] that either match or do not match\n * the specified [predicate].\n *\n * @param sendWhen If `true`, values for which the predicate returns `true` are returned. Otherwise,\n * values for which the predicate returns `false` are returned\n */\ninternal class FilteringSequence<T>(\n   private val sequence: Sequence<T>,\n   private val sendWhen: Boolean = true,\n   private val predicate: (T) -> Boolean\n) : Sequence<T> {\n\n   override fun iterator(): Iterator<T> = object : Iterator<T> {\n   val iterator = sequence.iterator()\n   var nextState: Int = -1 // -1 for unknown, 0 for done, 1 for continue\n   var nextItem: T? = null\n\n   private fun calcNext() {\n   while (iterator.hasNext()) {\n   val item = iterator.next()\n   if (predicate(item) == sendWhen) {\n   nextItem = item\n   nextState = 1\n   return\n   }\n   }\n   nextState = 0\n   }\n\n   override fun next(): T {\n   if (nextState == -1)\n   calcNext()\n   if (nextState == 0)\n   throw NoSuchElementException()\n   val result = nextItem\n   nextItem = null\n   nextState = -1\n   @Suppress(\"UNCHECKED_CAST\")\n   return result as T\n   }\n\n   override fun hasNext(): Boolean {\n   if (nextState == -1)\n   calcNext()\n   return nextState == 1\n   }\n   }\n}\n\n/**\n * A sequence which returns the results of applying the given [transformer] function to the values\n * in the underlying [sequence].\n */\n\ninternal class TransformingSequence<T, R>\nconstructor(private val sequence: Sequence<T>, private val transformer: (T) -> R) : Sequence<R> {\n   override fun iterator(): Iterator<R> = object : Iterator<R> {\n   val iterator = sequence.iterator()\n   override fun next(): R {\n   return transformer(iterator.next())\n   }\n\n   override fun hasNext(): Boolean {\n   return iterator.hasNext()\n   }\n   }\n\n   internal fun <E> flatten(iterator: (R) -> Iterator<E>): Sequence<E> {\n   return FlatteningSequence<T, R, E>(sequence, transformer, iterator)\n   }\n}\n\n/**\n * A sequence which returns the results of applying the given [transformer] function to the values\n * in the underlying [sequence], where the transformer function takes the index of the value in the underlying\n * sequence along with the value itself.\n */\ninternal class TransformingIndexedSequence<T, R>\nconstructor(private val sequence: Sequence<T>, private val transformer: (Int, T) -> R) : Sequence<R> {\n   override fun iterator(): Iterator<R> = object : Iterator<R> {\n   val iterator = sequence.iterator()\n   var index = 0\n   override fun next(): R {\n   return transformer(checkIndexOverflow(index++), iterator.next())\n   }\n\n   override fun hasNext(): Boolean {\n   return iterator.hasNext()\n   }\n   }\n}\n\n/**\n * A sequence which combines values from the underlying [sequence] with their indices and returns them as\n * [IndexedValue] objects.\n */\ninternal class IndexingSequence<T>\nconstructor(private val sequence: Sequence<T>) : Sequence<IndexedValue<T>> {\n   override fun iterator(): Iterator<IndexedValue<T>> = object : Iterator<IndexedValue<T>> {\n   val iterator = sequence.iterator()\n   var index = 0\n   override fun next(): IndexedValue<T> {\n   return IndexedValue(checkIndexOverflow(index++), iterator.next())\n   }\n\n   override fun hasNext(): Boolean {\n   return iterator.hasNext()\n   }\n   }\n}\n\n/**\n * A sequence which takes the values from two parallel underlying sequences, passes them to the given\n * [transform] function and returns the values returned by that function. The sequence stops returning\n * values as soon as one of the underlying sequences stops returning values.\n */\ninternal class MergingSequence<T1, T2, V>\nconstructor(\n   private val sequence1: Sequence<T1>,\n   private val sequence2: Sequence<T2>,\n   private val transform: (T1, T2) -> V\n) : Sequence<V> {\n   override fun iterator(): Iterator<V> = object : Iterator<V> {\n   val iterator1 = sequence1.iterator()\n   val iterator2 = sequence2.iterator()\n   override fun next(): V {\n   return transform(iterator1.next(), iterator2.next())\n   }\n\n   override fun hasNext(): Boolean {\n   return iterator1.hasNext() && iterator2.hasNext()\n   }\n   }\n}\n\ninternal class FlatteningSequence<T, R, E>\nconstructor(\n   private val sequence: Sequence<T>,\n   private val transformer: (T) -> R,\n   private val iterator: (R) -> Iterator<E>\n) : Sequence<E> {\n   override fun iterator(): Iterator<E> = object : Iterator<E> {\n val iterator = sequence.iterator()\n var itemIterator: Iterator<E>? = null\n\n override fun next(): E {\n if (!ensureItemIterator())\n throw NoSuchElementException()\n return itemIterator!!.next()\n }\n\n override fun hasNext(): Boolean {\n return ensureItemIterator()\n }\n\n private fun ensureItemIterator(): Boolean {\n if (itemIterator?.hasNext() == false)\n itemIterator = null\n\n while (itemIterator == null) {\n if (!iterator.hasNext()) {\n return false\n } else {\n val element = iterator.next()\n val nextItemIterator = iterator(transformer(element))\n if (nextItemIterator.hasNext()) {\n itemIterator = nextItemIterator\n return true\n }\n }\n }\n return true\n }\n }\n}\n\ninternal fun <T, C, R> flatMapIndexed(source: Sequence<T>, transform: (Int, T) -> C, iterator: (C) -> Iterator<R>): Sequence<R> =\n sequence {\n var index = 0\n for (element in source) {\n val result = transform(checkIndexOverflow(index++), element)\n yieldAll(iterator(result))\n }\n }\n\n/**\n * A sequence that supports drop(n) and take(n) operations\n */\ninternal interface DropTakeSequence<T> : Sequence<T> {\n fun drop(n: Int): Sequence<T>\n fun take(n: Int): Sequence<T>\n}\n\n/**\n * A sequence that skips [startIndex] values from the underlying [sequence]\n * and stops returning values right before [endIndex], i.e. stops at `endIndex - 1`\n */\ninternal class SubSequence<T>(\n private val sequence: Sequence<T>,\n private val startIndex: Int,\n private val endIndex: Int\n) : Sequence<T>, DropTakeSequence<T> {\n\n init {\n require(startIndex >= 0) { \"startIndex should be non-negative, but is $startIndex\" }\n require(endIndex >= 0) { \"endIndex should be non-negative, but is $endIndex\" }\n require(endIndex >= startIndex) { \"endIndex should be not less than startIndex, but was $endIndex < $startIndex\" }\n }\n\n private val count: Int get() = endIndex - startIndex\n\n override fun drop(n: Int): Sequence<T> = if (n >= count) emptySequence() else SubSequence(sequence, startIndex + n, endIndex)\n override fun take(n: Int): Sequence<T> = if (n >= count) this else SubSequence(sequence, startIndex, startIndex + n)\n\n override fun iterator() = object : Iterator<T> {\n\n val iterator = sequence.iterator()\n var position = 0\n\n // Shouldn't be called from constructor to avoid premature iteration\n private fun drop() {\n while (position < startIndex && iterator.hasNext()) {\n iterator.next()\n position++\n }\n }\n\n override fun hasNext(): Boolean {\n drop()\n return (position < endIndex) && iterator.hasNext()\n }\n\n override fun next(): T {\n drop()\n if (position >= endIndex)\n throw NoSuchElementException()\n position++\n return iterator.next()\n }\n }\n}\n\n/**\n * A sequence that returns at most [count] values from the underlying [sequence], and stops returning values\n * as soon as that count is reached.\n */\ninternal class TakeSequence<T>(\n private val sequence: Sequence<T>,\n private val count: Int\n) : Sequence<T>, DropTakeSequence<T> {\n\n init {\n require(count >= 0) { \"count must be non-negative, but was $count.\" }\n }\n\n override fun drop(n: Int): Sequence<T> = if (n >= count) emptySequence() else SubSequence(sequence, n, count)\n override fun take(n: Int): Sequence<T> = if (n >= count) this else TakeSequence(sequence, n)\n\n override fun iterator(): Iterator<T> = object : Iterator<T> {\n var left = count\n val iterator = sequence.iterator()\n\n override fun next(): T {\n if (left == 0)\n throw NoSuchElementException()\n left--\n return iterator.next()\n }\n\n override fun hasNext(): Boolean {\n return left > 0 && iterator.hasNext()\n }\n }\n}\n\n/**\n * A sequence that returns values from the underlying [sequence] while the [predicate] function returns\n * `true`, and stops returning values once the function returns `false` for the next element.\n */\ninternal class TakeWhileSequence<T>\nconstructor(\n private val sequence: Sequence<T>,\n private val predicate: (T) -> Boolean\n) : Sequence<T> {\n override fun iterator(): Iterator<T> = object : Iterator<T> {\n val iterator = sequence.iterator()\n var nextState: Int = -1 // -1 for unknown, 0 for done, 1 for continue\n var nextItem: T? = null\n\n private fun calcNext() {\n if (iterator.hasNext()) {\n val item = iterator.next()\n if (predicate(item)) {\n nextState = 1\n nextItem = item\n return\n }\n }\n nextState = 0\n }\n\n override fun next(): T {\n if (nextState == -1)\n calcNext() // will change nextState\n if (nextState == 0)\n throw NoSuchElementException()\n

@Suppress(\"UNCHECKED_CAST\")\n val result = nextItem as T\n\n // Clean next to avoid keeping reference on yielded instance\n nextItem = null\n nextState = -1\n return result\n }\n\n override fun hasNext(): Boolean {\n if (nextState == -1)\n calcNext() // will change nextState\n return nextState == 1\n }\n }\n}\n\n/**\n * A sequence that skips the specified number of values from the underlying [sequence] and returns\n * all values after that.\n */\ninternal class DropSequence<T>(\n private val sequence: Sequence<T>,\n private val count: Int\n) : Sequence<T>, DropTakeSequence<T> {\n init {\n require(count >= 0) { \"count must

be non-negative, but was $count.\" }\n }\n\n override fun drop(n: Int): Sequence<T> = (count + n).let { n1 -> if (n1 < 0) DropSequence(this, n) else DropSequence(sequence, n1) }\n override fun take(n: Int): Sequence<T> = (count + n).let { n1 -> if (n1 < 0) TakeSequence(this, n) else SubSequence(sequence, count, n1) }\n\n override fun iterator(): Iterator<T> = object : Iterator<T> {\n val iterator = sequence.iterator()\n var left = count\n\n // Shouldn't be called from constructor to avoid premature iteration\n private fun drop() {\n while (left > 0 && iterator.hasNext()) {\n iterator.next()\n left--\n }\n }\n\n override fun next(): T {\n drop()\n return iterator.next()\n }\n\n override fun hasNext(): Boolean {\n drop()\n return iterator.hasNext()\n }\n }\n}\n\n/**\n * A sequence that skips the values from the underlying

[sequence] while the given [predicate] returns `true` and returns\n * all values after that.\n */\ninternal class DropWhileSequence<T>\nconstructor(\n private val sequence: Sequence<T>,\n private val predicate: (T) -> Boolean\n) : Sequence<T> {\n\n override fun iterator(): Iterator<T> = object : Iterator<T> {\n val iterator = sequence.iterator()\n var dropState: Int = -1 // -1 for not dropping, 1 for nextItem, 0 for normal iteration\n var nextItem: T? = null\n\n private fun drop() {\n while (iterator.hasNext()) {\n val item = iterator.next()\n if (!predicate(item)) {\n nextItem = item\n dropState = 1\n return\n }\n }\n dropState = 0\n }\n\n override fun next(): T {\n if (dropState == -1)\n drop()\n\n if (dropState == 1) {\n @Suppress(\"UNCHECKED_CAST\")\n

val result = nextItem as T\n nextItem = null\n dropState = 0\n return result\n }\n return iterator.next()\n }\n\n override fun hasNext(): Boolean {\n if (dropState == -1)\n drop()\n return dropState == 1 || iterator.hasNext()\n }\n }\n}\n\ninternal class DistinctSequence<T, K>(private val source: Sequence<T>, private val keySelector: (T) -> K) : Sequence<T> {\n override fun iterator(): Iterator<T> = DistinctIterator(source.iterator(), keySelector)\n}\n\nprivate class DistinctIterator<T, K>(private val source: Iterator<T>, private val keySelector: (T) -> K) : AbstractIterator<T>() {\n private val observed = HashSet<K>()\n\n override fun computeNext() {\n while (source.hasNext()) {\n val next = source.next()\n val key = keySelector(next)\n\n if (observed.add(key)) {\n setNext(next)\n

return\n }\n }\n\n done()\n }\n}\n\n\nprivate class GeneratorSequence<T : Any>(private val getInitialValue: () -> T?, private val getNextValue: (T) -> T?) : Sequence<T> {\n override fun iterator(): Iterator<T> = object : Iterator<T> {\n var nextItem: T? = null\n var nextState: Int = -2 // -2 for initial unknown, -1 for next unknown, 0 for done, 1 for continue\n\n private fun calcNext() {\n nextItem = if (nextState == -2) getInitialValue() else getNextValue(nextItem!!)\n nextState = if (nextItem == null) 0 else 1\n }\n\n override fun next(): T {\n if (nextState < 0)\n calcNext()\n\n if (nextState == 0)\n throw NoSuchElementException()\n val result = nextItem as T\n // Do not clean nextItem (to avoid keeping reference on yielded instance) -- need to keep state for getNextValue\n nextState = -1\n return result\n }\n\n override fun hasNext(): Boolean {\n if (nextState < 0)\n calcNext()\n return nextState == 1\n }\n }\n}\n\n/**\n * Returns a wrapper sequence that provides values of this sequence, but ensures it can be iterated only one time.\n *\n * The operation is _intermediate_ and _stateless_.\n *\n * [IllegalStateException] is thrown on iterating the returned sequence for the second time and the following times.\n *\n */\npublic fun <T> Sequence<T>.constrainOnce(): Sequence<T> {\n // as? does not work in js\n //return this as? ConstrainedOnceSequence<T> ?: ConstrainedOnceSequence(this)\n return if (this is

ConstrainedOnceSequence<T>) this else ConstrainedOnceSequence(this)\n}\n\n\n/**\n * Returns a sequence which invokes the function to calculate the next value on each iteration until the function returns `null`.\n *\n * The returned sequence is constrained to be iterated only once.\n *\n
 * @see constrainOnce\n * @see kotlin.sequences.sequence\n *\n * @sample samples.collections.Sequences.Building.generateSequence\n */\npublic fun <T : Any> generateSequence(nextFunction: () -> T?): Sequence<T> {\n   return GeneratorSequence(nextFunction, { nextFunction() }).constrainOnce()\n}\n\n/**\n * Returns a sequence defined by the starting value [seed] and the function [nextFunction],\n * which is invoked to calculate the next value based on the previous one on each iteration.\n *\n * The sequence produces values until it encounters first `null` value.\n * If [seed] is `null`, an empty sequence is produced.\n *\n * The sequence can be iterated multiple times, each time starting with [seed].\n *\n * @see kotlin.sequences.sequence\n *\n * @sample samples.collections.Sequences.Building.generateSequenceWithSeed\n */\n@kotlin.internal.LowPriorityInOverloadResolution\npublic fun <T : Any> generateSequence(seed: T?, nextFunction: (T) -> T?): Sequence<T> =\n   if (seed == null)\n
   EmptySequence\n   else\n   GeneratorSequence({ seed }, nextFunction)\n\n/**\n * Returns a sequence defined by the function [seedFunction], which is invoked to produce the starting value,\n * and the [nextFunction], which is invoked to calculate the next value based on the previous one on each iteration.\n *\n * The sequence produces values until it encounters first `null` value.\n * If [seedFunction] returns `null`, an empty sequence is produced.\n *\n * The sequence can be iterated multiple times.\n *\n * @see kotlin.sequences.sequence\n *\n * @sample samples.collections.Sequences.Building.generateSequenceWithLazySeed\n */\npublic fun <T : Any> generateSequence(seedFunction: () -> T?, nextFunction: (T) -> T?): Sequence<T> =\n GeneratorSequence(seedFunction, nextFunction)\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt
 file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"PreconditionsKt\")\n\npackage kotlin\n\nimport kotlin.contracts.contract\n\n/**\n * Throws an [IllegalArgumentException] if the [value] is false.\n *\n * @sample samples.misc.Preconditions.failRequireWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun require(value: Boolean): Unit {\n   contract {\n   returns() implies value\n   }\n   require(value) { \"Failed requirement.\" }\n}\n\n/**\n * Throws an [IllegalArgumentException] with the result of calling [lazyMessage] if the [value] is false.\n *\n * @sample samples.misc.Preconditions.failRequireWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun require(value: Boolean, lazyMessage: () -> Any): Unit {\n   contract {\n   returns() implies value\n   }\n   if (!value) {\n   val message = lazyMessage()\n   throw IllegalArgumentException(message.toString())\n   }\n}\n\n/**\n * Throws an [IllegalArgumentException]
 if the [value] is null. Otherwise returns the not null value.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T : Any> requireNotNull(value: T?): T {\n   contract {\n   returns() implies (value != null)\n   }\n   return requireNotNull(value) { \"Required value was null.\" }\n}\n\n/**\n * Throws an [IllegalArgumentException] with the result of calling [lazyMessage] if the [value] is null. Otherwise\n * returns the not null value.\n *\n * @sample samples.misc.Preconditions.failRequireNotNullWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T : Any> requireNotNull(value: T?, lazyMessage: () -> Any): T {\n   contract {\n   returns() implies (value != null)\n   }\n\n   if (value == null) {\n   val message = lazyMessage()\n   throw IllegalArgumentException(message.toString())\n   } else {\n   return value\n   }\n}\n\n/**\n * Throws an [IllegalStateException] if the [value] is false.\n *\n * @sample samples.misc.Preconditions.failCheckWithLazyMessage\n
 */\n@kotlin.internal.InlineOnly\npublic inline fun check(value: Boolean): Unit {\n   contract {\n   returns() implies value\n   }\n   check(value) { \"Check failed.\" }\n}\n\n/**\n * Throws an [IllegalStateException] with the result of calling [lazyMessage] if the [value] is false.\n *\n * @sample samples.misc.Preconditions.failCheckWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun check(value: Boolean, lazyMessage: () -> Any): Unit {\n   contract {\n   returns() implies value\n   }\n   if

(!value) {\n   val message = lazyMessage()\n   throw IllegalStateException(message.toString())\n   }\n}\n\n/**\n * Throws an [IllegalStateException] if the [value] is null. Otherwise\n * returns the not null value.\n *\n * @sample samples.misc.Preconditions.failCheckWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T : Any> checkNotNull(value: T?): T {\n   contract {\n   returns() implies (value != null)\n   }\n   return checkNotNull(value) { \"Required value was null.\" }\n}\n\n/**\n * Throws an [IllegalStateException] with the result of calling [lazyMessage] if the [value] is null. Otherwise\n * returns the not null value.\n *\n * @sample samples.misc.Preconditions.failCheckWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T : Any> checkNotNull(value: T?, lazyMessage: () -> Any): T {\n   contract {\n   returns() implies (value != null)\n   }\n\n   if (value == null) {\n   val message = lazyMessage()\n   throw IllegalStateException(message.toString())\n   } else {\n   return value\n   }\n}\n\n\n/**\n * Throws an [IllegalStateException] with the given [message].\n *\n * @sample samples.misc.Preconditions.failWithError\n */\n@kotlin.internal.InlineOnly\npublic inline fun error(message: Any): Nothing = throw IllegalStateException(message.toString())\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n

 * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.js.*\nimport primitiveArrayConcat\nimport withType\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun <T> Array<out T>.elementAt(index: Int): T {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n

 */\npublic actual fun ByteArray.elementAt(index: Int): Byte {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun ShortArray.elementAt(index: Int): Short {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun IntArray.elementAt(index: Int): Int {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index]

 or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun LongArray.elementAt(index: Int): Long {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun FloatArray.elementAt(index: Int): Float {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun DoubleArray.elementAt(index: Int): Double {\n   return

 elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun BooleanArray.elementAt(index: Int): Boolean {\n   return elementAtOrElse(index) { throw

IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun CharArray.elementAt(index: Int): Char {\n return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic actual fun <T> Array<out T>.asList(): List<T> {\n return ArrayList<T>(this.unsafeCast<Array<Any?>>())\n}\n\n/**\n
* Returns a [List] that wraps the original array.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun ByteArray.asList(): List<Byte> {\n return this.unsafeCast<Array<Byte>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun ShortArray.asList(): List<Short> {\n return this.unsafeCast<Array<Short>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun IntArray.asList(): List<Int> {\n return this.unsafeCast<Array<Int>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun LongArray.asList(): List<Long> {\n return this.unsafeCast<Array<Long>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun FloatArray.asList():
List<Float> {\n return this.unsafeCast<Array<Float>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun DoubleArray.asList(): List<Double> {\n return this.unsafeCast<Array<Double>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun BooleanArray.asList(): List<Boolean> {\n return this.unsafeCast<Array<Boolean>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic actual fun CharArray.asList(): List<Char> {\n return object : AbstractList<Char>(), RandomAccess {\n override val size: Int get() = this@asList.size\n override fun isEmpty(): Boolean = this@asList.isEmpty()\n override fun contains(element: Char): Boolean = this@asList.contains(element)\n override fun get(index: Int): Char {\n AbstractList.checkElementIndex(index, size)\n
return this@asList[index]\n }\n override fun indexOf(element: Char): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is Char) return -1\n return this@asList.indexOf(element)\n }\n override fun lastIndexOf(element: Char): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is Char) return -1\n return this@asList.lastIndexOf(element)\n }\n }\n}\n\n/**\n * Returns `true` if the two specified arrays are *deeply* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * If two corresponding elements are nested arrays, they are also compared deeply.\n * If any of arrays contains itself on any nesting level the behavior is undefined.\n * \n * The elements of other types are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not
equal to `0.0`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic actual infix fun <T> Array<out T>.contentDeepEquals(other: Array<out T>): Boolean {\n return this.contentDeepEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *deeply* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The specified arrays are also considered deeply equal if both are `null`.\n * \n * If two corresponding elements are nested arrays, they are also compared deeply.\n * If any of arrays contains itself on any nesting level the behavior is undefined.\n * \n * The elements of other types are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayDeepEquals\")\npublic actual infix fun <T> Array<out T>?.contentDeepEquals(other: Array<out T>?):
Boolean {\n definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level the behavior is undefined.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic actual fun <T> Array<out T>.contentDeepHashCode(): Int {\n return this.contentDeepHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n * Nested arrays are treated as lists too.\n *

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\n * If any of arrays contains itself on any nesting level the behavior is undefined.\n
*/\n@SinceKotlin(\"1.4\")\n@library(\"arrayDeepHashCode\")\npublic actual fun <T> Array<out
T>?.contentDeepHashCode(): Int {\n    definedExternally\n}\n\n/**\n * Returns a string representation of the
contents of this array as if it is a [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains
itself on
 any nesting level that reference\n * is rendered as `\"[...]\"` to prevent recursion.\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentDeepToString\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic actual fun <T> Array<out
T>.contentDeepToString(): String {\n    return this.contentDeepToString()\n}\n\n/**\n * Returns a string
representation of the contents of this array as if it is a [List].\n * Nested arrays are treated as lists too.\n * \n * If any
of arrays contains itself on any nesting level that reference\n * is rendered as `\"[...]\"` to prevent recursion.\n * \n *
@sample samples.collections.Arrays.ContentOperations.contentDeepToString\n
*/\n@SinceKotlin(\"1.4\")\n@library(\"arrayDeepToString\")\npublic actual fun <T> Array<out
T>?.contentDeepToString(): String {\n    definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays
are *structurally* equal to one another,\n * i.e. contain the same number of the
 same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals]
function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun <T>
Array<out T>.contentEquals(other: Array<out T>): Boolean {\n    return this.contentEquals(other)\n}\n\n/**\n *
Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of
the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals]
function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic
 actual infix fun ByteArray.contentEquals(other: ByteArray): Boolean {\n    return
this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one
another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are
compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is
equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun
ShortArray.contentEquals(other: ShortArray): Boolean {\n    return this.contentEquals(other)\n}\n\n/**\n * Returns
`true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the
same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals]
 function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun
IntArray.contentEquals(other: IntArray): Boolean {\n    return this.contentEquals(other)\n}\n\n/**\n * Returns `true`
if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same
elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals]
function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun
LongArray.contentEquals(other: LongArray): Boolean {\n    return this.contentEquals(other)\n}\n\n/**\n
 * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number
of the same elements in the same order.\n * \n * The elements are compared for equality with the
[equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not
equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
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warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun
FloatArray.contentEquals(other: FloatArray): Boolean {\n    return this.contentEquals(other)\n}\n\n/**\n * Returns
`true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the
same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals]
function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@Deprecated(\"Use
 Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun
DoubleArray.contentEquals(other: DoubleArray): Boolean {\n    return this.contentEquals(other)\n}\n\n/**\n *
Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of
the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals]
function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun
BooleanArray.contentEquals(other: BooleanArray): Boolean {\n    return this.contentEquals(other)\n}\n\n/**\n *
Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain
 the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the
[equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not
equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun
CharArray.contentEquals(other: CharArray): Boolean {\n    return this.contentEquals(other)\n}\n\n/**\n * Returns
`true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the
same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals]
function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun <T> Array<out
T>?.contentEquals(other:
 Array<out T>?): Boolean {\n    definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are
*structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n
* The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it
means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun ByteArray?.contentEquals(other:
ByteArray?): Boolean {\n    definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are
*structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n
* The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it
means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual
 infix fun ShortArray?.contentEquals(other: ShortArray?): Boolean {\n    definedExternally\n}\n\n/**\n * Returns
`true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the
same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals]
function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun IntArray?.contentEquals(other:
IntArray?): Boolean {\n    definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are
*structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n
* The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it
means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic
 actual infix fun LongArray?.contentEquals(other: LongArray?): Boolean {\n    definedExternally\n}\n\n/**\n *
Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of
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the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun FloatArray?.contentEquals(other: FloatArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not
equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun DoubleArray?.contentEquals(other: DoubleArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun BooleanArray?.contentEquals(other: BooleanArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it
means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun CharArray?.contentEquals(other: CharArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun <T> Array<out T>.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun ByteArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use
Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun ShortArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun IntArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun LongArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4
to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun FloatArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun DoubleArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun BooleanArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun CharArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on

the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun <T> Array<out T>?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun ByteArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun ShortArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic
 actual fun IntArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun LongArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun FloatArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun DoubleArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun BooleanArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n
 * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun CharArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun <T> Array<out T>.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun ByteArray.contentToString():
 String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun ShortArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun IntArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if
 it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun LongArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun FloatArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation

warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun DoubleArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun BooleanArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun CharArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun <T> Array<out T>?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun ByteArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun ShortArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun IntArray?.contentToString(): String {\n definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun LongArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun FloatArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun DoubleArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun BooleanArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun CharArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n *

\n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun <T> Array<out T>.copyInto(destination: Array<T>, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): Array<T> {\n   arrayCopy(this, destination, destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun ByteArray.copyInto(destination: ByteArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ByteArray {\n   arrayCopy(this.unsafeCast<Array<Byte>>(), destination.unsafeCast<Array<Byte>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun ShortArray.copyInto(destination: ShortArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ShortArray {\n   arrayCopy(this.unsafeCast<Array<Short>>(), destination.unsafeCast<Array<Short>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun IntArray.copyInto(destination: IntArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): IntArray {\n   arrayCopy(this.unsafeCast<Array<Int>>(), destination.unsafeCast<Array<Int>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun LongArray.copyInto(destination: LongArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): LongArray {\n   arrayCopy(this.unsafeCast<Array<Long>>(), destination.unsafeCast<Array<Long>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun FloatArray.copyInto(destination: FloatArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): FloatArray {\n   arrayCopy(this.unsafeCast<Array<Float>>(), destination.unsafeCast<Array<Float>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun DoubleArray.copyInto(destination: DoubleArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): DoubleArray {\n   arrayCopy(this.unsafeCast<Array<Double>>(), destination.unsafeCast<Array<Double>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun

BooleanArray.copyInto(destination: BooleanArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): BooleanArray {\n   arrayCopy(this.unsafeCast<Array<Boolean>>(), destination.unsafeCast<Array<Boolean>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array

indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun CharArray.copyInto(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): CharArray {\n   arrayCopy(this.unsafeCast<Array<Char>>(), destination.unsafeCast<Array<Char>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\", \"NOTHING_TO_INLINE\")\npublic actual inline fun <T> Array<out T>.copyOf(): Array<T> {\n   return this.asDynamic().slice()\n}\n\n/**\n

* Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun ByteArray.copyOf(): ByteArray {\n   return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun ShortArray.copyOf(): ShortArray {\n   return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun IntArray.copyOf(): IntArray {\n   return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic actual

fun LongArray.copyOf(): LongArray {\n   return withType(\"LongArray\", this.asDynamic().slice())\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun FloatArray.copyOf(): FloatArray {\n   return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun DoubleArray.copyOf(): DoubleArray {\n   return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic actual fun BooleanArray.copyOf(): BooleanArray {\n   return withType(\"BooleanArray\", this.asDynamic().slice())\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample

samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic actual fun CharArray.copyOf(): CharArray {\n   return withType(\"CharArray\", this.asDynamic().slice())\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun ByteArray.copyOf(newSize: Int): ByteArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return fillFrom(this, ByteArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun ShortArray.copyOf(newSize: Int): ShortArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return fillFrom(this, ShortArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun IntArray.copyOf(newSize: Int): IntArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return fillFrom(this, IntArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun LongArray.copyOf(newSize: Int): LongArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return withType(\"LongArray\", arrayCopyResize(this, newSize, 0L))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun FloatArray.copyOf(newSize: Int): FloatArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return fillFrom(this, FloatArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun DoubleArray.copyOf(newSize: Int): DoubleArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return fillFrom(this, DoubleArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with `false` values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with `false` values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun BooleanArray.copyOf(newSize: Int): BooleanArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return withType(\"BooleanArray\", arrayCopyResize(this, newSize, false))\n}\n\n/**\n * Returns new array which is a

copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with null char (`\\u0000`) values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with null char (`\\u0000`) values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun CharArray.copyOf(newSize: Int): CharArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return withType(\"CharArray\", fillFrom(this, CharArray(newSize)))\n}\n\n/**\n * Returns new array which is a copy of the original
 array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with `null` values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with `null` values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizingCopyOf\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\")\npublic actual fun <T> Array<out T>.copyOf(newSize: Int): Array<T?> {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return arrayCopyResize(this, newSize, null)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex]
 is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\")\npublic actual fun <T> Array<out T>.copyOfRange(fromIndex: Int, toIndex: Int): Array<T> {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun ByteArray.copyOfRange(fromIndex: Int, toIndex: Int): ByteArray {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return this.asDynamic().slice(fromIndex,
 toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun ShortArray.copyOfRange(fromIndex: Int, toIndex: Int): ShortArray {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of
 this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun IntArray.copyOfRange(fromIndex: Int, toIndex: Int): IntArray {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun LongArray.copyOfRange(fromIndex: Int, toIndex: Int): LongArray {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return withType(\"LongArray\", this.asDynamic().slice(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which

is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun FloatArray.copyOfRange(fromIndex: Int, toIndex: Int): FloatArray {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun DoubleArray.copyOfRange(fromIndex: Int, toIndex: Int): DoubleArray {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun BooleanArray.copyOfRange(fromIndex: Int, toIndex: Int): BooleanArray {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return withType(\"BooleanArray\", this.asDynamic().slice(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun CharArray.copyOfRange(fromIndex: Int, toIndex: Int): CharArray {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return withType(\"CharArray\", this.asDynamic().slice(fromIndex, toIndex))\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun <T> Array<T>.fill(element: T, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun ByteArray.fill(element: Byte, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic

actual fun ShortArray.fill(element: Short, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex
the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun IntArray.fill(element: Int, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex]
is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun LongArray.fill(element: Long, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun FloatArray.fill(element:
Float, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun DoubleArray.fill(element: Double, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or
its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun BooleanArray.fill(element: Boolean, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n

* \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun CharArray.fill(element: Char, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\", \"NOTHING_TO_INLINE\")\npublic actual inline operator fun <T> Array<out T>.plus(element: T): Array<T> {\n return this.asDynamic().concat(arrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun ByteArray.plus(element: Byte): ByteArray {\n return plus(byteArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun ShortArray.plus(element: Short): ShortArray {\n return plus(shortArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun IntArray.plus(element: Int): IntArray {\n return plus(intArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun LongArray.plus(element: Long): LongArray {\n return plus(longArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun FloatArray.plus(element: Float): FloatArray {\n return plus(floatArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun DoubleArray.plus(element: Double): DoubleArray {\n return plus(doubleArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun BooleanArray.plus(element: Boolean): BooleanArray {\n return plus(booleanArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun CharArray.plus(element: Char): CharArray {\n return plus(charArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\")\npublic actual operator fun <T> Array<out T>.plus(elements: Collection<T>): Array<T> {\n return arrayPlusCollection(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun ByteArray.plus(elements: Collection<Byte>): ByteArray {\n return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun ShortArray.plus(elements: Collection<Short>): ShortArray {\n return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun IntArray.plus(elements: Collection<Int>): IntArray {\n return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun LongArray.plus(elements: Collection<Long>): LongArray {\n return arrayPlusCollection(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun FloatArray.plus(elements: Collection<Float>): FloatArray {\n return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n *

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Returns an array containing all elements of the original array and then all elements of the given [elements]
collection.\n */\npublic actual operator fun DoubleArray.plus(elements: Collection<Double>): DoubleArray
 {\n    return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an
array containing all elements of the original array and then all elements of the given [elements] collection.\n
*/\npublic actual operator fun BooleanArray.plus(elements: Collection<Boolean>): BooleanArray {\n    return
arrayPlusCollection(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and
then all elements of the given [elements] collection.\n */\npublic actual operator fun CharArray.plus(elements:
Collection<Char>): CharArray {\n    return fillFromCollection(this.copyOf(size + elements.size), this.size,
elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the
given [elements] array.\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\",
\"NOTHING_TO_INLINE\")\npublic actual inline operator fun <T> Array<out T>.plus(elements: Array<out T>):
Array<T> {\n    return this.asDynamic().concat(elements)\n}\n\n/**\n
 * Returns an array containing all elements of the original array and then all elements of the given [elements]
array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun ByteArray.plus(elements:
ByteArray): ByteArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing
all elements of the original array and then all elements of the given [elements] array.\n
*/\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun ShortArray.plus(elements:
ShortArray): ShortArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array
containing all elements of the original array and then all elements of the given [elements] array.\n
*/\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun IntArray.plus(elements: IntArray):
IntArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of
the original array
 and then all elements of the given [elements] array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual
inline operator fun LongArray.plus(elements: LongArray): LongArray {\n    return primitiveArrayConcat(this,
elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the
given [elements] array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun
FloatArray.plus(elements: FloatArray): FloatArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n *
Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n
*/\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun DoubleArray.plus(elements:
DoubleArray): DoubleArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array
containing all elements of the original array and then all elements of the given [elements] array.\n
*/\n@Suppress(\"NOTHING_TO_INLINE\")\npublic
 actual inline operator fun BooleanArray.plus(elements: BooleanArray): BooleanArray {\n    return
primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array
and then all elements of the given [elements] array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual
inline operator fun CharArray.plus(elements: CharArray): CharArray {\n    return primitiveArrayConcat(this,
elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given
[element].\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\", \"NOTHING_TO_INLINE\")\npublic actual
inline fun <T> Array<out T>.plusElement(element: T): Array<T> {\n    return
this.asDynamic().concat(arrayOf(element))\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n */\n@library(\"primitiveArraySort\")\npublic actual fun
IntArray.sort(): Unit {\n    definedExternally\n}\n\n/**\n * Sorts the array in-place.\n
 * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic actual fun LongArray.sort(): Unit {\n
@Suppress(\"DEPRECATION\")\n    if (size > 1) sort { a: Long, b: Long -> a.compareTo(b) }\n}\n\n/**\n * Sorts
the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n
*/\n@library(\"primitiveArraySort\")\npublic actual fun ByteArray.sort(): Unit {\n    definedExternally\n}\n\n/**\n
* Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n
*/\n@library(\"primitiveArraySort\")\npublic actual fun ShortArray.sort(): Unit {\n    definedExternally\n}\n\n/**\n
```

* Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n
*/\n@library(\"primitiveArraySort\")\npublic actual fun DoubleArray.sort(): Unit {\n
definedExternally\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n */\n@library(\"primitiveArraySort\")\npublic actual fun
FloatArray.sort():
Unit {\n   definedExternally\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n */\n@library(\"primitiveArraySort\")\npublic actual fun
CharArray.sort(): Unit {\n   definedExternally\n}\n\n/**\n * Sorts the array in-place according to the natural order
of its elements.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other
after sorting.\n * \n * @sample samples.collections.Arrays.Sorting.sortArrayOfComparable\n */\npublic actual fun
<T : Comparable<T>> Array<out T>.sort(): Unit {\n   if (size > 1) sortArray(this)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n * \n * The sort is _stable_. It means that
equal elements preserve their order relative to each other after sorting.\n */\n@Deprecated(\"Use sortWith instead\",
ReplaceWith(\"this.sortWith(Comparator(comparison))\"))\n@DeprecatedSinceKotlin(warningSince
= \"1.6\")\npublic fun <T> Array<out T>.sort(comparison: (a: T, b: T) -> Int): Unit {\n   if (size > 1)
sortArrayWith(this, comparison)\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * The sort is _stable_. It
means that equal elements preserve their order relative to each other after sorting.\n * \n * @param fromIndex the
start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size
of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex]
is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than
[toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArrayOfComparable\n
*/\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic
actual fun <T : Comparable<T>> Array<out T>.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex,
toIndex, size)\n   sortArrayWith(this, fromIndex, toIndex, naturalOrder())\n}\n\n/**\n * Sorts a range in the array
in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the
end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if
[fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample
samples.collections.Arrays.Sorting.sortRangeOfArray\n
*/\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic
actual fun ByteArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val subarray =
this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<ByteArray>()\n   subarray.sort()\n}\n\n/**\n * Sorts a
range in the array in-place.\n * \n * @param
fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range
(exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is
less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if
[fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n
*/\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic
actual fun ShortArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val subarray =
this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<ShortArray>()\n   subarray.sort()\n}\n\n/**\n * Sorts a
range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n *
@param toIndex the end of the range (exclusive) to sort, size of this array by default.\n
* \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of
this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample
samples.collections.Arrays.Sorting.sortRangeOfArray\n

*/\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun IntArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val subarray = this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<IntArray>()\n   subarray.sort()\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun LongArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArrayWith(this.unsafeCast<Array<Long>>(), fromIndex, toIndex, naturalOrder())\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun FloatArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val subarray = this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<FloatArray>()\n   subarray.sort()\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun DoubleArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val subarray = this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<DoubleArray>()\n subarray.sort()\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun CharArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val subarray = this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<CharArray>()\n   subarray.sort()\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.sort(noinline comparison: (a: Byte, b: Byte) -> Int): Unit {\n   asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.sort(noinline comparison: (a: Short, b: Short) -> Int): Unit {\n asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given

[comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.sort(noinline comparison: (a: Int, b: Int) -> Int): Unit {\n asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.sort(noinline comparison: (a: Long, b: Long) -> Int): Unit {\n asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.sort(noinline comparison: (a: Float, b: Float) -> Int): Unit {\n asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.sort(noinline comparison: (a: Double, b: Double) -> Int): Unit {\n asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.sort(noinline comparison: (a: Char, b: Char) -> Int): Unit {\n asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic actual fun <T> Array<out T>.sortWith(comparator: Comparator<in T>): Unit {\n   if (size > 1) sortArrayWith(this, comparator)\n}\n\n/**\n * Sorts a range in the array in-place with the given [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun <T> Array<out T>.sortWith(comparator: Comparator<in T>, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArrayWith(this, fromIndex, toIndex, comparator)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic actual fun ByteArray.toTypedArray(): Array<Byte> {\n return js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic actual fun ShortArray.toTypedArray(): Array<Short> {\n   return js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic actual fun IntArray.toTypedArray(): Array<Int> {\n   return js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic actual fun LongArray.toTypedArray(): Array<Long> {\n   return js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic actual fun FloatArray.toTypedArray(): Array<Float> {\n   return js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic actual fun DoubleArray.toTypedArray(): Array<Double> {\n   return js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic actual fun BooleanArray.toTypedArray(): Array<Boolean> {\n   return js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic actual fun

CharArray.toTypedArray(): Array<Char> {\n   return Array(size) { index -> this[index] }\n}\n\n","/*\n * Copyright
2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n@file:kotlin.jvm.JvmName(\"ComparisonsKt\")\n@file:kotlin.jvm.JvmMultifileClass\n\npackage
kotlin.comparisons\n\n/**\n * Compares two values using the specified functions
 [selectors] to calculate the result of the comparison.\n * The functions are called sequentially, receive the given
values [a] and [b] and return [Comparable]\n * objects. As soon as the [Comparable] instances returned by a
function for [a] and [b] values do not\n * compare as equal, the result of that comparison is returned.\n *\n *
@sample samples.comparisons.Comparisons.compareValuesByWithSelectors\n */\npublic fun <T>
compareValuesBy(a: T, b: T, vararg selectors: (T) -> Comparable<*>?): Int {\n   require(selectors.size > 0)\n
return compareValuesByImpl(a, b, selectors)\n}\n\nprivate fun <T> compareValuesByImpl(a: T, b: T, selectors:
Array<out (T) -> Comparable<*>?>): Int {\n   for (fn in selectors) {\n   val v1 = fn(a)\n   val v2 = fn(b)\n
val diff = compareValues(v1, v2)\n   if (diff != 0) return diff\n   }\n   return 0\n}\n\n/**\n * Compares two
values using the specified [selector] function to calculate the result of the comparison.\n * The function
 is applied to the given values [a] and [b] and return [Comparable] objects.\n * The result of comparison of these
[Comparable] instances is returned.\n *\n * @sample
samples.comparisons.Comparisons.compareValuesByWithSingleSelector\n */\n@kotlin.internal.InlineOnly\npublic
inline fun <T> compareValuesBy(a: T, b: T, selector: (T) -> Comparable<*>?): Int {\n   return
compareValues(selector(a), selector(b))\n}\n\n/**\n * Compares two values using the specified [selector] function to
calculate the result of the comparison.\n * The function is applied to the given values [a] and [b] and return objects
of type K which are then being\n * compared with the given [comparator].\n *\n * @sample
samples.comparisons.Comparisons.compareValuesByWithComparator\n */\n@kotlin.internal.InlineOnly\npublic
inline fun <T, K> compareValuesBy(a: T, b: T, comparator: Comparator<in K>, selector: (T) -> K): Int {\n   return
comparator.compare(selector(a), selector(b))\n}\n\n//// Not so useful without type
 inference for receiver of expression\n//// compareValuesWith(v1, v2, compareBy { it.prop1 } thenByDescending {
it.prop2 })\n///**\n// * Compares two values using the specified [comparator].\n//
*/\n//@Suppress(\"NOTHING_TO_INLINE\")\n//public inline fun <T> compareValuesWith(a: T, b: T, comparator:
Comparator<T>): Int = comparator.compare(a, b)\n//\n\n\n/**\n * Compares two nullable [Comparable] values. Null
is considered less than any value.\n *\n * @sample samples.comparisons.Comparisons.compareValues\n */\npublic
fun <T : Comparable<*>> compareValues(a: T?, b: T?): Int {\n   if (a === b) return 0\n   if (a == null) return -1\n
if (b == null) return 1\n\n   @Suppress(\"UNCHECKED_CAST\")\n   return (a as
Comparable<Any>).compareTo(b)\n}\n\n/**\n * Creates a comparator using the sequence of functions to calculate a
result of comparison.\n * The functions are called sequentially, receive the given values `a` and `b` and return
[Comparable]\n * objects. As soon as the [Comparable]
 instances returned by a function for `a` and `b` values do not\n * compare as equal, the result of that comparison is
returned from the [Comparator].\n *\n * @sample samples.comparisons.Comparisons.compareByWithSelectors\n
/\npublic fun <T> compareBy(vararg selectors: (T) -> Comparable<>?): Comparator<T> {\n
require(selectors.size > 0)\n   return Comparator { a, b -> compareValuesByImpl(a, b, selectors) }\n}\n\n\n/**\n *
Creates a comparator using the function to transform value to a [Comparable] instance for comparison.\n *\n *
@sample samples.comparisons.Comparisons.compareByWithSingleSelector\n
/\n@kotlin.internal.InlineOnly\npublic inline fun <T> compareBy(crossinline selector: (T) -> Comparable<>?):
Comparator<T> =\n   Comparator { a, b -> compareValuesBy(a, b, selector) }\n\n/**\n * Creates a comparator
using the [selector] function to transform values being compared and then applying\n * the specified [comparator] to
compare transformed values.\n *\n * @sample samples.comparisons.Comparisons.compareByWithComparator\n
 */\n@kotlin.internal.InlineOnly\npublic inline fun <T, K> compareBy(comparator: Comparator<in K>, crossinline
selector: (T) -> K): Comparator<T> =\n   Comparator { a, b -> compareValuesBy(a, b, comparator, selector)
}\n\n/**\n * Creates a descending comparator using the function to transform value to a [Comparable] instance for
comparison.\n *\n * @sample samples.comparisons.Comparisons.compareByDescendingWithSingleSelector\n

/\n@kotlin.internal.InlineOnly\npublic inline fun <T> compareByDescending(crossinline selector: (T) -> Comparable<>?): Comparator<T> =\n   Comparator { a, b -> compareValuesBy(b, a, selector) }\n\n/**\n * Creates a descending comparator using the [selector] function to transform values being compared and then applying\n * the specified [comparator] to compare transformed values.\n *\n * Note that an order of [comparator] is reversed by this wrapper.\n *\n * @sample samples.comparisons.Comparisons.compareByDescendingWithComparator\n

*/\n@kotlin.internal.InlineOnly\npublic inline fun <T, K> compareByDescending(comparator: Comparator<in K>, crossinline selector: (T) -> K): Comparator<T> =\n   Comparator { a, b -> compareValuesBy(b, a, comparator, selector) }\n\n/**\n * Creates a comparator comparing values after the primary comparator defined them equal. It uses\n * the function to transform value to a [Comparable] instance for comparison.\n *\n * @sample samples.comparisons.Comparisons.thenBy\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Comparator<T>.thenBy(crossinline selector: (T) -> Comparable<*>?): Comparator<T> =\n   Comparator { a, b ->\n   val previousCompare = this@thenBy.compare(a, b)\n   if (previousCompare != 0) previousCompare else compareValuesBy(a, b, selector)\n   }\n\n/**\n * Creates a comparator comparing values after the primary comparator defined them equal. It uses\n * the [selector] function to transform values and then compares them with the given

[comparator].\n *\n * @sample samples.comparisons.Comparisons.thenByWithComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T, K> Comparator<T>.thenBy(comparator: Comparator<in K>, crossinline selector: (T) -> K): Comparator<T> =\n   Comparator { a, b ->\n   val previousCompare = this@thenBy.compare(a, b)\n   if (previousCompare != 0) previousCompare else compareValuesBy(a, b, comparator, selector)\n   }\n\n/**\n * Creates a descending comparator using the primary comparator and\n * the function to transform value to a [Comparable] instance for comparison.\n *\n * @sample samples.comparisons.Comparisons.thenByDescending\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Comparator<T>.thenByDescending(crossinline selector: (T) -> Comparable<*>?): Comparator<T> =\n   Comparator { a, b ->\n   val previousCompare = this@thenByDescending.compare(a, b)\n   if (previousCompare != 0) previousCompare else compareValuesBy(b, a, selector)\n   }\n\n/**\n

* Creates a descending comparator comparing values after the primary comparator defined them equal. It uses\n * the [selector] function to transform values and then compares them with the given [comparator].\n *\n * @sample samples.comparisons.Comparisons.thenByDescendingWithComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T, K> Comparator<T>.thenByDescending(comparator: Comparator<in K>, crossinline selector: (T) -> K): Comparator<T> =\n   Comparator { a, b ->\n   val previousCompare = this@thenByDescending.compare(a, b)\n   if (previousCompare != 0) previousCompare else compareValuesBy(b, a, comparator, selector)\n   }\n\n\n/**\n * Creates a comparator using the primary comparator and function to calculate a result of comparison.\n *\n * @sample samples.comparisons.Comparisons.thenComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Comparator<T>.thenComparator(crossinline comparison: (a: T, b: T) -> Int): Comparator<T> =\n   Comparator {

a, b ->\n   val previousCompare = this@thenComparator.compare(a, b)\n   if (previousCompare != 0) previousCompare else comparison(a, b)\n   }\n\n/**\n * Combines this comparator and the given [comparator] such that the latter is applied only\n * when the former considered values equal.\n *\n * @sample samples.comparisons.Comparisons.then\n */\npublic infix fun <T> Comparator<T>.then(comparator: Comparator<in T>): Comparator<T> =\n   Comparator { a, b ->\n   val previousCompare = this@then.compare(a, b)\n   if (previousCompare != 0) previousCompare else comparator.compare(a, b)\n   }\n\n/**\n * Combines this comparator and the given [comparator] such that the latter is applied only\n * when the former considered values equal.\n *\n * @sample samples.comparisons.Comparisons.thenDescending\n */\npublic infix fun <T> Comparator<T>.thenDescending(comparator: Comparator<in T>): Comparator<T> =\n   Comparator<T> { a, b ->\n   val previousCompare = this@thenDescending.compare(a,

b)\n   if (previousCompare != 0) previousCompare else comparator.compare(b, a)\n   }\n\n// Not so useful without type inference for receiver of expression\n/**\n * Extends the given [comparator] of non-nullable values to a comparator of nullable values\n * considering `null` value less than any other value.\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastWithComparator\n */\npublic fun <T : Any> nullsFirst(comparator: Comparator<in T>): Comparator<T?> =\n   Comparator { a, b ->\n   when {\n   a === b -> 0\n   a == null -> -1\n   b == null -> 1\n   else -> comparator.compare(a, b)\n   }\n   }\n\n/**\n * Provides a comparator of nullable [Comparable] values\n * considering `null` value less than any other value.\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T : Comparable<T>> nullsFirst(): Comparator<T?> = nullsFirst(naturalOrder())\n\n/**\n

* Extends the given [comparator] of non-nullable values to a comparator of nullable values\n * considering `null` value greater than any other value.\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastWithComparator\n */\npublic fun <T : Any> nullsLast(comparator: Comparator<in T>): Comparator<T?> =\n   Comparator { a, b ->\n   when {\n   a === b -> 0\n   a == null -> 1\n   b == null -> -1\n   else -> comparator.compare(a, b)\n   }\n   }\n\n/**\n * Provides a comparator of nullable [Comparable] values\n * considering `null` value greater than any other value.\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T : Comparable<T>> nullsLast(): Comparator<T?> = nullsLast(naturalOrder())\n\n/**\n * Returns a comparator that compares [Comparable] objects in natural order.\n *\n * @sample samples.comparisons.Comparisons.naturalOrderComparator\n

*/\npublic fun <T : Comparable<T>> naturalOrder(): Comparator<T> = @Suppress(\"UNCHECKED_CAST\") (NaturalOrderComparator as Comparator<T>)\n\n/**\n * Returns a comparator that compares [Comparable] objects in reversed natural order.\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastWithComparator\n */\npublic fun <T : Comparable<T>> reverseOrder(): Comparator<T> = @Suppress(\"UNCHECKED_CAST\") (ReverseOrderComparator as Comparator<T>)\n\n/**\n * Returns a comparator that imposes the reverse ordering of this comparator.\n *\n * @sample samples.comparisons.Comparisons.reversed\n */\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\")\npublic fun <T> Comparator<T>.reversed(): Comparator<T> = when (this) {\n   is ReversedComparator -> this.comparator\n   NaturalOrderComparator -> @Suppress(\"UNCHECKED_CAST\") (ReverseOrderComparator as Comparator<T>)\n   ReverseOrderComparator -> @Suppress(\"UNCHECKED_CAST\") (NaturalOrderComparator as Comparator<T>)\n   else -> ReversedComparator(this)\n}\n\n\nprivate

class ReversedComparator<T>(public val comparator: Comparator<T>) : Comparator<T> {\n   override fun compare(a: T, b: T): Int = comparator.compare(b, a)\n   @Suppress(\"VIRTUAL_MEMBER_HIDDEN\")\n   fun reversed(): Comparator<T> = comparator\n}\n\nprivate object NaturalOrderComparator : Comparator<Comparable<Any>> {\n   override fun compare(a: Comparable<Any>, b: Comparable<Any>): Int = a.compareTo(b)\n   @Suppress(\"VIRTUAL_MEMBER_HIDDEN\")\n   fun reversed(): Comparator<Comparable<Any>> = ReverseOrderComparator\n}\n\nprivate object ReverseOrderComparator : Comparator<Comparable<Any>> {\n   override fun compare(a: Comparable<Any>, b: Comparable<Any>): Int = b.compareTo(a)\n   @Suppress(\"VIRTUAL_MEMBER_HIDDEN\")\n   fun reversed(): Comparator<Comparable<Any>> = NaturalOrderComparator\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can

be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StandardKt\")\npackage kotlin\n\nimport kotlin.contracts.*\n\n/**\n * An exception is thrown to indicate that a method body remains to be implemented.\n */\npublic class NotImplementedError(message: String = \"An operation is not implemented.\") : Error(message)\n\n/**\n * Always throws [NotImplementedError] stating that operation is not implemented.\n */\n\n@kotlin.internal.InlineOnly\npublic inline fun TODO(): Nothing = throw NotImplementedError()\n\n/**\n * Always throws [NotImplementedError] stating that operation is not implemented.\n *\n * @param reason a string explaining why the implementation is missing.\n */\n@kotlin.internal.InlineOnly\npublic inline fun TODO(reason:

String): Nothing = throw NotImplementedError(\"An operation is not implemented: $reason\")\n\n\n\n/**\n * Calls the specified function [block] and returns its result.\n *\n * For detailed usage information
see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#run).\n */\n@kotlin.internal.InlineOnly\npublic inline fun <R> run(block: () -> R): R {\n   contract {\n callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n   return block()\n}\n\n/**\n * Calls the specified function [block] with `this` value as its receiver and returns its result.\n *\n * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#run).\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> T.run(block: T.() -> R): R {\n   contract {\n callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n   return block()\n}\n\n/**\n * Calls the specified function [block] with the given [receiver] as its receiver and returns its result.\n *\n * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#with).\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> with(receiver: T, block: T.() -> R): R {\n   contract {\n
callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n   return receiver.block()\n}\n\n/**\n * Calls the specified function [block] with `this` value as its receiver and returns `this` value.\n *\n * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#apply).\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> T.apply(block: T.() -> Unit): T {\n
contract {\n   callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n   block()\n   return this\n}\n\n/**\n * Calls the specified function [block] with `this` value as its argument and returns `this` value.\n *\n * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#also).\n */\n@kotlin.internal.InlineOnly\n@SinceKotlin(\"1.1\")\npublic
inline fun <T> T.also(block: (T) -> Unit): T {\n   contract {\n   callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n   block(this)\n   return this\n}\n\n/**\n * Calls the specified function [block] with `this` value as its argument and returns its result.\n *\n * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#let).\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> T.let(block: (T) -> R): R {\n   contract {\n callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n   return block(this)\n}\n\n/**\n * Returns `this` value if it satisfies the given [predicate] or `null`, if it doesn't.\n *\n * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#takeif-and-takeunless).\n */\n@kotlin.internal.InlineOnly\n@SinceKotlin(\"1.1\")\npublic inline fun <T> T.takeIf(predicate: (T) -> Boolean):
T? {\n   contract {\n   callsInPlace(predicate, InvocationKind.EXACTLY_ONCE)\n   }\n   return if (predicate(this)) this else null\n}\n\n/**\n * Returns `this` value if it _does not_ satisfy the given [predicate] or `null`, if it does.\n *\n * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#takeif-and-takeunless).\n */\n@kotlin.internal.InlineOnly\n@SinceKotlin(\"1.1\")\npublic inline fun <T> T.takeUnless(predicate: (T) -> Boolean): T? {\n   contract {\n   callsInPlace(predicate, InvocationKind.EXACTLY_ONCE)\n   }\n   return if (!predicate(this)) this else null\n}\n\n/**\n * Executes the given function [action] specified number of [times].\n *\n * A zero-based index of current iteration is passed as a parameter to [action].\n *\n * @sample samples.misc.ControlFlow.repeat\n */\n@kotlin.internal.InlineOnly\npublic inline fun repeat(times: Int, action: (Int) -> Unit) {\n   contract {
callsInPlace(action) }\n\n   for (index in 0 until times) {\n   action(index)\n   }\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.comparisons\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.js.*\n\n/**\n * Returns the greater of two values.\n * \n * If values are equal, returns the first one.\n */\n@SinceKotlin(\"1.1\")\npublic actual fun <T : Comparable<T>> maxOf(a: T, b: T): T {\n   return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two

values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Byte, b: Byte): Byte {\n   return maxOf(a.toInt(), b.toInt()).unsafeCast<Byte>()\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Short, b: Short): Short {\n   return maxOf(a.toInt(), b.toInt()).unsafeCast<Short>()\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Int, b: Int): Int {\n   return JsMath.max(a, b)\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun maxOf(a: Long, b: Long): Long {\n   return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Float, b: Float): Float {\n   return JsMath.max(a, b)\n}\n\n/**\n * Returns the greater of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline
fun maxOf(a: Double, b: Double): Double {\n   return JsMath.max(a, b)\n}\n\n/**\n * Returns the greater of three values.\n * \n * If there are multiple equal maximal values, returns the first of them.\n */\n@SinceKotlin(\"1.1\")\npublic actual fun <T : Comparable<T>> maxOf(a: T, b: T, c: T): T {\n   return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Byte, b: Byte, c: Byte): Byte {\n   return JsMath.max(a.toInt(), b.toInt(), c.toInt()).unsafeCast<Byte>()\n}\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Short, b: Short, c: Short): Short {\n   return JsMath.max(a.toInt(), b.toInt(), c.toInt()).unsafeCast<Short>()\n}\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Int, b: Int, c: Int):
Int {\n   return JsMath.max(a, b, c)\n}\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Long, b: Long, c: Long): Long {\n   return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Float, b: Float, c: Float): Float {\n   return JsMath.max(a, b, c)\n}\n\n/**\n * Returns the greater of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Double, b: Double, c: Double): Double {\n   return JsMath.max(a, b, c)\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If there are multiple equal maximal values, returns the first of them.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun <T : Comparable<T>> maxOf(a: T, vararg other:
T): T {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun maxOf(a: Byte, vararg other: Byte): Byte {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun maxOf(a: Short, vararg other: Short): Short {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun maxOf(a: Int, vararg other: Int): Int {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun maxOf(a: Long, vararg other: Long): Long {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of
the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun maxOf(a: Float, vararg other: Float): Float {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun maxOf(a: Double, vararg other: Double): Double {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the smaller of two values.\n * \n * If values are equal, returns the first one.\n */\n@SinceKotlin(\"1.1\")\npublic actual fun <T : Comparable<T>> minOf(a: T, b: T): T {\n   return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Byte, b: Byte): Byte {\n

return minOf(a.toInt(), b.toInt()).unsafeCast<Byte>()\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Short, b: Short): Short {\n   return minOf(a.toInt(), b.toInt()).unsafeCast<Short>()\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Int, b: Int): Int {\n return JsMath.min(a, b)\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun minOf(a: Long, b: Long): Long {\n   return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Float, b: Float): Float {\n   return JsMath.min(a, b)\n}\n\n/**\n * Returns the smaller of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Double, b: Double): Double {\n   return JsMath.min(a, b)\n}\n\n/**\n * Returns the smaller of three values.\n * \n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin(\"1.1\")\npublic actual fun <T : Comparable<T>> minOf(a: T, b: T, c: T): T {\n   return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Byte, b: Byte, c: Byte): Byte {\n   return JsMath.min(a.toInt(), b.toInt(), c.toInt()).unsafeCast<Byte>()\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Short, b: Short, c: Short): Short {\n   return JsMath.min(a.toInt(), b.toInt(), c.toInt()).unsafeCast<Short>()\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Int, b: Int, c: Int): Int {\n   return JsMath.min(a, b, c)\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Long, b: Long, c: Long): Long {\n   return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Float, b: Float, c: Float): Float {\n   return JsMath.min(a, b, c)\n}\n\n/**\n * Returns the smaller of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Double, b: Double, c: Double): Double {\n   return JsMath.min(a, b, c)\n}\n\n/**\n * Returns the smaller of the given values.\n * \n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun <T : Comparable<T>> minOf(a: T, vararg other: T): T {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun minOf(a: Byte, vararg other: Byte): Byte {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun minOf(a: Short, vararg other: Short): Short {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun minOf(a: Int, vararg other: Int): Int {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun minOf(a: Long, vararg other: Long): Long {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun minOf(a: Float, vararg other: Float): Float {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun minOf(a: Double, vararg other: Double): Double {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.experimental.*\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@JvmInline\npu blic value class ULong @PublishedApi internal constructor(@PublishedApi internal val data: Long) : Comparable<ULong> {\n\n companion object {\n /**\n * A constant holding the minimum value an instance of ULong can have.\n */\n public const val MIN_VALUE: ULong = ULong(0)\n\n /**\n * A constant holding the maximum value an instance of ULong can have.\n */\n public const val MAX_VALUE: ULong = ULong(-1)\n\n /**\n * The number of bytes used to represent an instance of ULong in a binary form.\n */\n public const val SIZE_BYTES: Int = 8\n\n /**\n * The number of bits used to represent an instance of ULong in a binary form.\n */\n public const val SIZE_BITS: Int = 64\n }\n\n /**\n * Compares this value with the specified value for order.\n * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n * or a positive number if it's greater than other.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun compareTo(other: UByte): Int = this.compareTo(other.toULong())\n\n /**\n * Compares this value with the specified value for order.\n * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n * or a positive number if it's greater than other.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun compareTo(other: UShort): Int = this.compareTo(other.toULong())\n\n /**\n * Compares this value with the specified value for order.\n * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n * or a positive number if it's greater than other.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun compareTo(other: UInt): Int = this.compareTo(other.toULong())\n\n /**\n * Compares this value with the specified value for order.\n * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n * or a positive number if it's greater than other.\n */\n @kotlin.internal.InlineOnly\n @Suppress(\"OVERRIDE_BY_INLINE\")\n public override inline operator fun compareTo(other: ULong): Int = ulongCompare(this.data, other.data)\n\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: UByte): ULong = this.plus(other.toULong())\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: UShort): ULong = this.plus(other.toULong())\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: UInt): ULong = this.plus(other.toULong())\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: ULong): ULong = ULong(this.data.plus(other.data))\n\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: UByte): ULong = this.minus(other.toULong())\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: UShort): ULong = this.minus(other.toULong())\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: UInt): ULong = this.minus(other.toULong())\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: ULong): ULong = ULong(this.data.minus(other.data))\n\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: UByte): ULong = this.times(other.toULong())\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: UShort): ULong = this.times(other.toULong())\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: UInt): ULong = this.times(other.toULong())\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: ULong): ULong = ULong(this.data.times(other.data))\n\n /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: UByte): ULong = this.div(other.toULong())\n /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: UShort): ULong = this.div(other.toULong())\n /** Divides this value by the other value, truncating the result to an integer that is closer to zero.

 */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UInt): ULong =
this.div(other.toULong())\n   /** Divides this value by the other value, truncating the result to an integer that is
closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: ULong): ULong =
ulongDivide(this, other)\n\n   /**\n   * Calculates the remainder of truncating division of this value by the other
value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public
inline operator fun rem(other: UByte): ULong = this.rem(other.toULong())\n   /**\n   * Calculates the remainder
of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n
*/\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UShort): ULong =
this.rem(other.toULong())\n   /**\n   * Calculates the remainder of truncating division of this value
 by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n
public inline operator fun rem(other: UInt): ULong = this.rem(other.toULong())\n   /**\n   * Calculates the
remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the
divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: ULong): ULong =
ulongRemainder(this, other)\n\n   /**\n   * Divides this value by the other value, flooring the result to an integer
that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating
division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UByte): ULong =
this.floorDiv(other.toULong())\n   /**\n   * Divides this value by the other value, flooring the result to an integer
that is closer to negative infinity.\n   *
 \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n
@kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UShort): ULong =
this.floorDiv(other.toULong())\n   /**\n   * Divides this value by the other value, flooring the result to an integer
that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating
division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UInt): ULong =
this.floorDiv(other.toULong())\n   /**\n   * Divides this value by the other value, flooring the result to an integer
that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating
division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: ULong): ULong =
div(other)\n\n   /**\n   * Calculates the remainder of flooring division of
 this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned
types, the remainders of flooring division and truncating division are the same.\n   */\n
@kotlin.internal.InlineOnly\n   public inline fun mod(other: UByte): UByte =
this.mod(other.toULong()).toUByte()\n   /**\n   * Calculates the remainder of flooring division of this value by the
other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders
of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline
fun mod(other: UShort): UShort = this.mod(other.toULong()).toUShort()\n   /**\n   * Calculates the remainder of
flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n
* For unsigned types, the remainders of flooring division and truncating division are the same.\n
     */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UInt): UInt =
this.mod(other.toULong()).toUInt()\n   /**\n   * Calculates the remainder of flooring division of this value by the
other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders
of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline
fun mod(other: ULong): ULong = rem(other)\n\n   /**\n   * Returns this value incremented by one.\n   *\n   *
@sample samples.misc.Builtins.inc\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun inc():
ULong = ULong(data.inc())\n\n   /**\n   * Returns this value decremented by one.\n   *\n   * @sample
samples.misc.Builtins.dec\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun dec(): ULong =
ULong(data.dec())\n\n   /** Creates a range from this value to the specified [other] value.
 */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rangeTo(other: ULong): ULongRange =
ULongRange(this, other)\n\n   /**\n   * Shifts this value left by the [bitCount] number of bits.\n   *\n   * Note
that only the six lowest-order bits of the [bitCount] are used as the shift distance.\n   * The shift distance actually

used is therefore always in the range `0..63`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline infix fun shl(bitCount: Int): ULong = ULong(data shl bitCount)\n\n   /**\n   * Shifts this value right by the [bitCount] number of bits, filling the leftmost bits with zeros.\n   *\n   * Note that only the six lowest-order bits of the [bitCount] are used as the shift distance.\n   * The shift distance actually used is therefore always in the range `0..63`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline infix fun shr(bitCount: Int): ULong = ULong(data ushr bitCount)\n\n   /** Performs a bitwise AND operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun and(other: ULong): ULong = ULong(this.data and other.data)\n   /** Performs a bitwise OR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun or(other: ULong): ULong = ULong(this.data or other.data)\n   /** Performs a bitwise XOR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun xor(other: ULong): ULong = ULong(this.data xor other.data)\n   /** Inverts the bits in this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun inv(): ULong = ULong(data.inv())\n\n   /**\n   * Converts this [ULong] value to [Byte].\n   *\n   * If this value is less than or equals to [Byte.MAX_VALUE], the resulting `Byte` value represents\n   * the same numerical value as this `ULong`.\n   *\n   * The resulting `Byte` value is represented by the least significant 8 bits of this `ULong` value.\n   * Note that the resulting `Byte` value may be negative.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toByte(): Byte = data.toByte()\n   /**\n   * Converts this [ULong] value to [Short].\n   *\n   * If this value is less than or equals to [Short.MAX_VALUE], the resulting `Short` value represents\n   * the same numerical value as this `ULong`.\n   *\n   * The resulting `Short` value is represented by the least significant 16 bits of this `ULong` value.\n   * Note that the resulting `Short` value may be negative.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toShort(): Short = data.toShort()\n   /**\n   * Converts this [ULong] value to [Int].\n   *\n   * If this value is less than or equals to [Int.MAX_VALUE], the resulting `Int` value represents\n   * the same numerical value as this `ULong`.\n   *\n   * The resulting `Int` value is represented by the least significant 32 bits of this `ULong` value.\n   * Note that the resulting `Int` value may be negative.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toInt(): Int = data.toInt()\n   /**\n   * Converts this [ULong] value to [Long].\n   *\n   * If this value is less than or equals to [Long.MAX_VALUE], the resulting `Long` value represents\n   * the same numerical value as this `ULong`. Otherwise the result is negative.\n   *\n   * The resulting `Long` value has the same binary representation as this `ULong` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toLong(): Long = data\n\n   /**\n   * Converts this [ULong] value to [UByte].\n   *\n   * If this value is less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\n   * the same numerical value as this `ULong`.\n   *\n   * The resulting `UByte` value is represented by the least significant 8 bits of this `ULong` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUByte(): UByte = data.toUByte()\n   /**\n   * Converts this [ULong] value to [UShort].\n   *\n   * If this value is less than or equals to [UShort.MAX_VALUE], the resulting `UShort` value represents\n   * the same numerical value as this `ULong`.\n   *\n   * The resulting `UShort` value is represented by the least significant 16 bits of this `ULong` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUShort(): UShort = data.toUShort()\n   /**\n   * Converts this [ULong] value to [UInt].\n   *\n   * If this value is less than or equals to [UInt.MAX_VALUE], the resulting `UInt` value represents\n   * the same numerical value as this `ULong`.\n   *\n   * The resulting `UInt` value is represented by the least significant 32 bits of this `ULong` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUInt(): UInt = data.toUInt()\n   /** Returns this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun toULong(): ULong = this\n\n   /**\n * Converts this [ULong] value to [Float].\n   *\n   * The resulting value is the closest `Float` to this `ULong` value.\n   * In case when this `ULong` value is exactly between two `Float`s,\n   * the one with zero at least significant bit of mantissa is selected.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toFloat(): Float = this.toDouble().toFloat()\n   /**\n   * Converts this [ULong] value to [Double].\n   *\n   * The resulting value is the closest `Double` to this `ULong` value.\n   * In case when this `ULong` value is exactly between two `Double`s,\n   * the one with zero at least significant bit of mantissa is selected.\n   */\n

@kotlin.internal.InlineOnly\n   public inline fun toDouble(): Double = ulongToDouble(data)\n\n   public override fun toString(): String = ulongToString(data)\n\n}\n\n/**\n * Converts this [Byte] value to [ULong].\n *\n * If this value is positive, the resulting `ULong` value represents the same numerical value
 as this `Byte`.\n *\n * The least significant 8 bits of the resulting `ULong` value are the same as the bits of this `Byte` value,\n * whereas the most significant 56 bits are filled with the sign bit of this value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.toULong(): ULong = ULong(this.toLong())\n/**\n * Converts this [Short] value to [ULong].\n *\n * If this value is positive, the resulting `ULong` value represents the same numerical value as this `Short`.\n *\n * The least significant 16 bits of the resulting `ULong` value are the same as the bits of this `Short` value,\n * whereas the most significant 48 bits are filled with the sign bit of this value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.toULong(): ULong = ULong(this.toLong())\n/**\n * Converts this [Int] value to [ULong].\n *\n * If this value
 is positive, the resulting `ULong` value represents the same numerical value as this `Int`.\n *\n * The least significant 32 bits of the resulting `ULong` value are the same as the bits of this `Int` value,\n * whereas the most significant 32 bits are filled with the sign bit of this value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Int.toULong(): ULong = ULong(this.toLong())\n/**\n * Converts this [Long] value to [ULong].\n *\n * If this value is positive, the resulting `ULong` value represents the same numerical value as this `Long`.\n *\n * The resulting `ULong` value has the same binary representation as this `Long` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Long.toULong(): ULong = ULong(this)\n\n/**\n * Converts this [Float] value to [ULong].\n *\n * The fractional part, if any, is rounded down towards zero.\n
 * Returns zero if this `Float` value is negative or `NaN`, [ULong.MAX_VALUE] if it's bigger than `ULong.MAX_VALUE`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Float.toULong(): ULong = doubleToULong(this.toDouble())\n/**\n * Converts this [Double] value to [ULong].\n *\n * The fractional part, if any, is rounded down towards zero.\n * Returns zero if this `Double` value is negative or `NaN`, [ULong.MAX_VALUE] if it's bigger than `ULong.MAX_VALUE`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Double.toULong(): ULong = doubleToULong(this)\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CollectionsKt\")\n\npackage
 kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns 1st *element* from the list.\n * \n * Throws an [IndexOutOfBoundsException] if the size of this list is less than 1.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component1(): T {\n   return get(0)\n}\n\n/**\n * Returns 2nd *element* from the list.\n * \n * Throws an [IndexOutOfBoundsException] if the size of this list is less than 2.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component2(): T {\n   return get(1)\n}\n\n/**\n * Returns 3rd *element* from the list.\n * \n * Throws an [IndexOutOfBoundsException] if the size of this list is less than 3.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component3():
 T {\n   return get(2)\n}\n\n/**\n * Returns 4th *element* from the list.\n * \n * Throws an [IndexOutOfBoundsException] if the size of this list is less than 4.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component4(): T {\n   return get(3)\n}\n\n/**\n * Returns 5th *element* from the list.\n * \n * Throws an [IndexOutOfBoundsException] if the size of this list is less than 5.\n

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*/\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component5(): T {\n    return
get(4)\n}\n\n/**\n * Returns `true` if [element] is found in the collection.\n */\npublic operator fun
<@kotlin.internal.OnlyInputTypes T> Iterable<T>.contains(element: T): Boolean {\n    if (this is Collection)\n
return contains(element)\n    return indexOf(element) >= 0\n}\n\n/**\n * Returns an element at the given [index] or
throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this collection.\n * \n * @sample
samples.collections.Collections.Elements.elementAt\n
 */\npublic fun <T> Iterable<T>.elementAt(index: Int): T {\n    if (this is List)\n        return get(index)\n    return
elementAtOrElse(index) { throw IndexOutOfBoundsException(\"Collection doesn't contain element at index
$index.\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if
the [index] is out of bounds of this list.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>.elementAt(index: Int): T {\n    return
get(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function
if the [index] is out of bounds of this collection.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n */\npublic fun <T>
Iterable<T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n    if (this is List)\n        return
this.getOrElse(index, defaultValue)\n    if (index < 0)\n
        return defaultValue(index)\n    val iterator = iterator()\n    var count = 0\n    while (iterator.hasNext()) {\n
val element = iterator.next()\n        if (index == count++)\n            return element\n    }\n    return
defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue]
function if the [index] is out of bounds of this list.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun
<T> List<T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the
[index] is out of bounds of this collection.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n */\npublic fun <T>
Iterable<T>.elementAtOrNull(index: Int): T? {\n    if (this is List)\n        return this.getOrNull(index)\n
    if (index < 0)\n        return null\n    val iterator = iterator()\n    var count = 0\n    while (iterator.hasNext()) {\n
val element = iterator.next()\n        if (index == count++)\n            return element\n    }\n    return null\n}\n\n/**\n *
Returns an element at the given [index] or `null` if the [index] is out of bounds of this list.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun
<T> List<T>.elementAtOrNull(index: Int): T? {\n    return this.getOrNull(index)\n}\n\n/**\n * Returns the first
element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T>
Iterable<T>.find(predicate: (T) -> Boolean): T? {\n    return firstOrNull(predicate)\n}\n\n/**\n * Returns the last
element matching the given [predicate], or `null` if no such element was found.\n
 * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
<T> Iterable<T>.findLast(predicate: (T) -> Boolean): T? {\n    return lastOrNull(predicate)\n}\n\n/**\n * Returns
the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T>
List<T>.findLast(predicate: (T) -> Boolean): T? {\n    return lastOrNull(predicate)\n}\n\n/**\n * Returns first
element.\n * @throws [NoSuchElementException] if the collection is empty.\n */\npublic fun <T>
Iterable<T>.first(): T {\n    when (this) {\n        is List -> return this.first()\n        else -> {\n            val iterator =
iterator()\n            if (!iterator.hasNext())\n                throw NoSuchElementException(\"Collection is empty.\")\n
    return iterator.next()\n        }\n    }\n}\n\n/**\n * Returns first element.\n * @throws
 [NoSuchElementException] if the list is empty.\n */\npublic fun <T> List<T>.first(): T {\n    if (isEmpty())\n
throw NoSuchElementException(\"List is empty.\")\n    return this[0]\n}\n\n/**\n * Returns the first element
matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic
inline fun <T> Iterable<T>.first(predicate: (T) -> Boolean): T {\n    for (element in this) if (predicate(element))
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return element\n   throw NoSuchElementException(\"Collection contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to elements of this collection in iteration order,\n * or throws [NoSuchElementException] if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any> Iterable<T>.firstNotNullOf(transform: (T) ->
 R?): R {\n   return firstNotNullOfOrNull(transform) ?: throw NoSuchElementException(\"No element of the collection was transformed to a non-null value.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to elements of this collection in iteration order,\n * or `null` if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any> Iterable<T>.firstNotNullOfOrNull(transform: (T) -> R?): R? {\n   for (element in this) {\n   val result = transform(element)\n   if (result != null) {\n   return result\n   }\n   }\n   return null\n}\n\n/**\n * Returns the first element, or `null` if the collection is empty.\n */\npublic fun <T> Iterable<T>.firstOrNull(): T? {\n   when (this) {\n   is List -> {\n   if (isEmpty())\n   return null\n   else\n   return this[0]\n   }\n   else -> {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   return null\n   return iterator.next()\n   }\n   }\n}\n\n/**\n * Returns the first element, or `null` if the list is empty.\n */\npublic fun <T> List<T>.firstOrNull(): T? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun <T> Iterable<T>.firstOrNull(predicate: (T) -> Boolean): T? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this list.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>.getOrElse(index: Int, defaultValue: (Int) -> T): T {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n
 * Returns an element at the given [index] or `null` if the [index] is out of bounds of this list.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun <T> List<T>.getOrNull(index: Int): T? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns first index of [element], or -1 if the collection does not contain element.\n */\npublic fun <@kotlin.internal.OnlyInputTypes T> Iterable<T>.indexOf(element: T): Int {\n   if (this is List) return this.indexOf(element)\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (element == item)\n   return index\n   index++\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the list does not contain element.\n */\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\") // false warning, extension takes precedence in some cases\npublic fun <@kotlin.internal.OnlyInputTypes T> List<T>.indexOf(element:
 T): Int {\n   return indexOf(element)\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the collection does not contain such element.\n */\npublic inline fun <T> Iterable<T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (predicate(item))\n   return index\n   index++\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the list does not contain such element.\n */\npublic inline fun <T> List<T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n   var index = 0\n   for (item in this) {\n   if (predicate(item))\n   return index\n   index++\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the collection does not contain such element.\n */\npublic inline fun <T> Iterable<T>.indexOfLast(predicate:
 (T) -> Boolean): Int {\n   var lastIndex = -1\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (predicate(item))\n   lastIndex = index\n   index++\n   }\n   return lastIndex\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the list does not contain such element.\n */\npublic inline fun <T> List<T>.indexOfLast(predicate: (T) -> Boolean): Int {\n   val iterator = this.listIterator(size)\n   while (iterator.hasPrevious()) {\n   if (predicate(iterator.previous())) {\n   return iterator.nextIndex()\n   }\n   }\n   return -1\n}\n\n/**\n * Returns the last element.\n * \n * @throws

NoSuchElementException if the collection is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> Iterable<T>.last(): T {\n   when (this) {\n   is List -> return this.last()\n   else -> {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   throw NoSuchElementException(\"Collection is empty.\")\n   var last = iterator.next()\n   while (iterator.hasNext())\n   last = iterator.next()\n   return last\n   }\n   }\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the list is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> List<T>.last(): T {\n   if (isEmpty())\n   throw NoSuchElementException(\"List is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Iterable<T>.last(predicate: (T) -> Boolean): T {\n   var last: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   last = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Collection contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return last as T\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> List<T>.last(predicate: (T) -> Boolean): T {\n   val iterator = this.listIterator(size)\n   while (iterator.hasPrevious()) {\n   val element = iterator.previous()\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"List contains no element matching the predicate.\")\n}\n\n/**\n * Returns last index of [element], or -1 if the collection does not contain element.\n */\npublic fun <@kotlin.internal.OnlyInputTypes T> Iterable<T>.lastIndexOf(element: T): Int {\n   if (this is List) return this.lastIndexOf(element)\n   var lastIndex = -1\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (element == item)\n   lastIndex = index\n   index++\n   }\n   return lastIndex\n}\n\n/**\n * Returns last index of [element], or -1 if the list does not contain element.\n */\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\") // false warning, extension takes precedence in some cases\npublic fun <@kotlin.internal.OnlyInputTypes T> List<T>.lastIndexOf(element: T): Int {\n   return lastIndexOf(element)\n}\n\n/**\n * Returns the last element, or `null` if the collection is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> Iterable<T>.lastOrNull(): T? {\n   when (this) {\n   is List -> return if (isEmpty()) null else this[size - 1]\n   else -> {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   return null\n   var last = iterator.next()\n   while (iterator.hasNext())\n   last = iterator.next()\n   return last\n   }\n   }\n}\n\n/**\n * Returns the last element, or `null` if the list is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> List<T>.lastOrNull(): T? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Iterable<T>.lastOrNull(predicate: (T) -> Boolean): T? {\n   var last: T? = null\n   for (element in this) {\n   if (predicate(element)) {\n   last = element\n   }\n   }\n   return last\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> List<T>.lastOrNull(predicate: (T) -> Boolean): T? {\n   val iterator = this.listIterator(size)\n   while (iterator.hasPrevious()) {\n   val element = iterator.previous()\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns a random element from this collection.\n * \n * @throws NoSuchElementException if this collection is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>.random(): T {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this collection using the specified source of randomness.\n * \n * @throws NoSuchElementException if this collection is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun <T> Collection<T>.random(random: Random): T {\n   if (isEmpty())\n   throw NoSuchElementException(\"Collection is empty.\")\n   return elementAt(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this collection, or `null` if this collection is empty.\n

*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic
 inline fun <T> Collection<T>.randomOrNull(): T? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this collection using the specified source of randomness, or `null` if this collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> Collection<T>.randomOrNull(random: Random): T? {\n   if (isEmpty())\n   return null\n   return elementAt(random.nextInt(size))\n}\n\n/**\n * Returns the single element, or throws an exception if the collection is empty or has more than one element.\n */\npublic fun <T> Iterable<T>.single(): T {\n   when (this) {\n   is List -> return this.single()\n   else -> {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   throw NoSuchElementException(\"Collection is empty.\")\n   val single = iterator.next()\n   if (iterator.hasNext())\n   throw IllegalArgumentException(\"Collection
 has more than one element.\")\n   return single\n   }\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the list is empty or has more than one element.\n */\npublic fun <T> List<T>.single(): T {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"List is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"List has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun <T> Iterable<T>.single(predicate: (T) -> Boolean): T {\n   var single: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Collection contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if (!found)
 throw NoSuchElementException(\"Collection contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return single as T\n}\n\n/**\n * Returns single element, or `null` if the collection is empty or has more than one element.\n */\npublic fun <T> Iterable<T>.singleOrNull(): T? {\n   when (this) {\n   is List -> return if (size == 1) this[0] else null\n   else -> {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   return null\n   val single = iterator.next()\n   if (iterator.hasNext())\n   return null\n   return single\n   }\n   }\n}\n\n/**\n * Returns single element, or `null` if the list is empty or has more than one element.\n */\npublic fun <T> List<T>.singleOrNull(): T? {\n   return if (size == 1) this[0] else null\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was
 found.\n */\npublic inline fun <T> Iterable<T>.singleOrNull(predicate: (T) -> Boolean): T? {\n   var single: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun <T> Iterable<T>.drop(n: Int): List<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return toList()\n   val list: ArrayList<T>\n   if (this is Collection<*>) {\n   val resultSize = size - n\n   if (resultSize <= 0)\n   return emptyList()\n   if (resultSize == 1)\n   return listOf(last())\n   list = ArrayList<T>(resultSize)\n
        if (this is List<T>) {\n   if (this is RandomAccess) {\n   for (index in n until size)\n   list.add(this[index])\n   } else {\n   for (item in listIterator(n))\n   list.add(item)\n   }\n   return list\n   }\n   }\n   else {\n   list = ArrayList<T>()\n   }\n   var count = 0\n   for (item in this) {\n   if (count >= n) list.add(item) else ++count\n   }\n   return list.optimizeReadOnlyList()\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun <T> List<T>.dropLast(n: Int): List<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy
 the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun <T> List<T>.dropLastWhile(predicate: (T) -> Boolean): List<T> {\n   if (!isEmpty()) {\n   val iterator =

listIterator(size)\n   while (iterator.hasPrevious()) {\n   if (!predicate(iterator.previous())) {\n   return take(iterator.nextIndex() + 1)\n   }\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun <T> Iterable<T>.dropWhile(predicate: (T) -> Boolean): List<T> {\n   var yielding = false\n   val list = ArrayList<T>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns
 a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun <T> Iterable<T>.filter(predicate: (T) -> Boolean): List<T> {\n   return filterTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun <T> Iterable<T>.filterIndexed(predicate: (index: Int, T) -> Boolean): List<T> {\n   return filterIndexedTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
 samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Iterable<T>.filterIndexedTo(destination: C, predicate: (index: Int, T) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Returns a list containing all elements that are instances of specified type parameter R.\n * \n * @sample samples.collections.Collections.Filtering.filterIsInstance\n */\npublic inline fun <reified R> Iterable<*>.filterIsInstance(): List<@kotlin.internal.NoInfer R> {\n   return filterIsInstanceTo(ArrayList<R>())\n}\n\n/**\n * Appends all elements that are instances of specified type parameter R to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterIsInstanceTo\n */\npublic inline fun <reified R, C : MutableCollection<in R>> Iterable<*>.filterIsInstanceTo(destination: C): C {\n   for (element
 in this) if (element is R) destination.add(element)\n   return destination\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun <T> Iterable<T>.filterNot(predicate: (T) -> Boolean): List<T> {\n   return filterNotTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing all elements that are not `null`.\n * \n * @sample samples.collections.Collections.Filtering.filterNotNull\n */\npublic fun <T : Any> Iterable<T?>.filterNotNull(): List<T> {\n   return filterNotNullTo(ArrayList<T>())\n}\n\n/**\n * Appends all elements that are not `null` to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterNotNullTo\n */\npublic fun <C : MutableCollection<in T>, T : Any> Iterable<T?>.filterNotNullTo(destination: C): C {\n   for (element in this) if (element != null) destination.add(element)\n   return destination\n}\n\n/**\n
 * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Iterable<T>.filterNotTo(destination: C, predicate: (T) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Iterable<T>.filterTo(destination: C, predicate: (T) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun <T> List<T>.slice(indices: IntRange): List<T> {\n   if (indices.isEmpty()) return listOf()\n   return this.subList(indices.start,

indices.endInclusive + 1).toList()\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun <T> List<T>.slice(indices: Iterable<Int>): List<T> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<T>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun <T> Iterable<T>.take(n: Int): List<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (this is Collection<T>) {\n   if (n >= size) return toList()\n   if (n == 1) return listOf(first())\n   }\n   var count = 0\n   val list = ArrayList<T>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list.optimizeReadOnlyList()\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun <T> List<T>.takeLast(n: Int): List<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   val size = size\n   if (n >= size) return toList()\n   if (n == 1) return listOf(last())\n   val list = ArrayList<T>(n)\n   if (this is RandomAccess) {\n   for (index in size - n until size)\n   list.add(this[index])\n   } else {\n   for (item in listIterator(size - n))\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun <T> List<T>.takeLastWhile(predicate: (T) -> Boolean): List<T> {\n   if (isEmpty())\n   return emptyList()\n   val iterator = listIterator(size)\n   while (iterator.hasPrevious()) {\n   if (!predicate(iterator.previous())) {\n   iterator.next()\n   val expectedSize = size - iterator.nextIndex()\n   if (expectedSize == 0) return emptyList()\n   return ArrayList<T>(expectedSize).apply {\n   while (iterator.hasNext())\n   add(iterator.next())\n   }\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun <T> Iterable<T>.takeWhile(predicate: (T) -> Boolean): List<T> {\n   val list = ArrayList<T>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Reverses elements in the list in-place.\n */\npublic expect fun <T> MutableList<T>.reverse(): Unit\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun <T> Iterable<T>.reversed(): List<T> {\n   if (this is Collection && size <= 1) return toList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Randomly shuffles elements in this list in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.3\")\npublic fun <T> MutableList<T>.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   this[j] = this.set(i, this[j])\n   }\n}\n\n/**\n * Sorts elements in the list in-place according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>> MutableList<T>.sortBy(crossinline selector: (T) -> R?): Unit {\n   if (size > 1) sortWith(compareBy(selector))\n}\n\n/**\n * Sorts elements in the list in-place descending according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>> MutableList<T>.sortByDescending(crossinline selector: (T) -> R?): Unit {\n   if (size > 1) sortWith(compareByDescending(selector))\n}\n\n/**\n * Sorts elements in the list in-place descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> MutableList<T>.sortDescending(): Unit {\n   sortWith(reverseOrder())\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Iterable<T>.sorted(): List<T> {\n   if (this is Collection) {\n   if (size <= 1) return this.toList()\n   @Suppress(\"UNCHECKED_CAST\")\n   return (toTypedArray<Comparable<T>>() as Array<T>).apply { sort() }.asList()\n   }\n   return toMutableList().apply { sort() }\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <T, R : Comparable<R>> Iterable<T>.sortedBy(crossinline selector: (T) -> R?): List<T> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted

descending according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>> Iterable<T>.sortedByDescending(crossinline selector: (T) -> R?): List<T> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Iterable<T>.sortedDescending(): List<T> {\n   return sortedWith(reverseOrder())\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T> Iterable<T>.sortedWith(comparator:

Comparator<in T>): List<T> {\n   if (this is Collection) {\n   if (size <= 1) return this.toList()\n   @Suppress(\"UNCHECKED_CAST\")\n   return (toTypedArray<Any?>() as Array<T>).apply { sortWith(comparator) }.asList()\n   }\n   return toMutableList().apply { sortWith(comparator) }\n}\n\n/**\n * Returns an array of Boolean containing all of the elements of this collection.\n */\npublic fun Collection<Boolean>.toBooleanArray(): BooleanArray {\n   val result = BooleanArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of Byte containing all of the elements of this collection.\n */\npublic fun Collection<Byte>.toByteArray(): ByteArray {\n   val result = ByteArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of Char containing all of the elements of this collection.\n */\npublic fun Collection<Char>.toCharArray():

CharArray {\n   val result = CharArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of Double containing all of the elements of this collection.\n */\npublic fun Collection<Double>.toDoubleArray(): DoubleArray {\n   val result = DoubleArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of Float containing all of the elements of this collection.\n */\npublic fun Collection<Float>.toFloatArray(): FloatArray {\n   val result = FloatArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of Int containing all of the elements of this collection.\n */\npublic fun Collection<Int>.toIntArray(): IntArray {\n   val result = IntArray(size)\n   var index = 0\n   for (element in this)\n   result[index++]

= element\n   return result\n}\n\n/**\n * Returns an array of Long containing all of the elements of this collection.\n */\npublic fun Collection<Long>.toLongArray(): LongArray {\n   val result = LongArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of Short containing all of the elements of this collection.\n */\npublic fun Collection<Short>.toShortArray(): ShortArray {\n   val result = ShortArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given collection.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original collection.\n * \n * @sample samples.collections.Collections.Transformations.associate\n

*/\npublic inline fun <T, K, V> Iterable<T>.associate(transform: (T) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing the elements from the given collection indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n *

\n * The returned map preserves the entry iteration order of the original collection.\n * \n * @sample samples.collections.Collections.Transformations.associateBy\n */\npublic inline fun <T, K> Iterable<T>.associateBy(keySelector: (T) -> K): Map<K, T> {\n   val capacity = mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, T>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given collection.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original collection.\n * \n * @sample samples.collections.Collections.Transformations.associateByWithValueTransform\n */\npublic inline fun <T, K, V> Iterable<T>.associateBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, V> {\n   val capacity = mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given collection\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Collections.Transformations.associateByTo\n */\npublic inline fun <T, K, M : MutableMap<in K, in T>> Iterable<T>.associateByTo(destination: M, keySelector: (T) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given collection.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Collections.Transformations.associateByToWithValueTransform\n */\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Iterable<T>.associateByTo(destination: M, keySelector: (T) -> K, valueTransform: (T) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given collection.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Collections.Transformations.associateTo\n */\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Iterable<T>.associateTo(destination: M, transform: (T) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Returns a [Map] where keys are elements from the given collection and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original collection.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.3\")\npublic inline fun <K, V> Iterable<K>.associateWith(valueSelector: (K) -> V): Map<K, V> {\n   val result = LinkedHashMap<K, V>(mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given collection,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.3\")\npublic inline fun <K, V, M : MutableMap<in K, in V>> Iterable<K>.associateWithTo(destination: M, valueSelector: (K) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <T, C : MutableCollection<in T>> Iterable<T>.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun <T> Iterable<T>.toHashSet(): HashSet<T> {\n   return toCollection(HashSet<T>(mapCapacity(collectionSizeOrDefault(12))))\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun <T> Iterable<T>.toList(): List<T> {\n   if (this is Collection) {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(if (this is List) get(0) else iterator().next())\n   else -> this.toMutableList()\n   }\n   }\n   return this.toMutableList().optimizeReadOnlyList()\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this collection.\n */\npublic fun <T> Iterable<T>.toMutableList(): MutableList<T> {\n   if (this is Collection<T>)\n   return this.toMutableList()\n   return toCollection(ArrayList<T>())\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this collection.\n */\npublic fun <T> Collection<T>.toMutableList(): MutableList<T> {\n   return ArrayList(this)\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original collection.\n */\npublic fun <T> Iterable<T>.toSet(): Set<T> {\n   if (this is Collection) {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(if (this is List) this[0] else iterator().next())\n   else -> toCollection(LinkedHashSet<T>(mapCapacity(size)))\n   }\n   }\n   return toCollection(LinkedHashSet<T>()).optimizeReadOnlySet()\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original collection.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <T, R> Iterable<T>.flatMap(transform: (T) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original collection.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapSequence\")\npublic inline fun <T, R> Iterable<T>.flatMap(transform: (T) -> Sequence<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original collection.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Iterable<T>.flatMapIndexed(transform: (index: Int, T) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original collection.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedSequence\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Iterable<T>.flatMapIndexed(transform: (index: Int, T) -> Sequence<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original collection, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.flatMapIndexedTo(destination: C, transform: (index: Int, T) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(checkIndexOverflow(index++), element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original collection, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedSequenceTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.flatMapIndexedTo(destination: C, transform: (index: Int, T) -> Sequence<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(checkIndexOverflow(index++), element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original collection, to the given [destination].\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.flatMapTo(destination: C, transform: (T) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original collection, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapSequenceTo\")\npublic inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.flatMapTo(destination: C, transform: (T) -> Sequence<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original collection by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original collection.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K> Iterable<T>.groupBy(keySelector: (T) -> K): Map<K, List<T>> {\n   return groupByTo(LinkedHashMap<K, MutableList<T>>(), keySelector)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original collection\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original collection.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <T, K, V> Iterable<T>.groupBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups elements of the original collection by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K, M : MutableMap<in K, MutableList<T>>> Iterable<T>.groupByTo(destination: M, keySelector: (T) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<T>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original collection\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <T, K, V, M : MutableMap<in K, MutableList<V>>> Iterable<T>.groupByTo(destination: M, keySelector: (T) -> K, valueTransform: (T) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Creates a [Grouping] source from a collection to be used later with one of group-and-fold operations\n * using the specified [keySelector] function to extract a key from each element.\n * \n * @sample samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K> Iterable<T>.groupingBy(crossinline keySelector: (T) -> K): Grouping<T, K> {\n   return object : Grouping<T, K> {\n   override fun sourceIterator(): Iterator<T> = this@groupingBy.iterator()\n   override fun keyOf(element: T): K = keySelector(element)\n   }\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original collection.\n * \n * @sample samples.collections.Collections.Transformations.map\n

*/\npublic inline fun <T, R> Iterable<T>.map(transform: (T) -> R): List<R> {\n   return mapTo(ArrayList<R>(collectionSizeOrDefault(10)), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original collection.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T, R> Iterable<T>.mapIndexed(transform: (index: Int, T) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(collectionSizeOrDefault(10)), transform)\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each element and its index in the original collection.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T, R : Any> Iterable<T>.mapIndexedNotNull(transform: (index: Int, T) -> R?): List<R> {\n return mapIndexedNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original collection\n * and appends only the non-null results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T, R : Any, C : MutableCollection<in R>> Iterable<T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R?): C {\n   forEachIndexed { index, element -> transform(index, element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original collection\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.mapIndexedTo(destination: C, transform: (index: Int, T) -> R): C {\n   var index = 0\n   for (item in this)\n destination.add(transform(checkIndexOverflow(index++), item))\n   return destination\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each element in the original collection.\n * \n * @sample samples.collections.Collections.Transformations.mapNotNull\n */\npublic inline fun <T, R : Any> Iterable<T>.mapNotNull(transform: (T) -> R?): List<R> {\n   return mapNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each element in the original collection\n * and appends only the non-null results to the given [destination].\n */\npublic inline fun <T, R : Any, C : MutableCollection<in R>> Iterable<T>.mapNotNullTo(destination: C, transform: (T) -> R?): C {\n   forEach { element -> transform(element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original collection\n * and appends the results to the given [destination].\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.mapTo(destination: C, transform: (T) -> R): C {\n   for (item in this)\n destination.add(transform(item))\n   return destination\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original collection\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun <T> Iterable<T>.withIndex(): Iterable<IndexedValue<T>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a list containing only distinct elements from the given collection.\n * \n * Among equal elements of the given collection, only the first one will be present in the resulting list.\n * The elements in the resulting list are in the same order as they were in the source collection.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun <T> Iterable<T>.distinct(): List<T> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only elements from the given collection\n * having distinct keys returned by the given [selector] function.\n * \n * Among elements of the given collection with equal keys, only the first one will be present in the resulting list.\n * The elements in the resulting list are in the same order as they were in the source collection.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <T, K> Iterable<T>.distinctBy(selector: (T) -> K): List<T> {\n   val set = HashSet<K>()\n   val list = ArrayList<T>()\n for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a set containing all elements that are contained by both this collection and the specified collection.\n * \n * The returned set preserves the element iteration order of the

original collection.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun <T> Iterable<T>.intersect(other: Iterable<T>): Set<T> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this collection and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original collection.\n */\npublic infix fun <T> Iterable<T>.subtract(other: Iterable<T>): Set<T> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given

collection.\n * \n * The returned set preserves the element iteration order of the original collection.\n */\npublic fun <T> Iterable<T>.toMutableSet(): MutableSet<T> {\n   return when (this) {\n   is Collection<T> -> LinkedHashSet(this)\n   else -> toCollection(LinkedHashSet<T>())\n   }\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original collection.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun <T> Iterable<T>.union(other: Iterable<T>): Set<T> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n

*/\npublic inline fun <T> Iterable<T>.all(predicate: (T) -> Boolean): Boolean {\n   if (this is Collection && isEmpty()) return true\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if collection has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun <T> Iterable<T>.any(): Boolean {\n   if (this is Collection) return !isEmpty()\n   return iterator().hasNext()\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun <T> Iterable<T>.any(predicate: (T) -> Boolean): Boolean {\n   if (this is Collection && isEmpty()) return false\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns the number of elements in this collection.\n */\npublic fun <T> Iterable<T>.count(): Int {\n   if (this is Collection)

return size\n   var count = 0\n   for (element in this) checkCountOverflow(++count)\n   return count\n}\n\n/**\n * Returns the number of elements in this collection.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun <T> Iterable<T>.count(predicate: (T) -> Boolean): Int {\n   if (this is Collection && isEmpty()) return 0\n   var count = 0\n   for (element in this) if (predicate(element)) checkCountOverflow(++count)\n   return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the collection is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Iterable<T>.fold(initial:

R, operation: (acc: R, T) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original collection.\n * \n * Returns the specified [initial] value if the collection is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Iterable<T>.foldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(checkIndexOverflow(index++), accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation]

from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the list is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <T, R> List<T>.foldRight(initial: R, operation: (T, acc: R) -> R): R {\n var accumulator = initial\n if (!isEmpty()) {\n val iterator = listIterator(size)\n while (iterator.hasPrevious()) {\n accumulator = operation(iterator.previous(), accumulator)\n }\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original list and current accumulator value.\n * \n * Returns the specified [initial] value if the list is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator

value, and calculates the next accumulator value.\n */\npublic inline fun <T, R> List<T>.foldRightIndexed(initial: R, operation: (index: Int, T, acc: R) -> R): R {\n var accumulator = initial\n if (!isEmpty()) {\n val iterator = listIterator(size)\n while (iterator.hasPrevious()) {\n val index = iterator.previousIndex()\n accumulator = operation(index, iterator.previous(), accumulator)\n }\n }\n return accumulator\n}\n\n/**\n * Performs the given [action] on each element.\n */\n@kotlin.internal.HidesMembers\npublic inline fun <T> Iterable<T>.forEach(action: (T) -> Unit): Unit {\n for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun <T> Iterable<T>.forEachIndexed(action: (index: Int, T)

-> Unit): Unit {\n var index = 0\n for (item in this) action(checkIndexOverflow(index++), item)\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Iterable<Double>.max(): Double? {\n return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Iterable<Float>.max(): Float? {\n return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T : Comparable<T>> Iterable<T>.max(): T? {\n return maxOrNull()\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince

= \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <T, R : Comparable<R>> Iterable<T>.maxBy(selector: (T) -> R): T? {\n return maxByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R : Comparable<R>> Iterable<T>.maxByOrNull(selector: (T) -> R): T? {\n val iterator = iterator()\n if (!iterator.hasNext()) return null\n var maxElem = iterator.next()\n if (!iterator.hasNext()) return maxElem\n var maxValue = selector(maxElem)\n do {\n val e = iterator.next()\n val v = selector(e)\n if (maxValue < v) {\n maxElem = e\n maxValue = v\n }\n } while (iterator.hasNext())\n return maxElem\n}\n\n/**\n * Returns the largest value among all values produced by [selector]

function\n * applied to each element in the collection.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.maxOf(selector: (T) -> Double): Double {\n val iterator = iterator()\n if (!iterator.hasNext()) throw NoSuchElementException()\n var maxValue = selector(iterator.next())\n while (iterator.hasNext()) {\n val v = selector(iterator.next())\n maxValue = maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the collection.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException

if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.maxOf(selector: (T) ->

Float): Float {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the collection.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Iterable<T>.maxOf(selector: (T) -> R): R
 {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the collection or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.maxOfOrNull(selector: (T) -> Double): Double? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the collection or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.maxOfOrNull(selector: (T) -> Float): Float? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the collection or `null`
 if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Iterable<T>.maxOfOrNull(selector: (T) -> R): R? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the collection.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Iterable<T>.maxOfWith(comparator:
 Comparator<in R>, selector: (T) -> R): R {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the collection or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Iterable<T>.maxOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue = selector(iterator.next())\n

while (iterator.hasNext()) {\n val v = selector(iterator.next())\n if (comparator.compare(maxValue, v) < 0) {\n maxValue = v\n }\n }\n return maxValue\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Iterable<Double>.maxOrNull(): Double? {\n val iterator = iterator()\n if (!iterator.hasNext()) return null\n var max = iterator.next()\n while (iterator.hasNext()) {\n val e = iterator.next()\n max = maxOf(max, e)\n }\n return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Iterable<Float>.maxOrNull(): Float? {\n val iterator = iterator()\n if (!iterator.hasNext()) return null\n var max = iterator.next()\n while (iterator.hasNext()) {\n val e = iterator.next()\n

max = maxOf(max, e)\n }\n return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Iterable<T>.maxOrNull(): T? {\n val iterator = iterator()\n if (!iterator.hasNext()) return null\n var max = iterator.next()\n while (iterator.hasNext()) {\n val e = iterator.next()\n if (max < e) max = e\n }\n return max\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T> Iterable<T>.maxWith(comparator: Comparator<in T>): T? {\n return maxWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Iterable<T>.maxWithOrNull(comparator: Comparator<in T>): T? {\n

val iterator = iterator()\n if (!iterator.hasNext()) return null\n var max = iterator.next()\n while (iterator.hasNext()) {\n val e = iterator.next()\n if (comparator.compare(max, e) < 0) max = e\n }\n return max\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Iterable<Double>.min(): Double? {\n return minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Iterable<Float>.min(): Float? {\n return minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T : Comparable<T>> Iterable<T>.min():

T? {\n return minOrNull()\n}\n\n@Deprecated(\"Use minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <T, R : Comparable<R>> Iterable<T>.minBy(selector: (T) -> R): T? {\n return minByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R : Comparable<R>> Iterable<T>.minByOrNull(selector: (T) -> R): T? {\n val iterator = iterator()\n if (!iterator.hasNext()) return null\n var minElem = iterator.next()\n if (!iterator.hasNext()) return minElem\n var minValue = selector(minElem)\n do {\n val e = iterator.next()\n val v = selector(e)\n if (minValue > v) {\n minElem = e\n minValue = v\n

}\n } while (iterator.hasNext())\n return minElem\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the collection.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOf(selector: (T) -> Double): Double {\n val iterator = iterator()\n if (!iterator.hasNext()) throw NoSuchElementException()\n var minValue = selector(iterator.next())\n while (iterator.hasNext()) {\n val v = selector(iterator.next())\n

minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in
the collection.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOf(selector: (T) -> Float): Float {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the collection.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <T, R : Comparable<R>> Iterable<T>.minOf(selector: (T) -> R): R {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the collection or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOfOrNull(selector: (T) -> Double): Double? {\n   val iterator = iterator()\n
if (!iterator.hasNext()) return null\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the collection or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOfOrNull(selector: (T) -> Float): Float? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n
* Returns the smallest value among all values produced by [selector] function\n * applied to each element in the collection or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Iterable<T>.minOfOrNull(selector: (T) -> R): R? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the collection.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <T, R> Iterable<T>.minOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n *

Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the collection or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Iterable<T>.minOfWithOrNull(comparator: Comparator<in R>,
 selector: (T) -> R): R? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Iterable<Double>.minOrNull(): Double? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Iterable<Float>.minOrNull(): Float? {\n   val iterator
 = iterator()\n   if (!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Iterable<T>.minOrNull(): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (min > e) min = e\n   }\n   return min\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T> Iterable<T>.minWith(comparator: Comparator<in T>): T? {\n   return minWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator]
 or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Iterable<T>.minWithOrNull(comparator: Comparator<in T>): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns `true` if the collection has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun <T> Iterable<T>.none(): Boolean {\n   if (this is Collection) return isEmpty()\n   return !iterator().hasNext()\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun <T> Iterable<T>.none(predicate: (T) -> Boolean): Boolean {\n   if (this is Collection && isEmpty()) return true\n   for (element in this) if (predicate(element)) return
 false\n   return true\n}\n\n/**\n * Performs the given [action] on each element and returns the collection itself afterwards.\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, C : Iterable<T>> C.onEach(action: (T) -> Unit): C {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the collection itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, C : Iterable<T>> C.onEachIndexed(action: (index: Int, T) -> Unit): C {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this collection is empty. If the collection can be empty in an expected
 way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun <S, T : S> Iterable<T>.reduce(operation: (acc: S, T) -> S): S {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) throw UnsupportedOperationException(\"Empty collection can't be reduced.\")\n   var accumulator: S = iterator.next()\n

while (iterator.hasNext()) {\n   accumulator = operation(accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original collection.\n * \n * Throws an exception if this collection is empty. If the collection can be empty in an expected
 way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun <S, T : S> Iterable<T>.reduceIndexed(operation: (index: Int, acc: S, T) -> S): S {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) throw UnsupportedOperationException(\"Empty collection can't be reduced.\")\n   var index = 1\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(checkIndexOverflow(index++), accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original collection.\n
 * \n * Returns `null` if the collection is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <S, T : S> Iterable<T>.reduceIndexedOrNull(operation: (index: Int, acc: S, T) -> S): S? {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) return null\n   var index = 1\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(checkIndexOverflow(index++), accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns `null` if the collection is empty.\n * \n * @param [operation] function that takes current
 accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S> Iterable<T>.reduceOrNull(operation: (acc: S, T) -> S): S? {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) return null\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Throws an exception if this list is empty. If the list can be empty in an expected way,\n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes an element and current accumulator
 value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun <S, T : S> List<T>.reduceRight(operation: (T, acc: S) -> S): S {\n   val iterator = listIterator(size)\n   if (!iterator.hasPrevious())\n   throw UnsupportedOperationException(\"Empty list can't be reduced.\")\n   var accumulator: S = iterator.previous()\n   while (iterator.hasPrevious()) {\n   accumulator = operation(iterator.previous(), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original list and current accumulator value.\n * \n * Throws an exception if this list is empty. If the list can be empty in an expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an
 element, the element itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun <S, T : S> List<T>.reduceRightIndexed(operation: (index: Int, T, acc: S) -> S): S {\n   val iterator = listIterator(size)\n   if (!iterator.hasPrevious())\n   throw UnsupportedOperationException(\"Empty list can't be reduced.\")\n   var accumulator: S = iterator.previous()\n   while (iterator.hasPrevious()) {\n   val index = iterator.previousIndex()\n   accumulator = operation(index, iterator.previous(), accumulator)\n   }\n   return accumulator\n}\n\n/**\n *

Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original list and current accumulator value.\n * \n * Returns `null` if the list is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <S, T : S> List<T>.reduceRightIndexedOrNull(operation: (index: Int, T, acc: S) -> S): S? {\n   val iterator = listIterator(size)\n   if (!iterator.hasPrevious())\n   return null\n   var accumulator: S = iterator.previous()\n   while (iterator.hasPrevious()) {\n   val index = iterator.previousIndex()\n   accumulator = operation(index, iterator.previous(), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns `null` if the list is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S> List<T>.reduceRightOrNull(operation: (T, acc: S) -> S): S? {\n   val iterator = listIterator(size)\n   if (!iterator.hasPrevious())\n   return null\n   var accumulator: S = iterator.previous()\n   while (iterator.hasPrevious()) {\n   accumulator = operation(iterator.previous(), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R> Iterable<T>.runningFold(initial: R, operation: (acc: R, T) -> R): List<R> {\n   val estimatedSize = collectionSizeOrDefault(9)\n   if (estimatedSize == 0) return listOf(initial)\n   val result = ArrayList<R>(estimatedSize + 1).apply { add(initial) }\n   var accumulator = initial\n   for (element in this) {\n   accumulator = operation(accumulator, element)\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original collection and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R> Iterable<T>.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): List<R> {\n   val estimatedSize = collectionSizeOrDefault(9)\n   if (estimatedSize == 0) return listOf(initial)\n   val result = ArrayList<R>(estimatedSize + 1).apply { add(initial) }\n   var index = 0\n   var accumulator = initial\n   for (element in this) {\n   accumulator = operation(index++, accumulator, element)\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this collection.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and the element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S> Iterable<T>.runningReduce(operation: (acc: S, T) -> S): List<S> {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) return emptyList()\n   var accumulator: S = iterator.next()\n   val result = ArrayList<S>(collectionSizeOrDefault(10)).apply { add(accumulator) }\n   while (iterator.hasNext()) {\n   accumulator = operation(accumulator, iterator.next())\n   result.add(accumulator)\n   }\n   return

result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the
 original collection and current accumulator value that starts with the first element of this collection.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <S, T : S> Iterable<T>.runningReduceIndexed(operation: (index: Int, acc: S, T) -> S): List<S> {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) return emptyList()\n   var accumulator: S = iterator.next()\n   val result = ArrayList<S>(collectionSizeOrDefault(10)).apply { add(accumulator) }\n   var index = 1\n   while (iterator.hasNext()) {\n   accumulator = operation(index++, accumulator, iterator.next())\n   result.add(accumulator)\n
    }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <T, R> Iterable<T>.scan(initial: R, operation: (acc: R, T) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original collection
 and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <T, R> Iterable<T>.scanIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun <T> Iterable<T>.sumBy(selector: (T) -> Int):
 Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun <T> Iterable<T>.sumByDouble(selector: (T) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.sumOf(selector: (T) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element
 in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.sumOf(selector: (T) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function

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applied to each element in the collection.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun
<T> Iterable<T>.sumOf(selector: (T) -> Long): Long {\n    var sum: Long = 0.toLong()\n    for (element
 in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced
by [selector] function applied to each element in the collection.\n
*/\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.sumOf(selector: (T) -> UInt): UInt {\n
var sum: UInt = 0.toUInt()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return
sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the
collection.\n
*/\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic
 inline fun <T> Iterable<T>.sumOf(selector: (T) -> ULong): ULong {\n    var sum: ULong = 0.toULong()\n    for
(element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns an original collection
containing all the non-`null` elements, throwing an [IllegalArgumentException] if there are any `null` elements.\n
*/\npublic fun <T : Any> Iterable<T?>.requireNoNulls(): Iterable<T> {\n    for (element in this) {\n        if (element
== null) {\n            throw IllegalArgumentException(\"null element found in $this.\")\n        }\n    }\n
@Suppress(\"UNCHECKED_CAST\")\n    return this as Iterable<T>\n}\n\n/**\n * Returns an original collection
containing all the non-`null` elements, throwing an [IllegalArgumentException] if there are any `null` elements.\n
*/\npublic fun <T : Any> List<T?>.requireNoNulls(): List<T> {\n    for (element in this) {\n        if (element ==
null) {\n            throw IllegalArgumentException(\"null element found in $this.\")\n
        }\n    }\n    @Suppress(\"UNCHECKED_CAST\")\n    return this as List<T>\n}\n\n/**\n * Splits this
collection into a list of lists each not exceeding the given [size].\n * \n * The last list in the resulting list may have
fewer elements than the given [size].\n * \n * @param size the number of elements to take in each list, must be
positive and can be greater than the number of elements in this collection.\n * \n * @sample
samples.collections.Collections.Transformations.chunked\n */\n@SinceKotlin(\"1.2\")\npublic fun <T>
Iterable<T>.chunked(size: Int): List<List<T>> {\n    return windowed(size, size, partialWindows = true)\n}\n\n/**\n
* Splits this collection into several lists each not exceeding the given [size]\n * and applies the given [transform]
function to an each.\n * \n * @return list of results of the [transform] applied to an each list.\n * \n * Note that the
list passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should
 not store it or allow it to escape in some way, unless you made a snapshot of it.\n * The last list may have fewer
elements than the given [size].\n * \n * @param size the number of elements to take in each list, must be positive
and can be greater than the number of elements in this collection.\n * \n * @sample
samples.text.Strings.chunkedTransform\n */\n@SinceKotlin(\"1.2\")\npublic fun <T, R> Iterable<T>.chunked(size:
Int, transform: (List<T>) -> R): List<R> {\n    return windowed(size, size, partialWindows = true, transform =
transform)\n}\n\n/**\n * Returns a list containing all elements of the original collection without the first occurrence
of the given [element].\n */\npublic operator fun <T> Iterable<T>.minus(element: T): List<T> {\n    val result =
ArrayList<T>(collectionSizeOrDefault(10))\n    var removed = false\n    return this.filterTo(result) { if (!removed
&& it == element) { removed = true; false } else true }\n}\n\n/**\n * Returns a list containing all elements of
 the original collection except the elements contained in the given [elements] array.\n * \n * Before Kotlin 1.6, the
[elements] array may have been converted to a [HashSet] to speed up the operation, thus the elements were required
to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive
invocations.\n * On JVM, you can enable this behavior back with the system property
`kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n */\npublic operator fun <T>
Iterable<T>.minus(elements: Array<out T>): List<T> {\n    if (elements.isEmpty()) return this.toList()\n    val other
```

= elements.convertToSetForSetOperation()\n   return this.filterNot { it in other }\n}\n\n/**\n * Returns a list containing all elements of the original collection except the elements contained in the given [elements] collection.\n * \n * Before Kotlin 1.6, the [elements] collection may have been converted to a [HashSet] to speed up the operation, thus the elements
 were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n */\npublic operator fun <T> Iterable<T>.minus(elements: Iterable<T>): List<T> {\n   val other = elements.convertToSetForSetOperationWith(this)\n   if (other.isEmpty())\n   return this.toList()\n   return this.filterNot { it in other }\n}\n\n/**\n * Returns a list containing all elements of the original collection except the elements contained in the given [elements] sequence.\n * \n * Before Kotlin 1.6, the [elements] sequence may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll`
 set to `true`.\n */\npublic operator fun <T> Iterable<T>.minus(elements: Sequence<T>): List<T> {\n   val other = elements.convertToSetForSetOperation()\n   if (other.isEmpty())\n   return this.toList()\n   return this.filterNot { it in other }\n}\n\n/**\n * Returns a list containing all elements of the original collection without the first occurrence of the given [element].\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minusElement(element: T): List<T> {\n   return minus(element)\n}\n\n/**\n * Splits the original collection into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample samples.collections.Iterables.Operations.partition\n */\npublic inline fun <T> Iterable<T>.partition(predicate: (T) -> Boolean): Pair<List<T>, List<T>> {\n   val first = ArrayList<T>()\n   val
 second = ArrayList<T>()\n   for (element in this) {\n   if (predicate(element)) {\n   first.add(element)\n   } else {\n   second.add(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Returns a list containing all elements of the original collection and then the given [element].\n */\npublic operator fun <T> Iterable<T>.plus(element: T): List<T> {\n   if (this is Collection) return this.plus(element)\n   val result = ArrayList<T>()\n   result.addAll(this)\n   result.add(element)\n   return result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then the given [element].\n */\npublic operator fun <T> Collection<T>.plus(element: T): List<T> {\n   val result = ArrayList<T>(size + 1)\n   result.addAll(this)\n   result.add(element)\n   return result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then all elements of the given [elements] array.\n */\npublic operator
 fun <T> Iterable<T>.plus(elements: Array<out T>): List<T> {\n   if (this is Collection) return this.plus(elements)\n   val result = ArrayList<T>()\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then all elements of the given [elements] array.\n */\npublic operator fun <T> Collection<T>.plus(elements: Array<out T>): List<T> {\n   val result = ArrayList<T>(this.size + elements.size)\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then all elements of the given [elements] collection.\n */\npublic operator fun <T> Iterable<T>.plus(elements: Iterable<T>): List<T> {\n   if (this is Collection) return this.plus(elements)\n   val result = ArrayList<T>()\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a list containing all
 elements of the original collection and then all elements of the given [elements] collection.\n */\npublic operator fun <T> Collection<T>.plus(elements: Iterable<T>): List<T> {\n   if (elements is Collection) {\n   val result = ArrayList<T>(this.size + elements.size)\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n   } else {\n   val result = ArrayList<T>(this)\n   result.addAll(elements)\n   return result\n   }\n}\n\n/**\n * Returns a list containing all elements of the original collection and then all elements of the given [elements] sequence.\n */\npublic operator fun <T> Iterable<T>.plus(elements: Sequence<T>): List<T> {\n   val result = ArrayList<T>()\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a list

containing all elements of the original collection and then all elements of the given [elements] sequence.\n
*/\npublic operator fun <T> Collection<T>.plus(elements: Sequence<T>):
List<T> {\n val result = ArrayList<T>(this.size + 10)\n result.addAll(this)\n result.addAll(elements)\n
return result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then the given
[element].\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.plusElement(element: T): List<T>
{\n return plus(element)\n}\n\n/**\n * Returns a list containing all elements of the original collection and then the
given [element].\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>.plusElement(element: T):
List<T> {\n return plus(element)\n}\n\n/**\n * Returns a list of snapshots of the window of the given [size]\n *
sliding along this collection with the given [step], where each\n * snapshot is a list.\n * \n * Several last lists may
have fewer elements than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than
the number of elements in this collection.\n * @param size the
number of elements to take in each window\n * @param step the number of elements to move the window forward
by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the
end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample
samples.collections.Sequences.Transformations.takeWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun <T>
Iterable<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false): List<List<T>> {\n
checkWindowSizeStep(size, step)\n if (this is RandomAccess && this is List) {\n val thisSize = this.size\n
val resultCapacity = thisSize / step + if (thisSize % step == 0) 0 else 1\n val result =
ArrayList<List<T>>(resultCapacity)\n var index = 0\n while (index in 0 until thisSize) {\n val
windowSize = size.coerceAtMost(thisSize - index)\n if (windowSize < size && !partialWindows) break\n
result.add(List(windowSize)
{ this[it + index] })\n index += step\n }\n return result\n }\n val result = ArrayList<List<T>>()\n
windowedIterator(iterator(), size, step, partialWindows, reuseBuffer = false).forEach {\n result.add(it)\n }\n
return result\n}\n\n/**\n * Returns a list of results of applying the given [transform] function to\n * an each list
representing a view over the window of the given [size]\n * sliding along this collection with the given [step].\n * \n
* Note that the list passed to the [transform] function is ephemeral and is valid only inside that function.\n * You
should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * Several last lists may
have fewer elements than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than
the number of elements in this collection.\n * @param size the number of elements to take in each window\n *
@param step the number of elements
to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not
to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n *
\n * @sample samples.collections.Sequences.Transformations.averageWindows\n
*/\n@SinceKotlin(\"1.2\")\npublic fun <T, R> Iterable<T>.windowed(size: Int, step: Int = 1, partialWindows:
Boolean = false, transform: (List<T>) -> R): List<R> {\n checkWindowSizeStep(size, step)\n if (this is
RandomAccess && this is List) {\n val thisSize = this.size\n val resultCapacity = thisSize / step + if
(thisSize % step == 0) 0 else 1\n val result = ArrayList<R>(resultCapacity)\n val window =
MovingSubList(this)\n var index = 0\n while (index in 0 until thisSize) {\n val windowSize =
size.coerceAtMost(thisSize - index)\n if (!partialWindows && windowSize < size) break\n
window.move(index, index
+ windowSize)\n result.add(transform(window))\n index += step\n }\n return result\n }\n
val result = ArrayList<R>()\n windowedIterator(iterator(), size, step, partialWindows, reuseBuffer = true).forEach
{\n result.add(transform(it))\n }\n return result\n}\n\n/**\n * Returns a list of pairs built from the elements
of `this` collection and the [other] array with the same index.\n * The returned list has length of the shortest
collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <T, R>
Iterable<T>.zip(other: Array<out R>): List<Pair<T, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n *
Returns a list of values built from the elements of `this` collection and the [other] array with the same index\n *
using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the

shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <T, R, V> Iterable<T>.zip(other: Array<out R>, transform: (a: T, b: R) -> V): List<V> {\n   val arraySize = other.size\n   val list = ArrayList<V>(minOf(collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in this) {\n   if (i >= arraySize) break\n   list.add(transform(element, other[i++]))\n   }\n   return list\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] collection with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <T, R> Iterable<T>.zip(other: Iterable<R>): List<Pair<T, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` collection and the [other] collection with the same index\n * using the provided [transform] function applied to
 each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <T, R, V> Iterable<T>.zip(other: Iterable<R>, transform: (a: T, b: R) -> V): List<V> {\n   val first = iterator()\n   val second = other.iterator()\n   val list = ArrayList<V>(minOf(collectionSizeOrDefault(10), other.collectionSizeOrDefault(10)))\n   while (first.hasNext() && second.hasNext()) {\n   list.add(transform(first.next(), second.next()))\n   }\n   return list\n}\n\n/**\n * Returns a list of pairs of each two adjacent elements in this collection.\n * \n * The returned list is empty if this collection contains less than two elements.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNext\n */\n@SinceKotlin(\"1.2\")\npublic fun <T> Iterable<T>.zipWithNext(): List<Pair<T, T>> {\n   return zipWithNext { a, b -> a to b }\n}\n\n/**\n * Returns a list containing
 the results of applying the given [transform] function\n * to an each pair of two adjacent elements in this collection.\n * \n * The returned list is empty if this collection contains less than two elements.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNextToFindDeltas\n */\n@SinceKotlin(\"1.2\")\npublic inline fun <T, R> Iterable<T>.zipWithNext(transform: (a: T, b: T) -> R): List<R> {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return emptyList()\n   val result = mutableListOf<R>()\n   var current = iterator.next()\n   while (iterator.hasNext()) {\n   val next = iterator.next()\n   result.add(transform(current, next))\n   current = next\n   }\n   return result\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n
 * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <T, A : Appendable> Iterable<T>.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   buffer.appendElement(element, transform)\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative
 value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun <T> Iterable<T>.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Returns this collection as an [Iterable].\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.asIterable(): Iterable<T> {\n   return this\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original collection returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromCollection\n */\npublic fun <T> Iterable<T>.asSequence(): Sequence<T>

{\n   return Sequence { this.iterator() }\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName(\"averageOfByte\")\npublic fun Iterable<Byte>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName(\"averageOfShort\")\npublic fun Iterable<Short>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName(\"averageOfInt\")\npublic fun Iterable<Int>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName(\"averageOfLong\")\npublic fun Iterable<Long>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName(\"averageOfFloat\")\npublic fun Iterable<Float>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName(\"averageOfDouble\")\npublic fun Iterable<Double>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfByte\")\npublic fun Iterable<Byte>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfShort\")\npublic fun Iterable<Short>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfInt\")\npublic fun Iterable<Int>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfLong\")\npublic fun Iterable<Long>.sum(): Long {\n   var sum: Long = 0L\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfFloat\")\npublic fun Iterable<Float>.sum(): Float {\n   var sum: Float = 0.0f\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfDouble\")\npublic fun Iterable<Double>.sum(): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\nimport kotlin.comparisons.naturalOrder\nimport kotlin.random.Random\n\n/**\n * Returns the array if it's not `null`, or an empty array otherwise.\n * @sample samples.collections.Arrays.Usage.arrayOrEmpty\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun <T> Array<out T>?.orEmpty(): Array<out T> = this ?: emptyArray<T>()\n\n/**\n * Returns a *typed* array containing all of the elements of this collection.\n *\n * Allocates an array of runtime type `T` having its size equal to the size of this collection\n * and populates the array with the elements of this collection.\n * @sample samples.collections.Collections.Collections.collectionToTypedArray\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun <T> Collection<T>.toTypedArray(): Array<T> = copyToArray(this)\n\n@JsName(\"copyToArray\")\n@PublishedApi\ninternal fun <T> copyToArray(collection:

Collection<T>): Array<T> {\n   return if (collection.asDynamic().toArray !== undefined)\n collection.asDynamic().toArray().unsafeCast<Array<T>>()\n
    else\n
copyToArrayImpl(collection).unsafeCast<Array<T>>()\n}\n\n@JsName(\"copyToArrayImpl\")\ninternal actual fun copyToArrayImpl(collection: Collection<*>): Array<Any?> {\n   val array = emptyArray<Any?>()\n   val iterator = collection.iterator()\n   while (iterator.hasNext())\n   array.asDynamic().push(iterator.next())\n   return array\n}\n\n@JsName(\"copyToExistingArrayImpl\")\ninternal actual fun <T> copyToArrayImpl(collection: Collection<*>, array: Array<T>): Array<T> {\n   if (array.size < collection.size)\n   return copyToArrayImpl(collection).unsafeCast<Array<T>>()\n\n   val iterator = collection.iterator()\n   var index = 0\n   while (iterator.hasNext()) {\n   array[index++] = iterator.next().unsafeCast<T>()\n   }\n   if (index < array.size) {\n   array[index] = null.unsafeCast<T>()\n   }\n   return array\n}\n\n\n/**\n * Returns an immutable list containing only the specified object [element].\n */\npublic fun <T> listOf(element:
 T): List<T> =
arrayListOf(element)\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <E> buildListInternal(builderAction: MutableList<E>.() -> Unit): List<E> {\n   return ArrayList<E>().apply(builderAction).build()\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <E> buildListInternal(capacity: Int, builderAction: MutableList<E>.() -> Unit): List<E> {\n   checkBuilderCapacity(capacity)\n   return ArrayList<E>(capacity).apply(builderAction).build()\n}\n\n\n/**\n * Returns an immutable set containing only the specified object [element].\n */\npublic fun <T> setOf(element: T): Set<T> = hashSetOf(element)\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <E> buildSetInternal(builderAction: MutableSet<E>.() -> Unit): Set<E> {\n   return LinkedHashSet<E>().apply(builderAction).build()\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal
 actual inline fun <E> buildSetInternal(capacity: Int, builderAction: MutableSet<E>.() -> Unit): Set<E> {\n   return LinkedHashSet<E>(capacity).apply(builderAction).build()\n}\n\n\n/**\n * Returns an immutable map, mapping only the specified key to the\n * specified value.\n */\npublic fun <K, V> mapOf(pair: Pair<K, V>): Map<K, V> = hashMapOf(pair)\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <K, V> buildMapInternal(builderAction: MutableMap<K, V>.() -> Unit): Map<K, V> {\n   return LinkedHashMap<K,
V>().apply(builderAction).build()\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <K, V> buildMapInternal(capacity: Int, builderAction: MutableMap<K, V>.() -> Unit): Map<K, V> {\n   return LinkedHashMap<K, V>(capacity).apply(builderAction).build()\n}\n\n\n/**\n * Fills the list with the provided [value].\n *\n * Each element in the list gets replaced
 with the [value].\n */\n@SinceKotlin(\"1.2\")\npublic actual fun <T> MutableList<T>.fill(value: T): Unit {\n   for (index in 0..lastIndex) {\n   this[index] = value\n   }\n}\n\n/**\n * Randomly shuffles elements in this list.\n *\n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.2\")\npublic actual fun <T> MutableList<T>.shuffle(): Unit = shuffle(Random)\n\n/**\n * Returns a new list with the elements of this list randomly shuffled.\n */\n@SinceKotlin(\"1.2\")\npublic actual fun <T> Iterable<T>.shuffled(): List<T> = toMutableList().apply { shuffle() }\n\n/**\n * Sorts elements in the list in-place according to their natural sort order.\n *\n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * @sample samples.collections.Collections.Sorting.sortMutableList\n */\npublic actual fun <T : Comparable<T>> MutableList<T>.sort(): Unit {\n   collectionsSort(this,
 naturalOrder())\n}\n\n/**\n * Sorts elements in the list in-place according to the order specified with [comparator].\n *\n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * @sample samples.collections.Collections.Sorting.sortMutableListWith\n */\npublic actual fun <T> MutableList<T>.sortWith(comparator: Comparator<in T>): Unit {\n   collectionsSort(this, comparator)\n}\n\nprivate fun <T> collectionsSort(list: MutableList<T>, comparator: Comparator<in T>) {\n   if

(list.size <= 1) return\n\n   val array = copyToArray(list)\n   sortArrayWith(array, comparator)\n\n   for (i in 0 until array.size) {\n   list[i] = array[i]\n   }\n}\n\ninternal actual fun <T> arrayOfNulls(reference: Array<T>, size: Int): Array<T> {\n   return arrayOfNulls<Any>(size).unsafeCast<Array<T>>()\n}\n\n@SinceKotlin(\"1.3\")\n@PublishedApi\n@JsName(\"arrayCopy\")\ninternal fun <T> arrayCopy(source: Array<out T>, destination: Array<in
 T>, destinationOffset: Int, startIndex: Int, endIndex: Int) {\n   AbstractList.checkRangeIndexes(startIndex, endIndex, source.size)\n   val rangeSize = endIndex - startIndex\n   AbstractList.checkRangeIndexes(destinationOffset, destinationOffset + rangeSize, destination.size)\n\n   if (js(\"ArrayBuffer\").isView(destination) && js(\"ArrayBuffer\").isView(source)) {\n   val subrange = source.asDynamic().subarray(startIndex, endIndex)\n   destination.asDynamic().set(subrange, destinationOffset)\n   } else {\n   if (source !== destination || destinationOffset <= startIndex) {\n   for (index in 0 until rangeSize) {\n   destination[destinationOffset + index] = source[startIndex + index]\n   }\n   } else {\n   for (index in rangeSize - 1 downTo 0) {\n   destination[destinationOffset + index] = source[startIndex + index]\n   }\n   }\n   }\n}\n\n// no singleton map implementation in js, return map as
 is\n@Suppress(\"NOTHING_TO_INLINE\")\ninternal actual inline fun <K, V> Map<K, V>.toSingletonMapOrSelf(): Map<K, V> = this\n\n@Suppress(\"NOTHING_TO_INLINE\")\ninternal actual inline fun <K, V> Map<out K, V>.toSingletonMap(): Map<K, V> = this.toMutableMap()\n\n\n@Suppress(\"NOTHING_TO_INLINE\")\ninternal actual inline fun <T> Array<out T>.copyToArrayOfAny(isVarargs: Boolean): Array<out Any?> =\n   if (isVarargs)\n   // no need to copy vararg array in JS\n   this\n   else\n   this.copyOf()\n\n\n\n@PublishedApi\ninternal actual fun checkIndexOverflow(index: Int): Int {\n   if (index < 0) {\n   throwIndexOverflow()\n   }\n   return index\n}\n\n@PublishedApi\ninternal actual fun checkCountOverflow(count: Int): Int {\n   if (count < 0) {\n   throwCountOverflow()\n   }\n   return count\n}\n\n\n/**\n * JS map and set implementations do not make use of capacities or load factors.\n */\n@PublishedApi\ninternal actual fun mapCapacity(expectedSize: Int) = expectedSize\n\n/**\n
 * Checks a collection builder function capacity argument.\n * In JS no validation is made in Map/Set constructor yet.\n */\n@SinceKotlin(\"1.3\")\n@PublishedApi\ninternal fun checkBuilderCapacity(capacity: Int) {\n   require(capacity >= 0) { \"capacity must be non-negative.\" }\n}\n\ninternal actual fun brittleContainsOptimizationEnabled(): Boolean = false","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CollectionsKt\")\n\npackage kotlin.collections\n\n\n/**\n * Returns the given iterator itself. This allows to use an instance of iterator in a `for` loop.\n * @sample samples.collections.Iterators.iterator\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Iterator<T>.iterator(): Iterator<T> = this\n\n/**\n * Returns an [Iterator]
 that wraps each element produced by the original iterator\n * into an [IndexedValue] containing the index of that element and the element itself.\n *\n * @sample samples.collections.Iterators.withIndexIterator\n */\npublic fun <T> Iterator<T>.withIndex(): Iterator<IndexedValue<T>> = IndexingIterator(this)\n\n/**\n * Performs the given [operation] on each element of this [Iterator].\n * @sample samples.collections.Iterators.forEachIterator\n */\npublic inline fun <T> Iterator<T>.forEach(operation: (T) -> Unit): Unit {\n   for (element in this) operation(element)\n}\n\n/**\n * Iterator transforming original `iterator` into iterator of [IndexedValue], counting index from zero.\n */\ninternal class IndexingIterator<out T>(private val iterator: Iterator<T>) : Iterator<IndexedValue<T>> {\n   private var index = 0\n   final override fun hasNext(): Boolean = iterator.hasNext()\n   final override fun next(): IndexedValue<T> = IndexedValue(checkIndexOverflow(index++), iterator.next())\n}\n","/*\n
 * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"ComparisonsKt\")\n\npackage

kotlin.comparisons\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n * Returns the greater of two values.\n * \n * If values are equal, returns the first one.\n */\n@SinceKotlin(\"1.1\")\npublic expect fun <T : Comparable<T>> maxOf(a: T, b: T): T\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Byte, b: Byte): Byte\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Short, b: Short):
 Short\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Int, b: Int): Int\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Long, b: Long): Long\n\n/**\n * Returns the greater of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Float, b: Float): Float\n\n/**\n * Returns the greater of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Double, b: Double): Double\n\n/**\n * Returns the greater of three values.\n * \n * If there are multiple equal maximal values, returns the first of them.\n */\n@SinceKotlin(\"1.1\")\npublic expect fun <T : Comparable<T>> maxOf(a: T, b: T, c: T): T\n\n/**\n * Returns the greater
 of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Byte, b: Byte, c: Byte): Byte\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Short, b: Short, c: Short): Short\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Int, b: Int, c: Int): Int\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Long, b: Long, c: Long): Long\n\n/**\n * Returns the greater of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Float, b: Float, c: Float): Float\n\n/**\n * Returns the greater of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic
 expect inline fun maxOf(a: Double, b: Double, c: Double): Double\n\n/**\n * Returns the greater of three values according to the order specified by the given [comparator].\n * \n * If there are multiple equal maximal values, returns the first of them.\n */\n@SinceKotlin(\"1.1\")\npublic fun <T> maxOf(a: T, b: T, c: T, comparator: Comparator<in T>): T {\n   return maxOf(a, maxOf(b, c, comparator), comparator)\n}\n\n/**\n * Returns the greater of two values according to the order specified by the given [comparator].\n * \n * If values are equal, returns the first one.\n */\n@SinceKotlin(\"1.1\")\npublic fun <T> maxOf(a: T, b: T, comparator: Comparator<in T>): T {\n   return if (comparator.compare(a, b) >= 0) a else b\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If there are multiple equal maximal values, returns the first of them.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T : Comparable<T>> maxOf(a: T, vararg other: T): T\n\n/**\n
 * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun maxOf(a: Byte, vararg other: Byte): Byte\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun maxOf(a: Short, vararg other: Short): Short\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun maxOf(a: Int, vararg other: Int): Int\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun maxOf(a: Long, vararg other: Long): Long\n\n/**\n * Returns the greater of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun maxOf(a: Float, vararg other: Float): Float\n\n/**\n * Returns the greater of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun maxOf(a: Double, vararg other: Double): Double\n\n/**\n * Returns the greater of the given values according
 to the order specified by the given [comparator].\n * \n * If there are multiple equal maximal values, returns the first of them.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> maxOf(a: T, vararg other: T, comparator: Comparator<in

T>): T {\n   var max = a\n   for (e in other) if (comparator.compare(max, e) < 0) max = e\n   return max\n}\n\n/**\n * Returns the smaller of two values.\n * \n * If values are equal, returns the first one.\n */\n@SinceKotlin(\"1.1\")\npublic expect fun <T : Comparable<T>> minOf(a: T, b: T): T\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Byte, b: Byte): Byte\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Short, b: Short): Short\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Int, b: Int):
Int\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Long, b: Long): Long\n\n/**\n * Returns the smaller of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Float, b: Float): Float\n\n/**\n * Returns the smaller of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Double, b: Double): Double\n\n/**\n * Returns the smaller of three values.\n * \n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin(\"1.1\")\npublic expect fun <T : Comparable<T>> minOf(a: T, b: T, c: T): T\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Byte, b: Byte, c: Byte): Byte\n\n/**\n * Returns
the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Short, b: Short, c: Short): Short\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Int, b: Int, c: Int): Int\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Long, b: Long, c: Long): Long\n\n/**\n * Returns the smaller of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Float, b: Float, c: Float): Float\n\n/**\n * Returns the smaller of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Double, b: Double, c: Double): Double\n\n/**\n * Returns the smaller of three values according to
the order specified by the given [comparator].\n * \n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin(\"1.1\")\npublic fun <T> minOf(a: T, b: T, c: T, comparator: Comparator<in T>): T {\n   return minOf(a, minOf(b, c, comparator), comparator)\n}\n\n/**\n * Returns the smaller of two values according to the order specified by the given [comparator].\n * \n * If values are equal, returns the first one.\n */\n@SinceKotlin(\"1.1\")\npublic fun <T> minOf(a: T, b: T, comparator: Comparator<in T>): T {\n   return if (comparator.compare(a, b) <= 0) a else b\n}\n\n/**\n * Returns the smaller of the given values.\n * \n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T : Comparable<T>> minOf(a: T, vararg other: T): T\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun minOf(a: Byte, vararg other: Byte): Byte\n\n/**\n * Returns the smaller
of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun minOf(a: Short, vararg other: Short): Short\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun minOf(a: Int, vararg other: Int): Int\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun minOf(a: Long, vararg other: Long): Long\n\n/**\n * Returns the smaller of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun minOf(a: Float, vararg other: Float): Float\n\n/**\n * Returns the smaller of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun minOf(a: Double, vararg other: Double): Double\n\n/**\n * Returns the smaller of the given values according to the order specified by the given [comparator].\n * \n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin(\"1.4\")\npublic
fun <T> minOf(a: T, vararg other: T, comparator: Comparator<in T>): T {\n   var min = a\n   for (e in other) if (comparator.compare(min, e) > 0) min = e\n   return min\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and

Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"MapsKt\")\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to entries of this map in iteration order,\n * or throws [NoSuchElementException] if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Any> Map<out K, V>.firstNotNullOf(transform: (Map.Entry<K, V>) -> R?): R {\n   return firstNotNullOfOrNull(transform) ?: throw NoSuchElementException(\"No element of the map was transformed to a non-null value.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to entries of this map in iteration order,\n * or `null` if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Any> Map<out K, V>.firstNotNullOfOrNull(transform: (Map.Entry<K, V>) -> R?): R? {\n   for (element in this) {\n   val result = transform(element)\n   if (result != null) {\n   return result\n   }\n   }\n   return null\n}\n\n/**\n * Returns a [List] containing all key-value pairs.\n */\npublic fun <K, V> Map<out K, V>.toList(): List<Pair<K, V>> {\n   if (size == 0)\n   return emptyList()\n   val iterator = entries.iterator()\n   if (!iterator.hasNext())\n   return emptyList()\n   val first = iterator.next()\n   if (!iterator.hasNext())\n   return listOf(first.toPair())\n   val result = ArrayList<Pair<K, V>>(size)\n   result.add(first.toPair())\n   do {\n   result.add(iterator.next().toPair())\n   } while (iterator.hasNext())\n   return result\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each entry of original map.\n * \n * @sample samples.collections.Maps.Transformations.flatMap\n */\npublic inline fun <K, V, R> Map<out K, V>.flatMap(transform: (Map.Entry<K, V>) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each entry of original map.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapSequence\")\npublic inline fun <K, V, R> Map<out K, V>.flatMap(transform: (Map.Entry<K, V>) -> Sequence<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each entry of original map, to the given [destination].\n */\npublic inline fun <K, V, R, C : MutableCollection<in R>> Map<out K, V>.flatMapTo(destination: C, transform: (Map.Entry<K, V>) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each entry of original map, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapSequenceTo\")\npublic inline fun <K, V, R, C : MutableCollection<in R>> Map<out K, V>.flatMapTo(destination: C, transform: (Map.Entry<K, V>) -> Sequence<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each entry in the original map.\n * \n * @sample samples.collections.Maps.Transformations.mapToList\n */\npublic inline fun <K, V, R> Map<out K, V>.map(transform: (Map.Entry<K, V>) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each entry in the original map.\n * \n * @sample

```
samples.collections.Maps.Transformations.mapNotNull\n
 */\npublic inline fun <K, V, R : Any> Map<out K, V>.mapNotNull(transform: (Map.Entry<K, V>) -> R?):
List<R> {\n    return mapNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform]
function to each entry in the original map\n * and appends only the non-null results to the given [destination].\n
*/\npublic inline fun <K, V, R : Any, C : MutableCollection<in R>> Map<out K, V>.mapNotNullTo(destination: C,
transform: (Map.Entry<K, V>) -> R?): C {\n    forEach { element -> transform(element)?.let { destination.add(it) }
}\n    return destination\n}\n\n/**\n * Applies the given [transform] function to each entry of the original map\n *
and appends the results to the given [destination].\n */\npublic inline fun <K, V, R, C : MutableCollection<in R>>
Map<out K, V>.mapTo(destination: C, transform: (Map.Entry<K, V>) -> R): C {\n    for (item in this)\n
destination.add(transform(item))\n    return destination\n}\n\n/**\n * Returns `true` if all
 entries match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic
inline fun <K, V> Map<out K, V>.all(predicate: (Map.Entry<K, V>) -> Boolean): Boolean {\n    if (isEmpty())
return true\n    for (element in this) if (!predicate(element)) return false\n    return true\n}\n\n/**\n * Returns `true` if
map has at least one entry.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun <K,
V> Map<out K, V>.any(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if at least one entry matches
the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic
inline fun <K, V> Map<out K, V>.any(predicate: (Map.Entry<K, V>) -> Boolean): Boolean {\n    if (isEmpty())
return false\n    for (element in this) if (predicate(element)) return true\n    return false\n}\n\n/**\n * Returns the
number of entries in this map.\n */\n@kotlin.internal.InlineOnly\npublic inline fun
 <K, V> Map<out K, V>.count(): Int {\n    return size\n}\n\n/**\n * Returns the number of entries matching the
given [predicate].\n */\npublic inline fun <K, V> Map<out K, V>.count(predicate: (Map.Entry<K, V>) -> Boolean):
Int {\n    if (isEmpty()) return 0\n    var count = 0\n    for (element in this) if (predicate(element)) ++count\n    return
count\n}\n\n/**\n * Performs the given [action] on each entry.\n */\n@kotlin.internal.HidesMembers\npublic inline
fun <K, V> Map<out K, V>.forEach(action: (Map.Entry<K, V>) -> Unit): Unit {\n    for (element in this)
action(element)\n}\n\n@Deprecated(\"Use maxByOrNull instead.\",
ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince =
\"1.5\", hiddenSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>>
Map<out K, V>.maxBy(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V>? {\n    return
maxByOrNull(selector)\n}\n\n/**\n * Returns the first entry yielding the
 largest value of the given function or `null` if there are no entries.\n * \n * @sample
samples.collections.Collections.Aggregates.maxByOrNull\n
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out
K, V>.maxByOrNull(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V>? {\n    return
entries.maxByOrNull(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector]
function\n * applied to each entry in the map.\n * \n * If any of values produced by [selector] function is `NaN`, the
returned result is `NaN`.\n * \n * @throws NoSuchElementException if the map is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxOf(selector:
(Map.Entry<K, V>) -> Double): Double {\n    return entries.maxOf(selector)\n}\n\n/**\n * Returns the largest value
among all values
 produced by [selector] function\n * applied to each entry in the map.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the map is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxOf(selector:
(Map.Entry<K, V>) -> Float): Float {\n    return entries.maxOf(selector)\n}\n\n/**\n * Returns the largest value
among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * @throws
NoSuchElementException if the map is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
```

ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.maxOf(selector: (Map.Entry<K, V>) -> R): R {\n   return entries.maxOf(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxOfOrNull(selector: (Map.Entry<K, V>) -> Double): Double? {\n   return entries.maxOfOrNull(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxOfOrNull(selector: (Map.Entry<K, V>) -> Float): Float? {\n   return entries.maxOfOrNull(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.maxOfOrNull(selector: (Map.Entry<K, V>) -> R): R? {\n   return entries.maxOfOrNull(selector)\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each entry in the map.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R> Map<out K, V>.maxOfWith(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) -> R): R {\n   return entries.maxOfWith(comparator, selector)\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each entry in the map or `null` if there are no entries.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R> Map<out K, V>.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) -> R): R? {\n   return entries.maxOfWithOrNull(comparator, selector)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxWith(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V>? {\n   return maxWithOrNull(comparator)\n}\n\n/**\n * Returns the first entry having the largest value according to the provided [comparator] or `null` if there are no entries.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxWithOrNull(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V>? {\n   return entries.maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.minBy(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V>? {\n   return minByOrNull(selector)\n}\n\n/**\n * Returns the first entry yielding the smallest value of the given function or `null` if there are no entries.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.minByOrNull(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V>? {\n   return entries.minByOrNull(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.minOf(selector: (Map.Entry<K, V>) -> Double): Double {\n   return entries.minOf(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.minOf(selector: (Map.Entry<K, V>) -> Float): Float {\n   return entries.minOf(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.minOf(selector: (Map.Entry<K, V>) -> R): R {\n   return entries.minOf(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.minOfOrNull(selector: (Map.Entry<K, V>) -> Double): Double? {\n   return entries.minOfOrNull(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.minOfOrNull(selector: (Map.Entry<K, V>) -> Float): Float? {\n   return entries.minOfOrNull(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.minOfOrNull(selector: (Map.Entry<K, V>) -> R): R? {\n   return entries.minOfOrNull(selector)\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each entry in the map.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R> Map<out K, V>.minOfWith(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) -> R): R {\n   return entries.minOfWith(comparator, selector)\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each entry in the map or `null` if there are no entries.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R> Map<out K, V>.minOfWithOrNull(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) -> R): R? {\n   return entries.minOfWithOrNull(comparator, selector)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <K, V> Map<out K, V>.minWith(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V>? {\n   return minWithOrNull(comparator)\n}\n\n/**\n * Returns the first

entry having the smallest value according to the provided [comparator] or `null` if there are no entries.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic
 inline fun <K, V> Map<out K, V>.minWithOrNull(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V>? {\n   return entries.minWithOrNull(comparator)\n}\n\n/**\n * Returns `true` if the map has no entries.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun <K, V> Map<out K, V>.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if no entries match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun <K, V> Map<out K, V>.none(predicate: (Map.Entry<K, V>) -> Boolean): Boolean {\n   if (isEmpty()) return true\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Performs the given [action] on each entry and returns the map itself afterwards.\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <K, V, M : Map<out K, V>> M.onEach(action: (Map.Entry<K, V>) -> Unit): M {\n
    return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each entry, providing sequential index with the entry,\n * and returns the map itself afterwards.\n * @param [action] function that takes the index of an entry and the entry itself\n * and performs the action on the entry.\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <K, V, M : Map<out K, V>> M.onEachIndexed(action: (index: Int, Map.Entry<K, V>) -> Unit): M {\n   return apply { entries.forEachIndexed(action) }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original map returning its entries when being iterated.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.asIterable(): Iterable<Map.Entry<K, V>> {\n   return entries\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original map returning its entries when being iterated.\n */\npublic fun <K, V> Map<out K, V>.asSequence(): Sequence<Map.Entry<K, V>> {\n return entries.asSequence()\n}\n\n","/*\n
 * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\n// 10 mappings totally\ninternal fun Char.titlecaseImpl(): String {\n   val uppercase = uppercase()\n   if (uppercase.length > 1) {\n   return if (this == '\\u0149') uppercase else uppercase[0] + uppercase.substring(1).lowercase()\n   }\n   return titlecaseChar().toString()\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/**\n * Converts this character to lower case using Unicode mapping rules
 of the invariant locale.\n */\n@Deprecated(\"Use lowercaseChar() instead.\", ReplaceWith(\"lowercaseChar()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@kotlin.internal.InlineOnly\npublic actual inline fun Char.toLowerCase(): Char = lowercaseChar()\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To support one-to-many character mapping use the [lowercase] function.\n * If this character has no mapping equivalent, the character itself is returned.\n *\n * @sample samples.text.Chars.lowercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun Char.lowercaseChar(): Char = lowercase()[0]\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many character mapping, thus the length of the returned string
 can be greater than one.\n * For example, `'\\u0130'.lowercase()` returns `\"\\u0069\\u0307\"`,\n * where `'\\u0130'` is the LATIN CAPITAL LETTER I WITH DOT ABOVE character (`\u0130`).\n * If this character has no lower case mapping, the result of `toString()` of this char is returned.\n *\n * @sample samples.text.Chars.lowercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun Char.lowercase(): String = toString().asDynamic().toLowerCase().unsafeCast<String>()\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the invariant locale.\n

*/\n@Deprecated(\"Use uppercaseChar() instead.\", ReplaceWith(\"uppercaseChar()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@kotlin.internal.InlineOnly\npublic actual inline fun Char.toUpperCase(): Char = uppercaseChar()\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To support one-to-many character mapping use the [uppercase] function.\n * If this character has no mapping equivalent, the character itself is returned.\n *\n * @sample samples.text.Chars.uppercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Char.uppercaseChar(): Char {\n   val uppercase = uppercase()\n   return if (uppercase.length > 1) this else uppercase[0]\n}\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many character mapping, thus the length of the returned string can be greater than one.\n * For example, `'\\uFB00'.uppercase()` returns `\"\\u0046\\u0046\"`,\n * where `'\\uFB00'` is the LATIN SMALL LIGATURE FF character (`\ufb00`).\n * If this character has no upper case mapping, the result of `toString()` of this char is returned.\n *\n * @sample samples.text.Chars.uppercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun Char.uppercase(): String = toString().asDynamic().toUpperCase().unsafeCast<String>()\n\n/**\n * Converts this character to title case using Unicode mapping rules of the invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To support one-to-many character mapping use the [titlecase] function.\n * If this character has no mapping equivalent, the result of calling [uppercaseChar] is returned.\n *\n * @sample samples.text.Chars.titlecase\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.titlecaseChar(): Char = titlecaseCharImpl()\n\n/**\n * Returns `true` if this character is a Unicode high-surrogate code unit (also known as leading-surrogate code unit).\n */\npublic actual fun Char.isHighSurrogate(): Boolean = this in Char.MIN_HIGH_SURROGATE..Char.MAX_HIGH_SURROGATE\n\n/**\n * Returns `true` if this character is a Unicode low-surrogate code unit (also known as trailing-surrogate code unit).\n */\npublic actual fun Char.isLowSurrogate(): Boolean = this in Char.MIN_LOW_SURROGATE..Char.MAX_LOW_SURROGATE\n\n/**\n * Returns the Unicode general category of this character.\n */\n@SinceKotlin(\"1.5\")\npublic actual val Char.category: CharCategory\n   get() = CharCategory.valueOf(getCategoryValue())\n\n/**\n * Returns `true` if this character (Unicode code point) is defined in Unicode.\n *\n * A character is considered to be defined in Unicode if its [category] is not [CharCategory.UNASSIGNED].\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isDefined(): Boolean {\n   if (this < '\\u0080') {\n   return true\n   }\n   return getCategoryValue() != CharCategory.UNASSIGNED.value\n}\n\n/**\n * Returns `true` if this character is a letter.\n *\n * A character is considered to be a letter if its [category] is [CharCategory.UPPERCASE_LETTER],\n * [CharCategory.LOWERCASE_LETTER], [CharCategory.TITLECASE_LETTER], [CharCategory.MODIFIER_LETTER], or [CharCategory.OTHER_LETTER].\n *\n * @sample samples.text.Chars.isLetter\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isLetter(): Boolean {\n   if (this in 'a'..'z' || this in 'A'..'Z') {\n   return true\n   }\n   if (this < '\\u0080') {\n   return false\n   }\n   return isLetterImpl()\n}\n\n/**\n * Returns `true` if this character is a letter or digit.\n *\n * @see isLetter\n * @see isDigit\n *\n * @sample samples.text.Chars.isLetterOrDigit\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isLetterOrDigit(): Boolean {\n   if (this in 'a'..'z' || this in 'A'..'Z' || this in '0'..'9') {\n   return true\n   }\n   if (this < '\\u0080') {\n   return false\n   }\n\n   return isDigitImpl() || isLetterImpl()\n}\n\n/**\n * Returns `true` if this character is a digit.\n *\n * A character is considered to be a digit if its [category] is [CharCategory.DECIMAL_DIGIT_NUMBER].\n *\n * @sample samples.text.Chars.isDigit\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isDigit(): Boolean {\n   if (this in '0'..'9') {\n   return true\n   }\n   if (this < '\\u0080') {\n   return false\n   }\n   return isDigitImpl()\n}\n\n/**\n * Returns `true` if this character is upper case.\n *\n * A

character is considered to be an upper case character if its [category] is [CharCategory.UPPERCASE_LETTER],\n * or it has contributory property Other_Uppercase as defined by the Unicode Standard.\n *\n * @sample samples.text.Chars.isUpperCase\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isUpperCase(): Boolean {\n   if (this in 'A'..'Z') {\n   return true\n   }\n   if (this < '\\u0080') {\n   return false\n   }\n   return isUpperCaseImpl()\n}\n\n/**\n * Returns `true` if this character is lower case.\n *\n * A character is considered to be a lower case character if its [category] is [CharCategory.LOWERCASE_LETTER],\n * or it has contributory property Other_Lowercase as defined by the Unicode Standard.\n
 *\n * @sample samples.text.Chars.isLowerCase\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isLowerCase(): Boolean {\n   if (this in 'a'..'z') {\n   return true\n   }\n   if (this < '\\u0080') {\n   return false\n   }\n   return isLowerCaseImpl()\n}\n\n/**\n * Returns `true` if this character is a title case letter.\n *\n * A character is considered to be a title case letter if its [category] is [CharCategory.TITLECASE_LETTER].\n *\n * @sample samples.text.Chars.isTitleCase\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isTitleCase(): Boolean {\n   if (this < '\\u0080') {\n   return false\n   }\n   return getCategoryValue() == CharCategory.TITLECASE_LETTER.value\n}\n\n/**\n * Returns `true` if this character is an ISO control character.\n *\n * A character is considered to be an ISO control character if its [category] is [CharCategory.CONTROL],\n * meaning the Char is in the range `'\\u0000'..'\\u001F'` or in the range `'\\u007F'..'\\u009F'`.\n *\n
 * @sample samples.text.Chars.isISOControl\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isISOControl(): Boolean {\n   return this <= '\\u001F' || this in '\\u007F'..'\\u009F'\n}\n\n/**\n * Determines whether a character is whitespace according to the Unicode standard.\n * Returns `true` if the character is whitespace.\n *\n * @sample samples.text.Chars.isWhitespace\n */\npublic actual fun Char.isWhitespace(): Boolean = isWhitespaceImpl()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\nimport kotlin.js.RegExp\n\n/**\n * Converts the characters in the specified array to a string.\n */\n@SinceKotlin(\"1.2\")\n@Deprecated(\"Use CharArray.concatToString() instead\", ReplaceWith(\"chars.concatToString()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\")\npublic actual fun
 String(chars: CharArray): String {\n   var result = \"\"\n   for (char in chars) {\n   result += char\n   }\n   return result\n}\n\n/**\n * Converts the characters from a portion of the specified array to a string.\n *\n * @throws IndexOutOfBoundsException if either [offset] or [length] are less than zero\n * or `offset + length` is out of [chars] array bounds.\n */\n@SinceKotlin(\"1.2\")\n@Deprecated(\"Use CharArray.concatToString(startIndex, endIndex) instead\", ReplaceWith(\"chars.concatToString(offset, offset + length)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\")\npublic actual fun String(chars: CharArray, offset: Int, length: Int): String {\n   if (offset < 0 || length < 0 || chars.size - offset < length)\n   throw IndexOutOfBoundsException(\"size: ${chars.size}; offset: $offset; length: $length\")\n   var result = \"\"\n   for (index in offset until offset + length) {\n   result += chars[index]\n   }\n   return result\n}\n\n/**\n
 * Concatenates characters in this [CharArray] into a String.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun CharArray.concatToString(): String {\n   var result = \"\"\n   for (char in this) {\n   result += char\n   }\n   return result\n}\n\n/**\n * Concatenates characters in this [CharArray] or its subrange into a String.\n *\n * @param startIndex the beginning (inclusive) of the subrange of characters, 0 by default.\n * @param endIndex the end (exclusive) of the subrange of characters, size of this array by default.\n *\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [startIndex] is greater than [endIndex].\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun CharArray.concatToString(startIndex: Int = 0, endIndex:

Int = this.size): String {\n   AbstractList.checkBoundsIndexes(startIndex, endIndex, this.size)\n   var result = \"\"\n   for (index in startIndex until endIndex) {\n   result += this[index]\n   }\n   return result\n}\n\n/**\n * Returns a [CharArray] containing characters of this string.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun String.toCharArray(): CharArray {\n   return CharArray(length) { get(it) }\n}\n\n/**\n * Returns a [CharArray] containing characters of this string or its substring.\n *\n * @param startIndex the beginning (inclusive) of the substring, 0 by default.\n * @param endIndex the end (exclusive) of the substring, length of this string by default.\n *\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex] is greater than the length of this string.\n * @throws IllegalArgumentException if [startIndex] is greater than [endIndex].\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic

actual fun String.toCharArray(startIndex: Int = 0, endIndex: Int = this.length): CharArray {\n   AbstractList.checkBoundsIndexes(startIndex, endIndex, length)\n   return CharArray(endIndex - startIndex) { get(startIndex + it) }\n}\n\n/**\n * Decodes a string from the bytes in UTF-8 encoding in this array.\n *\n * Malformed byte sequences are replaced by the replacement char `\\uFFFD`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun ByteArray.decodeToString(): String {\n   return decodeUtf8(this, 0, size, false)\n}\n\n/**\n * Decodes a string from the bytes in UTF-8 encoding in this array or its subrange.\n *\n * @param startIndex the beginning (inclusive) of the subrange to decode, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to decode, size of this array by default.\n * @param throwOnInvalidSequence specifies whether to

throw an exception on malformed byte sequence or replace it by the replacement char `\\uFFFD`.\n *\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [startIndex] is greater than [endIndex].\n * @throws CharacterCodingException if the byte array contains malformed UTF-8 byte sequence and [throwOnInvalidSequence] is true.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun ByteArray.decodeToString(\n   startIndex: Int = 0,\n   endIndex: Int = this.size,\n   throwOnInvalidSequence: Boolean = false\n): String {\n   AbstractList.checkBoundsIndexes(startIndex, endIndex, this.size)\n   return decodeUtf8(this, startIndex, endIndex, throwOnInvalidSequence)\n}\n\n/**\n * Encodes this string to an array of bytes in UTF-8 encoding.\n *\n * Any malformed char sequence is replaced by

the replacement byte sequence.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun String.encodeToByteArray(): ByteArray {\n   return encodeUtf8(this, 0, length, false)\n}\n\n/**\n * Encodes this string or its substring to an array of bytes in UTF-8 encoding.\n *\n * @param startIndex the beginning (inclusive) of the substring to encode, 0 by default.\n * @param endIndex the end (exclusive) of the substring to encode, length of this string by default.\n * @param throwOnInvalidSequence specifies whether to throw an exception on malformed char sequence or replace.\n *\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex] is greater than the length of this string.\n * @throws IllegalArgumentException if [startIndex] is greater than [endIndex].\n * @throws CharacterCodingException if this string contains malformed char sequence and [throwOnInvalidSequence] is true.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic

actual fun String.encodeToByteArray(\n   startIndex: Int = 0,\n   endIndex: Int = this.length,\n   throwOnInvalidSequence: Boolean = false\n): ByteArray {\n   AbstractList.checkBoundsIndexes(startIndex, endIndex, length)\n   return encodeUtf8(this, startIndex, endIndex, throwOnInvalidSequence)\n}\n\n/**\n * Returns a copy of this string converted to upper case using the rules of the default locale.\n */\n@Deprecated(\"Use uppercase() instead.\", ReplaceWith(\"uppercase()\"))\n@DeprecatedSinceKotlin(warningSince =

\"1.5\")\n@kotlin.internal.InlineOnly\npublic actual inline fun String.toUpperCase(): String = asDynamic().toUpperCase()\n\n/**\n * Returns a copy of this string converted to upper case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many and many-to-one character mapping,\n * thus the length of the returned string can be different from the length of the original string.\n *\n * @sample samples.text.Strings.uppercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun String.uppercase(): String = asDynamic().toUpperCase()\n\n/**\n * Returns a copy of this string converted to lower case using the rules of the default locale.\n */\n@Deprecated(\"Use lowercase() instead.\", ReplaceWith(\"lowercase()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@kotlin.internal.InlineOnly\npublic actual inline fun String.toLowerCase(): String = asDynamic().toLowerCase()\n\n/**\n * Returns a copy of this string converted to lower case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many and many-to-one character mapping,\n * thus the length of the returned string can be different from the length of the original string.\n *\n * @sample samples.text.Strings.lowercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun String.lowercase(): String = asDynamic().toLowerCase()\n\n@kotlin.internal.InlineOnly\ninternal actual inline fun String.nativeIndexOf(str: String, fromIndex: Int): Int = asDynamic().indexOf(str, fromIndex)\n\n@kotlin.internal.InlineOnly\ninternal actual inline fun String.nativeLastIndexOf(str: String, fromIndex: Int): Int = asDynamic().lastIndexOf(str, fromIndex)\n\n@kotlin.internal.InlineOnly\ninternal inline fun String.nativeStartsWith(s: String, position: Int): Boolean = asDynamic().startsWith(s, position)\n\n@kotlin.internal.InlineOnly\ninternal inline fun String.nativeEndsWith(s: String): Boolean = asDynamic().endsWith(s)\n\n@kotlin.internal.InlineOnly\npublic actual inline fun String.substring(startIndex: Int): String = asDynamic().substring(startIndex)\n\n@kotlin.internal.InlineOnly\npublic actual inline fun String.substring(startIndex: Int, endIndex: Int): String = asDynamic().substring(startIndex, endIndex)\n\n@Deprecated(\"Use String.plus() instead\", ReplaceWith(\"this + str\"))\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun String.concat(str: String): String = asDynamic().concat(str)\n\n@Deprecated(\"Use Regex.findAll() instead or invoke matches() on String dynamically: this.asDynamic().match(regex)\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun String.match(regex: String): Array<String>? = asDynamic().match(regex)\n\n//native public fun String.trim(): String\n//TODO: String.replace to implement effective trimLeading and trimTrailing\n\n@kotlin.internal.InlineOnly\ninternal inline fun String.nativeReplace(pattern: RegExp, replacement: String): String = asDynamic().replace(pattern, replacement)\n\n/**\n * Compares two strings lexicographically, optionally ignoring case differences.\n *\n * If [ignoreCase] is true, the result of `Char.uppercaseChar().lowercaseChar()` on each character is compared.\n */\n@SinceKotlin(\"1.2\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun String.compareTo(other: String, ignoreCase: Boolean = false): Int {\n   if (ignoreCase) {\n   val n1 = this.length\n   val n2 = other.length\n   val min = minOf(n1, n2)\n   if (min == 0) return n1 - n2\n   for (index in 0 until min) {\n   var thisChar = this[index]\n   var otherChar = other[index]\n\n   if (thisChar != otherChar) {\n   thisChar = thisChar.uppercaseChar()\n   otherChar = otherChar.uppercaseChar()\n\n   if (thisChar != otherChar) {\n   thisChar = thisChar.lowercaseChar()\n   otherChar = otherChar.lowercaseChar()\n\n   if (thisChar != otherChar) {\n   return thisChar.compareTo(otherChar)\n   }\n   }\n   }\n   }\n   return n1 - n2\n   } else {\n   return compareTo(other)\n   }\n}\n\n/**\n * Returns `true` if the contents of this char sequence are equal to the contents of the specified [other],\n * i.e. both char sequences contain the same number of the same characters in the same order.\n *\n * @sample samples.text.Strings.contentEquals\n */\n@SinceKotlin(\"1.5\")\npublic actual infix fun CharSequence?.contentEquals(other: CharSequence?): Boolean = contentEqualsImpl(other)\n\n/**\n * Returns `true` if the contents of this char sequence are equal to the contents of the specified [other], optionally ignoring case difference.\n *\n * @param ignoreCase `true` to ignore character case when comparing contents.\n *\n * @sample samples.text.Strings.contentEquals\n */\n@SinceKotlin(\"1.5\")\npublic actual fun CharSequence?.contentEquals(other: CharSequence?, ignoreCase: Boolean): Boolean {\n   return if (ignoreCase)\n   this.contentEqualsIgnoreCaseImpl(other)\n   else\n   this.contentEqualsImpl(other)\n}\n\n\nprivate val STRING_CASE_INSENSITIVE_ORDER = Comparator<String> { a, b -> a.compareTo(b, ignoreCase = true) }\n\n@SinceKotlin(\"1.2\")\npublic actual val String.Companion.CASE_INSENSITIVE_ORDER: Comparator<String>\n   get() = STRING_CASE_INSENSITIVE_ORDER\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CharsKt\")\n\npackage kotlin.text\n\n/**\n * Returns the numeric value of the decimal digit that this Char represents.\n * Throws an exception if this Char is not a valid decimal digit.\n *\n * A Char is considered to represent a decimal digit if [isDigit] is true for the Char.\n * In this case, the Unicode decimal digit value of the character is returned.\n *\n * @sample samples.text.Chars.digitToInt\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Char.digitToInt(): Int {\n   return digitOf(this, 10).also {\n   if (it < 0) throw IllegalArgumentException(\"Char $this is not a decimal digit\")\n   }\n}\n\n/**\n * Returns the numeric value of the digit that this Char represents in the specified [radix].\n * Throws an exception if the [radix] is not in the range `2..36` or if this Char is not a valid digit in the specified [radix].\n *\n * A Char is considered to represent a digit in the specified [radix] if at least one of the following is true:\n * - [isDigit] is `true` for the Char and the Unicode decimal digit value of the character is less than the specified [radix]. In this case the decimal digit value is returned.\n * - The Char is one of the uppercase Latin letters 'A' through 'Z' and its [code] is less than `radix + 'A'.code - 10`. In this case, `this.code - 'A'.code + 10` is returned.\n * - The Char is one of the lowercase Latin letters 'a' through 'z' and its [code] is less than `radix + 'a'.code - 10`. In this case, `this.code - 'a'.code + 10` is returned.\n * - The Char is one of the fullwidth Latin capital letters '\\uFF21' through '\\uFF3A' and its [code] is less than `radix + 0xFF21 - 10`. In this case, `this.code - 0xFF21 + 10` is returned.\n * - The Char is one of the fullwidth Latin small letters '\\uFF41' through '\\uFF5A' and its [code] is less than `radix + 0xFF41 - 10`. In this case, `this.code - 0xFF41 + 10` is returned.\n *\n * @sample samples.text.Chars.digitToInt\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Char.digitToInt(radix: Int): Int {\n   return digitToIntOrNull(radix) ?: throw IllegalArgumentException(\"Char $this is not a digit in the given radix=$radix\")\n}\n\n/**\n *\n * Returns the numeric value of the decimal digit that this Char represents, or `null` if this Char is not a valid decimal digit.\n *\n * A Char is considered to represent a decimal digit if [isDigit] is true for the Char.\n * In this case, the Unicode decimal digit value of the character is returned.\n *\n * @sample samples.text.Chars.digitToIntOrNull\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Char.digitToIntOrNull(): Int? {\n   return digitOf(this, 10).takeIf { it >= 0 }\n}\n\n/**\n * Returns the numeric value of the digit that this Char represents in the specified [radix], or `null` if this Char is not a valid digit in the specified [radix].\n * Throws an exception if the [radix] is not in the range `2..36`.\n *\n * A Char is considered to represent a digit in the specified [radix] if at least one of the following is true:\n * - [isDigit] is `true` for the Char and the Unicode decimal digit value of the character is less than the specified [radix]. In this case the decimal digit value is returned.\n * - The Char is one of the uppercase Latin letters 'A' through 'Z' and its [code] is less than `radix + 'A'.code - 10`. In this case, `this.code - 'A'.code + 10` is returned.\n * - The Char is one of the lowercase Latin letters 'a' through 'z' and its [code] is less than `radix + 'a'.code - 10`. In this case, `this.code - 'a'.code + 10` is returned.\n * - The Char is one of the fullwidth Latin capital letters '\\uFF21' through '\\uFF3A' and its [code] is less than `radix + 0xFF21 - 10`. In this case, `this.code - 0xFF21 + 10` is returned.\n * - The Char is one of the fullwidth Latin small letters '\\uFF41' through '\\uFF5A' and its [code] is less than `radix + 0xFF41 - 10`. In this case, `this.code - 0xFF41 + 10` is returned.\n *\n * @sample samples.text.Chars.digitToIntOrNull\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Char.digitToIntOrNull(radix: Int): Int? {\n   checkRadix(radix)\n   return digitOf(this, radix).takeIf { it >= 0 }\n}\n\n/**\n * Returns the Char that represents this decimal digit.\n * Throws an exception if this value is not in the range `0..9`.\n *\n * If this value is in `0..9`,

the decimal digit Char with code `'0'.code + this` is returned.\n *\n * @sample samples.text.Chars.digitToChar\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Int.digitToChar(): Char {\n   if (this in 0..9) {\n   return '0' + this\n   }\n   throw IllegalArgumentException(\"Int $this is not a decimal digit\")\n}\n\n/**\n * Returns the Char that represents this numeric digit value in the specified [radix].\n * Throws an exception if the [radix] is not in the range `2..36` or if this value is not in the range `0 until radix`.\n *\n * If this value is less than `10`, the decimal digit Char with code `'0'.code + this` is returned.\n * Otherwise, the uppercase Latin letter with code `'A'.code + this - 10` is returned.\n *\n * @sample samples.text.Chars.digitToChar\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Int.digitToChar(radix: Int): Char {\n   if (radix !in 2..36) {\n   throw IllegalArgumentException(\"Invalid

radix: $radix. Valid radix values are in range 2..36\")\n   }\n   if (this < 0 || this >= radix) {\n   throw IllegalArgumentException(\"Digit $this does not represent a valid digit in radix $radix\")\n   }\n   return if (this < 10) {\n   '0' + this\n   } else {\n   'A' + this - 10\n   }\n}\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant locale.\n */\n@Deprecated(\"Use lowercaseChar() instead.\", ReplaceWith(\"lowercaseChar()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic expect fun Char.toLowerCase(): Char\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To support one-to-many character mapping use the [lowercase] function.\n * If this character has no mapping equivalent, the character itself is returned.\n *\n * @sample samples.text.Chars.lowercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic

expect fun Char.lowercaseChar(): Char\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many character mapping, thus the length of the returned string can be greater than one.\n * For example, `'\\u0130'.lowercase()` returns `\"\\u0069\\u0307\"`,\n * where `'\\u0130'` is the LATIN CAPITAL LETTER I WITH DOT ABOVE character (`\ufffd\ufffd`).\n * If this character has no lower case mapping, the result of `toString()` of this char is returned.\n *\n * @sample samples.text.Chars.lowercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Char.lowercase(): String\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the invariant locale.\n */\n@Deprecated(\"Use uppercaseChar() instead.\", ReplaceWith(\"uppercaseChar()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic

expect fun Char.toUpperCase(): Char\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To support one-to-many character mapping use the [uppercase] function.\n * If this character has no mapping equivalent, the character itself is returned.\n *\n * @sample samples.text.Chars.uppercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Char.uppercaseChar(): Char\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many character mapping, thus the length of the returned string can be greater than one.\n * For example, `'\\uFB00'.uppercase()` returns `\"\\u0046\\u0046\"`,\n * where `'\\uFB00'` is the LATIN SMALL LIGATURE FF character (`\ufffd\ufffd\ufffd`).\n * If this character has no upper

case mapping, the result of `toString()` of this char
 is returned.\n *\n * @sample samples.text.Chars.uppercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Char.uppercase(): String\n\n/**\n * Converts this character to title case using Unicode mapping rules of the invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To support one-to-many character mapping use the [titlecase] function.\n * If this character has no mapping equivalent, the result of calling [uppercaseChar] is returned.\n *\n * @sample samples.text.Chars.titlecase\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.titlecaseChar(): Char\n\n/**\n * Converts this character to title case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many character mapping, thus the length of the returned string can be greater than one.\n * For example, `'\\uFB00'.titlecase()` returns `\"\\u0046\\u0066\"`,\n * where `'\\uFB00'` is the LATIN SMALL LIGATURE FF character
 (`\ufffd\ufffd\ufffd`).\n * If this character has no title case mapping, the result of [uppercase] is returned instead.\n *\n * @sample samples.text.Chars.titlecase\n */\n@SinceKotlin(\"1.5\")\npublic fun Char.titlecase(): String = titlecaseImpl()\n\n/**\n * Concatenates this Char and a String.\n *\n * @sample samples.text.Chars.plus\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun Char.plus(other: String): String = this.toString() + other\n\n/**\n * Returns `true` if this character is equal to the [other] character, optionally ignoring character case.\n *\n * Two characters are considered equal ignoring case if `Char.uppercaseChar().lowercaseChar()` on each character produces the same result.\n *\n * @param ignoreCase `true` to ignore character case when comparing characters. By default `false`.\n * @sample samples.text.Chars.equals\n */\npublic fun Char.equals(other: Char, ignoreCase: Boolean = false): Boolean {\n   if (this == other) return true\n   if (!ignoreCase)
 return false\n\n   val thisUpper = this.uppercaseChar()\n   val otherUpper = other.uppercaseChar()\n\n   return thisUpper == otherUpper || thisUpper.lowercaseChar() == otherUpper.lowercaseChar()\n}\n\n/**\n * Returns `true` if this character is a Unicode surrogate code unit.\n */\npublic fun Char.isSurrogate(): Boolean = this in Char.MIN_SURROGATE..Char.MAX_SURROGATE\n\n/**\n * Returns the Unicode general category of this character.\n */\n@SinceKotlin(\"1.5\")\npublic expect val Char.category: CharCategory\n\n/**\n * Returns `true` if this character (Unicode code point) is defined in Unicode.\n *\n * A character is considered to be defined in Unicode if its [category] is not [CharCategory.UNASSIGNED].\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isDefined(): Boolean\n\n/**\n * Returns `true` if this character is a letter.\n *\n * A character is considered to be a letter if its [category] is [CharCategory.UPPERCASE_LETTER],\n * [CharCategory.LOWERCASE_LETTER], [CharCategory.TITLECASE_LETTER],
 [CharCategory.MODIFIER_LETTER], or [CharCategory.OTHER_LETTER].\n *\n * @sample samples.text.Chars.isLetter\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isLetter(): Boolean\n\n/**\n * Returns `true` if this character is a letter or digit.\n *\n * @see isLetter\n * @see isDigit\n *\n * @sample samples.text.Chars.isLetterOrDigit\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isLetterOrDigit(): Boolean\n\n/**\n * Returns `true` if this character is a digit.\n *\n * A character is considered to be a digit if its [category] is [CharCategory.DECIMAL_DIGIT_NUMBER].\n *\n * @sample samples.text.Chars.isDigit\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isDigit(): Boolean\n\n/**\n * Returns `true` if this character is upper case.\n *\n * A character is considered to be an upper case character if its [category] is [CharCategory.UPPERCASE_LETTER],\n * or it has contributory property Other_Uppercase as defined by the Unicode Standard.\n *\n * @sample samples.text.Chars.isUpperCase\n
 */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isUpperCase(): Boolean\n\n/**\n * Returns `true` if this character is lower case.\n *\n * A character is considered to be a lower case character if its [category] is [CharCategory.LOWERCASE_LETTER],\n * or it has contributory property Other_Lowercase as defined by the Unicode Standard.\n *\n * @sample samples.text.Chars.isLowerCase\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isLowerCase(): Boolean\n\n/**\n * Returns `true` if this character is a title case letter.\n *\n * A character is considered to be a title case letter if its [category] is [CharCategory.TITLECASE_LETTER].\n *\n * @sample samples.text.Chars.isTitleCase\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isTitleCase(): Boolean\n\n/**\n * Returns `true` if this character is an ISO control character.\n *\n * A character is considered to be an ISO control

character if its [category] is [CharCategory.CONTROL],\n * meaning the Char is in the range `'\\u0000'..'\\u001F'` or in the range `'\\u007F'..'\\u009F'`.\n *\n * @sample samples.text.Chars.isISOControl\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isISOControl(): Boolean\n\n/**\n * Determines whether a character is whitespace according to the Unicode standard.\n * Returns `true` if the character is whitespace.\n *\n * @sample samples.text.Chars.isWhitespace\n */\npublic expect fun Char.isWhitespace(): Boolean\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n\n/**\n * Creates a Char with the specified [code], or throws an exception if the [code] is out of `Char.MIN_VALUE.code..Char.MAX_VALUE.code`.\n *\n * If the program that calls this function is written in a way that only valid [code] is passed as the argument,\n * using the overload that takes a [UShort] argument is preferable (`Char(intValue.toUShort())`).\n * That overload doesn't check validity of the argument, and may improve program performance when the function is called routinely inside a loop.\n *\n * @sample samples.text.Chars.charFromCode\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Char(code: Int): Char {\n   if (code < Char.MIN_VALUE.code || code > Char.MAX_VALUE.code) {\n   throw IllegalArgumentException(\"Invalid Char code: $code\")\n   }\n   return code.toChar()\n}\n\n/**\n * Creates a Char with the specified [code].\n *\n * @sample samples.text.Chars.charFromCode\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect fun Char(code: UShort): Char\n\n/**\n * Returns the code of this Char.\n *\n * Code of a Char is the value it was constructed with, and the UTF-16 code unit corresponding to this Char.\n *\n * @sample samples.text.Chars.code\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\n@Suppress(\"DEPRECATION\")\npublic inline val Char.code: Int get() = this.toInt()\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"SequencesKt\")\n\npackage kotlin.sequences\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n * Returns `true` if [element] is found in the sequence.\n *\n * The operation is _terminal_.\n */\npublic operator fun <@kotlin.internal.OnlyInputTypes T> Sequence<T>.contains(element: T): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic fun <T> Sequence<T>.elementAt(index: Int): T {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"Sequence doesn't contain element at index $index.\") }\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\npublic fun <T> Sequence<T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n   if (index < 0)\n   return defaultValue(index)\n   val iterator = iterator()\n   var count = 0\n   while (iterator.hasNext()) {\n   val element = iterator.next()\n   if (index == count++)\n   return element\n   }\n   return defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\npublic fun <T> Sequence<T>.elementAtOrNull(index: Int): T? {\n   if (index < 0)\n   return null\n   val iterator = iterator()\n   var count = 0\n   while (iterator.hasNext()) {\n   val element = iterator.next()\n   if (index == count++)\n   return element\n   }\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.find(predicate: (T) -> Boolean): T? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.findLast(predicate: (T) -> Boolean): T? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the sequence is empty.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.first(): T {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   throw NoSuchElementException(\"Sequence is empty.\")\n   return iterator.next()\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.first(predicate: (T) -> Boolean): T {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Sequence contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to elements of this sequence in iteration order,\n * or throws [NoSuchElementException] if no non-null value was produced.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any> Sequence<T>.firstNotNullOf(transform: (T) -> R?): R {\n   return firstNotNullOfOrNull(transform) ?: throw NoSuchElementException(\"No element of the sequence was transformed to a non-null value.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to elements of this sequence in iteration order,\n * or `null` if no non-null value was produced.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any> Sequence<T>.firstNotNullOfOrNull(transform: (T) -> R?): R? {\n   for (element in this) {\n   val result = transform(element)\n   if (result != null) {\n   return result\n   }\n   }\n   return null\n}\n\n/**\n * Returns the first element, or `null` if the sequence is empty.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.firstOrNull(): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   return null\n   return iterator.next()\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.firstOrNull(predicate: (T) -> Boolean): T? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns first index of [element], or -1 if the sequence does not contain element.\n *\n * The operation is _terminal_.\n */\npublic fun <@kotlin.internal.OnlyInputTypes T> Sequence<T>.indexOf(element: T): Int {\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (element == item)\n   return index\n   index++\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the sequence does not contain such element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (predicate(item))\n   return index\n   index++\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the sequence does not contain such element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.indexOfLast(predicate: (T) -> Boolean): Int {\n   var lastIndex = -1\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (predicate(item))\n   lastIndex = index\n   index++\n   }\n   return lastIndex\n}\n\n/**\n * Returns the last element.\n *\n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> Sequence<T>.last(): T {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   throw NoSuchElementException(\"Sequence is empty.\")\n   var last = iterator.next()\n   while (iterator.hasNext())\n   last = iterator.next()\n   return last\n}\n\n/**\n * Returns the last element matching the given [predicate].\n *\n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Sequence<T>.last(predicate: (T) -> Boolean): T {\n   var last: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   last = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Sequence contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return last as T\n}\n\n/**\n * Returns last index of [element], or -1 if the sequence does not contain element.\n *\n * The operation is _terminal_.\n */\npublic fun <@kotlin.internal.OnlyInputTypes T> Sequence<T>.lastIndexOf(element: T): Int {\n   var lastIndex = -1\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (element == item)\n   lastIndex = index\n   index++\n   }\n   return lastIndex\n}\n\n/**\n * Returns the last element, or `null` if the sequence is empty.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> Sequence<T>.lastOrNull(): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   return null\n   var last = iterator.next()\n   while (iterator.hasNext())\n   last = iterator.next()\n   return last\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Sequence<T>.lastOrNull(predicate: (T) -> Boolean): T? {\n   var last: T? = null\n   for (element in this) {\n   if (predicate(element)) {\n   last = element\n   }\n   }\n   return last\n}\n\n/**\n * Returns the single element, or throws an exception if the sequence is empty or has more than one element.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.single(): T {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   throw NoSuchElementException(\"Sequence is empty.\")\n   val single = iterator.next()\n   if (iterator.hasNext())\n   throw IllegalArgumentException(\"Sequence has more than one element.\")\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.single(predicate: (T) -> Boolean): T {\n   var single: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Sequence contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Sequence contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return single as T\n}\n\n/**\n * Returns single element, or `null` if the sequence is empty or has more than one element.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.singleOrNull(): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   return null\n   val single = iterator.next()\n   if (iterator.hasNext())\n   return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.singleOrNull(predicate: (T) -> Boolean): T? {\n   var single: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns a sequence containing all elements except first [n] elements.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun <T> Sequence<T>.drop(n: Int): Sequence<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return when {\n   n == 0 -> this\n   this is DropTakeSequence -> this.drop(n)\n   else -> DropSequence(this, n)\n   }\n}\n\n/**\n * Returns a sequence containing all elements except first elements that satisfy the given [predicate].\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun <T> Sequence<T>.dropWhile(predicate: (T) -> Boolean): Sequence<T> {\n   return DropWhileSequence(this, predicate)\n}\n\n/**\n * Returns a sequence containing only elements matching the given [predicate].\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic fun <T> Sequence<T>.filter(predicate:

(T) -> Boolean): Sequence<T> {\n   return FilteringSequence(this, true, predicate)\n}\n\n/**\n * Returns a sequence containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic fun <T> Sequence<T>.filterIndexed(predicate: (index: Int, T) -> Boolean): Sequence<T> {\n   // TODO: Rewrite with generalized MapFilterIndexingSequence\n return TransformingSequence(FilteringSequence(IndexingSequence(this), true, { predicate(it.index, it.value) }), { it.value })\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Sequence<T>.filterIndexedTo(destination: C, predicate: (index: Int, T) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Returns a sequence containing all elements that are instances of specified type parameter R.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Filtering.filterIsInstance\n */\npublic inline fun <reified R> Sequence<*>.filterIsInstance(): Sequence<@kotlin.internal.NoInfer R> {\n @Suppress(\"UNCHECKED_CAST\")\n   return filter { it is R } as Sequence<R>\n}\n\n/**\n * Appends all elements that are instances of specified type parameter R to the given [destination].\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Filtering.filterIsInstanceTo\n */\npublic inline fun <reified R, C : MutableCollection<in R>> Sequence<*>.filterIsInstanceTo(destination: C): C {\n   for (element in this) if (element is R) destination.add(element)\n   return destination\n}\n\n/**\n * Returns a sequence containing all elements not matching the given [predicate].\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic fun <T> Sequence<T>.filterNot(predicate: (T) -> Boolean): Sequence<T> {\n   return FilteringSequence(this, false, predicate)\n}\n\n/**\n * Returns a sequence containing all elements that are not `null`.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Filtering.filterNotNull\n */\npublic fun <T : Any> Sequence<T?>.filterNotNull(): Sequence<T> {\n   @Suppress(\"UNCHECKED_CAST\")\n   return filterNot { it == null } as Sequence<T>\n}\n\n/**\n * Appends all elements that are not `null` to the given [destination].\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Filtering.filterNotNullTo\n */\npublic fun <C : MutableCollection<in T>, T : Any> Sequence<T?>.filterNotNullTo(destination: C): C {\n   for (element in this) if (element != null) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Sequence<T>.filterNotTo(destination: C, predicate: (T) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Sequence<T>.filterTo(destination: C, predicate: (T) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n * Returns a sequence containing first [n] elements.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun <T> Sequence<T>.take(n: Int): Sequence<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return when {\n   n == 0 -> emptySequence()\n   this is DropTakeSequence -> this.take(n)\n   else -> TakeSequence(this, n)\n }\n}\n\n/**\n * Returns a sequence containing first elements satisfying the given [predicate].\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.take\n

*/\npublic fun <T> Sequence<T>.takeWhile(predicate: (T) -> Boolean): Sequence<T> {\n   return TakeWhileSequence(this, predicate)\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * The operation is _intermediate_ and _stateful_.\n */\npublic fun <T : Comparable<T>> Sequence<T>.sorted(): Sequence<T> {\n   return object : Sequence<T> {\n   override fun iterator(): Iterator<T> {\n   val sortedList = this@sorted.toMutableList()\n   sortedList.sort()\n   return sortedList.iterator()\n   }\n   }\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * The operation is _intermediate_ and _stateful_.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <T, R : Comparable<R>> Sequence<T>.sortedBy(crossinline selector: (T) -> R?): Sequence<T> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted descending according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * The operation is _intermediate_ and _stateful_.\n */\npublic inline fun <T, R : Comparable<R>> Sequence<T>.sortedByDescending(crossinline selector: (T) -> R?): Sequence<T> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * The operation is _intermediate_ and _stateful_.\n */\npublic fun <T : Comparable<T>> Sequence<T>.sortedDescending(): Sequence<T> {\n   return sortedWith(reverseOrder())\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted according to the specified [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * The operation is _intermediate_ and _stateful_.\n */\npublic fun <T> Sequence<T>.sortedWith(comparator: Comparator<in T>): Sequence<T> {\n   return object : Sequence<T> {\n   override fun iterator(): Iterator<T> {\n   val sortedList = this@sortedWith.toMutableList()\n   sortedList.sortWith(comparator)\n   return sortedList.iterator()\n   }\n   }\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given sequence.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associate\n */\npublic inline fun <T, K, V> Sequence<T>.associate(transform: (T) -> Pair<K, V>): Map<K, V> {\n   return associateTo(LinkedHashMap<K, V>(), transform)\n}\n\n/**\n * Returns a [Map] containing the elements from the given sequence indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateBy\n */\npublic inline fun <T, K> Sequence<T>.associateBy(keySelector: (T) -> K): Map<K, T> {\n   return associateByTo(LinkedHashMap<K, T>(), keySelector)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given sequence.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateByWithValueTransform\n */\npublic inline fun <T, K, V> Sequence<T>.associateBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, V> {\n   return associateByTo(LinkedHashMap<K, V>(), keySelector, valueTransform)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to

each element of the given sequence\n * and value is the element itself.\n * \n * If any two elements would have the same key returned
by [keySelector] the last one gets added to the map.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateByTo\n */\npublic inline fun <T, K, M : MutableMap<in K, in T>> Sequence<T>.associateByTo(destination: M, keySelector: (T) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given sequence.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateByToWithValueTransform\n */\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Sequence<T>.associateByTo(destination:
M, keySelector: (T) -> K, valueTransform: (T) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given sequence.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateTo\n */\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Sequence<T>.associateTo(destination: M, transform: (T) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Returns a [Map] where keys are elements from the given sequence and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two
elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.3\")\npublic inline fun <K, V> Sequence<K>.associateWith(valueSelector: (K) -> V): Map<K, V> {\n   val result = LinkedHashMap<K, V>()\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given sequence,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.3\")\npublic inline fun <K, V, M : MutableMap<in K, in V>>
Sequence<K>.associateWithTo(destination: M, valueSelector: (K) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n *\n * The operation is _terminal_.\n */\npublic fun <T, C : MutableCollection<in T>> Sequence<T>.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.toHashSet(): HashSet<T> {\n   return toCollection(HashSet<T>())\n}\n\n/**\n * Returns a [List] containing all elements.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.toList(): List<T> {\n   return this.toMutableList().optimizeReadOnlyList()\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this sequence.\n *\n * The operation is _terminal_.\n
*/\npublic fun <T> Sequence<T>.toMutableList(): MutableList<T> {\n   return toCollection(ArrayList<T>())\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original sequence.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.toSet(): Set<T> {\n   return toCollection(LinkedHashSet<T>()).optimizeReadOnlySet()\n}\n\n/**\n * Returns a single sequence of all elements from results of [transform] function being invoked on each element of original sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample

samples.collections.Collections.Transformations.flatMap\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIterable\")\npublic fun <T, R> Sequence<T>.flatMap(transform: (T) -> Iterable<R>): Sequence<R> {\n   return FlatteningSequence(this, transform, Iterable<R>::iterator)\n}\n\n/**\n
 * Returns a single sequence of all elements from results of [transform] function being invoked on each element of original sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic fun <T, R> Sequence<T>.flatMap(transform: (T) -> Sequence<R>): Sequence<R> {\n   return FlatteningSequence(this, transform, Sequence<R>::iterator)\n}\n\n/**\n * Returns a single sequence of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\npublic fun <T, R> Sequence<T>.flatMapIndexed(transform: (index: Int,
 T) -> Iterable<R>): Sequence<R> {\n   return flatMapIndexed(this, transform, Iterable<R>::iterator)\n}\n\n/**\n * Returns a single sequence of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedSequence\")\npublic fun <T, R> Sequence<T>.flatMapIndexed(transform: (index: Int, T) -> Sequence<R>): Sequence<R> {\n   return flatMapIndexed(this, transform, Sequence<R>::iterator)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original sequence, to the given [destination].\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic
 inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.flatMapIndexedTo(destination: C, transform: (index: Int, T) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(checkIndexOverflow(index++), element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original sequence, to the given [destination].\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedSequenceTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R, C : MutableCollection<in R>>
 Sequence<T>.flatMapIndexedTo(destination: C, transform: (index: Int, T) -> Sequence<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(checkIndexOverflow(index++), element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original sequence, to the given [destination].\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIterableTo\")\npublic inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.flatMapTo(destination: C, transform: (T) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked

on each element of original sequence, to the given [destination].\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.flatMapTo(destination: C, transform: (T) -> Sequence<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original sequence by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K> Sequence<T>.groupBy(keySelector: (T) -> K): Map<K, List<T>> {\n   return groupByTo(LinkedHashMap<K, MutableList<T>>(), keySelector)\n}\n\n/**\n

* Groups values returned by the [valueTransform] function applied to each element of the original sequence\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <T, K, V> Sequence<T>.groupBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups elements of the original sequence by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination]

map.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K, M : MutableMap<in K, MutableList<T>>> Sequence<T>.groupByTo(destination: M, keySelector: (T) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<T>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original sequence\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <T, K, V, M : MutableMap<in K, MutableList<V>>> Sequence<T>.groupByTo(destination:

M, keySelector: (T) -> K, valueTransform: (T) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Creates a [Grouping] source from a sequence to be used later with one of group-and-fold operations\n * using the specified [keySelector] function to extract a key from each element.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K> Sequence<T>.groupingBy(crossinline keySelector: (T) -> K): Grouping<T, K> {\n   return object : Grouping<T, K> {\n   override fun sourceIterator(): Iterator<T> = this@groupingBy.iterator()\n   override fun keyOf(element: T): K = keySelector(element)\n   }\n}\n\n/**\n * Returns a sequence containing the results of applying the given [transform]

function\n * to each element in the original sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic fun <T, R> Sequence<T>.map(transform: (T) -> R): Sequence<R> {\n   return TransformingSequence(this, transform)\n}\n\n/**\n * Returns a sequence containing the results of applying the given [transform] function\n * to each element and its index in the original sequence.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic fun <T, R> Sequence<T>.mapIndexed(transform: (index: Int, T) -> R): Sequence<R> {\n   return TransformingIndexedSequence(this, transform)\n}\n\n/**\n * Returns a

sequence containing only the non-null results of applying the given [transform] function\n * to each element and its index in the original
 sequence.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic fun <T, R : Any> Sequence<T>.mapIndexedNotNull(transform: (index: Int, T) -> R?): Sequence<R> {\n
 return TransformingIndexedSequence(this, transform).filterNotNull()\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original sequence\n * and appends only the non-null results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R : Any, C : MutableCollection<in R>> Sequence<T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R?): C {\n   forEachIndexed { index, element -> transform(index, element)?.let
 { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original sequence\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.mapIndexedTo(destination: C, transform: (index: Int, T) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(checkIndexOverflow(index++), item))\n   return destination\n}\n\n/**\n * Returns a sequence containing only the non-null results of applying the given [transform] function\n * to each element in the original sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.mapNotNull\n */\npublic
 fun <T, R : Any> Sequence<T>.mapNotNull(transform: (T) -> R?): Sequence<R> {\n   return TransformingSequence(this, transform).filterNotNull()\n}\n\n/**\n * Applies the given [transform] function to each element in the original sequence\n * and appends only the non-null results to the given [destination].\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R : Any, C : MutableCollection<in R>> Sequence<T>.mapNotNullTo(destination: C, transform: (T) -> R?): C {\n   forEach { element -> transform(element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original sequence\n * and appends the results to the given [destination].\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.mapTo(destination: C, transform: (T) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Returns a
 sequence that wraps each element of the original sequence\n * into an [IndexedValue] containing the index of that element and the element itself.\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic fun <T> Sequence<T>.withIndex(): Sequence<IndexedValue<T>> {\n   return IndexingSequence(this)\n}\n\n/**\n * Returns a sequence containing only distinct elements from the given sequence.\n * \n * Among equal elements of the given sequence, only the first one will be present in the resulting sequence.\n * The elements in the resulting sequence are in the same order as they were in the source sequence.\n *\n * The operation is _intermediate_ and _stateful_.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun <T> Sequence<T>.distinct(): Sequence<T> {\n   return this.distinctBy { it }\n}\n\n/**\n * Returns a sequence containing only elements from the given sequence\n * having distinct keys returned by the given [selector] function.\n
 * \n * Among elements of the given sequence with equal keys, only the first one will be present in the resulting sequence.\n * The elements in the resulting sequence are in the same order as they were in the source sequence.\n *\n * The operation is _intermediate_ and _stateful_.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun <T, K> Sequence<T>.distinctBy(selector: (T) -> K): Sequence<T> {\n   return DistinctSequence(this, selector)\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given sequence.\n * \n * The returned set preserves the element iteration order of the original sequence.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.toMutableSet(): MutableSet<T> {\n   val set = LinkedHashSet<T>()\n   for (item in this)

set.add(item)\n   return set\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun <T> Sequence<T>.all(predicate: (T) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if sequence has at least one element.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun <T> Sequence<T>.any(): Boolean {\n   return iterator().hasNext()\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun <T> Sequence<T>.any(predicate: (T) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns the number of elements in this sequence.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.count(): Int {\n   var count = 0\n   for (element in this) checkCountOverflow(++count)\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.count(predicate: (T) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) checkCountOverflow(++count)\n   return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the sequence is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R> Sequence<T>.fold(initial: R, operation: (acc: R, T) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original sequence.\n * \n * Returns the specified [initial] value if the sequence is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R> Sequence<T>.foldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(checkIndexOverflow(index++), accumulator, element)\n   return accumulator\n}\n\n/**\n * Performs the given [action] on each element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.forEach(action: (T) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.forEachIndexed(action: (index: Int, T) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(checkIndexOverflow(index++), item)\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Sequence<Double>.max(): Double? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Sequence<Float>.max(): Float? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T : Comparable<T>> Sequence<T>.max(): T? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <T, R : Comparable<R>> Sequence<T>.maxBy(selector: (T) -> R): T? {\n   return maxByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n *\n * The operation is _terminal_.\n * \n * @sample

samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R : Comparable<R>> Sequence<T>.maxByOrNull(selector: (T) -> R): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxElem = iterator.next()\n
if (!iterator.hasNext()) return maxElem\n   var maxValue = selector(maxElem)\n   do {\n   val e = iterator.next()\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n
}\n   } while (iterator.hasNext())\n   return maxElem\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the sequence is empty.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.maxOf(selector: (T) -> Double): Double {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue = selector(iterator.next())\n
while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n
return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the sequence is empty.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.maxOf(selector: (T) -> Float): Float {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n
* Returns the largest value among all values produced by [selector] function\n * applied to each element in the sequence.\n * \n * @throws NoSuchElementException if the sequence is empty.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Sequence<T>.maxOf(selector: (T) -> R): R {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the sequence or `null` if there are no elements.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.maxOfOrNull(selector: (T) -> Double): Double? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the sequence or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <T> Sequence<T>.maxOfOrNull(selector: (T) -> Float): Float? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the sequence or `null` if there are no elements.\n *\n * The operation is _terminal_.\n

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*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>>
Sequence<T>.maxOfOrNull(selector: (T) -> R): R? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return
null\n    var maxValue = selector(iterator.next())\n    while (iterator.hasNext())
 {\n        val v = selector(iterator.next())\n        if (maxValue < v) {\n            maxValue = v\n        }\n    }\n    return
maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the sequence.\n * \n * @throws
NoSuchElementException if the sequence is empty.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R>
Sequence<T>.maxOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) throw NoSuchElementException()\n    var maxValue = selector(iterator.next())\n    while
(iterator.hasNext()) {\n        val v = selector(iterator.next())\n        if (comparator.compare(maxValue, v) < 0) {\n
   maxValue = v\n        }\n    }\n    return
 maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the sequence or `null` if there are no elements.\n *\n *
The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R>
Sequence<T>.maxOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n    val iterator =
iterator()\n    if (!iterator.hasNext()) return null\n    var maxValue = selector(iterator.next())\n    while
(iterator.hasNext()) {\n        val v = selector(iterator.next())\n        if (comparator.compare(maxValue, v) < 0) {\n
   maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest element or `null` if there are no
elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n *\n * The operation is _terminal_.\n
 */\n@SinceKotlin(\"1.4\")\npublic fun Sequence<Double>.maxOrNull(): Double? {\n    val iterator = iterator()\n
if (!iterator.hasNext()) return null\n    var max = iterator.next()\n    while (iterator.hasNext()) {\n        val e =
iterator.next()\n        max = maxOf(max, e)\n    }\n    return max\n}\n\n/**\n * Returns the largest element or `null` if
there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun Sequence<Float>.maxOrNull(): Float? {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) return null\n    var max = iterator.next()\n    while (iterator.hasNext()) {\n        val e =
iterator.next()\n        max = maxOf(max, e)\n    }\n    return max\n}\n\n/**\n * Returns the largest element or `null` if
there are no elements.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T :
Comparable<T>> Sequence<T>.maxOrNull(): T? {\n    val iterator
 = iterator()\n    if (!iterator.hasNext()) return null\n    var max = iterator.next()\n    while (iterator.hasNext()) {\n
val e = iterator.next()\n        if (max < e) max = e\n    }\n    return max\n}\n\n@Deprecated(\"Use maxWithOrNull
instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\",
errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T> Sequence<T>.maxWith(comparator: Comparator<in
T>): T? {\n    return maxWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the largest value
according to the provided [comparator] or `null` if there are no elements.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun <T> Sequence<T>.maxWithOrNull(comparator: Comparator<in T>): T? {\n
 val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var max = iterator.next()\n    while
(iterator.hasNext()) {\n        val e = iterator.next()\n        if (comparator.compare(max,
 e) < 0) max = e\n    }\n    return max\n}\n\n@Deprecated(\"Use minOrNull instead.\",
ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\",
hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Sequence<Double>.min(): Double? {\n    return
minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\",
ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\",
hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Sequence<Float>.min(): Float? {\n    return
```

minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\",
ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\",
hiddenSince = \"1.6\")\npublic fun <T : Comparable<T>> Sequence<T>.min(): T? {\n   return
minOrNull()\n}\n\n@Deprecated(\"Use minByOrNull instead.\",
ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince =
\"1.5\", hiddenSince
 = \"1.6\")\npublic inline fun <T, R : Comparable<R>> Sequence<T>.minBy(selector: (T) -> R): T? {\n   return
minByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or
`null` if there are no elements.\n *\n * The operation is _terminal_.\n * \n * @sample
samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R :
Comparable<R>> Sequence<T>.minByOrNull(selector: (T) -> R): T? {\n   val iterator = iterator()\n   if
(!iterator.hasNext()) return null\n   var minElem = iterator.next()\n   if (!iterator.hasNext()) return minElem\n   var
minValue = selector(minElem)\n   do {\n   val e = iterator.next()\n   val v = selector(e)\n   if (minValue >
v) {\n   minElem = e\n   minValue = v\n   }\n   } while (iterator.hasNext())\n   return
minElem\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
 each element in the sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result
is `NaN`.\n * \n * @throws NoSuchElementException if the sequence is empty.\n *\n * The operation is
terminal.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.minOf(selector: (T) ->
Double): Double {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var
minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n
minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all
values produced by [selector] function\n * applied to each element in the sequence.\n * \n * If any of values
produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException
 if the sequence is empty.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.minOf(selector: (T) ->
Float): Float {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var
minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n
minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all
values produced by [selector] function\n * applied to each element in the sequence.\n * \n * @throws
NoSuchElementException if the sequence is empty.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
 inline fun <T, R : Comparable<R>> Sequence<T>.minOf(selector: (T) -> R): R {\n   val iterator = iterator()\n   if
(!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while
(iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (minValue > v) {\n   minValue = v\n
}\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector]
function\n * applied to each element in the sequence or `null` if there are no elements.\n * \n * If any of values
produced by [selector] function is `NaN`, the returned result is `NaN`.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.minOfOrNull(selector:
(T) -> Double): Double? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return
 null\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v =
selector(iterator.next())\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the
smallest value among all values produced by [selector] function\n * applied to each element in the sequence or `null`
if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is

`NaN`.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.minOfOrNull(selector:
(T) -> Float): Float? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minValue =
selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   minValue =
minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n
 * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the
sequence or `null` if there are no elements.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>>
Sequence<T>.minOfOrNull(selector: (T) -> R): R? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return
null\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v =
selector(iterator.next())\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return
minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the sequence.\n * \n * @throws
NoSuchElementException if the sequence is empty.\n *\n * The
 operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R>
Sequence<T>.minOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n   val iterator = iterator()\n   if
(!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while
(iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (comparator.compare(minValue, v) > 0) {\n
   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the
provided [comparator]\n * among all values produced by [selector] function applied to each element in the sequence
or `null` if there are no elements.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
 inline fun <T, R> Sequence<T>.minOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n
val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minValue = selector(iterator.next())\n   while
(iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (comparator.compare(minValue, v) > 0) {\n
   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest element or `null` if there are
no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun Sequence<Double>.minOrNull(): Double? {\n   val iterator = iterator()\n   if
(!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e =
iterator.next()\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if
there are no elements.\n *
 \n * If any of elements is `NaN` returns `NaN`.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun Sequence<Float>.minOrNull(): Float? {\n   val iterator = iterator()\n   if
(!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e =
iterator.next()\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if
there are no elements.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T :
Comparable<T>> Sequence<T>.minOrNull(): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return
null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (min > e) min
= e\n   }\n   return min\n}\n\n@Deprecated(\"Use minWithOrNull instead.\",
ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince
= \"1.5\", hiddenSince =
 \"1.6\")\npublic fun <T> Sequence<T>.minWith(comparator: Comparator<in T>): T? {\n   return
minWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the smallest value according to the

provided [comparator] or `null` if there are no elements.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Sequence<T>.minWithOrNull(comparator: Comparator<in T>): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns `true` if the sequence has no elements.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun <T> Sequence<T>.none(): Boolean {\n   return !iterator().hasNext()\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun <T> Sequence<T>.none(predicate: (T) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns a sequence which performs the given [action] on each element of the original sequence as they pass through it.\n *\n * The operation is _intermediate_ and _stateless_.\n */\n@SinceKotlin(\"1.1\")\npublic fun <T> Sequence<T>.onEach(action: (T) -> Unit): Sequence<T> {\n   return map {\n   action(it)\n   it\n   }\n}\n\n/**\n * Returns a sequence which performs the given [action] on each element of the original sequence as they pass through it.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n *\n * The operation is _intermediate_ and _stateless_.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Sequence<T>.onEachIndexed(action: (index: Int, T) -> Unit): Sequence<T> {\n   return mapIndexed { index, element ->\n   action(index, element)\n   element\n   }\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this sequence is empty. If the sequence can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun <S, T : S> Sequence<T>.reduce(operation: (acc: S, T) -> S): S {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) throw UnsupportedOperationException(\"Empty sequence can't be reduced.\")\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original sequence.\n * \n * Throws an exception if this sequence is empty. If the sequence can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun <S, T : S> Sequence<T>.reduceIndexed(operation: (index: Int, acc: S, T) -> S): S {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) throw UnsupportedOperationException(\"Empty sequence can't be reduced.\")\n   var index = 1\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(checkIndexOverflow(index++), accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original sequence.\n * \n * Returns `null` if the sequence is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <S, T : S> Sequence<T>.reduceIndexedOrNull(operation: (index: Int, acc: S, T) -> S): S? {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) return null\n   var index = 1\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(checkIndexOverflow(index++), accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n *

Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns `null` if the sequence is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S> Sequence<T>.reduceOrNull(operation: (acc: S, T) -> S): S? {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) return null\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Returns a sequence containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n * The [initial] value should also be immutable (or should not be mutated)\n * as it may be passed to [operation] function later because of sequence's lazy nature.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic fun <T, R> Sequence<T>.runningFold(initial: R, operation: (acc: R, T) -> R): Sequence<R>
 {\n   return sequence {\n   yield(initial)\n   var accumulator = initial\n   for (element in this@runningFold) {\n   accumulator = operation(accumulator, element)\n   yield(accumulator)\n   }\n   }\n}\n\n/**\n * Returns a sequence containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original sequence and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n * The [initial] value should also be immutable (or should not be mutated)\n * as it may be passed to [operation] function later because of sequence's lazy nature.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n *\n * The
 operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic fun <T, R> Sequence<T>.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): Sequence<R> {\n   return sequence {\n   yield(initial)\n   var index = 0\n   var accumulator = initial\n   for (element in this@runningFoldIndexed) {\n   accumulator = operation(checkIndexOverflow(index++), accumulator, element)\n   yield(accumulator)\n   }\n   }\n}\n\n/**\n * Returns a sequence containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this sequence.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n * \n * @param [operation] function that takes current
 accumulator value and the element, and calculates the next accumulator value.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <S, T : S> Sequence<T>.runningReduce(operation: (acc: S, T) -> S): Sequence<S> {\n   return sequence {\n   val iterator = iterator()\n   if (iterator.hasNext()) {\n   var accumulator: S = iterator.next()\n   yield(accumulator)\n   while (iterator.hasNext()) {\n   accumulator = operation(accumulator, iterator.next())\n   yield(accumulator)\n   }\n   }\n   }\n}\n\n/**\n * Returns a sequence containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original sequence and current accumulator value that starts with the first element of this sequence.\n
 * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n *\n * The

operation is _intermediate_ and _stateless_.\n * \n * @sample
samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\npublic fun <S, T : S>
Sequence<T>.runningReduceIndexed(operation: (index: Int, acc: S, T) -> S): Sequence<S> {\n   return sequence
{\n   val iterator = iterator()\n   if (iterator.hasNext()) {\n   var accumulator: S = iterator.next()\n
yield(accumulator)\n   var index = 1\n   while (iterator.hasNext()) {\n   accumulator =
operation(checkIndexOverflow(index++), accumulator, iterator.next())\n   yield(accumulator)\n   }\n
        }\n   }\n}\n\n/**\n * Returns a sequence containing successive accumulation values generated by applying
[operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n
* Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the
previous value in resulting sequence.\n * The [initial] value should also be immutable (or should not be mutated)\n *
as it may be passed to [operation] function later because of sequence's lazy nature.\n * \n * @param [operation]
function that takes current accumulator value and an element, and calculates the next accumulator value.\n *\n * The
operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T, R>
Sequence<T>.scan(initial: R, operation: (acc: R, T) -> R): Sequence<R> {\n   return runningFold(initial,
 operation)\n}\n\n/**\n * Returns a sequence containing successive accumulation values generated by applying
[operation] from left to right\n * to each element, its index in the original sequence and current accumulator value
that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n
* otherwise it would affect the previous value in resulting sequence.\n * The [initial] value should also be immutable
(or should not be mutated)\n * as it may be passed to [operation] function later because of sequence's lazy nature.\n
* \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the
element itself, and calculates the next accumulator value.\n *\n * The operation is _intermediate_ and _stateless_.\n
* \n * @sample samples.collections.Collections.Aggregates.scan\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T, R>
Sequence<T>.scanIndexed(initial:
 R, operation: (index: Int, acc: R, T) -> R): Sequence<R> {\n   return runningFoldIndexed(initial,
operation)\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the
sequence.\n *\n * The operation is _terminal_.\n */\n@Deprecated(\"Use sumOf instead.\",
ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun <T>
Sequence<T>.sumBy(selector: (T) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum +=
selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the sequence.\n *\n * The operation is _terminal_.\n */\n@Deprecated(\"Use sumOf
instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline
fun <T> Sequence<T>.sumByDouble(selector: (T) -> Double): Double {\n   var sum: Double = 0.0\n   for (element
in this) {\n
        sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the sequence.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@kotlin.internal.InlineOnly\npublic inline fun
<T> Sequence<T>.sumOf(selector: (T) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element
in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced
by [selector] function applied to each element in the sequence.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun <T>
Sequence<T>.sumOf(selector:
 (T) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n
return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in
the sequence.\n *\n * The operation is _terminal_.\n

*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.sumOf(selector: (T) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the sequence.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic
 inline fun <T> Sequence<T>.sumOf(selector: (T) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the sequence.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.sumOf(selector: (T) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns an original collection containing all the non-`null` elements, throwing an [IllegalArgumentException] if there are any
 `null` elements.\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic fun <T : Any> Sequence<T?>.requireNoNulls(): Sequence<T> {\n   return map { it ?: throw IllegalArgumentException(\"null element found in $this.\") }\n}\n\n/**\n * Splits this sequence into a sequence of lists each not exceeding the given [size].\n * \n * The last list in the resulting sequence may have fewer elements than the given [size].\n * \n * @param size the number of elements to take in each list, must be positive and can be greater than the number of elements in this sequence.\n *\n * The operation is _intermediate_ and _stateful_.\n * \n * @sample samples.collections.Collections.Transformations.chunked\n */\n@SinceKotlin(\"1.2\")\npublic fun <T> Sequence<T>.chunked(size: Int): Sequence<List<T>> {\n   return windowed(size, size, partialWindows = true)\n}\n\n/**\n * Splits this sequence into several lists each not exceeding the given [size]\n * and applies the given [transform] function to
 an each.\n * \n * @return sequence of results of the [transform] applied to an each list.\n * \n * Note that the list passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * The last list may have fewer elements than the given [size].\n * \n * @param size the number of elements to take in each list, must be positive and can be greater than the number of elements in this sequence.\n *\n * The operation is _intermediate_ and _stateful_.\n * \n * @sample samples.text.Strings.chunkedTransform\n */\n@SinceKotlin(\"1.2\")\npublic fun <T, R> Sequence<T>.chunked(size: Int, transform: (List<T>) -> R): Sequence<R> {\n   return windowed(size, size, partialWindows = true, transform = transform)\n}\n\n/**\n * Returns a sequence containing all elements of the original sequence without the first occurrence of the given [element].\n *\n * The operation is _intermediate_
 and _stateless_.\n */\npublic operator fun <T> Sequence<T>.minus(element: T): Sequence<T> {\n   return object: Sequence<T> {\n   override fun iterator(): Iterator<T> {\n   var removed = false\n   return this@minus.filter { if (!removed && it == element) { removed = true; false } else true }.iterator()\n   }\n   }\n}\n\n/**\n * Returns a sequence containing all elements of original sequence except the elements contained in the given [elements] array.\n * \n * Note that the source sequence and the array being subtracted are iterated only when an `iterator` is requested from\n * the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n * \n * Before Kotlin 1.6, the [elements] array may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can
 enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n *\n * The operation is _intermediate_ and _stateful_.\n */\npublic operator fun <T> Sequence<T>.minus(elements: Array<out T>): Sequence<T> {\n   if (elements.isEmpty()) return this\n   return

object: Sequence<T> {\n override fun iterator(): Iterator<T> {\n val other = elements.convertToSetForSetOperation()\n return this@minus.filterNot { it in other }.iterator()\n }\n }\n}\n\n/**\n * Returns a sequence containing all elements of original sequence except the elements contained in the given [elements] collection.\n * \n * Note that the source sequence and the collection being subtracted are iterated only when an `iterator` is requested from\n * the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n * \n * Before Kotlin 1.6, the [elements] collection may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n *\n * The operation is _intermediate_ and _stateful_.\n */\npublic operator fun <T> Sequence<T>.minus(elements: Iterable<T>): Sequence<T> {\n return object: Sequence<T> {\n override fun iterator(): Iterator<T> {\n val other = elements.convertToSetForSetOperation()\n if (other.isEmpty())\n return this@minus.iterator()\n else\n return this@minus.filterNot { it in other }.iterator()\n }\n }\n}\n\n/**\n * Returns a sequence containing all elements of original sequence except the elements contained in the given [elements] sequence.\n * \n * Note that the source sequence and the sequence being subtracted are iterated only when an `iterator` is requested from\n * the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n * \n * The operation is _intermediate_ for this sequence and _terminal_ and _stateful_ for the [elements] sequence.\n * \n * Before Kotlin 1.6, the [elements] sequence may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n */\npublic operator fun <T> Sequence<T>.minus(elements: Sequence<T>): Sequence<T> {\n return object: Sequence<T> {\n override fun iterator(): Iterator<T> {\n val other = elements.convertToSetForSetOperation()\n if (other.isEmpty())\n return this@minus.iterator()\n else\n return this@minus.filterNot { it in other }.iterator()\n }\n }\n}\n\n/**\n * Returns a sequence containing all elements of the original sequence without the first occurrence of the given [element].\n *\n * The operation is _intermediate_ and _stateless_.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.minusElement(element: T): Sequence<T> {\n return minus(element)\n}\n\n/**\n * Splits the original sequence into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Sequences.Transformations.partition\n */\npublic inline fun <T> Sequence<T>.partition(predicate: (T) -> Boolean): Pair<List<T>, List<T>> {\n val first = ArrayList<T>()\n val second = ArrayList<T>()\n for (element in this) {\n if (predicate(element)) {\n first.add(element)\n } else {\n second.add(element)\n }\n }\n return Pair(first, second)\n}\n\n/**\n * Returns a sequence containing all elements of the original sequence and then the given [element].\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic operator fun <T> Sequence<T>.plus(element: T): Sequence<T> {\n return sequenceOf(this, sequenceOf(element)).flatten()\n}\n\n/**\n * Returns a sequence containing all elements of original sequence and then all elements of the given [elements] array.\n * \n * Note that the source sequence and the array being added are iterated only when an `iterator` is requested from\n * the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic operator fun <T> Sequence<T>.plus(elements: Array<out T>): Sequence<T> {\n return this.plus(elements.asList())\n}\n\n/**\n * Returns a sequence containing all elements of original sequence and then all elements of the given [elements] collection.\n * \n * Note that the source sequence and the collection being added are iterated only when an `iterator` is requested from\n * the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic operator fun <T>

Sequence<T>.plus(elements: Iterable<T>): Sequence<T> {\n   return sequenceOf(this, elements.asSequence()).flatten()\n}\n\n/**\n * Returns a sequence containing all elements of original sequence and then all elements of the given [elements] sequence.\n * \n * Note that the source sequence and the sequence being added are iterated only when an `iterator` is requested from\n * the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic operator fun <T> Sequence<T>.plus(elements: Sequence<T>): Sequence<T> {\n   return sequenceOf(this, elements).flatten()\n}\n\n/**\n * Returns a sequence containing all elements of the original sequence and then the given [element].\n *\n * The operation is _intermediate_ and _stateless_.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.plusElement(element: T): Sequence<T> {\n   return plus(element)\n}\n\n/**\n * Returns a sequence of snapshots of the window of the given [size]\n * sliding along this sequence with the given [step], where each\n * snapshot is a list.\n * \n * Several last lists may have fewer elements than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in this sequence.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether

or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.takeWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun <T> Sequence<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false): Sequence<List<T>> {\n   return windowedSequence(size, step, partialWindows, reuseBuffer = false)\n}\n\n/**\n * Returns a sequence of results of applying the given [transform] function to\n * an each list representing a view over the window of the given [size]\n * sliding along this sequence with the given [step].\n * \n * Note that the list passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * Several last lists may have fewer elements than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the

number of elements in this sequence.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.averageWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun <T, R> Sequence<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false, transform: (List<T>) -> R): Sequence<R> {\n   return windowedSequence(size, step, partialWindows, reuseBuffer = true).map(transform)\n}\n\n/**\n * Returns a sequence of values built from the elements of `this` sequence and the [other] sequence with the same index.\n * The resulting sequence ends as soon as the shortest input sequence ends.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Sequences.Transformations.zip\n

*/\npublic infix fun <T, R> Sequence<T>.zip(other: Sequence<R>): Sequence<Pair<T, R>> {\n   return MergingSequence(this, other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a sequence of values built from the elements of `this` sequence and the [other] sequence with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The resulting sequence ends as soon as the shortest input sequence ends.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Sequences.Transformations.zipWithTransform\n */\npublic fun <T, R, V> Sequence<T>.zip(other: Sequence<R>, transform: (a: T, b: R) -> V): Sequence<V> {\n   return MergingSequence(this, other, transform)\n}\n\n/**\n * Returns a sequence of pairs of each two adjacent elements in this sequence.\n * \n * The returned sequence is empty if this sequence contains less than two elements.\n *\n * The operation is _intermediate_ and _stateless_.\n

* \n * @sample samples.collections.Collections.Transformations.zipWithNext\n */\n@SinceKotlin(\"1.2\")\npublic fun <T> Sequence<T>.zipWithNext(): Sequence<Pair<T, T>> {\n   return zipWithNext { a, b -> a to b

}\n}\n\n/**\n * Returns a sequence containing the results of applying the given [transform] function\n * to an each pair of two adjacent elements in this sequence.\n * \n * The returned sequence is empty if this sequence contains less than two elements.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNextToFindDeltas\n */\n@SinceKotlin(\"1.2\")\npublic fun <T, R> Sequence<T>.zipWithNext(transform: (a: T, b: T) -> R): Sequence<R> {\n   return sequence result@ {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return@result\n   var current = iterator.next()\n   while (iterator.hasNext()) {\n   val next = iterator.next()\n   yield(transform(current,
 next))\n   current = next\n   }\n   }\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <T, A : Appendable> Sequence<T>.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   buffer.appendElement(element,
 transform)\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun <T> Sequence<T>.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates an [Iterable]
 instance that wraps the original sequence returning its elements when being iterated.\n */\npublic fun <T> Sequence<T>.asIterable(): Iterable<T> {\n   return Iterable { this.iterator() }\n}\n\n/**\n * Returns this sequence as a [Sequence].\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.asSequence(): Sequence<T> {\n   return this\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"averageOfByte\")\npublic fun Sequence<Byte>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"averageOfShort\")\npublic fun Sequence<Short>.average(): Double {\n   var sum: Double = 0.0\n   var count:
 Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"averageOfInt\")\npublic fun Sequence<Int>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"averageOfLong\")\npublic fun Sequence<Long>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average
 value of elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"averageOfFloat\")\npublic fun Sequence<Float>.average(): Double {\n   var sum:

Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"averageOfDouble\")\npublic fun Sequence<Double>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfByte\")\npublic fun Sequence<Byte>.sum(): Int {\n   var sum: Int = 0\n   for (element in this)
 {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfShort\")\npublic fun Sequence<Short>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfInt\")\npublic fun Sequence<Int>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfLong\")\npublic fun Sequence<Long>.sum(): Long {\n   var sum: Long = 0L\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfFloat\")\npublic
 fun Sequence<Float>.sum(): Float {\n   var sum: Float = 0.0f\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfDouble\")\npublic fun Sequence<Double>.sum(): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"SetsKt\")\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\nimport kotlin.ranges.contains\nimport
 kotlin.ranges.reversed\n\n/**\n * Returns a set containing all elements of the original set except the given [element].\n * \n * The returned set preserves the element iteration order of the original set.\n */\npublic operator fun <T> Set<T>.minus(element: T): Set<T> {\n   val result = LinkedHashSet<T>(mapCapacity(size))\n   var removed = false\n   return this.filterTo(result) { if (!removed && it == element) { removed = true; false } else true }\n}\n\n/**\n * Returns a set containing all elements of the original set except the elements contained in the given [elements] array.\n * \n * The returned set preserves the element iteration order of the original set.\n * \n * Before Kotlin 1.6, the [elements] array may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back with
 the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n */\npublic operator fun <T> Set<T>.minus(elements: Array<out T>): Set<T> {\n   val result = LinkedHashSet<T>(this)\n result.removeAll(elements)\n   return result\n}\n\n/**\n * Returns a set containing all elements of the original set except the elements contained in the given [elements] collection.\n * \n * The returned set preserves the element iteration order of the original set.\n * \n * Before Kotlin 1.6, the [elements] collection may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n */\npublic operator fun <T> Set<T>.minus(elements: Iterable<T>): Set<T> {\n   val other = elements.convertToSetForSetOperationWith(this)\n

```
    if (other.isEmpty())\n        return this.toSet()\n    if (other is Set)\n        return
this.filterNotTo(LinkedHashSet<T>()) { it in other }\n    val result = LinkedHashSet<T>(this)\n
result.removeAll(other)\n    return result\n}\n\n/**\n * Returns a set containing all elements of the original set
except the elements contained in the given [elements] sequence.\n * \n * The returned set preserves the element
iteration order of the original set.\n * \n * Before Kotlin 1.6, the [elements] sequence may have been converted to a
[HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation
of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back
with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n */\npublic operator
fun <T> Set<T>.minus(elements: Sequence<T>): Set<T> {\n    val result = LinkedHashSet<T>(this)\n
    result.removeAll(elements)\n    return result\n}\n\n/**\n * Returns a set containing all elements of the original set
except the given [element].\n * \n * The returned set preserves the element iteration order of the original set.\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T> Set<T>.minusElement(element: T): Set<T> {\n    return
minus(element)\n}\n\n/**\n * Returns a set containing all elements of the original set and then the given [element] if
it isn't already in this set.\n * \n * The returned set preserves the element iteration order of the original set.\n
*/\npublic operator fun <T> Set<T>.plus(element: T): Set<T> {\n    val result =
LinkedHashSet<T>(mapCapacity(size + 1))\n    result.addAll(this)\n    result.add(element)\n    return
result\n}\n\n/**\n * Returns a set containing all elements of the original set and the given [elements] array,\n *
which aren't already in this set.\n * \n * The returned set preserves the element iteration order of the original
 set.\n */\npublic operator fun <T> Set<T>.plus(elements: Array<out T>): Set<T> {\n    val result =
LinkedHashSet<T>(mapCapacity(this.size + elements.size))\n    result.addAll(this)\n    result.addAll(elements)\n
return result\n}\n\n/**\n * Returns a set containing all elements of the original set and the given [elements]
collection,\n * which aren't already in this set.\n * The returned set preserves the element iteration order of the
original set.\n */\npublic operator fun <T> Set<T>.plus(elements: Iterable<T>): Set<T> {\n    val result =
LinkedHashSet<T>(mapCapacity(elements.collectionSizeOrNull()?.let { this.size + it } ?: this.size * 2))\n
result.addAll(this)\n    result.addAll(elements)\n    return result\n}\n\n/**\n * Returns a set containing all elements of
the original set and the given [elements] sequence,\n * which aren't already in this set.\n * \n * The returned set
preserves the element iteration order of the original set.\n */\npublic operator fun <T> Set<T>.plus(elements:
 Sequence<T>): Set<T> {\n    val result = LinkedHashSet<T>(mapCapacity(this.size * 2))\n    result.addAll(this)\n
result.addAll(elements)\n    return result\n}\n\n/**\n * Returns a set containing all elements of the original set and
then the given [element] if it isn't already in this set.\n * \n * The returned set preserves the element iteration order
of the original set.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Set<T>.plusElement(element: T):
Set<T> {\n    return plus(element)\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n\npackage
kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n
 * Returns a character at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of
bounds of this char sequence.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic
expect fun CharSequence.elementAt(index: Int): Char\n\n/**\n * Returns a character at the given [index] or the
result of calling the [defaultValue] function if the [index] is out of bounds of this char sequence.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun
CharSequence.elementAtOrElse(index: Int, defaultValue: (Int) -> Char): Char {\n    return if (index >= 0 && index
<= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns a character at the given [index] or `null` if
the [index] is out of bounds of this char sequence.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun
CharSequence.elementAtOrNull(index:
```

Int): Char? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns the first character matching the given [predicate], or `null` if no such character was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.find(predicate: (Char) -> Boolean): Char? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the last character matching the given [predicate], or `null` if no such character was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.findLast(predicate: (Char) -> Boolean): Char? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns first character.\n * @throws [NoSuchElementException] if the char sequence is empty.\n */\npublic fun CharSequence.first(): Char {\n   if (isEmpty())\n   throw NoSuchElementException(\"Char sequence is empty.\")\n   return this[0]\n}\n\n/**\n * Returns

the first character matching the given [predicate].\n * @throws [NoSuchElementException] if no such character is found.\n */\npublic inline fun CharSequence.first(predicate: (Char) -> Boolean): Char {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Char sequence contains no character matching the predicate.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to characters of this char sequence in iteration order,\n * or throws [NoSuchElementException] if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <R : Any> CharSequence.firstNotNullOf(transform: (Char) -> R?): R {\n   return firstNotNullOfOrNull(transform) ?: throw NoSuchElementException(\"No element of the char sequence was transformed to a non-null value.\")\n}\n\n/**\n * Returns the first

non-null value produced by [transform] function being applied to characters of this char sequence in iteration order,\n * or `null` if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <R : Any> CharSequence.firstNotNullOfOrNull(transform: (Char) -> R?): R? {\n   for (element in this) {\n   val result = transform(element)\n   if (result != null) {\n   return result\n   }\n   }\n   return null\n}\n\n/**\n * Returns the first character, or `null` if the char sequence is empty.\n */\npublic fun CharSequence.firstOrNull(): Char? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first character matching the given [predicate], or `null` if character was not found.\n */\npublic inline fun CharSequence.firstOrNull(predicate: (Char) -> Boolean): Char? {\n   for (element in this) if (predicate(element)) return

element\n   return null\n}\n\n/**\n * Returns a character at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this char sequence.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.getOrElse(index: Int, defaultValue: (Int) -> Char): Char {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns a character at the given [index] or `null` if the [index] is out of bounds of this char sequence.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun CharSequence.getOrNull(index: Int): Char? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns index of the first character matching the given [predicate], or -1 if the char sequence does not contain such character.\n */\npublic inline fun CharSequence.indexOfFirst(predicate: (Char) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index]))

{\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last character matching the given [predicate], or -1 if the char sequence does not contain such character.\n */\npublic inline fun CharSequence.indexOfLast(predicate: (Char) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns the last character.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n * \n * @sample samples.text.Strings.last\n */\npublic fun CharSequence.last(): Char {\n   if (isEmpty())\n   throw NoSuchElementException(\"Char sequence is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last character matching the given [predicate].\n * \n * @throws NoSuchElementException if no such character is found.\n * \n * @sample samples.text.Strings.last\n */\npublic inline fun CharSequence.last(predicate: (Char) -> Boolean): Char {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Char sequence contains no character matching the predicate.\")\n}\n\n/**\n * Returns the last character, or `null` if the char sequence is empty.\n * \n * @sample samples.text.Strings.last\n */\npublic fun CharSequence.lastOrNull(): Char? {\n   return if (isEmpty()) null else this[length - 1]\n}\n\n/**\n * Returns the last character matching the given [predicate], or `null` if no such character was found.\n * \n * @sample samples.text.Strings.last\n */\npublic inline fun CharSequence.lastOrNull(predicate: (Char) -> Boolean): Char? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns a random character from this char sequence.\n * \n * @throws NoSuchElementException if this char sequence is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.random(): Char {\n   return random(Random)\n}\n\n/**\n * Returns a random character from this char sequence using the specified source of randomness.\n * \n * @throws NoSuchElementException if this char sequence is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun CharSequence.random(random: Random): Char {\n   if (isEmpty())\n   throw NoSuchElementException(\"Char sequence is empty.\")\n   return get(random.nextInt(length))\n}\n\n/**\n * Returns a random character from this char sequence, or `null` if this char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.randomOrNull(): Char? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random character from this char sequence using the specified source of randomness, or `null` if this char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun CharSequence.randomOrNull(random: Random): Char? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(length))\n}\n\n/**\n * Returns the single character, or throws an exception if the char sequence is empty or has more than one character.\n */\npublic fun CharSequence.single(): Char {\n   return when (length) {\n   0 -> throw NoSuchElementException(\"Char sequence is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Char sequence has more than one element.\")\n   }\n}\n\n/**\n * Returns the single character matching the given [predicate], or throws exception if there is no or more than one matching character.\n */\npublic inline fun CharSequence.single(predicate: (Char) -> Boolean): Char {\n   var single: Char? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Char sequence contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Char sequence contains no character matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return single as Char\n}\n\n/**\n * Returns single character, or `null` if the char sequence is empty or has more than one character.\n */\npublic fun CharSequence.singleOrNull(): Char? {\n   return if (length == 1) this[0] else null\n}\n\n/**\n * Returns the single character matching the given [predicate], or `null` if character was not found or more than one character was found.\n */\npublic inline fun CharSequence.singleOrNull(predicate: (Char) -> Boolean): Char? {\n   var single: Char? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns a subsequence of this char sequence with the first [n] characters removed.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.drop\n */\npublic fun CharSequence.drop(n: Int): CharSequence {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   return subSequence(n.coerceAtMost(length), length)\n}\n\n/**\n * Returns a string with the first [n] characters removed.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.drop\n */\npublic fun String.drop(n: Int): String {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   return substring(n.coerceAtMost(length))\n}\n\n/**\n * Returns a subsequence of this char sequence with the last [n] characters removed.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.drop\n

*/\npublic fun CharSequence.dropLast(n: Int): CharSequence {\n require(n >= 0) { \"Requested character count $n is less than zero.\" }\n return take((length - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a string with the last [n] characters removed.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.drop\n */\npublic fun String.dropLast(n: Int): String {\n require(n >= 0) { \"Requested character count $n is less than zero.\" }\n return take((length - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a subsequence of this char sequence containing all characters except last characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.drop\n */\npublic inline fun CharSequence.dropLastWhile(predicate: (Char) -> Boolean): CharSequence {\n for (index in lastIndex downTo 0)\n if (!predicate(this[index]))\n return subSequence(0, index + 1)\n return \"\"\n}\n\n/**\n * Returns a string containing

all characters except last characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.drop\n */\npublic inline fun String.dropLastWhile(predicate: (Char) -> Boolean): String {\n for (index in lastIndex downTo 0)\n if (!predicate(this[index]))\n return substring(0, index + 1)\n return \"\"\n}\n\n/**\n * Returns a subsequence of this char sequence containing all characters except first characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.drop\n */\npublic inline fun CharSequence.dropWhile(predicate: (Char) -> Boolean): CharSequence {\n for (index in this.indices)\n if (!predicate(this[index]))\n return subSequence(index, length)\n return \"\"\n}\n\n/**\n * Returns a string containing all characters except first characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.drop\n */\npublic inline fun String.dropWhile(predicate: (Char) -> Boolean): String {\n

for (index in this.indices)\n if (!predicate(this[index]))\n return substring(index)\n return \"\"\n}\n\n/**\n * Returns a char sequence containing only those characters from the original char sequence that match the given [predicate].\n * \n * @sample samples.text.Strings.filter\n */\npublic inline fun CharSequence.filter(predicate: (Char) -> Boolean): CharSequence {\n return filterTo(StringBuilder(), predicate)\n}\n\n/**\n * Returns a string containing only those characters from the original string that match the given [predicate].\n * \n * @sample samples.text.Strings.filter\n */\npublic inline fun String.filter(predicate: (Char) -> Boolean): String {\n return filterTo(StringBuilder(), predicate).toString()\n}\n\n/**\n * Returns a char sequence containing only those characters from the original char sequence that match the given [predicate].\n * @param [predicate] function that takes the index of a character and the character itself\n * and returns the

result of predicate evaluation on the character.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun CharSequence.filterIndexed(predicate: (index: Int, Char) -> Boolean): CharSequence {\n return filterIndexedTo(StringBuilder(), predicate)\n}\n\n/**\n * Returns a string containing only those characters from the original string that match the given [predicate].\n * @param [predicate] function that takes the index of a character and the character itself\n * and returns the result of predicate evaluation on the character.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun String.filterIndexed(predicate: (index: Int, Char) -> Boolean): String {\n return filterIndexedTo(StringBuilder(), predicate).toString()\n}\n\n/**\n * Appends all characters matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of a character and the character itself\n

* and returns the result of predicate evaluation on the character.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : Appendable> CharSequence.filterIndexedTo(destination: C, predicate: (index: Int, Char) -> Boolean): C {\n forEachIndexed { index, element ->\n if (predicate(index, element)) destination.append(element)\n }\n return destination\n}\n\n/**\n * Returns a char sequence containing only those characters from the original char sequence that do not match the given [predicate].\n * \n * @sample samples.text.Strings.filterNot\n */\npublic inline fun CharSequence.filterNot(predicate: (Char) -> Boolean): CharSequence {\n return filterNotTo(StringBuilder(), predicate)\n}\n\n/**\n * Returns a string containing only those characters from the original string that do not match the given [predicate].\n * \n * @sample samples.text.Strings.filterNot\n */\npublic inline fun String.filterNot(predicate: (Char) -> Boolean):

String {\n   return filterNotTo(StringBuilder(), predicate).toString()\n}\n\n/**\n * Appends all characters not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : Appendable> CharSequence.filterNotTo(destination: C, predicate: (Char) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.append(element)\n   return destination\n}\n\n/**\n * Appends all characters matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : Appendable> CharSequence.filterTo(destination: C, predicate: (Char) -> Boolean): C {\n   for (index in 0 until length) {\n   val element = get(index)\n   if (predicate(element)) destination.append(element)\n   }\n   return destination\n}\n\n/**\n * Returns a char sequence containing characters of the original char sequence at the specified range of [indices].\n */\npublic fun CharSequence.slice(indices: IntRange): CharSequence {\n   if (indices.isEmpty()) return \"\"\n   return subSequence(indices)\n}\n\n/**\n * Returns a string containing characters of the original string at the specified range of [indices].\n */\npublic fun String.slice(indices: IntRange): String {\n   if (indices.isEmpty()) return \"\"\n   return substring(indices)\n}\n\n/**\n * Returns a char sequence containing characters of the original char sequence at specified [indices].\n */\npublic fun CharSequence.slice(indices: Iterable<Int>): CharSequence {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return \"\"\n   val result = StringBuilder(size)\n   for (i in indices) {\n   result.append(get(i))\n   }\n   return result\n}\n\n/**\n * Returns a string containing characters of the original string at specified [indices].\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.slice(indices: Iterable<Int>): String {\n   return (this as CharSequence).slice(indices).toString()\n}\n\n/**\n * Returns a subsequence of this char sequence containing the first [n] characters from this char sequence, or the entire char sequence if this char sequence is shorter.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.take\n */\npublic fun CharSequence.take(n: Int): CharSequence {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   return subSequence(0, n.coerceAtMost(length))\n}\n\n/**\n * Returns a string containing the first [n] characters from this string, or the entire string if this string is shorter.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.take\n */\npublic fun String.take(n: Int): String {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   return substring(0, n.coerceAtMost(length))\n}\n\n/**\n * Returns a subsequence of this char sequence containing the last [n] characters from this char sequence, or the entire char sequence if this char sequence is shorter.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.take\n */\npublic fun CharSequence.takeLast(n: Int): CharSequence {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   val length = length\n   return subSequence(length - n.coerceAtMost(length), length)\n}\n\n/**\n * Returns a string containing the last [n] characters from this string, or the entire string if this string is shorter.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.take\n */\npublic fun String.takeLast(n: Int): String {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   val length = length\n   return substring(length - n.coerceAtMost(length))\n}\n\n/**\n * Returns a subsequence of this char sequence containing last characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.take\n */\npublic inline fun CharSequence.takeLastWhile(predicate: (Char) -> Boolean): CharSequence {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return subSequence(index + 1, length)\n   }\n   }\n   return subSequence(0, length)\n}\n\n/**\n * Returns a string containing last characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.take\n */\npublic inline fun String.takeLastWhile(predicate: (Char) -> Boolean): String {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return substring(index + 1)\n   }\n   }\n   return this\n}\n\n/**\n * Returns a subsequence of this char sequence containing the first characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.take\n */\npublic inline fun CharSequence.takeWhile(predicate: (Char) -> Boolean): CharSequence {\n   for (index in 0 until length)\n   if (!predicate(get(index))) {\n   return subSequence(0, index)\n   }\n   return subSequence(0, length)\n}\n\n/**\n * Returns a string containing the first characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.take\n */\npublic inline fun String.takeWhile(predicate: (Char) -> Boolean): String {\n   for (index in 0 until length)\n   if (!predicate(get(index))) {\n   return substring(0, index)\n   }\n   return this\n}\n\n/**\n * Returns a char sequence with characters in reversed order.\n */\npublic fun CharSequence.reversed(): CharSequence {\n   return StringBuilder(this).reverse()\n}\n\n/**\n * Returns a string with characters in reversed order.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.reversed(): String {\n return (this as CharSequence).reversed().toString()\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n

 * applied to characters of the given char sequence.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original char sequence.\n * \n * @sample samples.text.Strings.associate\n */\npublic inline fun <K, V> CharSequence.associate(transform: (Char) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(length).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing the characters from the given char sequence indexed by the key\n * returned from [keySelector] function applied to each character.\n * \n * If any two characters would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original char sequence.\n * \n * @sample samples.text.Strings.associateBy\n */\npublic inline fun <K> CharSequence.associateBy(keySelector:

 (Char) -> K): Map<K, Char> {\n   val capacity = mapCapacity(length).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Char>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to characters of the given char sequence.\n * \n * If any two characters would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original char sequence.\n * \n * @sample samples.text.Strings.associateByWithValueTransform\n */\npublic inline fun <K, V> CharSequence.associateBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, V> {\n   val capacity = mapCapacity(length).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the

 [keySelector] function applied to each character of the given char sequence\n * and value is the character itself.\n * \n * If any two characters would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.text.Strings.associateByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Char>> CharSequence.associateByTo(destination: M, keySelector: (Char) -> K): M {\n   for (element in this) {\n destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to characters of the given char sequence.\n * \n * If any two characters would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.text.Strings.associateByToWithValueTransform\n */\npublic inline fun

 <K, V, M : MutableMap<in K, in V>> CharSequence.associateByTo(destination: M, keySelector: (Char) -> K, valueTransform: (Char) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each character of the given char sequence.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.text.Strings.associateTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> CharSequence.associateTo(destination: M, transform: (Char) -> Pair<K, V>): M {\n   for (element in this) {\n destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Returns a [Map] where keys are characters from the given char sequence and values are\n * produced by the [valueSelector] function applied to each character.\n

 * \n * If any two characters are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original char sequence.\n * \n * @sample samples.text.Strings.associateWith\n */\n@SinceKotlin(\"1.3\")\npublic inline fun <V> CharSequence.associateWith(valueSelector: (Char) -> V):

Map<Char, V> {\n   val result = LinkedHashMap<Char, V>(mapCapacity(length.coerceAtMost(128)).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each character of the given char sequence,\n * where key is the character itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two characters are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.text.Strings.associateWithTo\n */\n@SinceKotlin(\"1.3\")\npublic inline fun <V, M : MutableMap<in Char, in V>> CharSequence.associateWithTo(destination: M, valueSelector: (Char) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Appends all characters to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Char>> CharSequence.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Returns a new [HashSet] of all characters.\n */\npublic fun CharSequence.toHashSet(): HashSet<Char> {\n   return toCollection(HashSet<Char>(mapCapacity(length.coerceAtMost(128))))\n}\n\n/**\n * Returns a [List] containing all characters.\n */\npublic fun CharSequence.toList(): List<Char> {\n   return when (length) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a new [MutableList] filled with all characters of this char sequence.\n */\npublic fun CharSequence.toMutableList(): MutableList<Char> {\n   return toCollection(ArrayList<Char>(length))\n}\n\n/**\n * Returns a [Set] of all characters.\n * \n * The returned set preserves the element iteration order of the original char sequence.\n */\npublic fun CharSequence.toSet(): Set<Char> {\n   return when (length) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Char>(mapCapacity(length.coerceAtMost(128))))\n   }\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each character of original char sequence.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> CharSequence.flatMap(transform: (Char) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each character\n * and its index in the original char sequence.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharSequence.flatMapIndexed(transform: (index: Int, Char) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each character\n * and its index in the original char sequence, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> CharSequence.flatMapIndexedTo(destination: C, transform: (index: Int, Char) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each character of original char sequence, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> CharSequence.flatMapTo(destination: C, transform: (Char) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Groups characters of the original char sequence by the key returned by the given [keySelector] function\n * applied to each character and returns a map where each group key is associated with a list of corresponding characters.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original char sequence.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n

*/\npublic inline fun <K> CharSequence.groupBy(keySelector: (Char) -> K): Map<K, List<Char>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Char>>(), keySelector)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each character of the original char sequence\n * by the key returned by the given [keySelector] function applied to the character\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original char sequence.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> CharSequence.groupBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups characters of the original char sequence by the key returned by the given [keySelector] function\n * applied to each character and puts to the [destination] map each group key associated with a list of corresponding characters.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Char>>> CharSequence.groupByTo(destination: M, keySelector: (Char) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Char>() }\n list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each character of the original char sequence\n * by the key returned by the given [keySelector] function applied to the character\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> CharSequence.groupByTo(destination: M, keySelector: (Char) -> K, valueTransform: (Char) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Creates a [Grouping] source from a char sequence to be used later with one of group-and-fold operations\n * using the specified [keySelector] function to extract a key from each character.\n * \n * @sample samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <K> CharSequence.groupingBy(crossinline keySelector: (Char) -> K): Grouping<Char, K> {\n   return object : Grouping<Char, K> {\n   override fun sourceIterator(): Iterator<Char> = this@groupingBy.iterator()\n   override fun keyOf(element: Char): K = keySelector(element)\n   }\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each character in the original char sequence.\n * \n * @sample samples.text.Strings.map\n */\npublic inline fun <R> CharSequence.map(transform: (Char) -> R): List<R> {\n   return mapTo(ArrayList<R>(length), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each character and its index in the original char sequence.\n * @param [transform] function that takes the index of a character and the character itself\n * and returns the result of the transform applied to the character.\n */\npublic inline fun <R> CharSequence.mapIndexed(transform: (index: Int, Char) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(length), transform)\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each character and its index in the original char sequence.\n * @param [transform] function that takes the index of a character and the character itself\n * and returns the result of the transform applied to the character.\n */\npublic inline fun <R : Any> CharSequence.mapIndexedNotNull(transform: (index: Int, Char) -> R?): List<R> {\n   return mapIndexedNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each character and its index in the original char sequence\n * and appends only the non-null results to the given [destination].\n * @param [transform] function that takes the index of a character and the character itself\n * and returns the result of the transform applied to the character.\n */\npublic inline fun <R : Any, C : MutableCollection<in R>> CharSequence.mapIndexedNotNullTo(destination: C, transform: (index: Int, Char) -> R?): C {\n   forEachIndexed { index, element -> transform(index, element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform]

function to each character and its index in the original char sequence\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of a character and the character itself\n * and returns the result of the transform applied to the character.\n */\npublic inline fun <R, C : MutableCollection<in R>> CharSequence.mapIndexedTo(destination: C, transform: (index: Int, Char) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each character in the original char sequence.\n * \n * @sample samples.collections.Collections.Transformations.mapNotNull\n */\npublic inline fun <R : Any> CharSequence.mapNotNull(transform: (Char) -> R?): List<R> {\n   return mapNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each character in the original char sequence\n * and appends only the non-null results to the given [destination].\n */\npublic inline fun <R : Any, C : MutableCollection<in R>> CharSequence.mapNotNullTo(destination: C, transform: (Char) -> R?): C {\n   forEach { element -> transform(element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each character of the original char sequence\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> CharSequence.mapTo(destination: C, transform: (Char) -> R): C {\n   for (item in this)\n destination.add(transform(item))\n   return destination\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each character of the original char sequence\n * into an [IndexedValue] containing the index of that character and the character itself.\n */\npublic fun CharSequence.withIndex(): Iterable<IndexedValue<Char>> {\n   return IndexingIterable
{ iterator() }\n}\n\n/**\n * Returns `true` if all characters match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun CharSequence.all(predicate: (Char) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if char sequence has at least one character.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun CharSequence.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if at least one character matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun CharSequence.any(predicate: (Char) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns the length of this char sequence.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.count(): Int {\n
return length\n}\n\n/**\n * Returns the number of characters matching the given [predicate].\n */\npublic inline fun CharSequence.count(predicate: (Char) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each character.\n * \n * Returns the specified [initial] value if the char sequence is empty.\n * \n * @param [operation] function that takes current accumulator value and a character, and calculates the next accumulator value.\n */\npublic inline fun <R> CharSequence.fold(initial: R, operation: (acc: R, Char) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value
and each character with its index in the original char sequence.\n * \n * Returns the specified [initial] value if the char sequence is empty.\n * \n * @param [operation] function that takes the index of a character, current accumulator value\n * and the character itself, and calculates the next accumulator value.\n */\npublic inline fun <R> CharSequence.foldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each character and current accumulator value.\n * \n * Returns the specified [initial] value if the char sequence is empty.\n * \n * @param [operation] function that takes a character and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> CharSequence.foldRight(initial:

R, operation: (Char, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each character with its index in the original char sequence and current accumulator value.\n * \n * Returns the specified [initial] value if the char sequence is empty.\n * \n * @param [operation] function that takes the index of a character, the character itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> CharSequence.foldRightIndexed(initial: R, operation: (index: Int, Char, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n

* Performs the given [action] on each character.\n */\npublic inline fun CharSequence.forEach(action: (Char) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each character, providing sequential index with the character.\n * @param [action] function that takes the index of a character and the character itself\n * and performs the action on the character.\n */\npublic inline fun CharSequence.forEachIndexed(action: (index: Int, Char) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun CharSequence.max(): Char? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince

= \"1.6\")\npublic inline fun <R : Comparable<R>> CharSequence.maxBy(selector: (Char) -> R): Char? {\n   return maxByOrNull(selector)\n}\n\n/**\n * Returns the first character yielding the largest value of the given function or `null` if there are no characters.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> CharSequence.maxByOrNull(selector: (Char) -> R): Char? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * If any

of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.maxOf(selector: (Char) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic

inline fun CharSequence.maxOf(selector: (Char) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> CharSequence.maxOf(selector: (Char) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (maxValue < v) {\n maxValue = v\n }\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.maxOfOrNull(selector: (Char) -> Double): Double? {\n if (isEmpty()) return null\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.maxOfOrNull(selector: (Char) -> Float): Float? {\n if (isEmpty()) return null\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n maxValue = maxOf(maxValue, v)\n }\n return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> CharSequence.maxOfOrNull(selector: (Char) -> R): R? {\n if (isEmpty()) return null\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (maxValue < v) {\n maxValue = v\n }\n }\n return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each character in the char sequence.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharSequence.maxOfWith(comparator: Comparator<in R>, selector: (Char) -> R): R {\n if (isEmpty()) throw NoSuchElementException()\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (comparator.compare(maxValue, v) < 0) {\n maxValue = v\n }\n }\n return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each character in the char sequence or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharSequence.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Char) -> R): R? {\n if (isEmpty()) return null\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (comparator.compare(maxValue, v) < 0) {\n maxValue = v\n }\n }\n return maxValue\n}\n\n/**\n * Returns the largest character or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharSequence.maxOrNull(): Char? {\n if (isEmpty()) return null\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (max < e) max = e\n }\n return max\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun CharSequence.maxWith(comparator: Comparator<in Char>): Char? {\n return maxWithOrNull(comparator)\n}\n\n/**\n * Returns the first character having the largest value according to the provided [comparator] or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharSequence.maxWithOrNull(comparator: Comparator<in Char>): Char? {\n if (isEmpty()) return null\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (comparator.compare(max, e) < 0) max = e\n

}\n   return max\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun CharSequence.min(): Char? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> CharSequence.minBy(selector: (Char) -> R): Char? {\n   return minByOrNull(selector)\n}\n\n/**\n * Returns the first character yielding the smallest value of the given function or `null` if there are no characters.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> CharSequence.minByOrNull(selector: (Char) -> R): Char? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOf(selector: (Char) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOf(selector: (Char) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> CharSequence.minOf(selector: (Char) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOfOrNull(selector: (Char) -> Double): Double? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOfOrNull(selector: (Char) -> Float): Float? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n *

Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <R : Comparable<R>> CharSequence.minOfOrNull(selector: (Char) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each character in the char sequence.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharSequence.minOfWith(comparator: Comparator<in R>, selector: (Char) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v
= selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each character in the char sequence or `null` if there are no characters.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
CharSequence.minOfWithOrNull(comparator: Comparator<in R>, selector: (Char) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest character or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\npublic fun
CharSequence.minOrNull(): Char? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun CharSequence.minWith(comparator: Comparator<in Char>): Char? {\n   return minWithOrNull(comparator)\n}\n\n/**\n * Returns the first character having the smallest value according to the provided [comparator] or `null` if there are no characters.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun CharSequence.minWithOrNull(comparator: Comparator<in Char>): Char? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns `true` if the char sequence has no
characters.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun CharSequence.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if no characters match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun CharSequence.none(predicate: (Char) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Performs the given [action] on each character and returns the char sequence itself afterwards.\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <S : CharSequence> S.onEach(action: (Char) -> Unit): S {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each character, providing sequential index with the character,\n * and returns the char sequence itself afterwards.\n * @param [action] function that takes the index of a character and the character itself\n * and performs
the action on the character.\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <S : CharSequence> S.onEachIndexed(action: (index: Int, Char) -> Unit): S {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Accumulates value starting with the first character and applying [operation] from left to right\n * to current accumulator value and each character.\n * \n * Throws an exception if this char sequence is empty. If the char sequence can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and a character,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n

*/\npublic inline fun CharSequence.reduce(operation: (acc: Char, Char) -> Char): Char {\n   if (isEmpty())\n throw UnsupportedOperationException(\"Empty char sequence can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first character and applying [operation] from left to right\n * to current accumulator value and each character with its index in the original char sequence.\n * \n * Throws an exception if this char sequence is empty. If the char sequence can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of a character, current accumulator value and the character itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun CharSequence.reduceIndexed(operation: (index: Int, acc: Char, Char) -> Char): Char {\n   if (isEmpty())\n throw UnsupportedOperationException(\"Empty char sequence can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first character and applying [operation] from left to right\n * to current accumulator value and each character with its index in the original char sequence.\n * \n * Returns `null` if the char sequence is empty.\n * \n * @param [operation] function that takes the index of a character, current accumulator value and the character itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun CharSequence.reduceIndexedOrNull(operation: (index: Int, acc: Char, Char) -> Char): Char? {\n   if (isEmpty())\n   return null\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first character and applying [operation] from left to right\n * to current accumulator value and each character.\n * \n * Returns `null` if the char sequence is empty.\n * \n * @param [operation] function that takes current accumulator value and a character,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun CharSequence.reduceOrNull(operation: (acc: Char, Char) -> Char): Char? {\n   if (isEmpty())\n   return null\n var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last character and applying [operation] from right to left\n * to each character and current accumulator value.\n * \n * Throws an exception if this char sequence is empty. If the char sequence can be empty in an expected way,\n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes a character and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun CharSequence.reduceRight(operation: (Char, acc: Char) -> Char): Char {\n   var index = lastIndex\n   if (index < 0) throw UnsupportedOperationException(\"Empty char sequence can't be reduced.\")\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last character and applying [operation] from right to left\n * to each character with its index in the original char sequence and current accumulator value.\n * \n * Throws an exception if this char sequence is empty. If the char sequence can be empty in an expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of a character, the character itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun CharSequence.reduceRightIndexed(operation: (index: Int, Char, acc: Char) -> Char): Char {\n   var index = lastIndex\n   if (index < 0) throw UnsupportedOperationException(\"Empty char sequence can't be reduced.\")\n var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last character and applying [operation] from right to left\n * to each character with its index in the original char

sequence and current accumulator value.\n * \n * Returns `null` if the char sequence is empty.\n * \n * @param [operation] function that takes the index of a character, the character itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun CharSequence.reduceRightIndexedOrNull(operation: (index: Int, Char, acc: Char) -> Char): Char? {\n   var index = lastIndex\n   if (index < 0) return null\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last character and applying [operation] from right to left\n * to each character and current accumulator value.\n * \n * Returns `null` if the char sequence is empty.\n * \n * @param [operation] function that takes a character
and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun CharSequence.reduceRightOrNull(operation: (Char, acc: Char) -> Char): Char? {\n   var index = lastIndex\n   if (index < 0) return null\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each character and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and a character,
and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R> CharSequence.runningFold(initial: R, operation: (acc: R, Char) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(length + 1).apply { add(initial) }\n   var accumulator = initial\n   for (element in this) {\n   accumulator = operation(accumulator, element)\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each character, its index in the original char sequence and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of a character,
current accumulator value\n * and the character itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R> CharSequence.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(length + 1).apply { add(initial) }\n   var accumulator = initial\n   for (index in indices) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each character and current accumulator value that starts with the first character of this char sequence.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting
list.\n * \n * @param [operation] function that takes current accumulator value and a character, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\npublic inline fun CharSequence.runningReduce(operation: (acc: Char, Char) -> Char): List<Char> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Char>(length).apply { add(accumulator) }\n   for (index in 1 until length) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each character, its index in the original char sequence and current accumulator value that starts with the first character of this char sequence.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n

* otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of a character, current accumulator value\n * and the character itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\npublic inline fun CharSequence.runningReduceIndexed(operation: (index: Int, acc: Char, Char) -> Char): List<Char> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Char>(length).apply { add(accumulator) }\n   for (index in 1 until length) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each character and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and a character, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <R> CharSequence.scan(initial: R, operation: (acc: R, Char) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each character, its index in the original char sequence and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of a character, current accumulator value\n * and the character itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <R> CharSequence.scanIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun CharSequence.sumBy(selector: (Char) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun CharSequence.sumByDouble(selector: (Char) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.sumOf(selector: (Char) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.sumOf(selector: (Char) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.sumOf(selector: (Char) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n

*/\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.sumOf(selector: (Char) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.sumOf(selector: (Char) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Splits this char sequence into a list of strings each not exceeding the given [size].\n * \n * The last string in the resulting list may have fewer characters than the given [size].\n * \n * @param size the number of elements to take in each string, must be positive and can be greater than the number of elements in this char sequence.\n * \n * @sample samples.text.Strings.chunked\n */\n@SinceKotlin(\"1.2\")\npublic fun CharSequence.chunked(size: Int): List<String> {\n   return windowed(size, size, partialWindows = true)\n}\n\n/**\n * Splits this char sequence into several char sequences each not exceeding the given [size]\n * and applies the given [transform] function to an each.\n * \n * @return list of results of the [transform] applied to an each char sequence.\n * \n * Note that the char sequence passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * The last char sequence may have fewer characters than the given [size].\n * \n * @param size the number of elements to take in each char sequence, must be positive and can be greater than the number of elements in this char sequence.\n * \n * @sample samples.text.Strings.chunkedTransform\n */\n@SinceKotlin(\"1.2\")\npublic fun <R> CharSequence.chunked(size: Int, transform: (CharSequence) -> R): List<R> {\n   return windowed(size, size, partialWindows = true, transform = transform)\n}\n\n/**\n * Splits this char sequence into a sequence of strings each not exceeding the given [size].\n * \n * The last string in the resulting sequence may have fewer characters than the given [size].\n * \n * @param size the number of elements to take in each string, must be positive and can be greater than the number of elements in this char sequence.\n * \n * @sample samples.collections.Collections.Transformations.chunked\n */\n@SinceKotlin(\"1.2\")\npublic fun CharSequence.chunkedSequence(size: Int): Sequence<String> {\n   return chunkedSequence(size) { it.toString() }\n}\n\n/**\n * Splits this char sequence into several char sequences each not exceeding the given [size]\n * and applies the given [transform] function to an each.\n * \n * @return sequence of results of the [transform] applied to an each char sequence.\n * \n * Note that the char sequence passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * The last char sequence may have fewer characters than the given [size].\n * \n * @param size the number of elements to take in each char sequence, must be positive and can be greater than the number of elements in this char sequence.\n * \n * @sample samples.text.Strings.chunkedTransformToSequence\n */\n@SinceKotlin(\"1.2\")\npublic fun <R> CharSequence.chunkedSequence(size: Int, transform: (CharSequence) -> R): Sequence<R> {\n   return windowedSequence(size, size, partialWindows = true, transform = transform)\n}\n\n/**\n * Splits the original char sequence into pair of char sequences,\n * where *first* char sequence contains characters for which [predicate] yielded `true`,\n * while *second* char sequence contains characters for which [predicate] yielded `false`.\n * \n * @sample samples.text.Strings.partition\n */\npublic inline fun CharSequence.partition(predicate: (Char) -> Boolean): Pair<CharSequence, CharSequence> {\n   val first = StringBuilder()\n   val second = StringBuilder()\n   for (element in this) {\n   if (predicate(element)) {\n   first.append(element)\n   } else {\n   second.append(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Splits the original string into pair of strings,\n * where *first* string contains characters for which [predicate] yielded `true`,\n * while *second* string contains characters for which [predicate] yielded `false`.\n * \n * @sample samples.text.Strings.partition\n

*/\npublic inline fun String.partition(predicate: (Char) -> Boolean): Pair<String, String> {\n   val first = StringBuilder()\n   val second = StringBuilder()\n   for (element in this) {\n   if (predicate(element)) {\n   first.append(element)\n   } else {\n   second.append(element)\n   }\n   }\n   return Pair(first.toString(), second.toString())\n}\n\n/**\n * Returns a list of snapshots of the window of the given [size]\n * sliding along this char sequence with the given [step], where each\n * snapshot is a string.\n * \n * Several last strings may have fewer characters than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in this char sequence.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows
in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.takeWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun CharSequence.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false): List<String> {\n   return windowed(size, step, partialWindows) { it.toString() }\n}\n\n/**\n * Returns a list of results of applying the given [transform] function to\n * an each char sequence representing a view over the window of the given [size]\n * sliding along this char sequence with the given [step].\n * \n * Note that the char sequence passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * Several last char sequences may have fewer characters than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in
this char sequence.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.averageWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun <R> CharSequence.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false, transform: (CharSequence) -> R): List<R> {\n   checkWindowSizeStep(size, step)\n   val thisSize = this.length\n   val resultCapacity = thisSize / step + if (thisSize % step == 0) 0 else 1\n   val result = ArrayList<R>(resultCapacity)\n   var index = 0\n   while (index in 0 until thisSize) {\n   val end = index + size\n   val coercedEnd = if (end < 0 || end > thisSize) { if (partialWindows) thisSize else break } else end\n   result.add(transform(subSequence(index,
coercedEnd)))\n   index += step\n   }\n   return result\n}\n\n/**\n * Returns a sequence of snapshots of the window of the given [size]\n * sliding along this char sequence with the given [step], where each\n * snapshot is a string.\n * \n * Several last strings may have fewer characters than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in this char sequence.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.takeWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun CharSequence.windowedSequence(size: Int, step: Int = 1, partialWindows: Boolean = false):
Sequence<String> {\n   return windowedSequence(size, step, partialWindows) { it.toString() }\n}\n\n/**\n * Returns a sequence of results of applying the given [transform] function to\n * an each char sequence representing a view over the window of the given [size]\n * sliding along this char sequence with the given [step].\n * \n * Note that the char sequence passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * Several last char sequences may have fewer characters than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in this char sequence.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if
any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.averageWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun <R>

CharSequence.windowedSequence(size: Int, step: Int = 1, partialWindows: Boolean = false, transform: (CharSequence) -> R): Sequence<R> {\n   checkWindowSizeStep(size, step)\n   val windows = (if (partialWindows) indices else 0 until length - size + 1) step step\n   return windows.asSequence().map { index ->\n   val end = index + size\n   val coercedEnd = if (end < 0 || end > length) length else end\n   transform(subSequence(index, coercedEnd))\n   }\n}\n\n/**\n * Returns a list of pairs built from the characters of `this` and the [other] char sequences with the same index\n * The returned list has length of the shortest char sequence.\n * \n * @sample samples.text.Strings.zip\n */\npublic infix fun CharSequence.zip(other: CharSequence): List<Pair<Char, Char>> {\n   return zip(other) { c1, c2 -> c1 to c2 }\n}\n\n/**\n * Returns a list of values built from the characters of `this` and the [other] char sequences with the same index\n * using the provided [transform] function applied to each pair of characters.\n * The returned list has length of the shortest char sequence.\n * \n * @sample samples.text.Strings.zipWithTransform\n */\npublic inline fun <V> CharSequence.zip(other: CharSequence, transform: (a: Char, b: Char) -> V): List<V> {\n   val length = minOf(this.length, other.length)\n   val list = ArrayList<V>(length)\n   for (i in 0 until length) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of pairs of each two adjacent characters in this char sequence.\n * \n * The returned list is empty if this char sequence contains less than two characters.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNext\n */\n@SinceKotlin(\"1.2\")\npublic fun CharSequence.zipWithNext(): List<Pair<Char, Char>> {\n   return zipWithNext { a, b -> a to b }\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to an each pair of two adjacent characters in this char sequence.\n * \n * The returned list is empty if this char sequence contains less than two characters.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNextToFindDeltas\n */\n@SinceKotlin(\"1.2\")\npublic inline fun <R> CharSequence.zipWithNext(transform: (a: Char, b: Char) -> R): List<R> {\n   val size = length - 1\n   if (size < 1) return emptyList()\n   val result = ArrayList<R>(size)\n   for (index in 0 until size) {\n   result.add(transform(this[index], this[index + 1]))\n   }\n   return result\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original char sequence returning its characters when being iterated.\n */\npublic fun CharSequence.asIterable(): Iterable<Char> {\n   if (this is String && isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original char sequence returning its characters when being iterated.\n */\npublic fun CharSequence.asSequence(): Sequence<Char> {\n   if (this is String && isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n\npackage kotlin.text\n\nimport kotlin.contracts.contract\nimport kotlin.jvm.JvmName\n\n/**\n * Returns a copy of this string converted to upper case using the rules of the default locale.\n */\n@Deprecated(\"Use uppercase() instead.\", ReplaceWith(\"uppercase()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic expect fun String.toUpperCase(): String\n\n/**\n * Returns a copy of this string converted to upper case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many and many-to-one character mapping,\n * thus the length of the returned string can be different from the length of the original string.\n *\n * @sample samples.text.Strings.uppercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun String.uppercase(): String\n\n/**\n * Returns a copy of this string converted to lower case using the rules of the default locale.\n */\n@Deprecated(\"Use lowercase() instead.\", ReplaceWith(\"lowercase()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic expect fun String.toLowerCase(): String\n\n/**\n * Returns a copy of this string converted to lower case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many and many-to-one character mapping,\n * thus the length of the returned string can be different from the length of the original string.\n *\n * @sample samples.text.Strings.lowercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun String.lowercase(): String\n\n/**\n * Returns a copy of this string having its first letter titlecased using the rules of the default locale,\n * or the original string if it's empty or already starts with a title case letter.\n *\n * The title case of a character is usually the same as its upper case with several exceptions.\n * The particular list of characters with the special title case form depends on the underlying platform.\n *\n * @sample samples.text.Strings.capitalize\n */\n@Deprecated(\"Use replaceFirstChar instead.\", ReplaceWith(\"replaceFirstChar { if (it.isLowerCase()) it.titlecase() else it.toString() }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic expect fun String.capitalize(): String\n\n/**\n * Returns a copy of this string having its first letter lowercased using the rules of the default locale,\n * or the original string if it's empty or already starts with a lower case letter.\n *\n * @sample samples.text.Strings.decapitalize\n */\n@Deprecated(\"Use replaceFirstChar instead.\", ReplaceWith(\"replaceFirstChar { it.lowercase() }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic expect fun String.decapitalize(): String\n\n/**\n * Returns a sub sequence of this char sequence having leading and trailing characters matching the [predicate] removed.\n */\npublic inline fun CharSequence.trim(predicate: (Char) -> Boolean): CharSequence {\n   var startIndex = 0\n   var endIndex = length - 1\n   var startFound = false\n\n   while (startIndex <= endIndex) {\n   val index = if (!startFound) startIndex else endIndex\n   val match = predicate(this[index])\n\n   if (!startFound) {\n   if (!match)\n   startFound = true\n   else\n   startIndex += 1\n   } else {\n   if (!match)\n   break\n   else\n   endIndex -= 1\n   }\n   }\n\n   return subSequence(startIndex, endIndex + 1)\n}\n\n/**\n * Returns a string having leading and trailing characters matching the [predicate] removed.\n */\npublic inline fun String.trim(predicate: (Char) -> Boolean): String =\n   (this as CharSequence).trim(predicate).toString()\n\n/**\n * Returns a sub sequence of this char sequence having leading characters matching the [predicate] removed.\n */\npublic inline fun CharSequence.trimStart(predicate: (Char) -> Boolean): CharSequence {\n   for (index in this.indices)\n   if (!predicate(this[index]))\n   return subSequence(index, length)\n\n   return \"\"\n}\n\n/**\n * Returns a string having leading characters matching the [predicate] removed.\n */\npublic inline fun String.trimStart(predicate: (Char) -> Boolean): String =\n   (this as CharSequence).trimStart(predicate).toString()\n\n/**\n * Returns a sub sequence of this char sequence having trailing characters matching the [predicate] removed.\n */\npublic inline fun CharSequence.trimEnd(predicate: (Char) -> Boolean): CharSequence {\n   for (index in this.indices.reversed())\n   if (!predicate(this[index]))\n   return subSequence(0, index + 1)\n\n   return \"\"\n}\n\n/**\n * Returns a string having trailing characters matching the [predicate] removed.\n */\npublic inline fun String.trimEnd(predicate: (Char) -> Boolean): String =\n   (this as CharSequence).trimEnd(predicate).toString()\n\n/**\n * Returns a sub sequence of this char sequence having leading and trailing characters from the [chars] array removed.\n */\npublic fun CharSequence.trim(vararg chars: Char): CharSequence = trim { it in chars }\n\n/**\n * Returns a string having leading and trailing characters from the [chars] array removed.\n */\npublic fun String.trim(vararg chars: Char): String = trim { it in chars }\n\n/**\n * Returns a sub sequence of this char sequence having leading characters from the [chars] array removed.\n */\npublic fun CharSequence.trimStart(vararg chars: Char): CharSequence = trimStart { it in chars }\n\n/**\n * Returns a string having leading characters from the [chars] array removed.\n */\npublic fun String.trimStart(vararg chars: Char): String = trimStart { it in chars }\n\n/**\n * Returns a sub sequence of this char sequence having trailing characters from the [chars] array removed.\n */\npublic fun CharSequence.trimEnd(vararg chars: Char): CharSequence = trimEnd { it in chars }\n\n/**\n * Returns a string having trailing characters from the [chars] array removed.\n */\npublic fun String.trimEnd(vararg chars: Char): String = trimEnd { it in chars }\n\n/**\n * Returns a sub sequence of this char sequence having leading and trailing whitespace removed.\n */\npublic fun CharSequence.trim(): CharSequence = trim(Char::isWhitespace)\n\n/**\n * Returns a string having leading and trailing whitespace removed.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.trim(): String = (this as CharSequence).trim().toString()\n\n/**\n * Returns a sub sequence of this char sequence having leading whitespace removed.\n */\npublic fun CharSequence.trimStart(): CharSequence = trimStart(Char::isWhitespace)\n\n/**\n * Returns a string having leading whitespace removed.\n

*/\n@kotlin.internal.InlineOnly\npublic inline fun String.trimStart(): String = (this as CharSequence).trimStart().toString()\n\n/**\n * Returns a sub sequence of this char sequence having trailing whitespace removed.\n */\npublic fun CharSequence.trimEnd(): CharSequence = trimEnd(Char::isWhitespace)\n\n/**\n * Returns a string having trailing whitespace removed.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.trimEnd(): String = (this as CharSequence).trimEnd().toString()\n\n/**\n * Returns a char sequence with content of this char sequence padded at the beginning\n * to the specified [length] with the specified character or space.\n *\n * @param length the desired string length.\n * @param padChar the character to pad string with, if it has length less than the [length] specified. Space is used by default.\n * @return Returns a char sequence of length at least [length] consisting of `this` char sequence prepended with [padChar] as many times\n * as are necessary to reach that length.\n * @sample samples.text.Strings.padStart\n */\npublic fun CharSequence.padStart(length: Int, padChar: Char = ' '): CharSequence {\n   if (length < 0)\n   throw IllegalArgumentException(\"Desired length $length is less than zero.\")\n   if (length <= this.length)\n   return this.subSequence(0, this.length)\n\n   val sb = StringBuilder(length)\n   for (i in 1..(length - this.length))\n   sb.append(padChar)\n   sb.append(this)\n   return sb\n}\n\n/**\n * Pads the string to the specified [length] at the beginning with the specified character or space.\n *\n * @param length the desired string length.\n * @param padChar the character to pad string with, if it has length less than the [length] specified. Space is used by default.\n * @return Returns a string of length at least [length] consisting of `this` string prepended with [padChar] as many times\n * as are necessary to reach that length.\n * @sample samples.text.Strings.padStart\n */\npublic fun String.padStart(length: Int, padChar: Char = ' '): String =\n   (this as CharSequence).padStart(length, padChar).toString()\n\n/**\n * Returns a char sequence with content of this char sequence padded at the end\n * to the specified [length] with the specified character or space.\n *\n * @param length the desired string length.\n * @param padChar the character to pad string with, if it has length less than the [length] specified. Space is used by default.\n * @return Returns a char sequence of length at least [length] consisting of `this` char sequence appended with [padChar] as many times\n * as are necessary to reach that length.\n * @sample samples.text.Strings.padEnd\n */\npublic fun CharSequence.padEnd(length: Int, padChar: Char = ' '): CharSequence {\n   if (length < 0)\n throw IllegalArgumentException(\"Desired length $length is less than zero.\")\n   if (length <= this.length)\n return this.subSequence(0, this.length)\n\n   val sb = StringBuilder(length)\n   sb.append(this)\n   for (i in 1..(length - this.length))\n   sb.append(padChar)\n   return sb\n}\n\n/**\n * Pads the string to the specified [length] at the end with the specified character or space.\n *\n * @param length the desired string length.\n * @param padChar the character to pad string with, if it has length less than the [length] specified. Space is used by default.\n * @return Returns a string of length at least [length] consisting of `this` string appended with [padChar] as many times\n * as are necessary to reach that length.\n * @sample samples.text.Strings.padEnd\n */\npublic fun String.padEnd(length: Int, padChar: Char = ' '): String =\n   (this as CharSequence).padEnd(length, padChar).toString()\n\n/**\n * Returns `true` if this nullable char sequence is either `null` or empty.\n *\n * @sample samples.text.Strings.stringIsNullOrEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence?.isNullOrEmpty(): Boolean {\n   contract {\n returns(false) implies (this@isNullOrEmpty != null)\n   }\n\n   return this == null || this.length == 0\n}\n\n/**\n * Returns `true` if this char sequence is empty (contains no characters).\n *\n * @sample samples.text.Strings.stringIsEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.isEmpty(): Boolean = length == 0\n\n/**\n * Returns `true` if this char sequence is not empty.\n *\n * @sample samples.text.Strings.stringIsNotEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.isNotEmpty(): Boolean = length > 0\n\n// implemented differently in JVM and JS\n//public fun String.isBlank(): Boolean = length() == 0 || all { it.isWhitespace() }\n\n\n/**\n * Returns `true` if this char sequence is not empty and contains some characters except of whitespace characters.\n *\n * @sample samples.text.Strings.stringIsNotBlank\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.isNotBlank(): Boolean = !isBlank()\n\n/**\n * Returns `true` if this nullable char sequence is either `null` or empty or consists solely of whitespace characters.\n *\n * @sample

samples.text.Strings.stringIsNullOrBlank\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence?.isNullOrBlank(): Boolean {\n   contract {\n   returns(false) implies (this@isNullOrBlank != null)\n   }\n\n   return this == null || this.isBlank()\n}\n\n/**\n * Iterator for characters of the given char sequence.\n */\npublic operator fun CharSequence.iterator(): CharIterator = object : CharIterator() {\n   private var index = 0\n\n   public override fun nextChar(): Char = get(index++)\n\n   public override fun hasNext(): Boolean = index < length\n}\n\n/**

Returns the string if it is not `null`, or the empty string otherwise. */\n@kotlin.internal.InlineOnly\npublic inline fun String?.orEmpty(): String = this ?: \"\"\n\n/**\n * Returns this char sequence if it's not empty\n * or the result of calling [defaultValue] function if the char sequence is empty.\n *\n * @sample samples.text.Strings.stringIfEmpty\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <C, R> C.ifEmpty(defaultValue: () -> R): R where C : CharSequence, C : R =\n   if (isEmpty()) defaultValue() else this\n\n/**\n * Returns this char sequence if it is not empty and doesn't consist solely of whitespace characters,\n * or the result of calling [defaultValue] function otherwise.\n *\n * @sample samples.text.Strings.stringIfBlank\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <C, R> C.ifBlank(defaultValue: () -> R): R where C : CharSequence, C : R =\n   if (isBlank()) defaultValue() else this\n\n/**\n * Returns the range

of valid character indices for this char sequence.\n */\npublic val CharSequence.indices: IntRange\n   get() = 0..length - 1\n\n/**\n * Returns the index of the last character in the char sequence or -1 if it is empty.\n */\npublic val CharSequence.lastIndex: Int\n   get() = this.length - 1\n\n/**\n * Returns `true` if this CharSequence has Unicode surrogate pair at the specified [index].\n */\npublic fun CharSequence.hasSurrogatePairAt(index: Int): Boolean {\n   return index in 0..length - 2\n   && this[index].isHighSurrogate()\n   && this[index + 1].isLowSurrogate()\n}\n\n/**\n * Returns a substring specified by the given [range] of indices.\n */\npublic fun String.substring(range: IntRange): String = substring(range.start, range.endInclusive + 1)\n\n/**\n * Returns a subsequence of this char sequence specified by the given [range] of indices.\n */\npublic fun CharSequence.subSequence(range: IntRange): CharSequence = subSequence(range.start, range.endInclusive

+ 1)\n\n/**\n * Returns a subsequence of this char sequence.\n *\n * This extension is chosen only for invocation with old-named parameters.\n * Replace parameter names with the same as those of [CharSequence.subSequence].\n */\n@kotlin.internal.InlineOnly\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\") // false warning\n@Deprecated(\"Use parameters named startIndex and endIndex.\", ReplaceWith(\"subSequence(startIndex = start, endIndex = end)\"))\npublic inline fun String.subSequence(start: Int, end: Int): CharSequence = subSequence(start, end)\n\n/**\n * Returns a substring of chars from a range of this char sequence starting at the [startIndex] and ending right before the [endIndex].\n *\n * @param startIndex the start index (inclusive).\n * @param endIndex the end index (exclusive). If not specified, the length of the char sequence is used.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.substring(startIndex: Int, endIndex: Int = length): String = subSequence(startIndex,

endIndex).toString()\n\n/**\n * Returns a substring of chars at indices from the specified [range] of this char sequence.\n */\npublic fun CharSequence.substring(range: IntRange): String = subSequence(range.start, range.endInclusive + 1).toString()\n\n/**\n * Returns a substring before the first occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringBefore(delimiter: Char, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(0, index)\n}\n\n/**\n * Returns a substring before the first occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringBefore(delimiter: String, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n

return if (index == -1) missingDelimiterValue else substring(0, index)\n}\n\n/**\n * Returns a substring after the first occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringAfter(delimiter: Char, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(index + 1, length)\n}\n\n/**\n * Returns a substring after the first occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringAfter(delimiter: String, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(index + delimiter.length, length)\n}\n\n/**\n * Returns a substring before the last occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringBeforeLast(delimiter: Char, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(0, index)\n}\n\n/**\n * Returns a substring before the last occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringBeforeLast(delimiter: String, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(0, index)\n}\n\n/**\n * Returns a substring after the last occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringAfterLast(delimiter: Char, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(index + 1, length)\n}\n\n/**\n * Returns a substring after the last occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringAfterLast(delimiter: String, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(index + delimiter.length, length)\n}\n\n/**\n * Returns a char sequence with content of this char sequence where its part at the given range\n * is replaced with the [replacement] char sequence.\n * @param startIndex the index of the first character to be replaced.\n * @param endIndex the index of the first character after the replacement to keep in the string.\n */\npublic fun CharSequence.replaceRange(startIndex: Int, endIndex: Int, replacement: CharSequence): CharSequence {\n   if (endIndex < startIndex)\n   throw IndexOutOfBoundsException(\"End index ($endIndex) is less than start index ($startIndex).\")\n   val sb = StringBuilder()\n   sb.appendRange(this, 0, startIndex)\n   sb.append(replacement)\n   sb.appendRange(this, endIndex, length)\n   return sb\n}\n\n/**\n * Replaces the part of the string at the given range with the [replacement] char sequence.\n * @param startIndex the index of the first character to be replaced.\n * @param endIndex the index of the first character after the replacement to keep in the string.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.replaceRange(startIndex: Int, endIndex: Int, replacement: CharSequence): String =\n   (this as CharSequence).replaceRange(startIndex, endIndex, replacement).toString()\n\n/**\n * Returns a char sequence with content of this char sequence where its part at the given [range]\n * is replaced with the [replacement] char sequence.\n *\n * The end index of the [range] is included in the part to be replaced.\n */\npublic fun CharSequence.replaceRange(range: IntRange, replacement: CharSequence): CharSequence =\n   replaceRange(range.start, range.endInclusive + 1, replacement)\n\n/**\n * Replace the part of string at the given [range] with the [replacement] string.\n *\n * The end index of the [range] is included in the part to be replaced.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.replaceRange(range: IntRange, replacement: CharSequence): String =\n   (this as CharSequence).replaceRange(range, replacement).toString()\n\n/**\n * Returns a char sequence with content of this char sequence where its part at the given range is removed.\n *\n * @param startIndex the index of the first character to be removed.\n * @param endIndex the index of the first character after the removed part to keep in the string.\n *\n * [endIndex] is not included in the removed part.\n */\npublic fun CharSequence.removeRange(startIndex: Int, endIndex: Int): CharSequence {\n   if (endIndex < startIndex)\n   throw IndexOutOfBoundsException(\"End index ($endIndex) is less than start index ($startIndex).\")\n\n   if (endIndex == startIndex)\n   return this.subSequence(0, length)\n\n   val sb = StringBuilder(length - (endIndex - startIndex))\n   sb.appendRange(this, 0, startIndex)\n   sb.appendRange(this, endIndex, length)\n   return sb\n}\n\n/**\n * Removes the part of a string at a given range.\n * @param startIndex the index of the first character to be removed.\n * @param endIndex the index of the first character after the removed part to keep in the string.\n *\n * [endIndex] is not included in the removed part.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.removeRange(startIndex: Int, endIndex: Int): String =\n

(this as CharSequence).removeRange(startIndex, endIndex).toString()\n\n/**\n *
 Returns a char sequence with content of this char sequence where its part at the given [range] is removed.\n *\n * The end index of the [range] is included in the removed part.\n */\npublic fun CharSequence.removeRange(range: IntRange): CharSequence = removeRange(range.start, range.endInclusive + 1)\n\n/**\n * Removes the part of a string at the given [range].\n *\n * The end index of the [range] is included in the removed part.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.removeRange(range: IntRange): String =\n   (this as CharSequence).removeRange(range).toString()\n\n/**\n * If this char sequence starts with the given [prefix], returns a new char sequence\n * with the prefix removed. Otherwise, returns a new char sequence with the same characters.\n */\npublic fun CharSequence.removePrefix(prefix: CharSequence): CharSequence {\n   if (startsWith(prefix)) {\n   return subSequence(prefix.length, length)\n   }\n   return subSequence(0, length)\n}\n\n/**\n * If this
 string starts with the given [prefix], returns a copy of this string\n * with the prefix removed. Otherwise, returns this string.\n */\npublic fun String.removePrefix(prefix: CharSequence): String {\n   if (startsWith(prefix)) {\n   return substring(prefix.length)\n   }\n   return this\n}\n\n/**\n * If this char sequence ends with the given [suffix], returns a new char sequence\n * with the suffix removed. Otherwise, returns a new char sequence with the same characters.\n */\npublic fun CharSequence.removeSuffix(suffix: CharSequence): CharSequence {\n   if (endsWith(suffix)) {\n   return subSequence(0, length - suffix.length)\n   }\n   return subSequence(0, length)\n}\n\n/**\n * If this string ends with the given [suffix], returns a copy of this string\n * with the suffix removed. Otherwise, returns this string.\n */\npublic fun String.removeSuffix(suffix: CharSequence): String {\n   if (endsWith(suffix)) {\n   return substring(0, length - suffix.length)\n
 }\n   return this\n}\n\n/**\n * When this char sequence starts with the given [prefix] and ends with the given [suffix],\n * returns a new char sequence having both the given [prefix] and [suffix] removed.\n * Otherwise returns a new char sequence with the same characters.\n */\npublic fun CharSequence.removeSurrounding(prefix: CharSequence, suffix: CharSequence): CharSequence {\n   if ((length >= prefix.length + suffix.length) && startsWith(prefix) && endsWith(suffix)) {\n   return subSequence(prefix.length, length - suffix.length)\n   }\n   return subSequence(0, length)\n}\n\n/**\n * Removes from a string both the given [prefix] and [suffix] if and only if\n * it starts with the [prefix] and ends with the [suffix].\n * Otherwise returns this string unchanged.\n */\npublic fun String.removeSurrounding(prefix: CharSequence, suffix: CharSequence): String {\n   if ((length >= prefix.length + suffix.length) && startsWith(prefix) && endsWith(suffix)) {\n   return substring(prefix.length,
 length - suffix.length)\n   }\n   return this\n}\n\n/**\n * When this char sequence starts with and ends with the given [delimiter],\n * returns a new char sequence having this [delimiter] removed both from the start and end.\n * Otherwise returns a new char sequence with the same characters.\n */\npublic fun CharSequence.removeSurrounding(delimiter: CharSequence): CharSequence = removeSurrounding(delimiter, delimiter)\n\n/**\n * Removes the given [delimiter] string from both the start and the end of this string\n * if and only if it starts with and ends with the [delimiter].\n * Otherwise returns this string unchanged.\n */\npublic fun String.removeSurrounding(delimiter: CharSequence): String = removeSurrounding(delimiter, delimiter)\n\n/**\n * Replace part of string before the first occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic
 fun String.replaceBefore(delimiter: Char, replacement: String, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(0, index, replacement)\n}\n\n/**\n * Replace part of string before the first occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceBefore(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(0, index, replacement)\n}\n\n/**\n * Replace part of string after the first occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceAfter(delimiter:

Char, replacement: String, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(index + 1, length, replacement)\n}\n\n/**\n * Replace part of string after the first occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceAfter(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(index + delimiter.length, length, replacement)\n}\n\n/**\n * Replace part of string after the last occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceAfterLast(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(index + delimiter.length, length, replacement)\n}\n\n/**\n * Replace part of string after the last occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceAfterLast(delimiter: Char, replacement: String, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(index + 1, length, replacement)\n}\n\n/**\n * Replace part of string before the last occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceBeforeLast(delimiter: Char, replacement: String, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(0, index, replacement)\n}\n\n/**\n * Replace part of string before the last occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceBeforeLast(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(0, index, replacement)\n}\n\n\n// public fun String.replace(oldChar: Char, newChar: Char, ignoreCase: Boolean): String // JVM- and JS-specific\n// public fun String.replace(oldValue: String, newValue: String, ignoreCase: Boolean): String // JVM- and JS-specific\n\n/**\n * Returns a new string obtained by replacing each substring of this char sequence that matches the given regular expression\n * with the given [replacement].\n *\n * The [replacement] can consist of any combination of literal text and $-substitutions. To treat the replacement string\n * literally escape it with the [kotlin.text.Regex.Companion.escapeReplacement] method.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.replace(regex: Regex, replacement: String): String = regex.replace(this, replacement)\n\n/**\n * Returns a new string obtained by replacing each substring of this char sequence that matches the given regular expression\n * with the result of the given function [transform] that takes [MatchResult] and returns a string to be used as a\n * replacement for that match.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.replace(regex: Regex, noinline transform: (MatchResult) -> CharSequence): String =\n   regex.replace(this, transform)\n\n/**\n * Replaces the first occurrence of the given regular expression [regex] in this char sequence with specified [replacement] expression.\n *\n * @param replacement A replacement expression that can include substitutions. See [Regex.replaceFirst] for details.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.replaceFirst(regex: Regex, replacement: String): String = regex.replaceFirst(this, replacement)\n\n/**\n * Returns a copy of this string having its first character replaced with the result of the specified [transform],\n * or the original string if it's empty.\n *\n * @param transform function that takes the first character and returns the result of the transform applied to the character.\n *\n * @sample samples.text.Strings.replaceFirstChar\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@JvmName(\"replaceFirstCharWithChar\")\n@kotlin.internal.InlineOnly\npublic inline fun String.replaceFirstChar(transform: (Char) -> Char): String {\n   return if (isNotEmpty()) transform(this[0]) + substring(1) else this\n}\n\n/**\n * Returns a copy of this string having its first character replaced with the result of the specified [transform],\n * or the original string if it's empty.\n *\n * @param transform function that takes the first character and returns the result of the transform applied to the character.\n *\n * @sample samples.text.Strings.replaceFirstChar\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@JvmName(\"replaceFirstCharWithCharSequence\")\n@kotlin.internal.InlineOnly\npublic inline fun String.replaceFirstChar(transform: (Char) -> CharSequence): String {\n   return if (isNotEmpty()) transform(this[0]).toString() + substring(1) else this\n}\n\n\n/**\n * Returns `true` if this char sequence matches the given regular expression.\n */\n@kotlin.internal.InlineOnly\npublic inline infix fun CharSequence.matches(regex: Regex): Boolean = regex.matches(this)\n\n/**\n * Implementation of [regionMatches] for CharSequences.\n * Invoked when it's already known that arguments are not Strings, so that no additional type checks are performed.\n */\ninternal fun CharSequence.regionMatchesImpl(thisOffset: Int, other: CharSequence, otherOffset: Int, length: Int, ignoreCase: Boolean): Boolean {\n   if ((otherOffset < 0) || (thisOffset < 0) || (thisOffset > this.length - length) || (otherOffset > other.length - length)) {\n   return false\n   }\n\n   for (index in 0 until length) {\n   if (!this[thisOffset + index].equals(other[otherOffset + index], ignoreCase))\n   return false\n   }\n   return true\n}\n\n/**\n * Returns `true` if this char sequence starts with the specified character.\n */\npublic fun CharSequence.startsWith(char: Char, ignoreCase: Boolean = false): Boolean =\n   this.length > 0 && this[0].equals(char, ignoreCase)\n\n/**\n * Returns `true` if this char sequence ends with the specified character.\n */\npublic fun CharSequence.endsWith(char: Char, ignoreCase: Boolean = false): Boolean =\n   this.length > 0 && this[lastIndex].equals(char, ignoreCase)\n\n/**\n * Returns `true` if this char sequence starts with the specified prefix.\n */\npublic fun CharSequence.startsWith(prefix: CharSequence, ignoreCase: Boolean = false): Boolean {\n   if (!ignoreCase && this is String && prefix is String)\n   return this.startsWith(prefix)\n   else\n   return regionMatchesImpl(0, prefix, 0, prefix.length, ignoreCase)\n}\n\n/**\n * Returns `true` if a substring of this char sequence starting at the specified offset [startIndex] starts with the specified prefix.\n */\npublic fun CharSequence.startsWith(prefix: CharSequence, startIndex: Int, ignoreCase: Boolean = false): Boolean {\n   if (!ignoreCase && this is String && prefix is String)\n   return this.startsWith(prefix, startIndex)\n   else\n   return regionMatchesImpl(startIndex, prefix, 0, prefix.length, ignoreCase)\n}\n\n/**\n * Returns `true` if this char sequence ends with the specified suffix.\n */\npublic fun CharSequence.endsWith(suffix: CharSequence, ignoreCase: Boolean = false): Boolean {\n   if (!ignoreCase && this is String && suffix is String)\n   return this.endsWith(suffix)\n   else\n   return regionMatchesImpl(length - suffix.length, suffix, 0, suffix.length, ignoreCase)\n}\n\n\n// common prefix and suffix\n\n/**\n * Returns the longest string `prefix` such that this char sequence and [other] char sequence both start with this prefix,\n * taking care not to split surrogate pairs.\n * If this and [other] have no common prefix, returns the empty string.\n\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @sample samples.text.Strings.commonPrefixWith\n */\npublic fun CharSequence.commonPrefixWith(other: CharSequence, ignoreCase: Boolean = false): String {\n   val shortestLength = minOf(this.length, other.length)\n\n   var i = 0\n   while (i < shortestLength && this[i].equals(other[i], ignoreCase = ignoreCase)) {\n   i++\n   }\n   if (this.hasSurrogatePairAt(i - 1) || other.hasSurrogatePairAt(i - 1)) {\n   i--\n   }\n   return subSequence(0, i).toString()\n}\n\n/**\n * Returns the longest string `suffix` such that this char sequence and [other] char sequence both end with this suffix,\n * taking care not to split surrogate pairs.\n * If this and [other] have no common suffix, returns the empty string.\n\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @sample samples.text.Strings.commonSuffixWith\n */\npublic fun CharSequence.commonSuffixWith(other: CharSequence, ignoreCase: Boolean = false): String {\n   val thisLength = this.length\n   val otherLength = other.length\n   val shortestLength = minOf(thisLength, otherLength)\n\n var i = 0\n while (i < shortestLength && this[thisLength - i - 1].equals(other[otherLength - i - 1], ignoreCase = ignoreCase)) {\n i++\n }\n if (this.hasSurrogatePairAt(thisLength - i - 1) || other.hasSurrogatePairAt(otherLength - i - 1)) {\n i--\n }\n return subSequence(thisLength - i, thisLength).toString()\n}\n\n\n// indexOfAny()\n\n/**\n * Finds the index of the first occurrence of any of the specified [chars] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n *\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @return An index of the first occurrence of matched character from [chars] or -1 if none of [chars] are found.\n *\n */\npublic fun CharSequence.indexOfAny(chars: CharArray, startIndex: Int = 0, ignoreCase: Boolean = false): Int {\n if (!ignoreCase && chars.size == 1 && this is String) {\n val char = chars.single()\n return nativeIndexOf(char, startIndex)\n }\n\n for (index in startIndex.coerceAtLeast(0)..lastIndex) {\n val charAtIndex = get(index)\n if (chars.any { it.equals(charAtIndex, ignoreCase) })\n return index\n }\n return -1\n}\n\n/**\n * Finds the index of the last occurrence of any of the specified [chars] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n *\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @return An index of the last occurrence of matched character from [chars] or -1 if none of [chars] are found.\n *\n */\npublic fun CharSequence.lastIndexOfAny(chars: CharArray, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Int {\n if (!ignoreCase && chars.size == 1 && this is String) {\n val char = chars.single()\n return nativeLastIndexOf(char, startIndex)\n }\n\n\n for (index in startIndex.coerceAtMost(lastIndex) downTo 0) {\n val charAtIndex = get(index)\n if (chars.any { it.equals(charAtIndex, ignoreCase) })\n return index\n }\n\n return -1\n}\n\n\nprivate fun CharSequence.indexOf(other: CharSequence, startIndex: Int, endIndex: Int, ignoreCase: Boolean, last: Boolean = false): Int {\n val indices = if (!last)\n startIndex.coerceAtLeast(0)..endIndex.coerceAtMost(length)\n else\n startIndex.coerceAtMost(lastIndex) downTo endIndex.coerceAtLeast(0)\n\n if (this is String && other is String) { // smart cast\n for (index in indices) {\n if (other.regionMatches(0, this, index, other.length, ignoreCase))\n return index\n }\n } else {\n for (index in indices) {\n if (other.regionMatchesImpl(0, this, index, other.length, ignoreCase))\n return index\n }\n }\n return -1\n}\n\nprivate fun CharSequence.findAnyOf(strings: Collection<String>, startIndex: Int, ignoreCase: Boolean, last: Boolean): Pair<Int, String>? {\n if (!ignoreCase && strings.size == 1) {\n val string = strings.single()\n val index = if (!last) indexOf(string, startIndex) else lastIndexOf(string, startIndex)\n return if (index < 0) null else index to string\n }\n\n val indices = if (!last) startIndex.coerceAtLeast(0)..length else startIndex.coerceAtMost(lastIndex) downTo 0\n\n if (this is String) {\n for (index in indices) {\n val matchingString = strings.firstOrNull { it.regionMatches(0, this, index, it.length, ignoreCase) }\n if (matchingString != null)\n return index to matchingString\n }\n } else {\n for (index in indices) {\n val matchingString = strings.firstOrNull { it.regionMatchesImpl(0, this, index, it.length, ignoreCase) }\n if (matchingString != null)\n return index to matchingString\n }\n }\n\n return null\n}\n\n/**\n * Finds the first occurrence of any of the specified [strings] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n *\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return A pair of an index of the first occurrence of matched string from [strings] and the string matched\n * or `null` if none of [strings] are found.\n *\n * To avoid ambiguous results when strings in [strings] have characters in common, this method proceeds from\n * the beginning to the end of this string, and finds at each position the first element in [strings]\n * that matches this string at that position.\n */\npublic fun CharSequence.findAnyOf(strings: Collection<String>, startIndex: Int = 0, ignoreCase: Boolean = false): Pair<Int, String>? =\n findAnyOf(strings, startIndex, ignoreCase, last = false)\n\n/**\n * Finds the last occurrence of any of the specified [strings] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n *\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return A pair of an index of the last occurrence of matched string from [strings] and the string matched or `null` if none of [strings] are found.\n *\n * To avoid ambiguous results when strings in [strings] have characters in common, this method proceeds from\n * the end toward the beginning of this string, and finds at each position the first element in [strings]\n * that matches this string at that position.\n */\npublic fun CharSequence.findLastAnyOf(strings: Collection<String>, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Pair<Int, String>? =\n   findAnyOf(strings, startIndex, ignoreCase, last = true)\n\n/**\n * Finds the index of the first occurrence of any of the specified [strings] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n *\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return An index of the first occurrence of matched string from [strings] or -1 if none of [strings] are found.\n *\n * To avoid ambiguous results when strings in [strings] have characters in common, this method proceeds from\n * the beginning to the end of this string, and finds at each position the first element in [strings]\n * that matches this string at that position.\n */\npublic fun CharSequence.indexOfAny(strings: Collection<String>, startIndex: Int = 0, ignoreCase: Boolean = false): Int =\n findAnyOf(strings, startIndex, ignoreCase, last = false)?.first ?: -1\n\n/**\n * Finds the index of the last occurrence of any of the specified [strings] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n *\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return An index of the last occurrence of matched string from [strings] or -1 if none of [strings] are found.\n *\n * To avoid ambiguous results when strings in [strings] have characters in common, this method proceeds from\n * the end toward the beginning of this string, and finds at each position the first element in [strings]\n * that matches this string at that position.\n */\npublic fun CharSequence.lastIndexOfAny(strings: Collection<String>, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Int =\n   findAnyOf(strings, startIndex, ignoreCase, last = true)?.first ?: -1\n\n\n// indexOf\n\n/**\n * Returns the index within this string of the first occurrence of the specified character, starting from the specified [startIndex].\n *\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @return An index of the first occurrence of [char] or -1 if none is found.\n */\npublic fun CharSequence.indexOf(char: Char, startIndex: Int = 0, ignoreCase: Boolean = false): Int {\n   return if (ignoreCase || this !is String)\n   indexOfAny(charArrayOf(char), startIndex, ignoreCase)\n   else\n nativeIndexOf(char, startIndex)\n}\n\n/**\n * Returns the index within this char sequence of the first occurrence of the specified [string],\n * starting from the specified [startIndex].\n *\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return An index of the first occurrence of [string] or `-1` if none is found.\n * @sample samples.text.Strings.indexOf\n */\npublic fun CharSequence.indexOf(string: String, startIndex: Int = 0, ignoreCase: Boolean = false): Int {\n   return if (ignoreCase || this !is String)\n   indexOf(string, startIndex, length, ignoreCase)\n   else\n nativeIndexOf(string, startIndex)\n}\n\n/**\n * Returns the index within this char sequence of the last occurrence of the specified character,\n * starting from the specified [startIndex].\n *\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @return An index of the last occurrence of [char] or -1 if none is found.\n */\npublic fun CharSequence.lastIndexOf(char: Char, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Int {\n   return if (ignoreCase || this !is String)\n lastIndexOfAny(charArrayOf(char), startIndex, ignoreCase)\n   else\n   nativeLastIndexOf(char, startIndex)\n}\n\n/**\n * Returns the index within this char sequence of the last occurrence of the specified [string],\n * starting from the specified [startIndex].\n *\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return An index of the last occurrence of [string] or -1 if none is found.\n */\npublic fun CharSequence.lastIndexOf(string: String, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Int {\n   return if (ignoreCase || this !is String)\n   indexOf(string, startIndex, 0, ignoreCase, last = true)\n   else\n   nativeLastIndexOf(string, startIndex)\n}\n\n/**\n * Returns `true` if this char sequence contains the specified [other] sequence of characters as a substring.\n *\n * @param ignoreCase `true` to ignore character case when comparing strings. By default `false`.\n */\n@Suppress(\"INAPPLICABLE_OPERATOR_MODIFIER\")\npublic operator fun CharSequence.contains(other: CharSequence, ignoreCase: Boolean = false): Boolean =\n   if (other is String)\n   indexOf(other, ignoreCase = ignoreCase) >= 0\n   else\n   indexOf(other, 0, length, ignoreCase) >= 0\n\n\n\n/**\n * Returns `true` if this char sequence contains the specified character [char].\n *\n * @param ignoreCase `true` to ignore character case when comparing characters. By default `false`.\n */\n@Suppress(\"INAPPLICABLE_OPERATOR_MODIFIER\")\npublic operator fun CharSequence.contains(char: Char, ignoreCase: Boolean = false): Boolean =\n   indexOf(char, ignoreCase = ignoreCase) >= 0\n\n/**\n * Returns `true` if this char sequence contains at least one match of the specified regular expression [regex].\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun CharSequence.contains(regex: Regex): Boolean = regex.containsMatchIn(this)\n\n\n// rangesDelimitedBy\n\n\nprivate class DelimitedRangesSequence(\n   private val input: CharSequence,\n   private val startIndex: Int,\n   private val limit: Int,\n   private val getNextMatch: CharSequence.(currentIndex: Int) -> Pair<Int, Int>?\n) : Sequence<IntRange> {\n\n   override fun iterator(): Iterator<IntRange> = object : Iterator<IntRange> {\n   var nextState: Int = -1 // -1 for unknown, 0 for done, 1 for continue\n   var currentStartIndex: Int = startIndex.coerceIn(0, input.length)\n   var nextSearchIndex: Int = currentStartIndex\n   var nextItem: IntRange? = null\n   var counter: Int = 0\n\n   private fun calcNext() {\n   if (nextSearchIndex < 0) {\n   nextState = 0\n   nextItem = null\n   } else {\n   if (limit > 0 && ++counter >= limit || nextSearchIndex > input.length) {\n   nextItem = currentStartIndex..input.lastIndex\n   nextSearchIndex = -1\n   } else {\n   val match = input.getNextMatch(nextSearchIndex)\n   if (match == null) {\n   nextItem = currentStartIndex..input.lastIndex\n   nextSearchIndex = -1\n   } else {\n   val (index, length) = match\n   nextItem = currentStartIndex until index\n   currentStartIndex = index + length\n   nextSearchIndex = currentStartIndex + if (length == 0) 1 else 0\n   }\n   }\n   nextState = 1\n   }\n   }\n\n   override fun next(): IntRange {\n   if (nextState == -1)\n   calcNext()\n   if (nextState == 0)\n   throw NoSuchElementException()\n   val result = nextItem as IntRange\n   // Clean next to avoid keeping reference on yielded instance\n   nextItem = null\n   nextState = -1\n   return result\n   }\n\n   override fun hasNext(): Boolean {\n   if (nextState == -1)\n   calcNext()\n   return nextState == 1\n   }\n   }\n}\n\n/**\n * Returns a sequence of index ranges of substrings in this char sequence around occurrences of the specified [delimiters].\n *\n * @param delimiters One or more characters to be used as delimiters.\n * @param startIndex The index to start searching delimiters from.\n * No range having its start value less than [startIndex] is returned.\n * [startIndex] is coerced to be non-negative and not greater than length of this string.\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return. Zero by default means no limit is set.\n */\nprivate fun CharSequence.rangesDelimitedBy(delimiters: CharArray, startIndex: Int = 0, ignoreCase: Boolean = false, limit: Int = 0): Sequence<IntRange> {\n   requireNonNegativeLimit(limit)\n\n   return DelimitedRangesSequence(this, startIndex, limit, { currentIndex ->\n   indexOfAny(delimiters, currentIndex, ignoreCase = ignoreCase).let { if (it < 0) null else it to 1 }\n   })\n}\n\n\n/**\n * Returns a sequence of index ranges of substrings in this char sequence around occurrences of the specified [delimiters].\n *\n * @param delimiters One or more strings to be used as delimiters.\n * @param startIndex The index to start searching delimiters from.\n * No range having its start value less than [startIndex] is returned.\n * [startIndex] is coerced to be non-negative and not greater than length of this string.\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return. Zero by default means no limit is set.\n *\n * To avoid ambiguous results when strings in [delimiters] have characters in common, this method proceeds from\n * the beginning to the end of this string, and finds at each position the first element in [delimiters]\n * that matches this string at that position.\n */\nprivate fun CharSequence.rangesDelimitedBy(delimiters: Array<out String>, startIndex: Int = 0, ignoreCase: Boolean = false, limit: Int = 0): Sequence<IntRange> {\n   requireNonNegativeLimit(limit)\n   val delimitersList = delimiters.asList()\n\n   return DelimitedRangesSequence(this, startIndex, limit, { currentIndex -> findAnyOf(delimitersList, currentIndex, ignoreCase = ignoreCase, last = false)?.let { it.first to it.second.length } })\n\n}\n\ninternal fun requireNonNegativeLimit(limit: Int) =\n   require(limit >= 0) { \"Limit must be non-negative, but was $limit\" }\n\n\n// split\n\n/**\n * Splits this char sequence to a sequence of strings around occurrences of the specified [delimiters].\n *\n * @param delimiters One or more strings to be used as delimiters.\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default

`false`.\n * @param limit The maximum number of substrings to return. Zero by default means no limit is set.\n *\n * To avoid ambiguous results when strings in [delimiters] have characters in common, this method proceeds from\n * the beginning to the end of this string, and finds at each position the first element in [delimiters]\n * that matches this string at that position.\n */\npublic fun CharSequence.splitToSequence(vararg delimiters: String, ignoreCase: Boolean = false, limit: Int = 0): Sequence<String> =\n   rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).map { substring(it) }\n\n/**\n * Splits this char sequence to a list of strings around occurrences of the specified [delimiters].\n *\n * @param delimiters One or more strings to be used as delimiters.\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return. Zero by default means no limit is set.\n *\n

* To avoid ambiguous results when strings in [delimiters] have characters in common, this method proceeds from\n * the beginning to the end of this string, and matches at each position the first element in [delimiters]\n * that is equal to a delimiter in this instance at that position.\n */\npublic fun CharSequence.split(vararg delimiters: String, ignoreCase: Boolean = false, limit: Int = 0): List<String> {\n   if (delimiters.size == 1) {\n   val delimiter = delimiters[0]\n   if (!delimiter.isEmpty()) {\n   return split(delimiter, ignoreCase, limit)\n   }\n   }\n\n   return rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).asIterable().map { substring(it) }\n}\n\n/**\n * Splits this char sequence to a sequence of strings around occurrences of the specified [delimiters].\n *\n * @param delimiters One or more characters to be used as delimiters.\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n

* @param limit The maximum number of substrings to return.\n */\npublic fun CharSequence.splitToSequence(vararg delimiters: Char, ignoreCase: Boolean = false, limit: Int = 0): Sequence<String> =\n   rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).map { substring(it) }\n\n/**\n * Splits this char sequence to a list of strings around occurrences of the specified [delimiters].\n *\n * @param delimiters One or more characters to be used as delimiters.\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return.\n */\npublic fun CharSequence.split(vararg delimiters: Char, ignoreCase: Boolean = false, limit: Int = 0): List<String> {\n   if (delimiters.size == 1) {\n   return split(delimiters[0].toString(), ignoreCase, limit)\n   }\n\n   return rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).asIterable().map { substring(it) }\n}\n\n/**\n

* Splits this char sequence to a list of strings around occurrences of the specified [delimiter].\n * This is specialized version of split which receives single non-empty delimiter and offers better performance\n *\n * @param delimiter String used as delimiter\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return.\n */\nprivate fun CharSequence.split(delimiter: String, ignoreCase: Boolean, limit: Int): List<String> {\n   requireNonNegativeLimit(limit)\n\n   var currentOffset = 0\n   var nextIndex = indexOf(delimiter, currentOffset, ignoreCase)\n   if (nextIndex == -1 || limit == 1) {\n   return listOf(this.toString())\n   }\n\n   val isLimited = limit > 0\n   val result = ArrayList<String>(if (isLimited) limit.coerceAtMost(10) else 10)\n   do {\n   result.add(substring(currentOffset, nextIndex))\n   currentOffset = nextIndex + delimiter.length\n   //

Do not search for next occurrence if we're reaching limit\n   if (isLimited && result.size == limit - 1) break\n   nextIndex = indexOf(delimiter, currentOffset, ignoreCase)\n   } while (nextIndex != -1)\n\n result.add(substring(currentOffset, length))\n   return result\n}\n\n/**\n * Splits this char sequence to a list of strings around matches of the given regular expression.\n *\n * @param limit Non-negative value specifying the maximum number of substrings to return.\n * Zero by default means no limit is set.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.split(regex: Regex, limit: Int = 0): List<String> = regex.split(this, limit)\n\n/**\n * Splits this char sequence to a sequence of strings around matches of the given regular expression.\n *\n * @param limit Non-negative value specifying the maximum number of substrings to return.\n * Zero by default means no limit is set.\n * @sample samples.text.Strings.splitToSequence\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic

inline fun CharSequence.splitToSequence(regex: Regex, limit: Int = 0): Sequence<String> = regex.splitToSequence(this, limit)\n\n/**\n * Splits this char sequence to a sequence of lines delimited by any of the following character sequences: CRLF, LF or CR.\n *\n * The lines returned do not include terminating line separators.\n */\npublic fun CharSequence.lineSequence(): Sequence<String> = splitToSequence(\"\\r\\n\", \"\\n\", \"\\r\")\n\n/**\n * Splits this char sequence to a list of lines delimited by any of the following character sequences: CRLF, LF or CR.\n *\n * The lines returned do not include terminating line separators.\n */\npublic fun CharSequence.lines(): List<String> = lineSequence().toList()\n\n/**\n * Returns `true` if the contents of this char sequence are equal to the contents of the specified [other],\n * i.e. both char sequences contain the same number of the same characters in the

same order.\n *\n * @sample samples.text.Strings.contentEquals\n */\n@SinceKotlin(\"1.5\")\npublic expect infix fun CharSequence?.contentEquals(other: CharSequence?): Boolean\n\n/**\n * Returns `true` if the contents of this char sequence are equal to the contents of the specified [other], optionally ignoring case difference.\n *\n * @param ignoreCase `true` to ignore character case when comparing contents.\n *\n * @sample samples.text.Strings.contentEquals\n */\n@SinceKotlin(\"1.5\")\npublic expect fun CharSequence?.contentEquals(other: CharSequence?, ignoreCase: Boolean): Boolean\n\ninternal fun CharSequence?.contentEqualsIgnoreCaseImpl(other: CharSequence?): Boolean {\n   if (this is String && other is String) {\n   return this.equals(other, ignoreCase = true)\n   }\n\n   if (this === other) return true\n   if (this == null || other == null || this.length != other.length) return false\n\n   for (i in 0 until length) {\n   if (!this[i].equals(other[i], ignoreCase = true))

{\n   return false\n   }\n   }\n\n   return true\n}\n\ninternal fun CharSequence?.contentEqualsImpl(other: CharSequence?): Boolean {\n   if (this is String && other is String) {\n   return this == other\n   }\n\n   if (this === other) return true\n   if (this == null || other == null || this.length != other.length) return false\n\n   for (i in 0 until length) {\n   if (this[i] != other[i]) {\n   return false\n   }\n   }\n\n   return true\n}\n\n/**\n * Returns `true` if the content of this string is equal to the word \"true\", `false` if it is equal to \"false\",\n * and throws an exception otherwise.\n *\n * There is also a lenient version of the function available on nullable String, [String?.toBoolean].\n * Note that this function is case-sensitive.\n *\n * @sample samples.text.Strings.toBooleanStrict\n */\n@SinceKotlin(\"1.5\")\npublic fun String.toBooleanStrict(): Boolean = when (this) {\n   \"true\" -> true\n   \"false\" -> false\n

    else -> throw IllegalArgumentException(\"The string doesn't represent a boolean value: $this\")\n}\n\n/**\n * Returns `true` if the content of this string is equal to the word \"true\", `false` if it is equal to \"false\",\n * and `null` otherwise.\n *\n * There is also a lenient version of the function available on nullable String, [String?.toBoolean].\n * Note that this function is case-sensitive.\n *\n * @sample samples.text.Strings.toBooleanStrictOrNull\n */\n@SinceKotlin(\"1.5\")\npublic fun String.toBooleanStrictOrNull(): Boolean? = when (this) {\n   \"true\" -> true\n   \"false\" -> false\n   else -> null\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@JvmInline\npublic

value class UByteArray\n@PublishedApi\ninternal constructor(@PublishedApi internal val storage: ByteArray) : Collection<UByte> {\n\n   /** Creates a new array of the specified [size], with all elements initialized to zero. */\n public constructor(size: Int) : this(ByteArray(size))\n\n   /**\n   * Returns the array element at the given [index]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun get(index: Int): UByte = storage[index].toUByte()\n\n   /**\n   * Sets the element at the given [index] to the given [value]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun set(index: Int, value: UByte) {\n   storage[index] = value.toByte()\n   }\n\n   /** Returns the number of elements in the array. */\n   public override val size: Int get() = storage.size\n\n   /** Creates an iterator over the elements of the array. */\n   public override operator fun iterator(): kotlin.collections.Iterator<UByte> = Iterator(storage)\n\n   @Suppress(\"DEPRECATION_ERROR\")\n   private class Iterator(private val array: ByteArray) : UByteIterator() {\n   private var index = 0\n   override fun hasNext() = index < array.size\n   override fun nextUByte() = if (index < array.size) array[index++].toUByte() else throw NoSuchElementException(index.toString())\n   }\n\n   override fun contains(element: UByte): Boolean {\n   // TODO: Eliminate this check after KT-30016 gets fixed.\n   // Currently JS BE does not generate special bridge method for this method.\n   @Suppress(\"USELESS_CAST\")\n   if ((element as Any?) !is UByte) return false\n\n   return storage.contains(element.toByte())\n   }\n\n   override fun containsAll(elements: Collection<UByte>): Boolean {\n   return (elements as Collection<*>).all { it is UByte && storage.contains(it.toByte()) }\n   }\n\n   override fun isEmpty(): Boolean = this.storage.size == 0\n}\n\n/**\n * Creates a new array of the specified [size], where each element is calculated by calling the specified\n * [init] function.\n *\n * The function [init] is called for each array element sequentially starting from the first one.\n * It should return the value for an array element given its index.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray(size: Int, init: (Int) -> UByte): UByteArray {\n   return UByteArray(ByteArray(size) { index -> init(index).toByte() })\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ubyteArrayOf(vararg elements: UByte): UByteArray = elements\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@JvmInline\npublic value class UIntArray\n@PublishedApi\ninternal constructor(@PublishedApi internal val storage: IntArray) : Collection<UInt> {\n\n   /** Creates a new array of the specified [size], with all elements initialized to zero. */\n   public constructor(size: Int) : this(IntArray(size))\n\n   /**\n   * Returns the array element at the given [index]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun get(index: Int): UInt = storage[index].toUInt()\n\n   /**\n   * Sets the element at the given [index] to the given [value]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun set(index: Int, value: UInt) {\n   storage[index] = value.toInt()\n   }\n\n   /** Returns the number of elements in the array. */\n   public override val size: Int get() = storage.size\n\n   /** Creates an iterator over the elements of the array. */\n   public override operator fun iterator(): kotlin.collections.Iterator<UInt> = Iterator(storage)\n\n   @Suppress(\"DEPRECATION_ERROR\")\n   private class Iterator(private val array: IntArray) : UIntIterator() {\n   private var index = 0\n   override fun hasNext() = index < array.size\n   override fun nextUInt() = if (index < array.size) array[index++].toUInt() else throw NoSuchElementException(index.toString())\n   }\n\n   override fun contains(element: UInt): Boolean {\n   // TODO: Eliminate this check after KT-30016 gets fixed.\n   // Currently JS BE does not generate special bridge method for this method.\n   @Suppress(\"USELESS_CAST\")\n   if ((element as Any?) !is UInt) return false\n\n   return storage.contains(element.toInt())\n   }\n\n   override fun containsAll(elements: Collection<UInt>): Boolean {\n return (elements as Collection<*>).all { it is UInt && storage.contains(it.toInt()) }\n   }\n\n   override fun isEmpty(): Boolean = this.storage.size == 0\n}\n\n/**\n * Creates a new array of the specified [size], where each element is calculated by calling the specified\n * [init] function.\n *\n * The function [init] is called for each array element sequentially starting from the first one.\n * It should return the value for an array element given its index.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray(size: Int, init: (Int) -> UInt): UIntArray {\n   return UIntArray(IntArray(size) { index -> init(index).toInt() })\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun uintArrayOf(vararg elements: UInt): UIntArray = elements\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@JvmInline\npublic value class ULongArray\n@PublishedApi\ninternal constructor(@PublishedApi internal val storage: LongArray) : Collection<ULong> {\n\n   /** Creates a new array of the specified [size], with all elements initialized to zero. */\n public constructor(size: Int) : this(LongArray(size))\n\n   /**\n   * Returns the array element at the given [index]. This method can be called using the index operator.\n *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n   */\n   public operator fun get(index: Int): ULong = storage[index].toULong()\n\n   /**\n   * Sets the element at the given [index] to the given [value]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun set(index: Int, value: ULong) {\n   storage[index] = value.toLong()\n   }\n\n   /** Returns the number of elements in the array. */\n   public override val size: Int get() = storage.size\n\n   /** Creates an iterator over the elements of the array. */\n   public override operator fun iterator(): kotlin.collections.Iterator<ULong> = Iterator(storage)\n\n   @Suppress(\"DEPRECATION_ERROR\")\n   private class Iterator(private val array: LongArray) : ULongIterator() {\n   private var index = 0\n   override fun hasNext() = index < array.size\n   override fun nextULong() = if (index < array.size) array[index++].toULong() else throw NoSuchElementException(index.toString())\n   }\n\n   override fun contains(element: ULong): Boolean {\n   // TODO: Eliminate this check after KT-30016 gets fixed.\n   // Currently JS BE does not generate special bridge method for this method.\n   @Suppress(\"USELESS_CAST\")\n   if ((element as Any?) !is ULong) return false\n\n   return storage.contains(element.toLong())\n   }\n\n   override fun containsAll(elements: Collection<ULong>): Boolean {\n   return (elements as Collection<*>).all { it is ULong && storage.contains(it.toLong()) }\n   }\n\n   override fun isEmpty(): Boolean = this.storage.size == 0\n}\n\n/**\n * Creates a new array of the specified [size], where each element is calculated by calling the specified\n * [init] function.\n *\n * The function [init] is called for each array element sequentially starting from the first one.\n * It should return the value for an array element given its index.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray(size: Int, init: (Int) -> ULong): ULongArray {\n   return ULongArray(LongArray(size) { index -> init(index).toLong() })\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ulongArrayOf(vararg elements: ULong): ULongArray = elements\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@JvmInline\npublic value class UShortArray\n@PublishedApi\ninternal constructor(@PublishedApi internal val storage: ShortArray) : Collection<UShort> {\n\n   /** Creates a new array of the specified [size], with all elements initialized to zero. */\n public constructor(size: Int) : this(ShortArray(size))\n\n   /**\n   * Returns the array element at the given [index].

This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun get(index: Int): UShort = storage[index].toUShort()\n\n   /**\n   * Sets the element at the given [index] to the given [value]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun set(index: Int, value: UShort) {\n   storage[index] = value.toShort()\n   }\n\n   /** Returns the number of elements in the array. */\n   public override val size: Int get() = storage.size\n\n   /** Creates an iterator over the elements of the array. */\n   public override operator fun iterator(): kotlin.collections.Iterator<UShort> = Iterator(storage)\n\n   @Suppress(\"DEPRECATION_ERROR\")\n   private class Iterator(private val array: ShortArray) : UShortIterator() {\n   private var index = 0\n   override fun hasNext() = index < array.size\n   override fun nextUShort() = if (index < array.size) array[index++].toUShort() else throw NoSuchElementException(index.toString())\n   }\n\n   override fun contains(element: UShort): Boolean {\n   // TODO: Eliminate this check after KT-30016 gets fixed.\n   // Currently JS BE does not generate special bridge method for this method.\n   @Suppress(\"USELESS_CAST\")\n   if ((element as Any?) !is UShort) return false\n\n   return storage.contains(element.toShort())\n   }\n\n   override fun containsAll(elements: Collection<UShort>): Boolean {\n   return (elements as Collection<*>).all { it is UShort && storage.contains(it.toShort()) }\n   }\n\n   override fun isEmpty(): Boolean = this.storage.size == 0\n}\n\n/**\n * Creates a new array of the specified [size], where each element is calculated by calling the specified\n * [init] function.\n *\n * The function [init] is called for each array element sequentially starting from the first one.\n * It should return the value for an array element given its index.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray(size: Int, init: (Int) -> UShort): UShortArray {\n   return UShortArray(ShortArray(size) { index -> init(index).toShort() })\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ushortArrayOf(vararg elements: UShort): UShortArray = elements\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"UArraysKt\")\n@file:kotlin.jvm.JvmPackageName(\"kotlin.collections.unsigned\")\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntArray.component1(): UInt {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.component1(): ULong {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.component1(): UByte {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.component1(): UShort {\n   return get(0)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the

behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntArray.component2(): UInt {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.component2(): ULong {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this
 array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.component2(): UByte {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.component2(): UShort {\n   return get(1)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntArray.component3(): UInt {\n
    return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.component3(): ULong {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.component3(): UByte {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline operator fun UShortArray.component3(): UShort {\n   return get(2)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntArray.component4(): UInt {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.component4(): ULong {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n
 * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.component4(): UByte {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.component4(): UShort {\n   return get(3)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the

behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntArray.component5(): UInt {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.component5(): ULong {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.component5(): UByte {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.component5(): UShort {\n   return get(4)\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun UIntArray.elementAt(index: Int): UInt\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun ULongArray.elementAt(index: Int): ULong\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun UByteArray.elementAt(index: Int): UByte\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun UShortArray.elementAt(index: Int): UShort\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.elementAtOrElse(index: Int, defaultValue: (Int) -> UInt): UInt {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.elementAtOrElse(index: Int, defaultValue: (Int) -> ULong): ULong {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.elementAtOrElse(index: Int, defaultValue: (Int) -> UByte): UByte {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.elementAtOrElse(index: Int, defaultValue: (Int) -> UShort): UShort {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.elementAtOrNull(index: Int): UInt? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.elementAtOrNull(index: Int): ULong? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.elementAtOrNull(index: Int): UByte? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.elementAtOrNull(index: Int): UShort? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.find(predicate: (UInt) -> Boolean): UInt? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.find(predicate: (ULong) -> Boolean): ULong? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.find(predicate: (UByte) -> Boolean): UByte? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.find(predicate: (UShort) -> Boolean): UShort? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.findLast(predicate: (UInt) -> Boolean): UInt? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.findLast(predicate: (ULong) -> Boolean): ULong? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.findLast(predicate: (UByte) -> Boolean): UByte? {\n   return lastOrNull(predicate)\n}\n\n/**\n *

Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.findLast(predicate: (UShort) -> Boolean): UShort? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.first(): UInt {\n
    return storage.first().toUInt()\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.first(): ULong {\n   return storage.first().toULong()\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.first(): UByte {\n   return storage.first().toUByte()\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.first(): UShort {\n   return storage.first().toUShort()\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun UIntArray.first(predicate: (UInt) -> Boolean): UInt {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.first(predicate: (ULong) -> Boolean): ULong {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.first(predicate:
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 fun ULongArray.firstOrNull(): ULong? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.firstOrNull(): UByte? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.firstOrNull(): UShort? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.firstOrNull(predicate: (UInt) -> Boolean): UInt? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element

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found.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.firstOrNull(predicate: (ULong) -> Boolean): ULong? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.firstOrNull(predicate: (UByte) -> Boolean): UByte? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.firstOrNull(predicate: (UShort) -> Boolean): UShort? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns
an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.getOrElse(index: Int, defaultValue: (Int) -> UInt): UInt {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.getOrElse(index: Int, defaultValue: (Int) -> ULong): ULong {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UByteArray.getOrElse(index: Int, defaultValue: (Int) -> UByte): UByte {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.getOrElse(index: Int, defaultValue: (Int) -> UShort): UShort {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.getOrNull(index: Int): UInt? {\n
return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n
* Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.getOrNull(index: Int): ULong? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.getOrNull(index: Int): UByte? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.getOrNull(index:
Int): UShort? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.indexOf(element: UInt): Int {\n   return storage.indexOf(element.toInt())\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

ULongArray.indexOf(element: ULong): Int {\n   return storage.indexOf(element.toLong())\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.indexOf(element: UByte): Int {\n   return storage.indexOf(element.toByte())\n}\n\n/**\n * Returns first index of [element], or -1 if the
array does not contain element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.indexOf(element: UShort): Int {\n   return storage.indexOf(element.toShort())\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.indexOfFirst(predicate: (UInt) -> Boolean): Int {\n   return storage.indexOfFirst { predicate(it.toUInt()) }\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.indexOfFirst(predicate: (ULong) -> Boolean): Int {\n   return storage.indexOfFirst { predicate(it.toULong()) }\n}\n\n/**\n * Returns index of the first element matching the
given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.indexOfFirst(predicate: (UByte) -> Boolean): Int {\n   return storage.indexOfFirst { predicate(it.toUByte()) }\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.indexOfFirst(predicate: (UShort) -> Boolean): Int {\n   return storage.indexOfFirst { predicate(it.toUShort()) }\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.indexOfLast(predicate: (UInt) -> Boolean): Int {\n   return storage.indexOfLast { predicate(it.toUInt()) }\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.indexOfLast(predicate: (ULong) -> Boolean): Int {\n   return storage.indexOfLast { predicate(it.toULong()) }\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.indexOfLast(predicate: (UByte) -> Boolean): Int {\n   return storage.indexOfLast { predicate(it.toUByte()) }\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.indexOfLast(predicate: (UShort) ->
Boolean): Int {\n   return storage.indexOfLast { predicate(it.toUShort()) }\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.last(): UInt {\n   return storage.last().toUInt()\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.last(): ULong {\n   return storage.last().toULong()\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

inline fun UByteArray.last(): UByte {\n   return storage.last().toUByte()\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.last(): UShort {\n   return storage.last().toUShort()\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.last(predicate: (UInt) -> Boolean): UInt {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n

* Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.last(predicate: (ULong) -> Boolean): ULong {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.last(predicate: (UByte) -> Boolean): UByte {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.last(predicate: (UShort) -> Boolean): UShort {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.lastIndexOf(element: UInt):

Int {\n   return storage.lastIndexOf(element.toInt())\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.lastIndexOf(element: ULong): Int {\n   return storage.lastIndexOf(element.toLong())\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.lastIndexOf(element: UByte): Int {\n   return storage.lastIndexOf(element.toByte())\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.lastIndexOf(element: UShort): Int {\n   return storage.lastIndexOf(element.toShort())\n}\n\n/**\n * Returns the last element, or `null` if the array is

empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.lastOrNull(): UInt? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.lastOrNull(): ULong? {\n

return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.lastOrNull(): UByte? {\n return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
fun UShortArray.lastOrNull(): UShort? {\n return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.lastOrNull(predicate: (UInt) -> Boolean): UInt? {\n for (index in this.indices.reversed()) {\n val element = this[index]\n if (predicate(element)) return element\n }\n return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.lastOrNull(predicate: (ULong) -> Boolean): ULong? {\n for (index in this.indices.reversed()) {\n val element = this[index]\n
if (predicate(element)) return element\n }\n return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.lastOrNull(predicate: (UByte) -> Boolean): UByte? {\n for (index in this.indices.reversed()) {\n val element = this[index]\n if (predicate(element)) return element\n }\n return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.lastOrNull(predicate: (UShort) -> Boolean): UShort? {\n for (index in this.indices.reversed()) {\n val element = this[index]\n
if (predicate(element)) return element\n }\n return null\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.random(): UInt {\n return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.random(): ULong {\n return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.random(): UByte {\n return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException
if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.random(): UShort {\n return random(Random)\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.random(random: Random): UInt {\n if (isEmpty())\n throw NoSuchElementException(\"Array is empty.\")\n return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.random(random: Random):

ULong {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.random(random: Random): UByte {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.random(random: Random): UShort {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.randomOrNull(): UInt? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.randomOrNull(): ULong? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.randomOrNull(): UByte? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.randomOrNull(): UShort? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun UIntArray.randomOrNull(random: Random): UInt? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun ULongArray.randomOrNull(random: Random): ULong? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun UByteArray.randomOrNull(random: Random): UByte? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun UShortArray.randomOrNull(random: Random): UShort? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.single(): UInt {\n   return storage.single().toUInt()\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.single(): ULong {\n   return storage.single().toULong()\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

UByteArray.single(): UByte {\n   return storage.single().toUByte()\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.single(): UShort {\n   return storage.single().toUShort()\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.single(predicate: (UInt) -> Boolean): UInt {\n   var single: UInt? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n   single = element\n found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return single as UInt\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.single(predicate: (ULong) -> Boolean): ULong {\n   var single: ULong? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n   single = element\n found = true\n
        }\n   }\n   if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return single as ULong\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.single(predicate: (UByte) -> Boolean): UByte {\n   var single: UByte? = null\n   var found = false\n for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n   return single as UByte\n}\n\n/**\n * Returns the single element matching
 the given [predicate], or throws exception if there is no or more than one matching element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.single(predicate: (UShort) -> Boolean): UShort {\n   var single: UShort? = null\n   var found = false\n for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n   return single as UShort\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.singleOrNull(): UInt? {\n return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element,
 or `null` if the array is empty or has more than one element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.singleOrNull(): ULong? {\n return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.singleOrNull(): UByte? {\n   return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.singleOrNull(): UShort? {\n return if (size == 1) this[0] else null\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.singleOrNull(predicate:

(UInt) -> Boolean): UInt? {\n var single: UInt? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) return null\n single = element\n found = true\n }\n }\n if (!found) return null\n return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.singleOrNull(predicate: (ULong) -> Boolean): ULong? {\n var single: ULong? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) return null\n single = element\n found = true\n }\n }\n if (!found) return null\n return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found
or more than one element was found.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.singleOrNull(predicate: (UByte) -> Boolean): UByte? {\n var single: UByte? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) return null\n single = element\n found = true\n }\n }\n if (!found) return null\n return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.singleOrNull(predicate: (UShort) -> Boolean): UShort? {\n var single: UShort? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) return null\n single = element\n found
= true\n }\n }\n if (!found) return null\n return single\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.drop(n: Int): List<UInt> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.drop(n: Int): List<ULong> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing
all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.drop(n: Int): List<UByte> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.drop(n: Int): List<UShort> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n *
@sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.dropLast(n: Int): List<UInt> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.dropLast(n: Int):

List<ULong> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.dropLast(n: Int): List<UByte> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.dropLast(n: Int): List<UShort> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.dropLastWhile(predicate: (UInt) -> Boolean): List<UInt> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.dropLastWhile(predicate: (ULong) -> Boolean): List<ULong> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.dropLastWhile(predicate: (UByte) -> Boolean): List<UByte> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.dropLastWhile(predicate: (UShort) -> Boolean): List<UShort> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.dropWhile(predicate: (UInt) -> Boolean): List<UInt> {\n   var yielding = false\n   val list = ArrayList<UInt>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.dropWhile(predicate: (ULong) -> Boolean): List<ULong> {\n   var yielding = false\n   val list = ArrayList<ULong>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.dropWhile(predicate: (UByte) -> Boolean): List<UByte> {\n   var yielding = false\n   val list = ArrayList<UByte>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item))

{\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.dropWhile(predicate: (UShort) -> Boolean): List<UShort> {\n   var yielding = false\n   val list = ArrayList<UShort>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.filter(predicate: (UInt) -> Boolean): List<UInt> {\n   return filterTo(ArrayList<UInt>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.filter(predicate: (ULong) -> Boolean): List<ULong> {\n   return filterTo(ArrayList<ULong>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.filter(predicate: (UByte) -> Boolean): List<UByte> {\n   return filterTo(ArrayList<UByte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.filter(predicate: (UShort) -> Boolean): List<UShort> {\n   return filterTo(ArrayList<UShort>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.filterIndexed(predicate: (index: Int, UInt) -> Boolean): List<UInt> {\n   return filterIndexedTo(ArrayList<UInt>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.filterIndexed(predicate: (index: Int, ULong) -> Boolean): List<ULong> {\n   return filterIndexedTo(ArrayList<ULong>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.filterIndexed(predicate: (index: Int, UByte) -> Boolean): List<UByte> {\n   return filterIndexedTo(ArrayList<UByte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.filterIndexed(predicate: (index: Int, UShort) -> Boolean): List<UShort> {\n   return filterIndexedTo(ArrayList<UShort>(), predicate)\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UInt>> UIntArray.filterIndexedTo(destination: C, predicate: (index: Int, UInt) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in

ULong>> ULongArray.filterIndexedTo(destination: C, predicate: (index: Int, ULong) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UByte>> UByteArray.filterIndexedTo(destination: C, predicate: (index: Int, UByte) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the

given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UShort>> UShortArray.filterIndexedTo(destination: C, predicate: (index: Int, UShort) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.filterNot(predicate: (UInt) -> Boolean): List<UInt> {\n   return filterNotTo(ArrayList<UInt>(), predicate)\n}\n\n/**\n

* Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.filterNot(predicate: (ULong) -> Boolean): List<ULong> {\n   return filterNotTo(ArrayList<ULong>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.filterNot(predicate: (UByte) -> Boolean): List<UByte> {\n   return filterNotTo(ArrayList<UByte>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

inline fun UShortArray.filterNot(predicate: (UShort) -> Boolean): List<UShort> {\n   return filterNotTo(ArrayList<UShort>(), predicate)\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UInt>> UIntArray.filterNotTo(destination: C, predicate: (UInt) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in ULong>> ULongArray.filterNotTo(destination: C, predicate: (ULong) -> Boolean): C

{\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UByte>> UByteArray.filterNotTo(destination: C, predicate: (UByte) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UShort>> UShortArray.filterNotTo(destination: C, predicate: (UShort) -> Boolean): C {\n for (element in this) if (!predicate(element))

destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UInt>> UIntArray.filterTo(destination: C, predicate: (UInt) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in ULong>> ULongArray.filterTo(destination: C, predicate: (ULong) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n

* Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UByte>> UByteArray.filterTo(destination: C, predicate: (UByte) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UShort>> UShortArray.filterTo(destination: C, predicate: (UShort) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Returns a list containing elements

at indices in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.slice(indices: IntRange): List<UInt> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.slice(indices: IntRange): List<ULong> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.slice(indices: IntRange): List<UByte> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices

in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.slice(indices: IntRange): List<UShort> {\n   if (indices.isEmpty()) return listOf()\n   return

copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.slice(indices: Iterable<Int>): List<UInt> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<UInt>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.slice(indices: Iterable<Int>): List<ULong> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<ULong>(size)\n
    for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.slice(indices: Iterable<Int>): List<UByte> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<UByte>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.slice(indices: Iterable<Int>): List<UShort> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<UShort>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns an array containing elements of this array at specified
 [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sliceArray(indices: Collection<Int>): UIntArray {\n   return UIntArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sliceArray(indices: Collection<Int>): ULongArray {\n   return ULongArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sliceArray(indices: Collection<Int>): UByteArray {\n   return UByteArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sliceArray(indices: Collection<Int>): UShortArray {\n   return UShortArray(storage.sliceArray(indices))\n}\n\n/**\n
 * Returns an array containing elements at indices in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sliceArray(indices: IntRange): UIntArray {\n   return UIntArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sliceArray(indices: IntRange): ULongArray {\n   return ULongArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sliceArray(indices: IntRange): UByteArray {\n   return UByteArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sliceArray(indices:
 IntRange): UShortArray {\n   return UShortArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.take(n: Int): List<UInt> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<UInt>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.take(n: Int): List<ULong> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<ULong>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.take(n: Int): List<UByte> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<UByte>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.take(n: Int): List<UShort> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<UShort>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.takeLast(n: Int): List<UInt> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   val size = size\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[size - 1])\n   val list = ArrayList<UInt>(n)\n   for (index in size - n until size)\n   list.add(this[index])\n   return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.takeLast(n: Int): List<ULong> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   val size = size\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[size - 1])\n   val list = ArrayList<ULong>(n)\n   for (index in size - n until size)\n   list.add(this[index])\n   return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.takeLast(n: Int): List<UByte> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   val size = size\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[size - 1])\n   val list = ArrayList<UByte>(n)\n   for (index in size - n until size)\n   list.add(this[index])\n   return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.takeLast(n: Int): List<UShort> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   val size = size\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[size - 1])\n   val list = ArrayList<UShort>(n)\n   for (index in size - n until size)\n   list.add(this[index])\n   return list\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.takeLastWhile(predicate: (UInt) -> Boolean): List<UInt> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample

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samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun ULongArray.takeLastWhile(predicate: (ULong) -> Boolean): List<ULong> {\n    for (index in lastIndex
downTo 0) {\n        if (!predicate(this[index])) {\n            return drop(index + 1)\n        }\n    }\n    return
toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.takeLastWhile(predicate: (UByte) -> Boolean): List<UByte> {\n    for (index in lastIndex downTo 0)
{\n        if (!predicate(this[index])) {\n            return drop(index + 1)\n        }\n    }\n    return toList()\n}\n\n/**\n *
Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun UShortArray.takeLastWhile(predicate: (UShort) -> Boolean): List<UShort> {\n    for (index in lastIndex
downTo 0) {\n        if (!predicate(this[index])) {\n            return drop(index + 1)\n        }\n    }\n    return
toList()\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.takeWhile(predicate: (UInt) -> Boolean): List<UInt> {\n    val list = ArrayList<UInt>()\n    for (item in
this) {\n        if (!predicate(item))\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns a list
containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
 ULongArray.takeWhile(predicate: (ULong) -> Boolean): List<ULong> {\n    val list = ArrayList<ULong>()\n    for
(item in this) {\n        if (!predicate(item))\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n *
Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.takeWhile(predicate: (UByte) -> Boolean): List<UByte> {\n    val list = ArrayList<UByte>()\n    for
(item in this) {\n        if (!predicate(item))\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n *
Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.takeWhile(predicate:
 (UShort) -> Boolean): List<UShort> {\n    val list = ArrayList<UShort>()\n    for (item in this) {\n        if
(!predicate(item))\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n * Reverses elements in the
array in-place.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UIntArray.reverse(): Unit {\n    storage.reverse()\n}\n\n/**\n * Reverses elements in the array in-place.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.reverse(): Unit {\n    storage.reverse()\n}\n\n/**\n * Reverses elements in the array in-place.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.reverse(): Unit {\n    storage.reverse()\n}\n\n/**\n * Reverses elements in the array in-place.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
 UShortArray.reverse(): Unit {\n    storage.reverse()\n}\n\n/**\n * Reverses elements of the array in the specified
range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end
of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero
or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater
than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UIntArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n    storage.reverse(fromIndex,
```

toIndex)\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   storage.reverse(fromIndex, toIndex)\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   storage.reverse(fromIndex, toIndex)\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   storage.reverse(fromIndex, toIndex)\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.reversed(): List<UInt> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.reversed(): List<ULong> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.reversed(): List<UByte> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.reversed(): List<UShort> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reversedArray(): UIntArray {\n   return UIntArray(storage.reversedArray())\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reversedArray(): ULongArray {\n   return ULongArray(storage.reversedArray())\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reversedArray(): UByteArray {\n   return UByteArray(storage.reversedArray())\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reversedArray(): UShortArray {\n   return UShortArray(storage.reversedArray())\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.shuffle(): Unit {\n

shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles
 elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements
 in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n
 * Sorts elements in the array in-place descending according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sorted(): List<UInt> {\n   return copyOf().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sorted(): List<ULong> {\n   return copyOf().apply { sort()
 }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sorted(): List<UByte> {\n   return copyOf().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sorted(): List<UShort> {\n   return copyOf().apply { sort() }.asList()\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sortedArray(): UIntArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sortedArray(): ULongArray
 {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sortedArray(): UByteArray {\n
  if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements
of this array sorted according to their natural sort order.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sortedArray(): UShortArray
{\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all
elements of this array sorted descending according to their natural sort order.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sortedArrayDescending():
UIntArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns
 an array with all elements of this array sorted descending according to their natural sort order.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sortedArrayDescending():
ULongArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n *
Returns an array with all elements of this array sorted descending according to their natural sort order.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sortedArrayDescending():
UByteArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n *
Returns an array with all elements of this array sorted descending according to their natural sort order.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sortedArrayDescending():
UShortArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n *
Returns a list of all elements sorted
 descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve
their order relative to each other after sorting.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
fun UIntArray.sortedDescending(): List<UInt> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n *
Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It
means that equal elements preserve their order relative to each other after sorting.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sortedDescending():
List<ULong> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted
descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve
their order relative to each other after sorting.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
 fun UByteArray.sortedDescending(): List<UByte> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n *
Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It
means that equal elements preserve their order relative to each other after sorting.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sortedDescending():
List<UShort> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns an array of type [ByteArray],
which is a view of this array where each element is a signed reinterpretation\n * of the corresponding element of this
array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.asByteArray(): ByteArray {\n   return storage\n}\n\n/**\n * Returns an array of type [IntArray], which
is a view of this array where each element is a signed reinterpretation\n * of the corresponding element of this
array.\n
 */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.asIntArray(): IntArray {\n   return storage\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun UIntArray.asList():
List<UInt>\n\n/**\n * Returns a [List] that wraps the original array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun ULongArray.asList():
List<ULong>\n\n/**\n * Returns a [List] that wraps the original array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun UByteArray.asList():
List<UByte>\n\n/**\n * Returns a [List] that wraps the original array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun UShortArray.asList():
List<UShort>\n\n/**\n * Returns an array of type [LongArray], which is a view of this array where each element is
a signed reinterpretation\n * of the corresponding element of this array.\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.asLongArray(): LongArray {\n   return storage\n}\n\n/**\n * Returns an array of type [ShortArray], which is a view of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.asShortArray(): ShortArray {\n   return storage\n}\n\n/**\n * Returns an array of type [UByteArray], which is a view of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.asUByteArray(): UByteArray {\n   return UByteArray(this)\n}\n\n/**\n * Returns an array of type [UIntArray], which is a view of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.asUIntArray(): UIntArray {\n   return UIntArray(this)\n}\n\n/**\n * Returns an array of type [ULongArray], which is a view of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.asULongArray(): ULongArray {\n   return ULongArray(this)\n}\n\n/**\n * Returns an array of type [UShortArray], which is a view of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.asUShortArray(): UShortArray {\n   return UShortArray(this)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun UIntArray.contentEquals(other: UIntArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun ULongArray.contentEquals(other: ULongArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun UByteArray.contentEquals(other: UByteArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun UShortArray.contentEquals(other: UShortArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun UIntArray?.contentEquals(other: UIntArray?): Boolean {\n   return this?.storage.contentEquals(other?.storage)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun ULongArray?.contentEquals(other: ULongArray?): Boolean {\n   return this?.storage.contentEquals(other?.storage)\n}\n\n/**\n * Returns `true` if the

two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun UByteArray?.contentEquals(other: UByteArray?): Boolean {\n   return this?.storage.contentEquals(other?.storage)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun UShortArray?.contentEquals(other: UShortArray?): Boolean {\n   return this?.storage.contentEquals(other?.storage)\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray?.contentHashCode(): Int {\n   return this?.storage.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray?.contentHashCode(): Int {\n   return this?.storage.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray?.contentHashCode(): Int {\n   return this?.storage.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray?.contentHashCode(): Int {\n   return this?.storage.contentHashCode()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is

[List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
 */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince =
\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.contentToString(): String {\n   return
this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray?.contentToString(): String {\n
return this?.joinToString(\", \", \"[\", \"]\") ?: \"null\"\n}\n\n/**\n * Returns a string representation of the contents of
the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray?.contentToString(): String {\n
 return this?.joinToString(\", \", \"[\",
 \"]\") ?: \"null\"\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n
* \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray?.contentToString(): String {\n
 return this?.joinToString(\", \", \"[\", \"]\") ?: \"null\"\n}\n\n/**\n * Returns a string representation of the contents of
the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray?.contentToString(): String {\n
  return this?.joinToString(\", \", \"[\", \"]\") ?: \"null\"\n}\n\n/**\n * Copies this array or its subrange into the
[destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even
specify the subrange so that it overlaps with the destination range.\n * \n * @param destination
 the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n
* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end
(exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or
[IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex
> endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array
starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n *
\n * @return the [destination] array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.copyInto(destination: UIntArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size):
UIntArray {\n   storage.copyInto(destination.storage,
 destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into
the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even
specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy
to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param
startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive)
of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or
[IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex
> endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array
starting at the specified [destinationOffset],\n * or when that index is
 out of the [destination] array indices range.\n * \n * @return the [destination] array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.copyInto(destination: ULongArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size):
ULongArray {\n   storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)\n   return
destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n *
It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the
destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the

[destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.copyInto(destination: UByteArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): UByteArray {\n   storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.copyInto(destination: UShortArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): UShortArray {\n   storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.copyOf(): UIntArray {\n   return UIntArray(storage.copyOf())\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.copyOf(): ULongArray {\n   return ULongArray(storage.copyOf())\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.copyOf(): UByteArray {\n   return UByteArray(storage.copyOf())\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.copyOf(): UShortArray {\n   return UShortArray(storage.copyOf())\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.copyOf(newSize: Int): UIntArray {\n   return UIntArray(storage.copyOf(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.copyOf(newSize: Int): ULongArray {\n   return ULongArray(storage.copyOf(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.copyOf(newSize: Int): UByteArray {\n   return UByteArray(storage.copyOf(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.copyOf(newSize: Int): UShortArray {\n   return UShortArray(storage.copyOf(newSize))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.copyOfRange(fromIndex: Int, toIndex: Int): UIntArray {\n   return UIntArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.copyOfRange(fromIndex: Int, toIndex: Int): ULongArray {\n   return ULongArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.copyOfRange(fromIndex: Int, toIndex: Int): UByteArray {\n   return UByteArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.copyOfRange(fromIndex: Int, toIndex: Int): UShortArray {\n   return UShortArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.fill(element: UInt, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   storage.fill(element.toInt(), fromIndex, toIndex)\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to

fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.fill(element: ULong, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   storage.fill(element.toLong(), fromIndex, toIndex)\n}\n\n/**\n * Fills this array or its subrange
 with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.fill(element: UByte, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   storage.fill(element.toByte(), fromIndex, toIndex)\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the
 size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.fill(element: UShort, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   storage.fill(element.toShort(), fromIndex, toIndex)\n}\n\n/**\n * Returns the range of valid indices for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val UIntArray.indices: IntRange\n   get() = storage.indices\n\n/**\n * Returns the range of valid indices for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val ULongArray.indices: IntRange\n   get() = storage.indices\n\n/**\n * Returns the range of valid indices for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val UByteArray.indices: IntRange\n   get() = storage.indices\n\n/**\n * Returns the range of valid indices for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
 inline val UShortArray.indices: IntRange\n   get() = storage.indices\n\n/**\n * Returns the last valid index for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val UIntArray.lastIndex: Int\n   get() = storage.lastIndex\n\n/**\n * Returns the last valid index for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val ULongArray.lastIndex: Int\n   get() = storage.lastIndex\n\n/**\n * Returns the last valid index for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val UByteArray.lastIndex: Int\n   get() = storage.lastIndex\n\n/**\n * Returns the last valid index for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val UShortArray.lastIndex: Int\n   get() = storage.lastIndex\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline operator fun UIntArray.plus(element: UInt): UIntArray {\n   return UIntArray(storage + element.toInt())\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.plus(element: ULong): ULongArray {\n   return ULongArray(storage + element.toLong())\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.plus(element: UByte): UByteArray {\n   return UByteArray(storage + element.toByte())\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.plus(element:

UShort): UShortArray {\n   return UShortArray(storage + element.toShort())\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic operator fun UIntArray.plus(elements: Collection<UInt>): UIntArray {\n   var index = size\n   val result = storage.copyOf(size + elements.size)\n   for (element in elements) result[index++] = element.toInt()\n   return UIntArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic operator fun ULongArray.plus(elements: Collection<ULong>): ULongArray {\n   var index = size\n   val result = storage.copyOf(size + elements.size)\n   for (element in elements) result[index++] = element.toLong()\n   return ULongArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic operator fun UByteArray.plus(elements: Collection<UByte>): UByteArray {\n   var index = size\n   val result = storage.copyOf(size + elements.size)\n   for (element in elements) result[index++] = element.toByte()\n   return UByteArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic operator fun UShortArray.plus(elements: Collection<UShort>): UShortArray {\n   var index = size\n   val result = storage.copyOf(size + elements.size)\n   for (element in elements) result[index++] = element.toShort()\n   return UShortArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntArray.plus(elements: UIntArray): UIntArray {\n   return UIntArray(storage + elements.storage)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.plus(elements: ULongArray): ULongArray {\n   return ULongArray(storage + elements.storage)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.plus(elements: UByteArray): UByteArray {\n   return UByteArray(storage + elements.storage)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.plus(elements: UShortArray): UShortArray {\n   return UShortArray(storage + elements.storage)\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sort(): Unit {\n   if (size > 1) sortArray(this, 0, size)\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sort(): Unit {\n   if (size > 1) sortArray(this, 0, size)\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sort(): Unit {\n   if (size > 1) sortArray(this, 0, size)\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sort(): Unit {\n   if (size > 1) sortArray(this, 0, size)\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sort(fromIndex: Int = 0, toIndex:

Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArray(this, fromIndex, toIndex)\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArray(this, fromIndex, toIndex)\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArray(this, fromIndex, toIndex)\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArray(this, fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *

@throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Returns an array of type [ByteArray], which is a copy of
 this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.toByteArray(): ByteArray {\n   return storage.copyOf()\n}\n\n/**\n * Returns an array of type [IntArray], which is a copy of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.toIntArray(): IntArray {\n   return storage.copyOf()\n}\n\n/**\n * Returns an array of type [LongArray], which is a copy of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.toLongArray(): LongArray {\n   return storage.copyOf()\n}\n\n/**\n * Returns an array
 of type [ShortArray], which is a copy of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.toShortArray(): ShortArray {\n   return storage.copyOf()\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.toTypedArray(): Array<UInt> {\n   return Array(size) { index -> this[index] }\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.toTypedArray(): Array<ULong> {\n   return Array(size) { index -> this[index] }\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
 fun UByteArray.toTypedArray(): Array<UByte> {\n   return Array(size) { index -> this[index] }\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.toTypedArray(): Array<UShort> {\n   return Array(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of UByte containing all of the elements of this generic array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Array<out UByte>.toUByteArray(): UByteArray {\n   return UByteArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type [UByteArray], which is a copy of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.toUByteArray(): UByteArray {\n   return UByteArray(this.copyOf())\n}\n\n/**\n
 * Returns an array of UInt containing all of the elements of this generic array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Array<out UInt>.toUIntArray(): UIntArray {\n   return UIntArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type [UIntArray], which is a copy of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.toUIntArray(): UIntArray {\n   return UIntArray(this.copyOf())\n}\n\n/**\n * Returns an array of ULong containing all of the elements of this generic array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Array<out ULong>.toULongArray(): ULongArray {\n   return ULongArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type [ULongArray], which is a copy of this array where each element is an unsigned reinterpretation\n
 * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.toULongArray(): ULongArray {\n   return ULongArray(this.copyOf())\n}\n\n/**\n * Returns an array

of UShort containing all of the elements of this generic array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Array<out UShort>.toUShortArray(): UShortArray {\n   return UShortArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type [UShortArray], which is a copy of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.toUShortArray(): UShortArray {\n   return UShortArray(this.copyOf())\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V> UIntArray.associateWith(valueSelector: (UInt) -> V): Map<UInt, V> {\n   val result = LinkedHashMap<UInt, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V> ULongArray.associateWith(valueSelector: (ULong) -> V): Map<ULong, V> {\n   val result = LinkedHashMap<ULong, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V> UByteArray.associateWith(valueSelector: (UByte) -> V): Map<UByte, V> {\n   val result = LinkedHashMap<UByte, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V> UShortArray.associateWith(valueSelector: (UShort) -> V): Map<UShort, V> {\n   val result = LinkedHashMap<UShort, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in UInt, in V>> UIntArray.associateWithTo(destination: M, valueSelector: (UInt) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V, M :

MutableMap<in ULong, in V>> ULongArray.associateWithTo(destination:

M, valueSelector: (ULong) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in UByte, in V>> UByteArray.associateWithTo(destination: M, valueSelector: (UByte) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with

key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in UShort, in V>> UShortArray.associateWithTo(destination: M, valueSelector: (UShort) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

<R> UIntArray.flatMap(transform: (UInt) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.flatMap(transform: (ULong) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.flatMap(transform: (UByte) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n

* Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.flatMap(transform: (UShort) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.flatMapIndexed(transform: (index: Int, UInt) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(),

transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.flatMapIndexed(transform: (index: Int, ULong) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.flatMapIndexed(transform: (index: Int, UByte) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.flatMapIndexed(transform: (index: Int, UShort) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UIntArray.flatMapIndexedTo(destination: C, transform: (index: Int, UInt) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> ULongArray.flatMapIndexedTo(destination: C, transform: (index: Int, ULong) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UByteArray.flatMapIndexedTo(destination: C, transform: (index: Int, UByte) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UShortArray.flatMapIndexedTo(destination: C, transform: (index: Int, UShort) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UIntArray.flatMapTo(destination: C, transform: (UInt) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n

}\n return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> ULongArray.flatMapTo(destination: C, transform: (ULong) -> Iterable<R>): C {\n for (element in this) {\n val list = transform(element)\n destination.addAll(list)\n }\n return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UByteArray.flatMapTo(destination: C, transform: (UByte) -> Iterable<R>): C {\n for (element in this) {\n val list = transform(element)\n destination.addAll(list)\n }\n return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UShortArray.flatMapTo(destination: C, transform: (UShort) -> Iterable<R>): C {\n for (element in this) {\n val list = transform(element)\n destination.addAll(list)\n }\n return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K> UIntArray.groupBy(keySelector: (UInt) -> K): Map<K, List<UInt>> {\n return groupByTo(LinkedHashMap<K, MutableList<UInt>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K> ULongArray.groupBy(keySelector: (ULong) -> K): Map<K, List<ULong>> {\n return groupByTo(LinkedHashMap<K, MutableList<ULong>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K> UByteArray.groupBy(keySelector: (UByte) -> K): Map<K, List<UByte>> {\n return groupByTo(LinkedHashMap<K, MutableList<UByte>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K> UShortArray.groupBy(keySelector: (UShort) -> K): Map<K, List<UShort>> {\n return groupByTo(LinkedHashMap<K, MutableList<UShort>>(), keySelector)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V>

UIntArray.groupBy(keySelector: (UInt) -> K, valueTransform: (UInt) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned
by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> ULongArray.groupBy(keySelector: (ULong) -> K, valueTransform: (ULong) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated
with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> UByteArray.groupBy(keySelector: (UByte) -> K, valueTransform: (UByte) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> UShortArray.groupBy(keySelector: (UShort) -> K, valueTransform: (UShort) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M : MutableMap<in K, MutableList<UInt>>> UIntArray.groupByTo(destination: M, keySelector: (UInt) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<UInt>()
}\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M : MutableMap<in K, MutableList<ULong>>> ULongArray.groupByTo(destination: M, keySelector: (ULong) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<ULong>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each
group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M : MutableMap<in K, MutableList<UByte>>> UByteArray.groupByTo(destination: M, keySelector: (UByte) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) {

ArrayList<UByte>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M : MutableMap<in K, MutableList<UShort>>> UShortArray.groupByTo(destination: M, keySelector: (UShort) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<UShort>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> UIntArray.groupByTo(destination: M, keySelector: (UInt) -> K, valueTransform:
 (UInt) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> ULongArray.groupByTo(destination: M, keySelector: (ULong) -> K, valueTransform: (ULong) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list =
 destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> UByteArray.groupByTo(destination: M, keySelector: (UByte) -> K, valueTransform: (UByte) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n
 * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> UShortArray.groupByTo(destination: M, keySelector: (UShort) -> K, valueTransform: (UShort) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element
 in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.map(transform: (UInt) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n *

Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.map(transform: (ULong) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.map(transform: (UByte) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.map(transform: (UShort) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.mapIndexed(transform: (index: Int, UInt) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.mapIndexed(transform: (index: Int, ULong) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.mapIndexed(transform: (index: Int, UByte) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.mapIndexed(transform: (index: Int, UShort) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UIntArray.mapIndexedTo(destination: C, transform: (index: Int, UInt) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> ULongArray.mapIndexedTo(destination: C, transform: (index: Int, ULong) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UByteArray.mapIndexedTo(destination: C, transform: (index: Int, UByte) -> R): C {\n var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UShortArray.mapIndexedTo(destination: C, transform: (index: Int, UShort) -> R): C {\n var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UIntArray.mapTo(destination: C, transform: (UInt) -> R): C {\n   for (item in this)\n destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> ULongArray.mapTo(destination: C, transform: (ULong) -> R): C {\n for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the 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UIntArray.withIndex(): Iterable<IndexedValue<UInt>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.withIndex(): Iterable<IndexedValue<ULong>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.withIndex(): Iterable<IndexedValue<UByte>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.withIndex(): Iterable<IndexedValue<UShort>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.all(predicate: (UInt) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

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Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.any(): Boolean {\n   return storage.any()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.any(): Boolean {\n   return storage.any()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.any(): Boolean {\n   return storage.any()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UShortArray.any(): Boolean {\n   return storage.any()\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.any(predicate: (UInt) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.any(predicate: (ULong) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the
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[predicate].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.count(predicate: (UShort) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.fold(initial: R, operation: (acc: R, UInt) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying 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UByteArray.foldIndexed(initial: R, operation: (index: Int, acc: R, UByte) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.foldIndexed(initial: R, operation: (index: Int, acc: R, UShort) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.foldRight(initial: R, operation: (UInt, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.foldRight(initial: R, operation: (ULong, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.foldRight(initial: R, operation: (UByte, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.foldRight(initial: R, operation: (UShort, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.foldRightIndexed(initial: R, operation: (index: Int, UInt, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n

* \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.foldRightIndexed(initial: R, operation: (index: Int, ULong, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.foldRightIndexed(initial: R, operation: (index: Int, UByte, acc: R) -> R): R {\n var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.foldRightIndexed(initial: R, operation: (index: Int, UShort, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Performs the given [action] on each element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.forEach(action: (UInt) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.forEach(action: (ULong) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.forEach(action: (UByte) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.forEach(action: (UShort) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.forEachIndexed(action: (index: Int, UInt) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.forEachIndexed(action: (index: Int, ULong) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

UByteArray.forEachIndexed(action: (index: Int, UByte) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.forEachIndexed(action: (index: Int, UShort) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.max(): UInt? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.max(): ULong? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.max(): UByte? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.max(): UShort? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UIntArray.maxBy(selector: (UInt) -> R): UInt? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ULongArray.maxBy(selector: (ULong) -> R): ULong? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UByteArray.maxBy(selector: (UByte) -> R): UByte? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UShortArray.maxBy(selector: (UShort) -> R): UShort? {\n   return maxByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UIntArray.maxByOrNull(selector: (UInt) -> R): UInt? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :

Comparable<R>> ULongArray.maxByOrNull(selector: (ULong) -> R): ULong? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n
        val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UByteArray.maxByOrNull(selector: (UByte) -> R): UByte? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the
 given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UShortArray.maxByOrNull(selector: (UShort) -> R): UShort? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun UIntArray.maxOf(selector: (UInt) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.maxOf(selector: (ULong) -> Double):
 Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.maxOf(selector: (UByte) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n
 * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.maxOf(selector: (UShort) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.maxOf(selector: (UInt) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.maxOf(selector: (ULong) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.maxOf(selector: (UByte) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.maxOf(selector: (UShort) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UIntArray.maxOf(selector: (UInt) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>

ULongArray.maxOf(selector: (ULong) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UByteArray.maxOf(selector: (UByte) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UShortArray.maxOf(selector: (UShort) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.maxOfOrNull(selector: (UInt) -> Double): Double? 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produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
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ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (ULong) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns
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 ULong? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.maxOrNull(): UByte? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.maxOrNull(): UShort? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince =
 \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.maxWith(comparator: Comparator<in UInt>): UInt? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.maxWith(comparator: Comparator<in ULong>): ULong? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.maxWith(comparator: Comparator<in UByte>): UByte? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince
 = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.maxWith(comparator: Comparator<in UShort>): UShort? {\n   return maxWithOrNull(comparator)\n}\n\n/**\n * Returns the first element

having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.maxWithOrNull(comparator: Comparator<in UInt>): UInt? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.maxWithOrNull(comparator: Comparator<in ULong>): ULong? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.maxWithOrNull(comparator: Comparator<in UByte>): UByte? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.maxWithOrNull(comparator: Comparator<in UShort>): UShort? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.min(): UInt? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.min(): ULong? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.min(): UByte? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.min(): UShort? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UIntArray.minBy(selector: (UInt) -> R): UInt? {\n   return minByOrNull(selector)\n}\n\n@Deprecated(\"Use minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ULongArray.minBy(selector: (ULong) -> R): ULong? {\n   return minByOrNull(selector)\n}\n\n@Deprecated(\"Use minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UByteArray.minBy(selector: (UByte) -> R): UByte? {\n   return minByOrNull(selector)\n}\n\n@Deprecated(\"Use minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

<R : Comparable<R>> UShortArray.minBy(selector: (UShort) -> R): UShort? {\n   return minByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UIntArray.minByOrNull(selector: (UInt) -> R): UInt? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ULongArray.minByOrNull(selector: (ULong) -> R): ULong? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UByteArray.minByOrNull(selector: (UByte) -> R): UByte? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UShortArray.minByOrNull(selector: (UShort) -> R): UShort? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.minOf(selector: (UInt) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.minOf(selector: (ULong) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.minOf(selector: (UByte) -> Double): Double {\n   if (isEmpty()) throw

NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.minOf(selector: (UShort) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns

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NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

inline fun <R : Comparable<R>> ULongArray.minOf(selector: (ULong) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UByteArray.minOf(selector: (UByte) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n

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inline fun ULongArray.minOfOrNull(selector: (ULong) -> Double): Double? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.minOfOrNull(selector: (UByte) -> Double): Double? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n

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minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.minOfOrNull(selector: (UShort) -> Float): Float? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

inline fun <R : Comparable<R>> UIntArray.minOfOrNull(selector: (UInt) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ULongArray.minOfOrNull(selector: (ULong) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n

for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UByteArray.minOfOrNull(selector: (UByte) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UShortArray.minOfOrNull(selector: (UShort) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.minOfWith(comparator: Comparator<in
R>, selector: (UInt) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.minOfWith(comparator: Comparator<in R>, selector: (ULong) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue,
v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.minOfWith(comparator: Comparator<in R>, selector: (UByte) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced
by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.minOfWith(comparator: Comparator<in R>, selector: (UShort) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n

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*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun <R> UIntArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (UInt) -> R): R? {\n    if
(isEmpty()) return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        if (comparator.compare(minValue, v) > 0) {\n            minValue = v\n        }\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ULongArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (ULong) -> R): R? {\n    if (isEmpty())
return null\n    var minValue
 = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(minValue, v) > 0) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n *
Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UByteArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (UByte) -> R): R? {\n    if (isEmpty())
return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(minValue, v) > 0) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n *
Returns the smallest value according
 to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the
array or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UShortArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (UShort) -> R): R? {\n    if (isEmpty())
return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(minValue, v) > 0) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n *
Returns the smallest element or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.minOrNull(): UInt? {\n    if
(isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n
        if (min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no
elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.minOrNull():
ULong? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if
(min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no
elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.minOrNull():
UByte? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if
(min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no
elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.minOrNull():
UShort? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex)
 {\n        val e = this[i]\n        if (min > e) min = e\n    }\n    return min\n}\n\n@Deprecated(\"Use minWithOrNull
instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\",
errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun
UIntArray.minWith(comparator: Comparator<in UInt>): UInt? {\n    return
minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\",
ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince
= \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun
ULongArray.minWith(comparator: Comparator<in ULong>): ULong? {\n    return
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minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.minWith(comparator: Comparator<in UByte>): UByte? {\n   return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.minWith(comparator: Comparator<in UShort>): UShort? {\n   return minWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.minWithOrNull(comparator: Comparator<in UInt>): UInt? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.minWithOrNull(comparator: Comparator<in ULong>): ULong? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.minWithOrNull(comparator: Comparator<in UByte>): UByte? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.minWithOrNull(comparator: Comparator<in UShort>): UShort? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.none(predicate: (UInt) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.none(predicate: (ULong) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.none(predicate: (UByte) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return
false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.none(predicate: (UShort) -> Boolean): Boolean {\n   for (element
in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Performs the given [action] on each element
and returns the array itself afterwards.\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.onEach(action: (UInt) -> Unit): UIntArray {\n   return apply { for (element in this) action(element)
}\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.onEach(action: (ULong) -> Unit): ULongArray {\n   return apply { for (element in this)
action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself
afterwards.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UByteArray.onEach(action: (UByte) -> Unit): UByteArray {\n   return apply { for (element in
this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself
afterwards.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UShortArray.onEach(action: (UShort) -> Unit): UShortArray {\n   return apply { for (element in this)
action(element) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the
element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element
and the element itself\n * and performs the action on the element.\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.onEachIndexed(action: (index: Int, UInt) -> Unit): UIntArray {\n   return apply {
forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index
with the element,\n * and returns the array itself afterwards.\n
* @param [action] function that takes the index of an element and the element itself\n * and performs the action on
the element.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.onEachIndexed(action: (index: Int, ULong) -> Unit): ULongArray {\n   return apply {
forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index
with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an
element and the element itself\n * and performs the action on the element.\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.onEachIndexed(action: (index: Int, UByte) -> Unit): UByteArray {\n   return apply {
forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index
with the element,\n * and returns the array itself afterwards.\n
* @param [action] function that takes the index of an element and the element itself\n * and performs the action on
the element.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UShortArray.onEachIndexed(action: (index: Int, UShort) -> Unit): UShortArray {\n   return apply {
forEachIndexed(action) }\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation]
from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is
empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its
receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n *
and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UIntArray.reduce(operation: (acc: UInt, UInt) -> UInt): UInt {\n   if (isEmpty())\n   throw
UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in
1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n *

Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reduce(operation:
(acc: ULong, ULong) -> ULong): ULong {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reduce(operation: (acc: UByte,
UByte) -> UByte): UByte {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reduce(operation: (acc: UShort, UShort) -> UShort):
UShort {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reduceIndexed(operation:
(index: Int, acc: UInt, UInt) -> UInt): UInt {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

inline fun ULongArray.reduceIndexed(operation: (index: Int, acc: ULong, ULong) -> ULong): ULong {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reduceIndexed(operation: (index: Int, acc: UByte, UByte) -> UByte): UByte {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n

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@sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reduceIndexedOrNull(operation: (index: Int, acc: UInt, UInt) -> UInt): UInt? {\n   if (isEmpty())\n   return null\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

inline fun ULongArray.reduceIndexedOrNull(operation: (index: Int, acc: ULong, ULong) -> ULong): ULong? {\n   if (isEmpty())\n   return null\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reduceIndexedOrNull(operation: (index: Int, acc:

UByte, UByte) -> UByte): UByte? {\n   if (isEmpty())\n   return null\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return

accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reduceIndexedOrNull(operation: (index: Int, acc: UShort, UShort) -> UShort): UShort? {\n   if (isEmpty())\n   return null\n   var accumulator = this[0]\n
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*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reduceRight(operation: (UInt, acc: UInt) -> UInt): UInt {\n   var index = lastIndex\n   if (index < 0) throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reduceRight(operation: (ULong, acc: ULong) -> ULong): ULong {\n   var index = lastIndex\n   if (index < 0) throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reduceRight(operation: (UByte, acc: UByte) -> UByte): UByte {\n   var index = lastIndex\n   if (index < 0) throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reduceRight(operation: (UShort, acc: UShort) -> UShort): UShort {\n   var index = lastIndex\n   if (index < 0) throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reduceRightIndexed(operation: (index: Int, UInt, acc: UInt) -> UInt): UInt {\n   var index = lastIndex\n   if (index < 0) throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use

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accumulator = operation(index, get(index), accumulator)\n --index\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original

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inline fun ULongArray.reduceRightOrNull(operation: (ULong, acc: ULong) -> ULong): ULong? {\n var index = lastIndex\n if (index < 0) return null\n var accumulator = get(index--)\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reduceRightOrNull(operation:

(UByte, acc: UByte) -> UByte): UByte? {\n var index = lastIndex\n if (index < 0) return null\n var accumulator = get(index--)\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n @kotlin.internal.InlineOnly\npublic inline fun UShortArray.reduceRightOrNull(operation: (UShort, acc: UShort) -> UShort): UShort? {\n   var index = lastIndex\n   if (index < 0) return null\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.runningFold(initial: R, operation: (acc: R, UInt) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (element in this) {\n   accumulator = operation(accumulator, element)\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.runningFold(initial: R, operation: (acc: R, ULong) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for 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{\n if (isEmpty()) return listOf(initial)\n val result = ArrayList<R>(size + 1).apply { add(initial) }\n var accumulator = initial\n for (index in indices) {\n accumulator = operation(index, accumulator, this[index])\n result.add(accumulator)\n }\n return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, ULong) -> R): List<R> {\n if (isEmpty()) return listOf(initial)\n val result = ArrayList<R>(size + 1).apply { add(initial) }\n var accumulator = initial\n for (index in indices) {\n accumulator = operation(index, accumulator, this[index])\n result.add(accumulator)\n }\n return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample 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list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.runningReduce(operation: (acc: UInt, UInt) -> UInt): List<UInt> {\n if (isEmpty()) return emptyList()\n var accumulator = this[0]\n val result = ArrayList<UInt>(size).apply { add(accumulator) }\n for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left

to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.runningReduce(operation: (acc: ULong, ULong) -> ULong): List<ULong> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<ULong>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive

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result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.runningReduce(operation: (acc: UShort, UShort) -> UShort): List<UShort> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<UShort>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator,

this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.runningReduceIndexed(operation: (index: Int, acc: UInt, UInt) -> UInt): List<UInt> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n

val result = ArrayList<UInt>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would

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(index: Int, acc: ULong, ULong) -> ULong): List<ULong> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<ULong>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
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it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.scan(initial: R, operation: (acc: R, UInt) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next
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inline fun <R> UByteArray.scan(initial: R, operation: (acc: R, UByte) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.scan(initial: R, operation: (acc: R, UShort) -> R): List<R> {\n   return runningFold(initial,

operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.scanIndexed(initial: R, operation: (index: Int, acc: R, UInt) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation

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\"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumBy(selector: (UInt) -> UInt): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumBy(selector: (ULong) -> UInt): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumBy(selector: (UByte) -> UInt): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumBy(selector: (UShort) -> UInt): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumByDouble(selector: (UInt) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumByDouble(selector: (ULong) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumByDouble(selector: (UByte) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumByDouble(selector: (UShort) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumOf(selector: (UInt) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumOf(selector: (ULong) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values

produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumOf(selector: (UByte) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumOf(selector: (UShort) -> Double): Double {\n   var sum: Double

= 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumOf(selector: (UInt) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

inline fun ULongArray.sumOf(selector: (ULong) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumOf(selector: (UByte) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

inline fun UShortArray.sumOf(selector: (UShort) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumOf(selector: (UInt)

-> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumOf(selector: (ULong) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumOf(selector: (UByte) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumOf(selector: (UShort) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumOf(selector: (UInt) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumOf(selector: (ULong) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumOf(selector: (UByte) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumOf(selector: (UShort) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumOf(selector: (UInt) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumOf(selector: (ULong) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumOf(selector: (UByte) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumOf(selector: (UShort) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UIntArray.zip(other: Array<out R>): List<Pair<UInt, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> ULongArray.zip(other: Array<out R>): List<Pair<ULong, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UByteArray.zip(other: Array<out R>): List<Pair<UByte, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UShortArray.zip(other: Array<out R>): List<Pair<UShort, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>

UIntArray.zip(other: Array<out R>, transform: (a: UInt, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n *
 Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> ULongArray.zip(other: Array<out R>, transform: (a: ULong, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
 */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> UByteArray.zip(other: Array<out R>, transform: (a: UByte, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> UShortArray.zip(other: Array<out R>, transform: (a: UShort, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list
 = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UIntArray.zip(other: Iterable<R>): List<Pair<UInt, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> ULongArray.zip(other: Iterable<R>): List<Pair<ULong, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n
 * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UByteArray.zip(other: Iterable<R>): List<Pair<UByte, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UShortArray.zip(other: Iterable<R>): List<Pair<UShort, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n *
 using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> UIntArray.zip(other: Iterable<R>, transform: (a: UInt, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n

if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> ULongArray.zip(other: Iterable<R>, transform: (a: ULong, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> UByteArray.zip(other: Iterable<R>, transform: (a: UByte, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> UShortArray.zip(other: Iterable<R>, transform: (a: UShort, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun UIntArray.zip(other: UIntArray): List<Pair<UInt, UInt>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun ULongArray.zip(other: ULongArray): List<Pair<ULong, ULong>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun UByteArray.zip(other: UByteArray): List<Pair<UByte, UByte>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun UShortArray.zip(other: UShortArray): List<Pair<UShort, UShort>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V> UIntArray.zip(other: UIntArray, transform: (a: UInt, b: UInt) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n

}\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V> ULongArray.zip(other: ULongArray, transform:
 (a: ULong, b: ULong) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V> UByteArray.zip(other: UByteArray, transform: (a: UByte, b: UByte) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array
 and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V> UShortArray.zip(other: UShortArray, transform: (a: UShort, b: UShort) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Array<out UInt>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in
 the array.\n */\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Array<out ULong>.sum(): ULong {\n   var sum: ULong = 0uL\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfUByte\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Array<out UByte>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfUShort\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Array<out UShort>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun UIntArray.sum(): UInt {\n   return storage.sum().toUInt()\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sum(): ULong {\n   return storage.sum().toULong()\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sum(): UInt {\n   return sumOf { it.toUInt() }\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sum(): UInt {\n   return sumOf { it.toUInt() }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in
 the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"UCollectionsKt\")\n\npackage

kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns an array of UByte containing all of the elements of this collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Collection<UByte>.toUByteArray(): UByteArray {\n   val result = UByteArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of UInt containing all of the elements of this collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Collection<UInt>.toUIntArray(): UIntArray {\n   val result = UIntArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of ULong containing all of the elements of this collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Collection<ULong>.toULongArray(): ULongArray {\n   val result = ULongArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of UShort containing all of the elements of this collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Collection<UShort>.toUShortArray(): UShortArray {\n   val result = UShortArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Iterable<UInt>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Iterable<ULong>.sum(): ULong {\n   var sum: ULong = 0uL\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfUByte\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Iterable<UByte>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfUShort\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Iterable<UShort>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"UComparisonsKt\")\n\npackage kotlin.comparisons\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun maxOf(a: UInt, b: UInt): UInt {\n   return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun maxOf(a: ULong, b: ULong): ULong {\n   return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun maxOf(a: UByte, b: UByte): UByte {\n   return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun maxOf(a: UShort, b: UShort): UShort {\n   return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun maxOf(a: UInt, b: UInt, c: UInt): UInt {\n   return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\

npublic inline fun maxOf(a: ULong, b: ULong, c: ULong): ULong {\n   return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater of three values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic
 inline fun maxOf(a: UByte, b: UByte, c: UByte): UByte {\n   return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater of three values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun maxOf(a: UShort, b: UShort, c: UShort): UShort {\n   return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun maxOf(a: UInt, vararg other: UInt): UInt {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun maxOf(a: ULong, vararg other: ULong): ULong {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic
 fun maxOf(a: UByte, vararg other: UByte): UByte {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun maxOf(a: UShort, vararg other: UShort): UShort {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun minOf(a: UInt, b: UInt): UInt {\n   return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun minOf(a: ULong, b: ULong): ULong {\n   return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun minOf(a: UByte, b: UByte): UByte {\n   return
 if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun minOf(a: UShort, b: UShort): UShort {\n   return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of three values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun minOf(a: UInt, b: UInt, c: UInt): UInt {\n   return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of three values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun minOf(a: ULong, b: ULong, c: ULong): ULong {\n   return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of three values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun minOf(a: UByte, b: UByte, c: UByte): UByte {\n   return minOf(a, minOf(b,
 c))\n}\n\n/**\n * Returns the smaller of three values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun minOf(a: UShort, b: UShort, c: UShort): UShort {\n   return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: UInt, vararg other: UInt): UInt {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: ULong, vararg other: ULong): ULong {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: UByte, vararg other: UByte): UByte {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n
 * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: UShort, vararg other: UShort): UShort {\n   var min = a\n   for (e in other) min = minOf(min, e)\n
return min\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n *

Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"URangesKt\")\n\npackage kotlin.ranges\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n * Returns a random element from this range.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntRange.random():
UInt {\n return random(Random)\n}\n\n/**\n * Returns a random element from this range.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULongRange.random(): ULong {\n return random(Random)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UIntRange.random(random: Random): UInt {\n try {\n return random.nextUInt(this)\n } catch(e: IllegalArgumentException) {\n throw NoSuchElementException(e.message)\n }\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic
fun ULongRange.random(random: Random): ULong {\n try {\n return random.nextULong(this)\n } catch(e: IllegalArgumentException) {\n throw NoSuchElementException(e.message)\n }\n}\n\n/**\n * Returns a random element from this range, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntRange.randomOrNull(): UInt? {\n return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULongRange.randomOrNull(): ULong? {\n return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness, or `null` if this range
is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\npublic fun UIntRange.randomOrNull(random: Random): UInt? {\n if (isEmpty())\n return null\n return random.nextUInt(this)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\npublic fun ULongRange.randomOrNull(random: Random): ULong? {\n if (isEmpty())\n return null\n return random.nextULong(this)\n}\n\n/**\n * Returns `true` if this range contains the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntRange.contains(element: UInt?): Boolean {\n return element != null && contains(element)\n}\n\n/**\n
* Returns `true` if this range contains the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongRange.contains(element: ULong?): Boolean {\n return element != null && contains(element)\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun UIntRange.contains(value: UByte): Boolean {\n return contains(value.toUInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun

ULongRange.contains(value: UByte): Boolean {\n   return contains(value.toULong())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun ULongRange.contains(value: UInt): Boolean {\n   return contains(value.toULong())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun UIntRange.contains(value: ULong): Boolean {\n   return (value shr UInt.SIZE_BITS) == 0uL && contains(value.toUInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun UIntRange.contains(value: UShort): Boolean {\n   return contains(value.toUInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun ULongRange.contains(value: UShort): Boolean {\n   return contains(value.toULong())\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UByte.downTo(to: UByte): UIntProgression {\n   return UIntProgression.fromClosedRange(this.toUInt(), to.toUInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UInt.downTo(to: UInt): UIntProgression {\n   return UIntProgression.fromClosedRange(this, to, -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun ULong.downTo(to: ULong): ULongProgression {\n   return ULongProgression.fromClosedRange(this, to, -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UShort.downTo(to: UShort): UIntProgression {\n   return UIntProgression.fromClosedRange(this.toUInt(), to.toUInt(), -1)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the same step.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UIntProgression.reversed(): UIntProgression {\n   return UIntProgression.fromClosedRange(last, first, -step)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the same step.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun ULongProgression.reversed(): ULongProgression {\n   return ULongProgression.fromClosedRange(last, first, -step)\n}\n\n/**\n * Returns a progression that goes over the same range with the given step.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UIntProgression.step(step: Int): UIntProgression {\n   checkStepIsPositive(step > 0, step)\n   return UIntProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/**\n * Returns a progression that goes over the same range with the given step.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun ULongProgression.step(step: Long): ULongProgression {\n   checkStepIsPositive(step > 0, step)\n   return ULongProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UByte.until(to: UByte): UIntRange {\n   if (to <= UByte.MIN_VALUE) return UIntRange.EMPTY\n   return this.toUInt() .. (to - 1u).toUInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UInt.until(to: UInt): UIntRange {\n   if (to <= UInt.MIN_VALUE) return UIntRange.EMPTY\n   return this .. (to - 1u).toUInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun ULong.until(to: ULong): ULongRange {\n   if (to <= ULong.MIN_VALUE) return ULongRange.EMPTY\n   return this .. (to - 1u).toULong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UShort.until(to: UShort): UIntRange {\n   if (to <= UShort.MIN_VALUE) return UIntRange.EMPTY\n   return this.toUInt() .. (to - 1u).toUInt()\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UInt.coerceAtLeast(minimumValue: UInt): UInt {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun ULong.coerceAtLeast(minimumValue: ULong): ULong {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UByte.coerceAtLeast(minimumValue: UByte): UByte {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UShort.coerceAtLeast(minimumValue: UShort): UShort {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMostUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UInt.coerceAtMost(maximumValue: UInt): UInt {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMostUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun ULong.coerceAtMost(maximumValue: ULong): ULong {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMostUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UByte.coerceAtMost(maximumValue: UByte): UByte {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMostUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UShort.coerceAtMost(maximumValue: UShort): UShort {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UInt.coerceIn(minimumValue: UInt, maximumValue: UInt): UInt {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun ULong.coerceIn(minimumValue: ULong, maximumValue: ULong): ULong {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UByte.coerceIn(minimumValue: UByte, maximumValue: UByte): UByte {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UShort.coerceIn(minimumValue: UShort, maximumValue: UShort): UShort {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n * @return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n

*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UInt.coerceIn(range: ClosedRange<UInt>): UInt {\n   if (range is ClosedFloatingPointRange) {\n   return this.coerceIn<UInt>(range)\n   }\n   if (range.isEmpty()) throw IllegalArgumentException(\"Cannot coerce value to an empty range: $range.\")\n   return when {\n   this < range.start -> range.start\n   this > range.endInclusive -> range.endInclusive\n   else -> this\n   }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n * @return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun ULong.coerceIn(range: ClosedRange<ULong>): ULong {\n   if (range is ClosedFloatingPointRange) {\n   return this.coerceIn<ULong>(range)\n   }\n   if (range.isEmpty()) throw IllegalArgumentException(\"Cannot coerce value to an empty range: $range.\")\n   return when {\n   this < range.start -> range.start\n   this > range.endInclusive -> range.endInclusive\n   else -> this\n   }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"USequencesKt\")\n\npackage kotlin.sequences\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Sequence<UInt>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Sequence<ULong>.sum(): ULong {\n   var sum: ULong = 0uL\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfUByte\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Sequence<UByte>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfUShort\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Sequence<UShort>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n\npublic expect open class Error : Throwable {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class Exception : Throwable {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class RuntimeException : Exception {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class IllegalArgumentException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class IllegalStateException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class IndexOutOfBoundsException : RuntimeException {\n   constructor()\n

constructor(message: String?)\n}\n\npublic expect open class ConcurrentModificationException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n   @Deprecated(\"The constructor is not supported on all platforms and

will be removed from kotlin-stdlib-common soon.\", level = DeprecationLevel.ERROR)\n   constructor(message: String?, cause: Throwable?)\n   @Deprecated(\"The constructor is not supported on all platforms and will be removed from kotlin-stdlib-common soon.\", level = DeprecationLevel.ERROR)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class UnsupportedOperationException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class NumberFormatException : IllegalArgumentException {\n   constructor()\n   constructor(message: String?)\n}\n\npublic expect open class NullPointerException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n}\n\npublic expect open class ClassCastException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n}\n\npublic expect open class AssertionError : Error {\n

constructor()\n   constructor(message: Any?)\n}\n\npublic expect open class NoSuchElementException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n}\n\n@SinceKotlin(\"1.3\")\npublic expect open class ArithmeticException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n}\n\n@Deprecated(\"This exception type is not supposed to be thrown or caught in common code and will be removed from kotlin-stdlib-common soon.\", level = DeprecationLevel.ERROR)\npublic expect open class NoWhenBranchMatchedException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\n@Deprecated(\"This exception type is not supposed to be thrown or caught in common code and will be removed from kotlin-stdlib-common soon.\", level = DeprecationLevel.ERROR)\npublic expect class UninitializedPropertyAccessException : RuntimeException {\n   constructor()\n

constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\n/**\n * Thrown after invocation of a function or property that was expected to return `Nothing`, but returned something instead.\n */\n@SinceKotlin(\"1.4\")\n@PublishedApi\ninternal class KotlinNothingValueException : RuntimeException {\n   constructor() : super()\n   constructor(message: String?) : super(message)\n   constructor(message: String?, cause: Throwable?) : super(message, cause)\n   constructor(cause: Throwable?) : super(cause)\n}\n\n\n/**\n * Returns the detailed description of this throwable with its stack trace.\n *\n * The detailed description includes:\n * - the short description (see [Throwable.toString]) of this throwable;\n * - the complete stack trace;\n * - detailed descriptions of the exceptions that were [suppressed][suppressedExceptions] in order to deliver this exception;\n * - the detailed description of each throwable

in the [Throwable.cause] chain.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun Throwable.stackTraceToString(): String\n\n/**\n * Prints the [detailed description][Throwable.stackTraceToString] of this throwable to the standard output or standard error output.\n

*/\n@SinceKotlin(\"1.4\")\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\")\npublic expect fun Throwable.printStackTrace(): Unit\n\n/**\n * When supported by the platform, adds the specified exception to the list of exceptions that were\n * suppressed in order to deliver this exception.\n

*/\n@SinceKotlin(\"1.4\")\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\")\npublic expect fun Throwable.addSuppressed(exception: Throwable)\n\n/**\n * Returns a list of all exceptions that were suppressed in order to deliver this exception.\n *\n * The list can be empty:\n * - if no exceptions were suppressed;\n * - if the platform doesn't support suppressed exceptions;\n * - if this [Throwable] instance has disabled the suppression.\n */\n@SinceKotlin(\"1.4\")\npublic

expect val Throwable.suppressedExceptions: List<Throwable>\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\nimport kotlin.annotation.AnnotationTarget.*\n\n/**\n * Gives a declaration (a function, a property or a class) specific name in JavaScript.\n */\n@Target(CLASS, FUNCTION, PROPERTY, CONSTRUCTOR, PROPERTY_GETTER, PROPERTY_SETTER)\n@OptionalExpectation\npublic expect annotation class JsName(val name: String)\n\n/**\n * Marks experimental JS export annotations.\n *\n * Note that behavior of these annotations will likely be changed in the future.\n *\n * Usages of such annotations will be reported as warnings unless an explicit opt-in with\n * the [OptIn] annotation, e.g. `@OptIn(ExperimentalJsExport::class)`,\n * or with the `-Xopt-in=kotlin.js.ExperimentalJsExport` compiler option

is given.\n */\n@Suppress(\"DEPRECATION\")\n@Experimental(level = Experimental.Level.WARNING)\n@RequiresOptIn(level = RequiresOptIn.Level.WARNING)\n@MustBeDocumented\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.4\")\npublic annotation class ExperimentalJsExport\n\n/**\n * Exports top-level declaration on JS platform.\n *\n * Compiled module exposes declarations that are marked with this annotation without name mangling.\n *\n * This annotation can be applied to either files or top-level declarations.\n *\n * It is currently prohibited to export the following kinds of declarations:\n *\n *   * `expect` declarations\n *   * inline functions with reified type parameters\n *   * suspend functions\n *   * secondary constructors without `@JsName`\n *   * extension properties\n *   * enum classes\n *   * annotation classes\n *\n * Signatures of exported declarations must only contain \"exportable\" types:\n *\n *   * `dynamic`, `Any`, `String`, `Boolean`, `Byte`, `Short`, `Int`, `Float`, `Double`\n *   * `BooleanArray`, `ByteArray`, `ShortArray`, `IntArray`, `FloatArray`, `DoubleArray`\n *   * `Array<exportable-type>`\n *   * Function types with exportable parameters and return types\n *   * `external` or `@JsExport` classes and interfaces\n *   * Nullable counterparts of types above\n *   * Unit return type. Must not be nullable\n *\n * This annotation is experimental, meaning that restrictions mentioned above are subject to change.\n */\n@ExperimentalJsExport\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\n@SinceKotlin(\"1.4\")\n@OptionalExpectation\npublic expect annotation class JsExport()","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.io\n\n\n/** Prints the line separator to the standard output stream. */\npublic expect fun println()\n\n/**

Prints the given [message] and the line separator to the standard output stream. */\npublic expect fun println(message: Any?)\n\n/** Prints the given [message] to the standard output stream. */\npublic expect fun print(message: Any?)\n\n/**\n * Reads a line of input from the standard input stream and returns it,\n * or throws a [RuntimeException] if EOF has already been reached when [readln] is called.\n *\n * LF or CRLF is treated as the line terminator. Line terminator is not included in the returned string.\n *\n * Currently this function is not supported in Kotlin/JS and throws [UnsupportedOperationException].\n */\n@SinceKotlin(\"1.6\")\npublic expect fun readln(): String\n\n/**\n * Reads a line of input from the standard input stream and returns it,\n * or return `null` if EOF has already been reached when [readlnOrNull] is called.\n *\n * LF or CRLF is treated as the line terminator. Line terminator is not included in the returned string.\n *\n * Currently this function is

not supported in Kotlin/JS and throws [UnsupportedOperationException].\n */\n@SinceKotlin(\"1.6\")\npublic expect fun readlnOrNull(): String?\n\ninternal class ReadAfterEOFException(message: String?) : RuntimeException(message)\n\n\ninternal expect interface Serializable\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\nimport kotlin.internal.PlatformDependent\n\n/**\n * Classes that inherit from this interface can be represented as a sequence of elements that can\n * be iterated over.\n * @param T the type of element being iterated over. The iterator is covariant in its element type.\n */\npublic interface Iterable<out T> {\n   /**\n   * Returns an iterator over the elements of this object.\n   */\n   public operator fun iterator(): Iterator<T>\n}\n\n/**\n * Classes that inherit from

this interface can be represented as a sequence of elements that can\n * be iterated over and that supports removing elements during iteration.\n * @param T the type of element being iterated over. The mutable iterator is invariant in its element type.\n */\npublic interface MutableIterable<out T> : Iterable<T> {\n   /**\n   * Returns an iterator

over the elements of this sequence that supports removing elements during iteration.\n   */\n   override fun iterator(): MutableIterator<T>\n}\n\n/**\n * A generic collection of elements. Methods in this interface support only read-only access to the collection;\n * read/write access is supported through the [MutableCollection] interface.\n * @param E the type of elements contained in the collection. The collection is covariant in its element type.\n */\npublic interface Collection<out E> : Iterable<E> {\n   // Query Operations\n   /**\n   * Returns the size of the collection.\n   */\n   public val size: Int\n\n   /**\n   * Returns
 `true` if the collection is empty (contains no elements), `false` otherwise.\n   */\n   public fun isEmpty(): Boolean\n\n   /**\n   * Checks if the specified element is contained in this collection.\n   */\n   public operator fun contains(element: @UnsafeVariance E): Boolean\n\n   override fun iterator(): Iterator<E>\n\n   // Bulk Operations\n   /**\n   * Checks if all elements in the specified collection are contained in this collection.\n   */\n   public fun containsAll(elements: Collection<@UnsafeVariance E>): Boolean\n}\n\n/**\n * A generic collection of elements that supports adding and removing elements.\n *\n * @param E the type of elements contained in the collection. The mutable collection is invariant in its element type.\n */\npublic interface MutableCollection<E> : Collection<E>, MutableIterable<E> {\n   // Query Operations\n   override fun iterator(): MutableIterator<E>\n\n   // Modification Operations\n   /**\n   * Adds the specified element
 to the collection.\n   *\n   * @return `true` if the element has been added, `false` if the collection does not support duplicates\n   * and the element is already contained in the collection.\n   */\n   public fun add(element: E): Boolean\n\n   /**\n   * Removes a single instance of the specified element from this\n   * collection, if it is present.\n   *\n   * @return `true` if the element has been successfully removed; `false` if it was not present in the collection.\n   */\n   public fun remove(element: E): Boolean\n\n   // Bulk Modification Operations\n   /**\n   * Adds all of the elements of the specified collection to this collection.\n   *\n   * @return `true` if any of the specified elements was added to the collection, `false` if the collection was not modified.\n   */\n   public fun addAll(elements: Collection<E>): Boolean\n\n   /**\n   * Removes all of this collection's elements that are also contained in the specified collection.\n   *\n
     * @return `true` if any of the specified elements was removed from the collection, `false` if the collection was not modified.\n   */\n   public fun removeAll(elements: Collection<E>): Boolean\n\n   /**\n   * Retains only the elements in this collection that are contained in the specified collection.\n   *\n   * @return `true` if any element was removed from the collection, `false` if the collection was not modified.\n   */\n   public fun retainAll(elements: Collection<E>): Boolean\n\n   /**\n   * Removes all elements from this collection.\n   */\n   public fun clear(): Unit\n}\n\n/**\n * A generic ordered collection of elements. Methods in this interface support only read-only access to the list;\n * read/write access is supported through the [MutableList] interface.\n * @param E the type of elements contained in the list. The list is covariant in its element type.\n */\npublic interface List<out E> : Collection<E> {\n   // Query Operations\n\n   override val
 size: Int\n   override fun isEmpty(): Boolean\n   override fun contains(element: @UnsafeVariance E): Boolean\n   override fun iterator(): Iterator<E>\n\n   // Bulk Operations\n   override fun containsAll(elements: Collection<@UnsafeVariance E>): Boolean\n\n   // Positional Access Operations\n   /**\n   * Returns the element at the specified index in the list.\n   */\n   public operator fun get(index: Int): E\n\n   // Search Operations\n   /**\n   * Returns the index of the first occurrence of the specified element in the list, or -1 if the specified\n   * element is not contained in the list.\n   */\n   public fun indexOf(element: @UnsafeVariance E): Int\n\n   /**\n   * Returns the index of the last occurrence of the specified element in the list, or -1 if the specified\n   * element is not contained in the list.\n   */\n   public fun lastIndexOf(element: @UnsafeVariance E): Int\n\n   // List Iterators\n   /**\n   * Returns a list iterator over the elements
 in this list (in proper sequence).\n   */\n   public fun listIterator(): ListIterator<E>\n\n   /**\n   * Returns a list iterator over the elements in this list (in proper sequence), starting at the specified [index].\n   */\n   public fun listIterator(index: Int): ListIterator<E>\n\n   // View\n   /**\n   * Returns a view of the portion of this list between the specified [fromIndex] (inclusive) and [toIndex] (exclusive).\n   * The returned list is backed by this list, so non-structural changes in the returned list are reflected in this list, and vice-versa.\n   *\n   * Structural changes in the base list make the behavior of the view undefined.\n   */\n   public fun subList(fromIndex: Int, toIndex: Int):

List<E>\n}\n\n/**\n * A generic ordered collection of elements that supports adding and removing elements.\n * @param E the type of elements contained in the list. The mutable list is invariant in its element type.\n */\npublic interface MutableList<E> : List<E>,

MutableCollection<E> {\n   // Modification Operations\n   /**\n   * Adds the specified element to the end of this list.\n   *\n   * @return `true` because the list is always modified as the result of this operation.\n   */\n   override fun add(element: E): Boolean\n\n   override fun remove(element: E): Boolean\n\n   // Bulk Modification Operations\n   /**\n   * Adds all of the elements of the specified collection to the end of this list.\n   *\n   * The elements are appended in the order they appear in the [elements] collection.\n   *\n   * @return `true` if the list was changed as the result of the operation.\n   */\n   override fun addAll(elements: Collection<E>): Boolean\n\n   /**\n   * Inserts all of the elements of the specified collection [elements] into this list at the specified [index].\n   *\n   * @return `true` if the list was changed as the result of the operation.\n   */\n   public fun addAll(index: Int, elements: Collection<E>):

Boolean\n\n   override fun removeAll(elements: Collection<E>): Boolean\n   override fun retainAll(elements: Collection<E>): Boolean\n   override fun clear(): Unit\n\n   // Positional Access Operations\n   /**\n   * Replaces the element at the specified position in this list with the specified element.\n   *\n   * @return the element previously at the specified position.\n   */\n   public operator fun set(index: Int, element: E): E\n\n   /**\n   * Inserts an element into the list at the specified [index].\n   */\n   public fun add(index: Int, element: E): Unit\n\n   /**\n   * Removes an element at the specified [index] from the list.\n   *\n   * @return the element that has been removed.\n   */\n   public fun removeAt(index: Int): E\n\n   // List Iterators\n   override fun listIterator(): MutableListIterator<E>\n\n   override fun listIterator(index: Int): MutableListIterator<E>\n\n   // View\n   override fun subList(fromIndex: Int, toIndex: Int): MutableList<E>\n}\n\n/**\n

* A generic unordered collection of elements that does not support duplicate elements.\n * Methods in this interface support only read-only access to the set;\n * read/write access is supported through the [MutableSet] interface.\n * @param E the type of elements contained in the set. The set is covariant in its element type.\n */\npublic interface Set<out E> : Collection<E> {\n   // Query Operations\n\n   override val size: Int\n   override fun isEmpty(): Boolean\n   override fun contains(element: @UnsafeVariance E): Boolean\n   override fun iterator(): Iterator<E>\n\n   // Bulk Operations\n   override fun containsAll(elements: Collection<@UnsafeVariance E>): Boolean\n}\n\n/**\n * A generic unordered collection of elements that does not support duplicate elements, and supports\n * adding and removing elements.\n * @param E the type of elements contained in the set. The mutable set is invariant in its element type.\n */\npublic interface MutableSet<E> : Set<E>,

MutableCollection<E> {\n   // Query Operations\n   override fun iterator(): MutableIterator<E>\n\n   // Modification Operations\n\n   /**\n   * Adds the specified element to the set.\n   *\n   * @return `true` if the element has been added, `false` if the element is already contained in the set.\n   */\n   override fun add(element: E): Boolean\n\n   override fun remove(element: E): Boolean\n\n   // Bulk Modification Operations\n\n   override fun addAll(elements: Collection<E>): Boolean\n   override fun removeAll(elements: Collection<E>): Boolean\n   override fun retainAll(elements: Collection<E>): Boolean\n   override fun clear(): Unit\n}\n\n/**\n * A collection that holds pairs of objects (keys and values) and supports efficiently retrieving\n * the value corresponding to each key. Map keys are unique; the map holds only one value for each key.\n * Methods in this interface support only read-only access to the map; read-write access is supported through\n * the

[MutableMap] interface.\n * @param K the type of map keys. The map is invariant in its key type, as it\n * can accept key as a parameter (of [containsKey] for example) and return it in [keys] set.\n * @param V the type of map values. The map is covariant in its value type.\n */\npublic interface Map<K, out V> {\n   // Query Operations\n   /**\n   * Returns the number of key/value pairs in the map.\n   */\n   public val size: Int\n\n   /**\n   * Returns `true` if the map is empty (contains no elements), `false` otherwise.\n   */\n   public fun isEmpty(): Boolean\n\n   /**\n   * Returns `true` if the map contains the specified [key].\n   */\n   public fun containsKey(key: K): Boolean\n\n   /**\n   * Returns `true` if the map maps one or more keys to the specified [value].\n   */\n   public fun containsValue(value: @UnsafeVariance V): Boolean\n\n   /**\n   * Returns the value corresponding to the given [key], or `null` if such a key is not present in the map.\n   */\n   public operator fun get(key: K): V?\n\n   /**\n   * Returns the value corresponding to the given [key], or [defaultValue] if such a key is not present in the map.\n   *\n   * @since JDK 1.8\n   */\n   @SinceKotlin(\"1.1\")\n   @PlatformDependent\n   public fun getOrDefault(key: K, defaultValue: @UnsafeVariance V): V {\n   // See default implementation in JDK sources\n   throw NotImplementedError()\n   }\n\n   // Views\n   /**\n   * Returns a read-only [Set] of all keys in this map.\n   */\n   public val keys: Set<K>\n\n   /**\n   * Returns a read-only [Collection] of all values in this map. Note that this collection may contain duplicate values.\n   */\n   public val values: Collection<V>\n\n   /**\n   * Returns a read-only [Set] of all key/value pairs in this map.\n   */\n   public val entries: Set<Map.Entry<K, V>>\n\n   /**\n   * Represents a key/value pair held by a [Map].\n   */\n   public interface Entry<out K, out V> {\n   /**\n   * Returns the key of this key/value pair.\n   */\n   public val key: K\n\n   /**\n   * Returns the value of this key/value pair.\n   */\n   public val value: V\n   }\n}\n\n/**\n * A modifiable collection that holds pairs of objects (keys and values) and supports efficiently retrieving\n * the value corresponding to each key. Map keys are unique; the map holds only one value for each key.\n * @param K the type of map keys. The map is invariant in its key type.\n * @param V the type of map values. The mutable map is invariant in its value type.\n */\npublic interface MutableMap<K, V> : Map<K, V> {\n   // Modification Operations\n   /**\n   * Associates the specified [value] with the specified [key] in the map.\n   *\n   * @return the previous value associated with the key, or `null` if the key was not present in the map.\n   */\n   public fun put(key: K, value: V): V?\n\n   /**\n   * Removes the specified key and its corresponding value from this map.\n   *\n   * @return the previous value associated with the key, or `null` if the key was not present in the map.\n   */\n   public fun remove(key: K): V?\n\n   /**\n   * Removes the entry for the specified key only if it is mapped to the specified value.\n   *\n   * @return true if entry was removed\n   */\n   @SinceKotlin(\"1.1\")\n   @PlatformDependent\n   public fun remove(key: K, value: V): Boolean {\n   // See default implementation in JDK sources\n   return true\n   }\n\n   // Bulk Modification Operations\n   /**\n   * Updates this map with key/value pairs from the specified map [from].\n   */\n   public fun putAll(from: Map<out K, V>): Unit\n\n   /**\n   * Removes all elements from this map.\n   */\n   public fun clear(): Unit\n\n   // Views\n   /**\n   * Returns a [MutableSet] of all keys in this map.\n   */\n   override val keys: MutableSet<K>\n\n   /**\n   * Returns a [MutableCollection] of all values in this map. Note that this collection may contain duplicate values.\n   */\n   override val values: MutableCollection<V>\n\n   /**\n   * Returns a [MutableSet] of all key/value pairs in this map.\n   */\n   override val entries: MutableSet<MutableMap.MutableEntry<K, V>>\n\n   /**\n   * Represents a key/value pair held by a [MutableMap].\n   */\n   public interface MutableEntry<K, V> : Map.Entry<K, V> {\n   /**\n   * Changes the value associated with the key of this entry.\n   *\n   * @return the previous value corresponding to the key.\n   */\n   public fun setValue(newValue: V): V\n   }\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.collections\n\n/** An iterator over a sequence of values of type `Byte`. */\npublic abstract class ByteIterator : Iterator<Byte> {\n   override final fun next() = nextByte()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextByte(): Byte\n}\n\n/** An iterator over a sequence of values of type `Char`. */\npublic abstract class CharIterator : Iterator<Char> {\n   override final fun next() = nextChar()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextChar(): Char\n}\n\n/** An iterator over a sequence of values of type `Short`. */\npublic abstract class ShortIterator : Iterator<Short> {\n   override final fun next() = nextShort()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextShort(): Short\n}\n\n/** An iterator over a sequence of values of type `Int`. */\npublic abstract class IntIterator : Iterator<Int> {\n   override final fun next() = nextInt()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextInt(): Int\n}\n\n/** An iterator over a sequence of values of type `Long`. */\npublic abstract class LongIterator : Iterator<Long> {\n   override final fun next() = nextLong()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextLong(): Long\n}\n\n/** An iterator over a sequence of values of type `Float`. */\npublic abstract class FloatIterator : Iterator<Float> {\n override final fun next() = nextFloat()\n\n /** Returns the next value in the sequence without boxing. */\n public abstract fun nextFloat(): Float\n}\n\n/** An iterator over a sequence of values of type `Double`. */\npublic abstract class DoubleIterator : Iterator<Double> {\n override final fun next() = nextDouble()\n\n /** Returns the next value in the sequence without boxing. */\n public abstract fun nextDouble(): Double\n}\n\n/** An iterator over a sequence of values of type `Boolean`. */\npublic abstract class BooleanIterator : Iterator<Boolean> {\n override final fun next() = nextBoolean()\n\n /** Returns the next value in the sequence without boxing. */\n public abstract fun nextBoolean(): Boolean\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.ranges\n\n/**\n * An iterator over a progression of values of type `Char`.\n * @property step the number by which the value is incremented on each step.\n */\ninternal class CharProgressionIterator(first: Char, last: Char, val step: Int) : CharIterator() {\n private val finalElement: Int = last.code\n private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n private var next: Int = if (hasNext) first.code else finalElement\n\n override fun hasNext(): Boolean = hasNext\n\n override fun nextChar(): Char {\n val value = next\n if (value == finalElement) {\n if (!hasNext) throw kotlin.NoSuchElementException()\n hasNext = false\n }\n else {\n next += step\n }\n return value.toChar()\n }\n}\n\n/**\n * An iterator over a progression of values of type `Int`.\n * @property step the number by which the value is incremented on each step.\n */\ninternal class IntProgressionIterator(first: Int, last: Int, val step: Int) : IntIterator() {\n private val finalElement: Int = last\n private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n private var next: Int = if (hasNext) first else finalElement\n\n override fun hasNext(): Boolean = hasNext\n\n override fun nextInt(): Int {\n val value = next\n if (value == finalElement) {\n if (!hasNext) throw kotlin.NoSuchElementException()\n hasNext = false\n }\n else {\n next += step\n }\n return value\n }\n}\n\n/**\n * An iterator over a progression of values of type `Long`.\n * @property step the number by which the value is incremented on each step.\n */\ninternal class LongProgressionIterator(first: Long, last: Long, val step: Long) : LongIterator() {\n private val finalElement: Long = last\n private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n private var next: Long = if (hasNext) first else finalElement\n\n override fun hasNext(): Boolean = hasNext\n\n override fun nextLong(): Long {\n val value = next\n if (value == finalElement) {\n if (!hasNext) throw kotlin.NoSuchElementException()\n hasNext = false\n }\n else {\n next += step\n }\n return value\n }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.ranges\n\nimport kotlin.internal.getProgressionLastElement\n\n/**\n * A progression of values of type `Char`.\n */\npublic open class CharProgression\n internal constructor\n (\n start: Char,\n endInclusive: Char,\n step: Int\n) : Iterable<Char> {\n init {\n if (step == 0) throw kotlin.IllegalArgumentException(\"Step must be non-zero.\")\n if (step == Int.MIN_VALUE) throw kotlin.IllegalArgumentException(\"Step must be greater than Int.MIN_VALUE to avoid overflow on negation.\")\n }\n\n /**\n * The first element in the progression.\n */\n public val first: Char = start\n\n /**\n * The last element in the progression.\n */\n public val last: Char = getProgressionLastElement(start.code, endInclusive.code, step).toChar()\n\n /**\n * The step of the progression.\n */\n public val step: Int = step\n\n override fun iterator(): CharIterator = CharProgressionIterator(first, last, step)\n\n /**\n * Checks if the progression is empty.\n *\n * Progression with a positive step is empty if its first element is greater than the last element.\n * Progression with a negative step is empty if its first element is less than the last element.\n */\n public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n override fun equals(other: Any?): Boolean =\n other is CharProgression && (isEmpty() && other.isEmpty() ||\n first == other.first && last == other.last && step == other.step)\n\n override fun

hashCode(): Int =\n if (isEmpty()) -1 else (31 * (31 * first.code + last.code) + step)\n\n override fun toString(): String = if (step > 0) \"$first..$last step $step\" else \"$first downTo $last step ${-step}\"\n\n companion object {\n /**\n * Creates CharProgression
within the specified bounds of a closed range.\n *\n * The progression starts with the [rangeStart] value and goes toward the [rangeEnd] value not excluding it, with the specified [step].\n * In order to go backwards the [step] must be negative.\n *\n * [step] must be greater than `Int.MIN_VALUE` and not equal to zero.\n */\n public fun fromClosedRange(rangeStart: Char, rangeEnd: Char, step: Int): CharProgression = CharProgression(rangeStart, rangeEnd, step)\n }\n}\n\n/**\n * A progression of values of type `Int`.\n */\npublic open class IntProgression\n internal constructor\n (\n start: Int,\n endInclusive: Int,\n step: Int\n) : Iterable<Int> {\n init {\n if (step == 0) throw kotlin.IllegalArgumentException(\"Step must be non-zero.\")\n if (step == Int.MIN_VALUE) throw kotlin.IllegalArgumentException(\"Step must be greater than Int.MIN_VALUE to avoid overflow
on negation.\")\n }\n\n /**\n * The first element in the progression.\n */\n public val first: Int = start\n\n /**\n * The last element in the progression.\n */\n public val last: Int = getProgressionLastElement(start, endInclusive, step)\n\n /**\n * The step of the progression.\n */\n public val step: Int = step\n\n override fun iterator(): IntIterator = IntProgressionIterator(first, last, step)\n\n /**\n * Checks if the progression is empty.\n *\n * Progression with a positive step is empty if its first element is greater than the last element.\n * Progression with a negative step is empty if its first element is less than the last element.\n */\n public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n override fun equals(other: Any?): Boolean =\n other is IntProgression && (isEmpty() && other.isEmpty() ||\n first == other.first && last == other.last && step == other.step)\n\n
override fun hashCode(): Int =\n if (isEmpty()) -1 else (31 * (31 * first + last) + step)\n\n override fun toString(): String = if (step > 0) \"$first..$last step $step\" else \"$first downTo $last step ${-step}\"\n\n companion object {\n /**\n * Creates IntProgression within the specified bounds of a closed range.\n *\n * The progression starts with the [rangeStart] value and goes toward the [rangeEnd] value not excluding it, with the specified [step].\n * In order to go backwards the [step] must be negative.\n *\n * [step] must be greater than `Int.MIN_VALUE` and not equal to zero.\n */\n public fun fromClosedRange(rangeStart: Int, rangeEnd: Int, step: Int): IntProgression = IntProgression(rangeStart, rangeEnd, step)\n }\n}\n\n/**\n * A progression of values of type `Long`.\n */\npublic open class LongProgression\n internal constructor\n (\n start: Long,\n
endInclusive: Long,\n step: Long\n) : Iterable<Long> {\n init {\n if (step == 0L) throw kotlin.IllegalArgumentException(\"Step must be non-zero.\")\n if (step == Long.MIN_VALUE) throw kotlin.IllegalArgumentException(\"Step must be greater than Long.MIN_VALUE to avoid overflow on negation.\")\n }\n\n /**\n * The first element in the progression.\n */\n public val first: Long = start\n\n /**\n * The last element in the progression.\n */\n public val last: Long = getProgressionLastElement(start, endInclusive, step)\n\n /**\n * The step of the progression.\n */\n public val step: Long = step\n\n override fun iterator(): LongIterator = LongProgressionIterator(first, last, step)\n\n /**\n * Checks if the progression is empty.\n *\n * Progression with a positive step is empty if its first element is greater than the last element.\n * Progression with a negative step is empty if its first element
is less than the last element.\n */\n public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n override fun equals(other: Any?): Boolean =\n other is LongProgression && (isEmpty() && other.isEmpty() ||\n first == other.first && last == other.last && step == other.step)\n\n override fun hashCode(): Int =\n if (isEmpty()) -1 else (31 * (31 * (first xor (first ushr 32)) + (last xor (last ushr 32))) + (step xor (step ushr 32))).toInt()\n\n override fun toString(): String = if (step > 0) \"$first..$last step $step\" else \"$first downTo $last step ${-step}\"\n\n companion object {\n /**\n * Creates LongProgression within the specified bounds of a closed range.\n *\n * The progression starts with the [rangeStart] value and goes toward the [rangeEnd] value not excluding it, with the specified [step].\n * In order to go backwards the [step] must be negative.\n *\n * [step]

must be greater than `Long.MIN_VALUE` and not equal to zero.\n   */\n   public fun fromClosedRange(rangeStart: Long, rangeEnd: Long, step: Long): LongProgression = LongProgression(rangeStart, rangeEnd, step)\n   }\n}\n\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.ranges\n\n/**\n * Represents a range of values (for example, numbers or characters).\n * See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/ranges.html) for more information.\n */\npublic interface ClosedRange<T: Comparable<T>> {\n   /**\n   * The minimum value in the range.\n   */\n   public val start: T\n\n   /**\n   * The maximum value in the range (inclusive).\n   */\n   public val endInclusive: T\n\n   /**\n   * Checks whether the specified [value] belongs to the range.\n   */\n   public operator fun contains(value: T): Boolean = value >= start && value <= endInclusive\n\n   /**\n   * Checks whether the range is empty.\n   *\n   * The range is empty if its start value is greater than the end value.\n   */\n   public fun isEmpty(): Boolean = start > endInclusive\n}\n","/*\n * Copyright 2010-2015 JetBrains s.r.o.\n *\n * Licensed under the Apache License, Version 2.0 (the \"License\");\n * you may not use this file except in compliance with the License.\n * You may obtain a copy of the License at\n *\n * http://www.apache.org/licenses/LICENSE-2.0\n *\n * Unless required by applicable law or agreed to in writing, software\n * distributed under the License is distributed on an \"AS IS\" BASIS,\n * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.\n * See the License for the specific language governing permissions and\n * limitations under the License.\n */\n\npackage kotlin\n\n/**\n * The type with only one value: the `Unit` object. This type corresponds to the `void` type in Java.\n */\npublic object Unit {\n   override fun toString() = \"kotlin.Unit\"\n}\n","/*\n * Copyright 2010-2015 JetBrains s.r.o.\n *\n * Licensed under the Apache License, Version 2.0 (the \"License\");\n * you may not use this file except in compliance with the License.\n * You may obtain a copy of the License at\n *\n * http://www.apache.org/licenses/LICENSE-2.0\n *\n * Unless required by applicable law or agreed to in writing, software\n * distributed under the License is distributed on an \"AS IS\" BASIS,\n * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.\n * See the License for the specific language governing permissions and\n * limitations under the License.\n */\n\npackage kotlin.annotation\n\nimport kotlin.annotation.AnnotationTarget.*\n\n/**\n * Contains the list of code elements which are the possible annotation targets\n */\npublic enum class AnnotationTarget {\n   /** Class, interface or object, annotation class is also included */\n   CLASS,\n   /** Annotation class only */\n   ANNOTATION_CLASS,\n   /** Generic type parameter */\n   TYPE_PARAMETER,\n   /** Property */\n   PROPERTY,\n   /** Field, including property's backing field */\n   FIELD,\n   /** Local variable */\n   LOCAL_VARIABLE,\n   /** Value parameter of a function or a constructor */\n   VALUE_PARAMETER,\n   /** Constructor only (primary or secondary) */\n   CONSTRUCTOR,\n   /** Function (constructors are not included) */\n   FUNCTION,\n   /** Property getter only */\n   PROPERTY_GETTER,\n   /** Property setter only */\n   PROPERTY_SETTER,\n   /** Type usage */\n   TYPE,\n   /** Any expression */\n   EXPRESSION,\n   /** File */\n   FILE,\n   /** Type alias */\n   @SinceKotlin(\"1.1\")\n   TYPEALIAS\n}\n\n/**\n * Contains the list of possible annotation's retentions.\n *\n * Determines how an annotation is stored in binary output.\n */\npublic enum class AnnotationRetention {\n   /** Annotation isn't stored in binary output */\n   SOURCE,\n   /** Annotation is stored in binary output, but invisible for reflection */\n   BINARY,\n   /** Annotation is stored in binary output and visible for reflection (default retention) */\n   RUNTIME\n}\n\n/**\n * This meta-annotation indicates the kinds of code elements which are possible targets of an annotation.\n *\n * If the target meta-annotation is not present on an annotation declaration, the annotation is applicable to the following elements:\n * [CLASS], [PROPERTY], [FIELD], [LOCAL_VARIABLE], [VALUE_PARAMETER], [CONSTRUCTOR], [FUNCTION], [PROPERTY_GETTER], [PROPERTY_SETTER].\n *\n * @property allowedTargets list of allowed annotation targets\n */\n@Target(AnnotationTarget.ANNOTATION_CLASS)\n@MustBeDocumented\npublic annotation class

Target(vararg val allowedTargets: AnnotationTarget)\n\n/**\n * This meta-annotation determines whether an annotation is stored in binary output and visible for reflection. By default, both
 are true.\n *\n * @property value necessary annotation retention (RUNTIME, BINARY or SOURCE)\n */\n@Target(AnnotationTarget.ANNOTATION_CLASS)\npublic annotation class Retention(val value: AnnotationRetention = AnnotationRetention.RUNTIME)\n\n/**\n * This meta-annotation determines that an annotation is applicable twice or more on a single code element\n */\n@Target(AnnotationTarget.ANNOTATION_CLASS)\npublic annotation class Repeatable\n\n/**\n * This meta-annotation determines that an annotation is a part of public API and therefore should be included in the generated\n * documentation for the element to which the annotation is applied.\n */\n@Target(AnnotationTarget.ANNOTATION_CLASS)\npublic annotation class MustBeDocumented\n","/*\n * Copyright 2010-2016 JetBrains s.r.o.\n *\n * Licensed under the Apache License, Version 2.0 (the \"License\");\n * you may not use this file except in compliance with the License.\n * You may obtain a copy of the License at\n *\n * http://www.apache.org/licenses/LICENSE-2.0\n
 *\n * Unless required by applicable law or agreed to in writing, software\n * distributed under the License is distributed on an \"AS IS\" BASIS,\n * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.\n * See the License for the specific language governing permissions and\n * limitations under the License.\n */\n\npackage kotlin.internal\n\n/**\n * Specifies that the corresponding type parameter is not used for unsafe operations such as casts or 'is' checks\n * That means it's completely safe to use generic types as argument for such parameter.\n */\n@Target(AnnotationTarget.TYPE_PARAMETER)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class PureReifiable\n\n/**\n * Specifies that the corresponding built-in method exists depending on platform.\n * Current implementation for JVM looks whether method with same JVM descriptor exists in the module JDK.\n * For example MutableMap.remove(K, V) available only if corresponding\n *
 method 'java/util/Map.remove(Ljava/lang/Object;Ljava/lang/Object;)Z' is defined in JDK (i.e. for major versions >= 8)\n */\n@Target(AnnotationTarget.FUNCTION)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class PlatformDependent\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.internal\n\n// a mod b (in arithmetical sense)\nprivate fun mod(a: Int, b: Int): Int {\n   val mod = a % b\n   return if (mod >= 0) mod else mod + b\n}\n\nprivate fun mod(a: Long, b: Long): Long {\n   val mod = a % b\n   return if (mod >= 0) mod else mod + b\n}\n\n// (a - b) mod c\nprivate fun differenceModulo(a: Int, b: Int, c: Int): Int {\n   return mod(mod(a, c) - mod(b, c), c)\n}\n\nprivate fun differenceModulo(a: Long, b: Long, c: Long): Long {\n   return mod(mod(a, c) - mod(b, c), c)\n}\n\n/**\n * Calculates
 the final element of a bounded arithmetic progression, i.e. the last element of the progression which is in the range\n * from [start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative\n * [step].\n *\n * No validation on passed parameters is performed. The given parameters should satisfy the condition:\n *\n * - either `step > 0` and `start <= end`,\n * - or `step < 0` and `start >= end`.\n *\n * @param start first element of the progression\n * @param end ending bound for the progression\n * @param step increment, or difference of successive elements in the progression\n * @return the final element of the progression\n * @suppress\n */\n@PublishedApi\ninternal fun getProgressionLastElement(start: Int, end: Int, step: Int): Int = when {\n   step > 0 -> if (start >= end) end else end - differenceModulo(end, start, step)\n   step < 0 -> if (start <= end) end else end + differenceModulo(start, end, -step)\n   else -> throw kotlin.IllegalArgumentException(\"Step
 is zero.\")\n}\n\n/**\n * Calculates the final element of a bounded arithmetic progression, i.e. the last element of the progression which is in the range\n * from [start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative\n * [step].\n *\n * No validation on passed parameters is performed. The given parameters should satisfy the condition:\n *\n * - either `step > 0` and `start <= end`,\n * - or `step < 0` and `start >= end`.\n *\n * @param start first element of the progression\n * @param end ending bound for the progression\n * @param step increment, or difference of successive elements in the progression\n * @return the final element of the progression\n

* @suppress\n */\n@PublishedApi\ninternal fun getProgressionLastElement(start: Long, end: Long, step: Long): Long = when {\n   step > 0 -> if (start >= end) end else end - differenceModulo(end, start, step)\n   step < 0 -> if (start <= end) end else end + differenceModulo(start,
end, -step)\n   else -> throw kotlin.IllegalArgumentException(\"Step is zero.\")\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@JsName(\"arrayIterator\")\ninternal fun arrayIterator(array: dynamic, type: String?) = when (type) {\n   null -> {\n   val arr: Array<dynamic> = array\n   object : Iterator<dynamic> {\n   var index = 0\n   override fun hasNext() = index < arr.size\n   override fun next() = if (index < arr.size) arr[index++] else throw NoSuchElementException(\"$index\")\n   }\n   }\n   \"BooleanArray\" -> booleanArrayIterator(array)\n   \"ByteArray\" -> byteArrayIterator(array)\n   \"ShortArray\" -> shortArrayIterator(array)\n   \"CharArray\" -> charArrayIterator(array)\n   \"IntArray\" -> intArrayIterator(array)\n   \"LongArray\" -> longArrayIterator(array)\n
\"FloatArray\" -> floatArrayIterator(array)\n   \"DoubleArray\" -> doubleArrayIterator(array)\n   else -> throw IllegalStateException(\"Unsupported type argument for arrayIterator: $type\")\n}\n\n@JsName(\"booleanArrayIterator\")\ninternal fun booleanArrayIterator(array: BooleanArray) = object : BooleanIterator() {\n   var index = 0\n   override fun hasNext() = index < array.size\n   override fun nextBoolean() = if (index < array.size) array[index++] else throw NoSuchElementException(\"$index\")\n}\n\n@JsName(\"byteArrayIterator\")\ninternal fun byteArrayIterator(array: ByteArray) = object : ByteIterator() {\n   var index = 0\n   override fun hasNext() = index < array.size\n   override fun nextByte() = if (index < array.size) array[index++] else throw NoSuchElementException(\"$index\")\n}\n\n@JsName(\"shortArrayIterator\")\ninternal fun shortArrayIterator(array: ShortArray) = object : ShortIterator() {\n   var index = 0\n   override fun hasNext() = index < array.size\n
override fun nextShort() = if (index < array.size) array[index++] else throw NoSuchElementException(\"$index\")\n}\n\n@JsName(\"charArrayIterator\")\ninternal fun charArrayIterator(array: CharArray) = object : CharIterator() {\n   var index = 0\n   override fun hasNext() = index < array.size\n   override fun nextChar() = if (index < array.size) array[index++] else throw NoSuchElementException(\"$index\")\n}\n\n@JsName(\"intArrayIterator\")\ninternal fun intArrayIterator(array: IntArray) = object : IntIterator() {\n   var index = 0\n   override fun hasNext() = index < array.size\n   override fun nextInt() = if (index < array.size) array[index++] else throw NoSuchElementException(\"$index\")\n}\n\n@JsName(\"floatArrayIterator\")\ninternal fun floatArrayIterator(array: FloatArray) = object : FloatIterator() {\n   var index = 0\n   override fun hasNext() = index < array.size\n   override fun nextFloat() = if (index < array.size) array[index++] else throw NoSuchElementException(\"$index\")\n}\n\n@JsName(\"doubleArrayIterator\")\ninternal
fun doubleArrayIterator(array: DoubleArray) = object : DoubleIterator() {\n   var index = 0\n   override fun hasNext() = index < array.size\n   override fun nextDouble() = if (index < array.size) array[index++] else throw NoSuchElementException(\"$index\")\n}\n\n@JsName(\"longArrayIterator\")\ninternal fun longArrayIterator(array: LongArray) = object : LongIterator() {\n   var index = 0\n   override fun hasNext() = index < array.size\n   override fun nextLong() = if (index < array.size) array[index++] else throw NoSuchElementException(\"$index\")\n}\n\n@JsName(\"PropertyMetadata\")\ninternal class PropertyMetadata(@JsName(\"callableName\") val name: String)\n\n@JsName(\"noWhenBranchMatched\")\ninternal fun noWhenBranchMatched(): Nothing = throw NoWhenBranchMatchedException()\n\n@JsName(\"subSequence\")\ninternal fun subSequence(c: CharSequence, startIndex: Int, endIndex: Int): CharSequence {\n   if (c is String) {\n
return c.substring(startIndex, endIndex)\n   } else {\n   return c.asDynamic().`subSequence_vux9f0$`(startIndex, endIndex)\n   }\n}\n\n@JsName(\"captureStack\")\ninternal fun captureStack(@Suppress(\"UNUSED_PARAMETER\") baseClass: JsClass<in Throwable>, instance: Throwable) {\n   if (js(\"Error\").captureStackTrace) {\n   // Using uncropped stack traces due to KT-37563.\n   // Precise

stack traces are implemented in JS IR compiler and stdlib\n   js(\"Error\").captureStackTrace(instance);\n   } else {\n   instance.asDynamic().stack = js(\"new Error()\").stack;\n   }\n}\n\n@JsName(\"newThrowable\")\ninternal fun newThrowable(message: String?, cause: Throwable?): Throwable {\n   val throwable = js(\"new Error()\")\n   throwable.message = if (jsTypeOf(message) == \"undefined\") {\n   if (cause != null) cause.toString() else null\n   } else {\n   message\n   }\n   throwable.cause = cause\n   throwable.name = \"Throwable\"\n   return throwable\n}\n\n@JsName(\"BoxedChar\")\ninternal class BoxedChar(val c: Int) : Comparable<Int> {\n   override fun equals(other: Any?): Boolean {\n   return other is BoxedChar && c == other.c\n   }\n\n   override fun hashCode(): Int {\n   return c\n   }\n\n   override fun toString(): String {\n   return js(\"this.c\").unsafeCast<Char>().toString()\n   }\n\n   override fun compareTo(other: Int): Int {\n   return js(\"this.c - other\").unsafeCast<Int>()\n   }\n\n   @JsName(\"valueOf\")\n   public fun valueOf(): Int {\n   return c\n   }\n}\n\n@kotlin.internal.InlineOnly\ninternal inline fun <T> concat(args: Array<T>): T {\n   val typed = js(\"Array\")(args.size)\n   for (i in args.indices) {\n   val arr = args[i]\n   if (arr !is Array<*>) {\n   typed[i] = js(\"[]\").slice.call(arr)\n   } else {\n   typed[i] = arr\n   }\n   }\n   return js(\"[]\").concat.apply(js(\"[]\"), typed);\n}\n\n/** Concat regular Array's and TypedArray's into an Array.\n */\n@PublishedApi\n@JsName(\"arrayConcat\")\n@Suppress(\"UNUSED_PARAMETER\")\ninternal fun <T> arrayConcat(a: T, b: T): T {\n   return concat(js(\"arguments\"))\n}\n\n/** Concat primitive arrays. Main use: prepare vararg arguments.\n * For compatibility with 1.1.0 the arguments may be a mixture of Array's and TypedArray's.\n *\n * If the first argument is TypedArray (Byte-, Short-, Char-, Int-, Float-, and DoubleArray) returns a TypedArray, otherwise an Array.\n * If the first argument has the $type$ property (Boolean-, Char-, and LongArray) copy its value to result.$type$.\n * If the first argument is a regular Array without the $type$ property default to arrayConcat.\n */\n@PublishedApi\n@JsName(\"primitiveArrayConcat\")\n@Suppress(\"UNUSED_PARAMETER\")\ninternal fun <T> primitiveArrayConcat(a: T, b: T): T {\n   val args: Array<T> = js(\"arguments\")\n   if (a is Array<*> && a.asDynamic().`$type$` === undefined) {\n   return concat(args)\n   } else {\n   var size = 0\n   for (i in args.indices) {\n   size += args[i].asDynamic().length as Int\n   }\n   val result = js(\"new a.constructor(size)\")\n   kotlin.copyArrayType(a, result)\n   size = 0\n   for (i in args.indices) {\n   val arr = args[i].asDynamic()\n   for (j in 0 until arr.length) {\n   result[size++] = arr[j]\n   }\n   }\n   return result\n   }\n}\n\n@JsName(\"booleanArrayOf\")\ninternal fun booleanArrayOf() = withType(\"BooleanArray\", js(\"[].slice.call(arguments)\"))\n\n@JsName(\"charArrayOf\") // The arguments have to be slice'd here because of Rhino (see KT-16974)\ninternal fun charArrayOf() = withType(\"CharArray\", js(\"new Uint16Array([].slice.call(arguments))\"))\n\n@JsName(\"longArrayOf\")\ninternal fun longArrayOf() = withType(\"LongArray\", js(\"[].slice.call(arguments)\"))\n\n@JsName(\"withType\")\n@kotlin.internal.InlineOnly\ninternal inline fun withType(type: String, array: dynamic): dynamic {\n   array.`$type$` = type\n   return array\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n * Function corresponding to JavaScript's `typeof` operator\n */\n@kotlin.internal.InlineOnly\n@Suppress(\"UNUSED_PARAMETER\")\npublic inline fun jsTypeOf(a: Any?): String = js(\"typeof a\")\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:Suppress(\"UNUSED_PARAMETER\", \"NOTHING_TO_INLINE\")\n\npackage kotlin\n\n/**\n * Returns an empty array of the specified type [T].\n */\npublic inline fun <T> emptyArray(): Array<T> = js(\"[]\")\n\n@library\npublic fun <T> arrayOf(vararg elements:

T): Array<T> = definedExternally\n\n@library\npublic fun doubleArrayOf(vararg elements: Double): DoubleArray = definedExternally\n\n@library\npublic fun floatArrayOf(vararg elements: Float): FloatArray = definedExternally\n\n@library\npublic fun longArrayOf(vararg elements: Long): LongArray = definedExternally\n\n@library\npublic fun intArrayOf(vararg elements: Int): IntArray = definedExternally\n\n@library\npublic fun charArrayOf(vararg elements: Char): CharArray = definedExternally\n\n@library\npublic fun shortArrayOf(vararg elements: Short): ShortArray = definedExternally\n\n@library\npublic fun byteArrayOf(vararg elements: Byte): ByteArray = definedExternally\n\n@library\npublic fun booleanArrayOf(vararg elements: Boolean): BooleanArray = definedExternally\n\n/**\n * Creates a new instance of the [Lazy] that uses the specified initialization function [initializer].\n */\npublic actual fun <T> lazy(initializer: () -> T): Lazy<T> = UnsafeLazyImpl(initializer)\n\n/**\n * Creates a new

instance of the [Lazy] that uses the specified initialization function [initializer].\n *\n * The [mode] parameter is ignored. */\npublic actual fun <T> lazy(mode: LazyThreadSafetyMode, initializer: () -> T): Lazy<T> = UnsafeLazyImpl(initializer)\n\n/**\n * Creates a new instance of the [Lazy] that uses the specified initialization function [initializer].\n *\n * The [lock] parameter is ignored.\n */\npublic actual fun <T> lazy(lock: Any?, initializer: () -> T): Lazy<T> = UnsafeLazyImpl(initializer)\n\n\ninternal fun fillFrom(src: dynamic, dst: dynamic): dynamic {\n   val srcLen: Int = src.length\n   val dstLen: Int = dst.length\n   var index: Int = 0\n   while (index < srcLen && index < dstLen) dst[index] = src[index++]\n   return dst\n}\n\n\ninternal fun arrayCopyResize(source: dynamic, newSize: Int, defaultValue: Any?): dynamic {\n   val result = source.slice(0, newSize)\n   copyArrayType(source, result)\n   var index: Int = source.length\n   if (newSize > index) {\n   result.length = newSize\n   while (index < newSize) result[index++] = defaultValue\n   }\n   return result\n}\n\ninternal fun <T> arrayPlusCollection(array: dynamic, collection: Collection<T>): dynamic {\n   val result = array.slice()\n   result.length += collection.size\n   copyArrayType(array, result)\n   var index: Int = array.length\n   for (element in collection) result[index++] = element\n   return result\n}\n\ninternal fun <T> fillFromCollection(dst: dynamic, startIndex: Int, collection: Collection<T>): dynamic {\n   var index = startIndex\n   for (element in collection) dst[index++] = element\n   return dst\n}\n\ninternal inline fun copyArrayType(from: dynamic, to: dynamic) {\n   if (from.`$type$` !== undefined) {\n   to.`$type$` = from.`$type$`\n   }\n}\n\ninternal inline fun jsIsType(obj: dynamic, jsClass: dynamic) = js(\"Kotlin\").isType(obj, jsClass)","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use

of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n/**\n * Creates a Char with the specified [code].\n *\n * @sample samples.text.Chars.charFromCode\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun Char(code: UShort): Char {\n   return code.toInt().toChar()\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\nimport kotlin.coroutines.intrinsics.COROUTINE_SUSPENDED\n\n@SinceKotlin(\"1.3\")\n@JsName(\"CoroutineImpl\")\ninternal abstract class CoroutineImpl(private val resultContinuation: Continuation<Any?>) : Continuation<Any?> {\n   protected var state = 0\n   protected var exceptionState = 0\n   protected var result: Any? =

null\n   protected var exception: Throwable? = null\n   protected var finallyPath: Array<Int>? = null\n\n   public override val context: CoroutineContext = resultContinuation.context\n\n   private var intercepted_: Continuation<Any?>? = null\n\n   public fun intercepted(): Continuation<Any?> =\n   intercepted_\n   ?: (context[ContinuationInterceptor]?.interceptContinuation(this) ?: this)\n   .also { intercepted_ = it }\n\n   override fun resumeWith(result: Result<Any?>) {\n   var current = this\n   var currentResult: Any? = result.getOrNull()\n   var currentException: Throwable? = result.exceptionOrNull()\n\n   // This loop unrolls recursion in current.resumeWith(param) to make saner and shorter stack traces on resume\n   while (true) {\n   with(current) {\n   val completion = resultContinuation\n\n   // Set result and exception fields in the current continuation\n   if (currentException

== null) {\n this.result = currentResult\n } else {\n state = exceptionState\n
exception = currentException\n }\n\n try {\n val outcome = doResume()\n
if (outcome === COROUTINE_SUSPENDED) return\n currentResult = outcome\n
currentException = null\n } catch (exception: dynamic) { // Catch all exceptions\n
currentResult = null\n currentException = exception.unsafeCast<Throwable>()\n }\n\n
releaseIntercepted() // this state machine instance is terminating\n\n if (completion is CoroutineImpl) {\n
// unrolling recursion via loop\n current = completion\n } else {\n // top-level completion reached -- invoke and return\n currentException?.let
{\n completion.resumeWithException(it)\n } ?: completion.resume(currentResult)\n
return\n }\n }\n }\n }\n\n private fun releaseIntercepted() {\n val intercepted =
intercepted_\n if (intercepted != null && intercepted !== this) {\n
context[ContinuationInterceptor]!!.releaseInterceptedContinuation(intercepted)\n }\n this.intercepted_ =
CompletedContinuation // just in case\n }\n\n protected abstract fun doResume(): Any?\n}\n\ninternal object
CompletedContinuation : Continuation<Any?> {\n override val context: CoroutineContext\n get() =
error(\"This continuation is already complete\")\n\n override fun resumeWith(result: Result<Any?>) {\n
error(\"This continuation is already complete\")\n }\n\n override fun toString(): String = \"This continuation is
already complete\"\n}\n","/*\n * Copyright 2010-2018 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n */\n\n@file:Suppress(\"UNCHECKED_CAST\",
\"RedundantVisibilityModifier\")\n\npackage kotlin\n\nimport kotlin.contracts.*\nimport
kotlin.internal.InlineOnly\nimport kotlin.jvm.JvmField\nimport kotlin.jvm.JvmInline\nimport
kotlin.jvm.JvmName\n\n/**\n * A discriminated union that encapsulates a successful outcome with a value of type
[T]\n * or a failure with an arbitrary [Throwable] exception.\n */\n@SinceKotlin(\"1.3\")\n@JvmInline\npublic
value class Result<out T> @PublishedApi internal constructor(\n @PublishedApi\n internal val value: Any?\n) :
Serializable {\n // discovery\n\n /**\n * Returns `true` if this instance represents a successful outcome.\n *
In this case [isFailure] returns `false`.\n */\n public val isSuccess: Boolean get() = value !is Failure\n\n /**\n
* Returns
`true` if this instance represents a failed outcome.\n * In this case [isSuccess] returns `false`.\n */\n public val
isFailure: Boolean get() = value is Failure\n\n // value & exception retrieval\n\n /**\n * Returns the
encapsulated value if this instance represents [success][Result.isSuccess] or `null`\n * if it is
[failure][Result.isFailure].\n *\n * This function is a shorthand for `getOrElse { null }` (see [getOrElse]) or\n
* `fold(onSuccess = { it }, onFailure = { null })` (see [fold]).\n */\n @InlineOnly\n public inline fun
getOrNull(): T? =\n when {\n isFailure -> null\n else -> value as T\n }\n\n /**\n *
Returns the encapsulated [Throwable] exception if this instance represents [failure][isFailure] or `null`\n * if it is
[success][isSuccess].\n *\n * This function is a shorthand for `fold(onSuccess = { null }, onFailure = { it })`
(see [fold]).\n */\n public fun exceptionOrNull():
Throwable? =\n when (value) {\n is Failure -> value.exception\n else -> null\n }\n\n /**\n
* Returns a string `Success(v)` if this instance represents [success][Result.isSuccess]\n * where `v` is a string
representation of the value or a string `Failure(x)` if\n * it is [failure][isFailure] where `x` is a string
representation of the exception.\n */\n public override fun toString(): String =\n when (value) {\n is
Failure -> value.toString() // \"Failure($exception)\"\n else -> \"Success($value)\"\n }\n\n // companion
with constructors\n\n /**\n * Companion object for [Result] class that contains its constructor functions\n *
[success] and [failure].\n */\n public companion object {\n /**\n * Returns an instance that
encapsulates the given [value] as successful value.\n */\n
@Suppress(\"INAPPLICABLE_JVM_NAME\")\n @InlineOnly\n
@JvmName(\"success\")\n public inline fun <T> success(value: T): Result<T> =\n
Result(value)\n\n /**\n * Returns an instance that encapsulates the given [Throwable] [exception] as
failure.\n */\n @Suppress(\"INAPPLICABLE_JVM_NAME\")\n @InlineOnly\n

@JvmName(\"failure\")\n public inline fun <T> failure(exception: Throwable): Result<T> =\n Result(createFailure(exception))\n }\n\n internal class Failure(\n @JvmField\n val exception: Throwable\n) : Serializable {\n override fun equals(other: Any?): Boolean = other is Failure && exception == other.exception\n override fun hashCode(): Int = exception.hashCode()\n override fun toString(): String = \"Failure($exception)\"\n }\n}\n\n/**\n * Creates an instance of internal marker [Result.Failure] class to\n * make sure that this class is not exposed in ABI.\n */\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal
fun createFailure(exception: Throwable): Any =\n Result.Failure(exception)\n\n/**\n * Throws exception if the result is failure. This internal function minimizes\n * inlined bytecode for [getOrThrow] and makes sure that in the future we can\n * add some exception-augmenting logic here (if needed).\n */\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal fun Result<*>.throwOnFailure() {\n if (value is Result.Failure) throw value.exception\n}\n\n/**\n * Calls the specified function [block] and returns its encapsulated result if invocation was successful,\n * catching any [Throwable] exception that was thrown from the [block] function execution and encapsulating it as a failure.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R> runCatching(block: () -> R): Result<R> {\n return try {\n Result.success(block())\n } catch (e: Throwable) {\n Result.failure(e)\n }\n}\n\n/**\n * Calls the specified function [block] with `this` value as its receiver and returns
its encapsulated result if invocation was successful,\n * catching any [Throwable] exception that was thrown from the [block] function execution and encapsulating it as a failure.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <T, R> T.runCatching(block: T.() -> R): Result<R> {\n return try {\n Result.success(block())\n } catch (e: Throwable) {\n Result.failure(e)\n }\n}\n\n// -- extensions ---\n\n/**\n * Returns the encapsulated value if this instance represents [success][Result.isSuccess] or throws the encapsulated [Throwable] exception\n * if it is [failure][Result.isFailure].\n *\n * This function is a shorthand for `getOrElse { throw it }` (see [getOrElse]).\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <T> Result<T>.getOrThrow(): T {\n throwOnFailure()\n return value as T\n}\n\n/**\n * Returns the encapsulated value if this instance represents [success][Result.isSuccess] or the\n * result of [onFailure] function for the
encapsulated [Throwable] exception if it is [failure][Result.isFailure].\n *\n * Note, that this function rethrows any [Throwable] exception thrown by [onFailure] function.\n *\n * This function is a shorthand for `fold(onSuccess = { it }, onFailure = onFailure)` (see [fold]).\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T : R> Result<T>.getOrElse(onFailure: (exception: Throwable) -> R): R {\n contract {\n callsInPlace(onFailure, InvocationKind.AT_MOST_ONCE)\n }\n return when (val exception = exceptionOrNull()) {\n null -> value as T\n else -> onFailure(exception)\n }\n}\n\n/**\n * Returns the encapsulated value if this instance represents [success][Result.isSuccess] or the\n * [defaultValue] if it is [failure][Result.isFailure].\n *\n * This function is a shorthand for `getOrElse { defaultValue }` (see [getOrElse]).\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T : R> Result<T>.getOrDefault(defaultValue: R): R {\n
if (isFailure) return defaultValue\n return value as T\n}\n\n/**\n * Returns the result of [onSuccess] for the encapsulated value if this instance represents [success][Result.isSuccess]\n * or the result of [onFailure] function for the encapsulated [Throwable] exception if it is [failure][Result.isFailure].\n *\n * Note, that this function rethrows any [Throwable] exception thrown by [onSuccess] or by [onFailure] function.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T> Result<T>.fold(\n onSuccess: (value: T) -> R,\n onFailure: (exception: Throwable) -> R\n): R {\n contract {\n callsInPlace(onSuccess, InvocationKind.AT_MOST_ONCE)\n callsInPlace(onFailure, InvocationKind.AT_MOST_ONCE)\n }\n return when (val exception = exceptionOrNull()) {\n null -> onSuccess(value as T)\n else -> onFailure(exception)\n }\n}\n\n// transformation\n\n/**\n * Returns the encapsulated result of the given [transform] function applied to the
encapsulated value\n * if this instance represents [success][Result.isSuccess] or the\n * original encapsulated [Throwable] exception if it is [failure][Result.isFailure].\n *\n * Note, that this function rethrows any [Throwable] exception thrown by [transform] function.\n * See [mapCatching] for an alternative that encapsulates exceptions.\n

*/\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T> Result<T>.map(transform: (value: T) -> R): Result<R> {\n   contract {\n   callsInPlace(transform, InvocationKind.AT_MOST_ONCE)\n   }\n   return when {\n   isSuccess -> Result.success(transform(value as T))\n   else -> Result(value)\n   }\n}\n\n/**\n * Returns the encapsulated result of the given [transform] function applied to the encapsulated value\n * if this instance represents [success][Result.isSuccess] or the\n * original encapsulated [Throwable] exception if it is [failure][Result.isFailure].\n *\n * This function catches any [Throwable] exception thrown by [transform] function and encapsulates it as a failure.\n * See [map] for an alternative that rethrows exceptions from `transform` function.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T> Result<T>.mapCatching(transform: (value: T) -> R): Result<R> {\n   return when {\n   isSuccess -> runCatching { transform(value as T) }\n   else -> Result(value)\n   }\n}\n\n/**\n * Returns the encapsulated result of the given [transform] function applied to the encapsulated [Throwable] exception\n * if this instance represents [failure][Result.isFailure] or the\n * original encapsulated value if it is [success][Result.isSuccess].\n *\n * Note, that this function rethrows any [Throwable] exception thrown by [transform] function.\n * See [recoverCatching] for an alternative that encapsulates exceptions.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T : R> Result<T>.recover(transform: (exception: Throwable) -> R): Result<R> {\n   contract {\n   callsInPlace(transform, InvocationKind.AT_MOST_ONCE)\n   }\n   return when (val exception = exceptionOrNull()) {\n   null -> this\n   else -> Result.success(transform(exception))\n   }\n}\n\n/**\n * Returns the encapsulated result of the given [transform] function applied to the encapsulated [Throwable] exception\n * if this instance represents [failure][Result.isFailure] or the\n * original encapsulated value if it is [success][Result.isSuccess].\n *\n * This function catches any [Throwable] exception thrown by [transform] function and encapsulates it as a failure.\n * See [recover] for an alternative that rethrows exceptions.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T : R> Result<T>.recoverCatching(transform: (exception: Throwable) -> R): Result<R> {\n   return when (val exception = exceptionOrNull()) {\n   null -> this\n   else -> runCatching { transform(exception) }\n   }\n}\n\n// \"peek\" onto value/exception and pipe\n\n/**\n * Performs the given [action] on the encapsulated [Throwable] exception if this instance represents [failure][Result.isFailure].\n * Returns the original `Result` unchanged.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <T> Result<T>.onFailure(action: (exception: Throwable) -> Unit): Result<T> {\n   contract {\n   callsInPlace(action, InvocationKind.AT_MOST_ONCE)\n   }\n   exceptionOrNull()?.let { action(it) }\n   return this\n}\n\n/**\n * Performs the given [action] on the encapsulated value if this instance represents [success][Result.isSuccess].\n * Returns the original `Result` unchanged.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <T> Result<T>.onSuccess(action: (value: T) -> Unit): Result<T> {\n   contract {\n   callsInPlace(action, InvocationKind.AT_MOST_ONCE)\n   }\n   if (isSuccess) action(value as T)\n   return this\n}\n\n// -------------------\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\nimport kotlin.contracts.*\nimport kotlin.coroutines.intrinsics.*\nimport kotlin.internal.InlineOnly\n\n/**\n * Interface representing a continuation after a suspension point that returns a value of type `T`.\n */\n@SinceKotlin(\"1.3\")\npublic interface Continuation<in T> {\n   /**\n   * The context of the coroutine that corresponds to this continuation.\n   */\n   public val context: CoroutineContext\n\n   /**\n   * Resumes the execution of the corresponding coroutine passing a successful or failed [result] as the\n   * return value of the last suspension point.\n   */\n   public fun resumeWith(result: Result<T>)\n}\n\n/**\n * Classes and interfaces marked with this annotation are restricted when used as receivers for extension\n * `suspend` functions. These `suspend` extensions can only invoke other member or extension `suspend` functions on this particular\n * receiver and are restricted from calling arbitrary suspension functions.\n */\n@SinceKotlin(\"1.3\")\n@Target(AnnotationTarget.CLASS)\n@Retention(AnnotationRetention.BINARY)\npublic annotation class RestrictsSuspension\n\n/**\n * Resumes the execution of the corresponding coroutine passing [value] as the return value of the last suspension point.\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic inline fun <T> Continuation<T>.resume(value: T): Unit =\n   resumeWith(Result.success(value))\n\n/**\n * Resumes the

execution of the corresponding coroutine so that the [exception] is re-thrown right after the\n * last suspension point.\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic inline fun <T> Continuation<T>.resumeWithException(exception: Throwable): Unit =\n resumeWith(Result.failure(exception))\n\n\n/**\n * Creates a [Continuation] instance with the given [context] and implementation of [resumeWith] method.\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic inline fun <T> Continuation(\n   context: CoroutineContext,\n   crossinline resumeWith: (Result<T>) -> Unit\n): Continuation<T> =\n   object : Continuation<T> {\n   override val context: CoroutineContext\n   get() = context\n\n   override fun resumeWith(result: Result<T>) =\n   resumeWith(result)\n   }\n\n/**\n * Creates a coroutine without a receiver and with result type [T].\n * This function creates a new, fresh instance of suspendable computation every time it is invoked.\n *\n * To start executing the created coroutine, invoke `resume(Unit)` on the returned [Continuation] instance.\n * The [completion] continuation is invoked when the coroutine completes with a result or an exception.\n * Subsequent invocation of any resume function on the resulting continuation will produce an [IllegalStateException].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"UNCHECKED_CAST\")\npublic fun <T> (suspend () -> T).createCoroutine(\n   completion: Continuation<T>\n): Continuation<Unit> =\n   SafeContinuation(createCoroutineUnintercepted(completion).intercepted(), COROUTINE_SUSPENDED)\n\n/**\n * Creates a coroutine with receiver type [R] and result type [T].\n * This function creates a new, fresh instance of suspendable computation every time it is invoked.\n *\n * To start executing the created coroutine, invoke `resume(Unit)` on the returned [Continuation] instance.\n * The [completion] continuation is invoked when the coroutine completes with a result or an exception.\n * Subsequent invocation of any resume function on the resulting continuation will produce an [IllegalStateException].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"UNCHECKED_CAST\")\npublic fun <R, T> (suspend R.() -> T).createCoroutine(\n   receiver: R,\n   completion: Continuation<T>\n): Continuation<Unit> =\n SafeContinuation(createCoroutineUnintercepted(receiver, completion).intercepted(), COROUTINE_SUSPENDED)\n\n/**\n * Starts a coroutine without a receiver and with result type [T].\n * This function creates and starts a new, fresh instance of suspendable computation every time it is invoked.\n * The [completion] continuation is invoked when the coroutine completes with a result or an exception.\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"UNCHECKED_CAST\")\npublic fun <T> (suspend () -> T).startCoroutine(\n   completion: Continuation<T>\n) {\n createCoroutineUnintercepted(completion).intercepted().resume(Unit)\n}\n\n/**\n * Starts a coroutine with receiver type [R] and result type [T].\n * This function creates and starts a new, fresh instance of suspendable computation every time it is invoked.\n * The [completion] continuation is invoked when the coroutine completes with a result or an exception.\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"UNCHECKED_CAST\")\npublic fun <R, T> (suspend R.() -> T).startCoroutine(\n   receiver: R,\n   completion: Continuation<T>\n) {\n createCoroutineUnintercepted(receiver, completion).intercepted().resume(Unit)\n}\n\n/**\n * Obtains the current continuation instance inside suspend functions and suspends\n * the currently running coroutine.\n *\n * In this function both [Continuation.resume] and [Continuation.resumeWithException] can be used either synchronously in\n * the same stack-frame where the suspension function is run or asynchronously later in the same thread or\n * from a different thread of execution. Subsequent invocation of any resume function will produce an [IllegalStateException].\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic suspend inline fun <T> suspendCoroutine(crossinline block: (Continuation<T>) -> Unit): T {\n   contract { callsInPlace(block, InvocationKind.EXACTLY_ONCE) }\n   return suspendCoroutineUninterceptedOrReturn { c: Continuation<T> ->\n   val safe = SafeContinuation(c.intercepted())\n   block(safe)\n   safe.getOrThrow()\n   }\n}\n\n/**\n * Returns the context of the current coroutine.\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"WRONG_MODIFIER_TARGET\")\n@InlineOnly\npublic suspend inline val coroutineContext: CoroutineContext\n   get() {\n   throw NotImplementedError(\"Implemented as intrinsic\")\n   }\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines.intrinsics\n\nimport kotlin.coroutines.*\nimport kotlin.internal.InlineOnly\n\n/**\n * Starts an unintercepted coroutine without a receiver and with result type [T] and executes it until its first suspension.\n * Returns the result of the coroutine or throws its exception if it does not suspend or [COROUTINE_SUSPENDED] if it suspends.\n * In the latter case, the [completion] continuation is invoked when the coroutine completes with a result or an exception.\n *\n * The coroutine is started directly in the invoker's thread without going through the [ContinuationInterceptor]

that might\n * be present in the completion's [CoroutineContext]. It is the invoker's responsibility to ensure that a proper invocation\n * context is established.\n *\n * This function is designed to be used from inside of [suspendCoroutineUninterceptedOrReturn] to resume the execution of the suspended\n * coroutine using a reference to the suspending function.\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic actual inline fun <T> (suspend () -> T).startCoroutineUninterceptedOrReturn(\n   completion: Continuation<T>\n): Any? = this.asDynamic()(completion, false)\n\n/**\n * Starts an unintercepted coroutine with receiver type [R] and result type [T] and executes it until its first suspension.\n * Returns the result of the coroutine or throws its exception if it does not suspend or [COROUTINE_SUSPENDED] if it suspends.\n * In the latter case, the [completion] continuation is invoked when the coroutine completes with a result or an exception.\n *\n * The coroutine is started directly

in the invoker's thread without going through the [ContinuationInterceptor] that might\n * be present in the completion's [CoroutineContext]. It is the invoker's responsibility to ensure that a proper invocation\n * context is established.\n *\n * This function is designed to be used from inside of [suspendCoroutineUninterceptedOrReturn] to resume the execution of the suspended\n * coroutine using a reference to the suspending function.\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic actual inline fun <R, T> (suspend R.() -> T).startCoroutineUninterceptedOrReturn(\n   receiver: R,\n   completion: Continuation<T>\n): Any? = this.asDynamic()(receiver, completion, false)\n\n@InlineOnly\ninternal actual inline fun <R, P, T> (suspend R.(P) -> T).startCoroutineUninterceptedOrReturn(\n   receiver: R,\n   param: P,\n   completion: Continuation<T>\n): Any? = this.asDynamic()(receiver, param, completion, false)\n\n/**\n * Creates unintercepted coroutine without receiver and with result

type [T].\n * This function creates a new, fresh instance of suspendable computation every time it is invoked.\n *\n * To start executing the created coroutine, invoke `resume(Unit)` on the returned [Continuation] instance.\n * The [completion] continuation is invoked when coroutine completes with result or exception.\n *\n * This function returns unintercepted continuation.\n * Invocation of `resume(Unit)` starts coroutine immediately in the invoker's call stack without going through the\n * [ContinuationInterceptor] that might be present in the completion's [CoroutineContext].\n * It is the invoker's responsibility to ensure that a proper invocation context is established.\n * Note that [completion] of this function may get invoked in an arbitrary context.\n *\n * [Continuation.intercepted] can be used to acquire the intercepted continuation.\n * Invocation of `resume(Unit)` on intercepted continuation guarantees that execution of\n * both the coroutine and [completion] happens in the

invocation context established by\n * [ContinuationInterceptor].\n *\n * Repeated invocation of any resume function on the resulting continuation corrupts the\n * state machine of the coroutine and may result in arbitrary behaviour or exception.\n */\n@SinceKotlin(\"1.3\")\npublic actual fun <T> (suspend () -> T).createCoroutineUnintercepted(\n   completion: Continuation<T>\n): Continuation<Unit> =\n   // Kotlin/JS suspend lambdas have an extra parameter `suspended`\n   if (this.asDynamic().length == 2) {\n   // When `suspended` is true the continuation is created, but not executed\n   this.asDynamic()(completion, true)\n   } else {\n   createCoroutineFromSuspendFunction(completion) {\n   this.asDynamic()(completion)\n   }\n   }\n\n/**\n * Creates unintercepted coroutine with receiver type [R] and result type [T].\n * This function creates a new, fresh instance of suspendable computation every time it is invoked.\n *\n * To start executing the created

coroutine, invoke `resume(Unit)` on the returned [Continuation] instance.\n * The [completion] continuation is invoked when coroutine completes with result or exception.\n *\n * This function returns unintercepted continuation.\n * Invocation of `resume(Unit)` starts coroutine immediately in the invoker's call stack without going through the\n * [ContinuationInterceptor] that might be present in the completion's [CoroutineContext].\n * It is the invoker's responsibility to ensure that a proper invocation context is established.\n * Note that [completion] of this function may get invoked in an arbitrary context.\n *\n * [Continuation.intercepted] can be used to acquire the intercepted continuation.\n * Invocation of `resume(Unit)` on intercepted continuation guarantees that execution of\n * both the coroutine and [completion] happens in the invocation context established by\n * [ContinuationInterceptor].\n *\n * Repeated invocation of any resume function on the resulting continuation corrupts the\n * state machine of the coroutine and may result in arbitrary behaviour or exception.\n */\n@SinceKotlin(\"1.3\")\npublic actual fun <R, T> (suspend R.() -> T).createCoroutineUnintercepted(\n receiver: R,\n completion: Continuation<T>\n): Continuation<Unit> =\n // Kotlin/JS suspend lambdas have an extra parameter `suspended`\n if (this.asDynamic().length == 3) {\n // When `suspended` is true the continuation is created, but not executed\n this.asDynamic()(receiver, completion, true)\n } else {\n createCoroutineFromSuspendFunction(completion) {\n this.asDynamic()(receiver, completion)\n }\n }\n\n/**\n * Intercepts this continuation with [ContinuationInterceptor].\n *\n * This function shall be used on the immediate result of [createCoroutineUnintercepted] or [suspendCoroutineUninterceptedOrReturn],\n * in which case it checks for [ContinuationInterceptor] in the continuation's [context][Continuation.context],\n * invokes [ContinuationInterceptor.interceptContinuation], caches and returns the result.\n *\n * If this function is invoked on other [Continuation] instances it returns `this` continuation unchanged.\n */\n@SinceKotlin(\"1.3\")\npublic actual fun <T> Continuation<T>.intercepted(): Continuation<T> =\n (this as? CoroutineImpl)?.intercepted() ?: this\n\n\nprivate inline fun <T> createCoroutineFromSuspendFunction(\n completion: Continuation<T>,\n crossinline block: () -> Any?\n): Continuation<Unit> {\n @Suppress(\"UNCHECKED_CAST\")\n return object : CoroutineImpl(completion as Continuation<Any?>) {\n override fun doResume(): Any? {\n exception?.let { throw it }\n return block()\n }\n }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n// Mirrors signature from JS IR BE\n// Used for js.translator/testData/box/number/mulInt32.kt\n@library\n@JsName(\"imulEmulated\")\n@Suppress(\"UNUSED_PARAMETER\")\ninternal fun imul(x: Int, y: Int): Int = definedExternally\n\n@Suppress(\"NOTHING_TO_INLINE\")\ninternal inline fun isArrayish(o: dynamic) = js(\"Kotlin\").isArrayish(o)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n// NOTE: Do not author your exceptions as they are written in this file, instead use this template:\n/*\npublic open class MyException : Exception {\n constructor() : super()\n constructor(message: String?) : super(message)\n constructor(message: String?, cause: Throwable?) : super(message, cause)\n constructor(cause: Throwable?) : super(cause)\n}\n*/\n\n\n// TODO: remove primary constructors, make all secondary KT-22055\n\n@Suppress(\"USELESS_ELVIS_RIGHT_IS_NULL\")\npublic actual open class Error actual constructor(message: String?, cause: Throwable?) : Throwable(message, cause ?: null) {\n actual constructor() : this(null, null)\n actual constructor(message: String?) : this(message, null)\n actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\n@Suppress(\"USELESS_ELVIS_RIGHT_IS_NULL\")\npublic actual open class Exception actual constructor(message: String?, cause: Throwable?) : Throwable(message, cause ?: null) {\n actual constructor() : this(null, null)\n actual constructor(message: String?) : this(message, null)\n actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\npublic actual open class RuntimeException actual constructor(message: String?, cause: Throwable?) : Exception(message, cause) {\n actual constructor() : this(null, null)\n actual constructor(message: String?) : this(message, null)\n actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\npublic actual open class IllegalArgumentException actual constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\n actual constructor() : this(null, null)\n actual constructor(message: String?) : this(message, null)\n actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\npublic actual open class IllegalStateException actual constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\n actual constructor() : this(null, null)\n actual constructor(message:

String?) : this(message, null)\n   actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\npublic actual open class IndexOutOfBoundsException actual constructor(message: String?) : RuntimeException(message) {\n   actual constructor() : this(null)\n}\n\npublic actual open class ConcurrentModificationException actual constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\n   actual constructor() : this(null, null)\n   actual constructor(message: String?) : this(message, null)\n   actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\npublic actual open class UnsupportedOperationException actual constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\n   actual constructor() : this(null, null)\n   actual constructor(message: String?) : this(message, null)\n   actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\n\npublic actual open class NumberFormatException actual constructor(message: String?) : IllegalArgumentException(message) {\n   actual constructor() : this(null)\n}\n\n\npublic actual open class NullPointerException actual constructor(message: String?) : RuntimeException(message) {\n   actual constructor() : this(null)\n}\n\npublic actual open class ClassCastException actual constructor(message: String?) : RuntimeException(message) {\n   actual constructor() : this(null)\n}\n\npublic actual open class

AssertionError\n@SinceKotlin(\"1.4\")\nconstructor(message: String?, cause: Throwable?) : Error(message, cause) {\n   actual constructor() : this(null)\n   constructor(message: String?) : this(message, null)\n   actual constructor(message: Any?) : this(message.toString(), message as? Throwable)\n}\n\npublic actual open class NoSuchElementException actual constructor(message: String?) : RuntimeException(message) {\n   actual constructor() : this(null)\n}\n\n@SinceKotlin(\"1.3\")\npublic actual open class ArithmeticException actual constructor(message: String?) : RuntimeException(message) {\n   actual constructor() : this(null)\n}\n\npublic actual open class NoWhenBranchMatchedException actual constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\n   actual constructor() : this(null, null)\n   actual constructor(message: String?) : this(message, null)\n   actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\npublic actual open class

UninitializedPropertyAccessException actual constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\n   actual constructor() : this(null, null)\n   actual constructor(message: String?) : this(message, null)\n   actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. Use of this source code is governed by the Apache 2.0 license\n * that can be found in the license/LICENSE.txt file.\n */\n\n\n@file:Suppress(\"UNUSED_PARAMETER\")\n\npackage kotlin.js\n\n@kotlin.internal.InlineOnly\ninternal inline fun jsDeleteProperty(obj: Any, property: Any) {\n   js(\"delete obj[property]\")\n}\n\n@kotlin.internal.InlineOnly\ninternal inline fun jsBitwiseOr(lhs: Any?, rhs: Any?): Int =\n   js(\"lhs | rhs\").unsafeCast<Int>()","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt

file.\n */\npackage kotlin.math\n\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n *\n * If [sign] is `NaN` the sign of the result is undefined.\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Double.withSign(sign: Double): Double {\n   val thisSignBit = js(\"Kotlin\").doubleSignBit(this).unsafeCast<Int>()\n   val newSignBit = js(\"Kotlin\").doubleSignBit(sign).unsafeCast<Int>()\n   return if (thisSignBit == newSignBit) this else -this\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n\n/**\n * Returns a bit representation of the specified floating-point value as [Long]\n * according to the IEEE 754 floating-point \"double format\" bit layout.\n */\n@SinceKotlin(\"1.2\")\n@library(\"doubleToBits\")\npublic actual fun Double.toBits(): Long = definedExternally\n\n/**\n

* Returns a bit representation of the specified floating-point value as [Long]\n * according to the IEEE 754 floating-point \"double format\" bit layout,\n * preserving `NaN` values exact layout.\n */\n@SinceKotlin(\"1.2\")\n@library(\"doubleToRawBits\")\npublic actual fun Double.toRawBits(): Long =

definedExternally\n\n/**\n * Returns the [Double] value corresponding to a given bit representation.\n */\n@SinceKotlin(\"1.2\")\n@kotlin.internal.InlineOnly\npublic actual inline fun Double.Companion.fromBits(bits: Long): Double = js(\"Kotlin\").doubleFromBits(bits).unsafeCast<Double>()\n\n/**\n * Returns a bit representation of the specified floating-point value as [Int]\n * according to the IEEE 754 floating-point \"single format\" bit layout.\n *\n * Note that in Kotlin/JS [Float] range is wider than \"single format\" bit layout can represent,\n * so some [Float] values may overflow, underflow or loose their accuracy after conversion to bits and back.\n */\n@SinceKotlin(\"1.2\")\n@library(\"floatToBits\")\npublic
 actual fun Float.toBits(): Int = definedExternally\n\n/**\n * Returns a bit representation of the specified floating-point value as [Int]\n * according to the IEEE 754 floating-point \"single format\" bit layout,\n * preserving `NaN` values exact layout.\n *\n * Note that in Kotlin/JS [Float] range is wider than \"single format\" bit layout can represent,\n * so some [Float] values may overflow, underflow or loose their accuracy after conversion to bits and back.\n */\n@SinceKotlin(\"1.2\")\n@library(\"floatToRawBits\")\npublic actual fun Float.toRawBits(): Int = definedExternally\n\n/**\n * Returns the [Float] value corresponding to a given bit representation.\n */\n@SinceKotlin(\"1.2\")\n@kotlin.internal.InlineOnly\npublic actual inline fun Float.Companion.fromBits(bits: Int): Float = js(\"Kotlin\").floatFromBits(bits).unsafeCast<Float>()\n\n\n@Suppress(\"NOTHING_TO_INLINE\")\ninternal inline fun Long(low: Int, high: Int) = js(\"Kotlin\").Long.fromBits(low,
 high).unsafeCast<Long>()\ninternal inline val Long.low: Int get() = this.asDynamic().getLowBits().unsafeCast<Int>()\ninternal inline val Long.high: Int get() = this.asDynamic().getHighBits().unsafeCast<Int>()\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\nimport kotlin.reflect.KClass\n\n@PublishedApi\ninternal fun <T : Annotation> KClass<*>.findAssociatedObject(@Suppress(\"UNUSED_PARAMETER\") annotationClass: KClass<T>): Any? {\n   // This API is not supported in js-v1. Return `null` to be source-compatible with js-ir.\n   return null\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/**\n * Returns a string representation
 of this [Long] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Long.toString(radix: Int): String = asDynamic().toString(checkRadix(radix))","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\n// 1343 ranges totally\nprivate object Category {\n   val decodedRangeStart: IntArray\n   val decodedRangeCategory: IntArray\n   \n   init {\n   val toBase64 = \"ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789+/\"\n   val fromBase64 = IntArray(128)\n   for (i in toBase64.indices) {\n   fromBase64[toBase64[i].code] = i\n   }\n   \n   // rangeStartDiff.length = 1482\n   val rangeStartDiff = \"gBCFEDCKCDCaDDaDBhBCEEDDDDDEDXBHYBH5BRwBGDCHDCIDFHDCHFDCDEIRTEE7BGHDDJlCBbSEMOFGERwDEDDDDECEFCRBJhBFDCYFFCCzBvBjBBFC3BOhDBmBDGpBDDCtBBJIbEECLGDFCLDCgBBKVKEDiDDHCFECECKCEODBebC5CLBOKhBJDDDDWEBHFCFCPBZDEL1BVBSLPBgBB2BDBDICFBHKCCKCPDBHEDWBHEDDDDEDEDIBDGDCKCCGDDDCGECCWBFMDDCDEDDCHDDHKDDBKDBHFCWBFGFDBDDFEDBPDDKCHBGDCHEDWBFGFDCEDEDBHDDGDCKCGJEGDBFDDFDDDDDMEFDBFDCGBOKDFDFDCGFCXBQDDDDDBEGEDFDDKHBHDDGFCXBKBFCEFCFCHCHECCKDNCCHFCoBEDECFDDDDHDCCKJBGDCSDYBJEHBFDDEBIGKDCMuBFHEBGBIBKCkBFBFBXEIFJDFDGCKCEgBBDPEDGKKGECIBkBEOBDFFLBkBBIBEFFEClBrBCEBEGDBKGGDDDDDCHDENDCFEKDDlBDDFrBCDpKBECGEECpBBEChBBECGEECPB5BBECjCCDJUDQKG2CCGDsTCRBaCDrCDDIHNBEDLSDCJSCMLFC

CM0BDHGFLBFDDKGKGEFDDBKGjBB1BHFChBDFmCKfDDDDDDCGDCFDKeCFLsBEaGKBDiBXDDD1
BDGDEIGJEKGKGHBGCMF/BEBvBCEDDFHEKHKJJDDeDDGDKsBFEDCIEkBIICCDFKDDKeGCJHrBCDI
IDBNBHEBEFDBFsB/BNBiBlB6BBF1EIiDJIGCGCIIIIGCGCIIIIOCIIIIIIDFEDDBFEDDDDEBDIFDDFEDBLF
GCEEICFBJCDEDCLDKBFBKCCGDDKDDNDgBQNEBDMPFFDEDEBFFHECEBEEDFBEDDQjBCEDEFFC
CJHBeEEfsIIEUCHCxCBeZoBGlCZLV8BuCW3FBJB2BIvDB4HOesBFCfKQgIjEW/BEgBCiIwBVCGnBCgBBp
DvBBuBEDBHEFGCCjDCGEDCFCFlBDDF4BHCOBXJHBHBHBHBHBHBHBHBgBCECGHGEDIFBKCEDM
EtBaB5CM2GaMEDDCKCGFCJEDFDDDC2CDDDB6CDCFrBB+CDEKgBkBMQfBKeIBPgBKnBPgKguGgC9
vUDVB3jBD3BJoBGCsIBDQKCUuBDDKCcCCmCKCGIXJCNC/BBHGKDECEVFBEMCEEBqBDDGDFDXD
CEBDGEG0BEICyBQCICKGSGDEBKcICXLCLBdDDBvBDECCDNCKECFCJKFBpBFEDCJDBICCKCEQBG
DDByBEDCEFBYDCLEDDCKGCGCGJHBHBrBBEJDEwCjBIDCKGk9KMXExBEggCgoGuLCqDmBHMFFC
KBNBFBIsDQRrLCQgCC2BoBMCCQGEGQDCQDDDDFDGDECEEFBnEEBFEDCKCDCaDDaDBFCKBtBCf
DGCGCFEDDDDCECKDC\"\n

val diff = decodeVarLenBase64(rangeStartDiff, fromBase64, 1342)\n   val start = IntArray(diff.size + 1)\n
for (i in diff.indices) {\n   start[i + 1] = start[i] + diff[i]\n   }\n   decodedRangeStart = start\n   \n
// rangeCategory.length = 2033\n   val rangeCategory =
\"PsY44a41W54UYJYZYB14W7XC15WZPsYa84bl9Zw8b85Lr7C44brlerrYBZBCZCiBiBiBhCiiBhChiBhiCBhh
ChiCihBhChCChiBhChiClBCFhjCiBiBihDhiBhCCihBiBBhCCFCEbEbEb7EbGhCk7BixRkiCi4BRbh4BhRhCBR
BCiiBBCiBChiZBCBCiBcGHhChCiBRBxxEYC40Rx8c6RGUm4GRFRFYRQZ44acG4wRYFEFGJYllGFlYGwc
GmkEmcGFJFl8cYxwFGFGRFGFRJFGkkcYkxRm6aFGEGmmEmEGRYRFGxxYFRFRFRGQGIFmIFIGIooGF
GFGYJ4EFmoIRFlxRlxRFRFxlRxlFllRxmFIGxxIoxRomFRIRxlFlmGRJFaL86F4mRxmGoRFRFRFRFllRxGIGR
xmGxmGmxRxGRFlRRJmmFllGYRmmIRFllRlRFRFllRFxxGFIGmmRoxImxRFRllGmxRJ4aRFGxmIoRFlxRlxR
FRFllRFxxGlImoGmmRxoIxoIGRmmIRxlFlmGRJ8FLRxmFFRFllRllRxxFlRlxRxlFRFRFRooGRIooRomRxFRIR
JLc8aRmoIoGFllRlRFRFRlmGmoIooRGRGRxmGFRllGmxRJRYL8lGooYFllRlRFRFRFRmlIIxGooRGRIRlxFG
RJxlFRGIFllRlRFlmGIGxIooRomF8xRxxFllILFGRJLcFxmIoRFRFRFxlRFRxxGxxIooGmmRRIRJxxIoYRFllGG
RaFEGYJYRxlFRFRFlRFllGGlxRFxEGRJRFRFcY84c8mGcJL8G1WIFRFRGIGmmYFGRGRcGc88RYcYRFIGI
GmmIomGFJYFooGmlFllGmmFIFIFGFmoIGIomFJIm8cBhRRxxBC4ECFRFRFlRFRFRFRFRFRFlRFRFRFRFR
FRGYLRFcRBRCxxUF8YFMF1WRFYKFRFRFGRFGYRFGRFllRlRGRFmmIGIooGGY44E46FmxRJRLRY44
U44GmmQRJRFEFRFGFlGRFRFxmGmoIooGmoIoxRxxIoGIGRxxcx4YJFRFRFRFRJLRcFmmIomRx4YFoGG
mRomIGIGmxRJRJRYEYRGmmHRGIFmIGmIIooGFRJYcGcRmmIFomGmmIomGmlFJFmoGooGGIRYFIGIG
RYJRFJFEYCRBRBYRGYGIGFGFllGomGFRCECECEGRGhCCiBCBCRBRCBCBCRBRCxBCBCRCDCDCD
CiiRBj7CbCiiRBj7b7iCiiRxiCBRbCBbxxCiiRBj7bRMQUY9+V9+VYtOQMY9eY43X44Z1WY54XYMQRQrER
LZ12ELZ12RERaRGHGHGR88B88BihBhiChhC8hcZBc8BB8CBCFi8cihBZBC8Z8CLKhCKr8cRZcZc88ZcZc85
Z8ZcZc1WcZc1WcZcZcZcRcRLcLcZcZcZcZc1WLcZ1WZ1WZcZ1WZ1WZ1WZcZcZcRcRcBRCixBBCiBBihC
CEBhCCchCGhCRY44LCiRRxxCFRkYRGFRFRFRFRFRFRFRFRFRGY9eY49eY44U49e49e1WYEYUY04VY
48cRcRcRcRcRs4Y48ElK1Wc1W12U2cKGooUE88KqqEl4c8RFxxGm7bkkFUF4kEkFRFRFx8cLcFcRFcRLcLc
LcLcLcFcFRFEFRcRFEYFEYFJFRhClmHnnYG4EhCEGFKGYRbEbhCCiBECiBhCk7bhClBihCiBBCBhCRhiBh
hCCRhiFkkCFlGllGllGFooGmIcGRL88aRFYRIFIGRYJRGFYl4FGJFGYFGIRYFRGIFmoIGIGIYxEJRYFmEFJ
FRFGmoImoIGRFGFmIRJRYFEFcloGIFmlGmlFGFlmGFRllEYFomGo4YlkEoGRFRFRFRFRFRCbECk7bRCFo
oG4oGRJRFRFRFRTSFRFRCRCRlGFZFRFRlxFFbRF2VRFRFRF6cRGY41WRG40UX1W44V24Y44X33Y44R
44U1WY50Z5R46YRFRFxxQY44a41W54UYJYZYB14W7XC15WZ12YYFEFEFRFRFRFlxRllRxxa65b86axcZc
RQcR\"\n

decodedRangeCategory
= decodeVarLenBase64(rangeCategory, fromBase64, 1343)\n   }\n}\n\nprivate fun categoryValueFrom(code: Int,
ch: Int): Int {\n   return when {\n   code < 0x20 -> code\n   code < 0x400 -> if ((ch and 1) == 1) code shr 5
else code and 0x1f\n   else ->\n   when (ch % 3) {\n   2 -> code shr 10\n   1 -> (code shr 5)
and 0x1f\n   else -> code and 0x1f\n   }\n   }\n}\n\n/**\n * Returns the Unicode general category of
this character as an Int.\n */\ninternal fun Char.getCategoryValue(): Int {\n   val ch = this.code\n\n   val index =
binarySearchRange(Category.decodedRangeStart, ch)\n   val start = Category.decodedRangeStart[index]\n   val

code = Category.decodedRangeCategory[index]\n   val value = categoryValueFrom(code, ch - start)\n\n   return if (value == 17) CharCategory.UNASSIGNED.value else value\n}\n\ninternal fun decodeVarLenBase64(base64: String, fromBase64: IntArray, resultLength: Int):

IntArray {\n   val result = IntArray(resultLength)\n   var index = 0\n   var int = 0\n   var shift = 0\n   for (char in base64) {\n   val sixBit = fromBase64[char.code]\n   int = int or ((sixBit and 0x1f) shl shift)\n   if (sixBit < 0x20) {\n   result[index++] = int\n   int = 0\n   shift = 0\n   } else {\n   shift += 5\n   }\n   }\n   return result\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.js.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Reverses elements in the list in-place.\n */\npublic actual fun <T> MutableList<T>.reverse():

Unit {\n   val midPoint = (size / 2) - 1\n   if (midPoint < 0) return\n   var reverseIndex = lastIndex\n   for (index in 0..midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\n// 37 ranges totally\nprivate object Digit {\n   internal val rangeStart = intArrayOf(\n   0x0030, 0x0660, 0x06f0, 0x07c0, 0x0966, 0x09e6, 0x0a66, 0x0ae6, 0x0b66, 0x0be6, 0x0c66, 0x0ce6, 0x0d66, 0x0de6, 0x0e50, 0x0ed0, 0x0f20, 0x1040, 0x1090, 0x17e0, \n   0x1810, 0x1946, 0x19d0, 0x1a80, 0x1a90, 0x1b50,

0x1bb0, 0x1c40, 0x1c50, 0xa620, 0xa8d0, 0xa900, 0xa9d0, 0xa9f0, 0xaa50, 0xabf0, 0xff10, \n   )\n}\n\n/**\n * Returns the index of the largest element in [array] smaller or equal to the specified [needle],\n * or -1 if [needle] is smaller than the smallest element in [array].\n */\ninternal fun binarySearchRange(array: IntArray, needle: Int): Int {\n   var bottom = 0\n   var top = array.size - 1\n   var middle = -1\n   var value = 0\n   while (bottom <= top) {\n   middle = (bottom + top) / 2\n   value = array[middle]\n   if (needle > value)\n   bottom = middle + 1\n   else if (needle == value)\n   return middle\n   else\n   top = middle - 1\n   }\n   return middle - (if (needle < value) 1 else 0)\n}\n\n/**\n * Returns an integer from 0..9 indicating the digit this character represents,\n * or -1 if this character is not a digit.\n */\ninternal fun Char.digitToIntImpl(): Int {\n   val ch = this.code\n   val index = binarySearchRange(Digit.rangeStart,

ch)\n   val diff = ch - Digit.rangeStart[index]\n   return if (diff < 10) diff else -1\n}\n\n/**\n * Returns `true` if this character is a digit.\n */\ninternal fun Char.isDigitImpl(): Boolean {\n   return digitToIntImpl() >= 0\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\n// 222 ranges totally\nprivate object Letter {\n   val decodedRangeStart: IntArray\n   val decodedRangeLength: IntArray\n   val decodedRangeCategory: IntArray\n\n   init {\n   val toBase64 = \"ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789+/\"\n   val fromBase64 = IntArray(128)\n   for (i in toBase64.indices)

{\n   fromBase64[toBase64[i].code] = i\n   }\n   \n   // rangeStartDiff.length = 356\n   val rangeStartDiff = \"hCgBpCQGYHZH5BRpBPPPPPPRMP5BPPlCPP6BkEPPPPcPXPzBvBrB3BOiDoBHwD+E3DauCnFmBmB2D6E1BlBTiBmBlBP5BhBiBrBvBjBqBnBPRtBiCmCtBlB0BmB5BiB7BmBgEmChBZgCoEoGVpBSfRhBPqKQ2BwBYoFgB4CJuTiEvBuCuDrF5DgEgFlJ1DgFmBQtBsBRGsB+BPiBlD1EIjDPRPPPQPPPPPGQSQS/DxENVNU+B9zCwBwBPPCkDPNnBPqDYY1R8B7FkFgTgwGgwUwmBgKwBuBScmEP/BPPPPPPrBP8B7F1B/ErBqC6B7BiBmBfQsBUwCw/KwqIwLwETPcPjQgJxFgBlBsD\"\n   val diff = decodeVarLenBase64(rangeStartDiff, fromBase64, 222)\n   val start = IntArray(diff.size)\n   for (i in diff.indices) {\n   if (i == 0) start[i] =

diff[i]\n   else start[i] = start[i - 1] + diff[i]\n   }\n   decodedRangeStart = start\n   \n   // rangeLength.length = 328\n   val rangeLength = \"aaMBXHYH5BRpBPPPPPPRMP5BPPlCPPzBDOOPPcPXPzBvBjB3BOhDmBBpB7DoDYxB+EiBP1DoExBkBQhBekBPmBgBhBctBiBMWOOXhCsBpBkBUV3Ba4BkB0DlCgBXgBtD4FSdBfPhBPpKP0BvBXjEQ2CGsT8DhBtCqDpFvD1D3E0IrD2EkBJrBDOBsB+BPiBlB1EIjDPPPPPPPPPPPGPPMNLsBNPNPKCvBvBPPCkDPBmBPhDXXgD4B6FzEgDguG9vUtkB9JcuBSckEP/BPPPPPPBPf4FrBjEhBpC3B5BKaWPrBOwCk/KsCuLqDHPbPxPsFtEaaqDL\"\n

decodedRangeLength = decodeVarLenBase64(rangeLength, fromBase64, 222)\n   \n   // rangeCategory.length = 959\n   val rangeCategory = \"GFjgggUHGGFFZZZmzpz5qB6s6020B60ptltB6smt2sB60mz22B1+vv+8BZZ5s2850BW5q1ymtB506smzBF3q1q1qB1q1q1+Bgii4wDTm74g3KiggxqM60q1q1Bq1o1q1BF1qlrqrBZ2q5wprBGFZWWZGHFsjiooLowgmOowjkwCkgoiIk7ligGogiioBkwkiYkzj2oNoi+sbkwj04DghhkQ8wgiYkgoioDsgnkwC4gikQ//v+85BkwvoIsgoyI4yguI0whiwEowri4CoghsJowgqYowgm4DkwgsY/nwnzPowhmYkg6wI8yggZswikwHgxgmIoxgqYkwgk4DkxgmIkgoioBsgssoBgzgyI8g9gL8g9kI0wgwJoxgkoC0wgioFkw/wI0w53iF4gioYowjmgBHGq1qkgwBF1q1q8qBHwghuIwghyKk0goQkwgoQk3goQHGFHkyg0pBgxj6IoinkxDswno7Ikwhz9Bo0gioB8z48Rwli0xN0mpjoX8w78pDwltoqKHFGGwwgsIHFH3q1q16BFHWFZ1q10q1B2qlwq1B1q10q1B2q1yq1B6q1gq1Biq1qhxBir1qp1Bqt1q1qB1g1q1+B//3q16B///q1qBH/qlqq9Bholqq9B1i00a1q10qD1op1HkwmigEigiy6Cptogq1Bixo1kDq7/j00B2qgoBWGFm1lz50B6s5q1+BGWhggzhwBFFhgk4//Bo2jigE8wguI8wguI8wgugUog1qoB4qjmIwwi2KgkYHHH4lBgiFWkgIWoghssMmz5smrBZ3q1y50B5sm7gzBtz1smzB5smz50BqzqtmzB5sgzqzBF2/9//5BowgoIwmnkzPkwgk4C8ys65BkgoqI0wgy6FghquZo2giY0ghiIsgh24B4ghsQ8QF/v1q1OFs0O8iCHHF1qggz/B8wg6Iznv+//B08QgohsjK0QGFk7hsQ4gB\"\n

decodedRangeCategory = decodeVarLenBase64(rangeCategory, fromBase64, 222)\n   }\n}\n\n/**\n * Returns `true` if this character is a letter.\n */\ninternal fun Char.isLetterImpl(): Boolean {\n   return getLetterType() != 0\n}\n\n/**\n * Returns `true` if this character is a lower case letter, or it has contributory property Other_Lowercase.\n */\ninternal fun Char.isLowerCaseImpl(): Boolean {\n   return getLetterType() == 1 || code.isOtherLowercase()\n}\n\n/**\n * Returns `true` if this character is an upper case letter, or it has contributory property Other_Uppercase.\n */\ninternal fun Char.isUpperCaseImpl(): Boolean {\n   return getLetterType() == 2 || code.isOtherUppercase()\n}\n\n/**\n

* Returns\n *   - `1` if the character is a lower case letter,\n *   - `2` if the character is an upper case letter,\n *   - `3` if the character is a letter but not a lower or upper case letter,\n *   - `0` otherwise.\n */\nprivate fun Char.getLetterType(): Int {\n   val ch = this.code\n   val index = binarySearchRange(Letter.decodedRangeStart, ch)\n\n   val rangeStart = Letter.decodedRangeStart[index]\n   val rangeEnd = rangeStart + Letter.decodedRangeLength[index] - 1\n   val code = Letter.decodedRangeCategory[index]\n\n   if (ch > rangeEnd) {\n   return 0\n   }\n\n   val lastTwoBits = code and 0x3\n\n   if (lastTwoBits == 0) { // gap pattern\n   var shift = 2\n   var threshold = rangeStart\n   for (i in 0..1) {\n   threshold += (code shr shift) and 0x7f\n   if (threshold > ch) {\n   return 3\n   }\n   shift += 7\n   threshold += (code shr shift) and 0x7f\n

if (threshold > ch) {\n   return 0\n   }\n   shift += 7\n   }\n   return 3\n   }\n\n   if (code <= 0x7) {\n   return lastTwoBits\n   }\n\n   val distance = (ch - rangeStart)\n   val shift = if (code <= 0x1F) distance % 2 else distance\n   return (code shr (2 * shift)) and 0x3\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nprivate object OtherLowercase {\n   internal val otherLowerStart = intArrayOf(\n   0x00aa, 0x00ba, 0x02b0, 0x02c0, 0x02e0, 0x0345, 0x037a, 0x1d2c, 0x1d78, 0x1d9b, 0x2071, 0x207f, 0x2090, 0x2170, 0x24d0, 0x2c7c, 0xa69c, 0xa770, 0xa7f8, 0xab5c, \n   )\n   internal

val otherLowerLength = intArrayOf(\n   1, 1, 9, 2, 5, 1, 1, 63, 1, 37, 1, 1, 13, 16, 26, 2, 2, 1, 2, 4, \n   )\n}\n\ninternal fun Int.isOtherLowercase(): Boolean {\n   val index =

binarySearchRange(OtherLowercase.otherLowerStart, this)\n   return index >= 0 && this < OtherLowercase.otherLowerStart[index] + OtherLowercase.otherLowerLength[index]\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\ninternal fun Int.isOtherUppercase(): Boolean {\n   return this in 0x2160..0x216f\n || this in 0x24b6..0x24cf\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code
 is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.js.*\n\n/**\n * Returns a character at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this char sequence.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun CharSequence.elementAt(index: Int): Char {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, length: $length}\") }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n//
 See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\n// 4 ranges totally\ninternal fun Char.titlecaseCharImpl(): Char {\n   val code = this.code\n   // Letters repeating <Lu, Lt, Ll> sequence and code of the Lt is a multiple of 3, e.g. <\u01c4, \u01c5, \u01c6>\n   if (code in 0x01c4..0x01cc || code in 0x01f1..0x01f3) {\n   return (3 * ((code + 1) / 3)).toChar()\n   }\n   // Lower case letters whose title case mapping equivalent is equal to the original letter\n   if (code in 0x10d0..0x10fa || code in 0x10fd..0x10ff) {\n   return this\n   }\n   return uppercaseChar()\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport
 kotlin.js.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun UIntArray.elementAt(index: Int): UInt {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun ULongArray.elementAt(index: Int): ULong {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the
 given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun UByteArray.elementAt(index: Int): UByte {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun UShortArray.elementAt(index: Int): UShort {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun UIntArray.asList(): List<UInt> {\n

return object : AbstractList<UInt>(), RandomAccess {\n override val size: Int get() = this@asList.size\n override fun isEmpty(): Boolean = this@asList.isEmpty()\n override fun contains(element: UInt): Boolean = this@asList.contains(element)\n override fun get(index: Int): UInt {\n AbstractList.checkElementIndex(index, size)\n return this@asList[index]\n }\n override fun indexOf(element: UInt): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is UInt) return -1\n return this@asList.indexOf(element)\n }\n override fun lastIndexOf(element: UInt): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is UInt) return -1\n return this@asList.lastIndexOf(element)\n }\n }\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun ULongArray.asList(): List<ULong> {\n return object : AbstractList<ULong>(), RandomAccess {\n override val size: Int get() = this@asList.size\n override fun isEmpty(): Boolean = this@asList.isEmpty()\n override fun contains(element: ULong): Boolean = this@asList.contains(element)\n override fun get(index: Int): ULong {\n AbstractList.checkElementIndex(index, size)\n return this@asList[index]\n }\n override fun indexOf(element: ULong): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is ULong) return -1\n return this@asList.indexOf(element)\n }\n override fun lastIndexOf(element: ULong): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is ULong) return -1\n return this@asList.lastIndexOf(element)\n }\n }\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun UByteArray.asList(): List<UByte> {\n return object : AbstractList<UByte>(), RandomAccess {\n override val size: Int get() = this@asList.size\n override fun isEmpty(): Boolean = this@asList.isEmpty()\n override fun contains(element: UByte): Boolean = this@asList.contains(element)\n override fun get(index: Int): UByte {\n AbstractList.checkElementIndex(index, size)\n return this@asList[index]\n }\n override fun indexOf(element: UByte): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is UByte) return -1\n return this@asList.indexOf(element)\n }\n override fun lastIndexOf(element: UByte): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is UByte) return -1\n return this@asList.lastIndexOf(element)\n }\n }\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun UShortArray.asList(): List<UShort> {\n return object : AbstractList<UShort>(), RandomAccess {\n override val size: Int get() = this@asList.size\n override fun isEmpty(): Boolean = this@asList.isEmpty()\n override fun contains(element: UShort): Boolean = this@asList.contains(element)\n override fun get(index: Int): UShort {\n AbstractList.checkElementIndex(index, size)\n return this@asList[index]\n }\n override fun indexOf(element: UShort): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is UShort) return -1\n return this@asList.indexOf(element)\n }\n override fun lastIndexOf(element: UShort): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is UShort) return -1\n return this@asList.lastIndexOf(element)\n }\n }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\n// 9 ranges totally\n/**\n * Returns `true` if this character is a whitespace.\n */\ninternal fun Char.isWhitespaceImpl(): Boolean {\n val ch = this.code\n return ch in 0x0009..0x000d\n || ch in 0x001c..0x0020\n || ch == 0x00a0\n || ch > 0x1000 && (\n ch == 0x1680\n || ch in 0x2000..0x200a\n || ch == 0x2028\n || ch == 0x2029\n || ch == 0x202f\n || ch == 0x205f\n || ch == 0x3000\n)\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n\npublic actual fun interface Comparator<T> {\n @JsName(\"compare\")\n public actual fun compare(a: T, b: T): Int\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\nimport kotlin.annotation.AnnotationTarget.*\n\n@Target(FUNCTION)\n@Deprecated(\"Use inline extension function with body using dynamic\")\npublic annotation class nativeGetter\n\n@Target(FUNCTION)\n@Deprecated(\"Use inline extension function with body using dynamic\")\npublic annotation class nativeSetter\n\n@Target(FUNCTION)\n@Deprecated(\"Use inline extension function with body using dynamic\")\npublic annotation class nativeInvoke\n\n@Target(CLASS, FUNCTION, PROPERTY)\ninternal annotation class library(public

val name: String = \"\")\n\n@Target(CLASS)\ninternal annotation class marker\n\n/**\n * Gives a declaration (a function, a property or a class) specific name in JavaScript.\n *\n * This may be useful in the following cases:\n *\n * * There are two functions for which the compiler gives same name in JavaScript, you can\n * mark one with `@JsName(...)` to prevent the compiler from reporting error.\n * * You are writing a JavaScript library in Kotlin. The compiler produces mangled names\n * for functions with parameters, which is unnatural for usual JavaScript developer.\n * You can put `@JsName(...)` on functions you want to be available from JavaScript.\n * * For some reason you want to rename declaration, e.g. there's common term in JavaScript\n * for a concept provided by the declaration, which in uncommon in Kotlin.\n *\n * Example:\n *\n * ``` kotlin\n * class Person(val name: String) {\n * fun hello() {\n * println(\"Hello $name!\")\n * }\n

*\n * @JsName(\"helloWithGreeting\")\n * fun hello(greeting: String) {\n * println(\"$greeting $name!\")\n * }\n * }\n * ```\n *\n * @property name the name which compiler uses both for declaration itself and for all references to the declaration.\n * It's required to denote a valid JavaScript identifier.\n *\n */\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, FUNCTION, PROPERTY, CONSTRUCTOR, PROPERTY_GETTER, PROPERTY_SETTER)\npublic actual annotation class JsName(actual val name: String)\n\n/**\n * Denotes an `external` declaration that must be imported from native JavaScript library.\n *\n * The compiler produces the code relevant for the target module system, for example, in case of CommonJS,\n * it will import the declaration via the `require(...)` function.\n *\n * The annotation can be used on top-level external declarations (classes, properties, functions) and files.\n * In case of file (which can't be `external`) the following rule applies:

all the declarations in\n * the file must be `external`. By applying `@JsModule(...)` on a file you tell the compiler to import a JavaScript object\n * that contain all the declarations from the file.\n *\n * Example:\n *\n * ``` kotlin\n * @JsModule(\"jquery\")\n * external abstract class JQuery() {\n * // some declarations here\n * }\n *\n * @JsModule(\"jquery\")\n * external fun JQuery(element: Element): JQuery\n * ```\n *\n * @property import name of a module to import declaration from.\n * It is not interpreted by the Kotlin compiler, it's passed as is directly to the target module system.\n *\n * @see JsNonModule\n */\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\npublic annotation class JsModule(val import: String)\n\n/**\n * Denotes an `external` declaration that can be used without module system.\n *\n * By default, an `external` declaration is available regardless your target module system.\n * However, by applying [JsModule]

annotation you can make a declaration unavailable to *plain* module system.\n * Some JavaScript libraries are distributed both as a standalone downloadable piece of JavaScript and as a module available\n * as an npm package.\n * To tell the Kotlin compiler to accept both cases, you can augment [JsModule] with the `@JsNonModule` annotation.\n *\n * For example:\n *\n * ``` kotlin\n * @JsModule(\"jquery\")\n * @JsNonModule\n * @JsName(\"$\")\n * external abstract class JQuery() {\n * // some declarations here\n * }\n *\n * @JsModule(\"jquery\")\n * @JsNonModule\n * @JsName(\"$\")\n * external fun JQuery(element: Element): JQuery\n * ```\n *\n * @see JsModule\n */\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\npublic annotation class JsNonModule\n\n/**\n * Adds prefix to `external` declarations in a source file.\n *\n * JavaScript does not have concept of packages (namespaces). They are usually emulated by nested objects.\n * The compiler turns references to `external` declarations either to plain unprefixed names (in case of *plain* modules)\n * or to plain imports.\n * However, if a JavaScript library provides its declarations in packages, you won't be satisfied with this.\n * You can tell the compiler to generate additional prefix before references to `external` declarations using the `@JsQualifier(...)`\n * annotation.\n *\n * Note that a file marked with the `@JsQualifier(...)` annotation can't contain non-`external` declarations.\n *\n * Example:\n *\n * ```\n * @file:JsQualifier(\"my.jsPackageName\")\n * package some.kotlinPackage\n *\n * external fun foo(x: Int)\n *\n * external fun bar(): String\n * ```\n *\n * @property value the qualifier to add to the declarations in the generated code.\n *   It must be a sequence of valid JavaScript identifiers separated by the `.` character.\n *   Examples of valid qualifiers are: `foo`, `bar.Baz`, `_.$0.f`.\n *\n * @see JsModule\n */\n@Retention(AnnotationRetention.BINARY)\n@Target(AnnotationTarget.FILE)\npublic annotation class JsQualifier(val value: String)\n\n/**\n * Exports top-level declaration on JS platform.\n *\n * Compiled module exposes declarations that are marked with this annotation without name mangling.\n *\n * This annotation can be applied to either files or top-level declarations.\n *\n * It is currently prohibited to export the following kinds of declarations:\n *\n *   * `expect` declarations\n *   * inline functions with reified type parameters\n *   * suspend functions\n *   * secondary constructors without `@JsName`\n *   * extension properties\n *   * enum classes\n *   * annotation classes\n *\n * Signatures of exported declarations must only contain \"exportable\" types:\n *\n *   * `dynamic`, `Any`, `String`, `Boolean`, `Byte`, `Short`, `Int`, `Float`, `Double`\n *   * `BooleanArray`, `ByteArray`, `ShortArray`, `IntArray`, `FloatArray`, `DoubleArray`\n *   * `Array<exportable-type>`\n *   * Function types with exportable parameters and return types\n *   * `external` or `@JsExport` classes and interfaces\n *   * Nullable counterparts of types above\n *   * Unit return type. Must not be nullable\n *\n * This annotation is experimental, meaning that restrictions mentioned above are subject to change.\n */\n@ExperimentalJsExport\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\n@SinceKotlin(\"1.3\")\npublic actual annotation class JsExport\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.jvm\n\n// these are used in common generated code in stdlib\n\n// TODO: find how to deprecate these ones\n\n@Target(AnnotationTarget.FIELD)\n@Retention(AnnotationRetention.SOURCE)\npublic actual annotation class Volatile\n\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY_GETTER, AnnotationTarget.PROPERTY_SETTER)\n@Retention(AnnotationRetention.SOURCE)\npublic actual annotation class Synchronized\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the [MutableCollection] interface.\n *\n * @param E the type of elements contained in the collection. The collection is invariant in its element type.\n */\npublic actual abstract class AbstractMutableCollection<E> protected actual constructor() : AbstractCollection<E>(), MutableCollection<E> {\n\n   actual abstract override fun add(element: E): Boolean\n\n   actual override fun remove(element: E): Boolean {\n   checkIsMutable()\n   val iterator = iterator()\n   while (iterator.hasNext()) {\n   if (iterator.next() == element) {\n   iterator.remove()\n   return true\n   }\n   }\n   return false\n   }\n\n   actual override fun addAll(elements: Collection<E>): Boolean {\n   checkIsMutable()\n   var modified = false\n   for (element in elements) {\n   if (add(element)) modified = true\n   }\n   return modified\n   }\n\n   actual override fun removeAll(elements: Collection<E>): Boolean {\n   checkIsMutable()\n   return (this as MutableIterable<E>).removeAll { it in elements }\n   }\n\n   actual override fun retainAll(elements: Collection<E>): Boolean {\n   checkIsMutable()\n   return (this as MutableIterable<E>).removeAll { it !in elements }\n   }\n\n   actual override fun clear(): Unit {\n   checkIsMutable()\n   val iterator = this.iterator()\n   while (iterator.hasNext()) {\n   iterator.next()\n   iterator.remove()\n   }\n   }\n\n   @Deprecated(\"Provided so that subclasses inherit this function\", level

= DeprecationLevel.HIDDEN)\n @JsName(\"toJSON\")\n protected fun toJSON(): Any = this.toArray()\n\n\n /**\n * This method is called every time when a mutating method is called on this mutable collection.\n * Mutable collections that are built (frozen) must throw `UnsupportedOperationException`.\n */\n internal open fun checkIsMutable(): Unit { }\n}\n\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/*\n * Based on GWT AbstractList\n * Copyright 2007 Google Inc.\n*/\n\n\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the [MutableList] interface.\n *\n * @param E the type of elements contained in the list. The list is invariant in its element type.\n */\npublic actual abstract class AbstractMutableList<E> protected actual constructor() : AbstractMutableCollection<E>(),

MutableList<E> {\n protected var modCount: Int = 0\n\n abstract override fun add(index: Int, element: E): Unit\n abstract override fun removeAt(index: Int): E\n abstract override fun set(index: Int, element: E): E\n\n /**\n * Adds the specified element to the end of this list.\n *\n * @return `true` because the list is always modified as the result of this operation.\n */\n actual override fun add(element: E): Boolean {\n checkIsMutable()\n add(size, element)\n return true\n }\n\n actual override fun addAll(index: Int, elements: Collection<E>): Boolean {\n AbstractList.checkPositionIndex(index, size)\n\n checkIsMutable()\n var _index = index\n var changed = false\n for (e in elements) {\n add(_index++, e)\n changed = true\n }\n return changed\n }\n\n actual override fun clear() {\n checkIsMutable()\n removeRange(0, size)\n }\n\n

actual override fun removeAll(elements: Collection<E>): Boolean {\n checkIsMutable()\n return removeAll { it in elements }\n }\n\n actual override fun retainAll(elements: Collection<E>): Boolean {\n checkIsMutable()\n return removeAll { it !in elements }\n }\n\n\n actual override fun iterator(): MutableIterator<E> = IteratorImpl()\n\n actual override fun contains(element: E): Boolean = indexOf(element) >= 0\n\n actual override fun indexOf(element: E): Int {\n for (index in 0..lastIndex) {\n if (get(index) == element) {\n return index\n }\n }\n return -1\n }\n\n actual override fun lastIndexOf(element: E): Int {\n for (index in lastIndex downTo 0) {\n if (get(index) == element) {\n return index\n }\n }\n return -1\n }\n\n actual override fun listIterator(): MutableListIterator<E> = listIterator(0)\n actual override

fun listIterator(index: Int): MutableListIterator<E> = ListIteratorImpl(index)\n\n\n actual override fun subList(fromIndex: Int, toIndex: Int): MutableList<E> = SubList(this, fromIndex, toIndex)\n\n /**\n * Removes the range of elements from this list starting from [fromIndex] and ending with but not including [toIndex].\n */\n protected open fun removeRange(fromIndex: Int, toIndex: Int) {\n val iterator = listIterator(fromIndex)\n repeat(toIndex - fromIndex) {\n iterator.next()\n iterator.remove()\n }\n }\n\n /**\n * Compares this list with another list instance with the ordered structural equality.\n *\n * @return true, if [other] instance is a [List] of the same size, which contains the same elements in the same order.\n */\n override fun equals(other: Any?): Boolean {\n if (other === this) return true\n if (other !is List<*>) return false\n\n return AbstractList.orderedEquals(this,

other)\n }\n\n /**\n * Returns the hash code value for this list.\n */\n override fun hashCode(): Int = AbstractList.orderedHashCode(this)\n\n\n private open inner class IteratorImpl : MutableIterator<E> {\n /** the index of the item that will be returned on the next call to [next]`()` */\n protected var index = 0\n /** the index of the item that was returned on the previous call to [next]`()`\n * or [ListIterator.previous]`()` (for `ListIterator`),\n * -1 if no such item exists\n */\n protected var last = -1\n\n override fun hasNext(): Boolean = index < size\n\n override fun next(): E {\n if (!hasNext()) throw NoSuchElementException()\n last = index++\n return get(last)\n }\n\n override fun remove() {\n check(last != -1) { \"Call next() or previous() before removing element from the iterator.\" }\n\n removeAt(last)\n

index = last\n last = -1\n }\n }\n\n /**\n * Implementation of `MutableListIterator` for abstract lists.\n */\n private inner class ListIteratorImpl(index: Int) : IteratorImpl(), MutableListIterator<E> {\n\n

init {\n   AbstractList.checkPositionIndex(index, this@AbstractMutableList.size)\n   this.index = index\n   }\n\n   override fun hasPrevious(): Boolean = index > 0\n\n   override fun nextIndex(): Int = index\n\n   override fun previous(): E {\n   if (!hasPrevious()) throw NoSuchElementException()\n\n   last = --index\n   return get(last)\n   }\n\n   override fun previousIndex(): Int = index - 1\n\n   override fun add(element: E) {\n   add(index, element)\n   index++\n   last = -1\n   }\n\n   override fun set(element: E) {\n   check(last != -1) { \"Call next() or previous() before updating element value with the iterator.\" }\n   set(last, element)\n   }\n   }\n\n   private class SubList<E>(private val list: AbstractMutableList<E>, private val fromIndex: Int, toIndex: Int) : AbstractMutableList<E>(), RandomAccess {\n   private var _size: Int = 0\n\n   init {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, list.size)\n   this._size = toIndex - fromIndex\n   }\n\n   override fun add(index: Int, element: E) {\n AbstractList.checkPositionIndex(index, _size)\n\n   list.add(fromIndex + index, element)\n   _size++\n   }\n\n   override fun get(index: Int): E {\n   AbstractList.checkElementIndex(index, _size)\n\n   return list[fromIndex + index]\n   }\n\n   override fun removeAt(index: Int): E {\n AbstractList.checkElementIndex(index, _size)\n\n   val result = list.removeAt(fromIndex + index)\n _size--\n   return result\n   }\n\n
        override fun set(index: Int, element: E): E {\n   AbstractList.checkElementIndex(index, _size)\n\n return list.set(fromIndex + index, element)\n   }\n\n   override val size: Int get() = _size\n\n   internal override fun checkIsMutable(): Unit = list.checkIsMutable()\n   }\n\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/*\n * Based on GWT AbstractMap\n * Copyright 2007 Google Inc.\n */\n\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the [MutableMap] interface.\n *\n * The implementor is required to implement [entries] property, which should return mutable set of map entries, and [put] function.\n *\n * @param K the type of map keys. The map is invariant in its key type.\n * @param V the type of map values. The map is invariant in its value type.\n */\npublic actual abstract class AbstractMutableMap<K, V> protected actual constructor() : AbstractMap<K, V>(), MutableMap<K, V> {\n\n   /**\n   * A mutable [Map.Entry] shared by several [Map] implementations.\n   */\n   internal open class SimpleEntry<K, V>(override val key: K, value: V) : MutableMap.MutableEntry<K, V> {\n   constructor(entry: Map.Entry<K, V>) : this(entry.key, entry.value)\n\n   private var _value = value\n\n   override val value: V get() = _value\n\n   override fun setValue(newValue: V): V {\n   // Should check if the map containing this entry is mutable.\n   // However, to not increase entry memory footprint it might be worthwhile not to check it here and\n   // force subclasses that implement `build()` (freezing) operation to implement their own `MutableEntry`.\n//   this@AbstractMutableMap.checkIsMutable()\n   val oldValue = this._value\n   this._value = newValue\n   return oldValue\n   }\n\n   override fun hashCode(): Int = entryHashCode(this)\n   override fun toString(): String = entryToString(this)\n   override fun equals(other: Any?): Boolean = entryEquals(this, other)\n\n   }\n\n   // intermediate abstract class to workaround KT-43321\n   internal abstract class AbstractEntrySet<E : Map.Entry<K, V>, K, V> : AbstractMutableSet<E>() {\n   final override fun contains(element: E): Boolean = containsEntry(element)\n   abstract fun containsEntry(element: Map.Entry<K, V>): Boolean\n   final override fun remove(element: E): Boolean = removeEntry(element)\n   abstract fun removeEntry(element: Map.Entry<K, V>): Boolean\n   }\n\n   actual override fun clear() {\n   entries.clear()\n   }\n\n   private var _keys: MutableSet<K>? = null\n   actual override val keys: MutableSet<K>\n   get() {\n   if (_keys == null) {\n   _keys = object : AbstractMutableSet<K>() {\n
    override fun add(element: K): Boolean = throw UnsupportedOperationException(\"Add is not supported on keys\")\n   override fun clear() {\n   this@AbstractMutableMap.clear()\n   }\n\n   override operator fun contains(element: K): Boolean = containsKey(element)\n\n   override operator fun iterator(): MutableIterator<K> {\n   val entryIterator = entries.iterator()\n return object : MutableIterator<K> {\n   override fun hasNext(): Boolean = entryIterator.hasNext()\n   override fun next(): K = entryIterator.next().key\n   override fun remove() =

entryIterator.remove()\n }\n }\n\n override fun remove(element: K): Boolean {\n checkIsMutable()\n if (containsKey(element)) {\n this@AbstractMutableMap.remove(element)\n return true\n }\n return false\n }\n\n override val size: Int get() = this@AbstractMutableMap.size\n\n override fun checkIsMutable(): Unit = this@AbstractMutableMap.checkIsMutable()\n }\n }\n return _keys!!\n }\n\n actual abstract override fun put(key: K, value: V): V?\n\n actual override fun putAll(from: Map<out K, V>) {\n checkIsMutable()\n for ((key, value) in from) {\n put(key, value)\n }\n }\n\n private var _values: MutableCollection<V>? = null\n actual override val values: MutableCollection<V>\n get() {\n if (_values == null) {\n _values = object : AbstractMutableCollection<V>() {\n override fun add(element: V): Boolean = throw UnsupportedOperationException(\"Add
is not supported on values\")\n override fun clear() = this@AbstractMutableMap.clear()\n\n override operator fun contains(element: V): Boolean = containsValue(element)\n\n override operator fun iterator(): MutableIterator<V> {\n val entryIterator = entries.iterator()\n return object : MutableIterator<V> {\n override fun hasNext(): Boolean = entryIterator.hasNext()\n override fun next(): V = entryIterator.next().value\n override fun remove() = entryIterator.remove()\n }\n }\n\n override val size: Int get() = this@AbstractMutableMap.size\n\n override fun checkIsMutable(): Unit = this@AbstractMutableMap.checkIsMutable()\n }\n }\n return _values!!\n }\n\n actual override
fun remove(key: K): V? {\n checkIsMutable()\n val iter = entries.iterator()\n while (iter.hasNext()) {\n val entry = iter.next()\n val k = entry.key\n if (key == k) {\n val value = entry.value\n iter.remove()\n return value\n }\n }\n return null\n }\n\n\n /**\n * This method is called every time when a mutating method is called on this mutable map.\n * Mutable maps that are built (frozen) must throw `UnsupportedOperationException`.\n */\n internal open fun checkIsMutable(): Unit {}\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the [MutableSet] interface.\n *\n * @param E the type of elements contained
in the set. The set is invariant in its element type.\n */\npublic actual abstract class AbstractMutableSet<E> protected actual constructor() : AbstractMutableCollection<E>(), MutableSet<E> {\n\n /**\n * Compares this set with another set instance with the unordered structural equality.\n *\n * @return `true`, if [other] instance is a [Set] of the same size, all elements of which are contained in this set.\n */\n override fun equals(other: Any?): Boolean {\n if (other === this) return true\n if (other !is Set<*>) return false\n return AbstractSet.setEquals(this, other)\n }\n\n /**\n * Returns the hash code value for this set.\n */\n override fun hashCode(): Int = AbstractSet.unorderedHashCode(this)\n\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.collections\n\n/**\n * Provides a [MutableList] implementation, which uses a resizable array as its backing storage.\n *\n * This implementation doesn't provide a way to manage capacity, as backing JS array is resizeable itself.\n * There is no speed advantage to pre-allocating array sizes in JavaScript, so this implementation does not include any of the\n * capacity and \"growth increment\" concepts.\n */\npublic actual open class ArrayList<E> internal constructor(private var array: Array<Any?>) : AbstractMutableList<E>(), MutableList<E>, RandomAccess {\n private var isReadOnly: Boolean = false\n\n /**\n * Creates an empty [ArrayList].\n */\n public actual constructor() : this(emptyArray()) {}\n\n /**\n * Creates an empty [ArrayList].\n * @param initialCapacity initial capacity (ignored)\n */\n public actual constructor(initialCapacity: Int) : this(emptyArray()) {}\n\n /**\n * Creates an [ArrayList] filled from the [elements] collection.\n

*/\n   public actual constructor(elements: Collection<E>) : this(elements.toTypedArray<Any?>()) {}\n\n   @PublishedApi\n   internal fun build(): List<E> {\n   checkIsMutable()\n   isReadOnly = true\n   return this\n   }\n\n   /** Does nothing in this ArrayList implementation. */\n   public actual fun trimToSize() {}\n\n   /** Does nothing in this ArrayList implementation. */\n   public actual fun ensureCapacity(minCapacity: Int) {}\n\n   actual override val size: Int get() = array.size\n   @Suppress(\"UNCHECKED_CAST\")\n   actual override fun get(index: Int): E = array[rangeCheck(index)] as E\n   actual override fun set(index: Int, element: E): E {\n   checkIsMutable()\n   rangeCheck(index)\n   @Suppress(\"UNCHECKED_CAST\")\n   return array[index].apply { array[index] = element } as E\n   }\n\n   actual override fun add(element: E): Boolean {\n   checkIsMutable()\n   array.asDynamic().push(element)\n   modCount++\n

        return true\n   }\n\n   actual override fun add(index: Int, element: E): Unit {\n   checkIsMutable()\n   array.asDynamic().splice(insertionRangeCheck(index), 0, element)\n   modCount++\n   }\n\n   actual override fun addAll(elements: Collection<E>): Boolean {\n   checkIsMutable()\n   if (elements.isEmpty()) return false\n\n   array += elements.toTypedArray<Any?>()\n   modCount++\n   return true\n   }\n\n   actual override fun addAll(index: Int, elements: Collection<E>): Boolean {\n   checkIsMutable()\n   insertionRangeCheck(index)\n\n   if (index == size) return addAll(elements)\n   if (elements.isEmpty()) return false\n   when (index) {\n   size -> return addAll(elements)\n   0 -> array = elements.toTypedArray<Any?>() + array\n   else -> array = array.copyOfRange(0, index).asDynamic().concat(elements.toTypedArray<Any?>(), array.copyOfRange(index, size))\n   }\n\n   modCount++\n

        return true\n   }\n\n   actual override fun removeAt(index: Int): E {\n   checkIsMutable()\n   rangeCheck(index)\n   modCount++\n   return if (index == lastIndex)\n   array.asDynamic().pop()\n   else\n   array.asDynamic().splice(index, 1)[0]\n   }\n\n   actual override fun remove(element: E): Boolean {\n   checkIsMutable()\n   for (index in array.indices) {\n   if (array[index] == element) {\n   array.asDynamic().splice(index, 1)\n   modCount++\n   return true\n   }\n   }\n   return false\n   }\n\n   override fun removeRange(fromIndex: Int, toIndex: Int) {\n   checkIsMutable()\n   modCount++\n   array.asDynamic().splice(fromIndex, toIndex - fromIndex)\n   }\n\n   actual override fun clear() {\n   checkIsMutable()\n   array = emptyArray()\n   modCount++\n   }\n\n\n   actual override fun indexOf(element: E): Int =

 array.indexOf(element)\n\n   actual override fun lastIndexOf(element: E): Int = array.lastIndexOf(element)\n\n   override fun toString() = arrayToString(array)\n\n   @Suppress(\"UNCHECKED_CAST\")\n   override fun <T> toArray(array: Array<T>): Array<T> {\n   if (array.size < size) {\n   return toArray() as Array<T>\n   }\n\n   (this.array as Array<T>).copyInto(array)\n\n   if (array.size > size) {\n   array[size] = null as T // null-terminate\n   }\n\n   return array\n   }\n\n   override fun toArray(): Array<Any?> {\n   return js(\"[]\").slice.call(array)\n   }\n\n\n   internal override fun checkIsMutable() {\n   if (isReadOnly) throw UnsupportedOperationException()\n   }\n\n   private fun rangeCheck(index: Int) = index.apply {\n   AbstractList.checkElementIndex(index, size)\n   }\n\n   private fun insertionRangeCheck(index: Int) = index.apply {\n   AbstractList.checkPositionIndex(index, size)\n   }\n}","/*\n

 * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\ninternal fun <T> sortArrayWith(array: Array<out T>, comparison: (T, T) -> Int) {\n   if (getStableSortingIsSupported()) {\n   array.asDynamic().sort(comparison)\n   } else {\n   mergeSort(array.unsafeCast<Array<T>>(), 0, array.lastIndex, Comparator(comparison))\n   }\n}\n\ninternal fun <T> sortArrayWith(array: Array<out T>, comparator: Comparator<in T>) {\n   if (getStableSortingIsSupported()) {\n   val comparison = { a: T, b: T -> comparator.compare(a, b) }\n   array.asDynamic().sort(comparison)\n   } else {\n   mergeSort(array.unsafeCast<Array<T>>(), 0, array.lastIndex, comparator)\n   }\n}\n\ninternal fun <T> sortArrayWith(array: Array<out T>, fromIndex: Int, toIndex: Int, comparator: Comparator<in T>) {\n   if

 (fromIndex < toIndex - 1) {\n   mergeSort(array.unsafeCast<Array<T>>(), fromIndex, toIndex - 1, comparator)\n   }\n}\n\ninternal fun <T : Comparable<T>> sortArray(array: Array<out T>) {\n   if

```
(getStableSortingIsSupported()) {\n        val comparison = { a: T, b: T -> a.compareTo(b) }\n
array.asDynamic().sort(comparison)\n    } else {\n        mergeSort(array.unsafeCast<Array<T>>(), 0,
array.lastIndex, naturalOrder())\n    }\n}\n\nprivate var _stableSortingIsSupported: Boolean? = null\nprivate fun
getStableSortingIsSupported(): Boolean {\n    _stableSortingIsSupported?.let { return it }\n
_stableSortingIsSupported = false\n\n    val array = js(\"[]\").unsafeCast<Array<Int>>()\n    // known
implementations may use stable sort for arrays of up to 512 elements\n    // so we create slightly more elements to
test stability\n    for (index in 0 until 600) array.asDynamic().push(index)\n    val comparison = { a: Int, b: Int -> (a
and 3) - (b and 3) }\n    array.asDynamic().sort(comparison)\n
    for (index in 1 until array.size) {\n        val a = array[index - 1]\n        val b = array[index]\n        if ((a and 3) == (b
and 3) && a >= b) return false\n    }\n    _stableSortingIsSupported = true\n    return true\n}\n\n\nprivate fun <T>
mergeSort(array: Array<T>, start: Int, endInclusive: Int, comparator: Comparator<in T>) {\n    val buffer =
arrayOfNulls<Any?>(array.size).unsafeCast<Array<T>>()\n    val result = mergeSort(array, buffer, start,
endInclusive, comparator)\n    if (result !== array) {\n        for (i in start..endInclusive) array[i] = result[i]\n
}\n}\n\n// Both start and end are inclusive indices.\nprivate fun <T> mergeSort(array: Array<T>, buffer: Array<T>,
start: Int, end: Int, comparator: Comparator<in T>): Array<T> {\n    if (start == end) {\n        return array\n    }\n\n
val median = (start + end) / 2\n    val left = mergeSort(array, buffer, start, median, comparator)\n    val right =
mergeSort(array, buffer, median + 1, end, comparator)\n\n
    val target = if (left === buffer) array else buffer\n\n    // Merge.\n    var leftIndex = start\n    var rightIndex =
median + 1\n    for (i in start..end) {\n        when {\n            leftIndex <= median && rightIndex <= end -> {\n
   val leftValue = left[leftIndex]\n                val rightValue = right[rightIndex]\n\n                if
(comparator.compare(leftValue, rightValue) <= 0) {\n                    target[i] = leftValue\n                    leftIndex++\n
          } else {\n                    target[i] = rightValue\n                    rightIndex++\n                }\n            }\n
leftIndex <= median -> {\n                target[i] = left[leftIndex]\n                leftIndex++\n            }\n            else /*
rightIndex <= end */ -> {\n                target[i] = right[rightIndex]\n                rightIndex++\n                Unit  //
TODO: Fix KT-31506\n            }\n        }\n    }\n\n    return target\n}","/*\n * Copyright
 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.collections\n\n\n@OptIn(ExperimentalUnsignedTypes::class)\n@SinceKotlin(\"1.3\")\n@kotlin.js.JsName(\"
contentDeepHashCodeImpl\")\ninternal fun <T> Array<out T>?.contentDeepHashCodeImpl(): Int {\n    if (this ==
null) return 0\n    var result = 1\n    for (element in this) {\n        val elementHash = when {\n            element == null
-> 0\n            isArrayish(element) -> (element.unsafeCast<Array<*>>()).contentDeepHashCodeImpl()\n\n
element is UByteArray   -> element.contentHashCode()\n            element is UShortArray  ->
element.contentHashCode()\n            element is UIntArray    -> element.contentHashCode()\n            element is
ULongArray   -> element.contentHashCode()\n\n            else                  -> element.hashCode()\n        }\n\n
        result = 31 * result + elementHash\n    }\n    return result\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\ninternal interface
EqualityComparator {\n    /**\n     * Subclasses must override to return a value indicating\n     * whether or not two
keys or values are equal.\n     */\n    abstract fun equals(value1: Any?, value2: Any?): Boolean\n\n    /**\n     *
Subclasses must override to return the hash code of a given key.\n     */\n    abstract fun getHashCode(value: Any?):
Int\n\n\n    object HashCode : EqualityComparator {\n        override fun equals(value1: Any?, value2: Any?):
Boolean = value1 == value2\n\n        override fun getHashCode(value: Any?): Int = value?.hashCode() ?: 0\n
}\n}","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n
 * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n/*\n * Based on GWT AbstractHashMap\n * Copyright 2008 Google Inc.\n */\n\npackage
kotlin.collections\n\nimport kotlin.collections.MutableMap.MutableEntry\n\n/**\n * Hash table based
implementation of the [MutableMap] interface.\n *\n * This implementation makes no guarantees regarding the
order of enumeration of [keys], [values] and [entries] collections.\n */\n// Classes that extend HashMap and
```

implement `build()` (freezing) operation\n// have to make sure mutating methods check `checkIsMutable`.\npublic actual open class HashMap<K, V> : AbstractMutableMap<K, V>, MutableMap<K, V> {\n\n private inner class EntrySet : AbstractEntrySet<MutableEntry<K, V>, K, V>() {\n\n override fun add(element: MutableEntry<K, V>): Boolean = throw UnsupportedOperationException(\"Add is not supported on entries\")\n override fun clear() {\n this@HashMap.clear()\n

}\n\n override fun containsEntry(element: Map.Entry<K, V>): Boolean = this@HashMap.containsEntry(element)\n\n override operator fun iterator(): MutableIterator<MutableEntry<K, V>> = internalMap.iterator()\n\n override fun removeEntry(element: Map.Entry<K, V>): Boolean {\n if (contains(element)) {\n this@HashMap.remove(element.key)\n return true\n }\n return false\n }\n\n override val size: Int get() = this@HashMap.size\n }\n\n\n /**\n * Internal implementation of the map: either string-based or hashcode-based.\n */\n private val internalMap: InternalMap<K, V>\n\n private val equality: EqualityComparator\n\n internal constructor(internalMap: InternalMap<K, V>) : super() {\n this.internalMap = internalMap\n this.equality = internalMap.equality\n }\n\n /**\n * Constructs an empty [HashMap] instance.\n */\n actual

constructor() : this(InternalHashCodeMap(EqualityComparator.HashCode))\n\n /**\n * Constructs an empty [HashMap] instance.\n *\n * @param initialCapacity the initial capacity (ignored)\n * @param loadFactor the load factor (ignored)\n *\n * @throws IllegalArgumentException if the initial capacity or load factor are negative\n */\n actual constructor(initialCapacity: Int, loadFactor: Float) : this() {\n // This implementation of HashMap has no need of load factors or capacities.\n require(initialCapacity >= 0) { \"Negative initial capacity: $initialCapacity\" }\n require(loadFactor >= 0) { \"Non-positive load factor: $loadFactor\" }\n }\n\n actual constructor(initialCapacity: Int) : this(initialCapacity, 0.0f)\n\n\n /**\n * Constructs an instance of [HashMap] filled with the contents of the specified [original] map.\n */\n actual constructor(original: Map<out K, V>) : this() {\n this.putAll(original)\n

}\n\n actual override fun clear() {\n internalMap.clear()\n// structureChanged(this)\n }\n\n actual override fun containsKey(key: K): Boolean = internalMap.contains(key)\n\n actual override fun containsValue(value: V): Boolean = internalMap.any { equality.equals(it.value, value) }\n\n private var _entries: MutableSet<MutableMap.MutableEntry<K, V>>? = null\n actual override val entries: MutableSet<MutableMap.MutableEntry<K, V>>\n get() {\n if (_entries == null) {\n _entries = createEntrySet()\n }\n return _entries!!\n }\n\n internal open fun createEntrySet(): MutableSet<MutableMap.MutableEntry<K, V>> = EntrySet()\n\n actual override operator fun get(key: K): V? = internalMap.get(key)\n\n actual override fun put(key: K, value: V): V? = internalMap.put(key, value)\n\n actual override fun remove(key: K): V? = internalMap.remove(key)\n\n actual override val size: Int get() = internalMap.size\n\n}\n\n/**\n * Constructs the specialized implementation of [HashMap] with [String] keys, which stores the keys as properties of\n * JS object without hashing them.\n */\npublic fun <V> stringMapOf(vararg pairs: Pair<String, V>): HashMap<String, V> {\n return HashMap<String, V>(InternalStringMap(EqualityComparator.HashCode)).apply { putAll(pairs) }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n/*\n * Based on GWT HashSet\n * Copyright 2008 Google Inc.\n */\n\npackage kotlin.collections\n\n/**\n * The implementation of the [MutableSet] interface, backed by a [HashMap] instance.\n */\n// Classes that extend HashSet and implement `build()` (freezing) operation\n// have to make sure mutating methods check `checkIsMutable`.\npublic actual open class HashSet<E> : AbstractMutableSet<E>, MutableSet<E>

{\n\n internal val map: HashMap<E, Any>\n\n /**\n * Constructs a new empty [HashSet].\n */\n actual constructor() {\n map = HashMap<E, Any>()\n }\n\n /**\n * Constructs a new [HashSet] filled with the elements of the specified collection.\n */\n actual constructor(elements: Collection<E>) {\n map = HashMap<E, Any>(elements.size)\n addAll(elements)\n }\n\n /**\n * Constructs a new empty [HashSet].\n *\n * @param initialCapacity the initial capacity (ignored)\n * @param loadFactor the load factor (ignored)\n *\n * @throws IllegalArgumentException if the initial capacity or load factor are negative\n

*/\n actual constructor(initialCapacity: Int, loadFactor: Float) {\n map = HashMap<E, Any>(initialCapacity, loadFactor)\n }\n\n actual constructor(initialCapacity: Int) : this(initialCapacity, 0.0f)\n\n /**\n * Protected constructor to specify the underlying map. This is used by\n * LinkedHashSet.\n\n * @param map underlying map to use.\n */\n internal constructor(map: HashMap<E, Any>) {\n this.map = map\n }\n\n actual override fun add(element: E): Boolean {\n val old = map.put(element, this)\n return old == null\n }\n\n actual override fun clear() {\n map.clear()\n }\n\n// public override fun clone(): Any {\n// return HashSet<E>(this)\n// }\n\n actual override operator fun contains(element: E): Boolean = map.containsKey(element)\n\n actual override fun isEmpty(): Boolean = map.isEmpty()\n\n actual override fun iterator(): MutableIterator<E> = map.keys.iterator()\n\n actual override fun remove(element: E): Boolean = map.remove(element) != null\n\n actual override val size: Int get() = map.size\n\n}\n\n/**\n * Creates a new instance of the specialized implementation of [HashSet] with the specified [String] elements,\n * which elements the keys as properties of JS object without hashing them.\n */\npublic fun stringSetOf(vararg elements: String): HashSet<String> {\n return HashSet(stringMapOf<Any>()).apply { addAll(elements) }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n/*\n * Based on GWT InternalHashCodeMap\n * Copyright 2008 Google Inc.\n */\n\npackage kotlin.collections\n\nimport kotlin.collections.MutableMap.MutableEntry\nimport kotlin.collections.AbstractMutableMap.SimpleEntry\n\n/**\n * A simple wrapper around JavaScriptObject to provide [java.util.Map]-like semantics for any\n * key type.\n *\n *\n * Implementation notes:\n *\n *\n * A key's hashCode is the index in backingMap which should contain that key. Since several keys may\n * have the same hash, each value in hashCodeMap is actually an array containing all entries whose\n * keys share the same hash.\n */\ninternal class InternalHashCodeMap<K, V>(override val equality: EqualityComparator) : InternalMap<K, V> {\n\n private var backingMap: dynamic = createJsMap()\n override var size: Int = 0\n private set\n\n override fun put(key: K, value: V): V? {\n val hashCode = equality.getHashCode(key)\n val chainOrEntry = getChainOrEntryOrNull(hashCode)\n if (chainOrEntry == null) {\n // This is a new chain, put it to the map.\n backingMap[hashCode] = SimpleEntry(key, value)\n } else {\n if (chainOrEntry !is Array<*>) {\n // It is an entry\n val entry: SimpleEntry<K, V> = chainOrEntry\n if (equality.equals(entry.key, key)) {\n return entry.setValue(value)\n } else {\n backingMap[hashCode] = arrayOf(entry, SimpleEntry(key, value))\n size++\n return null\n }\n } else {\n // Chain already exists, perhaps key also exists.\n val chain: Array<MutableEntry<K, V>> = chainOrEntry\n val entry = chain.findEntryInChain(key)\n if (entry != null) {\n return entry.setValue(value)\n }\n chain.asDynamic().push(SimpleEntry(key, value))\n }\n }\n size++\n// structureChanged(host)\n return null\n }\n\n override fun remove(key: K): V? {\n val hashCode = equality.getHashCode(key)\n val chainOrEntry = getChainOrEntryOrNull(hashCode) ?: return null\n if (chainOrEntry !is Array<*>) {\n val entry: MutableEntry<K, V> = chainOrEntry\n if (equality.equals(entry.key, key)) {\n jsDeleteProperty(backingMap, hashCode)\n size--\n return entry.value\n } else {\n return null\n }\n } else {\n val chain: Array<MutableEntry<K, V>> = chainOrEntry\n for (index in chain.indices) {\n val entry = chain[index]\n if (equality.equals(key, entry.key)) {\n if (chain.size == 1) {\n chain.asDynamic().length = 0\n // remove the whole array\n jsDeleteProperty(backingMap, hashCode)\n } else {\n // splice out the entry we're removing\n chain.asDynamic().splice(index, 1)\n }\n size--\n// structureChanged(host)\n return entry.value\n }\n }\n }\n return null\n }\n\n override fun clear() {\n backingMap = createJsMap()\n size = 0\n }\n\n override fun contains(key: K): Boolean = getEntry(key) != null\n\n override fun get(key: K): V? = getEntry(key)?.value\n\n private fun

getEntry(key: K): MutableEntry<K, V>? {\n val chainOrEntry = getChainOrEntryOrNull(equality.getHashCode(key)) ?: return null\n if (chainOrEntry !is Array<*>) {\n val entry: MutableEntry<K, V> = chainOrEntry\n if (equality.equals(entry.key, key)) {\n return entry\n } else {\n return null\n }\n } else {\n val chain: Array<MutableEntry<K, V>> = chainOrEntry\n return chain.findEntryInChain(key)\n }\n }\n\n private fun Array<MutableEntry<K, V>>.findEntryInChain(key: K): MutableEntry<K, V>? =\n firstOrNull { entry -> equality.equals(entry.key, key) }\n\n override fun iterator(): MutableIterator<MutableEntry<K, V>> {\n\n return object : MutableIterator<MutableEntry<K, V>> {\n var state = -1 // -1 not ready, 0 - ready, 1 - done\n\n val keys: Array<String> = js(\"Object\").keys(backingMap)\n var keyIndex = -1\n\n var chainOrEntry: dynamic = null\n var isChain = false\n var itemIndex = -1\n var lastEntry: MutableEntry<K, V>? = null\n\n private fun computeNext(): Int {\n if (chainOrEntry != null && isChain) {\n val chainSize: Int = chainOrEntry.unsafeCast<Array<MutableEntry<K, V>>>().size\n if (++itemIndex < chainSize)\n return 0\n }\n\n if (++keyIndex < keys.size) {\n chainOrEntry = backingMap[keys[keyIndex]]\n isChain = chainOrEntry is Array<*>\n itemIndex = 0\n return 0\n } else {\n chainOrEntry = null\n return 1\n }\n }\n\n override fun hasNext(): Boolean {\n if (state == -1)\n state = computeNext()\n return state == 0\n }\n\n override fun next(): MutableEntry<K, V> {\n if (!hasNext()) throw NoSuchElementException()\n val lastEntry = if (isChain) {\n chainOrEntry.unsafeCast<Array<MutableEntry<K, V>>>()[itemIndex]\n } else {\n chainOrEntry.unsafeCast<MutableEntry<K, V>>()\n }\n this.lastEntry = lastEntry\n state = -1\n return lastEntry\n }\n\n override fun remove() {\n checkNotNull(lastEntry)\n this@InternalHashCodeMap.remove(lastEntry!!.key)\n lastEntry = null\n // the chain being iterated just got modified by InternalHashCodeMap.remove\n itemIndex--\n }\n }\n }\n\n private fun getChainOrEntryOrNull(hashCode: Int): dynamic {\n val chainOrEntry = backingMap[hashCode]\n return if (chainOrEntry === undefined) null else chainOrEntry\n }\n\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n/**\n * The common interface of [InternalStringMap] and [InternalHashCodeMap].\n */\ninternal interface InternalMap<K, V> : MutableIterable<MutableMap.MutableEntry<K, V>> {\n val equality: EqualityComparator\n val size: Int\n operator fun contains(key: K): Boolean\n operator fun get(key: K): V?\n\n fun put(key: K, value: V): V?\n fun remove(key: K): V?\n fun clear(): Unit\n\n fun createJsMap(): dynamic {\n val result = js(\"Object.create(null)\")\n // force to switch object representation to dictionary mode\n result[\"foo\"] = 1\n jsDeleteProperty(result, \"foo\")\n return result\n }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n/*\n * Based on GWT InternalStringMap\n * Copyright 2008 Google Inc.\n */\npackage kotlin.collections\n\nimport kotlin.collections.MutableMap.MutableEntry\n\n/**\n * A simple wrapper around JavaScript Map for key type is string.\n *\n * Though this map is instantiated only with K=String, the K type is not fixed to String statically,\n * because we want to have it erased to Any? in order not to generate type-safe override bridges for\n * [get], [contains], [remove] etc, if they ever are generated.\n */\ninternal class InternalStringMap<K, V>(override val equality: EqualityComparator) : InternalMap<K, V> {\n\n private var backingMap: dynamic = createJsMap()\n override var size: Int = 0\n private set\n\n// /**\n// * A mod count to track 'value' replacements in map to ensure that the 'value' that we have in the\n// * iterator entry is guaranteed to be still correct.\n// * This is to optimize for the common scenario where the values are not modified during\n// * iterations where the entries are never stale.\n// */\n// private var valueMod: Int = 0\n\n override operator fun contains(key: K): Boolean {\n if (key !is String) return false\n return backingMap[key] !== undefined\n   }\n\n   override operator fun get(key: K): V? {\n   if (key !is String) return null\n   val value = backingMap[key]\n   return if (value !== undefined) value.unsafeCast<V>() else null\n   }\n\n\n   override fun put(key: K, value: V): V? {\n   require(key is String)\n   val oldValue = backingMap[key]\n   backingMap[key] = value\n\n   if (oldValue === undefined) {\n   size++\n//   structureChanged(host)\n   return null\n   } else {\n//   valueMod++\n   return oldValue.unsafeCast<V>()\n   }\n   }\n\n

override fun remove(key: K): V? {\n   if (key !is String) return null\n   val value = backingMap[key]\n   if (value !== undefined) {\n   jsDeleteProperty(backingMap, key)\n   size--\n//   structureChanged(host)\n   return value.unsafeCast<V>()\n   } else {\n//   valueMod++\n   return null\n   }\n   }\n\n\n   override fun clear() {\n   backingMap = createJsMap()\n   size = 0\n   }\n\n\n   override fun iterator(): MutableIterator<MutableEntry<K, V>> {\n   return object : MutableIterator<MutableEntry<K, V>> {\n   private val keys: Array<String> = js(\"Object\").keys(backingMap)\n   private val iterator = keys.iterator()\n   private var lastKey: String? = null\n\n   override fun hasNext(): Boolean = iterator.hasNext()\n\n   override fun next(): MutableEntry<K, V> {\n   val key = iterator.next()\n   lastKey = key\n   @Suppress(\"UNCHECKED_CAST\")\n   return newMapEntry(key as K)\n   }\n\n   override fun remove() {\n   @Suppress(\"UNCHECKED_CAST\")\n   this@InternalStringMap.remove(checkNotNull(lastKey) as K)\n   }\n   }\n   }\n\n   private fun newMapEntry(key: K): MutableEntry<K, V> = object : MutableEntry<K, V> {\n   override val key: K get() = key\n   override val value: V get() = this@InternalStringMap[key].unsafeCast<V>()\n\n   override fun setValue(newValue: V): V = this@InternalStringMap.put(key, newValue).unsafeCast<V>()\n\n   override fun hashCode(): Int = AbstractMap.entryHashCode(this)\n   override fun toString(): String = AbstractMap.entryToString(this)\n   override fun equals(other: Any?): Boolean = AbstractMap.entryEquals(this, other)\n   }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by

the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/*\n * Based on GWT LinkedHashMap\n * Copyright 2008 Google Inc.\n */\npackage kotlin.collections\n\nimport kotlin.collections.MutableMap.MutableEntry\n\n/**\n * Hash table based implementation of the [MutableMap] interface, which additionally preserves the insertion order\n * of entries during the iteration.\n *\n * The insertion order is preserved by maintaining a doubly-linked list of all of its entries.\n */\npublic actual open class LinkedHashMap<K, V> : HashMap<K, V>, MutableMap<K, V> {\n\n   /**\n   * The entry we use includes next/prev pointers for a doubly-linked circular\n   * list with a head node. This reduces the special cases we have to deal with\n   * in the list operations.\n\n   * Note that we duplicate the key from the underlying hash map so we can find\n   * the eldest entry. The alternative would have been to modify HashMap so more\n   * of the code was directly usable here,

but this would have added some\n   * overhead to HashMap, or to reimplement most of the HashMap code here with\n   * small modifications. Paying a small storage cost only if you use\n   * LinkedHashMap and minimizing code size seemed like a better tradeoff\n   */\n   private inner class ChainEntry<K, V>(key: K, value: V) : AbstractMutableMap.SimpleEntry<K, V>(key, value) {\n   internal var next: ChainEntry<K, V>? = null\n   internal var prev: ChainEntry<K, V>? = null\n\n   override fun setValue(newValue: V): V {\n   this@LinkedHashMap.checkIsMutable()\n   return super.setValue(newValue)\n   }\n   }\n\n   private inner class EntrySet : AbstractEntrySet<MutableEntry<K, V>, K, V>() {\n\n   private inner class EntryIterator : MutableIterator<MutableEntry<K, V>> {\n   // The last entry that was returned from this iterator.\n   private var last: ChainEntry<K, V>? = null\n\n   // The next entry to return from

this iterator.\n   private var next: ChainEntry<K, V>? = null\n\n   init {\n   next = head\n//   recordLastKnownStructure(map, this)\n   }\n\n   override fun hasNext(): Boolean {\n   return next !== null\n   }\n\n   override fun next(): MutableEntry<K, V> {\n//   checkStructuralChange(map, this)\n   if (!hasNext()) throw NoSuchElementException()\n\n   val

current = next!!\n last = current\n next = current.next.takeIf { it !== head }\n return
current\n }\n\n override fun remove() {\n check(last != null)\n
this@EntrySet.checkIsMutable()\n// checkStructuralChange(map, this)\n\n last!!.remove()\n
map.remove(last!!.key)\n// recordLastKnownStructure(map, this)\n last = null\n }\n
}\n\n override fun add(element: MutableEntry<K, V>): Boolean = throw
UnsupportedOperationException(\"Add is not supported on entries\")\n override fun clear() {\n
this@LinkedHashMap.clear()\n }\n\n override fun containsEntry(element: Map.Entry<K, V>): Boolean =
this@LinkedHashMap.containsEntry(element)\n\n override operator fun iterator():
MutableIterator<MutableEntry<K, V>> = EntryIterator()\n\n override fun removeEntry(element: Map.Entry<K,
V>): Boolean {\n checkIsMutable()\n if (contains(element)) {\n
this@LinkedHashMap.remove(element.key)\n return true\n }\n return false\n }\n\n
override val size: Int get() = this@LinkedHashMap.size\n\n override fun checkIsMutable(): Unit =
this@LinkedHashMap.checkIsMutable()\n }\n\n\n /*\n * The head of the insert order chain, which is a doubly-linked circular\n * list.\n *\n * The
most recently inserted node is at the end of the chain, ie.\n * chain.prev.\n */\n private var head: ChainEntry<K,
V>? = null\n\n /**\n * Add this node to the end of the chain.\n */\n private fun ChainEntry<K,
V>.addToEnd() {\n // This entry is not in the list.\n check(next == null && prev == null)\n\n val _head
= head\n if (_head == null) {\n head = this\n next = this\n prev = this\n } else {\n
// Chain is valid.\n val _tail = checkNotNull(_head.prev)\n // Update me.\n prev = _tail\n
next = _head\n // Update my new siblings: current head and old tail\n _head.prev = this\n
_tail.next = this\n }\n }\n\n /**\n * Remove this node from the chain it is a part of.\n */\n private fun
ChainEntry<K, V>.remove() {\n if (this.next === this) {\n // if this is single element, remove
head\n head = null\n } else {\n if (head === this) {\n // if this is first element, move head
to next\n head = next\n }\n next!!.prev = prev\n prev!!.next = next\n }\n next
= null\n prev = null\n }\n\n /*\n * The hashmap that keeps track of our entries and the chain. Note that
we\n * duplicate the key here to eliminate changes to HashMap and minimize the\n * code here, at the expense of
additional space.\n */\n private val map: HashMap<K, ChainEntry<K, V>>\n\n private var isReadOnly:
Boolean = false\n\n /**\n * Constructs an empty [LinkedHashMap] instance.\n */\n actual constructor() :
super() {\n map = HashMap<K, ChainEntry<K, V>>()\n }\n\n internal constructor(backingMap:
HashMap<K, Any>) : super() {\n @Suppress(\"UNCHECKED_CAST\") // expected to work due to erasure\n
map = backingMap as HashMap<K, ChainEntry<K,
V>>\n }\n\n /**\n * Constructs an empty [LinkedHashMap] instance.\n *\n * @param initialCapacity
the initial capacity (ignored)\n * @param loadFactor the load factor (ignored)\n *\n * @throws
IllegalArgumentException if the initial capacity or load factor are negative\n */\n actual
constructor(initialCapacity: Int, loadFactor: Float) : super(initialCapacity, loadFactor) {\n map = HashMap<K,
ChainEntry<K, V>>()\n }\n\n actual constructor(initialCapacity: Int) : this(initialCapacity, 0.0f)\n\n /**\n *
Constructs an instance of [LinkedHashMap] filled with the contents of the specified [original] map.\n */\n actual
constructor(original: Map<out K, V>) {\n map = HashMap<K, ChainEntry<K, V>>()\n
this.putAll(original)\n }\n\n @PublishedApi\n internal fun build(): Map<K, V> {\n checkIsMutable()\n
isReadOnly = true\n return this\n }\n\n actual override fun clear() {\n
checkIsMutable()\n map.clear()\n head = null\n }\n\n\n// override fun clone(): Any {\n// return
LinkedHashMap(this)\n// }\n\n\n actual override fun containsKey(key: K): Boolean = map.containsKey(key)\n\n
actual override fun containsValue(value: V): Boolean {\n var node: ChainEntry<K, V> = head ?: return false\n
do {\n if (node.value == value) {\n return true\n }\n node = node.next!!\n }
while (node !== head)\n return false\n }\n\n\n internal override fun createEntrySet():
MutableSet<MutableMap.MutableEntry<K, V>> = EntrySet()\n\n actual override operator fun get(key: K): V? =
map.get(key)?.value\n\n actual override fun put(key: K, value: V): V? {\n checkIsMutable()\n\n val old =
map.get(key)\n if (old == null) {\n val newEntry = ChainEntry(key, value)\n map.put(key,

newEntry)\n   newEntry.addToEnd()\n
 return null\n   } else {\n   return old.setValue(value)\n   }\n   }\n\n   actual override fun remove(key: K): V? {\n   checkIsMutable()\n\n   val entry = map.remove(key)\n   if (entry != null) {\n entry.remove()\n   return entry.value\n   }\n   return null\n   }\n\n   actual override val size: Int get() = map.size\n\n   internal override fun checkIsMutable() {\n   if (isReadOnly) throw UnsupportedOperationException()\n   }\n}\n\n/**\n * Constructs the specialized implementation of [LinkedHashMap] with [String] keys, which stores the keys as properties of\n * JS object without hashing them.\n */\npublic fun <V> linkedStringMapOf(vararg pairs: Pair<String, V>): LinkedHashMap<String, V> {\n   return LinkedHashMap<String, V>(stringMapOf<Any>()).apply { putAll(pairs) }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache
 2.0 license that can be found in the license/LICENSE.txt file.\n */\n/*\n * Based on GWT LinkedHashSet\n * Copyright 2008 Google Inc.\n */\n\npackage kotlin.collections\n\n/**\n * The implementation of the [MutableSet] interface, backed by a [LinkedHashMap] instance.\n *\n * This implementation preserves the insertion order of elements during the iteration.\n */\npublic actual open class LinkedHashSet<E> : HashSet<E>, MutableSet<E> {\n\n   internal constructor(map: LinkedHashMap<E, Any>) : super(map)\n\n   /**\n   * Constructs a new empty [LinkedHashSet].\n   */\n   actual constructor() : super(LinkedHashMap<E, Any>())\n\n   /**\n   * Constructs a new [LinkedHashSet] filled with the elements of the specified collection.\n   */\n   actual constructor(elements: Collection<E>) : super(LinkedHashMap<E, Any>()) {\n   addAll(elements)\n   }\n\n   /**\n   * Constructs a new empty [LinkedHashSet].\n   *\n   * @param initialCapacity the initial capacity (ignored)\n
     * @param loadFactor   the load factor (ignored)\n   *\n   * @throws IllegalArgumentException if the initial capacity or load factor are negative\n   */\n   actual constructor(initialCapacity: Int, loadFactor: Float) : super(LinkedHashMap<E, Any>(initialCapacity, loadFactor))\n\n   actual constructor(initialCapacity: Int) : this(initialCapacity, 0.0f)\n\n   @PublishedApi\n   internal fun build(): Set<E> {\n   (map as LinkedHashMap<E, Any>).build()\n   return this\n   }\n\n   internal override fun checkIsMutable(): Unit = map.checkIsMutable()\n\n//   public override fun clone(): Any {\n//   return LinkedHashSet(this)\n//   }\n\n}\n\n/**\n * Creates a new instance of the specialized implementation of [LinkedHashSet] with the specified [String] elements,\n * which elements the keys as properties of JS object without hashing them.\n */\npublic fun linkedStringSetOf(vararg elements: String): LinkedHashSet<String> {\n   return LinkedHashSet(linkedStringMapOf<Any>()).apply
 { addAll(elements) }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.contracts.*\n\n\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@Deprecated(\"Synchronization on any object is not supported in Kotlin/JS\", ReplaceWith(\"run(block)\"))\n@kotlin.internal.InlineOnly\n@Suppress(\"UNUSED_PARAMETER\")\npublic inline fun <R> synchronized(lock: Any, block: () -> R): R {\n   contract {\n   callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n   return block()\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.io\n\ninternal abstract class BaseOutput {\n open fun println() {\n
        print(\"\\n\")\n   }\n\n   open fun println(message: Any?) {\n   print(message)\n   println()\n   }\n\n abstract fun print(message: Any?)\n\n   open fun flush() {}\n}\n\n/** JsName used to make the declaration available outside of module to test it */\n@JsName(\"NodeJsOutput\")\ninternal class NodeJsOutput(val outputStream: dynamic) : BaseOutput() {\n   override fun print(message: Any?) {\n   // TODO: Using local variable because of bug in block decomposition lowering in IR backend\n   val messageString = String(message)\n   outputStream.write(messageString)\n   }\n}\n\n/** JsName used to make the declaration available outside of module to test it */\n@JsName(\"OutputToConsoleLog\")\ninternal class OutputToConsoleLog

: BaseOutput() {\n   override fun print(message: Any?) {\n   console.log(message)\n   }\n\n   override fun println(message: Any?) {\n   console.log(message)\n   }\n\n   override fun println() {\n   console.log(\"\")\n   }\n}\n\n/** JsName used to make the declaration available outside of module to test it and use at try.kotl.in */\n@JsName(\"BufferedOutput\")\ninternal open class BufferedOutput : BaseOutput() {\n   var buffer = \"\"\n\n   override fun print(message: Any?) {\n   buffer += String(message)\n   }\n\n   override fun flush() {\n   buffer = \"\"\n   }\n}\n\n/** JsName used to make the declaration available outside of module to test it */\n@JsName(\"BufferedOutputToConsoleLog\")\ninternal class BufferedOutputToConsoleLog : BufferedOutput() {\n   override fun print(message: Any?) {\n   var s = String(message)\n   val i = s.nativeLastIndexOf(\"\\n\", 0)\n   if (i >= 0) {\n   buffer += s.substring(0, i)\n   flush()\n   s = s.substring(i + 1)\n   }\n   buffer += s\n   }\n\n   override fun flush() {\n   console.log(buffer)\n   buffer = \"\"\n   }\n}\n\n/** JsName used to make the declaration available outside

of module to test it and use at try.kotl.in */\n@JsName(\"output\")\ninternal var output = run {\n   val isNode: Boolean = js(\"typeof process !== 'undefined' && process.versions && !!process.versions.node\")\n   if (isNode) NodeJsOutput(js(\"process.stdout\")) else BufferedOutputToConsoleLog()\n}\n\n@kotlin.internal.InlineOnly\nprivate inline fun String(value: Any?): String = js(\"String\")(value)\n\n/** Prints the line separator to the standard output stream. */\npublic actual fun println() {\n   output.println()\n}\n\n/** Prints the given [message] and the line separator to the standard output stream. */\npublic actual fun println(message: Any?) {\n   output.println(message)\n}\n\n/** Prints the given [message] to the standard output stream. */\npublic actual fun print(message: Any?) {\n   output.print(message)\n}\n\n@SinceKotlin(\"1.6\")\npublic actual fun readln(): String = throw UnsupportedOperationException(\"readln is not supported in Kotlin/JS\")\n\n@SinceKotlin(\"1.6\")\npublic

actual fun readlnOrNull(): String? = throw UnsupportedOperationException(\"readlnOrNull is not supported in Kotlin/JS\")","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\nimport kotlin.coroutines.intrinsics.CoroutineSingletons.*\nimport kotlin.coroutines.intrinsics.COROUTINE_SUSPENDED\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal actual class SafeContinuation<in T>\ninternal actual constructor(\n   private val delegate: Continuation<T>,\n   initialResult: Any?\n) : Continuation<T> {\n   @PublishedApi\n   internal actual constructor(delegate: Continuation<T>) : this(delegate, UNDECIDED)\n\n   public actual override val context: CoroutineContext\n   get() = delegate.context\n\n   private var result: Any? = initialResult\n\n   public actual override fun resumeWith(result:

Result<T>) {\n   val cur = this.result\n   when {\n   cur === UNDECIDED -> {\n   this.result = result.value\n   }\n   cur === COROUTINE_SUSPENDED -> {\n   this.result = RESUMED\n   delegate.resumeWith(result)\n   }\n   else -> throw IllegalStateException(\"Already resumed\")\n   }\n   }\n\n   @PublishedApi\n   internal actual fun getOrThrow(): Any? {\n   if (result === UNDECIDED) {\n   result = COROUTINE_SUSPENDED\n   return COROUTINE_SUSPENDED\n   }\n   val result = this.result\n   return when {\n   result === RESUMED -> COROUTINE_SUSPENDED // already called continuation, indicate COROUTINE_SUSPENDED upstream\n   result is Result.Failure -> throw result.exception\n   else -> result // either COROUTINE_SUSPENDED or data\n   }\n   }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language

contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines.cancellation\n\n\n@SinceKotlin(\"1.4\")\npublic actual open class CancellationException : IllegalStateException {\n   actual constructor() : super()\n   actual constructor(message: String?) : super(message)\n   constructor(message: String?, cause: Throwable?) : super(message, cause)\n   constructor(cause: Throwable?) : super(cause)\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines.js.internal\n\nimport kotlin.coroutines.Continuation\nimport

kotlin.coroutines.EmptyCoroutineContext\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal val EmptyContinuation = Continuation<Any?>(EmptyCoroutineContext) { result ->\n   result.getOrThrow()\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n * Exposes the [Date API](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Date) to Kotlin.\n */\n@Suppress(\"NOT_DOCUMENTED\")\npublic external class Date() {\n   public constructor(milliseconds: Number)\n\n   public constructor(dateString: String)\n\n   public constructor(year: Int, month: Int)\n\n   public constructor(year: Int, month: Int, day: Int)\n\n   public constructor(year: Int, month: Int, day: Int, hour: Int)\n\n   public constructor(year: Int, month: Int, day: Int, hour: Int, minute: Int)\n\n   public constructor(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int)\n\n   public constructor(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int, millisecond: Number)\n\n   public fun getDate(): Int\n\n   public fun getDay(): Int\n\n   public fun getFullYear(): Int\n\n   public fun getHours(): Int\n\n   public fun getMilliseconds(): Int\n\n   public fun getMinutes(): Int\n\n   public fun getMonth(): Int\n\n   public fun getSeconds(): Int\n\n   public fun getTime(): Double\n\n   public fun getTimezoneOffset(): Int\n\n   public fun getUTCDate(): Int\n\n   public fun getUTCDay(): Int\n\n   public fun getUTCFullYear(): Int\n\n   public fun getUTCHours(): Int\n\n   public fun getUTCMilliseconds(): Int\n\n   public fun getUTCMinutes(): Int\n\n   public fun getUTCMonth(): Int\n\n   public fun getUTCSeconds(): Int\n\n   public fun toDateString(): String\n\n   public fun toISOString(): String\n\n   public fun toJSON(): Json\n\n   public fun toLocaleDateString(locales: Array<String> = definedExternally, options: LocaleOptions = definedExternally): String\n\n   public fun toLocaleDateString(locales: String, options: LocaleOptions = definedExternally): String\n\n   public fun toLocaleString(locales: Array<String> = definedExternally, options: LocaleOptions = definedExternally): String\n\n   public fun toLocaleString(locales: String, options: LocaleOptions = definedExternally): String\n\n   public fun toLocaleTimeString(locales: Array<String> = definedExternally, options: LocaleOptions = definedExternally): String\n\n   public fun toLocaleTimeString(locales: String, options: LocaleOptions = definedExternally): String\n\n   public fun toTimeString(): String\n\n   public fun toUTCString(): String\n\n   public companion object {\n   public fun now(): Double\n\n   public fun parse(dateString: String): Double\n\n   public fun UTC(year: Int, month: Int): Double\n\n   public fun UTC(year: Int, month: Int, day: Int): Double\n\n   public fun UTC(year: Int, month: Int, day: Int, hour: Int): Double\n\n   public fun UTC(year: Int, month: Int, day: Int, hour: Int, minute: Int): Double\n\n   public fun UTC(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int): Double\n\n   public fun UTC(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int, millisecond: Number): Double\n   }\n\n   public interface LocaleOptions {\n   public var localeMatcher: String?\n\n   public var timeZone: String?\n\n   public var hour12: Boolean?\n\n   public var formatMatcher: String?\n\n   public var weekday: String?\n\n   public var era: String?\n\n   public var year: String?\n\n   public var month: String?\n\n   public var day: String?\n\n   public var hour: String?\n\n   public var minute: String?\n\n   public var second: String?\n\n   public var timeZoneName: String?\n   }\n}\n\npublic inline fun dateLocaleOptions(init: Date.LocaleOptions.() -> Unit): Date.LocaleOptions {\n   val result = js(\"new Object()\").unsafeCast<Date.LocaleOptions>()\n   init(result)\n   return result\n}","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.dom\n\nimport org.w3c.dom.Document\nimport org.w3c.dom.Element\nimport kotlin.internal.LowPriorityInOverloadResolution\nimport kotlinx.dom.appendElement as newAppendElement\nimport kotlinx.dom.createElement as newCreateElement\n\n/**\n * Creates a new element with the specified [name].\n *\n * The element is initialized with the specified [init] function.\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to another package, use 'kotlinx.dom.createElement' instead.\",\n   replaceWith = ReplaceWith(\"this.createElement(name, init)\", \"kotlinx.dom.createElement\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic

inline fun Document.createElement(name: String, noinline init: Element.() -> Unit): Element = this.newCreateElement(name, init)\n\n/**\n * Appends a newly created element with the specified [name] to this element.\n *\n * The element is initialized with the specified [init] function.\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to another package, use 'kotlinx.dom.appendElement' instead.\",\n   replaceWith = ReplaceWith(\"this.appendElement(name, init)\", \"kotlinx.dom.appendElement\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic inline fun Element.appendElement(name: String, noinline init: Element.() -> Unit): Element = this.newAppendElement(name, init)\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.dom\n\nimport org.w3c.dom.Element\nimport kotlin.internal.LowPriorityInOverloadResolution\nimport kotlinx.dom.addClass as newAddClass\nimport kotlinx.dom.hasClass as newHasClass\nimport kotlinx.dom.removeClass as newRemoveClass\n\n/** Returns true if the element has the given CSS class style in its 'class' attribute */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to another package, use 'kotlinx.dom.hasClass' instead.\",\n   replaceWith = ReplaceWith(\"this.hasClass(cssClass)\", \"kotlinx.dom.hasClass\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\ninline fun Element.hasClass(cssClass: String): Boolean = this.newHasClass(cssClass)\n\n/**\n * Adds CSS class to element. Has no effect if all specified classes are already in class attribute of the element\n *\n * @return true if at least one class has been added\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to another package, use 'kotlinx.dom.addClass' instead.\",\n   replaceWith = ReplaceWith(\"this.addClass(cssClasses)\", \"kotlinx.dom.addClass\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\ninline fun Element.addClass(vararg cssClasses: String): Boolean = this.newAddClass(*cssClasses)\n\n/**\n * Removes all [cssClasses] from element. Has no effect if all specified classes are missing in class attribute of the element\n *\n * @return true if at least one class has been removed\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to another package, use 'kotlinx.dom.removeClass' instead.\",\n   replaceWith = ReplaceWith(\"this.removeClass(cssClasses)\", \"kotlinx.dom.removeClass\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\ninline fun Element.removeClass(vararg cssClasses: String): Boolean = this.newRemoveClass(*cssClasses)","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.dom\n\nimport org.w3c.dom.Element\nimport org.w3c.dom.Node\nimport kotlin.internal.LowPriorityInOverloadResolution\nimport kotlinx.dom.isElement as newIsElement\nimport kotlinx.dom.isText as newIsText\n\n/**\n * Gets a value indicating whether this node is a TEXT_NODE or a CDATA_SECTION_NODE.\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to another package, use 'kotlinx.dom.isText' instead.\",\n   replaceWith = ReplaceWith(\"this.isText\", \"kotlinx.dom.isText\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic val Node.isText: Boolean\n   inline get() = this.newIsText\n\n/**\n * Gets a value indicating whether this node is an [Element].\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to another package, use 'kotlinx.dom.isElement' instead.\",\n   replaceWith = ReplaceWith(\"this.isElement\", \"kotlinx.dom.isElement\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic val Node.isElement: Boolean\n   inline get() = this.newIsElement\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage org.w3c.dom.events\n\npublic fun EventListener(handler: (Event) -> Unit): EventListener = EventListenerHandler(handler)\n\nprivate class EventListenerHandler(private val handler: (Event) -> Unit) : EventListener {\n   public override fun handleEvent(event: Event) {\n   handler(event)\n   }\n\n   public override fun toString(): String = \"EventListenerHandler($handler)\"\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0

license that can be found in the license/LICENSE.txt file.\n */\n\npackage org.w3c.dom\n\npublic external
interface ItemArrayLike<out T> {\n   val length: Int\n   fun item(index: Int): T?\n}\n\n/**\n * Returns the view of
this `ItemArrayLike<T>` collection as `List<T>`\n */\npublic fun <T> ItemArrayLike<T>.asList(): List<T> =
object : AbstractList<T>() {\n   override val size: Int get() = this@asList.length\n\n   override fun get(index: Int): T
= when (index) {\n   in 0..lastIndex -> this@asList.item(index).unsafeCast<T>()\n   else -> throw
IndexOutOfBoundsException(\"index $index is not in range [0..$lastIndex]\")\n   }\n}","/*\n * Copyright 2010-
2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.dom\n\nimport
org.w3c.dom.Element\nimport org.w3c.dom.Node\nimport
kotlin.internal.LowPriorityInOverloadResolution\nimport kotlinx.dom.appendText as newAppendText\nimport
kotlinx.dom.clear as newClear\n\n/** Removes all the children
from this node. */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to
another package, use 'kotlinx.dom.clear' instead.\",\n   replaceWith = ReplaceWith(\"this.clear()\",
\"kotlinx.dom.clear\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic inline fun
Node.clear() = this.newClear()\n\n/**\n * Creates text node and append it to the element.\n *\n * @return this
element\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to another
package, use 'kotlinx.dom.appendText' instead.\",\n   replaceWith = ReplaceWith(\"this.appendText(text)\",
\"kotlinx.dom.appendText\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\ninline fun
Element.appendText(text: String): Element = this.newAppendText(text)\n","/*\n * Copyright 2010-2018 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that
can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n * Reinterprets this value as a value
of the [dynamic type](/docs/reference/dynamic-type.html).\n */\n@kotlin.internal.InlineOnly\npublic inline fun
Any?.asDynamic(): dynamic = this\n\n/**\n * Reinterprets this value as a value of the specified type [T] without any
actual type checking.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Any?.unsafeCast():
@kotlin.internal.NoInfer T = this.asDynamic()\n\n/**\n * Reinterprets this `dynamic` value as a value of the
specified type [T] without any actual type checking.\n
*/\n@kotlin.internal.DynamicExtension\n@JsName(\"unsafeCastDynamic\")\n@kotlin.internal.InlineOnly\npublic
inline fun <T> dynamic.unsafeCast(): @kotlin.internal.NoInfer T = this\n\n/**\n * Allows to iterate this `dynamic`
object in the following cases:\n * - when it has an `iterator` function,\n * - when it is an array\n * - when it is an
instance of [kotlin.collections.Iterable]\n */\n@kotlin.internal.DynamicExtension\npublic
operator fun dynamic.iterator(): Iterator<dynamic> {\n   val r: Any? = this\n\n   return when {\n
this[\"iterator\"] != null ->\n   this[\"iterator\"]()\n   isArrayish(r) ->\n
r.unsafeCast<Array<*>>().iterator()\n\n   else ->\n   (r as Iterable<*>).iterator()\n   }\n}\n","/*\n *
Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is
governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// a package is
omitted to get declarations directly under the module\n\n@JsName(\"throwNPE\")\ninternal fun
throwNPE(message: String) {\n   throw NullPointerException(message)\n}\n\n@JsName(\"throwCCE\")\ninternal
fun throwCCE() {\n   throw ClassCastException(\"Illegal cast\")\n}\n\n@JsName(\"throwISE\")\ninternal fun
throwISE(message: String) {\n   throw IllegalStateException(message)\n}\n\n@JsName(\"throwUPAE\")\ninternal
fun throwUPAE(propertyName: String) {\n   throw UninitializedPropertyAccessException(\"lateinit property
${propertyName} has not been initialized\")\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\npackage kotlin.collections\n\n/**\n * Groups elements from the
[Grouping] source by key and counts elements in each group.\n *\n * @return a [Map] associating the key of each
group with the count of elements in the group.\n *\n * @sample
samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin(\"1.1\")\npublic actual fun <T, K>
Grouping<T, K>.eachCount(): Map<K, Int> =\n   fold(0) { acc, _ -> acc + 1 }\n\n/*\n/**\n * Groups elements from

the [Grouping] source by key and sums values provided by the [valueSelector] function for elements in each group.\n *\n * @return a [Map] associating the key of each
group with the count of element in the group.\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K> Grouping<T, K>.eachSumOf(valueSelector: (T) -> Int): Map<K, Int> =\n   fold(0) { acc, e -> acc + valueSelector(e) }\n*/","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"GroupingKt\")\n@file:kotlin.jvm.JvmMultifileClass\n\npackage kotlin.collections\n\n/**\n * Represents a source of elements with a [keyOf] function, which can be applied to each element to get its key.\n *\n * A [Grouping] structure serves as an intermediate step in group-and-fold operations:\n * they group elements by their keys and then fold each group with some aggregating operation.\n *\n * It is created by attaching `keySelector: (T) -> K` function to a source of elements.\n * To get an instance of [Grouping] use one of `groupingBy`
extension functions:\n * - [Iterable.groupingBy]\n * - [Sequence.groupingBy]\n * - [Array.groupingBy]\n * - [CharSequence.groupingBy]\n *\n * For the list of group-and-fold operations available, see the [extension functions](#extension-functions) for `Grouping`.\n */\n@SinceKotlin(\"1.1\")\npublic interface Grouping<T, out K> {\n   /** Returns an [Iterator] over the elements of the source of this grouping. */\n   fun sourceIterator(): Iterator<T>\n   /** Extracts the key of an [element]. */\n   fun keyOf(element: T): K\n}\n\n/**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current element as arguments, and stores the results in a new map.\n *\n * The key for each element is provided by the [Grouping.keyOf] function.\n *\n * @param operation function is invoked on each element with the following parameters:\n * - `key`: the key of the group this
element belongs to;\n * - `accumulator`: the current value of the accumulator of the group, can be `null` if it's the first `element` encountered in the group;\n * - `element`: the element from the source being aggregated;\n * - `first`: indicates whether it's the first `element` encountered in the group.\n *\n * @return a [Map] associating the key of each group with the result of aggregation of the group elements.\n * @sample samples.collections.Grouping.aggregateByRadix\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, R> Grouping<T, K>.aggregate(\n   operation: (key: K, accumulator: R?, element: T, first: Boolean) -> R\n): Map<K, R> {\n   return aggregateTo(mutableMapOf<K, R>(), operation)\n}\n\n/**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current element as arguments,\n * and stores the results in the given [destination] map.\n *\n * The
key for each element is provided by the [Grouping.keyOf] function.\n *\n * @param operation a function that is invoked on each element with the following parameters:\n * - `key`: the key of the group this element belongs to;\n * - `accumulator`: the current value of the accumulator of the group, can be `null` if it's the first `element` encountered in the group;\n * - `element`: the element from the source being aggregated;\n * - `first`: indicates whether it's the first `element` encountered in the group.\n *\n * If the [destination] map already has a value corresponding to some key,\n * then the elements being aggregated for that key are never considered as `first`.\n *\n * @return the [destination] map associating the key of each group with the result of aggregation of the group elements.\n * @sample samples.collections.Grouping.aggregateByRadixTo\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, R, M : MutableMap<in K, R>> Grouping<T, K>.aggregateTo(\n   destination: M,\n   operation: (key: K, accumulator: R?, element: T, first: Boolean) -> R\n): M {\n   for (e in this.sourceIterator()) {\n   val key = keyOf(e)\n   val accumulator = destination[key]\n   destination[key] = operation(key, accumulator, e, accumulator == null && !destination.containsKey(key))\n   }\n   return destination\n}\n\n/**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current element as arguments, and stores the results in a new map.\n * An initial value of accumulator is provided by [initialValueSelector] function.\n *\n * @param initialValueSelector a function that provides an initial value of accumulator for each group.\n * It's invoked with parameters:\n * - `key`: the key of the group;\n * - `element`: the first element being encountered in

that group.\n *\n * @param operation a function that is invoked on each element with the following parameters:\n * - `key`: the key of the group this element belongs to;\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being accumulated.\n *\n * @return a [Map] associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.foldByEvenLengthWithComputedInitialValue\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, R> Grouping<T, K>.fold(\n   initialValueSelector: (key: K, element: T) -> R,\n   operation: (key: K, accumulator: R, element: T) -> R\n): Map<K, R> =\n   @Suppress(\"UNCHECKED_CAST\")\n   aggregate { key, acc, e, first -> operation(key, if (first) initialValueSelector(key, e) else acc as R, e) }\n\n/**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current element as arguments,\n * and stores the results in the given [destination] map.\n * An initial value of accumulator is provided by [initialValueSelector] function.\n *\n * @param initialValueSelector a function that provides an initial value of accumulator for each group.\n * It's invoked with parameters:\n * - `key`: the key of the group;\n * - `element`: the first element being encountered in that group.\n *\n * If the [destination] map already has a value corresponding to some key, that value is used as an initial value of\n * the accumulator for that group and the [initialValueSelector] function is not called for that group.\n *\n * @param operation a function that is invoked on each element with the following parameters:\n * - `key`: the key of the group this element belongs to;\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being accumulated.\n *\n * @return the [destination] map associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.foldByEvenLengthWithComputedInitialValueTo\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, R, M : MutableMap<in K, R>> Grouping<T, K>.foldTo(\n   destination: M,\n   initialValueSelector: (key: K, element: T) -> R,\n   operation: (key: K, accumulator: R, element: T) -> R\n): M =\n   @Suppress(\"UNCHECKED_CAST\")\n   aggregateTo(destination) { key, acc, e, first -> operation(key, if (first) initialValueSelector(key, e) else acc as R, e) }\n\n\n/**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current element as arguments, and stores the results in a new map.\n * An initial value of accumulator is the same [initialValue] for each group.\n *\n * @param operation a function that is invoked on each element with the following parameters:\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being accumulated.\n *\n * @return a [Map] associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.foldByEvenLengthWithConstantInitialValue\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, R> Grouping<T, K>.fold(\n   initialValue: R,\n   operation: (accumulator: R, element: T) -> R\n): Map<K, R> =\n   @Suppress(\"UNCHECKED_CAST\")\n   aggregate { _, acc, e, first -> operation(if (first) initialValue else acc as R, e) }\n\n/**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current element as arguments,\n * and stores the results in the given [destination] map.\n * An initial value of accumulator is the same [initialValue] for each group.\n *\n * If the [destination] map already has a value corresponding to the key of some group,\n * that value is used as an initial value of the accumulator for that group.\n *\n * @param operation a function that is invoked on each element with the following parameters:\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being accumulated.\n *\n * @return the [destination] map associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.foldByEvenLengthWithConstantInitialValueTo\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, R, M : MutableMap<in K, R>> Grouping<T, K>.foldTo(\n   destination: M,\n   initialValue: R,\n   operation: (accumulator: R, element: T) -> R\n): M =\n   @Suppress(\"UNCHECKED_CAST\")\n   aggregateTo(destination) { _, acc, e, first -> operation(if (first) initialValue else acc as R, e) }\n\n\n/**\n * Groups elements from the [Grouping] source by key and applies the reducing [operation] to the elements of each group\n * sequentially starting from the second element of the group,\n * passing the previously accumulated value and the current element as arguments,\n * and stores the results in a new map.\n * An initial value of accumulator is the first element of the group.\n *\n * @param operation a function that is invoked on each subsequent element of the group with the following parameters:\n * - `key`: the key of the group this element belongs to;\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being accumulated.\n *\n * @return a [Map] associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.reduceByMaxVowels\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <S, T : S, K> Grouping<T, K>.reduce(\n   operation: (key: K, accumulator: S, element: T) -> S\n): Map<K, S> =\n   aggregate { key, acc, e, first ->\n   @Suppress(\"UNCHECKED_CAST\")\n if (first) e else operation(key, acc as S, e)\n   }\n\n/**\n * Groups elements from the [Grouping] source by key and applies the reducing [operation] to the elements of each group\n * sequentially starting from the second element of the group,\n * passing the previously accumulated value and the current element as arguments,\n * and stores the results in the given [destination] map.\n * An initial value of accumulator is the first element of the group.\n *\n * If the [destination] map already has a value corresponding to the key of some group,\n * that value is used as an initial value of the accumulator for that group and the first element of that group is also\n * subjected to the [operation].\n\n * @param operation a function that is invoked on each subsequent element of the group with the following parameters:\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being folded;\n *\n * @return the [destination] map associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.reduceByMaxVowelsTo\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <S, T : S, K, M : MutableMap<in K, S>> Grouping<T, K>.reduceTo(\n   destination: M,\n   operation: (key: K, accumulator: S, element: T) -> S\n): M =\n   aggregateTo(destination) { key, acc, e, first ->\n @Suppress(\"UNCHECKED_CAST\")\n   if (first) e else operation(key, acc as S, e)\n   }\n\n\n/**\n * Groups elements from the [Grouping] source by key and counts elements in each group to the given [destination] map.\n *\n * If the [destination] map already has a value corresponding to the key of some group,\n * that value is used as an initial value of the counter for that group.\n *\n * @return the [destination] map associating the key of each group with the count of elements in the group.\n *\n * @sample samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin(\"1.1\")\npublic fun <T, K, M : MutableMap<in K, Int>> Grouping<T, K>.eachCountTo(destination: M): M =\n foldTo(destination, 0) { acc, _ -> acc + 1 }\n\n/*\n/**\n * Groups elements from the [Grouping] source by key and sums values provided by the [valueSelector] function for elements in each group\n * to the given [destination] map.\n *\n *\n * If the [destination] map already has a value corresponding to the key of some group,\n * that value is used as an initial value of the sum for that group.\n *\n * @return the [destination] map associating the key of each group with the sum of elements in the group.\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, M : MutableMap<in K, Int>> Grouping<T, K>.eachSumOfTo(destination: M, valueSelector: (T) -> Int): M =\n foldTo(destination, 0) { acc, e -> acc + valueSelector(e)}\n*/\n\n\n/*\n// TODO: sum by long and by double overloads\n\npublic inline fun <T, K, M : MutableMap<in K, Long>> Grouping<T, K>.sumEachByLongTo(destination: M, valueSelector: (T) -> Long): M =\n   foldTo(destination, 0L) { acc, e -> acc + valueSelector(e)}\n\npublic inline fun <T, K> Grouping<T, K>.sumEachByLong(valueSelector: (T) -> Long): Map<K, Long> =\n   fold(0L) { acc, e -> acc + valueSelector(e)}\n\npublic inline fun <T, K, M : MutableMap<in K, Double>> Grouping<T, K>.sumEachByDoubleTo(destination: M, valueSelector: (T) -> Double): M =\n   foldTo(destination, 0.0) { acc, e -> acc + valueSelector(e)}\n\npublic inline fun <T, K> Grouping<T, K>.sumEachByDouble(valueSelector: (T) -> Double): Map<K, Double> =\n   fold(0.0) { acc, e -> acc + valueSelector(e)}\n*/\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n * An interface for indexing access to a collection of key-value pairs, where type of key is [String] and type of value is [Any?][Any].\n

*/\npublic external interface Json {\n   /**\n   * Calls to the function will be translated to indexing operation (square brackets) on the receiver with [propertyName] as the argument.\n   *\n   * E.g. for next code:\n   * ```kotlin\n   * fun test(j: Json, p: String) = j[\"prop\"] + j.get(p)\n   * ```\n   *\n   * will be generated:\n   * ```js\n   * function test(j, p) {\n   *   return j[\"prop\"] + j[p];\n   * }\n   * ```\n   */\n   operator fun get(propertyName: String): Any?\n\n   /**\n   * Calls of the function will be translated to an assignment of [value] to the receiver indexed (with square brackets/index operation) with [propertyName].\n   *\n   * E.g. for the following code:\n   * ```kotlin\n   * fun test(j: Json, p: String, newValue: Any) {\n   *   j[\"prop\"] = 1\n   *   j.set(p, newValue)\n   * }\n   * ```\n   *\n   * will be generated:\n   * ```js\n   * function test(j, p, newValue) {\n   *   j[\"prop\"] = 1;\n   *   j[p] = newValue;\n   * }\n   * }\n   * ```\n   */\n   operator fun set(propertyName: String, value: Any?): Unit\n}\n\n/**\n * Returns a simple JavaScript object (as [Json]) using provided key-value pairs as names and values of its properties.\n */\npublic fun json(vararg pairs: Pair<String, Any?>): Json {\n   val res: dynamic = js(\"({})\")\n   for ((name, value) in pairs) {\n   res[name] = value\n   }\n   return res\n}\n\n/**\n * Adds key-value pairs from [other] to [this].\n * Returns the original receiver.\n */\npublic fun Json.add(other: Json): Json {\n   val keys: Array<String> = js(\"Object\").keys(other)\n   for (key in keys) {\n   if (other.asDynamic().hasOwnProperty(key)) {\n   this[key] = other[key];\n   }\n   }\n   return this\n}\n\n/**\n * Exposes the JavaScript [JSON object](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/JSON) to Kotlin.\n */\n@Suppress(\"NOT_DOCUMENTED\")\npublic external object JSON {\n   public fun stringify(o: Any?): String\n   public fun stringify(o: Any?, replacer: ((key: String, value: Any?) -> Any?)): String\n   public fun stringify(o: Any?, replacer: ((key: String, value: Any?) -> Any?)? = definedExternally, space: Int): String\n   public fun stringify(o: Any?, replacer: ((key: String, value: Any?) -> Any?)? = definedExternally, space: String): String\n   public fun stringify(o: Any?, replacer: Array<String>): String\n   public fun stringify(o: Any?, replacer: Array<String>, space: Int): String\n   public fun stringify(o: Any?, replacer: Array<String>, space: String): String\n\n   public fun <T> parse(text: String): T\n   public fun <T> parse(text: String, reviver: ((key: String, value: Any?) -> Any?)): T\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.math\n\n\nimport kotlin.internal.InlineOnly\nimport kotlin.js.JsMath as nativeMath\n\n\n\n// region ================ Double Math ==\n\n/** Computes the sine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `sin(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sin(x: Double): Double = nativeMath.sin(x)\n\n/** Computes the cosine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `cos(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun cos(x: Double): Double = nativeMath.cos(x)\n\n/** Computes the tangent of the angle [x] given in radians.\n *\n * Special cases:\n *   - `tan(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun tan(x: Double): Double = nativeMath.tan(x)\n\n/**\n * Computes the arc sine of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `asin(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun asin(x: Double): Double = nativeMath.asin(x)\n\n/**\n * Computes the arc cosine of the value [x];\n * the returned value is an angle in the range from `0.0` to `PI` radians.\n *\n * Special cases:\n *   - `acos(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun acos(x: Double): Double = nativeMath.acos(x)\n\n/**\n * Computes the arc tangent of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `atan(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun atan(x: Double): Double = nativeMath.atan(x)\n\n/**\n * Returns the angle `theta` of the polar coordinates `(r, theta)` that correspond\n * to the rectangular coordinates `(x, y)` by computing the arc tangent

of the value [y] / [x];\n * the returned value is an angle in the range from `-PI` to `PI` radians.\n *\n * Special cases:\n *   - `atan2(0.0, 0.0)` is `0.0`\n *   - `atan2(0.0, x)` is `0.0` for `x > 0` and `PI` for `x < 0`\n *   - `atan2(-0.0, x)` is `-0.0` for 'x > 0` and `-PI` for `x < 0`\n *   - `atan2(y, +Inf)` is `0.0` for `0 < y < +Inf` and `-0.0` for '-Inf < y < 0`\n *   - `atan2(y, -Inf)` is `PI` for `0 < y < +Inf` and `-PI` for `-Inf < y < 0`\n *   - `atan2(y, 0.0)` is `PI/2` for `y > 0` and `-PI/2` for `y < 0`\n *   - `atan2(+Inf, x)` is `PI/2` for finite `x`y\n *   - `atan2(-Inf, x)` is `-PI/2` for finite `x`\n *   - `atan2(NaN, x)` and `atan2(y, NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun atan2(y: Double, x: Double): Double = nativeMath.atan2(y, x)\n\n/**\n * Computes the hyperbolic sine of the value [x].\n *\n * Special cases:\n *   - `sinh(NaN)` is `NaN`\n *   - `sinh(+Inf)` is `+Inf`\n *   - `sinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic

actual inline fun sinh(x: Double): Double = nativeMath.sinh(x)\n\n/**\n * Computes the hyperbolic cosine of the value [x].\n *\n * Special cases:\n *   - `cosh(NaN)` is `NaN`\n *   - `cosh(+Inf|-Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun cosh(x: Double): Double = nativeMath.cosh(x)\n\n/**\n * Computes the hyperbolic tangent of the value [x].\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(+Inf)` is `1.0`\n *   - `tanh(-Inf)` is `-1.0`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun tanh(x: Double): Double = nativeMath.tanh(x)\n\n/**\n * Computes the inverse hyperbolic sine of the value [x].\n *\n * The returned value is `y` such that `sinh(y) == x`.\n *\n * Special cases:\n *   - `asinh(NaN)` is `NaN`\n *   - `asinh(+Inf)` is `+Inf`\n *   - `asinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun asinh(x: Double): Double = nativeMath.asinh(x)\n\n/**\n

* Computes the inverse hyperbolic cosine of the value [x].\n *\n * The returned value is positive `y` such that `cosh(y) == x`.\n *\n * Special cases:\n *   - `acosh(NaN)` is `NaN`\n *   - `acosh(x)` is `NaN` when `x < 1`\n *   - `acosh(+Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun acosh(x: Double): Double = nativeMath.acosh(x)\n\n/**\n * Computes the inverse hyperbolic tangent of the value [x].\n *\n * The returned value is `y` such that `tanh(y) == x`.\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(x)` is `NaN` when `x > 1` or `x < -1`\n *   - `tanh(1.0)` is `+Inf`\n *   - `tanh(-1.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun atanh(x: Double): Double = nativeMath.atanh(x)\n\n/**\n * Computes `sqrt(x^2 + y^2)` without intermediate overflow or underflow.\n *\n * Special cases:\n *   - returns `+Inf` if any of arguments is infinite\n *   - returns `NaN` if any of arguments is `NaN` and the

other is not infinite\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun hypot(x: Double, y: Double): Double = nativeMath.hypot(x, y)\n\n/**\n * Computes the positive square root of the value [x].\n *\n * Special cases:\n *   - `sqrt(x)` is `NaN` when `x < 0` or `x` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sqrt(x: Double): Double = nativeMath.sqrt(x)\n\n/**\n * Computes Euler's number `e` raised to the power of the value [x].\n *\n * Special cases:\n *   - `exp(NaN)` is `NaN`\n *   - `exp(+Inf)` is `+Inf`\n *   - `exp(-Inf)` is `0.0`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun exp(x: Double): Double = nativeMath.exp(x)\n\n/**\n * Computes `exp(x) - 1`.\n *\n * This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `expm1(NaN)` is `NaN`\n *   - `expm1(+Inf)` is `+Inf`\n *   - `expm1(-Inf)` is `-1.0`\n *\n * @see [exp] function.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic

actual inline fun expm1(x: Double): Double = nativeMath.expm1(x)\n\n/**\n * Computes the logarithm of the value [x] to the given [base].\n *\n * Special cases:\n *   - `log(x, b)` is `NaN` if either `x` or `b` are `NaN`\n *   - `log(x, b)` is `NaN` when `x < 0` or `b <= 0` or `b == 1.0`\n *   - `log(+Inf, +Inf)` is `NaN`\n *   - `log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1`\n *   - `log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b > 1`\n *\n * See also logarithm functions for common fixed bases: [ln], [log10] and [log2].\n */\n@SinceKotlin(\"1.2\")\npublic actual fun log(x: Double, base: Double): Double {\n   if (base <= 0.0 || base == 1.0) return Double.NaN\n   return nativeMath.log(x) / nativeMath.log(base)\n}\n\n/**\n * Computes the natural logarithm (base `E`) of the value [x].\n *\n * Special cases:\n *   - `ln(NaN)` is `NaN`\n *   - `ln(x)` is `NaN` when `x < 0.0`\n *   - `ln(+Inf)` is `+Inf`\n *   - `ln(0.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun ln(x: Double): Double = nativeMath.log(x)\n\n/**\n * Computes the common logarithm (base 10) of the value [x].\n *\n * @see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun log10(x: Double): Double = nativeMath.log10(x)\n\n/**\n * Computes the binary logarithm (base 2) of the value [x].\n *\n * @see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun log2(x: Double): Double = nativeMath.log2(x)\n\n/**\n * Computes `ln(x + 1)`.\n *\n * This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `ln1p(NaN)` is `NaN`\n *   - `ln1p(x)` is `NaN` where `x < -1.0`\n *   - `ln1p(-1.0)` is `-Inf`\n *   - `ln1p(+Inf)` is `+Inf`\n *\n * @see [ln] function\n * @see [expm1] function\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun ln1p(x: Double): Double = nativeMath.log1p(x)\n\n/**\n

* Rounds the given value [x] to an integer towards positive infinity.\n\n * @return the smallest double value that is greater than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `ceil(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun ceil(x: Double): Double = nativeMath.ceil(x)\n\n/**\n * Rounds the given value [x] to an integer towards negative infinity.\n\n * @return the largest double value that is smaller than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `floor(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun floor(x: Double): Double = nativeMath.floor(x)\n\n/**\n * Rounds the given value [x] to an integer towards zero.\n *\n * @return the value [x] having its fractional part truncated.\n

*\n * Special cases:\n *   - `truncate(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun truncate(x: Double): Double = nativeMath.trunc(x)\n\n/**\n * Rounds the given value [x] towards the closest integer with ties rounded towards even integer.\n *\n * Special cases:\n *   - `round(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic actual fun round(x: Double): Double {\n   if (x % 0.5 != 0.0) {\n   return nativeMath.round(x)\n   }\n   val floor = floor(x)\n   return if (floor % 2 == 0.0) floor else ceil(x)\n}\n\n/**\n * Returns the absolute value of the given value [x].\n *\n * Special cases:\n *   - `abs(NaN)` is `NaN`\n *\n * @see absoluteValue extension property for [Double]\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun abs(x: Double): Double = nativeMath.abs(x)\n\n/**\n * Returns

the sign of the given value [x]:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `sign(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sign(x: Double): Double = nativeMath.sign(x)\n\n\n\n/**\n * Returns the smaller of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun min(a: Double, b: Double): Double = nativeMath.min(a, b)\n\n/**\n * Returns the greater of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun max(a: Double, b: Double): Double = nativeMath.max(a, b)\n\n// extensions\n\n/**\n * Raises this value to the power [x].\n *\n * Special cases:\n *   - `b.pow(0.0)` is `1.0`\n *   - `b.pow(1.0) == b`\n *   - `b.pow(NaN)` is `NaN`\n *   - `NaN.pow(x)` is `NaN` for `x != 0.0`\n *

- `b.pow(Inf)` is `NaN` for `abs(b) == 1.0`\n *   - `b.pow(x)` is `NaN` for `b < 0` and `x` is finite and not an integer\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Double.pow(x: Double): Double = nativeMath.pow(this, x)\n\n/**\n * Raises this value to the integer power [n].\n *\n * See the other overload of [pow] for details.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Double.pow(n: Int): Double = nativeMath.pow(this, n.toDouble())\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n *   - `NaN.absoluteValue` is `NaN`\n *\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline val Double.absoluteValue: Double get() = nativeMath.abs(this)\n\n/**\n * Returns the sign of this value:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `NaN.sign` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline val Double.sign: Double get() = nativeMath.sign(this)\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Double.withSign(sign: Int): Double = this.withSign(sign.toDouble())\n\n/**\n * Returns the ulp (unit in the last place) of this value.\n *\n * An ulp is a positive distance between this value and the next nearest [Double] value larger in magnitude.\n *\n * Special Cases:\n *   - `NaN.ulp` is `NaN`\n *   - `x.ulp` is `+Inf` when `x` is `+Inf` or `-Inf`\n *   - `0.0.ulp` is `Double.MIN_VALUE`\n */\n@SinceKotlin(\"1.2\")\npublic actual val Double.ulp: Double get() = when {\n   this < 0 -> (-this).ulp\n   this.isNaN() || this == Double.POSITIVE_INFINITY -> this\n   this == Double.MAX_VALUE -> this - this.nextDown()\n   else -> this.nextUp() - this\n}\n\n/**\n * Returns the [Double] value nearest to this value in direction of positive infinity.\n */\n@SinceKotlin(\"1.2\")\npublic

actual fun Double.nextUp(): Double = when {\n   this.isNaN() || this == Double.POSITIVE_INFINITY -> this\n   this == 0.0 -> Double.MIN_VALUE\n   else -> Double.fromBits(this.toRawBits() + if (this > 0) 1 else -1)\n}\n\n/**\n * Returns the [Double] value nearest to this value in direction of negative infinity.\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Double.nextDown(): Double = when {\n   this.isNaN() || this == Double.NEGATIVE_INFINITY -> this\n   this == 0.0 -> -Double.MIN_VALUE\n   else -> Double.fromBits(this.toRawBits() + if (this > 0) -1 else 1)\n}\n\n\n/**\n * Returns the [Double] value nearest to this value in direction from this value towards the value [to].\n *\n * Special cases:\n *   - `x.nextTowards(y)` is `NaN` if either `x` or `y` are `NaN`\n *   - `x.nextTowards(x) == x`\n *\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Double.nextTowards(to: Double): Double = when {\n   this.isNaN() || to.isNaN() -> Double.NaN\n   to == this -> to\n   to > this ->

this.nextUp()\n   else /* to < this */ -> this.nextDown()\n}\n\n\n/**\n * Rounds this [Double] value to the nearest integer and converts the result to [Int].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToInt() == Int.MAX_VALUE` when `x > Int.MAX_VALUE`\n *   - `x.roundToInt() == Int.MIN_VALUE` when `x < Int.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Double.roundToInt(): Int = when {\n   isNaN() -> throw IllegalArgumentException(\"Cannot round NaN value.\")\n   this > Int.MAX_VALUE -> Int.MAX_VALUE\n   this < Int.MIN_VALUE -> Int.MIN_VALUE\n   else -> nativeMath.round(this).toInt()\n}\n\n/**\n * Rounds this [Double] value to the nearest integer and converts the result to [Long].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToLong() == Long.MAX_VALUE` when `x > Long.MAX_VALUE`\n *   - `x.roundToLong() == Long.MIN_VALUE`

when `x < Long.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Double.roundToLong(): Long = when {\n   isNaN() -> throw IllegalArgumentException(\"Cannot round NaN value.\")\n   this > Long.MAX_VALUE -> Long.MAX_VALUE\n

this < Long.MIN_VALUE -> Long.MIN_VALUE\n   else -> nativeMath.round(this).toLong()\n}\n\n// endregion\n\n\n\n// region ================ Float Math ==\n\n/** Computes the sine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `sin(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sin(x: Float): Float = nativeMath.sin(x.toDouble()).toFloat()\n\n/** Computes the cosine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `cos(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun cos(x: Float): Float = nativeMath.cos(x.toDouble()).toFloat()\n\n/**

Computes the tangent of the angle [x] given in radians.\n *\n * Special cases:\n *   - `tan(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun tan(x: Float): Float = nativeMath.tan(x.toDouble()).toFloat()\n\n/**\n * Computes the arc sine of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `asin(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun asin(x: Float): Float = nativeMath.asin(x.toDouble()).toFloat()\n\n/**\n * Computes the arc cosine of the value [x];\n * the returned value is an angle in the range from `0.0` to `PI` radians.\n *\n * Special cases:\n *   - `acos(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun acos(x: Float): Float =

```
nativeMath.acos(x.toDouble()).toFloat()\n\n/**\n * Computes the arc tangent of the value [x];\n * the
 returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `atan(NaN)` is
`NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun atan(x: Float): Float =
nativeMath.atan(x.toDouble()).toFloat()\n\n/**\n * Returns the angle `theta` of the polar coordinates `(r, theta)` that
correspond\n * to the rectangular coordinates `(x, y)` by computing the arc tangent of the value [y] / [x];\n * the
returned value is an angle in the range from `-PI` to `PI` radians.\n *\n * Special cases:\n *   - `atan2(0.0, 0.0)` is
`0.0`\n *   - `atan2(0.0, x)` is  `0.0` for `x > 0` and `PI` for `x < 0`\n *   - `atan2(-0.0, x)` is `-0.0` for 'x > 0` and `-PI`
for `x < 0`\n *   - `atan2(y, +Inf)` is `0.0` for `0 < y < +Inf` and `-0.0` for '-Inf < y < 0`\n *   - `atan2(y, -Inf)` is `PI`
for `0 < y < +Inf` and `-PI` for `-Inf < y < 0`\n *   - `atan2(y, 0.0)` is `PI/2` for `y > 0` and `-PI/2` for `y < 0`\n *   -
`atan2(+Inf, x)` is `PI/2` for finite `x`y\n
 *   - `atan2(-Inf, x)` is `-PI/2` for finite `x`\n *   - `atan2(NaN, x)` and `atan2(y, NaN)` is `NaN`\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun atan2(y: Float, x: Float): Float =
nativeMath.atan2(y.toDouble(), x.toDouble()).toFloat()\n\n/**\n * Computes the hyperbolic sine of the value [x].\n
*\n * Special cases:\n *   - `sinh(NaN)` is `NaN`\n *   - `sinh(+Inf)` is `+Inf`\n *   - `sinh(-Inf)` is `-Inf`\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sinh(x: Float): Float =
nativeMath.sinh(x.toDouble()).toFloat()\n\n/**\n * Computes the hyperbolic cosine of the value [x].\n *\n * Special
cases:\n *   - `cosh(NaN)` is `NaN`\n *   - `cosh(+Inf|-Inf)` is `+Inf`\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun cosh(x: Float): Float =
nativeMath.cosh(x.toDouble()).toFloat()\n\n/**\n * Computes the hyperbolic tangent of the value [x].\n *\n *
Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(+Inf)` is `1.0`\n *   - `tanh(-Inf)`
 is `-1.0`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun tanh(x: Float): Float =
nativeMath.tanh(x.toDouble()).toFloat()\n\n/**\n * Computes the inverse hyperbolic sine of the value [x].\n *\n *
The returned value is `y` such that `sinh(y) == x`.\n *\n * Special cases:\n *   - `asinh(NaN)` is `NaN`\n *   -
`asinh(+Inf)` is `+Inf`\n *   - `asinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline
fun asinh(x: Float): Float = nativeMath.asinh(x.toDouble()).toFloat()\n\n/**\n * Computes the inverse hyperbolic
cosine of the value [x].\n *\n * The returned value is positive `y` such that `cosh(y) == x`.\n *\n * Special cases:\n *
- `acosh(NaN)` is `NaN`\n *   - `acosh(x)` is `NaN` when `x < 1`\n *   - `acosh(+Inf)` is `+Inf`\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun acosh(x: Float): Float =
nativeMath.acosh(x.toDouble()).toFloat()\n\n/**\n * Computes the inverse hyperbolic tangent of the value [x].\n *\n
* The
 returned value is `y` such that `tanh(y) == x`.\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(x)` is
`NaN` when `x > 1` or `x < -1`\n *   - `tanh(1.0)` is `+Inf`\n *   - `tanh(-1.0)` is `-Inf`\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun atanh(x: Float): Float =
nativeMath.atanh(x.toDouble()).toFloat()\n\n/**\n * Computes `sqrt(x^2 + y^2)` without intermediate overflow or
underflow.\n *\n * Special cases:\n *   - returns `+Inf` if any of arguments is infinite\n *   - returns `NaN` if any of
arguments is `NaN` and the other is not infinite\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun
hypot(x: Float, y: Float): Float = nativeMath.hypot(x.toDouble(), y.toDouble()).toFloat()\n\n/**\n * Computes the
positive square root of the value [x].\n *\n * Special cases:\n *   - `sqrt(x)` is `NaN` when `x < 0` or `x` is `NaN`\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sqrt(x: Float): Float =
nativeMath.sqrt(x.toDouble()).toFloat()\n\n/**\n
 * Computes Euler's number `e` raised to the power of the value [x].\n *\n * Special cases:\n *   - `exp(NaN)` is
`NaN`\n *   - `exp(+Inf)` is `+Inf`\n *   - `exp(-Inf)` is `0.0`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic
actual inline fun exp(x: Float): Float = nativeMath.exp(x.toDouble()).toFloat()\n\n/**\n * Computes `exp(x) - 1`.\n
*\n * This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *
- `expm1(NaN)` is `NaN`\n *   - `expm1(+Inf)` is `+Inf`\n *   - `expm1(-Inf)` is `-1.0`\n *\n * @see [exp] function.\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun expm1(x: Float): Float =
nativeMath.expm1(x.toDouble()).toFloat()\n\n/**\n * Computes the logarithm of the value [x] to the given [base].\n
*\n * Special cases:\n *   - `log(x, b)` is `NaN` if either `x` or `b` are `NaN`\n *   - `log(x, b)` is `NaN` when `x < 0`
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or `b <= 0` or `b == 1.0`\n *   - `log(+Inf, +Inf)` is `NaN`\n *   - `log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1`\n *   - `log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b > 1`\n *\n * See also logarithm functions for common fixed bases: [ln], [log10] and [log2].\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun log(x: Float, base: Float): Float = log(x.toDouble(), base.toDouble()).toFloat()\n\n/**\n * Computes the natural logarithm (base `E`) of the value [x].\n *\n * Special cases:\n *   - `ln(NaN)` is `NaN`\n *   - `ln(x)` is `NaN` when `x < 0.0`\n *   - `ln(+Inf)` is `+Inf`\n *   - `ln(0.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun ln(x: Float): Float = nativeMath.log(x.toDouble()).toFloat()\n\n/**\n * Computes the common logarithm (base 10) of the value [x].\n *\n * @see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun log10(x: Float): Float = nativeMath.log10(x.toDouble()).toFloat()\n\n/**\n * Computes the binary logarithm (base 2) of the value [x].\n *\n * @see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun log2(x: Float): Float = nativeMath.log2(x.toDouble()).toFloat()\n\n/**\n * Computes `ln(a + 1)`.\n *\n * This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `ln1p(NaN)` is `NaN`\n *   - `ln1p(x)` is `NaN` where `x < -1.0`\n *   - `ln1p(-1.0)` is `-Inf`\n *   - `ln1p(+Inf)` is `+Inf`\n *\n * @see [ln] function\n * @see [expm1] function\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun ln1p(x: Float): Float = nativeMath.log1p(x.toDouble()).toFloat()\n\n/**\n * Rounds the given value [x] to an integer towards positive infinity.\n\n * @return the smallest Float value that is greater than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `ceil(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun ceil(x: Float): Float = nativeMath.ceil(x.toDouble()).toFloat()\n\n/**\n * Rounds the given value [x] to an integer towards negative infinity.\n\n * @return the largest Float value that is smaller than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `floor(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun floor(x: Float): Float = nativeMath.floor(x.toDouble()).toFloat()\n\n/**\n * Rounds the given value [x] to an integer towards zero.\n *\n * @return the value [x] having its fractional part truncated.\n *\n * Special cases:\n *   - `truncate(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun truncate(x: Float): Float = truncate(x.toDouble()).toFloat()\n\n/**\n * Rounds the given value [x] towards the closest integer with ties rounded towards even integer.\n *\n * Special cases:\n *   - `round(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun round(x: Float): Float = round(x.toDouble()).toFloat()\n\n\n/**\n * Returns the absolute value of the given value [x].\n *\n * Special cases:\n *   - `abs(NaN)` is `NaN`\n *\n * @see absoluteValue extension property for [Float]\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun abs(x: Float): Float = nativeMath.abs(x.toDouble()).toFloat()\n\n/**\n * Returns the sign of the given value [x]:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `sign(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sign(x: Float): Float = nativeMath.sign(x.toDouble()).toFloat()\n\n\n\n/**\n * Returns the smaller of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun min(a: Float, b: Float): Float = nativeMath.min(a, b)\n\n/**\n * Returns the greater of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun max(a: Float, b: Float): Float = nativeMath.max(a, b)\n\n// extensions\n\n\n/**\n * Raises this value to the power [x].\n *\n * Special cases:\n *   - `b.pow(0.0)` is `1.0`\n *   - `b.pow(1.0) == b`\n *   - `b.pow(NaN)` is `NaN`\n *   - `NaN.pow(x)` is `NaN` for `x != 0.0`\n *   - `b.pow(Inf)` is `NaN` for `abs(b) == 1.0`\n *   - `b.pow(x)` is `NaN` for `b < 0` and `x` is finite and not an integer\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Float.pow(x: Float): Float = nativeMath.pow(this.toDouble(), x.toDouble()).toFloat()\n\n/**\n * Raises this value to the integer power [n].\n *\n

* See the
 other overload of [pow] for details.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Float.pow(n: Int): Float = nativeMath.pow(this.toDouble(), n.toDouble()).toFloat()\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n *   - `NaN.absoluteValue` is `NaN`\n *\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline val Float.absoluteValue: Float get() = nativeMath.abs(this.toDouble()).toFloat()\n\n/**\n * Returns the sign of this value:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `NaN.sign` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline val Float.sign: Float get() = nativeMath.sign(this.toDouble()).toFloat()\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n *\n * If [sign] is `NaN` the sign of the result is undefined.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic
 actual inline fun Float.withSign(sign: Float): Float = this.toDouble().withSign(sign.toDouble()).toFloat()\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Float.withSign(sign: Int): Float = this.toDouble().withSign(sign.toDouble()).toFloat()\n\n\n/**\n * Rounds this [Float] value to the nearest integer and converts the result to [Int].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToInt() == Int.MAX_VALUE` when `x > Int.MAX_VALUE`\n *   - `x.roundToInt() == Int.MIN_VALUE` when `x < Int.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Float.roundToInt(): Int = toDouble().roundToInt()\n\n/**\n * Rounds this [Float] value to the nearest integer and converts the result to [Long].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *
  - `x.roundToLong() == Long.MAX_VALUE` when `x > Long.MAX_VALUE`\n *   - `x.roundToLong() == Long.MIN_VALUE` when `x < Long.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Float.roundToLong(): Long = toDouble().roundToLong()\n\n\n// endregion\n\n// region ================ Integer Math ==\n\n\n/**\n * Returns the absolute value of the given value [n].\n *\n * Special cases:\n *   - `abs(Int.MIN_VALUE)` is `Int.MIN_VALUE` due to an overflow\n *\n * @see absoluteValue extension property for [Int]\n */\n// TODO: remove manual 'or' when KT-19290 is fixed\n@SinceKotlin(\"1.2\")\npublic actual fun abs(n: Int): Int = if (n < 0) (-n or 0) else n\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun min(a: Int, b: Int): Int = nativeMath.min(a, b)\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic
 actual inline fun max(a: Int, b: Int): Int = nativeMath.max(a, b)\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n *   - `Int.MIN_VALUE.absoluteValue` is `Int.MIN_VALUE` due to an overflow\n *\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline val Int.absoluteValue: Int get() = abs(this)\n\n/**\n * Returns the sign of this value:\n *   - `-1` if the value is negative,\n *   - `0` if the value is zero,\n *   - `1` if the value is positive\n */\n@SinceKotlin(\"1.2\")\npublic actual val Int.sign: Int get() = when {\n   this < 0 -> -1\n   this > 0 -> 1\n   else -> 0\n}\n\n\n\n/**\n * Returns the absolute value of the given value [n].\n *\n * Special cases:\n *   - `abs(Long.MIN_VALUE)` is `Long.MIN_VALUE` due to an overflow\n *\n * @see absoluteValue extension property for [Long]\n */\n@SinceKotlin(\"1.2\")\npublic actual fun abs(n: Long): Long = if (n < 0) -n else n\n\n/**\n * Returns the
 smaller of two values.\n */\n@SinceKotlin(\"1.2\")\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun min(a: Long, b: Long): Long = if (a <= b) a else b\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.2\")\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun max(a: Long, b: Long): Long = if (a >= b) a else b\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n *   - `Long.MIN_VALUE.absoluteValue` is `Long.MIN_VALUE` due to an overflow\n *\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline val Long.absoluteValue: Long get() = abs(this)\n\n/**\n * Returns the sign of this value:\n *   - `-1` if the value is negative,\n *   - `0` if the value is zero,\n *   - `1` if the value is positive\n */\n@SinceKotlin(\"1.2\")\npublic actual val Long.sign: Int get() = when {\n   this

< 0 -> -1\n   this > 0 -> 1\n   else -> 0\n}\n\n\n// endregion\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin

Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n/**\n * Returns `true` if the specified number is a\n * Not-a-Number (NaN) value, `false` otherwise.\n */\npublic actual fun Double.isNaN(): Boolean = this != this\n\n/**\n * Returns `true` if the specified number is a\n * Not-a-Number (NaN) value, `false` otherwise.\n */\npublic actual fun Float.isNaN(): Boolean = this != this\n\n/**\n * Returns `true` if this value is infinitely large in magnitude.\n */\npublic actual fun Double.isInfinite(): Boolean = this == Double.POSITIVE_INFINITY || this == Double.NEGATIVE_INFINITY\n\n/**\n * Returns `true` if this value is infinitely large in magnitude.\n */\npublic actual fun Float.isInfinite(): Boolean = this == Float.POSITIVE_INFINITY || this == Float.NEGATIVE_INFINITY\n\n/**\n * Returns `true` if the argument is a finite floating-point value; returns `false` otherwise

(for `NaN` and infinity arguments).\n */\npublic actual fun Double.isFinite(): Boolean = !isInfinite() && !isNaN()\n\n/**\n * Returns `true` if the argument is a finite floating-point value; returns `false` otherwise (for `NaN` and infinity arguments).\n */\npublic actual fun Float.isFinite(): Boolean = !isInfinite() && !isNaN()\n\n\n/**\n * Counts the number of set bits in the binary representation of this [Int] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Int.countOneBits(): Int {\n   // Hacker's Delight 5-1 algorithm\n   var v = this\n   v = (v and 0x55555555) + (v.ushr(1) and 0x55555555)\n   v = (v and 0x33333333) + (v.ushr(2) and 0x33333333)\n   v = (v and 0x0F0F0F0F) + (v.ushr(4) and 0x0F0F0F0F)\n   v = (v and 0x00FF00FF) + (v.ushr(8) and 0x00FF00FF)\n   v = (v and 0x0000FFFF) + (v.ushr(16))\n   return v\n}\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation

of this [Int] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun Int.countLeadingZeroBits(): Int = JsMath.clz32(this)\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Int] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Int.countTrailingZeroBits(): Int =\n   // Hacker's Delight 5-4 algorithm for expressing countTrailingZeroBits with countLeadingZeroBits\n   Int.SIZE_BITS - (this or -this).inv().countLeadingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [Int] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Int.takeHighestOneBit(): Int =\n   if (this == 0) 0 else 1.shl(Int.SIZE_BITS - 1 - countLeadingZeroBits())\n\n/**\n

* Returns a number having a single bit set in the position of the least significant set bit of this [Int] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Int.takeLowestOneBit(): Int =\n   // Hacker's Delight 2-1 algorithm for isolating rightmost 1-bit\n   this and -this\n\n/**\n * Rotates the binary representation of this [Int] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Int.SIZE_BITS] (32) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 32)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic

actual fun Int.rotateLeft(bitCount: Int): Int =\n   shl(bitCount) or ushr(Int.SIZE_BITS - bitCount)\n\n\n/**\n * Rotates the binary representation of this [Int] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Int.SIZE_BITS] (32) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 32)`\n

*/\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Int.rotateRight(bitCount: Int): Int =\n   shl(Int.SIZE_BITS - bitCount) or ushr(bitCount)\n\n\n/**\n * Counts the number of set bits in the binary representation of this [Long] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic
 actual fun Long.countOneBits(): Int =\n   high.countOneBits() + low.countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Long] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Long.countLeadingZeroBits(): Int =\n   when (val high = this.high) {\n   0 -> Int.SIZE_BITS + low.countLeadingZeroBits()\n   else -> high.countLeadingZeroBits()\n   }\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Long] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Long.countTrailingZeroBits(): Int =\n   when (val low = this.low) {\n   0 -> Int.SIZE_BITS + high.countTrailingZeroBits()\n   else -> low.countTrailingZeroBits()\n   }\n\n/**\n * Returns a number having a single
 bit set in the position of the most significant set bit of this [Long] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Long.takeHighestOneBit(): Long =\n   when (val high = this.high) {\n   0 -> Long(low.takeHighestOneBit(), 0)\n   else -> Long(0, high.takeHighestOneBit())\n   }\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Long] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Long.takeLowestOneBit(): Long =\n   when (val low = this.low) {\n   0 -> Long(0, high.takeLowestOneBit())\n   else -> Long(low.takeLowestOneBit(), 0)\n   }\n\n/**\n * Rotates the binary representation of this [Long] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the
 number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Long.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 64)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Long.rotateLeft(bitCount: Int): Long {\n   if ((bitCount and 31) != 0) {\n   val low = this.low\n   val high = this.high\n   val newLow = low.shl(bitCount) or high.ushr(-bitCount)\n   val newHigh = high.shl(bitCount) or low.ushr(-bitCount)\n   return if ((bitCount and 32) == 0) Long(newLow, newHigh) else Long(newHigh, newLow)\n   } else {\n   return if ((bitCount and 32) == 0) this else Long(high, low)\n   }\n}\n\n\n/**\n * Rotates the binary representation of this [Long] number right by
 the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Long.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 64)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun Long.rotateRight(bitCount: Int): Long = rotateLeft(-bitCount)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\nimport kotlin.internal.LowPriorityInOverloadResolution\n\n/**\n * Exposes
 the JavaScript [Promise object](https://developer.mozilla.org/en/docs/Web/JavaScript/Reference/Global_Objects/Promise) to Kotlin.\n */\n@Suppress(\"NOT_DOCUMENTED\")\npublic open external class Promise<out T>(executor: (resolve: (T) -> Unit, reject: (Throwable) -> Unit) -> Unit) {\n   @LowPriorityInOverloadResolution\n   public open fun <S>

then(onFulfilled: ((T) -> S)?): Promise<S>\n\n   @LowPriorityInOverloadResolution\n   public open fun <S> then(onFulfilled: ((T) -> S)?, onRejected: ((Throwable) -> S)?): Promise<S>\n\n   public open fun <S> catch(onRejected: (Throwable) -> S): Promise<S>\n\n   companion object {\n   public fun <S> all(promise: Array<out Promise<S>>): Promise<Array<out S>>\n\n   public fun <S> race(promise: Array<out Promise<S>>): Promise<S>\n\n   public fun reject(e: Throwable): Promise<Nothing>\n\n   public fun <S> resolve(e: S): Promise<S>\n   public fun <S> resolve(e: Promise<S>): Promise<S>\n   }\n}\n\n// It's workaround for

 KT-19672 since we can fix it properly until KT-11265 isn't fixed.\ninline fun <T, S> Promise<Promise<T>>.then(\n   noinline onFulfilled: ((T) -> S)?\n): Promise<S> {\n   return this.unsafeCast<Promise<T>>().then(onFulfilled)\n}\n\ninline fun <T, S> Promise<Promise<T>>.then(\n   noinline onFulfilled: ((T) -> S)?,\n   noinline onRejected: ((Throwable) -> S)?\n): Promise<S> {\n   return this.unsafeCast<Promise<T>>().then(onFulfilled, onRejected)\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.random\n\nimport kotlin.math.pow\n\ninternal actual fun defaultPlatformRandom(): Random =\n   Random(js(\"(Math.random() * Math.pow(2, 32)) | 0\").unsafeCast<Int>())\n\n\nprivate val INV_2_26: Double = 2.0.pow(-26)\nprivate val INV_2_53: Double = 2.0.pow(-53)\ninternal actual fun doubleFromParts(hi26: Int, low27:

 Int): Double =\n   hi26 * INV_2_26 + low27 * INV_2_53","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect\n\nimport findAssociatedObject\n\n/**\n * The experimental marker for associated objects API.\n *\n * Any usage of a declaration annotated with `@ExperimentalAssociatedObjects` must be accepted either by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalAssociatedObjects::class)`,\n * or by using the compiler argument `-Xopt-in=kotlin.reflect.ExperimentalAssociatedObjects`.\n */\n@RequiresOptIn(level = RequiresOptIn.Level.ERROR)\n@Retention(value = AnnotationRetention.BINARY)\npublic annotation class ExperimentalAssociatedObjects\n\n/**\n * Makes the annotated annotation class an associated object key.\n *\n * An associated object key annotation should have single

 [KClass] parameter.\n * When applied to a class with reference to an object declaration as an argument, it binds\n * the object to the class, making this binding discoverable at runtime using [findAssociatedObject].\n */\n@ExperimentalAssociatedObjects\n@Retention(AnnotationRetention.BINARY)\n@Target(AnnotationTarget.ANNOTATION_CLASS)\npublic annotation class AssociatedObjectKey\n\n/**\n * If [T] is an @[AssociatedObjectKey]-annotated annotation class and [this] class is annotated with @[T] (`S::class`),\n * returns object `S`.\n *\n * Otherwise returns `null`.\n */\n@ExperimentalAssociatedObjects\npublic inline fun <reified T : Annotation> KClass<*>.findAssociatedObject(): Any? =\n   this.findAssociatedObject(T::class)","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\nimport getKClass\nimport kotlin.reflect.KClass\nimport

 kotlin.reflect.js.internal.KClassImpl\n\n/**\n * Represents the constructor of a class. Instances of `JsClass` can be passed to JavaScript APIs that expect a constructor reference.\n */\nexternal interface JsClass<T : Any> {\n   /**\n   * Returns the unqualified name of the class represented by this instance.\n   */\n   val name: String\n}\n\n/**\n * Obtains a constructor reference for the given `KClass`.\n */\nval <T : Any> KClass<T>.js: JsClass<T>\n   get() = (this as KClassImpl<T>).jClass\n\n/**\n * Obtains a `KClass` instance for the given constructor reference.\n */\nval <T : Any> JsClass<T>.kotlin: KClass<T>\n   get() = getKClass(this)\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect.js.internal\n\nimport kotlin.reflect.*\n\ninternal abstract class KClassImpl<T

 : Any>(\n   internal open val jClass: JsClass<T>\n) : KClass<T> {\n\n   override val qualifiedName: String?\n   get() = TODO()\n\n   override fun equals(other: Any?): Boolean {\n   return other is KClassImpl<*> && jClass

== other.jClass\n   }\n\n   // TODO: use FQN\n   override fun hashCode(): Int = simpleName?.hashCode() ?: 0\n\n   override fun toString(): String {\n   // TODO: use FQN\n   return \"class $simpleName\"\n   }\n}\n\ninternal class SimpleKClassImpl<T : Any>(jClass: JsClass<T>) : KClassImpl<T>(jClass) {\n   override val simpleName: String? = jClass.asDynamic().`$metadata$`?.simpleName.unsafeCast<String?>()\n\n   override fun isInstance(value: Any?): Boolean {\n   return jsIsType(value, jClass)\n   }\n}\n\ninternal class PrimitiveKClassImpl<T : Any>(\n   jClass: JsClass<T>,\n   private val givenSimpleName: String,\n   private val isInstanceFunction: (Any?) -> Boolean\n) : KClassImpl<T>(jClass) {\n   override fun equals(other: Any?): Boolean {\n   if (other !is PrimitiveKClassImpl<*>) return false\n   return super.equals(other) && givenSimpleName == other.givenSimpleName\n   }\n\n   override val simpleName: String? get() = givenSimpleName\n\n   override fun isInstance(value: Any?): Boolean {\n   return isInstanceFunction(value)\n   }\n}\n\ninternal object NothingKClassImpl : KClassImpl<Nothing>(js(\"Object\")) {\n   override val simpleName: String = \"Nothing\"\n\n   override fun isInstance(value: Any?): Boolean = false\n\n   override val jClass: JsClass<Nothing>\n   get() = throw UnsupportedOperationException(\"There's no native JS class for Nothing type\")\n\n   override fun equals(other: Any?): Boolean = other === this\n\n   override fun hashCode(): Int = 0\n}\n\ninternal class ErrorKClass : KClass<Nothing> {\n   override val simpleName: String? get() = error(\"Unknown simpleName for ErrorKClass\")\n   override val qualifiedName: String? get() = error(\"Unknown qualifiedName for
ErrorKClass\")\n\n   override fun isInstance(value: Any?): Boolean = error(\"Can's check isInstance on ErrorKClass\")\n\n   override fun equals(other: Any?): Boolean = other === this\n\n   override fun hashCode(): Int = 0\n}","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect\n\ninternal actual inline val KClass<*>.qualifiedOrSimpleName: String?\n   get() = simpleName","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// a package is omitted to get declarations directly under the module\n\n// TODO: Remove once JsReflectionAPICallChecker supports more reflection types\n@file:Suppress(\"Unsupported\")\n\nimport kotlin.reflect.*\nimport
kotlin.reflect.js.internal.*\n\n@JsName(\"createKType\")\ninternal fun createKType(\n   classifier: KClassifier,\n   arguments: Array<KTypeProjection>,\n   isMarkedNullable: Boolean\n) =\n   KTypeImpl(classifier, arguments.asList(), isMarkedNullable)\n\n@JsName(\"createDynamicKType\")\ninternal fun createDynamicKType(): KType = DynamicKType\n\n@JsName(\"markKTypeNullable\")\ninternal fun markKTypeNullable(kType: KType) = KTypeImpl(kType.classifier!!, kType.arguments, true)\n\n@JsName(\"createKTypeParameter\")\ninternal fun createKTypeParameter(\n   name: String,\n   upperBounds: Array<KType>,\n   variance: String\n): KTypeParameter {\n   val kVariance = when (variance) {\n   \"in\" -> KVariance.IN\n   \"out\" -> KVariance.OUT\n   else -> KVariance.INVARIANT\n   }\n\n   return KTypeParameterImpl(name, upperBounds.asList(), kVariance, false)\n}\n\n@JsName(\"getStarKTypeProjection\")\ninternal fun getStarKTypeProjection(): KTypeProjection =\n   KTypeProjection.STAR\n\n@JsName(\"createCovariantKTypeProjection\")\ninternal
fun createCovariantKTypeProjection(type: KType): KTypeProjection =\n   KTypeProjection.covariant(type)\n\n@JsName(\"createInvariantKTypeProjection\")\ninternal fun createInvariantKTypeProjection(type: KType): KTypeProjection =\n   KTypeProjection.invariant(type)\n\n@JsName(\"createContravariantKTypeProjection\")\ninternal fun createContravariantKTypeProjection(type: KType): KTypeProjection =\n   KTypeProjection.contravariant(type)\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect.js.internal\n\nimport kotlin.reflect.*\n\ninternal class KTypeImpl(\n   override val classifier: KClassifier,\n   override val arguments: List<KTypeProjection>,\n   override val isMarkedNullable: Boolean\n) : KType {\n   override fun equals(other: Any?):

Boolean =\n   other is KTypeImpl &&\n   classifier == other.classifier && arguments == other.arguments && isMarkedNullable == other.isMarkedNullable\n\n   override fun hashCode(): Int =\n   (classifier.hashCode() * 31 + arguments.hashCode()) * 31 + isMarkedNullable.hashCode()\n\n   override fun toString(): String {\n   val kClass = (classifier as? KClass<*>)\n   val classifierName = when {\n   kClass == null -> classifier.toString()\n   kClass.simpleName != null -> kClass.simpleName\n   else -> \"(non-denotable type)\"\n   }\n\n   val args =\n   if (arguments.isEmpty()) \"\"\n   else arguments.joinToString(\", \", \"<\", \">\") { it.asString() }\n   val nullable = if (isMarkedNullable) \"?\" else \"\"\n\n   return classifierName + args + nullable\n   }\n\n   // TODO: this should be the implementation of KTypeProjection.toString, see KT-30071\n   private fun KTypeProjection.asString(): String {\n   if (variance == null) return \"*\"\n   return variance.prefixString() + type.toString()\n   }\n}\n\ninternal object DynamicKType : KType {\n   override val classifier: KClassifier? = null\n   override val arguments: List<KTypeProjection> = emptyList()\n   override val isMarkedNullable: Boolean = false\n   override fun toString(): String = \"dynamic\"\n}\n\ninternal fun KVariance.prefixString() =\n   when (this) {\n   KVariance.INVARIANT -> \"\"\n   KVariance.IN -> \"in \"\n   KVariance.OUT -> \"out \"\n   }\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect.js.internal\n\nimport kotlin.reflect.*\n\ninternal data class KTypeParameterImpl(\n   override val name: String,\n   override val upperBounds: List<KType>,\n   override val variance: KVariance,\n   override val isReified: Boolean\n) : KTypeParameter {\n   override fun toString(): String = name\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect.js.internal\n\nimport kotlin.js.JsClass\n\n@JsName(\"PrimitiveClasses\")\ninternal object PrimitiveClasses {\n   @JsName(\"anyClass\")\n   val anyClass = PrimitiveKClassImpl(js(\"Object\").unsafeCast<JsClass<Any>>(), \"Any\", { it is Any })\n\n   @JsName(\"numberClass\")\n   val numberClass = PrimitiveKClassImpl(js(\"Number\").unsafeCast<JsClass<Number>>(), \"Number\", { it is Number })\n\n   @JsName(\"nothingClass\")\n   val nothingClass = NothingKClassImpl\n\n   @JsName(\"booleanClass\")\n   val booleanClass = PrimitiveKClassImpl(js(\"Boolean\").unsafeCast<JsClass<Boolean>>(), \"Boolean\", { it is Boolean })\n\n   @JsName(\"byteClass\")\n   val byteClass = PrimitiveKClassImpl(js(\"Number\").unsafeCast<JsClass<Byte>>(), \"Byte\", { it is Byte })\n\n   @JsName(\"shortClass\")\n   val shortClass = PrimitiveKClassImpl(js(\"Number\").unsafeCast<JsClass<Short>>(), \"Short\", { it is Short })\n\n   @JsName(\"intClass\")\n   val intClass = PrimitiveKClassImpl(js(\"Number\").unsafeCast<JsClass<Int>>(), \"Int\", { it is Int })\n\n   @JsName(\"floatClass\")\n   val floatClass = PrimitiveKClassImpl(js(\"Number\").unsafeCast<JsClass<Float>>(), \"Float\", { it is Float })\n\n   @JsName(\"doubleClass\")\n   val doubleClass = PrimitiveKClassImpl(js(\"Number\").unsafeCast<JsClass<Double>>(), \"Double\", { it is Double })\n\n   @JsName(\"arrayClass\")\n   val arrayClass = PrimitiveKClassImpl(js(\"Array\").unsafeCast<JsClass<Array<*>>>(), \"Array\", { it is Array<*> })\n\n   @JsName(\"stringClass\")\n   val stringClass = PrimitiveKClassImpl(js(\"String\").unsafeCast<JsClass<String>>(), \"String\", { it is String })\n\n   @JsName(\"throwableClass\")\n   val throwableClass = PrimitiveKClassImpl(js(\"Error\").unsafeCast<JsClass<Throwable>>(), \"Throwable\", { it is Throwable })\n\n   @JsName(\"booleanArrayClass\")\n   val booleanArrayClass = PrimitiveKClassImpl(js(\"Array\").unsafeCast<JsClass<BooleanArray>>(), \"BooleanArray\", { it is BooleanArray })\n\n   @JsName(\"charArrayClass\")\n   val charArrayClass = PrimitiveKClassImpl(js(\"Uint16Array\").unsafeCast<JsClass<CharArray>>(), \"CharArray\", { it is CharArray })\n\n   @JsName(\"byteArrayClass\")\n   val byteArrayClass = PrimitiveKClassImpl(js(\"Int8Array\").unsafeCast<JsClass<ByteArray>>(), \"ByteArray\", { it is ByteArray })\n\n

@JsName(\"shortArrayClass\")\n   val shortArrayClass =
PrimitiveKClassImpl(js(\"Int16Array\").unsafeCast<JsClass<ShortArray>>(), \"ShortArray\", { it is ShortArray
})\n\n   @JsName(\"intArrayClass\")\n   val intArrayClass =
PrimitiveKClassImpl(js(\"Int32Array\").unsafeCast<JsClass<IntArray>>(), \"IntArray\", {
it is IntArray })\n\n   @JsName(\"longArrayClass\")\n   val longArrayClass =
PrimitiveKClassImpl(js(\"Array\").unsafeCast<JsClass<LongArray>>(), \"LongArray\", { it is LongArray })\n\n
@JsName(\"floatArrayClass\")\n   val floatArrayClass =
PrimitiveKClassImpl(js(\"Float32Array\").unsafeCast<JsClass<FloatArray>>(), \"FloatArray\", { it is FloatArray
})\n\n   @JsName(\"doubleArrayClass\")\n   val doubleArrayClass =
PrimitiveKClassImpl(js(\"Float64Array\").unsafeCast<JsClass<DoubleArray>>(), \"DoubleArray\", { it is
DoubleArray })\n\n   @JsName(\"functionClass\")\n   fun functionClass(arity: Int): KClassImpl<Any> {\n
return functionClasses.get(arity) ?: run {\n   val result =
PrimitiveKClassImpl(js(\"Function\").unsafeCast<JsClass<Any>>(), \"Function$arity\",\n
{ jsTypeOf(it) === \"function\" && it.asDynamic().length === arity })\n   functionClasses.asDynamic()[arity]
= result\n   result\n   }\n
    }\n}\n\nprivate val functionClasses = arrayOfNulls<KClassImpl<Any>>(0)","/*\n * Copyright 2010-2020
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// a package is omitted to get
declarations directly under the module\n\nimport kotlin.reflect.*\nimport
kotlin.reflect.js.internal.*\n\n@JsName(\"getKClass\")\ninternal fun <T : Any> getKClass(jClass: Any /*
JsClass<T> | Array<JsClass<T>> */): KClass<T> {\n   return if (js(\"Array\").isArray(jClass)) {\n
getKClassM(jClass.unsafeCast<Array<JsClass<T>>>())\n   } else {\n
getKClass1(jClass.unsafeCast<JsClass<T>>())\n   }\n}\n\n@JsName(\"getKClassM\")\ninternal fun <T : Any>
getKClassM(jClasses: Array<JsClass<T>>): KClass<T> = when (jClasses.size) {\n   1 ->
getKClass1(jClasses[0])\n   0 -> NothingKClassImpl.unsafeCast<KClass<T>>()\n   else ->
ErrorKClass().unsafeCast<KClass<T>>()\n}\n\n@JsName(\"getKClassFromExpression\")\ninternal
fun <T : Any> getKClassFromExpression(e: T): KClass<T> =\n   when (jsTypeOf(e)) {\n   \"string\" ->
PrimitiveClasses.stringClass\n   \"number\" -> if (jsBitwiseOr(e, 0).asDynamic() === e)
PrimitiveClasses.intClass else PrimitiveClasses.doubleClass\n   \"boolean\" -> PrimitiveClasses.booleanClass\n
   \"function\" -> PrimitiveClasses.functionClass(e.asDynamic().length)\n   else -> {\n   when {\n   e
is BooleanArray -> PrimitiveClasses.booleanArrayClass\n   e is CharArray ->
PrimitiveClasses.charArrayClass\n   e is ByteArray -> PrimitiveClasses.byteArrayClass\n   e is
ShortArray -> PrimitiveClasses.shortArrayClass\n   e is IntArray -> PrimitiveClasses.intArrayClass\n
   e is LongArray -> PrimitiveClasses.longArrayClass\n   e is FloatArray ->
PrimitiveClasses.floatArrayClass\n   e is DoubleArray -> PrimitiveClasses.doubleArrayClass\n
                e is KClass<*> -> KClass::class\n   e is Array<*> -> PrimitiveClasses.arrayClass\n   else -
> {\n   val constructor = js(\"Object\").getPrototypeOf(e).constructor\n   when {\n
constructor === js(\"Object\") -> PrimitiveClasses.anyClass\n   constructor === js(\"Error\") ->
PrimitiveClasses.throwableClass\n   else -> {\n   val jsClass: JsClass<T> =
constructor\n   getKClass1(jsClass)\n   }\n   }\n   }\n   }\n
}\n   }.unsafeCast<KClass<T>>()\n\n@JsName(\"getKClass1\")\ninternal fun <T : Any> getKClass1(jClass:
JsClass<T>): KClass<T> {\n   if (jClass === js(\"String\")) return
PrimitiveClasses.stringClass.unsafeCast<KClass<T>>()\n\n   val metadata = jClass.asDynamic().`$metadata$`\n\n
return if (metadata
!= null) {\n   if (metadata.`$kClass$` == null) {\n   val kClass = SimpleKClassImpl(jClass)\n
metadata.`$kClass$` = kClass\n   kClass\n   } else {\n   metadata.`$kClass$`\n   }\n   } else {\n
SimpleKClassImpl(jClass)\n   }\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the

license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n * Exposes the JavaScript [RegExp object](https://developer.mozilla.org/en/docs/Web/JavaScript/Reference/Global_Objects/RegExp) to Kotlin.\n */\n@Suppress(\"NOT_DOCUMENTED\")\npublic external class RegExp(pattern: String, flags: String? = definedExternally) {\n\n   public fun test(str: String): Boolean\n\n   public fun exec(str: String): RegExpMatch?\n\n   public override fun toString(): String\n\n   /**\n   * The lastIndex is a read/write integer property

of regular expressions that specifies the index at which to start the next match.\n   */\n   public var lastIndex: Int\n\n   public val global: Boolean\n   public val ignoreCase: Boolean\n   public val multiline: Boolean\n}\n\n/**\n * Resets the regular expression so that subsequent [RegExp.test] and [RegExp.exec] calls will match starting with the beginning of the input string.\n */\npublic fun RegExp.reset() {\n   lastIndex = 0\n}\n\n// TODO: Inherit from array or introduce asArray() extension\n/**\n * Represents the return value of [RegExp.exec].\n */\n@Suppress(\"NOT_DOCUMENTED\")\npublic external interface RegExpMatch {\n   public val index: Int\n   public val input: String\n   public val length: Int\n}\n\n/**\n * Returns the entire text matched by [RegExp.exec] if the [index] parameter is 0, or the text matched by the capturing parenthesis\n * at the given index.\n */\npublic inline operator fun RegExpMatch.get(index: Int): String? = asDynamic()[index]\n\n/**\n * Converts

the result of [RegExp.exec] to an array where the first element contains the entire matched text and each subsequent\n * element is the text matched by each capturing parenthesis.\n */\npublic inline fun RegExpMatch.asArray(): Array<out String?> = unsafeCast<Array<out String?>>()\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.sequences\n\ninternal actual class ConstrainedOnceSequence<T> actual constructor(sequence: Sequence<T>) : Sequence<T> {\n   private var sequenceRef: Sequence<T>? = sequence\n\n   actual override fun iterator(): Iterator<T> {\n   val sequence = sequenceRef ?: throw IllegalStateException(\"This sequence can be consumed only once.\")\n   sequenceRef = null\n   return sequence.iterator()\n   }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming

Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n@SinceKotlin(\"1.5\")\npublic actual enum class CharCategory(internal val value: Int, public actual val code: String) {\n   /**\n   * General category \"Cn\" in the Unicode specification.\n   */\n   UNASSIGNED(0, \"Cn\"),\n\n   /**\n   * General category \"Lu\" in the Unicode specification.\n   */\n   UPPERCASE_LETTER(1, \"Lu\"),\n\n   /**\n   * General category \"Ll\" in the Unicode specification.\n   */\n   LOWERCASE_LETTER(2, \"Ll\"),\n\n   /**\n   * General category \"Lt\" in the Unicode specification.\n   */\n   TITLECASE_LETTER(3, \"Lt\"),\n\n   /**\n   * General category \"Lm\" in the Unicode specification.\n   */\n   MODIFIER_LETTER(4, \"Lm\"),\n\n   /**\n   * General category \"Lo\" in the Unicode specification.\n   */\n   OTHER_LETTER(5, \"Lo\"),\n\n   /**\n   * General

category \"Mn\" in the Unicode specification.\n   */\n   NON_SPACING_MARK(6, \"Mn\"),\n\n   /**\n   * General category \"Me\" in the Unicode specification.\n   */\n   ENCLOSING_MARK(7, \"Me\"),\n\n   /**\n   * General category \"Mc\" in the Unicode specification.\n   */\n   COMBINING_SPACING_MARK(8, \"Mc\"),\n\n   /**\n   * General category \"Nd\" in the Unicode specification.\n   */\n   DECIMAL_DIGIT_NUMBER(9, \"Nd\"),\n\n   /**\n   * General category \"Nl\" in the Unicode specification.\n   */\n   LETTER_NUMBER(10, \"Nl\"),\n\n   /**\n   * General category \"No\" in the Unicode specification.\n   */\n   OTHER_NUMBER(11, \"No\"),\n\n   /**\n   * General category \"Zs\" in the Unicode specification.\n   */\n   SPACE_SEPARATOR(12, \"Zs\"),\n\n   /**\n   * General category \"Zl\" in the Unicode specification.\n   */\n   LINE_SEPARATOR(13, \"Zl\"),\n\n   /**\n   * General category \"Zp\" in the Unicode specification.\n   */\n   PARAGRAPH_SEPARATOR(14,

\"Zp\"),\n\n   /**\n   * General category \"Cc\" in the Unicode specification.\n   */\n   CONTROL(15, \"Cc\"),\n\n   /**\n   * General category \"Cf\" in the Unicode specification.\n   */\n   FORMAT(16, \"Cf\"),\n\n   /**\n   * General category \"Co\" in the Unicode specification.\n   */\n   PRIVATE_USE(18, \"Co\"),\n\n   /**\n   * General category \"Cs\" in the Unicode specification.\n   */\n   SURROGATE(19, \"Cs\"),\n\n   /**\n   *

General category \"Pd\" in the Unicode specification.\n */\n DASH_PUNCTUATION(20, \"Pd\"),\n\n /**\n * General category \"Ps\" in the Unicode specification.\n */\n START_PUNCTUATION(21, \"Ps\"),\n\n /**\n * General category \"Pe\" in the Unicode specification.\n */\n END_PUNCTUATION(22, \"Pe\"),\n\n /**\n * General category \"Pc\" in the Unicode specification.\n */\n CONNECTOR_PUNCTUATION(23, \"Pc\"),\n\n /**\n * General category \"Po\" in the Unicode specification.\n */\n OTHER_PUNCTUATION(24, \"Po\"),\n\n /**\n * General category \"Sm\" in the Unicode specification.\n */\n MATH_SYMBOL(25, \"Sm\"),\n\n /**\n * General category \"Sc\" in the Unicode specification.\n */\n CURRENCY_SYMBOL(26, \"Sc\"),\n\n /**\n * General category \"Sk\" in the Unicode specification.\n */\n MODIFIER_SYMBOL(27, \"Sk\"),\n\n /**\n * General category \"So\" in the Unicode specification.\n */\n OTHER_SYMBOL(28, \"So\"),\n\n /**\n * General category \"Pi\" in the Unicode specification.\n */\n INITIAL_QUOTE_PUNCTUATION(29, \"Pi\"),\n\n /**\n * General category \"Pf\" in the Unicode specification.\n */\n FINAL_QUOTE_PUNCTUATION(30, \"Pf\");\n\n /**\n * Returns `true` if [char] character belongs to this category.\n */\n public actual operator fun contains(char: Char): Boolean = char.getCategoryValue() == this.value\n\n companion object {\n internal fun valueOf(category: Int): CharCategory =\n when (category) {\n in 0..16 -> values()[category]\n in 18..30 -> values()[category - 1]\n else -> throw IllegalArgumentException(\"Category #$category is not defined.\")\n }\n }\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/**\n * The exception thrown when a character encoding or decoding error occurs.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual open class CharacterCodingException(message: String?) : Exception(message) {\n actual constructor() : this(null)\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/**\n * A mutable sequence of characters.\n *\n * String builder can be used to efficiently perform multiple string manipulation operations.\n */\npublic actual class StringBuilder actual constructor(content: String) : Appendable, CharSequence {\n /**\n * Constructs an empty string builder with the specified initial [capacity].\n *\n * In Kotlin/JS implementation of StringBuilder the initial capacity has no effect on the further performance of operations.\n */\n actual constructor(capacity: Int) : this() {\n }\n\n /** Constructs a string builder that contains the same characters as the specified [content] char sequence. */\n actual constructor(content: CharSequence) : this(content.toString()) {}\n\n /** Constructs an empty string builder. */\n actual constructor() : this(\"\")\n\n private var string: String = if (content !== undefined) content else \"\"\n\n actual override val length: Int\n get() = string.asDynamic().length\n\n actual override fun get(index: Int): Char =\n string.getOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, length: $length}\") }\n\n actual override fun subSequence(startIndex: Int, endIndex: Int): CharSequence = string.substring(startIndex, endIndex)\n\n actual override fun append(value: Char): StringBuilder {\n string += value\n return this\n }\n\n actual override fun append(value: CharSequence?): StringBuilder {\n string += value.toString()\n return this\n }\n\n actual override fun append(value: CharSequence?, startIndex: Int, endIndex: Int): StringBuilder =\n this.appendRange(value ?: \"null\", startIndex, endIndex)\n\n /**\n * Reverses the contents of this string builder and returns this instance.\n *\n * Surrogate pairs included in this string builder are treated as single characters.\n * Therefore, the order of the high-low surrogates is never reversed.\n *\n * Note that the reverse operation may produce new surrogate pairs that were unpaired low-surrogates and high-surrogates before the operation.\n * For example, reversing `\"\\uDC00\\uD800\"` produces `\"\\uD800\\uDC00\"` which is a valid surrogate pair.\n */\n actual fun reverse(): StringBuilder {\n var reversed = \"\"\n var index = string.length - 1\n while (index >= 0) {\n val low = string[index--]\n if (low.isLowSurrogate() && index >= 0) {\n val high = string[index--]\n if (high.isHighSurrogate()) {\n reversed = reversed + high + low\n } else {\n reversed = reversed + low + high\n }\n } else {\n reversed += low\n

}\n }\n string = reversed\n return this\n }\n\n /**\n * Appends the string representation of the specified object
 [value] to this string builder and returns this instance.\n *\n * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n * and then that string was appended to this string builder.\n */\n actual fun append(value: Any?): StringBuilder {\n string += value.toString()\n return this\n }\n\n /**\n * Appends the string representation of the specified boolean [value] to this string builder and returns this instance.\n *\n * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n * and then that string was appended to this string builder.\n */\n @SinceKotlin(\"1.3\")\n actual fun append(value: Boolean): StringBuilder {\n string += value\n return this\n }\n\n /**\n * Appends characters in the specified character array [value] to this string builder and returns this instance.\n *\n * Characters
 are appended in order, starting at the index 0.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n actual fun append(value: CharArray): StringBuilder {\n string += value.concatToString()\n return this\n }\n\n @Deprecated(\"Provided for binary compatibility.\", level = DeprecationLevel.HIDDEN)\n fun append(value: String): StringBuilder = append(value)\n\n /**\n * Appends the specified string [value] to this string builder and returns this instance.\n *\n * If [value] is `null`, then the four characters `\"null\"` are appended.\n */\n @SinceKotlin(\"1.3\")\n actual fun append(value: String?): StringBuilder {\n this.string += value ?: \"null\"\n return this\n }\n\n /**\n * Returns the current capacity of this string builder.\n *\n * The capacity is the maximum length this string builder can have before an allocation occurs.\n *\n * In Kotlin/JS implementation
 of StringBuilder the value returned from this method may not indicate the actual size of the backing storage.\n */\n @SinceKotlin(\"1.3\")\n// @ExperimentalStdlibApi\n @Deprecated(\"Obtaining StringBuilder capacity is not supported in JS and common code.\", level = DeprecationLevel.ERROR)\n actual fun capacity(): Int = length\n\n /**\n * Ensures that the capacity of this string builder is at least equal to the specified [minimumCapacity].\n *\n * If the current capacity is less than the [minimumCapacity], a new backing storage is allocated with greater capacity.\n * Otherwise, this method takes no action and simply returns.\n *\n * In Kotlin/JS implementation of StringBuilder the size of the backing storage is not extended to comply the given [minimumCapacity],\n * thus calling this method has no effect on the further performance of operations.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n
 actual fun ensureCapacity(minimumCapacity: Int) {\n }\n\n /**\n * Returns the index within this string builder of the first occurrence of the specified [string].\n *\n * Returns `-1` if the specified [string] does not occur in this string builder.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n actual fun indexOf(string: String): Int = this.string.asDynamic().indexOf(string)\n\n /**\n * Returns the index within this string builder of the first occurrence of the specified [string],\n * starting at the specified [startIndex].\n *\n * Returns `-1` if the specified [string] does not occur in this string builder starting at the specified [startIndex].\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n actual fun indexOf(string: String, startIndex: Int): Int = this.string.asDynamic().indexOf(string, startIndex)\n\n /**\n * Returns the index within this string
 builder of the last occurrence of the specified [string].\n * The last occurrence of empty string `\"\"` is considered to be at the index equal to `this.length`.\n *\n * Returns `-1` if the specified [string] does not occur in this string builder.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n actual fun lastIndexOf(string: String): Int = this.string.asDynamic().lastIndexOf(string)\n\n /**\n * Returns the index within this string builder of the last occurrence of the specified [string],\n * starting from the specified [startIndex] toward the beginning.\n *\n * Returns `-1` if the specified [string] does not occur in this string builder starting at the specified [startIndex].\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n actual fun lastIndexOf(string: String, startIndex: Int): Int {\n if (string.isEmpty() && startIndex < 0) return -1\n return this.string.asDynamic().lastIndexOf(string,

startIndex)\n }\n\n /**\n * Inserts the string representation of the specified boolean [value] into this string builder at the specified [index] and returns this instance.\n *\n * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n * and then that string was inserted into this string builder at the specified [index].\n *\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n actual fun insert(index: Int, value: Boolean): StringBuilder {\n AbstractList.checkPositionIndex(index, length)\n\n string = string.substring(0, index) + value + string.substring(index)\n return this\n }\n\n /**\n * Inserts the specified character [value] into this string builder at the specified [index] and returns this instance.\n *\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n actual fun insert(index: Int, value: Char): StringBuilder {\n AbstractList.checkPositionIndex(index, length)\n\n string = string.substring(0, index) + value + string.substring(index)\n return this\n }\n\n /**\n * Inserts characters in the specified character array [value] into this string builder at the specified [index] and returns this instance.\n *\n * The inserted characters go in same order as in the [value] character array, starting at [index].\n *\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n actual fun insert(index: Int, value: CharArray): StringBuilder {\n AbstractList.checkPositionIndex(index, length)\n\n string = string.substring(0, index) + value.concatToString() + string.substring(index)\n return this\n }\n\n /**\n * Inserts characters in the specified character sequence [value] into this string builder at the specified [index] and returns this instance.\n *\n * The inserted characters go in the same order as in the [value] character sequence, starting at [index].\n *\n * @param index the position in this string builder to insert at.\n * @param value the character sequence from which characters are inserted. If [value] is `null`, then the four characters `\"null\"` are inserted.\n *\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n actual fun insert(index: Int, value: CharSequence?): StringBuilder {\n AbstractList.checkPositionIndex(index, length)\n\n string = string.substring(0, index) + value.toString() + string.substring(index)\n return this\n }\n\n /**\n * Inserts the string representation of the specified object [value] into this string builder at the specified [index] and returns this instance.\n *\n * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n * and then that string was inserted into this string builder at the specified [index].\n *\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n actual fun insert(index: Int, value: Any?): StringBuilder {\n AbstractList.checkPositionIndex(index, length)\n\n string = string.substring(0, index) + value.toString() + string.substring(index)\n return this\n }\n\n @Deprecated(\"Provided for binary compatibility.\", level = DeprecationLevel.HIDDEN)\n fun insert(index: Int, value: String): StringBuilder = insert(index, value)\n\n /**\n * Inserts the string [value] into this string builder at the specified [index] and returns this instance.\n *\n * If [value] is `null`, then the four characters `\"null\"` are inserted.\n *\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n actual fun insert(index: Int, value: String?): StringBuilder {\n AbstractList.checkPositionIndex(index, length)\n\n val toInsert = value ?: \"null\"\n this.string = this.string.substring(0, index) + toInsert + this.string.substring(index)\n return this\n }\n\n /**\n * Sets the length of this string builder to the specified [newLength].\n *\n * If the [newLength] is less than the current length, it is changed to the specified [newLength].\n * Otherwise, null characters '\\u0000' are appended to this string builder until its length is less than the [newLength].\n *\n * Note that in Kotlin/JS [set] operator function has non-constant execution time complexity.\n *

Therefore, increasing length of this string builder and then updating each character by index may slow down your program.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] if [newLength] is less than zero.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun setLength(newLength: Int) {\n   if (newLength < 0) {\n   throw IllegalArgumentException(\"Negative new length: $newLength.\")\n   }\n\n   if (newLength <= length) {\n   string = string.substring(0, newLength)\n   } else {\n   for (i in length until newLength) {\n   string += '\\u0000'\n   }\n   }\n   }\n\n   /**\n   * Returns a new [String] that contains characters in this string builder at [startIndex] (inclusive) and up to the [length] (exclusive).\n   *\n   * @throws IndexOutOfBoundsException if [startIndex] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun substring(startIndex: Int): String {\n   AbstractList.checkPositionIndex(startIndex, length)\n\n   return string.substring(startIndex)\n   }\n\n   /**\n   * Returns a new [String] that contains characters in this string builder at [startIndex] (inclusive) and up to the [endIndex] (exclusive).\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun substring(startIndex: Int, endIndex: Int): String {\n   AbstractList.checkBoundsIndexes(startIndex, endIndex, length)\n\n   return string.substring(startIndex, endIndex)\n   }\n\n   /**\n   * Attempts to reduce storage used for this string builder.\n   *\n   * If the backing storage of this string builder is larger than necessary to hold its current contents,\n   * then it may be resized to become more space efficient.\n   * Calling this method may, but is not required to, affect the value of the [capacity] property.\n   *\n   * In Kotlin/JS implementation of StringBuilder the size of the backing storage is always equal to the length of the string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun trimToSize() {\n   }\n\n   override fun toString(): String = string\n\n   /**\n   * Clears the content of this string builder making it empty and returns this instance.\n   *\n   * @sample samples.text.Strings.clearStringBuilder\n   */\n   @SinceKotlin(\"1.3\")\n   public fun clear(): StringBuilder {\n   string = \"\"\n   return this\n   }\n\n   /**\n   * Sets the character at the specified [index] to the specified [value].\n   *\n   * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   public operator fun set(index: Int, value: Char) {\n   AbstractList.checkElementIndex(index, length)\n\n   string = string.substring(0, index) + value + string.substring(index + 1)\n   }\n\n   /**\n   * Replaces characters in the specified range of this string builder with characters in the specified string [value] and returns this instance.\n   *\n   * @param startIndex the beginning (inclusive) of the range to replace.\n   * @param endIndex the end (exclusive) of the range to replace.\n   * @param value the string to replace with.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] if [startIndex] is less than zero, greater than the length of this string builder, or `startIndex > endIndex`.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   public fun setRange(startIndex: Int, endIndex: Int, value: String): StringBuilder {\n   checkReplaceRange(startIndex, endIndex, length)\n\n   this.string = this.string.substring(0, startIndex) + value + this.string.substring(endIndex)\n   return this\n   }\n\n   private fun checkReplaceRange(startIndex: Int, endIndex: Int, length: Int) {\n   if (startIndex < 0 || startIndex > length) {\n   throw IndexOutOfBoundsException(\"startIndex: $startIndex, length: $length\")\n   }\n   if (startIndex > endIndex) {\n   throw IllegalArgumentException(\"startIndex($startIndex) > endIndex($endIndex)\")\n   }\n   }\n\n   /**\n   * Removes the character at the specified [index] from this string builder and returns this instance.\n   *\n   * If the `Char` at the specified [index] is part of a supplementary code point, this method does not remove the entire supplementary character.\n   *\n   * @param index the index of `Char` to remove.\n   *\n   * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   public fun deleteAt(index: Int): StringBuilder {\n   AbstractList.checkElementIndex(index, length)\n\n   string =

string.substring(0, index) + string.substring(index + 1)\n return this\n }\n\n /**\n * Removes characters in the specified range from this string builder and returns this instance.\n *\n * @param startIndex the beginning (inclusive) of the range to remove.\n * @param endIndex the end (exclusive) of the range to remove.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n public fun deleteRange(startIndex: Int, endIndex: Int): StringBuilder {\n checkReplaceRange(startIndex, endIndex, length)\n\n string = string.substring(0, startIndex) + string.substring(endIndex)\n return this\n }\n\n /**\n * Copies characters from this string builder into the [destination] character array.\n *\n * @param destination the array to copy to.\n * @param destinationOffset the position in the array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the range to copy, 0 by default.\n * @param endIndex the end (exclusive) of the range to copy, length of this string builder by default.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n public fun toCharArray(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = this.length) {\n AbstractList.checkBoundsIndexes(startIndex, endIndex, length)\n AbstractList.checkBoundsIndexes(destinationOffset, destinationOffset + endIndex - startIndex, destination.size)\n\n var dstIndex = destinationOffset\n for (index in startIndex until endIndex) {\n destination[dstIndex++] = string[index]\n }\n }\n\n /**\n * Appends characters in a subarray of the specified character array [value] to this string builder and returns this instance.\n *\n * Characters are appended in order, starting at specified [startIndex].\n *\n * @param value the array from which characters are appended.\n * @param startIndex the beginning (inclusive) of the subarray to append.\n * @param endIndex the end (exclusive) of the subarray to append.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n public fun appendRange(value: CharArray, startIndex: Int, endIndex: Int): StringBuilder {\n string += value.concatToString(startIndex, endIndex)\n return this\n }\n\n /**\n * Appends a subsequence of the specified character sequence [value] to this string builder and returns this instance.\n *\n * @param value the character sequence from which a subsequence is appended.\n * @param startIndex the beginning (inclusive) of the subsequence to append.\n * @param endIndex the end (exclusive) of the subsequence to append.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n public fun appendRange(value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder {\n val stringCsq = value.toString()\n AbstractList.checkBoundsIndexes(startIndex, endIndex, stringCsq.length)\n\n string += stringCsq.substring(startIndex, endIndex)\n return this\n }\n\n /**\n * Inserts characters in a subarray of the specified character array [value] into this string builder at the specified [index] and returns this instance.\n *\n * The inserted characters go in same order as in the [value] array, starting at [index].\n *\n * @param index the position in this string builder to insert at.\n * @param value the array from which characters are inserted.\n * @param startIndex the beginning (inclusive) of the subarray to insert.\n * @param endIndex the end (exclusive) of the subarray to insert.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n */\n @SinceKotlin(\"1.4\")\n

@WasExperimental(ExperimentalStdlibApi::class)\n   public fun insertRange(index: Int, value: CharArray, startIndex: Int, endIndex: Int): StringBuilder {\n   AbstractList.checkPositionIndex(index, this.length)\n\n   string = string.substring(0, index) + value.concatToString(startIndex, endIndex) + string.substring(index)\n   return this\n   }\n\n   /**\n   * Inserts characters in a subsequence of the specified character sequence [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The inserted characters go in the same order as in the [value] character sequence, starting at [index].\n   *\n   * @param index the position in this string builder to insert at.\n   * @param value the character sequence from which a subsequence is inserted.\n   * @param startIndex the beginning (inclusive) of the subsequence to insert.\n   * @param endIndex the end (exclusive) of the subsequence to insert.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   public fun insertRange(index: Int, value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder {\n   AbstractList.checkPositionIndex(index, length)\n\n   val stringCsq = value.toString()\n   AbstractList.checkBoundsIndexes(startIndex, endIndex, stringCsq.length)\n\n   string = string.substring(0, index) + stringCsq.substring(startIndex, endIndex) + string.substring(index)\n   return this\n   }\n}\n\n\n/**\n * Clears the content of this string builder making it empty and returns this instance.\n *\n * @sample samples.text.Strings.clearStringBuilder\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.clear(): StringBuilder = this.clear()\n\n/**\n * Sets the character at the specified [index] to the specified [value].\n *\n * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline operator fun StringBuilder.set(index: Int, value: Char) = this.set(index, value)\n\n/**\n * Replaces characters in the specified range of this string builder with characters in the specified string [value] and returns this instance.\n *\n * @param startIndex the beginning (inclusive) of the range to replace.\n * @param endIndex the end (exclusive) of the range to replace.\n * @param value the string to replace with.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] if [startIndex] is less than zero, greater than the length of this string builder, or `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.setRange(startIndex: Int, endIndex: Int, value: String): StringBuilder =\n   this.setRange(startIndex, endIndex, value)\n\n/**\n * Removes the character at the specified [index] from this string builder and returns this instance.\n *\n * If the `Char` at the specified [index] is part of a supplementary code point, this method does not remove the entire supplementary character.\n *\n * @param index the index of `Char` to remove.\n *\n * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.deleteAt(index: Int): StringBuilder = this.deleteAt(index)\n\n/**\n * Removes characters in the specified range from this string builder and returns this instance.\n *\n * @param startIndex the beginning (inclusive) of the range to remove.\n * @param endIndex the end (exclusive) of the range to remove.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun

StringBuilder.deleteRange(startIndex: Int, endIndex: Int): StringBuilder = this.deleteRange(startIndex, endIndex)\n\n/**\n * Copies characters from this string builder into the [destination] character array.\n *\n * @param destination the array to copy to.\n * @param destinationOffset the position in the array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the range to copy, 0 by default.\n * @param endIndex the end (exclusive) of the range to copy, length of this string builder by default.\n *\n * @throws IndexOutOfBoundsException
 or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\", \"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun StringBuilder.toCharArray(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = this.length) =\n   this.toCharArray(destination, destinationOffset, startIndex, endIndex)\n\n/**\n * Appends characters in a subarray of the specified character array [value] to this string builder and returns this instance.\n *\n * Characters are appended in order, starting at specified [startIndex].\n
 *\n * @param value the array from which characters are appended.\n * @param startIndex the beginning (inclusive) of the subarray to append.\n * @param endIndex the end (exclusive) of the subarray to append.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.appendRange(value: CharArray, startIndex: Int, endIndex: Int): StringBuilder =\n this.appendRange(value, startIndex, endIndex)\n\n/**\n * Appends a subsequence of the specified character sequence [value] to this string builder and returns this instance.\n *\n * @param value the character sequence from which a subsequence is appended.\n * @param startIndex the beginning (inclusive) of the subsequence to append.\n
 * @param endIndex the end (exclusive) of the subsequence to append.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.appendRange(value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder =\n this.appendRange(value, startIndex, endIndex)\n\n/**\n * Inserts characters in a subarray of the specified character array [value] into this string builder at the specified [index] and returns this instance.\n *\n * The inserted characters go in same order as in the [value] array, starting at [index].\n *\n * @param index the position in this string builder to insert at.\n * @param value the array from which characters are inserted.\n * @param startIndex the
 beginning (inclusive) of the subarray to insert.\n * @param endIndex the end (exclusive) of the subarray to insert.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.insertRange(index: Int, value: CharArray, startIndex: Int, endIndex: Int): StringBuilder =\n this.insertRange(index, value, startIndex, endIndex)\n\n/**\n * Inserts characters in a subsequence of the specified character sequence [value] into this string builder at the specified [index] and returns this instance.\n *\n * The inserted characters go in the same order as in the [value] character

sequence, starting at [index].\n *\n * @param index the position in this string builder to insert at.\n * @param value the character sequence from which a subsequence is inserted.\n * @param startIndex the beginning (inclusive) of the subsequence to insert.\n * @param endIndex the end (exclusive) of the subsequence to insert.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.insertRange(index: Int, value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder =\n this.insertRange(index, value, startIndex, endIndex)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n\n/**\n * Returns `true` if the content of this string is equal to the word \"true\", ignoring case, and `false` otherwise.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@kotlin.internal.InlineOnly\npublic actual inline fun String.toBoolean(): Boolean = this.toBoolean()\n\n/**\n * Returns `true` if this string is not `null` and its content is equal to the word \"true\", ignoring case, and `false` otherwise.\n *\n * There are also strict versions of the function available on non-nullable String, [toBooleanStrict] and [toBooleanStrictOrNull].\n */\n@SinceKotlin(\"1.4\")\npublic actual fun String?.toBoolean(): Boolean = this != null && this.lowercase() == \"true\"\n\n/**\n * Parses the string as a signed [Byte] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\npublic actual fun String.toByte(): Byte = toByteOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a signed [Byte] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\npublic actual fun String.toByte(radix: Int): Byte = toByteOrNull(radix) ?: numberFormatError(this)\n\n\n/**\n * Parses the string as a [Short] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\npublic actual fun String.toShort(): Short = toShortOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a [Short] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\npublic actual fun String.toShort(radix: Int): Short = toShortOrNull(radix) ?: numberFormatError(this)\n\n/**\n * Parses the string as an [Int] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\npublic actual fun String.toInt(): Int = toIntOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as an [Int] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\npublic actual fun String.toInt(radix: Int): Int = toIntOrNull(radix) ?: numberFormatError(this)\n\n/**\n * Parses the string as a [Long] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\npublic actual fun String.toLong(): Long = toLongOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a [Long] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\npublic actual fun String.toLong(radix: Int): Long = toLongOrNull(radix) ?: numberFormatError(this)\n\n/**\n * Parses the string as a [Double] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\npublic actual fun String.toDouble(): Double = (+(this.asDynamic())).unsafeCast<Double>().also {\n   if (it.isNaN() && !this.isNaN() || it == 0.0 && this.isBlank())\n   numberFormatError(this)\n}\n\n/**\n * Parses the string as a [Float] number

and returns the result.\n * @throws NumberFormatException if the string is not a valid representation
of a number.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun String.toFloat(): Float =
toDouble().unsafeCast<Float>()\n\n/**\n * Parses the string as a [Double] number and returns the result\n * or `null`
if the string is not a valid representation of a number.\n */\npublic actual fun String.toDoubleOrNull(): Double? =
(+(this.asDynamic())).unsafeCast<Double>().takeIf {\n   !(it.isNaN() && !this.isNaN() || it == 0.0 &&
this.isBlank())\n}\n\n/**\n * Parses the string as a [Float] number and returns the result\n * or `null` if the string is
not a valid representation of a number.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun
String.toFloatOrNull(): Float? = toDoubleOrNull().unsafeCast<Float?>()\n\n/**\n * Returns a string representation
of this [Byte] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid
radix for number to string conversion.\n */\n@SinceKotlin(\"1.2\")\n@kotlin.internal.InlineOnly\npublic
actual inline fun Byte.toString(radix: Int): String = this.toInt().toString(radix)\n\n/**\n * Returns a string
representation of this [Short] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix]
is not a valid radix for number to string conversion.\n
*/\n@SinceKotlin(\"1.2\")\n@kotlin.internal.InlineOnly\npublic actual inline fun Short.toString(radix: Int): String =
this.toInt().toString(radix)\n\n/**\n * Returns a string representation of this [Int] value in the specified [radix].\n *\n
* @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n
*/\n@SinceKotlin(\"1.2\")\npublic actual fun Int.toString(radix: Int): String =
asDynamic().toString(checkRadix(radix))\n\nprivate fun String.isNaN(): Boolean = when (this.lowercase()) {\n
\"nan\", \"+nan\", \"-nan\" -> true\n   else -> false\n}\n\n/**\n * Checks whether the given [radix] is valid radix for
string to number and number to string conversion.\n */\n@PublishedApi\ninternal
actual fun checkRadix(radix: Int): Int {\n   if (radix !in 2..36) {\n   throw IllegalArgumentException(\"radix
$radix was not in valid range 2..36\")\n   }\n   return radix\n}\n\ninternal actual fun digitOf(char: Char, radix: Int):
Int = when {\n   char >= '0' && char <= '9' -> char - '0'\n   char >= 'A' && char <= 'Z' -> char - 'A' + 10\n   char >=
'a' && char <= 'z' -> char - 'a' + 10\n   char < '\\u0080' -> -1\n   char >= '\\uFF21' && char <= '\\uFF3A' -> char -
'\\uFF21' + 10 // full-width latin capital letter\n   char >= '\\uFF41' && char <= '\\uFF5A' -> char - '\\uFF41' + 10 //
full-width latin small letter\n   else -> char.digitToIntImpl()\n}.let { if (it >= radix) -1 else it }\n","/*\n * Copyright
2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\nimport
kotlin.js.RegExp\n\n/**\n
* Provides enumeration values to use to set regular expression options.\n */\npublic actual enum class
RegexOption(val value: String) {\n   /** Enables case-insensitive matching. */\n   IGNORE_CASE(\"i\"),\n   /**
Enables multiline mode.\n   *\n   * In multiline mode the expressions `^` and `$` match just after or just before,\n
* respectively, a line terminator or the end of the input sequence. */\n   MULTILINE(\"m\")\n}\n\nprivate fun
Iterable<RegexOption>.toFlags(prepend: String): String = joinToString(\"\", prefix = prepend) { it.value
}\n\n\n/**\n * Represents the results from a single capturing group within a [MatchResult] of [Regex].\n *\n *
@param value The value of captured group.\n */\npublic actual data class MatchGroup(actual val value:
String)\n\n\n/**\n * Represents a compiled regular expression.\n * Provides functions to match strings in text with a
pattern, replace the found occurrences and split text around matches.\n *\n * For pattern syntax reference
see [MDN RegExp](https://developer.mozilla.org/en-
US/docs/Web/JavaScript/Reference/Global_Objects/RegExp#Special_characters_meaning_in_regular_expressions)\
n * and
[http://www.w3schools.com/jsref/jsref_obj_regexp.asp](https://www.w3schools.com/jsref/jsref_obj_regexp.asp).\n
*\n * Note that `RegExp` objects under the hood are constructed with [the \"u\"
flag](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/RegExp/unicode)\n * that
enables Unicode-related features in regular expressions. This also makes the pattern syntax more strict,\n * for
example, prohibiting unnecessary escape sequences.\n *\n * @constructor Creates a regular expression from the
specified [pattern] string and the specified set of [options].\n */\npublic actual class Regex actual
constructor(pattern: String, options: Set<RegexOption>) {\n\n   /** Creates a regular expression from the specified

[pattern] string and the specified single [option]. */\n   public actual constructor(pattern:
 String, option: RegexOption) : this(pattern, setOf(option))\n\n   /** Creates a regular expression from the specified
[pattern] string and the default options. */\n   public actual constructor(pattern: String) : this(pattern,
emptySet())\n\n\n   /** The pattern string of this regular expression. */\n   public actual val pattern: String =
pattern\n   /** The set of options that were used to create this regular expression. */\n   public actual val options:
Set<RegexOption> = options.toSet()\n   private val nativePattern: RegExp = RegExp(pattern,
options.toFlags(\"gu\"))\n   private var nativeStickyPattern: RegExp? = null\n   private fun initStickyPattern():
RegExp =\n   nativeStickyPattern ?: RegExp(pattern, options.toFlags(\"yu\")).also { nativeStickyPattern = it }\n\n
  private var nativeMatchesEntirePattern: RegExp? = null\n   private fun initMatchesEntirePattern(): RegExp =\n
 nativeMatchesEntirePattern ?: run {\n   if (pattern.startsWith('^')
 && pattern.endsWith('$'))\n   nativePattern\n   else\n   return
RegExp(\"^${pattern.trimStart('^').trimEnd('$')}$\", options.toFlags(\"gu\"))\n   }.also {
nativeMatchesEntirePattern = it }\n\n\n   /** Indicates whether the regular expression matches the entire [input].
*/\n   public actual infix fun matches(input: CharSequence): Boolean {\n   nativePattern.reset()\n   val match
= nativePattern.exec(input.toString())\n   return match != null && match.index == 0 && nativePattern.lastIndex
== input.length\n   }\n\n   /** Indicates whether the regular expression can find at least one match in the specified
[input]. */\n   public actual fun containsMatchIn(input: CharSequence): Boolean {\n   nativePattern.reset()\n
return nativePattern.test(input.toString())\n   }\n\n   @SinceKotlin(\"1.5\")\n   @ExperimentalStdlibApi\n   public
actual fun matchesAt(input: CharSequence, index: Int): Boolean {\n   if (index < 0
 || index > input.length) {\n   throw IndexOutOfBoundsException(\"index out of bounds: $index, input length:
${input.length}\")\n   }\n   val pattern = initStickyPattern()\n   pattern.lastIndex = index\n   return
pattern.test(input.toString())\n   }\n\n   /**\n   * Returns the first match of a regular expression in the [input],
beginning at the specified [startIndex].\n   *\n   * @param startIndex An index to start search with, by default 0.
Must be not less than zero and not greater than `input.length()`\n   * @return An instance of [MatchResult] if
match was found or `null` otherwise.\n   * @throws IndexOutOfBoundsException if [startIndex] is less than zero
or greater than the length of the [input] char sequence.\n   * @sample samples.text.Regexps.find\n   */\n
@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\n   public actual fun find(input:
CharSequence, startIndex: Int = 0): MatchResult? {\n   if (startIndex < 0 || startIndex
 > input.length) {\n   throw IndexOutOfBoundsException(\"Start index out of bounds: $startIndex, input
length: ${input.length}\")\n   }\n   return nativePattern.findNext(input.toString(), startIndex, nativePattern)\n
}\n\n   /**\n   * Returns a sequence of all occurrences of a regular expression within the [input] string, beginning
at the specified [startIndex].\n   *\n   * @throws IndexOutOfBoundsException if [startIndex] is less than zero or
greater than the length of the [input] char sequence.\n   *\n   * @sample samples.text.Regexps.findAll\n   */\n
@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\n   public actual fun findAll(input:
CharSequence, startIndex: Int = 0): Sequence<MatchResult> {\n   if (startIndex < 0 || startIndex > input.length)
{\n   throw IndexOutOfBoundsException(\"Start index out of bounds: $startIndex, input length:
${input.length}\")\n   }\n   return generateSequence({ find(input, startIndex)
 }, { match -> match.next() })\n   }\n\n   /**\n   * Attempts to match the entire [input] CharSequence against the
pattern.\n   *\n   * @return An instance of [MatchResult] if the entire input matches or `null` otherwise.\n   */\n
public actual fun matchEntire(input: CharSequence): MatchResult? =\n
initMatchesEntirePattern().findNext(input.toString(), 0, nativePattern)\n\n   @SinceKotlin(\"1.5\")\n
@ExperimentalStdlibApi\n   public actual fun matchAt(input: CharSequence, index: Int): MatchResult? {\n   if
(index < 0 || index > input.length) {\n   throw IndexOutOfBoundsException(\"index out of bounds: $index,
input length: ${input.length}\")\n   }\n   return initStickyPattern().findNext(input.toString(), index,
nativePattern)\n   }\n\n\n   /**\n   * Replaces all occurrences of this regular expression in the specified [input]
string with specified [replacement] expression.\n   *\n   * The replacement string may contain references
 to the captured groups during a match. Occurrences of `$index`\n   * in the replacement string will be substituted
with the subsequences corresponding to the captured groups with the specified index.\n   * The first digit after '$' is

always treated as part of group reference. Subsequent digits are incorporated\n * into `index` only if they would form a valid group reference. Only the digits '0'..'9' are considered as potential components\n * of the group reference. Note that indexes of captured groups start from 1, and the group with index 0 is the whole match.\n *\n * Backslash character '\\' can be used to include the succeeding character as a literal in the replacement string, e.g, `\\$` or `\\\\`.\n * [Regex.escapeReplacement] can be used if [replacement] have to be treated as a literal string.\n *\n * Note that referring named capturing groups by name is currently not supported in Kotlin/JS.\n * However, you can still refer them by index.\n

*\n * @param input the char sequence to find matches of this regular expression in\n * @param replacement the expression to replace found matches with\n * @return the result of replacing each occurrence of this regular expression in [input] with the result of evaluating the [replacement] expression\n * @throws RuntimeException if [replacement] expression is malformed, or capturing group with specified `name` or `index` does not exist\n */\n public actual fun replace(input: CharSequence, replacement: String): String {\n if (!replacement.contains('\\\\') && !replacement.contains('$')) {\n return input.toString().nativeReplace(nativePattern, replacement)\n }\n return replace(input) { substituteGroupRefs(it, replacement) }\n }\n\n /**\n * Replaces all occurrences of this regular expression in the specified [input] string with the result of\n * the given function [transform] that takes [MatchResult] and returns a string

to be used as a\n * replacement for that match.\n */\n public actual fun replace(input: CharSequence, transform: (MatchResult) -> CharSequence): String {\n var match = find(input)\n if (match == null) return input.toString()\n\n var lastStart = 0\n val length = input.length\n val sb = StringBuilder(length)\n do {\n val foundMatch = match!!\n sb.append(input, lastStart, foundMatch.range.start)\n sb.append(transform(foundMatch))\n lastStart = foundMatch.range.endInclusive + 1\n match = foundMatch.next()\n } while (lastStart < length && match != null)\n\n if (lastStart < length) {\n sb.append(input, lastStart, length)\n }\n\n return sb.toString()\n }\n\n /**\n * Replaces the first occurrence of this regular expression in the specified [input] string with specified [replacement] expression.\n *\n * The replacement string may contain

references to the captured groups during a match. Occurrences of `$index`\n * in the replacement string will be substituted with the subsequences corresponding to the captured groups with the specified index.\n * The first digit after '$' is always treated as part of group reference. Subsequent digits are incorporated\n * into `index` only if they would form a valid group reference. Only the digits '0'..'9' are considered as potential components\n * of the group reference. Note that indexes of captured groups start from 1, and the group with index 0 is the whole match.\n *\n * Backslash character '\\' can be used to include the succeeding character as a literal in the replacement string, e.g, `\\$` or `\\\\`.\n * [Regex.escapeReplacement] can be used if [replacement] have to be treated as a literal string.\n *\n * Note that referring named capturing groups by name is not supported currently in Kotlin/JS.\n * However, you can still refer them

by index.\n *\n * @param input the char sequence to find a match of this regular expression in\n * @param replacement the expression to replace the found match with\n * @return the result of replacing the first occurrence of this regular expression in [input] with the result of evaluating the [replacement] expression\n * @throws RuntimeException if [replacement] expression is malformed, or capturing group with specified `name` or `index` does not exist\n */\n public actual fun replaceFirst(input: CharSequence, replacement: String): String {\n if (!replacement.contains('\\\\') && !replacement.contains('$')) {\n val nonGlobalOptions = options.toFlags(\"u\")\n return input.toString().nativeReplace(RegExp(pattern, nonGlobalOptions), replacement)\n }\n\n val match = find(input) ?: return input.toString()\n\n return buildString {\n append(input.substring(0, match.range.first))\n append(substituteGroupRefs(match,

replacement))\n append(input.substring(match.range.last + 1, input.length))\n }\n }\n\n /**\n * Splits the [input] CharSequence to a list of strings around matches of this regular expression.\n *\n * @param limit Non-negative value specifying the maximum number of substrings the string can be split to.\n * Zero by default means no limit is set.\n */\n @Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\n public actual fun split(input:

```
CharSequence, limit: Int = 0): List<String> {\n        requireNonNegativeLimit(limit)\n        val matches =
findAll(input).let { if (limit == 0) it else it.take(limit - 1) }\n        val result = mutableListOf<String>()\n        var
lastStart = 0\n\n        for (match in matches) {\n            result.add(input.subSequence(lastStart,
match.range.start).toString())\n            lastStart = match.range.endInclusive + 1\n        }\n
result.add(input.subSequence(lastStart, input.length).toString())\n
        return result\n    }\n\n    /**\n     * Splits the [input] CharSequence to a sequence of strings around matches of
this regular expression.\n     *\n     * @param limit Non-negative value specifying the maximum number of
substrings the string can be split to.\n     * Zero by default means no limit is set.\n     * @sample
samples.text.Regexps.splitToSequence\n     */\n    @SinceKotlin(\"1.6\")\n
@WasExperimental(ExperimentalStdlibApi::class)\n
@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\n    public actual fun
splitToSequence(input: CharSequence, limit: Int = 0): Sequence<String> {\n
requireNonNegativeLimit(limit)\n\n        return sequence {\n            var match = find(input)\n            if (match ==
null || limit == 1) {\n                yield(input.toString())\n                return@sequence\n            }\n\n            var
nextStart = 0\n            var splitCount = 0\n\n            do {\n                val foundMatch = match!!\n
                yield(input.substring(nextStart, foundMatch.range.first))\n                nextStart =
foundMatch.range.endInclusive + 1\n                match = foundMatch.next()\n            } while (++splitCount != limit -
1 && match != null)\n\n            yield(input.substring(nextStart, input.length))\n        }\n    }\n\n\n    /**\n     *
Returns the string representation of this regular expression, namely the [pattern] of this regular expression.\n     *\n
* Note that another regular expression constructed from the same pattern string may have different [options]\n     *
and may match strings differently.\n     */\n    public override fun toString(): String = nativePattern.toString()\n\n
actual companion object {\n        /**\n         * Returns a regular expression that matches the specified [literal] string
literally.\n         * No characters of that string will have special meaning when searching for an occurrence of the
regular expression.\n         */\n        public
 actual fun fromLiteral(literal: String): Regex = Regex(escape(literal))\n\n        /**\n         * Returns a regular
expression pattern string that matches the specified [literal] string literally.\n         * No characters of that string will
have special meaning when searching for an occurrence of the regular expression.\n         */\n        public actual fun
escape(literal: String): String = literal.nativeReplace(patternEscape, \"\\\\$&\")\n\n        /**\n         * Returns a literal
replacement expression for the specified [literal] string.\n         * No characters of that string will have special
meaning when it is used as a replacement string in [Regex.replace] function.\n         */\n        public actual fun
escapeReplacement(literal: String): String = literal.nativeReplace(replacementEscape, \"\\\\$&\")\n\n        private val
patternEscape = RegExp(\"\"\"[\\\\^$*+?.()|[\\]{}]\"\"\", \"g\")\n        private val replacementEscape =
RegExp(\"\"\"[\\\\$]\"\"\", \"g\")\n\n
        internal fun nativeEscapeReplacement(literal: String): String = literal.nativeReplace(nativeReplacementEscape,
\"$$$$\")\n        private val nativeReplacementEscape = RegExp(\"\"\"\\$\"\"\", \"g\")\n    }\n}\n\n\n\nprivate fun
RegExp.findNext(input: String, from: Int, nextPattern: RegExp): MatchResult? {\n    this.lastIndex = from\n    val
match = exec(input)\n    if (match == null) return null\n    val range = match.index..lastIndex - 1\n\n    return object :
MatchResult {\n        override val range: IntRange = range\n        override val value: String\n            get() =
match[0]!!\n\n        override val groups: MatchGroupCollection = object : MatchGroupCollection,
AbstractCollection<MatchGroup?>() {\n            override val size: Int get() = match.length\n            override fun
iterator(): Iterator<MatchGroup?> = indices.asSequence().map { this[it] }.iterator()\n            override fun get(index:
Int): MatchGroup? = match[index]?.let { MatchGroup(it) }\n        }\n\n\n
        private var groupValues_: List<String>? = null\n\n        override val groupValues: List<String>\n            get()
{\n                if (groupValues_ == null) {\n                    groupValues_ = object : AbstractList<String>() {\n
      override val size: Int get() = match.length\n                        override fun get(index: Int): String = match[index] ?:
\"\"\n                    }\n                }\n                return groupValues_!!\n            }\n\n        override fun next():
MatchResult? =\n            nextPattern.findNext(input, if (range.isEmpty()) range.start + 1 else range.endInclusive +
1, nextPattern)\n    }\n}\n\n// The same code from K/N Regex.kt\nprivate fun substituteGroupRefs(match:
```

MatchResult, replacement: String): String {\n   var index = 0\n   val result = StringBuilder(replacement.length)\n\n   while (index < replacement.length) {\n   val char = replacement[index++]\n   if (char == '\\\\') {\n   if (index
 == replacement.length)\n   throw IllegalArgumentException(\"The Char to be escaped is missing\")\n\n   result.append(replacement[index++])\n   } else if (char == '$') {\n   if (index == replacement.length)\n   throw IllegalArgumentException(\"Capturing group index is missing\")\n\n   if (replacement[index] == '{')\n   throw IllegalArgumentException(\"Named capturing group reference currently is not supported\")\n\n   if (replacement[index] !in '0'..'9')\n   throw IllegalArgumentException(\"Invalid capturing group reference\")\n\n   val endIndex = replacement.readGroupIndex(index, match.groupValues.size)\n   val groupIndex = replacement.substring(index, endIndex).toInt()\n\n   if (groupIndex >= match.groupValues.size)\n   throw IndexOutOfBoundsException(\"Group with index $groupIndex does not exist\")\n\n   result.append(match.groupValues[groupIndex])\n
            index = endIndex\n   } else {\n   result.append(char)\n   }\n   }\n   return result.toString()\n}\n\nprivate fun String.readGroupIndex(startIndex: Int, groupCount: Int): Int {\n   // at least one digit after '$' is always captured\n   var index = startIndex + 1\n   var groupIndex = this[startIndex] - '0'\n\n   // capture the largest valid group index\n   while (index < length && this[index] in '0'..'9') {\n   val newGroupIndex = (groupIndex * 10) + (this[index] - '0')\n   if (newGroupIndex in 0 until groupCount) {\n   groupIndex = newGroupIndex\n   index++\n   } else {\n   break\n   }\n   }\n   return index\n}","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n@file:Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\")\n\npackage
 kotlin.text\n\nimport kotlin.contracts.*\n\n/**\n * A mutable sequence of characters.\n *\n * String builder can be used to efficiently perform multiple string manipulation operations.\n */\nexpect class StringBuilder : Appendable, CharSequence {\n   /** Constructs an empty string builder. */\n   constructor()\n\n   /** Constructs an empty string builder with the specified initial [capacity]. */\n   constructor(capacity: Int)\n\n   /** Constructs a string builder that contains the same characters as the specified [content] char sequence. */\n   constructor(content: CharSequence)\n\n   /** Constructs a string builder that contains the same characters as the specified [content] string. */\n   @SinceKotlin(\"1.3\")\n//   @ExperimentalStdlibApi\n   constructor(content: String)\n\n   override val length: Int\n\n   override operator fun get(index: Int): Char\n\n   override fun subSequence(startIndex: Int, endIndex:
 Int): CharSequence\n\n   override fun append(value: Char): StringBuilder\n   override fun append(value: CharSequence?): StringBuilder\n   override fun append(value: CharSequence?, startIndex: Int, endIndex: Int): StringBuilder\n\n   /**\n   * Reverses the contents of this string builder and returns this instance.\n   *\n   * Surrogate pairs included in this string builder are treated as single characters.\n   * Therefore, the order of the high-low surrogates is never reversed.\n   *\n   * Note that the reverse operation may produce new surrogate pairs that were unpaired low-surrogates and high-surrogates before the operation.\n   * For example, reversing `\"\\uDC00\\uD800\"` produces `\"\\uD800\\uDC00\"` which is a valid surrogate pair.\n   */\n   fun reverse(): StringBuilder\n\n   /**\n   * Appends the string representation of the specified object [value] to this string builder and returns this instance.\n   *\n   * The overall effect is exactly as if the
 [value] were converted to a string by the `value.toString()` method,\n   * and then that string was appended to this string builder.\n   */\n   fun append(value: Any?): StringBuilder\n\n   /**\n   * Appends the string representation of the specified boolean [value] to this string builder and returns this instance.\n   *\n   * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n   * and then that string was appended to this string builder.\n   */\n   @SinceKotlin(\"1.3\")\n   fun append(value: Boolean): StringBuilder\n\n   /**\n   * Appends characters in the specified character array [value] to this string builder and returns this instance.\n   *\n   * Characters are appended in order, starting at the index 0.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun append(value: CharArray): StringBuilder\n\n   /**\n   * Appends the specified string [value] to this

string builder and returns this instance.\n   *\n   * If [value] is `null`, then the four characters `\"null\"` are appended.\n   */\n   @SinceKotlin(\"1.3\")\n   fun append(value: String?): StringBuilder\n\n   /**\n   * Returns the current capacity of this string builder.\n   *\n   * The capacity is the maximum length this string builder can have before an allocation occurs.\n   */\n   @SinceKotlin(\"1.3\")\n//   @ExperimentalStdlibApi\n   @Deprecated(\"Obtaining StringBuilder capacity is not supported in JS and common code.\", level = DeprecationLevel.ERROR)\n   fun capacity(): Int\n\n   /**\n   * Ensures that the capacity of this string builder is at least equal to the specified [minimumCapacity].\n   *\n   * If the current capacity is less than the [minimumCapacity], a new backing storage is allocated with greater capacity.\n   * Otherwise, this method takes no action and simply returns.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun ensureCapacity(minimumCapacity: Int)\n\n   /**\n   * Returns the index within this string builder of the first occurrence of the specified [string].\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun indexOf(string: String): Int\n\n   /**\n   * Returns the index within this string builder of the first occurrence of the specified [string],\n   * starting at the specified [startIndex].\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder starting at the specified [startIndex].\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun indexOf(string: String, startIndex: Int): Int\n\n   /**\n   * Returns the index within this string builder of the last occurrence of the specified [string].\n   * The last occurrence of empty string `\"\"` is considered to be at the index equal to `this.length`.\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun lastIndexOf(string: String): Int\n\n   /**\n   * Returns the index within this string builder of the last occurrence of the specified [string],\n   * starting from the specified [startIndex] toward the beginning.\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder starting at the specified [startIndex].\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun lastIndexOf(string: String, startIndex: Int): Int\n\n   /**\n   * Inserts the string representation of the specified boolean [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n   * and then that string was inserted into this string builder at the specified [index].\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun insert(index: Int, value: Boolean): StringBuilder\n\n   /**\n   * Inserts the specified character [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun insert(index: Int, value: Char): StringBuilder\n\n   /**\n   * Inserts characters in the specified character array [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The inserted characters go in same order as in the [value] character array, starting at [index].\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun insert(index: Int, value: CharArray): StringBuilder\n\n   /**\n   * Inserts characters in the specified character sequence [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The inserted characters go in the same order as in the [value] character sequence, starting at [index].\n   *\n   * @param index the position in this string builder to insert at.\n   * @param value the character sequence from which characters are inserted. If [value] is `null`, then the four characters `\"null\"` are inserted.\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun insert(index: Int, value: CharSequence?): StringBuilder\n\n   /**\n   * Inserts the string representation of the specified object [value] into this string builder at the specified [index] and returns this instance.\n *\n * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n * and then that string was inserted into this string builder at the specified [index].\n *\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n fun insert(index: Int, value: Any?): StringBuilder\n\n /**\n * Inserts the string [value] into this string builder at the specified [index] and returns this instance.\n *\n * If [value] is `null`, then the four characters `\"null\"` are inserted.\n *\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n fun insert(index: Int, value: String?): StringBuilder\n\n /**\n * Sets the length of this string builder to the specified [newLength].\n *\n * If the [newLength] is less than the current length, it is changed to the specified [newLength].\n * Otherwise, null characters '\\u0000' are appended to this string builder until its length is less than the [newLength].\n *\n * Note that in Kotlin/JS [set] operator function has non-constant execution time complexity.\n * Therefore, increasing length of this string builder and then updating each character by index may slow down your program.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] if [newLength] is less than zero.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n fun setLength(newLength: Int)\n\n /**\n * Returns a new [String] that contains characters in this string builder at [startIndex] (inclusive) and up to the [length] (exclusive).\n *\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or greater than the length of this string builder.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n fun substring(startIndex: Int): String\n\n /**\n * Returns a new [String] that contains characters in this string builder at [startIndex] (inclusive) and up to the [endIndex] (exclusive).\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n fun substring(startIndex: Int, endIndex: Int): String\n\n /**\n * Attempts to reduce storage used for this string builder.\n *\n * If the backing storage of this string builder is larger than necessary to hold its current contents,\n * then it may be resized to become more space efficient.\n * Calling this method may, but is not required to, affect the value of the [capacity] property.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n fun trimToSize()\n}\n\n\n/**\n * Clears the content of this string builder making it empty and returns this instance.\n *\n * @sample samples.text.Strings.clearStringBuilder\n */\n@SinceKotlin(\"1.3\")\npublic expect fun StringBuilder.clear(): StringBuilder\n\n/**\n * Sets the character at the specified [index] to the specified [value].\n *\n * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect operator fun StringBuilder.set(index: Int, value: Char)\n\n/**\n * Replaces characters in the specified range of this string builder with characters in the specified string [value] and returns this instance.\n *\n * @param startIndex the beginning (inclusive) of the range to replace.\n * @param endIndex the end (exclusive) of the range to replace.\n * @param value the string to replace with.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] if [startIndex] is less than zero, greater than the length of this string builder, or `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.setRange(startIndex: Int, endIndex: Int, value: String): StringBuilder\n\n/**\n * Removes the character at the specified [index] from this string builder and returns this instance.\n *\n * If the `Char` at the specified [index] is part of a supplementary code point, this method does not remove the entire supplementary character.\n *\n * @param index the index of `Char` to remove.\n *\n * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.deleteAt(index: Int): StringBuilder\n\n/**\n * Removes characters in the specified range from this string builder and returns this instance.\n *\n * @param startIndex the beginning (inclusive) of the range to

remove.\n * @param endIndex the end (exclusive) of the range to remove.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.deleteRange(startIndex: Int, endIndex: Int): StringBuilder\n\n/**\n * Copies characters from this string builder into the [destination] character array.\n *\n
 * @param destination the array to copy to.\n * @param destinationOffset the position in the array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the range to copy, 0 by default.\n * @param endIndex the end (exclusive) of the range to copy, length of this string builder by default.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.toCharArray(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = this.length)\n\n/**\n * Appends characters in a subarray of the specified character
 array [value] to this string builder and returns this instance.\n *\n * Characters are appended in order, starting at specified [startIndex].\n *\n * @param value the array from which characters are appended.\n * @param startIndex the beginning (inclusive) of the subarray to append.\n * @param endIndex the end (exclusive) of the subarray to append.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.appendRange(value: CharArray, startIndex: Int, endIndex: Int): StringBuilder\n\n/**\n * Appends a subsequence of the specified character sequence [value] to this string builder and returns this instance.\n *\n * @param value the character sequence from which a subsequence is appended.\n * @param startIndex the beginning (inclusive) of the subsequence
 to append.\n * @param endIndex the end (exclusive) of the subsequence to append.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.appendRange(value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder\n\n/**\n * Inserts characters in a subarray of the specified character array [value] into this string builder at the specified [index] and returns this instance.\n *\n * The inserted characters go in same order as in the [value] array, starting at [index].\n *\n * @param index the position in this string builder to insert at.\n * @param value the array from which characters are inserted.\n * @param startIndex the beginning (inclusive) of the subarray to insert.\n * @param endIndex the end (exclusive) of the subarray to insert.\n
 *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.insertRange(index: Int, value: CharArray, startIndex: Int, endIndex: Int): StringBuilder\n\n/**\n * Inserts characters in a subsequence of the specified character sequence [value] into this string builder at the specified [index] and returns this instance.\n *\n * The inserted characters go in the same order as in the [value] character sequence, starting at [index].\n *\n * @param index the position in this string builder to insert at.\n * @param value the character sequence from which a subsequence is inserted.\n * @param startIndex the beginning (inclusive) of the subsequence to insert.\n
 * @param endIndex the end (exclusive) of the subsequence to insert.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the

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[value] character sequence indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if
[index] is less than zero or greater than the length of this string builder.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
StringBuilder.insertRange(index: Int, value: CharSequence, startIndex: Int, endIndex: Int):
StringBuilder\n\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\")\n@Deprecated(\"Use
append(value: Any?) instead\", ReplaceWith(\"append(value = obj)\"),
DeprecationLevel.WARNING)\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.append(obj: Any?):
StringBuilder = this.append(obj)\n\n/**\n * Builds new string by populating newly created [StringBuilder] using
provided [builderAction]\n * and then converting it to [String].\n
 */\n@kotlin.internal.InlineOnly\npublic inline fun buildString(builderAction: StringBuilder.() -> Unit): String {\n
contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n    return
StringBuilder().apply(builderAction).toString()\n}\n\n/**\n * Builds new string by populating newly created
[StringBuilder] initialized with the given [capacity]\n * using provided [builderAction] and then converting it to
[String].\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun buildString(capacity: Int,
builderAction: StringBuilder.() -> Unit): String {\n    contract { callsInPlace(builderAction,
InvocationKind.EXACTLY_ONCE) }\n    return
StringBuilder(capacity).apply(builderAction).toString()\n}\n\n/**\n * Appends all arguments to the given
StringBuilder.\n */\npublic fun StringBuilder.append(vararg value: String?): StringBuilder {\n    for (item in
value)\n        append(item)\n    return this\n}\n\n/**\n * Appends all arguments to the given StringBuilder.\n
 */\npublic fun StringBuilder.append(vararg value: Any?): StringBuilder {\n    for (item in value)\n
append(item)\n    return this\n}\n\n/** Appends a line feed character (`\\n`) to this StringBuilder.
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine():
StringBuilder = append('\\n')\n\n/** Appends [value] to this [StringBuilder], followed by a line feed character
(`\\n`). */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(value:
CharSequence?): StringBuilder = append(value).appendLine()\n\n/** Appends [value] to this [StringBuilder],
followed by a line feed character (`\\n`). */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun
StringBuilder.appendLine(value: String?): StringBuilder = append(value).appendLine()\n\n/** Appends [value] to
this [StringBuilder], followed by a line feed character (`\\n`).
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic
 inline fun StringBuilder.appendLine(value: Any?): StringBuilder = append(value).appendLine()\n\n/** Appends
[value] to this [StringBuilder], followed by a line feed character (`\\n`).
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(value:
CharArray): StringBuilder = append(value).appendLine()\n\n/** Appends [value] to this [StringBuilder], followed
by a line feed character (`\\n`). */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun
StringBuilder.appendLine(value: Char): StringBuilder = append(value).appendLine()\n\n/** Appends [value] to this
[StringBuilder], followed by a line feed character (`\\n`).
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(value:
Boolean): StringBuilder = append(value).appendLine()\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache
 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\nimport
kotlin.js.RegExp\n\n@kotlin.internal.InlineOnly\ninternal actual inline fun String.nativeIndexOf(ch: Char,
fromIndex: Int): Int = nativeIndexOf(ch.toString(), fromIndex)\n\n@kotlin.internal.InlineOnly\ninternal actual
inline fun String.nativeLastIndexOf(ch: Char, fromIndex: Int): Int = nativeLastIndexOf(ch.toString(),
fromIndex)\n\n/**\n * Returns `true` if this string starts with the specified prefix.\n
*/\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun
String.startsWith(prefix: String, ignoreCase: Boolean = false): Boolean {\n    if (!ignoreCase)\n        return
nativeStartsWith(prefix, 0)\n    else\n        return regionMatches(0, prefix, 0, prefix.length, ignoreCase)\n}\n\n/**\n *
Returns `true` if a substring of this string starting at the specified offset [startIndex] starts with the specified prefix.\n
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*/\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic
 actual fun String.startsWith(prefix: String, startIndex: Int, ignoreCase: Boolean = false): Boolean {\n    if
(!ignoreCase)\n        return nativeStartsWith(prefix, startIndex)\n    else\n        return regionMatches(startIndex,
prefix, 0, prefix.length, ignoreCase)\n}\n\n/**\n * Returns `true` if this string ends with the specified suffix.\n
*/\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun
String.endsWith(suffix: String, ignoreCase: Boolean = false): Boolean {\n    if (!ignoreCase)\n        return
nativeEndsWith(suffix)\n    else\n        return regionMatches(length - suffix.length, suffix, 0, suffix.length,
ignoreCase)\n}\n\n@Deprecated(\"Use Regex.matches() instead\",
ReplaceWith(\"regex.toRegex().matches(this)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\npublic fun
String.matches(regex: String): Boolean {\n    @Suppress(\"DEPRECATION\")\n    val result = this.match(regex)\n
return result != null && result.size != 0\n}\n\n/**\n
 * Returns `true` if this string is empty or consists solely of whitespace characters.\n *\n * @sample
samples.text.Strings.stringIsBlank\n */\npublic actual fun CharSequence.isBlank(): Boolean = length == 0 ||
indices.all { this[it].isWhitespace() }\n\n/**\n * Returns `true` if this string is equal to [other], optionally ignoring
character case.\n *\n * Two strings are considered to be equal if they have the same length and the same character at
the same index.\n * If [ignoreCase] is true, the result of `Char.uppercaseChar().lowercaseChar()` on each character
is compared.\n *\n * @param ignoreCase `true` to ignore character case when comparing strings. By default
`false`.\n */\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun
String?.equals(other: String?, ignoreCase: Boolean = false): Boolean {\n    if (this == null) return other == null\n    if
(other == null) return false\n    if (!ignoreCase) return this == other\n\n    if (this.length != other.length) return
 false\n\n    for (index in 0 until this.length) {\n        val thisChar = this[index]\n        val otherChar = other[index]\n
    if (!thisChar.equals(otherChar, ignoreCase)) {\n            return false\n        }\n    }\n\n    return
true\n}\n\n\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun
CharSequence.regionMatches(thisOffset: Int, other: CharSequence, otherOffset: Int, length: Int, ignoreCase:
Boolean = false): Boolean =\n    regionMatchesImpl(thisOffset, other, otherOffset, length, ignoreCase)\n\n\n/**\n *
Returns a copy of this string having its first letter titlecased using the rules of the default locale,\n * or the original
string if it's empty or already starts with a title case letter.\n *\n * The title case of a character is usually the same as
its upper case with several exceptions.\n * The particular list of characters with the special title case form depends
on the underlying platform.\n *\n * @sample samples.text.Strings.capitalize\n */\n@Deprecated(\"Use
 replaceFirstChar instead.\", ReplaceWith(\"replaceFirstChar { if (it.isLowerCase()) it.titlecase() else it.toString()
}\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic actual fun String.capitalize(): String {\n    return if
(isNotEmpty()) substring(0, 1).uppercase() + substring(1) else this\n}\n\n/**\n * Returns a copy of this string having
its first letter lowercased using the rules of the default locale,\n * or the original string if it's empty or already starts
with a lower case letter.\n *\n * @sample samples.text.Strings.decapitalize\n */\n@Deprecated(\"Use
replaceFirstChar instead.\", ReplaceWith(\"replaceFirstChar { it.lowercase()
}\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic actual fun String.decapitalize(): String {\n    return
if (isNotEmpty()) substring(0, 1).lowercase() + substring(1) else this\n}\n\n/**\n * Returns a string containing this
char sequence repeated [n] times.\n * @throws [IllegalArgumentException] when n < 0.\n
 * @sample samples.text.Strings.repeat\n */\npublic actual fun CharSequence.repeat(n: Int): String {\n    require(n
>= 0) { \"Count 'n' must be non-negative, but was $n.\" }\n    return when (n) {\n        0 -> \"\"\n        1 ->
this.toString()\n        else -> {\n            var result = \"\"\n            if (!isEmpty()) {\n                var s = this.toString()\n
            var count = n\n                while (true) {\n                    if ((count and 1) == 1) {\n                        result += s\n
                    }\n                    count = count ushr 1\n                    if (count == 0) {\n                        break\n                    }\n
                    s += s\n                }\n            }\n            return result\n        }\n    }\n}\n\n/**\n * Returns a new string
obtained by replacing all occurrences of the [oldValue] substring in this string\n * with the specified [newValue]
string.\n *\n * @sample samples.text.Strings.replace\n
*/\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic
```

actual fun String.replace(oldValue: String, newValue: String, ignoreCase: Boolean = false): String =\n nativeReplace(RegExp(Regex.escape(oldValue), if (ignoreCase) \"gui\" else \"gu\"), Regex.nativeEscapeReplacement(newValue))\n\n/**\n * Returns a new string with all occurrences of [oldChar] replaced with [newChar].\n *\n * @sample samples.text.Strings.replace\n */\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun String.replace(oldChar: Char, newChar: Char, ignoreCase: Boolean = false): String =\n nativeReplace(RegExp(Regex.escape(oldChar.toString()), if (ignoreCase) \"gui\" else \"gu\"), newChar.toString())\n\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun String.replaceFirst(oldValue: String, newValue: String, ignoreCase: Boolean = false): String =\n nativeReplace(RegExp(Regex.escape(oldValue), if (ignoreCase) \"ui\" else \"u\"), Regex.nativeEscapeReplacement(newValue))\n\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic

actual fun String.replaceFirst(oldChar: Char, newChar: Char, ignoreCase: Boolean = false): String =\n nativeReplace(RegExp(Regex.escape(oldChar.toString()), if (ignoreCase) \"ui\" else \"u\"), newChar.toString())\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/** Returns the negative [size] if [throwOnMalformed] is false, throws [CharacterCodingException] otherwise. */\nprivate fun malformed(size: Int, index: Int, throwOnMalformed: Boolean): Int {\n   if (throwOnMalformed) throw CharacterCodingException(\"Malformed sequence starting at ${index - 1}\")\n   return -size\n}\n\n/**\n * Returns code point corresponding to UTF-16 surrogate pair,\n * where the first of the pair is the [high] and the second is in the [string] at the [index].\n

* Returns zero if the pair is malformed and [throwOnMalformed] is false.\n *\n * @throws CharacterCodingException if the pair is malformed and [throwOnMalformed] is true.\n */\nprivate fun codePointFromSurrogate(string: String, high: Int, index: Int, endIndex: Int, throwOnMalformed: Boolean): Int {\n if (high !in 0xD800..0xDBFF || index >= endIndex) {\n   return malformed(0, index, throwOnMalformed)\n   }\n

val low = string[index].code\n   if (low !in 0xDC00..0xDFFF) {\n   return malformed(0, index, throwOnMalformed)\n   }\n   return 0x10000 + ((high and 0x3FF) shl 10) or (low and 0x3FF)\n}\n\n/**\n * Returns code point corresponding to UTF-8 sequence of two bytes,\n * where the first byte of the sequence is the [byte1] and the second byte is in the [bytes] array at the [index].\n * Returns zero if the sequence is malformed and [throwOnMalformed] is false.\n *\n * @throws CharacterCodingException if the sequence of two bytes is malformed and [throwOnMalformed]

is true.\n */\nprivate fun codePointFrom2(bytes: ByteArray, byte1: Int, index: Int, endIndex: Int, throwOnMalformed: Boolean): Int {\n   if (byte1 and 0x1E == 0 || index >= endIndex) {\n   return malformed(0, index, throwOnMalformed)\n   }\n   val byte2 = bytes[index].toInt()\n   if (byte2 and 0xC0 != 0x80) {\n   return malformed(0, index, throwOnMalformed)\n   }\n   return (byte1 shl 6) xor byte2 xor 0xF80\n}\n\n/**\n * Returns code point corresponding to UTF-8 sequence of three bytes,\n * where the first byte of the sequence is the [byte1] and the others are in the [bytes] array starting from the [index].\n * Returns a non-positive value indicating number of bytes from [bytes] included in malformed sequence\n * if the sequence is malformed and [throwOnMalformed] is false.\n *\n * @throws CharacterCodingException if the sequence of three bytes is malformed and [throwOnMalformed] is true.\n */\nprivate fun codePointFrom3(bytes: ByteArray, byte1: Int, index: Int, endIndex:

Int, throwOnMalformed: Boolean): Int {\n   if (index >= endIndex) {\n   return malformed(0, index, throwOnMalformed)\n   }\n\n   val byte2 = bytes[index].toInt()\n   if (byte1 and 0xF == 0) {\n   if (byte2 and 0xE0 != 0xA0) {\n   // Non-shortest form\n   return malformed(0, index, throwOnMalformed)\n   }\n   } else if (byte1 and 0xF == 0xD) {\n   if (byte2 and 0xE0 != 0x80) {\n   // Surrogate code point\n   return malformed(0, index, throwOnMalformed)\n   }\n   } else if (byte2 and 0xC0 != 0x80) {\n   return malformed(0, index, throwOnMalformed)\n   }\n\n   if (index + 1 == endIndex) {\n   return malformed(1, index, throwOnMalformed)\n   }\n   val byte3 = bytes[index + 1].toInt()\n   if (byte3 and 0xC0 != 0x80) {\n   return malformed(1, index, throwOnMalformed)\n   }\n\n   return (byte1 shl 12) xor (byte2 shl 6) xor byte3 xor -

0x1E080\n}\n\n/**\n * Returns code point corresponding to UTF-8 sequence of four bytes,\n * where the first byte of the sequence is the [byte1] and the others are in the [bytes] array starting from the [index].\n * Returns a non-positive value indicating number of bytes from [bytes] included in malformed sequence\n * if the sequence is malformed and [throwOnMalformed] is false.\n *\n * @throws CharacterCodingException if the sequence of four bytes is malformed and [throwOnMalformed] is true.\n */\nprivate fun codePointFrom4(bytes: ByteArray, byte1: Int, index: Int, endIndex: Int, throwOnMalformed: Boolean): Int {\n   if (index >= endIndex) {\n   malformed(0, index, throwOnMalformed)\n   }\n\n   val byte2 = bytes[index].toInt()\n   if (byte1 and 0xF == 0x0) {\n   if (byte2 and 0xF0 <= 0x80) {\n   // Non-shortest form\n   return malformed(0, index, throwOnMalformed)\n   }\n   } else if (byte1 and 0xF == 0x4) {\n   if (byte2 and 0xF0 != 0x80) {\n   // Out of Unicode code points domain (larger than U+10FFFF)\n   return malformed(0, index, throwOnMalformed)\n   }\n   } else if (byte1 and 0xF > 0x4) {\n   return malformed(0, index, throwOnMalformed)\n   } else if (byte2 and 0xC0 != 0x80) {\n   return malformed(0, index, throwOnMalformed)\n   }\n\n   if (index + 1 == endIndex) {\n   return malformed(1, index, throwOnMalformed)\n   }\n   val byte3 = bytes[index + 1].toInt()\n   if (byte3 and 0xC0 != 0x80) {\n   return malformed(1, index, throwOnMalformed)\n   }\n\n   if (index + 2 == endIndex) {\n   return malformed(2, index, throwOnMalformed)\n   }\n   val byte4 = bytes[index + 2].toInt()\n   if (byte4 and 0xC0 != 0x80) {\n   return malformed(2, index, throwOnMalformed)\n   }\n   return (byte1 shl 18) xor (byte2 shl 12) xor (byte3 shl 6) xor byte4 xor 0x381F80\n}\n\n/**\n * Maximum number of bytes needed to encode a single char.\n *\n * Code points in `0..0x7F` are encoded in a single byte.\n * Code points in `0x80..0x7FF` are encoded in two bytes.\n * Code points in `0x800..0xD7FF` or in `0xE000..0xFFFF` are encoded in three bytes.\n * Surrogate code points in `0xD800..0xDFFF` are not Unicode scalar values, therefore aren't encoded.\n * Code points in `0x10000..0x10FFFF` are represented by a pair of surrogate `Char`s and are encoded in four bytes.\n */\nprivate const val MAX_BYTES_PER_CHAR = 3\n\n/**\n * The byte sequence a malformed UTF-16 char sequence is replaced by.\n */\nprivate val REPLACEMENT_BYTE_SEQUENCE: ByteArray = byteArrayOf(0xEF.toByte(), 0xBF.toByte(), 0xBD.toByte())\n\n/**\n * Encodes the [string] using UTF-8 and returns the resulting [ByteArray].\n *\n * @param string the string to encode.\n * @param startIndex the start offset (inclusive) of the substring to encode.\n * @param endIndex the end offset (exclusive) of the substring to encode.\n * @param throwOnMalformed whether to throw on malformed char sequence or replace by the [REPLACEMENT_BYTE_SEQUENCE].\n *\n * @throws CharacterCodingException if the char sequence is malformed and [throwOnMalformed] is true.\n */\ninternal fun encodeUtf8(string: String, startIndex: Int, endIndex: Int, throwOnMalformed: Boolean): ByteArray {\n   require(startIndex >= 0 && endIndex <= string.length && startIndex <= endIndex)\n\n   val bytes = ByteArray((endIndex - startIndex) * MAX_BYTES_PER_CHAR)\n   var byteIndex = 0\n   var charIndex = startIndex\n\n   while (charIndex < endIndex) {\n   val code = string[charIndex++].code\n   when {\n   code < 0x80 ->\n   bytes[byteIndex++] = code.toByte()\n   code < 0x800 -> {\n   bytes[byteIndex++] = ((code shr 6) or 0xC0).toByte()\n   bytes[byteIndex++] = ((code and 0x3F) or 0x80).toByte()\n   }\n   code < 0xD800 || code >= 0xE000 -> {\n   bytes[byteIndex++] = ((code shr 12) or 0xE0).toByte()\n   bytes[byteIndex++] = (((code shr 6) and 0x3F) or 0x80).toByte()\n   bytes[byteIndex++] = ((code and 0x3F) or 0x80).toByte()\n   }\n   else -> { // Surrogate char value\n   val codePoint = codePointFromSurrogate(string, code, charIndex, endIndex, throwOnMalformed)\n   if (codePoint <= 0) {\n   bytes[byteIndex++] = REPLACEMENT_BYTE_SEQUENCE[0]\n   bytes[byteIndex++] = REPLACEMENT_BYTE_SEQUENCE[1]\n   bytes[byteIndex++] = REPLACEMENT_BYTE_SEQUENCE[2]\n   } else {\n   bytes[byteIndex++] = ((codePoint shr 18) or 0xF0).toByte()\n   bytes[byteIndex++] = (((codePoint shr 12) and 0x3F) or 0x80).toByte()\n   bytes[byteIndex++] = (((codePoint shr 6) and 0x3F) or 0x80).toByte()\n   bytes[byteIndex++] = ((codePoint and 0x3F) or 0x80).toByte()\n   charIndex++\n   }\n   }\n   }\n   }\n\n   return if (bytes.size == byteIndex) bytes else bytes.copyOf(byteIndex)\n}\n\n/**\n

* The character a malformed UTF-8 byte sequence is replaced by.\n */\nprivate const val REPLACEMENT_CHAR = '\\uFFFD'\n\n/**\n * Decodes the UTF-8 [bytes] array and returns the resulting [String].\n *\n * @param bytes the byte array to decode.\n * @param startIndex the start offset (inclusive) of the array to be decoded.\n * @param endIndex the end offset (exclusive) of the array to be encoded.\n * @param throwOnMalformed whether to throw on malformed byte sequence or replace by the [REPLACEMENT_CHAR].\n *\n * @throws CharacterCodingException if the array is malformed UTF-8 byte sequence and [throwOnMalformed] is true.\n */\ninternal fun decodeUtf8(bytes: ByteArray, startIndex: Int, endIndex: Int, throwOnMalformed: Boolean): String {\n require(startIndex >= 0 && endIndex <= bytes.size && startIndex <= endIndex)\n\n var byteIndex = startIndex\n val stringBuilder = StringBuilder()\n\n while (byteIndex < endIndex) {\n val byte = bytes[byteIndex++].toInt()\n when {\n byte >= 0 ->\n stringBuilder.append(byte.toChar())\n byte shr 5 == -2 -> {\n val code = codePointFrom2(bytes, byte, byteIndex, endIndex, throwOnMalformed)\n if (code <= 0) {\n stringBuilder.append(REPLACEMENT_CHAR)\n byteIndex += -code\n } else {\n stringBuilder.append(code.toChar())\n byteIndex += 1\n }\n }\n byte shr 4 == -2 -> {\n val code = codePointFrom3(bytes, byte, byteIndex, endIndex, throwOnMalformed)\n if (code <= 0) {\n stringBuilder.append(REPLACEMENT_CHAR)\n byteIndex += -code\n } else {\n stringBuilder.append(code.toChar())\n byteIndex += 2\n }\n }\n byte shr 3 == -2 -> {\n val code = codePointFrom4(bytes, byte, byteIndex, endIndex, throwOnMalformed)\n if (code <= 0) {\n stringBuilder.append(REPLACEMENT_CHAR)\n byteIndex += -code\n } else {\n val high = (code - 0x10000) shr 10 or 0xD800\n val low = (code and 0x3FF) or 0xDC00\n stringBuilder.append(high.toChar())\n stringBuilder.append(low.toChar())\n byteIndex += 3\n }\n }\n else -> {\n malformed(0, byteIndex, throwOnMalformed)\n stringBuilder.append(REPLACEMENT_CHAR)\n }\n }\n }\n\n return stringBuilder.toString()\n}","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n/**\n * Returns the detailed description of this throwable with its stack trace.\n *\n * The detailed description includes:\n * - the short description (see [Throwable.toString]) of this throwable;\n * - the complete stack trace;\n * - detailed descriptions of the exceptions that were [suppressed][suppressedExceptions] in order to deliver this exception;\n * - the detailed description of each throwable in the [Throwable.cause] chain.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun Throwable.stackTraceToString(): String = ExceptionTraceBuilder().buildFor(this)\n\n/**\n * Prints the [detailed description][Throwable.stackTraceToString] of this throwable to console error output.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun Throwable.printStackTrace() {\n console.error(this.stackTraceToString())\n}\n\n/**\n * Adds the specified exception to the list of exceptions that were\n * suppressed in order to deliver this exception.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun Throwable.addSuppressed(exception: Throwable) {\n if (this !== exception) {\n val suppressed = this.asDynamic()._suppressed.unsafeCast<MutableList<Throwable>?>()\n if (suppressed == null) {\n this.asDynamic()._suppressed = mutableListOf(exception)\n } else {\n suppressed.add(exception)\n }\n }\n}\n\n/**\n * Returns a list of all exceptions that were suppressed in order to deliver this exception.\n */\n@SinceKotlin(\"1.4\")\npublic actual val Throwable.suppressedExceptions: List<Throwable>\n get() {\n return this.asDynamic()._suppressed?.unsafeCast<List<Throwable>>() ?: emptyList()\n }\n\n\nprivate class ExceptionTraceBuilder {\n private val target = StringBuilder()\n private val visited = arrayOf<Throwable>()\n private var topStack: String = \"\"\n private var topStackStart: Int = 0\n\n fun buildFor(exception: Throwable): String {\n exception.dumpFullTrace(\"\", \"\")\n return target.toString()\n }\n\n private fun hasSeen(exception:

Throwable): Boolean = visited.any { it === exception }\n\n private fun Throwable.dumpFullTrace(indent: String, qualifier: String) {\n this.dumpSelfTrace(indent, qualifier) || return\n\n var cause = this.cause\n while (cause != null) {\n cause.dumpSelfTrace(indent, \"Caused by: \") || return\n cause = cause.cause\n }\n }\n\n private fun Throwable.dumpSelfTrace(indent: String, qualifier: String): Boolean {\n target.append(indent).append(qualifier)\n val shortInfo = this.toString()\n if (hasSeen(this)) {\n target.append(\"[CIRCULAR REFERENCE, SEE ABOVE: \").append(shortInfo).append(\"]\\n\")\n return false\n }\n visited.asDynamic().push(this)\n\n var stack = this.asDynamic().stack as String?\n if (stack != null) {\n val stackStart = stack.indexOf(shortInfo).let { if (it < 0) 0 else it + shortInfo.length }\n if (stackStart == 0) target.append(shortInfo).append(\"\\n\")\n if (topStack.isEmpty()) {\n topStack = stack\n topStackStart = stackStart\n } else {\n stack = dropCommonFrames(stack, stackStart)\n }\n if (indent.isNotEmpty()) {\n // indent stack, but avoid indenting exception message lines\n val messageLines = if (stackStart == 0) 0 else 1 + shortInfo.count { c -> c == '\\n' }\n stack.lineSequence().forEachIndexed { index: Int, line: String ->\n if (index >= messageLines) target.append(indent)\n target.append(line).append(\"\\n\")\n }\n } else {\n target.append(stack).append(\"\\n\")\n }\n } else {\n target.append(shortInfo).append(\"\\n\")\n }\n\n val suppressed = suppressedExceptions\n if (suppressed.isNotEmpty()) {\n val suppressedIndent = indent + \" \"\n for (s in suppressed) {\n s.dumpFullTrace(suppressedIndent, \"Suppressed: \")\n }\n }\n return true\n }\n\n private fun dropCommonFrames(stack: String, stackStart: Int): String {\n var commonFrames: Int = 0\n var lastBreak: Int = 0\n var preLastBreak: Int = 0\n for (pos in 0 until minOf(topStack.length - topStackStart, stack.length - stackStart)) {\n val c = stack[stack.lastIndex - pos]\n if (c != topStack[topStack.lastIndex - pos]) break\n if (c == '\\n') {\n commonFrames += 1\n preLastBreak = lastBreak\n lastBreak = pos\n }\n }\n if (commonFrames <= 1) return stack\n while (preLastBreak > 0 && stack[stack.lastIndex - (preLastBreak - 1)] == ' ')\n preLastBreak -= 1\n\n // leave 1 common frame to ease matching with the top exception stack\n return stack.dropLast(preLastBreak) + \"... and ${commonFrames - 1} more common stack frames skipped\"\n }\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\nimport kotlin.js.json\nimport kotlin.math.*\n\ninternal actual inline val durationAssertionsEnabled: Boolean get() = true\n\ninternal actual fun formatToExactDecimals(value: Double, decimals: Int): String {\n val rounded = if (decimals == 0) {\n value\n } else {\n val pow = 10.0.pow(decimals)\n JsMath.round(abs(value) * pow) / pow * sign(value)\n }\n return if (abs(rounded) < 1e21) {\n // toFixed switches to scientific format after 1e21\n rounded.asDynamic().toFixed(decimals).unsafeCast<String>()\n } else {\n // toPrecision outputs the specified number of digits, but only for positive numbers\n val positive = abs(rounded)\n val positiveString = positive.asDynamic().toPrecision(ceil(log10(positive)) + decimals).unsafeCast<String>()\n if (rounded < 0) \"-$positiveString\" else positiveString\n }\n}\n\ninternal actual fun formatUpToDecimals(value: Double, decimals: Int): String {\n return value.asDynamic().toLocaleString(\"en-us\", json(\"maximumFractionDigits\" to decimals)).unsafeCast<String>()\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\npublic actual enum class DurationUnit(internal val scale: Double) {\n /**\n * Time unit representing one nanosecond, which is 1/1000 of a microsecond.\n */\n NANOSECONDS(1e0),\n /**\n * Time unit representing one microsecond, which is 1/1000 of a millisecond.\n */\n MICROSECONDS(1e3),\n /**\n * Time unit representing one millisecond, which is 1/1000 of a second.\n */\n MILLISECONDS(1e6),\n /**\n * Time unit representing one second.\n */\n SECONDS(1e9),\n /**\n * Time unit representing one minute.\n */\n

MINUTES(60e9),\n   /**\n   * Time unit representing one hour.\n   */\n   HOURS(3600e9),\n   /**\n   * Time unit representing one day, which is always equal to 24 hours.\n   */\n DAYS(86400e9);\n}\n\n@SinceKotlin(\"1.3\")\ninternal actual fun convertDurationUnit(value: Double, sourceUnit: DurationUnit, targetUnit: DurationUnit): Double {\n   val sourceCompareTarget = sourceUnit.scale.compareTo(targetUnit.scale)\n   return when {\n   sourceCompareTarget > 0 -> value * (sourceUnit.scale / targetUnit.scale)\n   sourceCompareTarget < 0 -> value / (targetUnit.scale / sourceUnit.scale)\n   else -> value\n   }\n}\n\n@SinceKotlin(\"1.5\")\ninternal actual fun convertDurationUnitOverflow(value: Long, sourceUnit: DurationUnit, targetUnit: DurationUnit): Long {\n   val sourceCompareTarget = sourceUnit.scale.compareTo(targetUnit.scale)\n   return when {\n sourceCompareTarget > 0 -> value * (sourceUnit.scale / targetUnit.scale).toLong()\n   sourceCompareTarget < 0 -> value / (targetUnit.scale / sourceUnit.scale).toLong()\n   else -> value\n }\n}\n\n@SinceKotlin(\"1.5\")\ninternal actual fun convertDurationUnit(value: Long, sourceUnit: DurationUnit, targetUnit: DurationUnit): Long {\n   val sourceCompareTarget = sourceUnit.scale.compareTo(targetUnit.scale)\n return when {\n   sourceCompareTarget > 0 -> {\n   val scale = (sourceUnit.scale / targetUnit.scale).toLong()\n   val result = value * scale\n   when {\n   result / scale == value -> result\n   value > 0 -> Long.MAX_VALUE\n   else -> Long.MIN_VALUE\n   }\n   }\n   sourceCompareTarget < 0 -> value / (targetUnit.scale / sourceUnit.scale).toLong()\n   else -> value\n }\n}\n\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\nimport org.w3c.performance.GlobalPerformance\nimport org.w3c.performance.Performance\n\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\ninternal actual object MonotonicTimeSource : TimeSource {\n\n   private val actualSource: TimeSource = run {\n   val isNode: Boolean = js(\"typeof process !== 'undefined' && process.versions && !!process.versions.node\")\n\n   if (isNode)\n   HrTimeSource(js(\"process\").unsafeCast<Process>())\n   else\n js(\"self\").unsafeCast<GlobalPerformance?>()?.performance?.let(::PerformanceTimeSource)\n   ?: DateNowTimeSource\n\n   }\n\n   override fun markNow(): TimeMark = actualSource.markNow()\n}\n\ninternal external interface Process {\n   fun hrtime(time: Array<Double> = definedExternally): Array<Double>\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\ninternal class HrTimeSource(val process: Process) : TimeSource {\n\n   override fun markNow(): TimeMark = object : TimeMark() {\n   val startedAt = process.hrtime()\n   override fun elapsedNow(): Duration =\n process.hrtime(startedAt).let { (seconds, nanos) -> seconds.toDuration(DurationUnit.SECONDS) + nanos.toDuration(DurationUnit.NANOSECONDS) }\n   }\n\n   override fun toString(): String = \"TimeSource(process.hrtime())\"\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\ninternal class PerformanceTimeSource(val performance: Performance) : AbstractDoubleTimeSource(unit = DurationUnit.MILLISECONDS) {\n   override fun read(): Double = performance.now()\n   override fun toString(): String = \"TimeSource(self.performance.now())\"\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\ninternal object DateNowTimeSource : AbstractDoubleTimeSource(unit = DurationUnit.MILLISECONDS) {\n   override fun read(): Double = kotlin.js.Date.now()\n   override fun toString(): String = \"TimeSource(Date.now())\"\n}","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlinx.dom\n\nimport org.w3c.dom.*\nimport kotlin.contracts.*\n\n/**\n * Creates a new element with the specified [name].\n *\n * The element is initialized with the specified [init] function.\n */\n@SinceKotlin(\"1.4\")\npublic fun Document.createElement(name: String, init: Element.() -> Unit): Element {\n   contract { callsInPlace(init, InvocationKind.EXACTLY_ONCE) }\n   return createElement(name).apply(init)\n}\n\n/**\n * Appends a newly created element with the specified [name] to this element.\n *\n * The element is initialized with the specified [init] function.\n */\n@SinceKotlin(\"1.4\")\npublic fun Element.appendElement(name: String, init: Element.() -> Unit): Element {\n   contract { callsInPlace(init, InvocationKind.EXACTLY_ONCE) }\n return ownerDocument!!.createElement(name, init).also { appendChild(it) }\n}\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlinx.dom\n\nimport org.w3c.dom.*\n\n/** Returns true if the element has the given CSS class style in its 'class' attribute */\n@SinceKotlin(\"1.4\")\nfun Element.hasClass(cssClass: String): Boolean = className.matches(\"\"\"(^|.*\\s+)$cssClass($|\\s+.*)\"\"\".toRegex())\n\n/**\n * Adds CSS class to element. Has no effect if all specified classes are already in class attribute of the element\n *\n * @return true if at least one class has been added\n */\n@SinceKotlin(\"1.4\")\nfun Element.addClass(vararg cssClasses: String): Boolean {\n   val missingClasses = cssClasses.filterNot { hasClass(it) }\n   if (missingClasses.isNotEmpty()) {\n   val presentClasses = className.trim()\n   className = buildString {\n   append(presentClasses)\n   if (!presentClasses.isEmpty()) {\n   append(\" \")\n   }\n   missingClasses.joinTo(this, \" \")\n   }\n   return true\n   }\n\n   return false\n}\n\n/**\n * Removes all [cssClasses] from element. Has no effect if all specified classes are missing in class attribute of the element\n *\n * @return true if at least one class has been removed\n */\n@SinceKotlin(\"1.4\")\nfun Element.removeClass(vararg cssClasses: String): Boolean {\n   if (cssClasses.any { hasClass(it) }) {\n   val toBeRemoved = cssClasses.toSet()\n   className = className.trim().split(\"\\\\s+\".toRegex()).filter { it !in toBeRemoved }.joinToString(\" \")\n   return true\n   }\n\n   return false\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n\npackage kotlin.text\n\n/**\n * Converts the string into a regular expression [Regex] with the default options.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.toRegex(): Regex = Regex(this)\n\n/**\n * Converts the string into a regular expression [Regex] with the specified single [option].\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.toRegex(option: RegexOption): Regex = Regex(this, option)\n\n/**\n * Converts the string into a regular expression [Regex] with the specified set of [options].\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.toRegex(options: Set<RegexOption>): Regex = Regex(this, options)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlinx.dom\n\nimport org.w3c.dom.*\n\n/**\n * Gets a value indicating whether this node is a TEXT_NODE or a CDATA_SECTION_NODE.\n */\n@SinceKotlin(\"1.4\")\npublic val Node.isText: Boolean\n   get() = nodeType == Node.TEXT_NODE || nodeType == Node.CDATA_SECTION_NODE\n\n/**\n * Gets a value indicating whether this node is an [Element].\n */\n@SinceKotlin(\"1.4\")\npublic val Node.isElement: Boolean\n   get() = nodeType == Node.ELEMENT_NODE\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlinx.dom\n\nimport org.w3c.dom.*\n\n/** Removes all the children from this node. */\n@SinceKotlin(\"1.4\")\npublic fun Node.clear() {\n   while (hasChildNodes()) {\n   removeChild(firstChild!!)\n   }\n}\n\n/**\n * Creates text node and append it to the element.\n *\n * @return this element\n */\n@SinceKotlin(\"1.4\")\nfun Element.appendText(text: String): Element {\n   appendChild(ownerDocument!!.createTextNode(text))\n   return this\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage org.w3c.dom\n\n@Deprecated(\"Use UnionMessagePortOrWindowProxy instead.\", ReplaceWith(\"UnionMessagePortOrWindowProxy\"))\ntypealias UnionMessagePortOrWindow = UnionMessagePortOrWindowProxy\n\n@Deprecated(\"Use `as` instead.\", ReplaceWith(\"`as`\"))\nvar HTMLLinkElement.as_\n   get() = `as`\n   set(value) {\n   `as` = value\n   }\n\n@Deprecated(\"Use `is` instead.\", ReplaceWith(\"`is`\"))\nvar ElementCreationOptions.is_\n

get() = `is`\n   set(value) {\n   `is` = value\n   }","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.khronos.webgl\n\nimport kotlin.js.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\npublic external interface WebGLContextAttributes {\n   var alpha: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var depth: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var stencil: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var antialias: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var premultipliedAlpha: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var preserveDrawingBuffer: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var preferLowPowerToHighPerformance: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var failIfMajorPerformanceCaveat: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun WebGLContextAttributes(alpha: Boolean? = true, depth: Boolean? = true, stencil: Boolean? = false, antialias: Boolean? = true, premultipliedAlpha: Boolean? = true, preserveDrawingBuffer: Boolean? = false, preferLowPowerToHighPerformance: Boolean? = false, failIfMajorPerformanceCaveat: Boolean? = false): WebGLContextAttributes {\n   val o = js(\"({})\")\n   o[\"alpha\"] = alpha\n   o[\"depth\"] = depth\n   o[\"stencil\"] = stencil\n   o[\"antialias\"] = antialias\n   o[\"premultipliedAlpha\"] = premultipliedAlpha\n   o[\"preserveDrawingBuffer\"] = preserveDrawingBuffer\n   o[\"preferLowPowerToHighPerformance\"] = preferLowPowerToHighPerformance\n   o[\"failIfMajorPerformanceCaveat\"] = failIfMajorPerformanceCaveat\n   return o\n}\n\npublic external abstract class WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLBuffer](https://developer.mozilla.org/en/docs/Web/API/WebGLBuffer) to Kotlin\n */\npublic external abstract class WebGLBuffer : WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLFramebuffer](https://developer.mozilla.org/en/docs/Web/API/WebGLFramebuffer) to Kotlin\n */\npublic external abstract class WebGLFramebuffer : WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLProgram](https://developer.mozilla.org/en/docs/Web/API/WebGLProgram) to Kotlin\n */\npublic external abstract class WebGLProgram : WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLRenderbuffer](https://developer.mozilla.org/en/docs/Web/API/WebGLRenderbuffer) to Kotlin\n */\npublic external abstract class WebGLRenderbuffer : WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLShader](https://developer.mozilla.org/en/docs/Web/API/WebGLShader) to Kotlin\n */\npublic external abstract class WebGLShader : WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLTexture](https://developer.mozilla.org/en/docs/Web/API/WebGLTexture) to Kotlin\n */\npublic external abstract class WebGLTexture : WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLUniformLocation](https://developer.mozilla.org/en/docs/Web/API/WebGLUniformLocation) to Kotlin\n */\npublic external abstract class WebGLUniformLocation\n\n/**\n * Exposes the JavaScript [WebGLActiveInfo](https://developer.mozilla.org/en/docs/Web/API/WebGLActiveInfo) to Kotlin\n */\npublic external abstract class WebGLActiveInfo {\n   open val size: Int\n   open val type: Int\n   open val name: String\n}\n\n/**\n * Exposes the JavaScript [WebGLShaderPrecisionFormat](https://developer.mozilla.org/en/docs/Web/API/WebGLShaderPrecisionFormat) to Kotlin\n */\npublic external abstract class WebGLShaderPrecisionFormat {\n   open val rangeMin: Int\n   open val rangeMax: Int\n   open val precision: Int\n}\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface WebGLRenderingContextBase {\n   val canvas: HTMLCanvasElement\n   val drawingBufferWidth: Int\n   val

drawingBufferHeight: Int\n   fun getContextAttributes(): WebGLContextAttributes?\n   fun isContextLost(): Boolean\n   fun getSupportedExtensions(): Array<String>?\n   fun getExtension(name: String): dynamic\n   fun activeTexture(texture: Int)\n   fun attachShader(program: WebGLProgram?, shader: WebGLShader?)\n   fun bindAttribLocation(program: WebGLProgram?, index: Int, name: String)\n   fun bindBuffer(target: Int, buffer: WebGLBuffer?)\n   fun bindFramebuffer(target: Int, framebuffer: WebGLFramebuffer?)\n
    fun bindRenderbuffer(target: Int, renderbuffer: WebGLRenderbuffer?)\n   fun bindTexture(target: Int, texture: WebGLTexture?)\n   fun blendColor(red: Float, green: Float, blue: Float, alpha: Float)\n   fun blendEquation(mode: Int)\n   fun blendEquationSeparate(modeRGB: Int, modeAlpha: Int)\n   fun blendFunc(sfactor: Int, dfactor: Int)\n   fun blendFuncSeparate(srcRGB: Int, dstRGB: Int, srcAlpha: Int, dstAlpha: Int)\n   fun bufferData(target: Int, size: Int, usage: Int)\n   fun bufferData(target: Int, data: BufferDataSource?, usage: Int)\n   fun bufferSubData(target: Int, offset: Int, data: BufferDataSource?)\n   fun checkFramebufferStatus(target: Int): Int\n   fun clear(mask: Int)\n   fun clearColor(red: Float, green: Float, blue: Float, alpha: Float)\n   fun clearDepth(depth: Float)\n   fun clearStencil(s: Int)\n   fun colorMask(red: Boolean, green: Boolean, blue: Boolean, alpha: Boolean)\n   fun compileShader(shader: WebGLShader?)\n   fun compressedTexImage2D(target:
 Int, level: Int, internalformat: Int, width: Int, height: Int, border: Int, data: ArrayBufferView)\n   fun compressedTexSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int, width: Int, height: Int, format: Int, data: ArrayBufferView)\n   fun copyTexImage2D(target: Int, level: Int, internalformat: Int, x: Int, y: Int, width: Int, height: Int, border: Int)\n   fun copyTexSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int, x: Int, y: Int, width: Int, height: Int)\n   fun createBuffer(): WebGLBuffer?\n   fun createFramebuffer(): WebGLFramebuffer?\n fun createProgram(): WebGLProgram?\n   fun createRenderbuffer(): WebGLRenderbuffer?\n   fun createShader(type: Int): WebGLShader?\n   fun createTexture(): WebGLTexture?\n   fun cullFace(mode: Int)\n fun deleteBuffer(buffer: WebGLBuffer?)\n   fun deleteFramebuffer(framebuffer: WebGLFramebuffer?)\n   fun deleteProgram(program: WebGLProgram?)\n   fun deleteRenderbuffer(renderbuffer: WebGLRenderbuffer?)\n
    fun deleteShader(shader: WebGLShader?)\n   fun deleteTexture(texture: WebGLTexture?)\n   fun depthFunc(func: Int)\n   fun depthMask(flag: Boolean)\n   fun depthRange(zNear: Float, zFar: Float)\n   fun detachShader(program: WebGLProgram?, shader: WebGLShader?)\n   fun disable(cap: Int)\n   fun disableVertexAttribArray(index: Int)\n   fun drawArrays(mode: Int, first: Int, count: Int)\n   fun drawElements(mode: Int, count: Int, type: Int, offset: Int)\n   fun enable(cap: Int)\n   fun enableVertexAttribArray(index: Int)\n   fun finish()\n   fun flush()\n   fun framebufferRenderbuffer(target: Int, attachment: Int, renderbuffertarget: Int, renderbuffer: WebGLRenderbuffer?)\n   fun framebufferTexture2D(target: Int, attachment: Int, textarget: Int, texture: WebGLTexture?, level: Int)\n   fun frontFace(mode: Int)\n   fun generateMipmap(target: Int)\n   fun getActiveAttrib(program: WebGLProgram?, index: Int): WebGLActiveInfo?\n fun getActiveUniform(program: WebGLProgram?,
 index: Int): WebGLActiveInfo?\n   fun getAttachedShaders(program: WebGLProgram?): Array<WebGLShader>?\n   fun getAttribLocation(program: WebGLProgram?, name: String): Int\n   fun getBufferParameter(target: Int, pname: Int): Any?\n   fun getParameter(pname: Int): Any?\n   fun getError(): Int\n fun getFramebufferAttachmentParameter(target: Int, attachment: Int, pname: Int): Any?\n   fun getProgramParameter(program: WebGLProgram?, pname: Int): Any?\n   fun getProgramInfoLog(program: WebGLProgram?): String?\n   fun getRenderbufferParameter(target: Int, pname: Int): Any?\n   fun getShaderParameter(shader: WebGLShader?, pname: Int): Any?\n   fun getShaderPrecisionFormat(shadertype: Int, precisiontype: Int): WebGLShaderPrecisionFormat?\n   fun getShaderInfoLog(shader: WebGLShader?): String?\n fun getShaderSource(shader: WebGLShader?): String?\n   fun getTexParameter(target: Int, pname: Int): Any?\n fun getUniform(program: WebGLProgram?, location: WebGLUniformLocation?):
 Any?\n   fun getUniformLocation(program: WebGLProgram?, name: String): WebGLUniformLocation?\n   fun getVertexAttrib(index: Int, pname: Int): Any?\n   fun getVertexAttribOffset(index: Int, pname: Int): Int\n   fun hint(target: Int, mode: Int)\n   fun isBuffer(buffer: WebGLBuffer?): Boolean\n   fun isEnabled(cap: Int): Boolean\n fun isFramebuffer(framebuffer: WebGLFramebuffer?): Boolean\n   fun isProgram(program: WebGLProgram?):

Boolean\n   fun isRenderbuffer(renderbuffer: WebGLRenderbuffer?): Boolean\n   fun isShader(shader: WebGLShader?): Boolean\n   fun isTexture(texture: WebGLTexture?): Boolean\n   fun lineWidth(width: Float)\n fun linkProgram(program: WebGLProgram?)\n   fun pixelStorei(pname: Int, param: Int)\n   fun polygonOffset(factor: Float, units: Float)\n   fun readPixels(x: Int, y: Int, width: Int, height: Int, format: Int, type: Int, pixels: ArrayBufferView?)\n   fun renderbufferStorage(target: Int, internalformat: Int, width: Int, height: Int)\n   fun sampleCoverage(value: Float, invert: Boolean)\n   fun scissor(x: Int, y: Int, width: Int, height: Int)\n   fun shaderSource(shader: WebGLShader?, source: String)\n   fun stencilFunc(func: Int, ref: Int, mask: Int)\n   fun stencilFuncSeparate(face: Int, func: Int, ref: Int, mask: Int)\n   fun stencilMask(mask: Int)\n   fun stencilMaskSeparate(face: Int, mask: Int)\n   fun stencilOp(fail: Int, zfail: Int, zpass: Int)\n   fun stencilOpSeparate(face: Int, fail: Int, zfail: Int, zpass: Int)\n   fun texImage2D(target: Int, level: Int, internalformat: Int, width: Int, height: Int, border: Int, format: Int, type: Int, pixels: ArrayBufferView?)\n   fun texImage2D(target: Int, level: Int, internalformat: Int, format: Int, type: Int, source: TexImageSource?)\n   fun texParameterf(target: Int, pname: Int, param: Float)\n   fun texParameteri(target: Int, pname: Int, param: Int)\n   fun texSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int, width: Int, height: Int, format: Int, type: Int, pixels: ArrayBufferView?)\n   fun texSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int, format: Int, type: Int, source: TexImageSource?)\n   fun uniform1f(location: WebGLUniformLocation?, x: Float)\n fun uniform1fv(location: WebGLUniformLocation?, v: Float32Array)\n   fun uniform1fv(location: WebGLUniformLocation?, v: Array<Float>)\n   fun uniform1i(location: WebGLUniformLocation?, x: Int)\n   fun uniform1iv(location: WebGLUniformLocation?, v: Int32Array)\n   fun uniform1iv(location: WebGLUniformLocation?, v: Array<Int>)\n   fun uniform2f(location: WebGLUniformLocation?, x: Float, y: Float)\n   fun uniform2fv(location: WebGLUniformLocation?, v: Float32Array)\n   fun uniform2fv(location: WebGLUniformLocation?, v: Array<Float>)\n   fun uniform2i(location: WebGLUniformLocation?, x: Int, y: Int)\n   fun uniform2iv(location: WebGLUniformLocation?, v: Int32Array)\n   fun uniform2iv(location: WebGLUniformLocation?, v: Array<Int>)\n   fun uniform3f(location: WebGLUniformLocation?, x: Float, y: Float, z: Float)\n   fun uniform3fv(location: WebGLUniformLocation?, v: Float32Array)\n   fun uniform3fv(location: WebGLUniformLocation?, v: Array<Float>)\n   fun uniform3i(location: WebGLUniformLocation?, x: Int, y: Int, z: Int)\n   fun uniform3iv(location: WebGLUniformLocation?, v: Int32Array)\n   fun uniform3iv(location: WebGLUniformLocation?, v: Array<Int>)\n   fun uniform4f(location: WebGLUniformLocation?, x: Float, y: Float, z: Float, w: Float)\n   fun uniform4fv(location: WebGLUniformLocation?, v: Float32Array)\n   fun uniform4fv(location: WebGLUniformLocation?, v: Array<Float>)\n   fun uniform4i(location: WebGLUniformLocation?, x: Int, y: Int, z: Int, w: Int)\n   fun uniform4iv(location: WebGLUniformLocation?, v: Int32Array)\n   fun uniform4iv(location: WebGLUniformLocation?, v: Array<Int>)\n   fun uniformMatrix2fv(location: WebGLUniformLocation?, transpose: Boolean, value: Float32Array)\n   fun uniformMatrix2fv(location: WebGLUniformLocation?, transpose: Boolean, value: Array<Float>)\n   fun uniformMatrix3fv(location: WebGLUniformLocation?, transpose: Boolean, value: Float32Array)\n   fun uniformMatrix3fv(location: WebGLUniformLocation?, transpose: Boolean, value: Array<Float>)\n   fun uniformMatrix4fv(location: WebGLUniformLocation?, transpose: Boolean, value: Float32Array)\n   fun uniformMatrix4fv(location: WebGLUniformLocation?, transpose: Boolean, value: Array<Float>)\n   fun useProgram(program: WebGLProgram?)\n   fun validateProgram(program: WebGLProgram?)\n   fun vertexAttrib1f(index: Int, x: Float)\n   fun vertexAttrib1fv(index: Int, values: dynamic)\n   fun vertexAttrib2f(index: Int, x: Float, y: Float)\n fun vertexAttrib2fv(index: Int, values: dynamic)\n   fun vertexAttrib3f(index: Int, x: Float, y: Float, z: Float)\n   fun vertexAttrib3fv(index: Int, values: dynamic)\n   fun vertexAttrib4f(index: Int, x: Float, y: Float, z: Float, w: Float)\n   fun vertexAttrib4fv(index: Int, values: dynamic)\n   fun vertexAttribPointer(index: Int, size: Int, type: Int, normalized: Boolean, stride: Int, offset: Int)\n   fun viewport(x: Int, y: Int, width: Int, height: Int)\n\n   companion object {\n   val DEPTH_BUFFER_BIT: Int\n   val STENCIL_BUFFER_BIT: Int\n   val COLOR_BUFFER_BIT: Int\n val POINTS: Int\n   val LINES: Int\n   val LINE_LOOP: Int\n   val LINE_STRIP: Int\n   val

TRIANGLES: Int\n val TRIANGLE_STRIP: Int\n val TRIANGLE_FAN: Int\n val ZERO: Int\n
val ONE: Int\n val SRC_COLOR: Int\n val ONE_MINUS_SRC_COLOR: Int\n val SRC_ALPHA:
Int\n val ONE_MINUS_SRC_ALPHA: Int\n val DST_ALPHA: Int\n val
ONE_MINUS_DST_ALPHA: Int\n val DST_COLOR: Int\n val ONE_MINUS_DST_COLOR: Int\n
val SRC_ALPHA_SATURATE: Int\n val FUNC_ADD: Int\n val BLEND_EQUATION: Int\n val
BLEND_EQUATION_RGB: Int\n val BLEND_EQUATION_ALPHA:
Int\n val FUNC_SUBTRACT: Int\n val FUNC_REVERSE_SUBTRACT: Int\n val
BLEND_DST_RGB: Int\n val BLEND_SRC_RGB: Int\n val BLEND_DST_ALPHA: Int\n val
BLEND_SRC_ALPHA: Int\n val CONSTANT_COLOR: Int\n val ONE_MINUS_CONSTANT_COLOR:
Int\n val CONSTANT_ALPHA: Int\n val ONE_MINUS_CONSTANT_ALPHA: Int\n val
BLEND_COLOR: Int\n val ARRAY_BUFFER: Int\n val ELEMENT_ARRAY_BUFFER: Int\n val
ARRAY_BUFFER_BINDING: Int\n val ELEMENT_ARRAY_BUFFER_BINDING: Int\n val
STREAM_DRAW: Int\n val STATIC_DRAW: Int\n val DYNAMIC_DRAW: Int\n val
BUFFER_SIZE: Int\n val BUFFER_USAGE: Int\n val CURRENT_VERTEX_ATTRIB: Int\n val
FRONT: Int\n val BACK: Int\n val FRONT_AND_BACK: Int\n val CULL_FACE: Int\n val
BLEND: Int\n val DITHER: Int\n val STENCIL_TEST: Int\n val DEPTH_TEST: Int\n val
SCISSOR_TEST: Int\n val
POLYGON_OFFSET_FILL: Int\n val SAMPLE_ALPHA_TO_COVERAGE: Int\n val
SAMPLE_COVERAGE: Int\n val NO_ERROR: Int\n val INVALID_ENUM: Int\n val
INVALID_VALUE: Int\n val INVALID_OPERATION: Int\n val OUT_OF_MEMORY: Int\n val CW:
Int\n val CCW: Int\n val LINE_WIDTH: Int\n val ALIASED_POINT_SIZE_RANGE: Int\n val
ALIASED_LINE_WIDTH_RANGE: Int\n val CULL_FACE_MODE: Int\n val FRONT_FACE: Int\n
val DEPTH_RANGE: Int\n val DEPTH_WRITEMASK: Int\n val DEPTH_CLEAR_VALUE: Int\n val
DEPTH_FUNC: Int\n val STENCIL_CLEAR_VALUE: Int\n val STENCIL_FUNC: Int\n val
STENCIL_FAIL: Int\n val STENCIL_PASS_DEPTH_FAIL: Int\n val STENCIL_PASS_DEPTH_PASS:
Int\n val STENCIL_REF: Int\n val STENCIL_VALUE_MASK: Int\n val STENCIL_WRITEMASK:
Int\n val STENCIL_BACK_FUNC: Int\n val STENCIL_BACK_FAIL: Int\n val
STENCIL_BACK_PASS_DEPTH_FAIL:
Int\n val STENCIL_BACK_PASS_DEPTH_PASS: Int\n val STENCIL_BACK_REF: Int\n val
STENCIL_BACK_VALUE_MASK: Int\n val STENCIL_BACK_WRITEMASK: Int\n val VIEWPORT:
Int\n val SCISSOR_BOX: Int\n val COLOR_CLEAR_VALUE: Int\n val COLOR_WRITEMASK:
Int\n val UNPACK_ALIGNMENT: Int\n val PACK_ALIGNMENT: Int\n val
MAX_TEXTURE_SIZE: Int\n val MAX_VIEWPORT_DIMS: Int\n val SUBPIXEL_BITS: Int\n val
RED_BITS: Int\n val GREEN_BITS: Int\n val BLUE_BITS: Int\n val ALPHA_BITS: Int\n val
DEPTH_BITS: Int\n val STENCIL_BITS: Int\n val POLYGON_OFFSET_UNITS: Int\n val
POLYGON_OFFSET_FACTOR: Int\n val TEXTURE_BINDING_2D: Int\n val SAMPLE_BUFFERS:
Int\n val SAMPLES: Int\n val SAMPLE_COVERAGE_VALUE: Int\n val
SAMPLE_COVERAGE_INVERT: Int\n val COMPRESSED_TEXTURE_FORMATS: Int\n val
DONT_CARE: Int\n val FASTEST:
Int\n val NICEST: Int\n val GENERATE_MIPMAP_HINT: Int\n val BYTE: Int\n val
UNSIGNED_BYTE: Int\n val SHORT: Int\n val UNSIGNED_SHORT: Int\n val INT: Int\n val
UNSIGNED_INT: Int\n val FLOAT: Int\n val DEPTH_COMPONENT: Int\n val ALPHA: Int\n
val RGB: Int\n val RGBA: Int\n val LUMINANCE: Int\n val LUMINANCE_ALPHA: Int\n val
UNSIGNED_SHORT_4_4_4_4: Int\n val UNSIGNED_SHORT_5_5_5_1: Int\n val
UNSIGNED_SHORT_5_6_5: Int\n val FRAGMENT_SHADER: Int\n val VERTEX_SHADER: Int\n
val MAX_VERTEX_ATTRIBS: Int\n val MAX_VERTEX_UNIFORM_VECTORS: Int\n val
MAX_VARYING_VECTORS: Int\n val MAX_COMBINED_TEXTURE_IMAGE_UNITS: Int\n val
MAX_VERTEX_TEXTURE_IMAGE_UNITS: Int\n val MAX_TEXTURE_IMAGE_UNITS: Int\n val

MAX_FRAGMENT_UNIFORM_VECTORS: Int\n val SHADER_TYPE: Int\n val DELETE_STATUS: Int\n val LINK_STATUS:
Int\n val VALIDATE_STATUS: Int\n val ATTACHED_SHADERS: Int\n val ACTIVE_UNIFORMS: Int\n val ACTIVE_ATTRIBUTES: Int\n val SHADING_LANGUAGE_VERSION: Int\n val CURRENT_PROGRAM: Int\n val NEVER: Int\n val LESS: Int\n val EQUAL: Int\n val LEQUAL: Int\n val GREATER: Int\n val NOTEQUAL: Int\n val GEQUAL: Int\n val ALWAYS: Int\n val KEEP: Int\n val REPLACE: Int\n val INCR: Int\n val DECR: Int\n val INVERT: Int\n val INCR_WRAP: Int\n val DECR_WRAP: Int\n val VENDOR: Int\n val RENDERER: Int\n val VERSION: Int\n val NEAREST: Int\n val LINEAR: Int\n val NEAREST_MIPMAP_NEAREST: Int\n val LINEAR_MIPMAP_NEAREST: Int\n val NEAREST_MIPMAP_LINEAR: Int\n val LINEAR_MIPMAP_LINEAR: Int\n val TEXTURE_MAG_FILTER: Int\n val TEXTURE_MIN_FILTER: Int\n val TEXTURE_WRAP_S: Int\n val TEXTURE_WRAP_T: Int\n val TEXTURE_2D: Int\n val TEXTURE: Int\n val TEXTURE_CUBE_MAP: Int\n val TEXTURE_BINDING_CUBE_MAP: Int\n val TEXTURE_CUBE_MAP_POSITIVE_X: Int\n val TEXTURE_CUBE_MAP_NEGATIVE_X: Int\n val TEXTURE_CUBE_MAP_POSITIVE_Y: Int\n val TEXTURE_CUBE_MAP_NEGATIVE_Y: Int\n val TEXTURE_CUBE_MAP_POSITIVE_Z: Int\n val TEXTURE_CUBE_MAP_NEGATIVE_Z: Int\n val MAX_CUBE_MAP_TEXTURE_SIZE: Int\n val TEXTURE0: Int\n val TEXTURE1: Int\n val TEXTURE2: Int\n val TEXTURE3: Int\n val TEXTURE4: Int\n val TEXTURE5: Int\n val TEXTURE6: Int\n val TEXTURE7: Int\n val TEXTURE8: Int\n val TEXTURE9: Int\n val TEXTURE10: Int\n val TEXTURE11: Int\n val TEXTURE12: Int\n val TEXTURE13: Int\n val TEXTURE14: Int\n val TEXTURE15: Int\n val TEXTURE16: Int\n val TEXTURE17: Int\n val TEXTURE18:
Int\n val TEXTURE19: Int\n val TEXTURE20: Int\n val TEXTURE21: Int\n val TEXTURE22: Int\n val TEXTURE23: Int\n val TEXTURE24: Int\n val TEXTURE25: Int\n val TEXTURE26: Int\n val TEXTURE27: Int\n val TEXTURE28: Int\n val TEXTURE29: Int\n val TEXTURE30: Int\n val TEXTURE31: Int\n val ACTIVE_TEXTURE: Int\n val REPEAT: Int\n val CLAMP_TO_EDGE: Int\n val MIRRORED_REPEAT: Int\n val FLOAT_VEC2: Int\n val FLOAT_VEC3: Int\n val FLOAT_VEC4: Int\n val INT_VEC2: Int\n val INT_VEC3: Int\n val INT_VEC4: Int\n val BOOL: Int\n val BOOL_VEC2: Int\n val BOOL_VEC3: Int\n val BOOL_VEC4: Int\n val FLOAT_MAT2: Int\n val FLOAT_MAT3: Int\n val FLOAT_MAT4: Int\n val SAMPLER_2D: Int\n val SAMPLER_CUBE: Int\n val VERTEX_ATTRIB_ARRAY_ENABLED: Int\n val VERTEX_ATTRIB_ARRAY_SIZE:
Int\n val VERTEX_ATTRIB_ARRAY_STRIDE: Int\n val VERTEX_ATTRIB_ARRAY_TYPE: Int\n val VERTEX_ATTRIB_ARRAY_NORMALIZED: Int\n val VERTEX_ATTRIB_ARRAY_POINTER: Int\n val VERTEX_ATTRIB_ARRAY_BUFFER_BINDING: Int\n val IMPLEMENTATION_COLOR_READ_TYPE: Int\n val IMPLEMENTATION_COLOR_READ_FORMAT: Int\n val COMPILE_STATUS: Int\n val LOW_FLOAT: Int\n val MEDIUM_FLOAT: Int\n val HIGH_FLOAT: Int\n val LOW_INT: Int\n val MEDIUM_INT: Int\n val HIGH_INT: Int\n val FRAMEBUFFER: Int\n val RENDERBUFFER: Int\n val RGBA4: Int\n val RGB5_A1: Int\n val RGB565: Int\n val DEPTH_COMPONENT16: Int\n val STENCIL_INDEX: Int\n val STENCIL_INDEX8: Int\n val DEPTH_STENCIL: Int\n val RENDERBUFFER_WIDTH: Int\n val RENDERBUFFER_HEIGHT: Int\n val RENDERBUFFER_INTERNAL_FORMAT: Int\n val RENDERBUFFER_RED_SIZE: Int\n val RENDERBUFFER_GREEN_SIZE:
Int\n val RENDERBUFFER_BLUE_SIZE: Int\n val RENDERBUFFER_ALPHA_SIZE: Int\n val RENDERBUFFER_DEPTH_SIZE: Int\n val RENDERBUFFER_STENCIL_SIZE: Int\n val FRAMEBUFFER_ATTACHMENT_OBJECT_TYPE: Int\n val FRAMEBUFFER_ATTACHMENT_OBJECT_NAME: Int\n val

FRAMEBUFFER_ATTACHMENT_TEXTURE_LEVEL: Int\n   val
FRAMEBUFFER_ATTACHMENT_TEXTURE_CUBE_MAP_FACE: Int\n   val COLOR_ATTACHMENT0:
Int\n   val DEPTH_ATTACHMENT: Int\n   val STENCIL_ATTACHMENT: Int\n   val
DEPTH_STENCIL_ATTACHMENT: Int\n   val NONE: Int\n   val FRAMEBUFFER_COMPLETE: Int\n
val FRAMEBUFFER_INCOMPLETE_ATTACHMENT: Int\n   val
FRAMEBUFFER_INCOMPLETE_MISSING_ATTACHMENT: Int\n   val
FRAMEBUFFER_INCOMPLETE_DIMENSIONS: Int\n   val FRAMEBUFFER_UNSUPPORTED: Int\n
val FRAMEBUFFER_BINDING: Int\n   val RENDERBUFFER_BINDING: Int\n   val
MAX_RENDERBUFFER_SIZE: Int\n   val INVALID_FRAMEBUFFER_OPERATION: Int\n
val UNPACK_FLIP_Y_WEBGL: Int\n   val UNPACK_PREMULTIPLY_ALPHA_WEBGL: Int\n   val
CONTEXT_LOST_WEBGL: Int\n   val UNPACK_COLORSPACE_CONVERSION_WEBGL: Int\n   val
BROWSER_DEFAULT_WEBGL: Int\n   }\n}\n\n/**\n * Exposes the JavaScript
[WebGLRenderingContext](https://developer.mozilla.org/en/docs/Web/API/WebGLRenderingContext) to Kotlin\n
*/\npublic external abstract class WebGLRenderingContext : WebGLRenderingContextBase, RenderingContext {\n
companion object {\n   val DEPTH_BUFFER_BIT: Int\n   val STENCIL_BUFFER_BIT: Int\n   val
COLOR_BUFFER_BIT: Int\n   val POINTS: Int\n   val LINES: Int\n   val LINE_LOOP: Int\n   val
LINE_STRIP: Int\n   val TRIANGLES: Int\n   val TRIANGLE_STRIP: Int\n   val TRIANGLE_FAN:
Int\n   val ZERO: Int\n   val ONE: Int\n   val SRC_COLOR: Int\n   val ONE_MINUS_SRC_COLOR:
Int\n   val SRC_ALPHA: Int\n   val ONE_MINUS_SRC_ALPHA: Int\n   val DST_ALPHA: Int\n
val ONE_MINUS_DST_ALPHA: Int\n   val DST_COLOR: Int\n   val ONE_MINUS_DST_COLOR:
Int\n   val SRC_ALPHA_SATURATE: Int\n   val FUNC_ADD: Int\n   val BLEND_EQUATION: Int\n
val BLEND_EQUATION_RGB: Int\n   val BLEND_EQUATION_ALPHA: Int\n   val FUNC_SUBTRACT:
Int\n   val FUNC_REVERSE_SUBTRACT: Int\n   val BLEND_DST_RGB: Int\n   val
BLEND_SRC_RGB: Int\n   val BLEND_DST_ALPHA: Int\n   val BLEND_SRC_ALPHA: Int\n   val
CONSTANT_COLOR: Int\n   val ONE_MINUS_CONSTANT_COLOR: Int\n   val CONSTANT_ALPHA:
Int\n   val ONE_MINUS_CONSTANT_ALPHA: Int\n   val BLEND_COLOR: Int\n   val
ARRAY_BUFFER: Int\n   val ELEMENT_ARRAY_BUFFER: Int\n   val ARRAY_BUFFER_BINDING:
Int\n   val ELEMENT_ARRAY_BUFFER_BINDING: Int\n   val STREAM_DRAW: Int\n   val
STATIC_DRAW: Int\n   val DYNAMIC_DRAW: Int\n   val BUFFER_SIZE: Int\n   val
BUFFER_USAGE: Int\n   val CURRENT_VERTEX_ATTRIB:
Int\n   val FRONT: Int\n   val BACK: Int\n   val FRONT_AND_BACK: Int\n   val CULL_FACE: Int\n
val BLEND: Int\n   val DITHER: Int\n   val STENCIL_TEST: Int\n   val DEPTH_TEST: Int\n   val
SCISSOR_TEST: Int\n   val POLYGON_OFFSET_FILL: Int\n   val SAMPLE_ALPHA_TO_COVERAGE:
Int\n   val SAMPLE_COVERAGE: Int\n   val NO_ERROR: Int\n   val INVALID_ENUM: Int\n   val
INVALID_VALUE: Int\n   val INVALID_OPERATION: Int\n   val OUT_OF_MEMORY: Int\n   val CW:
Int\n   val CCW: Int\n   val LINE_WIDTH: Int\n   val ALIASED_POINT_SIZE_RANGE: Int\n   val
ALIASED_LINE_WIDTH_RANGE: Int\n   val CULL_FACE_MODE: Int\n   val FRONT_FACE: Int\n
val DEPTH_RANGE: Int\n   val DEPTH_WRITEMASK: Int\n   val DEPTH_CLEAR_VALUE: Int\n   val
DEPTH_FUNC: Int\n   val STENCIL_CLEAR_VALUE: Int\n   val STENCIL_FUNC: Int\n   val
STENCIL_FAIL: Int\n   val STENCIL_PASS_DEPTH_FAIL:
Int\n   val STENCIL_PASS_DEPTH_PASS: Int\n   val STENCIL_REF: Int\n   val
STENCIL_VALUE_MASK: Int\n   val STENCIL_WRITEMASK: Int\n   val STENCIL_BACK_FUNC:
Int\n   val STENCIL_BACK_FAIL: Int\n   val STENCIL_BACK_PASS_DEPTH_FAIL: Int\n   val
STENCIL_BACK_PASS_DEPTH_PASS: Int\n   val STENCIL_BACK_REF: Int\n   val
STENCIL_BACK_VALUE_MASK: Int\n   val STENCIL_BACK_WRITEMASK: Int\n   val VIEWPORT:
Int\n   val SCISSOR_BOX: Int\n   val COLOR_CLEAR_VALUE: Int\n   val COLOR_WRITEMASK:
Int\n   val UNPACK_ALIGNMENT: Int\n   val PACK_ALIGNMENT: Int\n   val
MAX_TEXTURE_SIZE: Int\n   val MAX_VIEWPORT_DIMS: Int\n   val SUBPIXEL_BITS: Int\n   val

RED_BITS: Int\n val GREEN_BITS: Int\n val BLUE_BITS: Int\n val ALPHA_BITS: Int\n val DEPTH_BITS: Int\n val STENCIL_BITS: Int\n val POLYGON_OFFSET_UNITS: Int\n val POLYGON_OFFSET_FACTOR:
Int\n val TEXTURE_BINDING_2D: Int\n val SAMPLE_BUFFERS: Int\n val SAMPLES: Int\n val SAMPLE_COVERAGE_VALUE: Int\n val SAMPLE_COVERAGE_INVERT: Int\n val COMPRESSED_TEXTURE_FORMATS: Int\n val DONT_CARE: Int\n val FASTEST: Int\n val NICEST: Int\n val GENERATE_MIPMAP_HINT: Int\n val BYTE: Int\n val UNSIGNED_BYTE: Int\n val SHORT: Int\n val UNSIGNED_SHORT: Int\n val INT: Int\n val UNSIGNED_INT: Int\n val FLOAT: Int\n val DEPTH_COMPONENT: Int\n val ALPHA: Int\n val RGB: Int\n val RGBA: Int\n val LUMINANCE: Int\n val LUMINANCE_ALPHA: Int\n val UNSIGNED_SHORT_4_4_4_4: Int\n val UNSIGNED_SHORT_5_5_5_1: Int\n val UNSIGNED_SHORT_5_6_5: Int\n val FRAGMENT_SHADER: Int\n val VERTEX_SHADER: Int\n val MAX_VERTEX_ATTRIBS: Int\n val MAX_VERTEX_UNIFORM_VECTORS: Int\n val MAX_VARYING_VECTORS:
Int\n val MAX_COMBINED_TEXTURE_IMAGE_UNITS: Int\n val MAX_VERTEX_TEXTURE_IMAGE_UNITS: Int\n val MAX_TEXTURE_IMAGE_UNITS: Int\n val MAX_FRAGMENT_UNIFORM_VECTORS: Int\n val SHADER_TYPE: Int\n val DELETE_STATUS: Int\n val LINK_STATUS: Int\n val VALIDATE_STATUS: Int\n val ATTACHED_SHADERS: Int\n val ACTIVE_UNIFORMS: Int\n val ACTIVE_ATTRIBUTES: Int\n val SHADING_LANGUAGE_VERSION: Int\n val CURRENT_PROGRAM: Int\n val NEVER: Int\n val LESS: Int\n val EQUAL: Int\n val LEQUAL: Int\n val GREATER: Int\n val NOTEQUAL: Int\n val GEQUAL: Int\n val ALWAYS: Int\n val KEEP: Int\n val REPLACE: Int\n val INCR: Int\n val DECR: Int\n val INVERT: Int\n val INCR_WRAP: Int\n val DECR_WRAP: Int\n val VENDOR: Int\n val RENDERER: Int\n val VERSION: Int\n val NEAREST: Int\n val LINEAR: Int\n val NEAREST_MIPMAP_NEAREST: Int\n val LINEAR_MIPMAP_NEAREST: Int\n val NEAREST_MIPMAP_LINEAR: Int\n val LINEAR_MIPMAP_LINEAR: Int\n val TEXTURE_MAG_FILTER: Int\n val TEXTURE_MIN_FILTER: Int\n val TEXTURE_WRAP_S: Int\n val TEXTURE_WRAP_T: Int\n val TEXTURE_2D: Int\n val TEXTURE: Int\n val TEXTURE_CUBE_MAP: Int\n val TEXTURE_BINDING_CUBE_MAP: Int\n val TEXTURE_CUBE_MAP_POSITIVE_X: Int\n val TEXTURE_CUBE_MAP_NEGATIVE_X: Int\n val TEXTURE_CUBE_MAP_POSITIVE_Y: Int\n val TEXTURE_CUBE_MAP_NEGATIVE_Y: Int\n val TEXTURE_CUBE_MAP_POSITIVE_Z: Int\n val TEXTURE_CUBE_MAP_NEGATIVE_Z: Int\n val MAX_CUBE_MAP_TEXTURE_SIZE: Int\n val TEXTURE0: Int\n val TEXTURE1: Int\n val TEXTURE2: Int\n val TEXTURE3: Int\n val TEXTURE4: Int\n val TEXTURE5: Int\n val TEXTURE6: Int\n val TEXTURE7: Int\n val TEXTURE8: Int\n
val TEXTURE9: Int\n val TEXTURE10: Int\n val TEXTURE11: Int\n val TEXTURE12: Int\n val TEXTURE13: Int\n val TEXTURE14: Int\n val TEXTURE15: Int\n val TEXTURE16: Int\n val TEXTURE17: Int\n val TEXTURE18: Int\n val TEXTURE19: Int\n val TEXTURE20: Int\n val TEXTURE21: Int\n val TEXTURE22: Int\n val TEXTURE23: Int\n val TEXTURE24: Int\n val TEXTURE25: Int\n val TEXTURE26: Int\n val TEXTURE27: Int\n val TEXTURE28: Int\n val TEXTURE29: Int\n val TEXTURE30: Int\n val TEXTURE31: Int\n val ACTIVE_TEXTURE: Int\n val REPEAT: Int\n val CLAMP_TO_EDGE: Int\n val MIRRORED_REPEAT: Int\n val FLOAT_VEC2: Int\n val FLOAT_VEC3: Int\n val FLOAT_VEC4: Int\n val INT_VEC2: Int\n val INT_VEC3: Int\n val INT_VEC4: Int\n val BOOL: Int\n val BOOL_VEC2: Int\n val BOOL_VEC3: Int\n val BOOL_VEC4: Int\n val FLOAT_MAT2: Int\n val FLOAT_MAT3: Int\n val FLOAT_MAT4: Int\n val SAMPLER_2D: Int\n val SAMPLER_CUBE: Int\n val VERTEX_ATTRIB_ARRAY_ENABLED: Int\n val VERTEX_ATTRIB_ARRAY_SIZE: Int\n val VERTEX_ATTRIB_ARRAY_STRIDE: Int\n val VERTEX_ATTRIB_ARRAY_TYPE: Int\n val

VERTEX_ATTRIB_ARRAY_NORMALIZED: Int\n val VERTEX_ATTRIB_ARRAY_POINTER: Int\n val VERTEX_ATTRIB_ARRAY_BUFFER_BINDING: Int\n val IMPLEMENTATION_COLOR_READ_TYPE: Int\n val IMPLEMENTATION_COLOR_READ_FORMAT: Int\n val COMPILE_STATUS: Int\n val LOW_FLOAT: Int\n val MEDIUM_FLOAT: Int\n val HIGH_FLOAT: Int\n val LOW_INT: Int\n val MEDIUM_INT: Int\n val HIGH_INT: Int\n val FRAMEBUFFER: Int\n val RENDERBUFFER: Int\n val RGBA4: Int\n val RGB5_A1: Int\n val RGB565: Int\n val DEPTH_COMPONENT16: Int\n val STENCIL_INDEX: Int\n val STENCIL_INDEX8: Int\n val DEPTH_STENCIL: Int\n val RENDERBUFFER_WIDTH: Int\n val RENDERBUFFER_HEIGHT: Int\n val RENDERBUFFER_INTERNAL_FORMAT: Int\n val RENDERBUFFER_RED_SIZE: Int\n val RENDERBUFFER_GREEN_SIZE: Int\n val RENDERBUFFER_BLUE_SIZE: Int\n val RENDERBUFFER_ALPHA_SIZE: Int\n val RENDERBUFFER_DEPTH_SIZE: Int\n val RENDERBUFFER_STENCIL_SIZE: Int\n val FRAMEBUFFER_ATTACHMENT_OBJECT_TYPE: Int\n val FRAMEBUFFER_ATTACHMENT_OBJECT_NAME: Int\n val FRAMEBUFFER_ATTACHMENT_TEXTURE_LEVEL: Int\n val FRAMEBUFFER_ATTACHMENT_TEXTURE_CUBE_MAP_FACE: Int\n val COLOR_ATTACHMENT0: Int\n val DEPTH_ATTACHMENT: Int\n val STENCIL_ATTACHMENT: Int\n val DEPTH_STENCIL_ATTACHMENT: Int\n val NONE: Int\n val FRAMEBUFFER_COMPLETE: Int\n val FRAMEBUFFER_INCOMPLETE_ATTACHMENT: Int\n val FRAMEBUFFER_INCOMPLETE_MISSING_ATTACHMENT: Int\n val FRAMEBUFFER_INCOMPLETE_DIMENSIONS: Int\n val FRAMEBUFFER_UNSUPPORTED: Int\n val FRAMEBUFFER_BINDING: Int\n val RENDERBUFFER_BINDING: Int\n val MAX_RENDERBUFFER_SIZE: Int\n val INVALID_FRAMEBUFFER_OPERATION: Int\n val UNPACK_FLIP_Y_WEBGL: Int\n val UNPACK_PREMULTIPLY_ALPHA_WEBGL: Int\n val CONTEXT_LOST_WEBGL: Int\n val UNPACK_COLORSPACE_CONVERSION_WEBGL: Int\n val BROWSER_DEFAULT_WEBGL: Int\n }\n}\n\n/**\n * Exposes the JavaScript [WebGLContextEvent](https://developer.mozilla.org/en/docs/Web/API/WebGLContextEvent) to Kotlin\n */\npublic external open class WebGLContextEvent(type: String, eventInit: WebGLContextEventInit = definedExternally) : Event {\n open val statusMessage: String\n\n companion object {\n val NONE: Short\n val CAPTURING_PHASE: Short\n val AT_TARGET: Short\n val BUBBLING_PHASE: Short\n }\n}\n\npublic external interface WebGLContextEventInit : EventInit {\n var statusMessage: String? /* = \"\" */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun WebGLContextEventInit(statusMessage: String? = \"\", bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): WebGLContextEventInit {\n val o = js(\"({})\")\n o[\"statusMessage\"] = statusMessage\n o[\"bubbles\"] = bubbles\n o[\"cancelable\"] = cancelable\n o[\"composed\"] = composed\n return o\n}\n\n/**\n * Exposes the JavaScript [ArrayBuffer](https://developer.mozilla.org/en/docs/Web/API/ArrayBuffer) to Kotlin\n */\npublic external open class ArrayBuffer(length: Int) : BufferDataSource {\n open val byteLength: Int\n fun slice(begin: Int, end: Int = definedExternally): ArrayBuffer\n\n companion object {\n fun isView(value: Any?): Boolean\n }\n}\n\n/**\n * Exposes the JavaScript [ArrayBufferView](https://developer.mozilla.org/en/docs/Web/API/ArrayBufferView) to Kotlin\n */\npublic external interface ArrayBufferView : BufferDataSource {\n val buffer: ArrayBuffer\n val byteOffset: Int\n val byteLength: Int\n}\n\n/**\n * Exposes the JavaScript [Int8Array](https://developer.mozilla.org/en/docs/Web/API/Int8Array) to Kotlin\n */\npublic external open class Int8Array : ArrayBufferView {\n constructor(length: Int)\n constructor(array: Int8Array)\n constructor(array:

Array<Byte>)\n   constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n   open val length: Int\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n override val byteLength: Int\n   fun set(array: Int8Array, offset: Int = definedExternally)\n   fun set(array: Array<Byte>, offset: Int = definedExternally)\n   fun subarray(start: Int, end: Int): Int8Array\n\n   companion object {\n   val BYTES_PER_ELEMENT: Int\n   }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int8Array.get(index: Int): Byte = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int8Array.set(index: Int, value: Byte) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Uint8Array](https://developer.mozilla.org/en/docs/Web/API/Uint8Array) to Kotlin\n */\npublic external open class Uint8Array : ArrayBufferView {\n   constructor(length: Int)\n   constructor(array: Uint8Array)\n constructor(array: Array<Byte>)\n   constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n   open val length: Int\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n   override val byteLength: Int\n   fun set(array: Uint8Array, offset: Int = definedExternally)\n   fun set(array: Array<Byte>, offset: Int = definedExternally)\n   fun subarray(start: Int, end: Int): Uint8Array\n\n   companion object {\n   val BYTES_PER_ELEMENT: Int\n   }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint8Array.get(index: Int): Byte = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint8Array.set(index: Int, value: Byte) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Uint8ClampedArray](https://developer.mozilla.org/en/docs/Web/API/Uint8ClampedArray) to Kotlin\n */\npublic external open class Uint8ClampedArray : ArrayBufferView {\n   constructor(length: Int)\n   constructor(array: Uint8ClampedArray)\n   constructor(array: Array<Byte>)\n   constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n   open val length: Int\n   override val buffer: ArrayBuffer\n override val byteOffset: Int\n   override val byteLength: Int\n   fun set(array: Uint8ClampedArray, offset: Int = definedExternally)\n   fun set(array: Array<Byte>, offset: Int = definedExternally)\n   fun subarray(start: Int, end: Int): Uint8ClampedArray\n\n   companion object {\n   val BYTES_PER_ELEMENT: Int\n }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint8ClampedArray.get(index: Int): Byte = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint8ClampedArray.set(index: Int, value: Byte) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Int16Array](https://developer.mozilla.org/en/docs/Web/API/Int16Array) to Kotlin\n */\npublic external open class Int16Array : ArrayBufferView {\n   constructor(length: Int)\n   constructor(array: Int16Array)\n constructor(array: Array<Short>)\n   constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n   open val length: Int\n override val buffer: ArrayBuffer\n   override val byteOffset: Int\n   override val byteLength: Int\n   fun set(array: Int16Array, offset: Int = definedExternally)\n   fun set(array: Array<Short>, offset: Int = definedExternally)\n   fun subarray(start: Int, end: Int): Int16Array\n\n   companion object {\n   val BYTES_PER_ELEMENT: Int\n }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int16Array.get(index: Int): Short = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int16Array.set(index: Int, value: Short) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Uint16Array](https://developer.mozilla.org/en/docs/Web/API/Uint16Array) to Kotlin\n */\npublic external open

```
class Uint16Array
 : ArrayBufferView {\n    constructor(length: Int)\n    constructor(array: Uint16Array)\n    constructor(array: Array<Short>)\n    constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n    open val length: Int\n    override val buffer: ArrayBuffer\n    override val byteOffset: Int\n    override val byteLength: Int\n    fun set(array: Uint16Array, offset: Int = definedExternally)\n    fun set(array: Array<Short>, offset: Int = definedExternally)\n    fun subarray(start: Int, end: Int): Uint16Array\n\n    companion object {\n        val BYTES_PER_ELEMENT: Int\n    }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint16Array.get(index: Int): Short = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint16Array.set(index: Int, value: Short) { asDynamic()[index] = value }\n\n/**\n * Exposes
 the JavaScript [Int32Array](https://developer.mozilla.org/en/docs/Web/API/Int32Array) to Kotlin\n */\npublic external open class Int32Array : ArrayBufferView {\n    constructor(length: Int)\n    constructor(array: Int32Array)\n    constructor(array: Array<Int>)\n    constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n    open val length: Int\n    override val buffer: ArrayBuffer\n    override val byteOffset: Int\n    override val byteLength: Int\n    fun set(array: Int32Array, offset: Int = definedExternally)\n    fun set(array: Array<Int>, offset: Int = definedExternally)\n    fun subarray(start: Int, end: Int): Int32Array\n\n    companion object {\n        val BYTES_PER_ELEMENT: Int\n    }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int32Array.get(index: Int): Int = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic
 inline operator fun Int32Array.set(index: Int, value: Int) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Uint32Array](https://developer.mozilla.org/en/docs/Web/API/Uint32Array) to Kotlin\n */\npublic external open class Uint32Array : ArrayBufferView {\n    constructor(length: Int)\n    constructor(array: Uint32Array)\n    constructor(array: Array<Int>)\n    constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n    open val length: Int\n    override val buffer: ArrayBuffer\n    override val byteOffset: Int\n    override val byteLength: Int\n    fun set(array: Uint32Array, offset: Int = definedExternally)\n    fun set(array: Array<Int>, offset: Int = definedExternally)\n    fun subarray(start: Int, end: Int): Uint32Array\n\n    companion object {\n        val BYTES_PER_ELEMENT: Int\n    }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline
 operator fun Uint32Array.get(index: Int): Int = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint32Array.set(index: Int, value: Int) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Float32Array](https://developer.mozilla.org/en/docs/Web/API/Float32Array) to Kotlin\n */\npublic external open class Float32Array : ArrayBufferView {\n    constructor(length: Int)\n    constructor(array: Float32Array)\n    constructor(array: Array<Float>)\n    constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n    open val length: Int\n    override val buffer: ArrayBuffer\n    override val byteOffset: Int\n    override val byteLength: Int\n    fun set(array: Float32Array, offset: Int = definedExternally)\n    fun set(array: Array<Float>, offset: Int = definedExternally)\n    fun subarray(start: Int, end: Int): Float32Array\n\n    companion object
 {\n        val BYTES_PER_ELEMENT: Int\n    }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Float32Array.get(index: Int): Float = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Float32Array.set(index: Int, value: Float) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Float64Array](https://developer.mozilla.org/en/docs/Web/API/Float64Array) to Kotlin\n */\npublic external open class Float64Array : ArrayBufferView {\n    constructor(length: Int)\n    constructor(array: Float64Array)\n
```

constructor(array: Array<Double>)\n   constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n   open val length: Int\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n   override val byteLength: Int\n   fun set(array: Float64Array, offset: Int = definedExternally)\n   fun set(array: Array<Double>, offset: Int = definedExternally)\n   fun subarray(start: Int, end: Int): Float64Array\n\n   companion object {\n   val BYTES_PER_ELEMENT: Int\n   }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Float64Array.get(index: Int): Double = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Float64Array.set(index: Int, value: Double) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [DataView](https://developer.mozilla.org/en/docs/Web/API/DataView) to Kotlin\n */\npublic external open class DataView(buffer: ArrayBuffer, byteOffset: Int = definedExternally, byteLength: Int = definedExternally) : ArrayBufferView {\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n   override val byteLength: Int\n   fun getInt8(byteOffset: Int): Byte\n   fun getUint8(byteOffset: Int): Byte\n   fun getInt16(byteOffset: Int, littleEndian: Boolean = definedExternally): Short\n   fun getUint16(byteOffset: Int, littleEndian: Boolean = definedExternally): Short\n   fun getInt32(byteOffset: Int, littleEndian: Boolean = definedExternally): Int\n   fun getUint32(byteOffset: Int, littleEndian: Boolean = definedExternally): Int\n   fun getFloat32(byteOffset: Int, littleEndian: Boolean = definedExternally): Float\n   fun getFloat64(byteOffset: Int, littleEndian: Boolean = definedExternally): Double\n   fun setInt8(byteOffset: Int, value: Byte)\n   fun setUint8(byteOffset: Int, value: Byte)\n   fun setInt16(byteOffset: Int, value: Short, littleEndian: Boolean = definedExternally)\n   fun setUint16(byteOffset: Int, value: Short, littleEndian: Boolean = definedExternally)\n   fun setInt32(byteOffset: Int, value: Int, littleEndian: Boolean = definedExternally)\n   fun setUint32(byteOffset: Int, value: Int, littleEndian: Boolean = definedExternally)\n   fun setFloat32(byteOffset: Int, value: Float, littleEndian: Boolean = definedExternally)\n   fun setFloat64(byteOffset: Int, value: Double, littleEndian: Boolean = definedExternally)\n}\n\npublic external interface BufferDataSource\n\npublic external interface TexImageSource","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.clipboard\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\npublic external interface ClipboardEventInit : EventInit {\n   var clipboardData: DataTransfer? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ClipboardEventInit(clipboardData: DataTransfer? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ClipboardEventInit {\n   val o = js(\"({})\")\n   o[\"clipboardData\"] = clipboardData\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [ClipboardEvent](https://developer.mozilla.org/en/docs/Web/API/ClipboardEvent) to Kotlin\n */\npublic external open class ClipboardEvent(type: String, eventInitDict: ClipboardEventInit = definedExternally) : Event {\n   open val clipboardData: DataTransfer?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [Clipboard](https://developer.mozilla.org/en/docs/Web/API/Clipboard) to Kotlin\n */\npublic external abstract class Clipboard : EventTarget {\n   fun read(): Promise<DataTransfer>\n   fun readText(): Promise<String>\n   fun write(data: DataTransfer): Promise<Unit>\n   fun writeText(data: String): Promise<Unit>\n}\n\npublic external interface ClipboardPermissionDescriptor {\n   var allowWithoutGesture: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun

ClipboardPermissionDescriptor(allowWithoutGesture: Boolean? = false): ClipboardPermissionDescriptor {\n   val o = js(\"({})\")\n   o[\"allowWithoutGesture\"] = allowWithoutGesture\n   return o\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.css\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\n\npublic external abstract class MediaList : ItemArrayLike<String> {\n   open var mediaText: String\n   fun appendMedium(medium: String)\n   fun deleteMedium(medium: String)\n   override fun item(index: Int): String?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun MediaList.get(index: Int): String? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [StyleSheet](https://developer.mozilla.org/en/docs/Web/API/StyleSheet) to Kotlin\n */\npublic external abstract class StyleSheet {\n   open val type: String\n   open val href: String?\n   open val ownerNode: UnionElementOrProcessingInstruction?\n   open val parentStyleSheet: StyleSheet?\n   open val title: String?\n   open val media: MediaList\n   open var disabled: Boolean\n}\n\n/**\n * Exposes the JavaScript [CSSStyleSheet](https://developer.mozilla.org/en/docs/Web/API/CSSStyleSheet) to Kotlin\n */\npublic external abstract class CSSStyleSheet : StyleSheet {\n   open val ownerRule: CSSRule?\n   open val cssRules: CSSRuleList\n   fun insertRule(rule: String, index: Int): Int\n   fun deleteRule(index: Int)\n}\n\n/**\n * Exposes the JavaScript [StyleSheetList](https://developer.mozilla.org/en/docs/Web/API/StyleSheetList) to Kotlin\n */\npublic external abstract class StyleSheetList : ItemArrayLike<StyleSheet> {\n   override fun item(index: Int): StyleSheet?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun StyleSheetList.get(index: Int): StyleSheet? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [LinkStyle](https://developer.mozilla.org/en/docs/Web/API/LinkStyle) to Kotlin\n */\npublic external interface LinkStyle {\n   val sheet: StyleSheet?\n   get() = definedExternally\n}\n\n/**\n * Exposes the JavaScript [CSSRuleList](https://developer.mozilla.org/en/docs/Web/API/CSSRuleList) to Kotlin\n */\npublic external abstract class CSSRuleList : ItemArrayLike<CSSRule> {\n   override fun item(index: Int): CSSRule?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun CSSRuleList.get(index: Int): CSSRule? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [CSSRule](https://developer.mozilla.org/en/docs/Web/API/CSSRule) to Kotlin\n */\npublic external abstract class CSSRule {\n   open val type: Short\n   open var cssText: String\n   open val parentRule: CSSRule?\n   open val parentStyleSheet: CSSStyleSheet?\n\n   companion object {\n   val STYLE_RULE: Short\n   val CHARSET_RULE: Short\n   val IMPORT_RULE: Short\n   val MEDIA_RULE: Short\n   val FONT_FACE_RULE: Short\n   val PAGE_RULE: Short\n   val MARGIN_RULE: Short\n   val NAMESPACE_RULE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [CSSStyleRule](https://developer.mozilla.org/en/docs/Web/API/CSSStyleRule) to Kotlin\n */\npublic external abstract class CSSStyleRule : CSSRule {\n   open var selectorText: String\n   open val style: CSSStyleDeclaration\n\n   companion object {\n   val STYLE_RULE: Short\n   val CHARSET_RULE: Short\n   val IMPORT_RULE: Short\n   val MEDIA_RULE: Short\n   val FONT_FACE_RULE: Short\n   val PAGE_RULE: Short\n   val MARGIN_RULE: Short\n   val NAMESPACE_RULE: Short\n   }\n}\n\npublic external abstract class CSSImportRule : CSSRule {\n   open val href: String\n   open val media: MediaList\n   open val styleSheet: CSSStyleSheet\n\n   companion object {\n   val STYLE_RULE: Short\n   val CHARSET_RULE: Short\n   val IMPORT_RULE: Short\n   val MEDIA_RULE: Short\n   val FONT_FACE_RULE: Short\n   val PAGE_RULE: Short\n   val MARGIN_RULE: Short\n   val NAMESPACE_RULE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [CSSGroupingRule](https://developer.mozilla.org/en/docs/Web/API/CSSGroupingRule) to Kotlin\n */\npublic external abstract class CSSGroupingRule : CSSRule {\n   open val cssRules: CSSRuleList\n   fun insertRule(rule: String, index: Int): Int\n   fun deleteRule(index: Int)\n\n   companion object {\n   val STYLE_RULE: Short\n   val CHARSET_RULE: Short\n   val IMPORT_RULE: Short\n   val MEDIA_RULE: Short\n   val FONT_FACE_RULE: Short\n   val PAGE_RULE: Short\n   val MARGIN_RULE: Short\n   val NAMESPACE_RULE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [CSSMediaRule](https://developer.mozilla.org/en/docs/Web/API/CSSMediaRule) to Kotlin\n */\npublic external abstract class CSSMediaRule : CSSGroupingRule {\n   open val media: MediaList\n\n   companion object {\n   val STYLE_RULE: Short\n   val CHARSET_RULE: Short\n   val IMPORT_RULE: Short\n   val MEDIA_RULE: Short\n   val FONT_FACE_RULE: Short\n   val PAGE_RULE: Short\n   val MARGIN_RULE: Short\n   val NAMESPACE_RULE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [CSSPageRule](https://developer.mozilla.org/en/docs/Web/API/CSSPageRule) to Kotlin\n */\npublic external abstract class CSSPageRule : CSSGroupingRule {\n   open var selectorText: String\n   open val style: CSSStyleDeclaration\n\n   companion object {\n   val STYLE_RULE: Short\n   val CHARSET_RULE: Short\n   val IMPORT_RULE: Short\n   val MEDIA_RULE: Short\n   val FONT_FACE_RULE: Short\n   val PAGE_RULE: Short\n   val MARGIN_RULE: Short\n   val NAMESPACE_RULE: Short\n   }\n}\n\npublic external abstract class CSSMarginRule : CSSRule {\n   open val name: String\n   open val style: CSSStyleDeclaration\n\n   companion object {\n   val STYLE_RULE: Short\n   val CHARSET_RULE: Short\n   val IMPORT_RULE: Short\n   val MEDIA_RULE: Short\n   val FONT_FACE_RULE: Short\n   val PAGE_RULE: Short\n   val MARGIN_RULE: Short\n   val NAMESPACE_RULE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [CSSNamespaceRule](https://developer.mozilla.org/en/docs/Web/API/CSSNamespaceRule) to Kotlin\n */\npublic external abstract class CSSNamespaceRule : CSSRule {\n   open val namespaceURI: String\n   open val prefix: String\n\n   companion object {\n   val STYLE_RULE: Short\n   val CHARSET_RULE: Short\n   val IMPORT_RULE: Short\n   val MEDIA_RULE: Short\n   val FONT_FACE_RULE: Short\n   val PAGE_RULE: Short\n   val MARGIN_RULE: Short\n   val NAMESPACE_RULE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [CSSStyleDeclaration](https://developer.mozilla.org/en/docs/Web/API/CSSStyleDeclaration) to Kotlin\n */\npublic external abstract class CSSStyleDeclaration : ItemArrayLike<String> {\n   open var cssText: String\n   open val parentRule: CSSRule?\n   open var cssFloat: String\n   open var alignContent: String\n   open var alignItems: String\n   open var alignSelf: String\n   open var animation: String\n   open var animationDelay: String\n   open var animationDirection: String\n   open var animationDuration: String\n   open var animationFillMode: String\n   open var animationIterationCount: String\n   open var animationName: String\n   open var animationPlayState: String\n   open var animationTimingFunction: String\n   open var backfaceVisibility: String\n   open var background: String\n   open var backgroundAttachment: String\n   open var backgroundClip: String\n   open var backgroundColor: String\n   open var backgroundImage: String\n   open var backgroundOrigin: String\n   open var backgroundPosition: String\n   open var backgroundRepeat: String\n   open var backgroundSize: String\n   open var border: String\n   open var borderBottom: String\n   open var borderBottomColor: String\n   open var borderBottomLeftRadius: String\n   open var borderBottomRightRadius: String\n   open var borderBottomStyle: String\n   open var borderBottomWidth: String\n   open var borderCollapse: String\n   open var borderColor: String\n   open var borderImage: String\n   open var borderImageOutset: String\n   open var borderImageRepeat: String\n   open var borderImageSlice: String\n   open var borderImageSource: String\n   open var borderImageWidth: String\n   open var borderLeft: String\n   open var borderLeftColor: String\n   open var borderLeftStyle: String\n   open var borderLeftWidth: String\n   open var borderRadius: String\n   open var borderRight: String\n   open var borderRightColor: String\n   open var borderRightStyle: String\n   open var borderRightWidth: String\n   open var borderSpacing: String\n   open var borderStyle: String\n   open var borderTop: String\n   open var borderTopColor: String\n   open var borderTopLeftRadius: String\n   open var borderTopRightRadius: String\n   open var borderTopStyle: String\n   open var borderTopWidth: String\n   open var borderWidth: String\n   open var bottom: String\n   open var boxDecorationBreak: String\n   open var boxShadow: String\n   open var boxSizing: String\n   open var breakAfter: String\n   open var breakBefore: String\n   open var breakInside: String\n   open var captionSide: String\n   open var clear: String\n   open var clip: String\n   open var color: String\n   open var columnCount: String\n   open var columnFill: String\n   open var columnGap: String\n   open var columnRule: String\n   open var columnRuleColor: String\n   open var columnRuleStyle: String\n   open var columnRuleWidth: String\n   open var columnSpan: String\n   open var columnWidth: String\n   open var columns: String\n   open var content: String\n   open var counterIncrement: String\n   open var counterReset: String\n   open var cursor: String\n   open var direction: String\n   open var display: String\n   open var emptyCells: String\n   open var filter: String\n   open var flex: String\n   open var flexBasis: String\n   open var flexDirection: String\n   open var flexFlow: String\n   open var flexGrow: String\n   open var flexShrink: String\n   open var flexWrap: String\n   open var font: String\n   open var fontFamily: String\n   open var fontFeatureSettings: String\n   open var fontKerning: String\n   open var fontLanguageOverride: String\n   open var fontSize: String\n   open var fontSizeAdjust: String\n   open var fontStretch: String\n   open var fontStyle: String\n   open var fontSynthesis: String\n   open var fontVariant: String\n   open var fontVariantAlternates: String\n   open var fontVariantCaps: String\n   open var fontVariantEastAsian: String\n   open var fontVariantLigatures: String\n   open var fontVariantNumeric: String\n   open var fontVariantPosition: String\n   open var fontWeight: String\n   open var hangingPunctuation: String\n   open var height: String\n   open var hyphens: String\n   open var imageOrientation: String\n   open var imageRendering: String\n   open var imageResolution: String\n   open var imeMode: String\n   open var justifyContent: String\n   open var left: String\n   open var letterSpacing: String\n   open var lineBreak: String\n   open var lineHeight: String\n   open var listStyle: String\n   open var listStyleImage: String\n   open var listStylePosition: String\n   open var listStyleType: String\n   open var margin: String\n   open var marginBottom: String\n   open var marginLeft: String\n   open var marginRight: String\n   open var marginTop: String\n   open var mark: String\n   open var markAfter: String\n   open var markBefore: String\n   open var marks: String\n   open var marqueeDirection: String\n   open var marqueePlayCount: String\n   open var marqueeSpeed: String\n   open var marqueeStyle: String\n   open var mask: String\n   open var maskType: String\n   open var maxHeight: String\n   open var maxWidth: String\n   open var minHeight: String\n   open var minWidth: String\n   open var navDown: String\n   open var navIndex: String\n   open var navLeft: String\n   open var navRight: String\n   open var navUp: String\n   open var objectFit: String\n   open var objectPosition: String\n   open var opacity: String\n   open var order: String\n   open var orphans: String\n   open var outline: String\n   open var outlineColor: String\n   open var outlineOffset: String\n   open var outlineStyle: String\n   open var outlineWidth: String\n   open var overflowWrap: String\n   open var overflowX: String\n   open var overflowY: String\n   open var padding: String\n   open var paddingBottom: String\n   open var paddingLeft: String\n   open var paddingRight: String\n   open var paddingTop: String\n   open var pageBreakAfter: String\n   open var pageBreakBefore: String\n   open var pageBreakInside: String\n   open var perspective: String\n   open var perspectiveOrigin: String\n   open var phonemes: String\n   open var position: String\n   open var quotes: String\n   open var resize: String\n   open var rest: String\n   open var restAfter: String\n   open var restBefore: String\n   open var right: String\n   open var tabSize: String\n   open var tableLayout: String\n   open var textAlign: String\n   open var textAlignLast: String\n   open var textCombineUpright: String\n   open var textDecoration: String\n   open var textDecorationColor: String\n   open var textDecorationLine: String\n   open var textDecorationStyle: String\n   open var textIndent: String\n   open var textJustify: String\n   open var textOrientation: String\n   open var textOverflow: String\n   open var textShadow: String\n   open var textTransform: String\n   open var textUnderlinePosition: String\n   open var top: String\n   open var transform: String\n   open var transformOrigin: String\n   open var transformStyle: String\n   open var transition: String\n   open var transitionDelay: String\n   open var transitionDuration: String\n open var transitionProperty: String\n open var transitionTimingFunction: String\n open var unicodeBidi: String\n open var verticalAlign: String\n open var visibility: String\n open var voiceBalance: String\n open var voiceDuration: String\n open var voicePitch: String\n open var voicePitchRange: String\n open var voiceRate: String\n open var voiceStress: String\n open var voiceVolume: String\n open var whiteSpace: String\n open var widows: String\n open var width: String\n open var wordBreak: String\n open var wordSpacing: String\n open var wordWrap: String\n open var writingMode: String\n open var zIndex: String\n open var _dashed_attribute: String\n open var _camel_cased_attribute: String\n open var _webkit_cased_attribute: String\n fun getPropertyValue(property: String): String\n fun getPropertyPriority(property: String): String\n fun setProperty(property: String, value: String, priority: String = definedExternally)\n

fun setPropertyValue(property: String, value: String)\n fun setPropertyPriority(property: String, priority: String)\n fun removeProperty(property: String): String\n override fun item(index: Int): String\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun CSSStyleDeclaration.get(index: Int): String? = asDynamic()[index]\n\npublic external interface ElementCSSInlineStyle {\n val style: CSSStyleDeclaration\n}\n\n/**\n * Exposes the JavaScript [CSS](https://developer.mozilla.org/en/docs/Web/API/CSS) to Kotlin\n */\npublic external abstract class CSS {\n companion object {\n fun escape(ident: String): String\n }\n}\n\npublic external interface UnionElementOrProcessingInstruction","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n

/\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.encryptedmedia\n\nimport kotlin.js.\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\n/**\n * Exposes the JavaScript [MediaKeySystemConfiguration](https://developer.mozilla.org/en/docs/Web/API/MediaKeySystemConfiguration) to Kotlin\n */\npublic external interface MediaKeySystemConfiguration {\n var label: String? /* = \"\" */\n get() = definedExternally\n set(value) = definedExternally\n var initDataTypes: Array<String>? /* = arrayOf() */\n get() = definedExternally\n set(value) = definedExternally\n var audioCapabilities: Array<MediaKeySystemMediaCapability>? /* = arrayOf() */\n get() = definedExternally\n set(value) = definedExternally\n var videoCapabilities: Array<MediaKeySystemMediaCapability>? /* = arrayOf() */\n get() = definedExternally\n set(value) = definedExternally\n

var distinctiveIdentifier: MediaKeysRequirement? /* = MediaKeysRequirement.OPTIONAL */\n get() = definedExternally\n set(value) = definedExternally\n var persistentState: MediaKeysRequirement? /* = MediaKeysRequirement.OPTIONAL */\n get() = definedExternally\n set(value) = definedExternally\n var sessionTypes: Array<String>?\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaKeySystemConfiguration(label: String? = \"\", initDataTypes: Array<String>? = arrayOf(), audioCapabilities: Array<MediaKeySystemMediaCapability>? = arrayOf(), videoCapabilities: Array<MediaKeySystemMediaCapability>? = arrayOf(), distinctiveIdentifier: MediaKeysRequirement? = MediaKeysRequirement.OPTIONAL, persistentState: MediaKeysRequirement? = MediaKeysRequirement.OPTIONAL, sessionTypes: Array<String>? = undefined): MediaKeySystemConfiguration {\n val o = js(\"({})\")\n o[\"label\"] = label\n o[\"initDataTypes\"] = initDataTypes\n o[\"audioCapabilities\"] = audioCapabilities\n o[\"videoCapabilities\"] = videoCapabilities\n o[\"distinctiveIdentifier\"] = distinctiveIdentifier\n o[\"persistentState\"] = persistentState\n o[\"sessionTypes\"] = sessionTypes\n return o\n}\n\npublic external interface MediaKeySystemMediaCapability {\n var contentType: String? /* = \"\" */\n get() = definedExternally\n set(value) = definedExternally\n var robustness: String? /* = \"\" */\n get() = definedExternally\n set(value) =

definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun
MediaKeySystemMediaCapability(contentType: String? = \"\", robustness: String? = \"\"):
MediaKeySystemMediaCapability {\n   val o = js(\"({})\")\n   o[\"contentType\"] = contentType\n
o[\"robustness\"] = robustness\n
    return o\n}\n\n/**\n * Exposes the JavaScript
[MediaKeySystemAccess](https://developer.mozilla.org/en/docs/Web/API/MediaKeySystemAccess) to Kotlin\n
*/\npublic external abstract class MediaKeySystemAccess {\n   open val keySystem: String\n   fun
getConfiguration(): MediaKeySystemConfiguration\n   fun createMediaKeys(): Promise<MediaKeys>\n}\n\n/**\n
* Exposes the JavaScript [MediaKeys](https://developer.mozilla.org/en/docs/Web/API/MediaKeys) to Kotlin\n
*/\npublic external abstract class MediaKeys {\n   fun createSession(sessionType: MediaKeySessionType =
definedExternally): MediaKeySession\n   fun setServerCertificate(serverCertificate: dynamic):
Promise<Boolean>\n}\n\n/**\n * Exposes the JavaScript
[MediaKeySession](https://developer.mozilla.org/en/docs/Web/API/MediaKeySession) to Kotlin\n */\npublic
external abstract class MediaKeySession : EventTarget {\n   open val sessionId: String\n   open val expiration:
Double\n   open val closed: Promise<Unit>\n   open val keyStatuses:
 MediaKeyStatusMap\n   open var onkeystatuseschange: ((Event) -> dynamic)?\n   open var onmessage:
((MessageEvent) -> dynamic)?\n   fun generateRequest(initDataType: String, initData: dynamic): Promise<Unit>\n
 fun load(sessionId: String): Promise<Boolean>\n   fun update(response: dynamic): Promise<Unit>\n   fun close():
Promise<Unit>\n   fun remove(): Promise<Unit>\n}\n\n/**\n * Exposes the JavaScript
[MediaKeyStatusMap](https://developer.mozilla.org/en/docs/Web/API/MediaKeyStatusMap) to Kotlin\n */\npublic
external abstract class MediaKeyStatusMap {\n   open val size: Int\n   fun has(keyId: dynamic): Boolean\n   fun
get(keyId: dynamic): Any?\n}\n\n/**\n * Exposes the JavaScript
[MediaKeyMessageEvent](https://developer.mozilla.org/en/docs/Web/API/MediaKeyMessageEvent) to Kotlin\n
*/\npublic external open class MediaKeyMessageEvent(type: String, eventInitDict: MediaKeyMessageEventInit) :
Event {\n   open val messageType: MediaKeyMessageType\n   open val message:
 ArrayBuffer\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val
AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface
MediaKeyMessageEventInit : EventInit {\n   var messageType: MediaKeyMessageType?\n   var message:
ArrayBuffer?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun
MediaKeyMessageEventInit(messageType: MediaKeyMessageType?, message: ArrayBuffer?, bubbles: Boolean? =
false, cancelable: Boolean? = false, composed: Boolean? = false): MediaKeyMessageEventInit {\n   val o =
js(\"({})\")\n   o[\"messageType\"] = messageType\n   o[\"message\"] = message\n   o[\"bubbles\"] = bubbles\n
o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\npublic external open class
MediaEncryptedEvent(type: String, eventInitDict: MediaEncryptedEventInit = definedExternally) : Event {\n
open val initDataType: String\n
    open val initData: ArrayBuffer?\n\n   companion object {\n   val NONE: Short\n   val
CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n
}\n}\n\npublic external interface MediaEncryptedEventInit : EventInit {\n   var initDataType: String? /* = \"\" */\n
    get() = definedExternally\n   set(value) = definedExternally\n   var initData: ArrayBuffer? /* = null */\n
get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun
MediaEncryptedEventInit(initDataType: String? = \"\", initData: ArrayBuffer? = null, bubbles: Boolean? = false,
cancelable: Boolean? = false, composed: Boolean? = false): MediaEncryptedEventInit {\n   val o = js(\"({})\")\n
o[\"initDataType\"] = initDataType\n   o[\"initData\"] = initData\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"]
= cancelable\n   o[\"composed\"]

= composed\n   return o\n}\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface MediaKeysRequirement {\n   companion object\n}\n\npublic inline val MediaKeysRequirement.Companion.REQUIRED: MediaKeysRequirement get() = \"required\".asDynamic().unsafeCast<MediaKeysRequirement>()\n\npublic inline val MediaKeysRequirement.Companion.OPTIONAL: MediaKeysRequirement get() = \"optional\".asDynamic().unsafeCast<MediaKeysRequirement>()\n\npublic inline val MediaKeysRequirement.Companion.NOT_ALLOWED: MediaKeysRequirement get() = \"not-allowed\".asDynamic().unsafeCast<MediaKeysRequirement>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface MediaKeySessionType {\n   companion object\n}\n\npublic inline val MediaKeySessionType.Companion.TEMPORARY: MediaKeySessionType get() = \"temporary\".asDynamic().unsafeCast<MediaKeySessionType>()\n\npublic inline val MediaKeySessionType.Companion.PERSISTENT_LICENSE: MediaKeySessionType get() = \"persistent-license\".asDynamic().unsafeCast<MediaKeySessionType>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface MediaKeyStatus {\n   companion object\n}\n\npublic inline val MediaKeyStatus.Companion.USABLE: MediaKeyStatus get() = \"usable\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val MediaKeyStatus.Companion.EXPIRED: MediaKeyStatus get() = \"expired\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val MediaKeyStatus.Companion.RELEASED: MediaKeyStatus get() = \"released\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val MediaKeyStatus.Companion.OUTPUT_RESTRICTED: MediaKeyStatus get() = \"output-restricted\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val MediaKeyStatus.Companion.OUTPUT_DOWNSCALED: MediaKeyStatus get() = \"output-downscaled\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val MediaKeyStatus.Companion.STATUS_PENDING: MediaKeyStatus get() = \"status-pending\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val MediaKeyStatus.Companion.INTERNAL_ERROR: MediaKeyStatus get() = \"internal-error\".asDynamic().unsafeCast<MediaKeyStatus>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface MediaKeyMessageType {\n   companion object\n}\n\npublic inline val MediaKeyMessageType.Companion.LICENSE_REQUEST: MediaKeyMessageType get() = \"license-request\".asDynamic().unsafeCast<MediaKeyMessageType>()\n\npublic inline val MediaKeyMessageType.Companion.LICENSE_RENEWAL: MediaKeyMessageType get() = \"license-renewal\".asDynamic().unsafeCast<MediaKeyMessageType>()\n\npublic inline val MediaKeyMessageType.Companion.LICENSE_RELEASE: MediaKeyMessageType get() = \"license-release\".asDynamic().unsafeCast<MediaKeyMessageType>()\n\npublic inline val MediaKeyMessageType.Companion.INDIVIDUALIZATION_REQUEST: MediaKeyMessageType get() = \"individualization-request\".asDynamic().unsafeCast<MediaKeyMessageType>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.events\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\n\n/**\n * Exposes the JavaScript [UIEvent](https://developer.mozilla.org/en/docs/Web/API/UIEvent) to Kotlin\n */\npublic external open class UIEvent(type: String, eventInitDict: UIEventInit = definedExternally) : Event {\n   open val view: Window?\n   open val detail: Int\n\n   companion object {\n   val NONE: Short\n   val

CAPTURING_PHASE: Short\n val AT_TARGET: Short\n val BUBBLING_PHASE: Short\n }\n}\n\npublic external interface UIEventInit : EventInit {\n var view: Window? /* = null */\n get() = definedExternally\n set(value) = definedExternally\n var detail: Int? /* = 0 */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun UIEventInit(view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): UIEventInit {\n val o = js(\"({})\")\n o[\"view\"] = view\n o[\"detail\"] = detail\n o[\"bubbles\"] = bubbles\n o[\"cancelable\"] = cancelable\n o[\"composed\"] = composed\n return o\n}\n\n/**\n * Exposes the JavaScript [FocusEvent](https://developer.mozilla.org/en/docs/Web/API/FocusEvent) to Kotlin\n */\npublic external open class FocusEvent(type: String, eventInitDict: FocusEventInit = definedExternally) : UIEvent {\n open val relatedTarget: EventTarget?\n\n companion object {\n val NONE: Short\n val CAPTURING_PHASE: Short\n val AT_TARGET: Short\n val BUBBLING_PHASE: Short\n }\n}\n\npublic external interface FocusEventInit : UIEventInit {\n var relatedTarget: EventTarget? /* = null */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun FocusEventInit(relatedTarget: EventTarget? = null, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): FocusEventInit {\n val o = js(\"({})\")\n o[\"relatedTarget\"] = relatedTarget\n o[\"view\"] = view\n o[\"detail\"] = detail\n o[\"bubbles\"] = bubbles\n o[\"cancelable\"] = cancelable\n o[\"composed\"] = composed\n return o\n}\n\n/**\n * Exposes the JavaScript [MouseEvent](https://developer.mozilla.org/en/docs/Web/API/MouseEvent) to Kotlin\n */\npublic external open class MouseEvent(type: String, eventInitDict: MouseEventInit = definedExternally) : UIEvent, UnionElementOrMouseEvent {\n open val screenX: Int\n open val screenY: Int\n open val clientX: Int\n open val clientY: Int\n open val ctrlKey: Boolean\n open val shiftKey: Boolean\n open val altKey: Boolean\n open val metaKey: Boolean\n open val button: Short\n open val buttons: Short\n open val relatedTarget: EventTarget?\n open val region: String?\n open val pageX: Double\n open val pageY: Double\n open val x: Double\n open val y: Double\n open val offsetX: Double\n open val offsetY: Double\n fun getModifierState(keyArg: String): Boolean\n\n companion object {\n val NONE: Short\n val CAPTURING_PHASE: Short\n val AT_TARGET: Short\n val BUBBLING_PHASE: Short\n }\n}\n\npublic external interface MouseEventInit : EventModifierInit {\n var screenX: Int? /* = 0 */\n get() = definedExternally\n set(value) = definedExternally\n var screenY: Int? /* = 0 */\n get() = definedExternally\n set(value) = definedExternally\n var clientX: Int? /* = 0 */\n get() = definedExternally\n set(value) = definedExternally\n var clientY: Int? /* = 0 */\n get() = definedExternally\n set(value) = definedExternally\n var button: Short? /* = 0 */\n get() = definedExternally\n set(value) = definedExternally\n var buttons: Short? /* = 0 */\n get() = definedExternally\n set(value) = definedExternally\n var relatedTarget: EventTarget? /* = null */\n get() = definedExternally\n set(value) = definedExternally\n var region: String? /* = null */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MouseEventInit(screenX: Int? = 0, screenY: Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0, buttons: Short? = 0, relatedTarget: EventTarget? = null, region: String? = null, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? =

false): MouseEventInit {\n   val o = js(\"({})\")\n   o[\"screenX\"] = screenX\n   o[\"screenY\"] = screenY\n
o[\"clientX\"] = clientX\n   o[\"clientY\"] = clientY\n   o[\"button\"] = button\n
    o[\"buttons\"] = buttons\n   o[\"relatedTarget\"] = relatedTarget\n   o[\"region\"] = region\n   o[\"ctrlKey\"] =
ctrlKey\n   o[\"shiftKey\"] = shiftKey\n   o[\"altKey\"] = altKey\n   o[\"metaKey\"] = metaKey\n
o[\"modifierAltGraph\"] = modifierAltGraph\n   o[\"modifierCapsLock\"] = modifierCapsLock\n
o[\"modifierFn\"] = modifierFn\n   o[\"modifierFnLock\"] = modifierFnLock\n   o[\"modifierHyper\"] =
modifierHyper\n   o[\"modifierNumLock\"] = modifierNumLock\n   o[\"modifierScrollLock\"] =
modifierScrollLock\n   o[\"modifierSuper\"] = modifierSuper\n   o[\"modifierSymbol\"] = modifierSymbol\n
o[\"modifierSymbolLock\"] = modifierSymbolLock\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n
o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return
o\n}\n\npublic external interface EventModifierInit : UIEventInit {\n   var ctrlKey: Boolean? /* = false */\n
get() = definedExternally\n   set(value)
 = definedExternally\n   var shiftKey: Boolean? /* = false */\n   get() = definedExternally\n   set(value) =
definedExternally\n   var altKey: Boolean? /* = false */\n   get() = definedExternally\n   set(value) =
definedExternally\n   var metaKey: Boolean? /* = false */\n   get() = definedExternally\n   set(value) =
definedExternally\n   var modifierAltGraph: Boolean? /* = false */\n   get() = definedExternally\n   set(value)
= definedExternally\n   var modifierCapsLock: Boolean? /* = false */\n   get() = definedExternally\n
set(value) = definedExternally\n   var modifierFn: Boolean? /* = false */\n   get() = definedExternally\n
set(value) = definedExternally\n   var modifierFnLock: Boolean? /* = false */\n   get() = definedExternally\n
set(value) = definedExternally\n   var modifierHyper: Boolean? /* = false */\n   get() = definedExternally\n
set(value) = definedExternally\n   var modifierNumLock:
 Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var
modifierScrollLock: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n
var modifierSuper: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n
var modifierSymbol: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n
var modifierSymbolLock: Boolean? /* = false */\n   get() = definedExternally\n   set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun EventModifierInit(ctrlKey: Boolean? =
false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph:
Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? =
false, modifierHyper: Boolean?
 = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? =
false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail:
Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): EventModifierInit
{\n   val o = js(\"({})\")\n   o[\"ctrlKey\"] = ctrlKey\n   o[\"shiftKey\"] = shiftKey\n   o[\"altKey\"] = altKey\n
o[\"metaKey\"] = metaKey\n   o[\"modifierAltGraph\"] = modifierAltGraph\n   o[\"modifierCapsLock\"] =
modifierCapsLock\n   o[\"modifierFn\"] = modifierFn\n   o[\"modifierFnLock\"] = modifierFnLock\n
o[\"modifierHyper\"] = modifierHyper\n   o[\"modifierNumLock\"] = modifierNumLock\n
o[\"modifierScrollLock\"] = modifierScrollLock\n   o[\"modifierSuper\"] = modifierSuper\n
o[\"modifierSymbol\"] = modifierSymbol\n   o[\"modifierSymbolLock\"] = modifierSymbolLock\n   o[\"view\"] =
view\n   o[\"detail\"] = detail\n   o[\"bubbles\"]
 = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes
the JavaScript [WheelEvent](https://developer.mozilla.org/en/docs/Web/API/WheelEvent) to Kotlin\n */\npublic
external open class WheelEvent(type: String, eventInitDict: WheelEventInit = definedExternally) : MouseEvent {\n
 open val deltaX: Double\n   open val deltaY: Double\n   open val deltaZ: Double\n   open val deltaMode: Int\n\n
companion object {\n   val DOM_DELTA_PIXEL: Int\n   val DOM_DELTA_LINE: Int\n   val
DOM_DELTA_PAGE: Int\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val
AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface WheelEventInit :

MouseEventInit {\n   var deltaX: Double? /* = 0.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var deltaY: Double? /* = 0.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n
var deltaZ: Double? /* = 0.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var deltaMode: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun WheelEventInit(deltaX: Double? = 0.0, deltaY: Double? = 0.0, deltaZ: Double? = 0.0, deltaMode: Int? = 0, screenX: Int? = 0, screenY: Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0, buttons: Short? = 0, relatedTarget: EventTarget? = null, region: String? = null, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false,
modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): WheelEventInit {\n   val o = js(\"({})\")\n   o[\"deltaX\"] = deltaX\n   o[\"deltaY\"] = deltaY\n   o[\"deltaZ\"] = deltaZ\n   o[\"deltaMode\"] = deltaMode\n   o[\"screenX\"] = screenX\n   o[\"screenY\"] = screenY\n   o[\"clientX\"] = clientX\n   o[\"clientY\"] = clientY\n   o[\"button\"] = button\n   o[\"buttons\"] = buttons\n   o[\"relatedTarget\"] = relatedTarget\n   o[\"region\"] = region\n   o[\"ctrlKey\"] = ctrlKey\n   o[\"shiftKey\"] = shiftKey\n   o[\"altKey\"] = altKey\n   o[\"metaKey\"] = metaKey\n   o[\"modifierAltGraph\"] = modifierAltGraph\n   o[\"modifierCapsLock\"] = modifierCapsLock\n   o[\"modifierFn\"] = modifierFn\n   o[\"modifierFnLock\"] = modifierFnLock\n   o[\"modifierHyper\"] = modifierHyper\n   o[\"modifierNumLock\"] = modifierNumLock\n
o[\"modifierScrollLock\"] = modifierScrollLock\n   o[\"modifierSuper\"] = modifierSuper\n   o[\"modifierSymbol\"] = modifierSymbol\n   o[\"modifierSymbolLock\"] = modifierSymbolLock\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [InputEvent](https://developer.mozilla.org/en/docs/Web/API/InputEvent) to Kotlin\n */\npublic external open class InputEvent(type: String, eventInitDict: InputEventInit = definedExternally) : UIEvent {\n   open val data: String\n   open val isComposing: Boolean\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface InputEventInit : UIEventInit {\n   var data: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var isComposing:
Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun InputEventInit(data: String? = \"\", isComposing: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): InputEventInit {\n   val o = js(\"({})\")\n   o[\"data\"] = data\n   o[\"isComposing\"] = isComposing\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [KeyboardEvent](https://developer.mozilla.org/en/docs/Web/API/KeyboardEvent) to Kotlin\n */\npublic external open class KeyboardEvent(type: String, eventInitDict: KeyboardEventInit = definedExternally) : UIEvent {\n   open val key: String\n   open val code: String\n   open val location:
Int\n   open val ctrlKey: Boolean\n   open val shiftKey: Boolean\n   open val altKey: Boolean\n   open val metaKey: Boolean\n   open val repeat: Boolean\n   open val isComposing: Boolean\n   open val charCode: Int\n   open val keyCode: Int\n   open val which: Int\n   fun getModifierState(keyArg: String): Boolean\n\n   companion object {\n   val DOM_KEY_LOCATION_STANDARD: Int\n   val DOM_KEY_LOCATION_LEFT: Int\n
val DOM_KEY_LOCATION_RIGHT: Int\n   val DOM_KEY_LOCATION_NUMPAD: Int\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE:

Short\n   }\n}\n\npublic external interface KeyboardEventInit : EventModifierInit {\n   var key: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var code: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var location: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var repeat: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var isComposing: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun KeyboardEventInit(key: String? = \"\", code: String? = \"\", location: Int? = 0, repeat: Boolean? = false, isComposing: Boolean? = false, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): KeyboardEventInit {\n   val o = js(\"({})\")\n   o[\"key\"] = key\n   o[\"code\"] = code\n   o[\"location\"] = location\n   o[\"repeat\"] = repeat\n   o[\"isComposing\"] = isComposing\n   o[\"ctrlKey\"] = ctrlKey\n   o[\"shiftKey\"] = shiftKey\n   o[\"altKey\"] = altKey\n   o[\"metaKey\"] = metaKey\n   o[\"modifierAltGraph\"] = modifierAltGraph\n   o[\"modifierCapsLock\"] = modifierCapsLock\n   o[\"modifierFn\"] = modifierFn\n   o[\"modifierFnLock\"] = modifierFnLock\n   o[\"modifierHyper\"] = modifierHyper\n   o[\"modifierNumLock\"] = modifierNumLock\n   o[\"modifierScrollLock\"] = modifierScrollLock\n   o[\"modifierSuper\"] = modifierSuper\n   o[\"modifierSymbol\"] = modifierSymbol\n   o[\"modifierSymbolLock\"] = modifierSymbolLock\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [CompositionEvent](https://developer.mozilla.org/en/docs/Web/API/CompositionEvent) to Kotlin\n */\npublic external open class CompositionEvent(type: String, eventInitDict: CompositionEventInit = definedExternally) : UIEvent {\n   open val data: String\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface CompositionEventInit : UIEventInit {\n   var data: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CompositionEventInit(data: String? = \"\", view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): CompositionEventInit {\n   val o = js(\"({})\")\n   o[\"data\"] = data\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [Event](https://developer.mozilla.org/en/docs/Web/API/Event) to Kotlin\n */\npublic external open class Event(type: String, eventInitDict: EventInit = definedExternally) {\n   open val type: String\n   open val target: EventTarget?\n   open val currentTarget: EventTarget?\n   open val eventPhase: Short\n   open val bubbles: Boolean\n   open val cancelable: Boolean\n   open val defaultPrevented: Boolean\n   open val composed: Boolean\n   open val isTrusted: Boolean\n   open val timeStamp: Number\n   fun composedPath(): Array<EventTarget>\n   fun stopPropagation()\n   fun stopImmediatePropagation()\n   fun preventDefault()\n   fun initEvent(type: String, bubbles: Boolean, cancelable: Boolean)\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [EventTarget](https://developer.mozilla.org/en/docs/Web/API/EventTarget) to Kotlin\n */\npublic external abstract class EventTarget {\n   fun addEventListener(type: String, callback: EventListener?, options: dynamic = definedExternally)\n   fun addEventListener(type: String, callback: ((Event) -> Unit)?, options: dynamic = definedExternally)\n   fun removeEventListener(type: String, callback: EventListener?, options: dynamic = definedExternally)\n   fun removeEventListener(type: String, callback: ((Event) -> Unit)?, options: dynamic = definedExternally)\n   fun dispatchEvent(event: Event): Boolean\n}\n\n/**\n * Exposes the

JavaScript [EventListener](https://developer.mozilla.org/en/docs/Web/API/EventListener) to Kotlin\n */\npublic external interface EventListener {\n   fun handleEvent(event: Event)\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.clipboard.*\nimport org.w3c.dom.css.*\nimport org.w3c.dom.encryptedmedia.*\nimport org.w3c.dom.events.*\nimport org.w3c.dom.mediacapture.*\nimport org.w3c.dom.mediasource.*\nimport org.w3c.dom.pointerevents.*\nimport org.w3c.dom.svg.*\nimport org.w3c.fetch.*\nimport org.w3c.files.*\nimport org.w3c.performance.*\nimport org.w3c.workers.*\nimport org.w3c.xhr.*\n\npublic external abstract class HTMLAllCollection {\n   open val length: Int\n   fun item(nameOrIndex: String = definedExternally): UnionElementOrHTMLCollection?\n   fun namedItem(name: String): UnionElementOrHTMLCollection?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLAllCollection.get(index: Int): Element? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLAllCollection.get(name: String): UnionElementOrHTMLCollection? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript [HTMLFormControlsCollection](https://developer.mozilla.org/en/docs/Web/API/HTMLFormControlsCollection) to Kotlin\n */\npublic external abstract class HTMLFormControlsCollection : HTMLCollection\n\n/**\n * Exposes the JavaScript [RadioNodeList](https://developer.mozilla.org/en/docs/Web/API/RadioNodeList) to Kotlin\n */\npublic external abstract class RadioNodeList : NodeList, UnionElementOrRadioNodeList {\n   open var value: String\n}\n\n/**\n * Exposes the JavaScript [HTMLOptionsCollection](https://developer.mozilla.org/en/docs/Web/API/HTMLOptionsCollection) to Kotlin\n */\npublic external abstract class HTMLOptionsCollection : HTMLCollection {\n   override var length: Int\n   open var selectedIndex: Int\n   fun add(element: UnionHTMLOptGroupElementOrHTMLOptionElement, before: dynamic = definedExternally)\n   fun remove(index: Int)\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLOptionsCollection.set(index: Int, option: HTMLOptionElement?) { asDynamic()[index] = option }\n\n/**\n * Exposes the JavaScript [HTMLElement](https://developer.mozilla.org/en/docs/Web/API/HTMLElement) to Kotlin\n */\npublic external abstract class HTMLElement : Element, GlobalEventHandlers, DocumentAndElementEventHandlers, ElementContentEditable, ElementCSSInlineStyle {\n   open var title: String\n   open var lang: String\n   open var translate: Boolean\n   open var dir: String\n   open val dataset: DOMStringMap\n   open var hidden: Boolean\n   open var tabIndex: Int\n   open var accessKey: String\n   open val accessKeyLabel: String\n   open var draggable: Boolean\n   open val dropzone: DOMTokenList\n   open var contextMenu: HTMLMenuElement?\n   open var spellcheck: Boolean\n   open var innerText: String\n   open val offsetParent: Element?\n   open val offsetTop: Int\n   open val offsetLeft: Int\n   open val offsetWidth: Int\n   open val offsetHeight: Int\n   fun click()\n   fun focus()\n   fun blur()\n   fun forceSpellCheck()\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n

val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLUnknownElement](https://developer.mozilla.org/en/docs/Web/API/HTMLUnknownElement) to Kotlin\n */\npublic external abstract class HTMLUnknownElement : HTMLElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING:
Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [DOMStringMap](https://developer.mozilla.org/en/docs/Web/API/DOMStringMap) to Kotlin\n */\npublic external abstract class DOMStringMap\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun DOMStringMap.get(name: String): String? = asDynamic()[name]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun DOMStringMap.set(name: String, value: String) { asDynamic()[name] = value }\n\n/**\n * Exposes the JavaScript [HTMLHtmlElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHtmlElement) to Kotlin\n */\npublic external abstract class HTMLHtmlElement : HTMLElement {\n open var version: String\n\n companion object {\n val ELEMENT_NODE:
Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLHeadElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHeadElement) to Kotlin\n */\npublic external abstract class HTMLHeadElement : HTMLElement {\n companion object {\n val ELEMENT_NODE: Short\n
val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLTitleElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTitleElement) to Kotlin\n */\npublic external abstract class HTMLTitleElement : HTMLElement {\n open var text: String\n\n companion object {\n val ELEMENT_NODE: Short\n

val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLBaseElement](https://developer.mozilla.org/en/docs/Web/API/HTMLBaseElement) to Kotlin\n */\npublic external abstract class HTMLBaseElement : HTMLElement {\n   open var href: String\n   open var target: String\n\n   companion object

{\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLLinkElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLinkElement) to Kotlin\n */\npublic external abstract class HTMLLinkElement : HTMLElement, LinkStyle {\n   open var href: String\n   open var crossOrigin: String?\n   open var rel: String\n   open var `as`: RequestDestination\n   open val relList: DOMTokenList\n   open var media: String\n   open var nonce: String\n   open var hreflang: String\n   open var type: String\n   open val sizes: DOMTokenList\n   open var referrerPolicy: String\n   open var charset: String\n   open var rev: String\n   open var target: String\n   open var scope: String\n   open var workerType: WorkerType\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLMetaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMetaElement) to Kotlin\n */\npublic external abstract class HTMLMetaElement : HTMLElement {\n   open var name: String\n   open var httpEquiv: String\n   open var content: String\n   open var scheme: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n

val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY:

Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLStyleElement](https://developer.mozilla.org/en/docs/Web/API/HTMLStyleElement) to Kotlin\n */\npublic external abstract class HTMLStyleElement : HTMLElement, LinkStyle {\n open var media: String\n open var nonce: String\n open var type: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n
val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLBodyElement](https://developer.mozilla.org/en/docs/Web/API/HTMLBodyElement) to Kotlin\n */\npublic external abstract class HTMLBodyElement : HTMLElement, WindowEventHandlers {\n open var text: String\n open var link: String\n open var vLink: String\n open var aLink: String\n open var bgColor: String\n open var background: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE:
Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLHeadingElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHeadingElement) to Kotlin\n */\npublic external abstract class HTMLHeadingElement : HTMLElement {\n open var align: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n
val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLParagraphElement](https://developer.mozilla.org/en/docs/Web/API/HTMLParagraphElement) to Kotlin\n */\npublic external abstract class HTMLParagraphElement : HTMLElement {\n open var align: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE:
Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n

val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLHRElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHRElement) to Kotlin\n */\npublic external abstract class HTMLHRElement : HTMLElement {\n   open var align: String\n   open var color: String\n   open var noShade: Boolean\n   open var size: String\n   open var width: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLPreElement](https://developer.mozilla.org/en/docs/Web/API/HTMLPreElement) to Kotlin\n */\npublic external abstract class HTMLPreElement : HTMLElement {\n   open var width: Int\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLQuoteElement](https://developer.mozilla.org/en/docs/Web/API/HTMLQuoteElement) to Kotlin\n */\npublic external abstract class HTMLQuoteElement : HTMLElement {\n   open var cite: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLOListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOListElement) to Kotlin\n */\npublic external abstract class HTMLOListElement : HTMLElement {\n   open var reversed: Boolean\n   open var start: Int\n   open var type: String\n   open var compact: Boolean\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript

[HTMLUListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLUListElement) to Kotlin\n */\npublic external
abstract class HTMLUListElement : HTMLElement {\n   open var compact: Boolean\n   open var type: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLLIElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLIElement)
to Kotlin\n */\npublic external abstract class HTMLLIElement : HTMLElement {\n   open var value: Int\n   open var type: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLDListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDListElement)
to Kotlin\n */\npublic external abstract class HTMLDListElement : HTMLElement {\n   open var compact: Boolean\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLDivElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDivElement)
to Kotlin\n */\npublic external abstract class HTMLDivElement : HTMLElement {\n   open var align: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLAnchorElement](https://developer.mozilla.org/en/docs/Web/API/HTMLAnchorElement)

to Kotlin\n */\npublic external abstract class HTMLAnchorElement : HTMLElement, HTMLHyperlinkElementUtils {\n open var target: String\n open var download: String\n open var ping: String\n open var rel: String\n open val relList: DOMTokenList\n open var hreflang: String\n open var type: String\n open var text: String\n open var referrerPolicy: String\n open var coords: String\n open var charset: String\n open var name: String\n open var rev: String\n open var shape: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE:
Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLDataElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDataElement) to Kotlin\n */\npublic external abstract class HTMLDataElement : HTMLElement {\n open var value: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE:
Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLTimeElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTimeElement) to Kotlin\n */\npublic external abstract class HTMLTimeElement : HTMLElement {\n open var dateTime: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE:
Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLSpanElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSpanElement) to Kotlin\n */\npublic external abstract class HTMLSpanElement : HTMLElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE:
Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLBRElement](https://developer.mozilla.org/en/docs/Web/API/HTMLBRElement) to Kotlin\n

*/\npublic external abstract class HTMLBRElement : HTMLElement {\n   open var clear: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE:
Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLHyperlinkElementUtils](https://developer.mozilla.org/en/docs/Web/API/HTMLHyperlinkElementUtils) to Kotlin\n */\npublic external interface HTMLHyperlinkElementUtils {\n   var href: String\n   val origin: String\n   var protocol: String\n   var username: String\n   var password: String\n   var host: String\n   var hostname: String\n   var port: String\n   var pathname: String\n   var search: String\n   var hash: String\n}\n\n/**\n * Exposes the JavaScript [HTMLModElement](https://developer.mozilla.org/en/docs/Web/API/HTMLModElement) to Kotlin\n */\npublic external abstract class HTMLModElement
: HTMLElement {\n   open var cite: String\n   open var dateTime: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLPictureElement](https://developer.mozilla.org/en/docs/Web/API/HTMLPictureElement) to Kotlin\n */\npublic
external abstract class HTMLPictureElement : HTMLElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLSourceElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSourceElement) to Kotlin\n */\npublic external
abstract class HTMLSourceElement : HTMLElement {\n   open var src: String\n   open var type: String\n   open var srcset: String\n   open var sizes: String\n   open var media: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val

DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLImageElement](https://developer.mozilla.org/en/docs/Web/API/HTMLImageElement) to Kotlin\n */\npublic external abstract class HTMLImageElement : HTMLElement, HTMLOrSVGImageElement, TexImageSource {\n   open var alt: String\n   open var src: String\n   open var srcset: String\n   open var sizes: String\n   open var crossOrigin: String?\n   open var useMap: String\n   open var isMap: Boolean\n   open var width: Int\n   open var height: Int\n   open val naturalWidth: Int\n   open val naturalHeight: Int\n   open val complete: Boolean\n   open val currentSrc: String\n   open var referrerPolicy: String\n   open var name: String\n   open var lowsrc: String\n   open var align: String\n   open var hspace: Int\n   open var vspace: Int\n   open var longDesc: String\n   open var border: String\n   open val x: Int\n   open val y: Int\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLIFrameElement](https://developer.mozilla.org/en/docs/Web/API/HTMLIFrameElement) to Kotlin\n */\npublic external abstract class HTMLIFrameElement : HTMLElement {\n   open var src: String\n   open var srcdoc: String\n   open var name: String\n   open val sandbox: DOMTokenList\n   open var allowFullscreen: Boolean\n   open var allowUserMedia: Boolean\n   open var width: String\n   open var height: String\n   open var referrerPolicy: String\n   open val contentDocument: Document?\n   open val contentWindow: Window?\n   open var align: String\n   open var scrolling: String\n   open var frameBorder: String\n   open var longDesc: String\n   open var marginHeight: String\n   open var marginWidth: String\n   fun getSVGDocument(): Document?\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLEmbedElement](https://developer.mozilla.org/en/docs/Web/API/HTMLEmbedElement) to Kotlin\n */\npublic external abstract class HTMLEmbedElement : HTMLElement {\n   open var src: String\n   open var type: String\n   open var width: String\n   open var height: String\n   open var align: String\n   open var name: String\n   fun getSVGDocument(): Document?\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n

val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLObjectElement](https://developer.mozilla.org/en/docs/Web/API/HTMLObjectElement) to Kotlin\n */\npublic external abstract class HTMLObjectElement : HTMLElement {\n   open var data: String\n   open var type: String\n   open var typeMustMatch: Boolean\n   open var name: String\n   open var useMap: String\n   open val form: HTMLFormElement?\n   open var width: String\n   open var height: String\n   open val contentDocument: Document?\n   open val contentWindow: Window?\n   open val willValidate: Boolean\n   open val validity:
 ValidityState\n   open val validationMessage: String\n   open var align: String\n   open var archive: String\n   open var code: String\n   open var declare: Boolean\n   open var hspace: Int\n   open var standby: String\n   open var vspace: Int\n   open var codeBase: String\n   open var codeType: String\n   open var border: String\n   fun getSVGDocument(): Document?\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED:
 Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLParamElement](https://developer.mozilla.org/en/docs/Web/API/HTMLParamElement) to Kotlin\n */\npublic external abstract class HTMLParamElement : HTMLElement {\n   open var name: String\n   open var value: String\n   open var type: String\n   open var valueType: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE:
 Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLVideoElement](https://developer.mozilla.org/en/docs/Web/API/HTMLVideoElement) to Kotlin\n */\npublic external abstract class HTMLVideoElement : HTMLMediaElement, CanvasImageSource, TexImageSource {\n   open var width: Int\n   open var height: Int\n   open val videoWidth: Int\n   open val videoHeight: Int\n   open var poster: String\n   open var playsInline: Boolean\n\n   companion object {\n   val NETWORK_EMPTY: Short\n   val NETWORK_IDLE: Short\n   val NETWORK_LOADING: Short\n   val NETWORK_NO_SOURCE: Short\n   val HAVE_NOTHING: Short\n   val HAVE_METADATA:
 Short\n   val HAVE_CURRENT_DATA: Short\n   val HAVE_FUTURE_DATA: Short\n   val HAVE_ENOUGH_DATA: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n

    val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLAudioElement](https://developer.mozilla.org/en/docs/Web/API/HTMLAudioElement)

 to Kotlin\n */\npublic external abstract class HTMLAudioElement : HTMLMediaElement {\n   companion object {\n   val NETWORK_EMPTY: Short\n   val NETWORK_IDLE: Short\n   val NETWORK_LOADING: Short\n   val NETWORK_NO_SOURCE: Short\n   val HAVE_NOTHING: Short\n   val HAVE_METADATA: Short\n   val HAVE_CURRENT_DATA: Short\n   val HAVE_FUTURE_DATA: Short\n   val HAVE_ENOUGH_DATA: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING:

 Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTrackElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTrackElement) to Kotlin\n */\npublic external abstract class HTMLTrackElement : HTMLElement {\n   open var kind: String\n   open var src: String\n   open var srclang: String\n   open var label: String\n   open var default: Boolean\n   open val readyState: Short\n   open val track: TextTrack\n\n   companion object {\n   val NONE: Short\n   val LOADING: Short\n   val LOADED: Short\n   val ERROR: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val

 COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLMediaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMediaElement) to Kotlin\n */\npublic external abstract class HTMLMediaElement : HTMLElement {\n   open val error: MediaError?\n   open var src: String\n   open var srcObject: MediaProvider?\n   open val currentSrc: String\n   open var crossOrigin: String?\n   open val networkState: Short\n   open var preload: String\n   open val buffered: TimeRanges\n   open val readyState: Short\n   open val seeking:

 Boolean\n   open var currentTime: Double\n   open val duration: Double\n   open val paused: Boolean\n   open var defaultPlaybackRate: Double\n   open var playbackRate: Double\n   open val played: TimeRanges\n   open val seekable: TimeRanges\n   open val ended: Boolean\n   open var autoplay: Boolean\n   open var loop: Boolean\n   open var controls: Boolean\n   open var volume: Double\n   open var muted: Boolean\n   open var defaultMuted: Boolean\n   open val audioTracks: AudioTrackList\n   open val videoTracks: VideoTrackList\n   open val textTracks: TextTrackList\n   open val mediaKeys: MediaKeys?\n   open var onencrypted: ((Event) -> dynamic)?\n   open var onwaitingforkey: ((Event) -> dynamic)?\n   fun load()\n   fun canPlayType(type: String): CanPlayTypeResult\n   fun fastSeek(time: Double)\n   fun getStartDate(): dynamic\n   fun play(): Promise<Unit>\n   fun pause()\n   fun addTextTrack(kind: TextTrackKind, label: String = definedExternally, language:

String = definedExternally): TextTrack\n   fun setMediaKeys(mediaKeys: MediaKeys?): Promise<Unit>\n\n   companion object {\n   val NETWORK_EMPTY: Short\n   val NETWORK_IDLE: Short\n   val NETWORK_LOADING: Short\n   val NETWORK_NO_SOURCE: Short\n   val HAVE_NOTHING: Short\n   val HAVE_METADATA: Short\n   val HAVE_CURRENT_DATA: Short\n   val HAVE_FUTURE_DATA: Short\n   val HAVE_ENOUGH_DATA: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val

DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [MediaError](https://developer.mozilla.org/en/docs/Web/API/MediaError) to Kotlin\n */\npublic external abstract class MediaError {\n   open val code: Short\n\n   companion object {\n   val MEDIA_ERR_ABORTED: Short\n   val MEDIA_ERR_NETWORK: Short\n   val MEDIA_ERR_DECODE: Short\n   val MEDIA_ERR_SRC_NOT_SUPPORTED: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [AudioTrackList](https://developer.mozilla.org/en/docs/Web/API/AudioTrackList) to Kotlin\n */\npublic external abstract class AudioTrackList : EventTarget {\n   open val length: Int\n   open var onchange: ((Event) -> dynamic)?\n   open var onaddtrack: ((TrackEvent) -> dynamic)?\n   open var onremovetrack: ((TrackEvent) -> dynamic)?\n   fun getTrackById(id: String):

AudioTrack?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun AudioTrackList.get(index: Int): AudioTrack? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [AudioTrack](https://developer.mozilla.org/en/docs/Web/API/AudioTrack) to Kotlin\n */\npublic external abstract class AudioTrack : UnionAudioTrackOrTextTrackOrVideoTrack {\n   open val id: String\n   open val kind: String\n   open val label: String\n   open val language: String\n   open var enabled: Boolean\n   open val sourceBuffer: SourceBuffer?\n}\n\n/**\n * Exposes the JavaScript [VideoTrackList](https://developer.mozilla.org/en/docs/Web/API/VideoTrackList) to Kotlin\n */\npublic external abstract class VideoTrackList : EventTarget {\n   open val length: Int\n   open val selectedIndex: Int\n   open var onchange: ((Event) -> dynamic)?\n   open var onaddtrack: ((TrackEvent) -> dynamic)?\n   open var onremovetrack: ((TrackEvent) -> dynamic)?\n

fun getTrackById(id: String): VideoTrack?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun VideoTrackList.get(index: Int): VideoTrack? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [VideoTrack](https://developer.mozilla.org/en/docs/Web/API/VideoTrack) to Kotlin\n */\npublic external abstract class VideoTrack : UnionAudioTrackOrTextTrackOrVideoTrack {\n   open val id: String\n   open val kind: String\n   open val label: String\n   open val language: String\n   open var selected: Boolean\n   open val sourceBuffer: SourceBuffer?\n}\n\npublic external abstract class TextTrackList : EventTarget {\n   open val length: Int\n   open var onchange: ((Event) -> dynamic)?\n   open var onaddtrack: ((TrackEvent) -> dynamic)?\n   open var onremovetrack: ((TrackEvent) -> dynamic)?\n   fun getTrackById(id: String): TextTrack?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic

inline operator fun TextTrackList.get(index: Int): TextTrack? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [TextTrack](https://developer.mozilla.org/en/docs/Web/API/TextTrack) to Kotlin\n */\npublic external abstract class TextTrack : EventTarget, UnionAudioTrackOrTextTrackOrVideoTrack {\n   open val kind:

TextTrackKind\n   open val label: String\n   open val language: String\n   open val id: String\n   open val inBandMetadataTrackDispatchType: String\n   open var mode: TextTrackMode\n   open val cues: TextTrackCueList?\n   open val activeCues: TextTrackCueList?\n   open var oncuechange: ((Event) -> dynamic)?\n   open val sourceBuffer: SourceBuffer?\n   fun addCue(cue: TextTrackCue)\n   fun removeCue(cue: TextTrackCue)\n}\n\npublic external abstract class TextTrackCueList {\n   open val length: Int\n   fun getCueById(id: String): TextTrackCue?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun TextTrackCueList.get(index: Int): TextTrackCue? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [TextTrackCue](https://developer.mozilla.org/en/docs/Web/API/TextTrackCue) to Kotlin\n */\npublic external abstract class TextTrackCue : EventTarget {\n   open val track: TextTrack?\n   open var id: String\n   open var startTime: Double\n   open var endTime: Double\n   open var pauseOnExit: Boolean\n   open var onenter: ((Event) -> dynamic)?\n   open var onexit: ((Event) -> dynamic)?\n}\n\n/**\n * Exposes the JavaScript [TimeRanges](https://developer.mozilla.org/en/docs/Web/API/TimeRanges) to Kotlin\n */\npublic external abstract class TimeRanges {\n   open val length: Int\n   fun start(index: Int): Double\n   fun end(index: Int): Double\n}\n\n/**\n * Exposes the JavaScript [TrackEvent](https://developer.mozilla.org/en/docs/Web/API/TrackEvent) to Kotlin\n */\npublic external open class TrackEvent(type: String, eventInitDict: TrackEventInit = definedExternally) : Event {\n   open val track: UnionAudioTrackOrTextTrackOrVideoTrack?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface TrackEventInit : EventInit {\n   var track: UnionAudioTrackOrTextTrackOrVideoTrack? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun TrackEventInit(track: UnionAudioTrackOrTextTrackOrVideoTrack? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): TrackEventInit {\n   val o = js(\"({})\")\n   o[\"track\"] = track\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [HTMLMapElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMapElement) to Kotlin\n */\npublic external abstract class HTMLMapElement : HTMLElement {\n   open var name: String\n   open val areas: HTMLCollection\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLAreaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLAreaElement) to Kotlin\n */\npublic external abstract class HTMLAreaElement : HTMLElement, HTMLHyperlinkElementUtils {\n   open var alt: String\n   open var coords: String\n   open var shape: String\n   open var target: String\n   open var download: String\n   open var ping: String\n   open var rel: String\n   open val relList: DOMTokenList\n   open var referrerPolicy: String\n   open var noHref: Boolean\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val

DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLTableElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableElement) to Kotlin\n */\npublic external abstract class HTMLTableElement : HTMLElement {\n open var caption: HTMLTableCaptionElement?\n open var tHead: HTMLTableSectionElement?\n open var tFoot: HTMLTableSectionElement?\n open val tBodies: HTMLCollection\n open val rows: HTMLCollection\n open var align: String\n open var border: String\n open var frame: String\n open var rules: String\n open var summary: String\n open var width: String\n open var bgColor: String\n open var cellPadding: String\n open var cellSpacing: String\n fun createCaption(): HTMLTableCaptionElement\n fun deleteCaption()\n fun createTHead(): HTMLTableSectionElement\n fun deleteTHead()\n fun createTFoot(): HTMLTableSectionElement\n fun deleteTFoot()\n fun createTBody(): HTMLTableSectionElement\n fun insertRow(index: Int = definedExternally): HTMLTableRowElement\n fun deleteRow(index: Int)\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLTableCaptionElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableCaptionElement) to Kotlin\n */\npublic external abstract class HTMLTableCaptionElement : HTMLElement {\n open var align: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLTableColElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableColElement) to Kotlin\n */\npublic external abstract class HTMLTableColElement : HTMLElement {\n open var span: Int\n open var align: String\n open var ch: String\n open var chOff: String\n open var vAlign: String\n open var width: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the

JavaScript [HTMLTableSectionElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableSectionElement) to Kotlin\n */\npublic external abstract class HTMLTableSectionElement : HTMLElement {\n   open val rows: HTMLCollection\n   open var align: String\n   open var ch: String\n   open var chOff: String\n   open var vAlign: String\n   fun insertRow(index: Int = definedExternally): HTMLElement\n   fun deleteRow(index: Int)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTableRowElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableRowElement) to Kotlin\n */\npublic external abstract class HTMLTableRowElement : HTMLElement {\n   open val rowIndex: Int\n   open val sectionRowIndex: Int\n   open val cells: HTMLCollection\n   open var align: String\n   open var ch: String\n   open var chOff: String\n   open var vAlign: String\n   open var bgColor: String\n   fun insertCell(index: Int = definedExternally): HTMLElement\n
    fun deleteCell(index: Int)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTableCellElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableCellElement) to Kotlin\n */\npublic external abstract class HTMLTableCellElement
 : HTMLElement {\n   open var colSpan: Int\n   open var rowSpan: Int\n   open var headers: String\n   open val cellIndex: Int\n   open var scope: String\n   open var abbr: String\n   open var align: String\n   open var axis: String\n   open var height: String\n   open var width: String\n   open var ch: String\n   open var chOff: String\n   open var noWrap: Boolean\n   open var vAlign: String\n   open var bgColor: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLFormElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFormElement) to Kotlin\n */\npublic external abstract class HTMLFormElement : HTMLElement {\n   open var acceptCharset: String\n   open var action: String\n   open var autocomplete: String\n   open var enctype: String\n   open var encoding: String\n   open var method: String\n   open var name: String\n   open var noValidate: Boolean\n   open var target:

String\n open val elements: HTMLFormControlsCollection\n open val length: Int\n fun submit()\n fun reset()\n fun checkValidity(): Boolean\n fun reportValidity(): Boolean\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLFormElement.get(index: Int): Element? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLFormElement.get(name: String): UnionElementOrRadioNodeList? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript [HTMLLabelElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLabelElement) to Kotlin\n */\npublic external abstract class HTMLLabelElement : HTMLElement {\n open val form: HTMLFormElement?\n open var htmlFor: String\n open val control: HTMLElement?\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLInputElement](https://developer.mozilla.org/en/docs/Web/API/HTMLInputElement) to Kotlin\n */\npublic external abstract class HTMLInputElement : HTMLElement {\n open var accept: String\n open var alt: String\n open var autocomplete: String\n open var autofocus: Boolean\n open var defaultChecked: Boolean\n open var checked: Boolean\n open var dirName: String\n open var disabled: Boolean\n open val form: HTMLFormElement?\n open val files: FileList?\n open var formAction: String\n open var formEnctype: String\n open var formMethod: String\n open var formNoValidate: Boolean\n open var formTarget: String\n open var height: Int\n open var indeterminate: Boolean\n open var inputMode: String\n open val list: HTMLElement?\n open var max: String\n open var maxLength: Int\n open var min: String\n open var minLength: Int\n open var multiple: Boolean\n open var name: String\n open var pattern: String\n open var placeholder: String\n open var readOnly: Boolean\n open var required: Boolean\n open var size: Int\n open var src: String\n open var step: String\n open var type: String\n open var defaultValue: String\n open var value: String\n open var valueAsDate: dynamic\n open var valueAsNumber: Double\n open var width: Int\n open val willValidate: Boolean\n open val validity: ValidityState\n open val validationMessage: String\n open val labels: NodeList\n open var selectionStart: Int?\n open var selectionEnd: Int?\n open var selectionDirection: String?\n open var align: String\n open var useMap: String\n fun stepUp(n: Int = definedExternally)\n fun stepDown(n: Int = definedExternally)\n fun checkValidity(): Boolean\n fun reportValidity(): Boolean\n fun setCustomValidity(error:

String)\n   fun select()\n   fun setRangeText(replacement: String)\n   fun setRangeText(replacement: String, start: Int, end: Int, selectionMode: SelectionMode = definedExternally)\n   fun setSelectionRange(start: Int, end: Int, direction: String = definedExternally)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n
        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLButtonElement](https://developer.mozilla.org/en/docs/Web/API/HTMLButtonElement) to Kotlin\n */\npublic external abstract class HTMLButtonElement : HTMLElement {\n   open var autofocus: Boolean\n   open var disabled: Boolean\n   open val form: HTMLFormElement?\n   open var formAction: String\n   open var formEnctype: String\n   open var formMethod: String\n   open var formNoValidate: Boolean\n   open var formTarget: String\n   open var name: String\n   open var type: String\n   open var value: String\n   open var menu: HTMLMenuElement?\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   open val labels: NodeList\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE:
Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLSelectElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSelectElement) to Kotlin\n */\npublic external abstract class HTMLSelectElement : HTMLElement, ItemArrayLike<Element> {\n   open var autocomplete: String\n   open var autofocus: Boolean\n
    open var disabled: Boolean\n   open val form: HTMLFormElement?\n   open var multiple: Boolean\n   open var name: String\n   open var required: Boolean\n   open var size: Int\n   open val type: String\n   open val options: HTMLOptionsCollection\n   override var length: Int\n   open val selectedOptions: HTMLCollection\n   open var selectedIndex: Int\n   open var value: String\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   open val labels: NodeList\n   fun namedItem(name: String): HTMLOptionElement?\n   fun add(element: UnionHTMLOptGroupElementOrHTMLOptionElement, before: dynamic = definedExternally)\n   fun remove(index: Int)\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n   override fun item(index: Int): Element?\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n
        val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n

val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n
}\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
HTMLSelectElement.get(index: Int): Element? =
asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
HTMLSelectElement.set(index: Int, option:
HTMLOptionElement?) { asDynamic()[index] = option }\n\n/**\n * Exposes the JavaScript
[HTMLDataListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDataListElement) to Kotlin\n
*/\npublic external abstract class HTMLDataListElement : HTMLElement {\n   open val options:
HTMLCollection\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE:
Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val
ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val
PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val
DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val
DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY:
Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes
the JavaScript
[HTMLOptGroupElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOptGroupElement) to Kotlin\n
*/\npublic external abstract class HTMLOptGroupElement : HTMLElement,
UnionHTMLOptGroupElementOrHTMLOptionElement {\n   open var disabled: Boolean\n   open var label:
String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n
val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE:
Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val
COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n
val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING:
Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val
DOCUMENT_POSITION_CONTAINED_BY: Short\n   val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript
[HTMLOptionElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOptionElement) to Kotlin\n
*/\npublic external abstract class HTMLOptionElement : HTMLElement,
UnionHTMLOptGroupElementOrHTMLOptionElement {\n   open var disabled: Boolean\n   open val form:
HTMLFormElement?\n   open var label: String\n   open var defaultSelected: Boolean\n   open var selected:
Boolean\n   open var value: String\n   open var text: String\n   open val index: Int\n\n   companion object {\n
val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val
CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE:
Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n
val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val
DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n

val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTextAreaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTextAreaElement) to Kotlin\n */\npublic external abstract class HTMLTextAreaElement : HTMLElement {\n   open var autocomplete: String\n   open var autofocus: Boolean\n   open var cols: Int\n   open var dirName: String\n   open var disabled: Boolean\n   open val form: HTMLFormElement?\n   open var inputMode: String\n   open var maxLength: Int\n   open var minLength: Int\n   open var name: String\n   open var placeholder: String\n   open var readOnly: Boolean\n   open var required: Boolean\n   open var rows: Int\n   open var wrap: String\n   open val type: String\n   open var defaultValue: String\n   open var value: String\n   open val textLength: Int\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   open val labels: NodeList\n   open var selectionStart: Int?\n   open var selectionEnd: Int?\n   open var selectionDirection: String?\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n   fun select()\n   fun setRangeText(replacement: String)\n   fun setRangeText(replacement: String, start: Int, end: Int, selectionMode: SelectionMode = definedExternally)\n   fun setSelectionRange(start: Int, end: Int, direction: String = definedExternally)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLKeygenElement](https://developer.mozilla.org/en/docs/Web/API/HTMLKeygenElement) to Kotlin\n */\npublic external abstract class HTMLKeygenElement : HTMLElement {\n   open var autofocus: Boolean\n   open var challenge: String\n   open var disabled: Boolean\n   open val form: HTMLFormElement?\n   open var keytype: String\n   open var name: String\n   open val type: String\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   open val labels: NodeList\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLOutputElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOutputElement) to Kotlin\n */\npublic external abstract class HTMLOutputElement : HTMLElement {\n   open val htmlFor: DOMTokenList\n   open val form: HTMLFormElement?\n   open var name: String\n   open val type: String\n   open var defaultValue: String\n   open var value: String\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   open val labels: NodeList\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLProgressElement](https://developer.mozilla.org/en/docs/Web/API/HTMLProgressElement) to Kotlin\n */\npublic external abstract class HTMLProgressElement : HTMLElement {\n   open var value: Double\n   open var max: Double\n   open val position: Double\n   open val labels: NodeList\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLMeterElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMeterElement) to Kotlin\n */\npublic external abstract class HTMLMeterElement : HTMLElement {\n   open var value: Double\n   open var min: Double\n   open var max: Double\n   open var low: Double\n   open var high: Double\n   open var optimum: Double\n   open val labels: NodeList\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLFieldSetElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFieldSetElement) to Kotlin\n */\npublic external abstract class HTMLFieldSetElement : HTMLElement {\n   open var disabled: Boolean\n   open val form: HTMLFormElement?\n   open var name: String\n   open val type: String\n   open val elements: HTMLCollection\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n

val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val

DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLLegendElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLegendElement) to Kotlin\n */\npublic external abstract class HTMLLegendElement : HTMLElement {\n open val form: HTMLFormElement?\n open var align: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [ValidityState](https://developer.mozilla.org/en/docs/Web/API/ValidityState) to Kotlin\n */\npublic external abstract class ValidityState {\n open val valueMissing: Boolean\n open val typeMismatch: Boolean\n open val patternMismatch: Boolean\n open val tooLong: Boolean\n open val tooShort: Boolean\n open val rangeUnderflow: Boolean\n open val rangeOverflow: Boolean\n open val stepMismatch: Boolean\n open val badInput: Boolean\n open val customError: Boolean\n open val valid: Boolean\n}\n\n/**\n * Exposes the JavaScript [HTMLDetailsElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDetailsElement) to Kotlin\n */\npublic external abstract class HTMLDetailsElement : HTMLElement {\n open var open: Boolean\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external abstract class HTMLMenuElement : HTMLElement {\n open var type: String\n open var label: String\n open var compact: Boolean\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external abstract class HTMLMenuItemElement : HTMLElement {\n open var type: String\n open var label: String\n open var icon: String\n open var disabled: Boolean\n open var checked: Boolean\n open var radiogroup: String\n open var default: Boolean\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val

DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val
DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n
     val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external open class
RelatedEvent(type: String, eventInitDict: RelatedEventInit = definedExternally) : Event {\n   open val
relatedTarget: EventTarget?\n\n
    companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET:
Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface RelatedEventInit : EventInit {\n
var relatedTarget: EventTarget? /* = null */\n   get() = definedExternally\n   set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun RelatedEventInit(relatedTarget:
EventTarget? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false):
RelatedEventInit {\n   val o = js(\"({})\")\n   o[\"relatedTarget\"] = relatedTarget\n   o[\"bubbles\"] = bubbles\n
o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript
[HTMLDialogElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDialogElement) to Kotlin\n
*/\npublic external abstract class HTMLDialogElement : HTMLElement {\n
   open var open: Boolean\n   open var returnValue: String\n   fun show(anchor: UnionElementOrMouseEvent =
definedExternally)\n   fun showModal(anchor: UnionElementOrMouseEvent = definedExternally)\n   fun
close(returnValue: String = definedExternally)\n\n   companion object {\n   val ELEMENT_NODE: Short\n
val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n
val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val
PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val
DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val
DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n
     val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC:
 Short\n   }\n}\n\n/**\n * Exposes the JavaScript
[HTMLScriptElement](https://developer.mozilla.org/en/docs/Web/API/HTMLScriptElement) to Kotlin\n */\npublic
external abstract class HTMLScriptElement : HTMLElement, HTMLOrSVGScriptElement {\n   open var src:
String\n   open var type: String\n   open var charset: String\n   open var async: Boolean\n   open var defer:
Boolean\n   open var crossOrigin: String?\n   open var text: String\n   open var nonce: String\n   open var event:
String\n   open var htmlFor: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val
ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val
ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val
PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val
DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val
DOCUMENT_FRAGMENT_NODE: Short\n   val
 NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val
DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n
val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY:
Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes
the JavaScript [HTMLTemplateElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTemplateElement)
to Kotlin\n */\npublic external abstract class HTMLTemplateElement : HTMLElement {\n   open val content:
DocumentFragment\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE:

Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLSlotElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSlotElement) to Kotlin\n */\npublic external abstract class HTMLSlotElement : HTMLElement {\n open var name: String\n fun assignedNodes(options: AssignedNodesOptions = definedExternally): Array<Node>\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external interface AssignedNodesOptions {\n var flatten: Boolean? /* = false */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun AssignedNodesOptions(flatten: Boolean? = false): AssignedNodesOptions {\n val o = js(\"({})\")\n o[\"flatten\"] = flatten\n return o\n}\n\n/**\n * Exposes the JavaScript [HTMLCanvasElement](https://developer.mozilla.org/en/docs/Web/API/HTMLCanvasElement) to Kotlin\n */\npublic external abstract class HTMLCanvasElement : HTMLElement, CanvasImageSource, TexImageSource {\n open var width: Int\n open var height: Int\n fun getContext(contextId: String, vararg arguments: Any?): RenderingContext?\n fun toDataURL(type: String = definedExternally, quality: Any? = definedExternally): String\n fun toBlob(_callback: (Blob?) -> Unit, type: String = definedExternally, quality: Any? = definedExternally)\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external interface CanvasRenderingContext2DSettings {\n var alpha: Boolean? /* = true */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CanvasRenderingContext2DSettings(alpha: Boolean? = true): CanvasRenderingContext2DSettings {\n val o = js(\"({})\")\n o[\"alpha\"] = alpha\n return o\n}\n\n/**\n * Exposes the JavaScript [CanvasRenderingContext2D](https://developer.mozilla.org/en/docs/Web/API/CanvasRenderingContext2D) to Kotlin\n */\npublic external abstract class CanvasRenderingContext2D : CanvasState, CanvasTransform, CanvasCompositing, CanvasImageSmoothing, CanvasFillStrokeStyles, CanvasShadowStyles, CanvasFilters, CanvasRect, CanvasDrawPath, CanvasUserInterface, CanvasText, CanvasDrawImage, CanvasHitRegion, CanvasImageData, CanvasPathDrawingStyles, CanvasTextDrawingStyles, CanvasPath, RenderingContext {\n   open val canvas: HTMLCanvasElement\n}\n\npublic external interface CanvasState {\n   fun save()\n   fun restore()\n}\n\npublic external interface CanvasTransform {\n   fun scale(x: Double, y: Double)\n   fun rotate(angle: Double)\n   fun translate(x: Double, y: Double)\n   fun transform(a: Double, b: Double, c: Double, d: Double, e: Double, f: Double)\n   fun getTransform(): DOMMatrix\n   fun setTransform(a: Double, b: Double, c: Double, d: Double, e: Double, f: Double)\n   fun setTransform(transform: dynamic = definedExternally)\n   fun resetTransform()\n}\n\npublic external interface CanvasCompositing {\n   var globalAlpha: Double\n   var globalCompositeOperation: String\n}\n\npublic external interface CanvasImageSmoothing {\n   var imageSmoothingEnabled: Boolean\n   var imageSmoothingQuality: ImageSmoothingQuality\n}\n\npublic external interface CanvasFillStrokeStyles {\n   var strokeStyle: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var fillStyle: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   fun createLinearGradient(x0: Double, y0: Double, x1: Double, y1: Double): CanvasGradient\n   fun createRadialGradient(x0: Double, y0: Double, r0: Double, x1: Double, y1: Double, r1: Double): CanvasGradient\n   fun createPattern(image: CanvasImageSource, repetition: String): CanvasPattern?\n}\n\npublic external interface CanvasShadowStyles {\n   var shadowOffsetX: Double\n   var shadowOffsetY: Double\n   var shadowBlur: Double\n   var shadowColor: String\n}\n\npublic external interface CanvasFilters {\n   var filter: String\n}\n\npublic external interface CanvasRect {\n   fun clearRect(x: Double, y: Double, w: Double, h: Double)\n   fun fillRect(x: Double, y: Double, w: Double, h: Double)\n   fun strokeRect(x: Double, y: Double, w: Double, h: Double)\n}\n\npublic external interface CanvasDrawPath {\n   fun beginPath()\n   fun fill(fillRule: CanvasFillRule = definedExternally)\n   fun fill(path: Path2D, fillRule: CanvasFillRule = definedExternally)\n   fun stroke()\n   fun stroke(path: Path2D)\n   fun clip(fillRule: CanvasFillRule = definedExternally)\n   fun clip(path: Path2D, fillRule: CanvasFillRule = definedExternally)\n   fun resetClip()\n   fun isPointInPath(x: Double, y: Double, fillRule: CanvasFillRule = definedExternally): Boolean\n   fun isPointInPath(path: Path2D, x: Double, y: Double, fillRule: CanvasFillRule = definedExternally): Boolean\n   fun isPointInStroke(x: Double, y: Double): Boolean\n   fun isPointInStroke(path: Path2D, x: Double, y: Double): Boolean\n}\n\npublic external interface CanvasUserInterface {\n   fun drawFocusIfNeeded(element: Element)\n   fun drawFocusIfNeeded(path: Path2D, element: Element)\n   fun scrollPathIntoView()\n   fun scrollPathIntoView(path: Path2D)\n}\n\npublic external interface CanvasText {\n   fun fillText(text: String, x: Double, y: Double, maxWidth: Double = definedExternally)\n   fun strokeText(text: String, x: Double, y: Double, maxWidth: Double = definedExternally)\n   fun measureText(text: String): TextMetrics\n}\n\npublic external interface CanvasDrawImage {\n   fun drawImage(image: CanvasImageSource, dx: Double, dy: Double)\n   fun drawImage(image: CanvasImageSource, dx: Double, dy: Double, dw: Double, dh: Double)\n   fun drawImage(image: CanvasImageSource, sx: Double, sy: Double, sw: Double, sh: Double, dx: Double, dy: Double, dw: Double, dh: Double)\n}\n\npublic external interface CanvasHitRegion {\n   fun addHitRegion(options: HitRegionOptions = definedExternally)\n   fun removeHitRegion(id: String)\n   fun clearHitRegions()\n}\n\npublic external interface CanvasImageData {\n   fun createImageData(sw: Double, sh: Double): ImageData\n   fun createImageData(imagedata: ImageData): ImageData\n   fun getImageData(sx: Double, sy: Double, sw: Double, sh: Double): ImageData\n   fun putImageData(imagedata: ImageData, dx: Double, dy: Double)\n   fun putImageData(imagedata: ImageData, dx: Double, dy: Double, dirtyX: Double, dirtyY: Double, dirtyWidth: Double, dirtyHeight: Double)\n}\n\npublic external interface CanvasPathDrawingStyles {\n   var lineWidth: Double\n   var lineCap: CanvasLineCap\n   var lineJoin: CanvasLineJoin\n   var miterLimit: Double\n   var lineDashOffset: Double\n   fun setLineDash(segments: Array<Double>)\n   fun getLineDash(): Array<Double>\n}\n\npublic external interface CanvasTextDrawingStyles {\n   var font: String\n   var textAlign: CanvasTextAlign\n   var textBaseline: CanvasTextBaseline\n   var direction: CanvasDirection\n}\n\npublic external interface CanvasPath {\n   fun closePath()\n   fun moveTo(x: Double, y: Double)\n   fun lineTo(x: Double, y: Double)\n   fun quadraticCurveTo(cpx: Double, cpy: Double, x: Double, y: Double)\n   fun bezierCurveTo(cp1x: Double, cp1y: Double, cp2x: Double, cp2y: Double, x: Double, y: Double)\n   fun arcTo(x1: Double, y1: Double, x2: Double, y2: Double, radius: Double)\n   fun arcTo(x1: Double, y1: Double, x2: Double, y2: Double, radiusX: Double, radiusY: Double, rotation: Double)\n   fun rect(x: Double, y: Double, w: Double, h: Double)\n   fun arc(x: Double, y: Double, radius: Double, startAngle: Double, endAngle: Double, anticlockwise: Boolean = definedExternally)\n   fun ellipse(x: Double, y: Double, radiusX: Double, radiusY: Double, rotation: Double, startAngle: Double, endAngle: Double, anticlockwise: Boolean = definedExternally)\n}\n\n/**\n * Exposes the JavaScript [CanvasGradient](https://developer.mozilla.org/en/docs/Web/API/CanvasGradient) to Kotlin\n */\npublic external abstract class CanvasGradient {\n   fun addColorStop(offset: Double, color: String)\n}\n\n/**\n * Exposes the JavaScript [CanvasPattern](https://developer.mozilla.org/en/docs/Web/API/CanvasPattern) to Kotlin\n */\npublic external abstract class CanvasPattern {\n   fun setTransform(transform: dynamic = definedExternally)\n}\n\n/**\n * Exposes the JavaScript [TextMetrics](https://developer.mozilla.org/en/docs/Web/API/TextMetrics) to Kotlin\n */\npublic external abstract class TextMetrics {\n   open val width: Double\n   open val actualBoundingBoxLeft: Double\n   open val actualBoundingBoxRight: Double\n   open val fontBoundingBoxAscent: Double\n   open val fontBoundingBoxDescent: Double\n   open val actualBoundingBoxAscent: Double\n   open val actualBoundingBoxDescent: Double\n   open val emHeightAscent: Double\n   open val emHeightDescent: Double\n   open val hangingBaseline: Double\n   open val alphabeticBaseline: Double\n   open val ideographicBaseline: Double\n}\n\npublic external interface HitRegionOptions {\n   var path: Path2D? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var fillRule: CanvasFillRule? /* = CanvasFillRule.NONZERO */\n   get() = definedExternally\n   set(value) = definedExternally\n   var id: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var parentID: String? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var cursor: String? /* = \"inherit\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var control: Element? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var label: String? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var role: String? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun HitRegionOptions(path: Path2D? = null, fillRule: CanvasFillRule? = CanvasFillRule.NONZERO, id: String? = \"\", parentID: String? = null, cursor: String? = \"inherit\", control: Element? = null, label: String? = null, role: String? = null): HitRegionOptions {\n   val o = js(\"({})\")\n   o[\"path\"] = path\n   o[\"fillRule\"] = fillRule\n   o[\"id\"] = id\n   o[\"parentID\"] = parentID\n   o[\"cursor\"] = cursor\n   o[\"control\"] = control\n   o[\"label\"] = label\n   o[\"role\"] = role\n   return o\n}\n\n/**\n * Exposes the JavaScript [ImageData](https://developer.mozilla.org/en/docs/Web/API/ImageData) to Kotlin\n */\npublic external open class ImageData : ImageBitmapSource, TexImageSource {\n   constructor(sw: Int, sh: Int)\n   constructor(data: Uint8ClampedArray, sw: Int, sh: Int = definedExternally)\n   open val width: Int\n   open val height: Int\n   open val data: Uint8ClampedArray\n}\n\n/**\n * Exposes the JavaScript [Path2D](https://developer.mozilla.org/en/docs/Web/API/Path2D) to Kotlin\n */\npublic external open class Path2D() : CanvasPath {\n   constructor(path: Path2D)\n   constructor(paths: Array<Path2D>, fillRule: CanvasFillRule = definedExternally)\n   constructor(d: String)\n   fun addPath(path: Path2D, transform: dynamic = definedExternally)\n   override fun closePath()\n   override fun moveTo(x: Double, y: Double)\n   override fun lineTo(x: Double, y: Double)\n   override fun quadraticCurveTo(cpx: Double, cpy: Double, x: Double, y: Double)\n   override fun bezierCurveTo(cp1x: Double, cp1y: Double, cp2x: Double, cp2y: Double, x: Double, y: Double)\n   override fun arcTo(x1: Double, y1: Double, x2: Double, y2: Double, radius: Double)\n   override fun arcTo(x1: Double, y1: Double, x2: Double, y2: Double, radiusX: Double, radiusY: Double, rotation: Double)\n

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override fun rect(x: Double, y: Double, w: Double, h: Double)\n    override fun arc(x: Double, y: Double, radius:
Double, startAngle: Double, endAngle: Double, anticlockwise: Boolean /* = definedExternally
 */)\n    override fun ellipse(x: Double, y: Double, radiusX: Double, radiusY: Double, rotation: Double, startAngle:
Double, endAngle: Double, anticlockwise: Boolean /* = definedExternally */)\n}\n\n/**\n * Exposes the JavaScript
[ImageBitmapRenderingContext](https://developer.mozilla.org/en/docs/Web/API/ImageBitmapRenderingContext)
to Kotlin\n */\npublic external abstract class ImageBitmapRenderingContext {\n    open val canvas:
HTMLCanvasElement\n    fun transferFromImageBitmap(bitmap: ImageBitmap?)\n}\n\npublic external interface
ImageBitmapRenderingContextSettings {\n    var alpha: Boolean? /* = true */\n        get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun
ImageBitmapRenderingContextSettings(alpha: Boolean? = true): ImageBitmapRenderingContextSettings {\n    val o
= js(\"({})\")\n    o[\"alpha\"] = alpha\n    return o\n}\n\n/**\n * Exposes the JavaScript
 [CustomElementRegistry](https://developer.mozilla.org/en/docs/Web/API/CustomElementRegistry) to Kotlin\n
*/\npublic external abstract class CustomElementRegistry {\n    fun define(name: String, constructor: () -> dynamic,
options: ElementDefinitionOptions = definedExternally)\n    fun get(name: String): Any?\n    fun
whenDefined(name: String): Promise<Unit>\n}\n\npublic external interface ElementDefinitionOptions {\n    var
extends: String?\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ElementDefinitionOptions(extends:
String? = undefined): ElementDefinitionOptions {\n    val o = js(\"({})\")\n    o[\"extends\"] = extends\n    return
o\n}\n\npublic external interface ElementContentEditable {\n    var contentEditable: String\n    val
isContentEditable: Boolean\n}\n\n/**\n * Exposes the JavaScript
[DataTransfer](https://developer.mozilla.org/en/docs/Web/API/DataTransfer)
 to Kotlin\n */\npublic external abstract class DataTransfer {\n    open var dropEffect: String\n    open var
effectAllowed: String\n    open val items: DataTransferItemList\n    open val types: Array<out String>\n    open val
files: FileList\n    fun setDragImage(image: Element, x: Int, y: Int)\n    fun getData(format: String): String\n    fun
setData(format: String, data: String)\n    fun clearData(format: String = definedExternally)\n}\n\n/**\n * Exposes
the JavaScript [DataTransferItemList](https://developer.mozilla.org/en/docs/Web/API/DataTransferItemList) to
Kotlin\n */\npublic external abstract class DataTransferItemList {\n    open val length: Int\n    fun add(data: String,
type: String): DataTransferItem?\n    fun add(data: File): DataTransferItem?\n    fun remove(index: Int)\n    fun
clear()\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
DataTransferItemList.get(index: Int): DataTransferItem?
 = asDynamic()[index]\n\n/**\n * Exposes the JavaScript
[DataTransferItem](https://developer.mozilla.org/en/docs/Web/API/DataTransferItem) to Kotlin\n */\npublic
external abstract class DataTransferItem {\n    open val kind: String\n    open val type: String\n    fun
getAsString(_callback: ((String) -> Unit)?)\n    fun getAsFile(): File?\n}\n\n/**\n * Exposes the JavaScript
[DragEvent](https://developer.mozilla.org/en/docs/Web/API/DragEvent) to Kotlin\n */\npublic external open class
DragEvent(type: String, eventInitDict: DragEventInit = definedExternally) : MouseEvent {\n    open val
dataTransfer: DataTransfer?\n\n    companion object {\n        val NONE: Short\n        val CAPTURING_PHASE:
Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface
DragEventInit : MouseEventInit {\n    var dataTransfer: DataTransfer? /* = null */\n        get() = definedExternally\n
      set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
 \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun DragEventInit(dataTransfer:
DataTransfer? = null, screenX: Int? = 0, screenY: Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0,
buttons: Short? = 0, relatedTarget: EventTarget? = null, region: String? = null, ctrlKey: Boolean? = false, shiftKey:
Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false,
modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false,
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modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false,
modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view:
Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? =
false): DragEventInit {\n    val o = js(\"({})\")\n    o[\"dataTransfer\"] = dataTransfer\n    o[\"screenX\"]
 = screenX\n    o[\"screenY\"] = screenY\n    o[\"clientX\"] = clientX\n    o[\"clientY\"] = clientY\n    o[\"button\"] =
button\n    o[\"buttons\"] = buttons\n    o[\"relatedTarget\"] = relatedTarget\n    o[\"region\"] = region\n
o[\"ctrlKey\"] = ctrlKey\n    o[\"shiftKey\"] = shiftKey\n    o[\"altKey\"] = altKey\n    o[\"metaKey\"] = metaKey\n
o[\"modifierAltGraph\"] = modifierAltGraph\n    o[\"modifierCapsLock\"] = modifierCapsLock\n
o[\"modifierFn\"] = modifierFn\n    o[\"modifierFnLock\"] = modifierFnLock\n    o[\"modifierHyper\"] =
modifierHyper\n    o[\"modifierNumLock\"] = modifierNumLock\n    o[\"modifierScrollLock\"] =
modifierScrollLock\n    o[\"modifierSuper\"] = modifierSuper\n    o[\"modifierSymbol\"] = modifierSymbol\n
o[\"modifierSymbolLock\"] = modifierSymbolLock\n    o[\"view\"] = view\n    o[\"detail\"] = detail\n
o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return
o\n}\n\n/**\n * Exposes the JavaScript
 [Window](https://developer.mozilla.org/en/docs/Web/API/Window) to Kotlin\n */\npublic external abstract class
Window : EventTarget, GlobalEventHandlers, WindowEventHandlers, WindowOrWorkerGlobalScope,
WindowSessionStorage, WindowLocalStorage, GlobalPerformance, UnionMessagePortOrWindowProxy {\n    open
val window: Window\n    open val self: Window\n    open val document: Document\n    open var name: String\n
open val location: Location\n    open val history: History\n    open val customElements: CustomElementRegistry\n
open val locationbar: BarProp\n    open val menubar: BarProp\n    open val personalbar: BarProp\n    open val
scrollbars: BarProp\n    open val statusbar: BarProp\n    open val toolbar: BarProp\n    open var status: String\n
open val closed: Boolean\n    open val frames: Window\n    open val length: Int\n    open val top: Window\n    open
var opener: Any?\n    open val parent: Window\n    open val frameElement: Element?\n    open val navigator:
Navigator\n
    open val applicationCache: ApplicationCache\n    open val external: External\n    open val screen: Screen\n
open val innerWidth: Int\n    open val innerHeight: Int\n    open val scrollX: Double\n    open val pageXOffset:
Double\n    open val scrollY: Double\n    open val pageYOffset: Double\n    open val screenX: Int\n    open val
screenY: Int\n    open val outerWidth: Int\n    open val outerHeight: Int\n    open val devicePixelRatio: Double\n
fun close()\n    fun stop()\n    fun focus()\n    fun blur()\n    fun open(url: String = definedExternally, target: String =
definedExternally, features: String = definedExternally): Window?\n    fun alert()\n    fun alert(message: String)\n
fun confirm(message: String = definedExternally): Boolean\n    fun prompt(message: String = definedExternally,
default: String = definedExternally): String?\n    fun print()\n    fun requestAnimationFrame(callback: (Double) ->
Unit): Int\n    fun cancelAnimationFrame(handle: Int)\n    fun postMessage(message:
 Any?, targetOrigin: String, transfer: Array<dynamic> = definedExternally)\n    fun captureEvents()\n    fun
releaseEvents()\n    fun matchMedia(query: String): MediaQueryList\n    fun moveTo(x: Int, y: Int)\n    fun
moveBy(x: Int, y: Int)\n    fun resizeTo(x: Int, y: Int)\n    fun resizeBy(x: Int, y: Int)\n    fun scroll(options:
ScrollToOptions = definedExternally)\n    fun scroll(x: Double, y: Double)\n    fun scrollTo(options:
ScrollToOptions = definedExternally)\n    fun scrollTo(x: Double, y: Double)\n    fun scrollBy(options:
ScrollToOptions = definedExternally)\n    fun scrollBy(x: Double, y: Double)\n    fun getComputedStyle(elt:
Element, pseudoElt: String? = definedExternally):
CSSStyleDeclaration\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Window.get(name: String):
dynamic = asDynamic()[name]\n\npublic external abstract class BarProp {\n    open val visible: Boolean\n}\n\n/**\n
* Exposes
 the JavaScript [History](https://developer.mozilla.org/en/docs/Web/API/History) to Kotlin\n */\npublic external
abstract class History {\n    open val length: Int\n    open var scrollRestoration: ScrollRestoration\n    open val state:
Any?\n    fun go(delta: Int = definedExternally)\n    fun back()\n    fun forward()\n    fun pushState(data: Any?, title:
String, url: String? = definedExternally)\n    fun replaceState(data: Any?, title: String, url: String? =
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definedExternally)\n}\n\n/**\n * Exposes the JavaScript [Location](https://developer.mozilla.org/en/docs/Web/API/Location) to Kotlin\n */\npublic external abstract class Location {\n   open var href: String\n   open val origin: String\n   open var protocol: String\n   open var host: String\n   open var hostname: String\n   open var port: String\n   open var pathname: String\n   open var search: String\n   open var hash: String\n   open val ancestorOrigins: Array<out String>\n   fun assign(url: String)\n   fun replace(url:
 String)\n   fun reload()\n}\n\n/**\n * Exposes the JavaScript [PopStateEvent](https://developer.mozilla.org/en/docs/Web/API/PopStateEvent) to Kotlin\n */\npublic external open class PopStateEvent(type: String, eventInitDict: PopStateEventInit = definedExternally) : Event {\n   open val state: Any?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface PopStateEventInit : EventInit {\n   var state: Any? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun PopStateEventInit(state: Any? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): PopStateEventInit {\n   val o = js(\"({})\")\n   o[\"state\"] = state\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] =
 cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [HashChangeEvent](https://developer.mozilla.org/en/docs/Web/API/HashChangeEvent) to Kotlin\n */\npublic external open class HashChangeEvent(type: String, eventInitDict: HashChangeEventInit = definedExternally) : Event {\n   open val oldURL: String\n   open val newURL: String\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface HashChangeEventInit : EventInit {\n   var oldURL: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var newURL: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun HashChangeEventInit(oldURL: String? = \"\", newURL: String? = \"\",
 bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): HashChangeEventInit {\n   val o = js(\"({})\")\n   o[\"oldURL\"] = oldURL\n   o[\"newURL\"] = newURL\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [PageTransitionEvent](https://developer.mozilla.org/en/docs/Web/API/PageTransitionEvent) to Kotlin\n */\npublic external open class PageTransitionEvent(type: String, eventInitDict: PageTransitionEventInit = definedExternally) : Event {\n   open val persisted: Boolean\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface PageTransitionEventInit : EventInit {\n   var persisted: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic
 inline fun PageTransitionEventInit(persisted: Boolean? = false, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): PageTransitionEventInit {\n   val o = js(\"({})\")\n   o[\"persisted\"] = persisted\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [BeforeUnloadEvent](https://developer.mozilla.org/en/docs/Web/API/BeforeUnloadEvent) to Kotlin\n */\npublic external open class BeforeUnloadEvent : Event {\n   var returnValue: String\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external abstract class ApplicationCache : EventTarget {\n   open val status: Short\n   open var onchecking: ((Event) -> dynamic)?\n   open var onerror: ((Event) -> dynamic)?\n   open var onnoupdate:
 ((Event) -> dynamic)?\n   open var ondownloading: ((Event) -> dynamic)?\n   open var onprogress: ((ProgressEvent) -> dynamic)?\n   open var onupdateready: ((Event) -> dynamic)?\n   open var oncached: ((Event)

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-> dynamic)?\n    open var onobsolete: ((Event) -> dynamic)?\n    fun update()\n    fun abort()\n    fun
swapCache()\n\n    companion object {\n        val UNCACHED: Short\n        val IDLE: Short\n        val
CHECKING: Short\n        val DOWNLOADING: Short\n        val UPDATEREADY: Short\n        val OBSOLETE:
Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[NavigatorOnLine](https://developer.mozilla.org/en/docs/Web/API/NavigatorOnLine) to Kotlin\n */\npublic
external interface NavigatorOnLine {\n    val onLine: Boolean\n}\n\n/**\n * Exposes the JavaScript
[ErrorEvent](https://developer.mozilla.org/en/docs/Web/API/ErrorEvent) to Kotlin\n */\npublic external open class
ErrorEvent(type: String, eventInitDict: ErrorEventInit = definedExternally) : Event {\n    open val message:
 String\n    open val filename: String\n    open val lineno: Int\n    open val colno: Int\n    open val error: Any?\n\n
companion object {\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET:
Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface ErrorEventInit : EventInit {\n
var message: String? /* = \"\" */\n        get() = definedExternally\n        set(value) = definedExternally\n    var
filename: String? /* = \"\" */\n        get() = definedExternally\n        set(value) = definedExternally\n    var lineno:
Int? /* = 0 */\n        get() = definedExternally\n        set(value) = definedExternally\n    var colno: Int? /* = 0 */\n
get() = definedExternally\n        set(value) = definedExternally\n    var error: Any? /* = null */\n        get() =
definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun
 ErrorEventInit(message: String? = \"\", filename: String? = \"\", lineno: Int? = 0, colno: Int? = 0, error: Any? = null,
bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ErrorEventInit {\n    val o =
js(\"({})\")\n    o[\"message\"] = message\n    o[\"filename\"] = filename\n    o[\"lineno\"] = lineno\n    o[\"colno\"] =
colno\n    o[\"error\"] = error\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] =
composed\n    return o\n}\n\n/**\n * Exposes the JavaScript
[PromiseRejectionEvent](https://developer.mozilla.org/en/docs/Web/API/PromiseRejectionEvent) to Kotlin\n
*/\npublic external open class PromiseRejectionEvent(type: String, eventInitDict: PromiseRejectionEventInit) :
Event {\n    open val promise: Promise<Any?>\n    open val reason: Any?\n\n    companion object {\n        val
NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val
BUBBLING_PHASE: Short\n    }\n}\n\npublic
 external interface PromiseRejectionEventInit : EventInit {\n    var promise: Promise<Any?>?\n    var reason:
Any?\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun PromiseRejectionEventInit(promise:
Promise<Any?>?, reason: Any? = undefined, bubbles: Boolean? = false, cancelable: Boolean? = false, composed:
Boolean? = false): PromiseRejectionEventInit {\n    val o = js(\"({})\")\n    o[\"promise\"] = promise\n
o[\"reason\"] = reason\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] =
composed\n    return o\n}\n\n/**\n * Exposes the JavaScript
[GlobalEventHandlers](https://developer.mozilla.org/en/docs/Web/API/GlobalEventHandlers) to Kotlin\n
*/\npublic external interface GlobalEventHandlers {\n    var onabort: ((Event) -> dynamic)?\n        get() =
definedExternally\n        set(value) = definedExternally\n
 var onblur: ((FocusEvent) -> dynamic)?\n        get() = definedExternally\n        set(value) = definedExternally\n
var oncancel: ((Event) -> dynamic)?\n        get() = definedExternally\n        set(value) = definedExternally\n    var
oncanplay: ((Event) -> dynamic)?\n        get() = definedExternally\n        set(value) = definedExternally\n    var
oncanplaythrough: ((Event) -> dynamic)?\n        get() = definedExternally\n        set(value) = definedExternally\n
var onchange: ((Event) -> dynamic)?\n        get() = definedExternally\n        set(value) = definedExternally\n    var
onclick: ((MouseEvent) -> dynamic)?\n        get() = definedExternally\n        set(value) = definedExternally\n    var
onclose: ((Event) -> dynamic)?\n        get() = definedExternally\n        set(value) = definedExternally\n    var
oncontextmenu: ((MouseEvent) -> dynamic)?\n        get() = definedExternally\n        set(value) =
definedExternally\n    var oncuechange: ((Event) -> dynamic)?\n
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get() = definedExternally\n   set(value) = definedExternally\n   var ondblclick: ((MouseEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ondrag: ((DragEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ondragend: ((DragEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ondragenter: ((DragEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ondragexit: ((DragEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ondragleave: ((DragEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ondragover: ((DragEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ondragstart: ((DragEvent) -> dynamic)?\n   get() = definedExternally\n

set(value) = definedExternally\n   var ondrop: ((DragEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ondurationchange: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onemptied: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onended: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onfocus: ((FocusEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var oninput: ((InputEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var oninvalid: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n

var onkeydown: ((KeyboardEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onkeypress: ((KeyboardEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onkeyup: ((KeyboardEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onload: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onloadeddata: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onloadedmetadata: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onloadend: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onloadstart: ((ProgressEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onmousedown:

((MouseEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onmouseenter: ((MouseEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onmouseleave: ((MouseEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onmousemove: ((MouseEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onmouseout: ((MouseEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onmouseover: ((MouseEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onmouseup: ((MouseEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onwheel: ((WheelEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onpause: ((Event)

-> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onplay: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onplaying: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onprogress: ((ProgressEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onratechange: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onreset: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onresize: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onscroll: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onseeked: ((Event) -> dynamic)?\n   get() = definedExternally\n

set(value) = definedExternally\n   var onseeking: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onselect: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onshow: ((Event) -> dynamic)?\n   get() = definedExternally\n

set(value) = definedExternally\n var onstalled: ((Event) -> dynamic)?\n get() = definedExternally\n
set(value) = definedExternally\n var onsubmit: ((Event) -> dynamic)?\n get() = definedExternally\n
set(value) = definedExternally\n var onsuspend: ((Event) -> dynamic)?\n get() = definedExternally\n
set(value) = definedExternally\n var ontimeupdate: ((Event) -> dynamic)?\n get() = definedExternally\n
set(value) = definedExternally\n var ontoggle: ((Event) -> dynamic)?\n get() = definedExternally\n
set(value) = definedExternally\n var onvolumechange: ((Event) ->
dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onwaiting: ((Event) ->
dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var ongotpointercapture:
((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var
onlostpointercapture: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) =
definedExternally\n var onpointerdown: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n
set(value) = definedExternally\n var onpointermove: ((PointerEvent) -> dynamic)?\n get() =
definedExternally\n set(value) = definedExternally\n var onpointerup: ((PointerEvent) -> dynamic)?\n
get() = definedExternally\n set(value) = definedExternally\n var onpointercancel: ((PointerEvent) ->
dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onpointerover:
((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var
onpointerout: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n
var onpointerenter: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) =
definedExternally\n var onpointerleave: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n
set(value) = definedExternally\n}\n\n/**\n * Exposes the JavaScript
[WindowEventHandlers](https://developer.mozilla.org/en/docs/Web/API/WindowEventHandlers) to Kotlin\n
*/\npublic external interface WindowEventHandlers {\n var onafterprint: ((Event) -> dynamic)?\n get() =
definedExternally\n set(value) = definedExternally\n var onbeforeprint: ((Event) -> dynamic)?\n get() =
definedExternally\n set(value) = definedExternally\n var onbeforeunload: ((BeforeUnloadEvent) ->
String?)?\n get()
= definedExternally\n set(value) = definedExternally\n var onhashchange: ((HashChangeEvent) ->
dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onlanguagechange: ((Event)
-> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onmessage:
((MessageEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var
onoffline: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var
ononline: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var
onpagehide: ((PageTransitionEvent) -> dynamic)?\n get() = definedExternally\n set(value) =
definedExternally\n var onpageshow: ((PageTransitionEvent) -> dynamic)?\n get() = definedExternally\n
set(value) = definedExternally\n var onpopstate: ((PopStateEvent) -> dynamic)?\n get()
= definedExternally\n set(value) = definedExternally\n var onrejectionhandled: ((Event) -> dynamic)?\n
get() = definedExternally\n set(value) = definedExternally\n var onstorage: ((StorageEvent) -> dynamic)?\n
get() = definedExternally\n set(value) = definedExternally\n var onunhandledrejection:
((PromiseRejectionEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n
var onunload: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) =
definedExternally\n}\n\npublic external interface DocumentAndElementEventHandlers {\n var oncopy:
((ClipboardEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var oncut:
((ClipboardEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var
onpaste: ((ClipboardEvent) -> dynamic)?\n get() = definedExternally\n set(value) =
definedExternally\n}\n\n/**\n
* Exposes the JavaScript
[WindowOrWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/WindowOrWorkerGlobalScope)
to Kotlin\n */\npublic external interface WindowOrWorkerGlobalScope {\n val origin: String\n val caches:
CacheStorage\n fun btoa(data: String): String\n fun atob(data: String): String\n fun setTimeout(handler:

dynamic, timeout: Int = definedExternally, vararg arguments: Any?): Int\n   fun clearTimeout(handle: Int = definedExternally)\n   fun setInterval(handler: dynamic, timeout: Int = definedExternally, vararg arguments: Any?): Int\n   fun clearInterval(handle: Int = definedExternally)\n   fun createImageBitmap(image: ImageBitmapSource, options: ImageBitmapOptions = definedExternally): Promise<ImageBitmap>\n   fun createImageBitmap(image: ImageBitmapSource, sx: Int, sy: Int, sw: Int, sh: Int, options: ImageBitmapOptions = definedExternally): Promise<ImageBitmap>\n   fun fetch(input: dynamic, init: RequestInit = definedExternally): Promise<Response>\n}\n\n/**\n * Exposes the JavaScript [Navigator](https://developer.mozilla.org/en/docs/Web/API/Navigator) to Kotlin\n */\npublic external abstract class Navigator : NavigatorID, NavigatorLanguage, NavigatorOnLine, NavigatorContentUtils, NavigatorCookies, NavigatorPlugins, NavigatorConcurrentHardware {\n   open val clipboard: Clipboard\n   open val mediaDevices: MediaDevices\n   open val maxTouchPoints: Int\n   open val serviceWorker: ServiceWorkerContainer\n   fun requestMediaKeySystemAccess(keySystem: String, supportedConfigurations: Array<MediaKeySystemConfiguration>): Promise<MediaKeySystemAccess>\n   fun getUserMedia(constraints: MediaStreamConstraints, successCallback: (MediaStream) -> Unit, errorCallback: (dynamic) -> Unit)\n   fun vibrate(pattern: dynamic): Boolean\n}\n\n/**\n * Exposes the JavaScript [NavigatorID](https://developer.mozilla.org/en/docs/Web/API/NavigatorID) to Kotlin\n */\npublic external interface NavigatorID {\n   val appCodeName: String\n   val appName: String\n   val appVersion: String\n   val platform: String\n   val product: String\n   val productSub: String\n   val userAgent: String\n   val vendor: String\n   val vendorSub: String\n   val oscpu: String\n   fun taintEnabled(): Boolean\n}\n\n/**\n * Exposes the JavaScript [NavigatorLanguage](https://developer.mozilla.org/en/docs/Web/API/NavigatorLanguage) to Kotlin\n */\npublic external interface NavigatorLanguage {\n   val language: String\n   val languages: Array<out String>\n}\n\npublic external interface NavigatorContentUtils {\n   fun registerProtocolHandler(scheme: String, url: String, title: String)\n   fun registerContentHandler(mimeType: String, url: String, title: String)\n   fun isProtocolHandlerRegistered(scheme: String, url: String): String\n   fun isContentHandlerRegistered(mimeType: String, url: String): String\n   fun unregisterProtocolHandler(scheme: String, url: String)\n   fun unregisterContentHandler(mimeType: String, url: String)\n}\n\npublic external interface NavigatorCookies {\n   val cookieEnabled: Boolean\n}\n\n/**\n * Exposes the JavaScript [NavigatorPlugins](https://developer.mozilla.org/en/docs/Web/API/NavigatorPlugins) to Kotlin\n */\npublic external interface NavigatorPlugins {\n   val plugins: PluginArray\n   val mimeTypes: MimeTypeArray\n   fun javaEnabled(): Boolean\n}\n\n/**\n * Exposes the JavaScript [PluginArray](https://developer.mozilla.org/en/docs/Web/API/PluginArray) to Kotlin\n */\npublic external abstract class PluginArray : ItemArrayLike<Plugin> {\n   fun refresh(reload: Boolean = definedExternally)\n   override fun item(index: Int): Plugin?\n   fun namedItem(name: String): Plugin?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun PluginArray.get(index: Int): Plugin? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun PluginArray.get(name: String): Plugin? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript [MimeTypeArray](https://developer.mozilla.org/en/docs/Web/API/MimeTypeArray) to Kotlin\n */\npublic external abstract class MimeTypeArray : ItemArrayLike<MimeType> {\n   override fun item(index: Int): MimeType?\n   fun namedItem(name: String): MimeType?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun MimeTypeArray.get(index: Int): MimeType? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun MimeTypeArray.get(name: String): MimeType? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript [Plugin](https://developer.mozilla.org/en/docs/Web/API/Plugin) to Kotlin\n */\npublic external abstract class Plugin : ItemArrayLike<MimeType> {\n   open val name: String\n   open val description: String\n   open val filename:

String\n   override
 fun item(index: Int): MimeType?\n   fun namedItem(name: String):
MimeType?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Plugin.get(index: Int):
MimeType? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Plugin.get(name: String):
MimeType? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript
[MimeType](https://developer.mozilla.org/en/docs/Web/API/MimeType) to Kotlin\n */\npublic external abstract
class MimeType {\n   open val type: String\n   open val description: String\n   open val suffixes: String\n   open
val enabledPlugin: Plugin\n}\n\n/**\n * Exposes the JavaScript
[ImageBitmap](https://developer.mozilla.org/en/docs/Web/API/ImageBitmap) to Kotlin\n */\npublic external
abstract class ImageBitmap : CanvasImageSource, TexImageSource {\n   open val width: Int\n   open val height:
Int\n   fun close()\n}\n\npublic
 external interface ImageBitmapOptions {\n   var imageOrientation: ImageOrientation? /* =
ImageOrientation.NONE */\n   get() = definedExternally\n   set(value) = definedExternally\n   var
premultiplyAlpha: PremultiplyAlpha? /* = PremultiplyAlpha.DEFAULT */\n   get() = definedExternally\n
set(value) = definedExternally\n   var colorSpaceConversion: ColorSpaceConversion? /* =
ColorSpaceConversion.DEFAULT */\n   get() = definedExternally\n   set(value) = definedExternally\n   var
resizeWidth: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n   var resizeHeight: Int?\n
   get() = definedExternally\n   set(value) = definedExternally\n   var resizeQuality: ResizeQuality? /* =
ResizeQuality.LOW */\n   get() = definedExternally\n   set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun
ImageBitmapOptions(imageOrientation:
 ImageOrientation? = ImageOrientation.NONE, premultiplyAlpha: PremultiplyAlpha? =
PremultiplyAlpha.DEFAULT, colorSpaceConversion: ColorSpaceConversion? =
ColorSpaceConversion.DEFAULT, resizeWidth: Int? = undefined, resizeHeight: Int? = undefined, resizeQuality:
ResizeQuality? = ResizeQuality.LOW): ImageBitmapOptions {\n   val o = js(\"({})\")\n   o[\"imageOrientation\"]
= imageOrientation\n   o[\"premultiplyAlpha\"] = premultiplyAlpha\n   o[\"colorSpaceConversion\"] =
colorSpaceConversion\n   o[\"resizeWidth\"] = resizeWidth\n   o[\"resizeHeight\"] = resizeHeight\n
o[\"resizeQuality\"] = resizeQuality\n   return o\n}\n\n/**\n * Exposes the JavaScript
[MessageEvent](https://developer.mozilla.org/en/docs/Web/API/MessageEvent) to Kotlin\n */\npublic external open
class MessageEvent(type: String, eventInitDict: MessageEventInit = definedExternally) : Event {\n   open val data:
Any?\n   open val origin: String\n   open val lastEventId: String\n   open val source:
UnionMessagePortOrWindowProxy?\n
    open val ports: Array<out MessagePort>\n   fun initMessageEvent(type: String, bubbles: Boolean, cancelable:
Boolean, data: Any?, origin: String, lastEventId: String, source: UnionMessagePortOrWindowProxy?, ports:
Array<MessagePort>)\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n
    val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface
MessageEventInit : EventInit {\n   var data: Any? /* = null */\n   get() = definedExternally\n   set(value) =
definedExternally\n   var origin: String? /* = \"\" */\n   get() = definedExternally\n   set(value) =
definedExternally\n   var lastEventId: String? /* = \"\" */\n   get() = definedExternally\n   set(value) =
definedExternally\n   var source: UnionMessagePortOrWindowProxy? /* = null */\n   get() =
definedExternally\n   set(value) = definedExternally\n   var ports: Array<MessagePort>? /* = arrayOf()
 */\n   get() = definedExternally\n   set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MessageEventInit(data: Any? = null,
origin: String? = \"\", lastEventId: String? = \"\", source: UnionMessagePortOrWindowProxy? = null, ports:

Array<MessagePort>? = arrayOf(), bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): MessageEventInit {\n   val o = js(\"({})\")\n   o[\"data\"] = data\n   o[\"origin\"] = origin\n   o[\"lastEventId\"] = lastEventId\n   o[\"source\"] = source\n   o[\"ports\"] = ports\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [EventSource](https://developer.mozilla.org/en/docs/Web/API/EventSource) to Kotlin\n */\npublic external open class EventSource(url: String, eventSourceInitDict: EventSourceInit = definedExternally) : EventTarget {\n   open val url: String\n   open val withCredentials: Boolean\n   open val readyState: Short\n   var onopen: ((Event) -> dynamic)?\n   var onmessage: ((MessageEvent) -> dynamic)?\n   var onerror: ((Event) -> dynamic)?\n   fun close()\n\n   companion object {\n   val CONNECTING: Short\n   val OPEN: Short\n   val CLOSED: Short\n   }\n}\n\npublic external interface EventSourceInit {\n   var withCredentials: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun EventSourceInit(withCredentials: Boolean? = false): EventSourceInit {\n   val o = js(\"({})\")\n   o[\"withCredentials\"] = withCredentials\n   return o\n}\n\n/**\n * Exposes the JavaScript [WebSocket](https://developer.mozilla.org/en/docs/Web/API/WebSocket) to Kotlin\n */\npublic external open class WebSocket(url: String, protocols: dynamic = definedExternally) : EventTarget {\n   open val url: String\n   open val readyState: Short\n   open val bufferedAmount: Number\n   var onopen: ((Event) -> dynamic)?\n   var onerror: ((Event) -> dynamic)?\n   var onclose: ((Event) -> dynamic)?\n   open val extensions: String\n   open val protocol: String\n   var onmessage: ((MessageEvent) -> dynamic)?\n   var binaryType: BinaryType\n   fun close(code: Short = definedExternally, reason: String = definedExternally)\n   fun send(data: String)\n   fun send(data: Blob)\n   fun send(data: ArrayBuffer)\n   fun send(data: ArrayBufferView)\n\n   companion object {\n   val CONNECTING: Short\n   val OPEN: Short\n   val CLOSING: Short\n   val CLOSED: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [CloseEvent](https://developer.mozilla.org/en/docs/Web/API/CloseEvent) to Kotlin\n */\npublic external open class CloseEvent(type: String, eventInitDict: CloseEventInit = definedExternally) : Event {\n   open val wasClean: Boolean\n   open val code: Short\n   open val reason: String\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface CloseEventInit : EventInit {\n   var wasClean: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var code: Short? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var reason: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CloseEventInit(wasClean: Boolean? = false, code: Short? = 0, reason: String? = \"\", bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): CloseEventInit {\n   val o = js(\"({})\")\n   o[\"wasClean\"] = wasClean\n   o[\"code\"] = code\n   o[\"reason\"] = reason\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [MessageChannel](https://developer.mozilla.org/en/docs/Web/API/MessageChannel) to Kotlin\n */\npublic external open class MessageChannel {\n   open val port1: MessagePort\n   open val port2: MessagePort\n}\n\n/**\n * Exposes the JavaScript [MessagePort](https://developer.mozilla.org/en/docs/Web/API/MessagePort) to Kotlin\n */\npublic external abstract class MessagePort : EventTarget, UnionMessagePortOrWindowProxy, UnionMessagePortOrServiceWorker, UnionClientOrMessagePortOrServiceWorker {\n   open var onmessage: ((MessageEvent) -> dynamic)?\n   fun postMessage(message: Any?, transfer: Array<dynamic> = definedExternally)\n   fun start()\n   fun close()\n}\n\n/**\n * Exposes the JavaScript [BroadcastChannel](https://developer.mozilla.org/en/docs/Web/API/BroadcastChannel) to Kotlin\n */\npublic external open class BroadcastChannel(name: String) : EventTarget {\n   open val name: String\n   var onmessage: ((MessageEvent) -> dynamic)?\n   fun postMessage(message: Any?)\n   fun close()\n}\n\n/**\n * Exposes the JavaScript [WorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/WorkerGlobalScope) to Kotlin\n */\npublic external abstract class WorkerGlobalScope : EventTarget, WindowOrWorkerGlobalScope, GlobalPerformance {\n   open val self: WorkerGlobalScope\n   open val location: WorkerLocation\n   open val navigator: WorkerNavigator\n   open var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n   open var onlanguagechange: ((Event) -> dynamic)?\n   open var onoffline: ((Event) -> dynamic)?\n   open var ononline: ((Event) -> dynamic)?\n   open var onrejectionhandled: ((Event) -> dynamic)?\n   open var onunhandledrejection: ((PromiseRejectionEvent) -> dynamic)?\n   fun importScripts(vararg urls: String)\n}\n\n/**\n * Exposes the JavaScript [DedicatedWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/DedicatedWorkerGlobalScope) to Kotlin\n */\npublic external abstract class DedicatedWorkerGlobalScope : WorkerGlobalScope {\n   open var onmessage: ((MessageEvent) -> dynamic)?\n   fun postMessage(message: Any?, transfer: Array<dynamic> = definedExternally)\n   fun close()\n}\n\n/**\n * Exposes the JavaScript [SharedWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/SharedWorkerGlobalScope) to Kotlin\n */\npublic external abstract class SharedWorkerGlobalScope : WorkerGlobalScope {\n   open val name: String\n   open val applicationCache: ApplicationCache\n   open var onconnect: ((Event) -> dynamic)?\n   fun close()\n}\n\n/**\n * Exposes the JavaScript [AbstractWorker](https://developer.mozilla.org/en/docs/Web/API/AbstractWorker) to Kotlin\n */\npublic external interface AbstractWorker {\n   var onerror: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n/**\n * Exposes the JavaScript [Worker](https://developer.mozilla.org/en/docs/Web/API/Worker) to Kotlin\n */\npublic external open class Worker(scriptURL: String, options: WorkerOptions = definedExternally) : EventTarget, AbstractWorker {\n   var onmessage: ((MessageEvent) -> dynamic)?\n   override var onerror: ((Event) -> dynamic)?\n   fun terminate()\n   fun postMessage(message: Any?, transfer: Array<dynamic> = definedExternally)\n}\n\npublic external interface WorkerOptions {\n   var type: WorkerType? /* = WorkerType.CLASSIC */\n   get() = definedExternally\n   set(value) = definedExternally\n   var credentials: RequestCredentials? /* = RequestCredentials.OMIT */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun WorkerOptions(type: WorkerType? = WorkerType.CLASSIC, credentials: RequestCredentials? = RequestCredentials.OMIT): WorkerOptions {\n   val o = js(\"({})\")\n   o[\"type\"] = type\n   o[\"credentials\"] = credentials\n   return o\n}\n\n/**\n * Exposes the JavaScript [SharedWorker](https://developer.mozilla.org/en/docs/Web/API/SharedWorker) to Kotlin\n */\npublic external open class SharedWorker(scriptURL: String, name: String = definedExternally, options: WorkerOptions = definedExternally) : EventTarget, AbstractWorker {\n   open val port: MessagePort\n   override var onerror: ((Event) -> dynamic)?\n}\n\n/**\n * Exposes the JavaScript [NavigatorConcurrentHardware](https://developer.mozilla.org/en/docs/Web/API/NavigatorConcurrentHardware) to Kotlin\n */\npublic external interface NavigatorConcurrentHardware {\n   val hardwareConcurrency: Number\n}\n\n/**\n * Exposes the JavaScript [WorkerNavigator](https://developer.mozilla.org/en/docs/Web/API/WorkerNavigator) to Kotlin\n */\npublic external abstract class WorkerNavigator : NavigatorID, NavigatorLanguage, NavigatorOnLine, NavigatorConcurrentHardware {\n   open val serviceWorker: ServiceWorkerContainer\n}\n\n/**\n * Exposes the JavaScript [WorkerLocation](https://developer.mozilla.org/en/docs/Web/API/WorkerLocation) to Kotlin\n */\npublic external abstract class WorkerLocation {\n   open val href: String\n   open val origin: String\n   open val protocol: String\n   open val host: String\n   open val hostname: String\n   open val port: String\n   open val pathname: String\n   open val search: String\n   open val hash: String\n}\n\n/**\n * Exposes the JavaScript [Storage](https://developer.mozilla.org/en/docs/Web/API/Storage) to Kotlin\n */\npublic external abstract class Storage {\n   open val length: Int\n   fun key(index: Int): String?\n   fun removeItem(key: String)\n   fun clear()\n   fun getItem(key: String): String?\n   fun setItem(key: String, value: String)\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Storage.get(key: String):

String?
 = asDynamic()[key]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Storage.set(key: String, value: String) { asDynamic()[key] = value }\n\n/**\n * Exposes the JavaScript [WindowSessionStorage](https://developer.mozilla.org/en/docs/Web/API/WindowSessionStorage) to Kotlin\n */\npublic external interface WindowSessionStorage {\n   val sessionStorage: Storage\n}\n\n/**\n * Exposes the JavaScript [WindowLocalStorage](https://developer.mozilla.org/en/docs/Web/API/WindowLocalStorage) to Kotlin\n */\npublic external interface WindowLocalStorage {\n   val localStorage: Storage\n}\n\n/**\n * Exposes the JavaScript [StorageEvent](https://developer.mozilla.org/en/docs/Web/API/StorageEvent) to Kotlin\n */\npublic external open class StorageEvent(type: String, eventInitDict: StorageEventInit = definedExternally) : Event {\n   open val key: String?\n   open val oldValue: String?\n   open val newValue: String?\n   open val url:
 String\n   open val storageArea: Storage?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface StorageEventInit : EventInit {\n   var key: String? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var oldValue: String? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var newValue: String? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var url: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var storageArea: Storage? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun StorageEventInit(key: String? = null, oldValue: String?
 = null, newValue: String? = null, url: String? = \"\", storageArea: Storage? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): StorageEventInit {\n   val o = js(\"({})\")\n   o[\"key\"] = key\n   o[\"oldValue\"] = oldValue\n   o[\"newValue\"] = newValue\n   o[\"url\"] = url\n   o[\"storageArea\"] = storageArea\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\npublic external abstract class HTMLAppletElement : HTMLElement {\n   open var align: String\n   open var alt: String\n   open var archive: String\n   open var code: String\n   open var codeBase: String\n   open var height: String\n   open var hspace: Int\n   open var name: String\n   open var _object: String\n   open var vspace: Int\n   open var width: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE:
 Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLMarqueeElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMarqueeElement) to Kotlin\n */\npublic external abstract class HTMLMarqueeElement : HTMLElement {\n   open var behavior: String\n   open var bgColor: String\n   open var direction: String\n   open var height: String\n   open var hspace: Int\n   open
 var loop: Int\n   open var scrollAmount: Int\n   open var scrollDelay: Int\n   open var trueSpeed: Boolean\n   open var vspace: Int\n   open var width: String\n   open var onbounce: ((Event) -> dynamic)?\n   open var onfinish: ((Event) -> dynamic)?\n   open var onstart: ((Event) -> dynamic)?\n   fun start()\n   fun stop()\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val

DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLFrameSetElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFrameSetElement) to Kotlin\n */\npublic external abstract class HTMLFrameSetElement : HTMLElement, WindowEventHandlers {\n open var cols: String\n open var rows: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external abstract class HTMLFrameElement : HTMLElement {\n open var name: String\n open var scrolling: String\n open var src: String\n open var frameBorder: String\n open var longDesc: String\n open var noResize: Boolean\n open val contentDocument: Document?\n open val contentWindow: Window?\n open var marginHeight: String\n open var marginWidth: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external abstract class HTMLDirectoryElement : HTMLElement {\n open var compact: Boolean\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLFontElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFontElement) to Kotlin\n */\npublic external abstract class HTMLFontElement : HTMLElement {\n open var color: String\n open var face: String\n open var size: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val

DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n
        val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n
  val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external interface External {\n   fun AddSearchProvider()\n   fun IsSearchProviderInstalled()\n}\n\npublic external interface EventInit {\n   var bubbles: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var cancelable: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var composed: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun EventInit(bubbles: Boolean? = false, cancelable: Boolean? = false, composed:
 Boolean? = false): EventInit {\n   val o = js(\"({})\")\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [CustomEvent](https://developer.mozilla.org/en/docs/Web/API/CustomEvent) to Kotlin\n */\npublic external open class CustomEvent(type: String, eventInitDict: CustomEventInit = definedExternally) : Event {\n   open val detail: Any?\n   fun initCustomEvent(type: String, bubbles: Boolean, cancelable: Boolean, detail: Any?)\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface CustomEventInit : EventInit {\n   var detail: Any? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CustomEventInit(detail:
 Any? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): CustomEventInit {\n   val o = js(\"({})\")\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\npublic external interface EventListenerOptions {\n
 var capture: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun EventListenerOptions(capture: Boolean? = false): EventListenerOptions {\n   val o = js(\"({})\")\n   o[\"capture\"] = capture\n   return o\n}\n\npublic external interface AddEventListenerOptions : EventListenerOptions {\n   var passive: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var once: Boolean? /* = false */\n
   get() = definedExternally\n   set(value)
 = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun AddEventListenerOptions(passive: Boolean? = false, once: Boolean? = false, capture: Boolean? = false): AddEventListenerOptions {\n   val o = js(\"({})\")\n   o[\"passive\"] = passive\n   o[\"once\"] = once\n   o[\"capture\"] = capture\n   return o\n}\n\npublic external interface NonElementParentNode {\n   fun getElementById(elementId: String): Element?\n}\n\n/**\n * Exposes the JavaScript [DocumentOrShadowRoot](https://developer.mozilla.org/en/docs/Web/API/DocumentOrShadowRoot) to Kotlin\n */\npublic external interface DocumentOrShadowRoot {\n   val fullscreenElement: Element?\n   get() = definedExternally\n}\n\n/**\n * Exposes the JavaScript [ParentNode](https://developer.mozilla.org/en/docs/Web/API/ParentNode) to Kotlin\n */\npublic external interface ParentNode {\n   val children: HTMLCollection\n   val firstElementChild: Element?\n
 get() = definedExternally\n   val lastElementChild: Element?\n   get() = definedExternally\n   val childElementCount: Int\n   fun prepend(vararg nodes: dynamic)\n   fun append(vararg nodes: dynamic)\n   fun querySelector(selectors: String): Element?\n   fun querySelectorAll(selectors: String): NodeList\n}\n\n/**\n * Exposes the JavaScript [NonDocumentTypeChildNode](https://developer.mozilla.org/en/docs/Web/API/NonDocumentTypeChildNode) to

Kotlin\n */\npublic external interface NonDocumentTypeChildNode {\n   val previousElementSibling: Element?\n   get() = definedExternally\n   val nextElementSibling: Element?\n   get() = definedExternally\n}\n\n/**\n * Exposes the JavaScript [ChildNode](https://developer.mozilla.org/en/docs/Web/API/ChildNode) to Kotlin\n */\npublic external interface ChildNode {\n   fun before(vararg nodes: dynamic)\n   fun after(vararg nodes: dynamic)\n   fun replaceWith(vararg nodes: dynamic)\n   fun remove()\n}\n\n/**\n * Exposes the JavaScript [Slotable](https://developer.mozilla.org/en/docs/Web/API/Slotable) to Kotlin\n */\npublic external interface Slotable {\n   val assignedSlot: HTMLSlotElement?\n   get() = definedExternally\n}\n\n/**\n * Exposes the JavaScript [NodeList](https://developer.mozilla.org/en/docs/Web/API/NodeList) to Kotlin\n */\npublic external abstract class NodeList : ItemArrayLike<Node> {\n   override fun item(index: Int): Node?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun NodeList.get(index: Int): Node? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [HTMLCollection](https://developer.mozilla.org/en/docs/Web/API/HTMLCollection) to Kotlin\n */\npublic external abstract class HTMLCollection : ItemArrayLike<Element>, UnionElementOrHTMLCollection {\n   override fun item(index: Int): Element?\n   fun namedItem(name: String): Element?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLCollection.get(index: Int): Element? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLCollection.get(name: String): Element? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript [MutationObserver](https://developer.mozilla.org/en/docs/Web/API/MutationObserver) to Kotlin\n */\npublic external open class MutationObserver(callback: (Array<MutationRecord>, MutationObserver) -> Unit) {\n   fun observe(target: Node, options: MutationObserverInit = definedExternally)\n   fun disconnect()\n   fun takeRecords(): Array<MutationRecord>\n}\n\n/**\n * Exposes the JavaScript [MutationObserverInit](https://developer.mozilla.org/en/docs/Web/API/MutationObserverInit) to Kotlin\n */\npublic external interface MutationObserverInit {\n   var childList: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var attributes: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var characterData: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var subtree: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var attributeOldValue: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var characterDataOldValue: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var attributeFilter: Array<String>?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MutationObserverInit(childList: Boolean? = false, attributes: Boolean? = undefined, characterData: Boolean? = undefined, subtree: Boolean? = false, attributeOldValue: Boolean? = undefined, characterDataOldValue: Boolean? = undefined, attributeFilter: Array<String>? = undefined): MutationObserverInit {\n   val o = js(\"({})\")\n   o[\"childList\"] = childList\n   o[\"attributes\"] = attributes\n   o[\"characterData\"] = characterData\n   o[\"subtree\"] = subtree\n   o[\"attributeOldValue\"] = attributeOldValue\n   o[\"characterDataOldValue\"] = characterDataOldValue\n   o[\"attributeFilter\"] = attributeFilter\n   return o\n}\n\n/**\n * Exposes the JavaScript [MutationRecord](https://developer.mozilla.org/en/docs/Web/API/MutationRecord) to Kotlin\n */\npublic external abstract class MutationRecord {\n   open val type: String\n   open val target: Node\n   open val addedNodes: NodeList\n   open val removedNodes: NodeList\n   open val previousSibling: Node?\n   open val nextSibling: Node?\n   open val attributeName: String?\n   open val attributeNamespace: String?\n   open val oldValue: String?\n}\n\n/**\n * Exposes the JavaScript [Node](https://developer.mozilla.org/en/docs/Web/API/Node) to Kotlin\n

*/\npublic external abstract class Node : EventTarget {\n   open val nodeType: Short\n   open val nodeName: String\n   open val baseURI: String\n   open val isConnected: Boolean\n   open val ownerDocument: Document?\n   open val parentNode: Node?\n   open val parentElement: Element?\n   open val childNodes: NodeList\n   open val firstChild: Node?\n   open val lastChild: Node?\n   open val previousSibling: Node?\n   open val nextSibling: Node?\n   open var nodeValue: String?\n   open var textContent: String?\n   fun getRootNode(options: GetRootNodeOptions = definedExternally): Node\n   fun hasChildNodes(): Boolean\n   fun normalize()\n   fun cloneNode(deep: Boolean = definedExternally): Node\n   fun isEqualNode(otherNode: Node?): Boolean\n   fun isSameNode(otherNode: Node?): Boolean\n   fun compareDocumentPosition(other: Node): Short\n   fun contains(other: Node?): Boolean\n   fun lookupPrefix(namespace: String?): String?\n   fun lookupNamespaceURI(prefix: String?):

String?\n   fun isDefaultNamespace(namespace: String?): Boolean\n   fun insertBefore(node: Node, child: Node?): Node\n   fun appendChild(node: Node): Node\n   fun replaceChild(node: Node, child: Node): Node\n   fun removeChild(child: Node): Node\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC:

Short\n   }\n}\n\npublic external interface GetRootNodeOptions {\n   var composed: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun GetRootNodeOptions(composed: Boolean? = false): GetRootNodeOptions {\n   val o = js(\"({})\")\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [Document](https://developer.mozilla.org/en/docs/Web/API/Document) to Kotlin\n */\npublic external open class Document : Node, GlobalEventHandlers, DocumentAndElementEventHandlers, NonElementParentNode, DocumentOrShadowRoot, ParentNode, GeometryUtils {\n   open val implementation: DOMImplementation\n   open val URL: String\n   open val documentURI: String\n   open val origin: String\n   open val compatMode: String\n   open val characterSet: String\n   open val charset: String\n   open val inputEncoding:

String\n   open val contentType: String\n   open val doctype: DocumentType?\n   open val documentElement: Element?\n   open val location: Location?\n   var domain: String\n   open val referrer: String\n   var cookie: String\n   open val lastModified: String\n   open val readyState: DocumentReadyState\n   var title: String\n   var dir: String\n   var body: HTMLElement?\n   open val head: HTMLHeadElement?\n   open val images: HTMLCollection\n   open val embeds: HTMLCollection\n   open val plugins: HTMLCollection\n   open val links: HTMLCollection\n   open val forms: HTMLCollection\n   open val scripts: HTMLCollection\n   open val currentScript: HTMLOrSVGScriptElement?\n   open val defaultView: Window?\n   open val activeElement: Element?\n   var designMode: String\n   var onreadystatechange: ((Event) -> dynamic)?\n   var fgColor: String\n   var linkColor: String\n   var vlinkColor: String\n   var alinkColor: String\n   var bgColor: String\n   open val anchors: HTMLCollection\n   open val applets: HTMLCollection\n   open val all: HTMLAllCollection\n   open val scrollingElement: Element?\n   open val styleSheets: StyleSheetList\n   open val rootElement: SVGSVGElement?\n   open val fullscreenEnabled: Boolean\n   open val fullscreen: Boolean\n   var onfullscreenchange: ((Event) -> dynamic)?\n   var onfullscreenerror: ((Event) -> dynamic)?\n   override var onabort: ((Event) -> dynamic)?\n   override var onblur: ((FocusEvent) -> dynamic)?\n   override var oncancel: ((Event) -> dynamic)?\n   override var oncanplay: ((Event) -> dynamic)?\n   override var oncanplaythrough: ((Event) -> dynamic)?\n   override var onchange: ((Event) -> dynamic)?\n   override var onclick: ((MouseEvent) ->

dynamic)?\n   override var onclose: ((Event) -> dynamic)?\n   override var oncontextmenu: ((MouseEvent) -> dynamic)?\n   override var oncuechange: ((Event) -> dynamic)?\n   override var ondblclick: ((MouseEvent) -> dynamic)?\n   override
 var ondrag: ((DragEvent) -> dynamic)?\n   override var ondragend: ((DragEvent) -> dynamic)?\n   override var ondragenter: ((DragEvent) -> dynamic)?\n   override var ondragexit: ((DragEvent) -> dynamic)?\n   override var ondragleave: ((DragEvent) -> dynamic)?\n   override var ondragover: ((DragEvent) -> dynamic)?\n   override var ondragstart: ((DragEvent) -> dynamic)?\n   override var ondrop: ((DragEvent) -> dynamic)?\n   override var ondurationchange: ((Event) -> dynamic)?\n   override var onemptied: ((Event) -> dynamic)?\n   override var onended: ((Event) -> dynamic)?\n   override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n   override var onfocus: ((FocusEvent) -> dynamic)?\n   override var oninput: ((InputEvent) -> dynamic)?\n   override var oninvalid: ((Event) -> dynamic)?\n   override var onkeydown: ((KeyboardEvent) -> dynamic)?\n   override var onkeypress: ((KeyboardEvent) -> dynamic)?\n   override var onkeyup: ((KeyboardEvent) -> dynamic)?\n   override var onload: ((Event) -> dynamic)?\n   override var onloadeddata: ((Event) -> dynamic)?\n   override var onloadedmetadata: ((Event) -> dynamic)?\n   override var onloadend: ((Event) -> dynamic)?\n   override var onloadstart: ((ProgressEvent) -> dynamic)?\n   override var onmousedown: ((MouseEvent) -> dynamic)?\n   override var onmouseenter: ((MouseEvent) -> dynamic)?\n   override var onmouseleave: ((MouseEvent) -> dynamic)?\n   override var onmousemove: ((MouseEvent) -> dynamic)?\n   override var onmouseout: ((MouseEvent) -> dynamic)?\n   override var onmouseover: ((MouseEvent) -> dynamic)?\n   override var onmouseup: ((MouseEvent) -> dynamic)?\n   override var onwheel: ((WheelEvent) -> dynamic)?\n   override var onpause: ((Event) -> dynamic)?\n   override var onplay: ((Event) -> dynamic)?\n   override var onplaying: ((Event) -> dynamic)?\n   override var onprogress: ((ProgressEvent) -> dynamic)?\n   override var onratechange: ((Event) -> dynamic)?\n
 override var onreset: ((Event) -> dynamic)?\n   override var onresize: ((Event) -> dynamic)?\n   override var onscroll: ((Event) -> dynamic)?\n   override var onseeked: ((Event) -> dynamic)?\n   override var onseeking: ((Event) -> dynamic)?\n   override var onselect: ((Event) -> dynamic)?\n   override var onshow: ((Event) -> dynamic)?\n   override var onstalled: ((Event) -> dynamic)?\n   override var onsubmit: ((Event) -> dynamic)?\n   override var onsuspend: ((Event) -> dynamic)?\n   override var ontimeupdate: ((Event) -> dynamic)?\n   override var ontoggle: ((Event) -> dynamic)?\n   override var onvolumechange: ((Event) -> dynamic)?\n   override var onwaiting: ((Event) -> dynamic)?\n   override var ongotpointercapture: ((PointerEvent) -> dynamic)?\n   override var onlostpointercapture: ((PointerEvent) -> dynamic)?\n   override var onpointerdown: ((PointerEvent) -> dynamic)?\n   override var onpointermove: ((PointerEvent) -> dynamic)?\n   override var onpointerup: ((PointerEvent)
 -> dynamic)?\n   override var onpointercancel: ((PointerEvent) -> dynamic)?\n   override var onpointerover: ((PointerEvent) -> dynamic)?\n   override var onpointerout: ((PointerEvent) -> dynamic)?\n   override var onpointerenter: ((PointerEvent) -> dynamic)?\n   override var onpointerleave: ((PointerEvent) -> dynamic)?\n   override var oncopy: ((ClipboardEvent) -> dynamic)?\n   override var oncut: ((ClipboardEvent) -> dynamic)?\n   override var onpaste: ((ClipboardEvent) -> dynamic)?\n   override val fullscreenElement: Element?\n   override val children: HTMLCollection\n   override val firstElementChild: Element?\n   override val lastElementChild: Element?\n   override val childElementCount: Int\n   fun getElementsByTagName(qualifiedName: String): HTMLCollection\n   fun getElementsByTagNameNS(namespace: String?, localName: String): HTMLCollection\n   fun getElementsByClassName(classNames: String): HTMLCollection\n   fun createElement(localName: String, options:
 ElementCreationOptions = definedExternally): Element\n   fun createElementNS(namespace: String?, qualifiedName: String, options: ElementCreationOptions = definedExternally): Element\n   fun createDocumentFragment(): DocumentFragment\n   fun createTextNode(data: String): Text\n   fun createCDATASection(data: String): CDATASection\n   fun createComment(data: String): Comment\n   fun createProcessingInstruction(target: String, data: String): ProcessingInstruction\n   fun importNode(node: Node, deep: Boolean = definedExternally): Node\n   fun adoptNode(node: Node): Node\n   fun

createAttribute(localName: String): Attr\n   fun createAttributeNS(namespace: String?, qualifiedName: String):
Attr\n   fun createEvent(`interface`: String): Event\n   fun createRange(): Range\n   fun createNodeIterator(root:
Node, whatToShow: Int = definedExternally, filter: NodeFilter? = definedExternally): NodeIterator\n   fun
createNodeIterator(root: Node, whatToShow: Int = definedExternally,
 filter: ((Node) -> Short)? = definedExternally): NodeIterator\n   fun createTreeWalker(root: Node, whatToShow:
Int = definedExternally, filter: NodeFilter? = definedExternally): TreeWalker\n   fun createTreeWalker(root: Node,
whatToShow: Int = definedExternally, filter: ((Node) -> Short)? = definedExternally): TreeWalker\n   fun
getElementsByName(elementName: String): NodeList\n   fun open(type: String = definedExternally, replace:
String = definedExternally): Document\n   fun open(url: String, name: String, features: String): Window\n   fun
close()\n   fun write(vararg text: String)\n   fun writeln(vararg text: String)\n   fun hasFocus(): Boolean\n   fun
execCommand(commandId: String, showUI: Boolean = definedExternally, value: String = definedExternally):
Boolean\n   fun queryCommandEnabled(commandId: String): Boolean\n   fun
queryCommandIndeterm(commandId: String): Boolean\n   fun queryCommandState(commandId: String):
Boolean\n   fun queryCommandSupported(commandId:
 String): Boolean\n   fun queryCommandValue(commandId: String): String\n   fun clear()\n   fun
captureEvents()\n   fun releaseEvents()\n   fun elementFromPoint(x: Double, y: Double): Element?\n   fun
elementsFromPoint(x: Double, y: Double): Array<Element>\n   fun caretPositionFromPoint(x: Double, y: Double):
CaretPosition?\n   fun createTouch(view: Window, target: EventTarget, identifier: Int, pageX: Int, pageY: Int,
screenX: Int, screenY: Int): Touch\n   fun createTouchList(vararg touches: Touch): TouchList\n   fun
exitFullscreen(): Promise<Unit>\n   override fun getElementById(elementId: String): Element?\n   override fun
prepend(vararg nodes: dynamic)\n   override fun append(vararg nodes: dynamic)\n   override fun
querySelector(selectors: String): Element?\n   override fun querySelectorAll(selectors: String): NodeList\n
override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n   override
fun convertQuadFromNode(quad: dynamic, from:
 dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun
convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* =
definedExternally */): DOMQuad\n   override fun convertPointFromNode(point: DOMPointInit, from: dynamic,
options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n\n   companion object {\n   val
ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val
CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE:
Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val
DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val
DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n   val
 DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n
   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n
}\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Document.get(name: String):
dynamic = asDynamic()[name]\n\n/**\n * Exposes the JavaScript
[XMLDocument](https://developer.mozilla.org/en/docs/Web/API/XMLDocument) to Kotlin\n */\npublic external
open class XMLDocument : Document {\n   companion object {\n   val ELEMENT_NODE: Short\n   val
ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val
ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val
PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val
DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val
DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED:

Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external interface ElementCreationOptions {\n   var `is`: String?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ElementCreationOptions(`is`: String? = undefined): ElementCreationOptions {\n   val o = js(\"({})\")\n   o[\"is\"] = `is`\n   return o\n}\n\n/**\n * Exposes the JavaScript [DOMImplementation](https://developer.mozilla.org/en/docs/Web/API/DOMImplementation) to Kotlin\n */\npublic external abstract class DOMImplementation {\n   fun createDocumentType(qualifiedName: String, publicId: String, systemId: String): DocumentType\n   fun createDocument(namespace: String?, qualifiedName: String, doctype: DocumentType? = definedExternally): XMLDocument\n   fun createHTMLDocument(title: String = definedExternally): Document\n   fun hasFeature(): Boolean\n}\n\n/**\n * Exposes the JavaScript [DocumentType](https://developer.mozilla.org/en/docs/Web/API/DocumentType) to Kotlin\n */\npublic external abstract class DocumentType : Node, ChildNode {\n   open val name: String\n   open val publicId: String\n   open val systemId: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [DocumentFragment](https://developer.mozilla.org/en/docs/Web/API/DocumentFragment) to Kotlin\n */\npublic external open class DocumentFragment : Node, NonElementParentNode, ParentNode {\n   override val children: HTMLCollection\n   override val firstElementChild: Element?\n   override val lastElementChild: Element?\n   override val childElementCount: Int\n   override fun getElementById(elementId: String): Element?\n   override fun prepend(vararg nodes: dynamic)\n   override fun append(vararg nodes: dynamic)\n   override fun querySelector(selectors: String): Element?\n   override fun querySelectorAll(selectors: String): NodeList\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [ShadowRoot](https://developer.mozilla.org/en/docs/Web/API/ShadowRoot) to Kotlin\n */\npublic external open class ShadowRoot : DocumentFragment, DocumentOrShadowRoot {\n   open val mode: ShadowRootMode\n   open val host: Element\n   override val fullscreenElement: Element?\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n

val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [Element](https://developer.mozilla.org/en/docs/Web/API/Element) to Kotlin\n */\npublic external abstract class Element : Node, ParentNode,
 NonDocumentTypeChildNode, ChildNode, Slotable, GeometryUtils, UnionElementOrHTMLCollection, UnionElementOrRadioNodeList, UnionElementOrMouseEvent, UnionElementOrProcessingInstruction {\n   open val namespaceURI: String?\n   open val prefix: String?\n   open val localName: String\n   open val tagName: String\n   open var id: String\n   open var className: String\n   open val classList: DOMTokenList\n   open var slot: String\n   open val attributes: NamedNodeMap\n   open val shadowRoot: ShadowRoot?\n   open var scrollTop: Double\n   open var scrollLeft: Double\n   open val scrollWidth: Int\n   open val scrollHeight: Int\n   open val clientTop: Int\n   open val clientLeft: Int\n   open val clientWidth: Int\n   open val clientHeight: Int\n   open var innerHTML: String\n   open var outerHTML: String\n   fun hasAttributes(): Boolean\n   fun getAttributeNames(): Array<String>\n   fun getAttribute(qualifiedName: String): String?\n   fun getAttributeNS(namespace:
 String?, localName: String): String?\n   fun setAttribute(qualifiedName: String, value: String)\n   fun setAttributeNS(namespace: String?, qualifiedName: String, value: String)\n   fun removeAttribute(qualifiedName: String)\n   fun removeAttributeNS(namespace: String?, localName: String)\n   fun hasAttribute(qualifiedName: String): Boolean\n   fun hasAttributeNS(namespace: String?, localName: String): Boolean\n   fun getAttributeNode(qualifiedName: String): Attr?\n   fun getAttributeNodeNS(namespace: String?, localName: String): Attr?\n   fun setAttributeNode(attr: Attr): Attr?\n   fun setAttributeNodeNS(attr: Attr): Attr?\n   fun removeAttributeNode(attr: Attr): Attr\n   fun attachShadow(init: ShadowRootInit): ShadowRoot\n   fun closest(selectors: String): Element?\n   fun matches(selectors: String): Boolean\n   fun webkitMatchesSelector(selectors: String): Boolean\n   fun getElementsByTagName(qualifiedName: String): HTMLCollection\n   fun getElementsByTagNameNS(namespace:
 String?, localName: String): HTMLCollection\n   fun getElementsByClassName(classNames: String): HTMLCollection\n   fun insertAdjacentElement(where: String, element: Element): Element?\n   fun insertAdjacentText(where: String, data: String)\n   fun getClientRects(): Array<DOMRect>\n   fun getBoundingClientRect(): DOMRect\n   fun scrollIntoView()\n   fun scrollIntoView(arg: dynamic)\n   fun scroll(options: ScrollToOptions = definedExternally)\n   fun scroll(x: Double, y: Double)\n   fun scrollTo(options: ScrollToOptions = definedExternally)\n   fun scrollTo(x: Double, y: Double)\n   fun scrollBy(options: ScrollToOptions = definedExternally)\n   fun scrollBy(x: Double, y: Double)\n   fun insertAdjacentHTML(position: String, text: String)\n   fun setPointerCapture(pointerId: Int)\n   fun releasePointerCapture(pointerId: Int)\n   fun hasPointerCapture(pointerId: Int): Boolean\n   fun requestFullscreen(): Promise<Unit>\n\n   companion object {\n   val ELEMENT_NODE:
 Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val

DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external interface ShadowRootInit {\n   var mode: ShadowRootMode?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ShadowRootInit(mode: ShadowRootMode?): ShadowRootInit {\n   val o = js(\"({})\")\n   o[\"mode\"] = mode\n   return o\n}\n\n/**\n * Exposes the JavaScript [NamedNodeMap](https://developer.mozilla.org/en/docs/Web/API/NamedNodeMap) to Kotlin\n */\npublic external abstract class NamedNodeMap : ItemArrayLike<Attr> {\n   fun getNamedItemNS(namespace: String?, localName: String): Attr?\n   fun setNamedItem(attr: Attr): Attr?\n   fun setNamedItemNS(attr: Attr): Attr?\n   fun removeNamedItem(qualifiedName: String): Attr\n   fun removeNamedItemNS(namespace: String?, localName: String): Attr\n   override fun item(index: Int): Attr?\n   fun getNamedItem(qualifiedName: String): Attr?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun NamedNodeMap.get(index: Int): Attr? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun NamedNodeMap.get(qualifiedName: String): Attr? = asDynamic()[qualifiedName]\n\n/**\n * Exposes the JavaScript [Attr](https://developer.mozilla.org/en/docs/Web/API/Attr) to Kotlin\n */\npublic external abstract class Attr : Node {\n   open val namespaceURI: String?\n   open val prefix: String?\n   open val localName: String\n   open val name: String\n   open var value: String\n   open val ownerElement: Element?\n   open val specified: Boolean\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [CharacterData](https://developer.mozilla.org/en/docs/Web/API/CharacterData) to Kotlin\n */\npublic external abstract class CharacterData : Node, NonDocumentTypeChildNode, ChildNode {\n   open var data: String\n   open val length: Int\n   fun substringData(offset: Int, count: Int): String\n   fun appendData(data: String)\n   fun insertData(offset: Int, data: String)\n   fun deleteData(offset: Int, count: Int)\n   fun replaceData(offset: Int, count: Int, data: String)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [Text](https://developer.mozilla.org/en/docs/Web/API/Text) to Kotlin\n */\npublic external open class Text(data: String = definedExternally) : CharacterData, Slotable, GeometryUtils {\n   open val wholeText: String\n   override val assignedSlot: HTMLSlotElement?\n   override val previousElementSibling: Element?\n   override val nextElementSibling: Element?\n   fun splitText(offset: Int): Text\n   override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n   override fun convertQuadFromNode(quad:

dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n override fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n override fun convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n override fun before(vararg nodes: dynamic)\n override fun after(vararg nodes: dynamic)\n override fun replaceWith(vararg nodes: dynamic)\n override fun remove()\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [CDATASection](https://developer.mozilla.org/en/docs/Web/API/CDATASection) to Kotlin\n */\npublic external open class CDATASection : Text {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [ProcessingInstruction](https://developer.mozilla.org/en/docs/Web/API/ProcessingInstruction) to Kotlin\n */\npublic external abstract class ProcessingInstruction : CharacterData, LinkStyle, UnionElementOrProcessingInstruction {\n open val target: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [Comment](https://developer.mozilla.org/en/docs/Web/API/Comment) to Kotlin\n */\npublic external open class Comment(data: String = definedExternally) : CharacterData {\n override val previousElementSibling: Element?\n override val nextElementSibling: Element?\n override fun before(vararg nodes: dynamic)\n override fun after(vararg nodes: dynamic)\n override fun replaceWith(vararg nodes: dynamic)\n override fun remove()\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val

DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [Range](https://developer.mozilla.org/en/docs/Web/API/Range) to Kotlin\n */\npublic external open class Range {\n   open val startContainer: Node\n   open val startOffset: Int\n   open val endContainer: Node\n   open val endOffset: Int\n   open val collapsed: Boolean\n   open val commonAncestorContainer: Node\n   fun setStart(node: Node, offset: Int)\n   fun setEnd(node: Node, offset: Int)\n   fun setStartBefore(node: Node)\n   fun setStartAfter(node: Node)\n   fun setEndBefore(node: Node)\n   fun setEndAfter(node: Node)\n   fun collapse(toStart: Boolean = definedExternally)\n   fun selectNode(node: Node)\n   fun selectNodeContents(node: Node)\n   fun compareBoundaryPoints(how: Short, sourceRange: Range): Short\n   fun deleteContents()\n   fun extractContents(): DocumentFragment\n   fun cloneContents(): DocumentFragment\n   fun insertNode(node: Node)\n   fun surroundContents(newParent: Node)\n   fun cloneRange(): Range\n   fun detach()\n   fun isPointInRange(node: Node, offset: Int): Boolean\n   fun comparePoint(node: Node, offset: Int): Short\n   fun intersectsNode(node: Node): Boolean\n   fun getClientRects(): Array<DOMRect>\n   fun getBoundingClientRect(): DOMRect\n   fun createContextualFragment(fragment: String): DocumentFragment\n\n   companion object {\n   val START_TO_START: Short\n   val START_TO_END: Short\n   val END_TO_END: Short\n   val END_TO_START: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [NodeIterator](https://developer.mozilla.org/en/docs/Web/API/NodeIterator) to Kotlin\n */\npublic external abstract class NodeIterator {\n   open val root: Node\n   open val referenceNode: Node\n   open val pointerBeforeReferenceNode: Boolean\n   open val whatToShow: Int\n   open val filter: NodeFilter?\n   fun nextNode(): Node?\n   fun previousNode(): Node?\n   fun detach()\n}\n\n/**\n * Exposes the JavaScript [TreeWalker](https://developer.mozilla.org/en/docs/Web/API/TreeWalker) to Kotlin\n */\npublic external abstract class TreeWalker {\n   open val root: Node\n   open val whatToShow: Int\n   open val filter: NodeFilter?\n   open var currentNode: Node\n   fun parentNode(): Node?\n   fun firstChild(): Node?\n   fun lastChild(): Node?\n   fun previousSibling(): Node?\n   fun nextSibling(): Node?\n   fun previousNode(): Node?\n   fun nextNode(): Node?\n}\n\n/**\n * Exposes the JavaScript [NodeFilter](https://developer.mozilla.org/en/docs/Web/API/NodeFilter) to Kotlin\n */\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface NodeFilter {\n   fun acceptNode(node: Node): Short\n\n   companion object {\n   val FILTER_ACCEPT: Short\n   val FILTER_REJECT: Short\n   val FILTER_SKIP: Short\n   val SHOW_ALL: Int\n   val SHOW_ELEMENT: Int\n   val SHOW_ATTRIBUTE: Int\n   val SHOW_TEXT: Int\n   val SHOW_CDATA_SECTION: Int\n   val SHOW_ENTITY_REFERENCE: Int\n   val SHOW_ENTITY: Int\n   val SHOW_PROCESSING_INSTRUCTION: Int\n   val SHOW_COMMENT: Int\n   val SHOW_DOCUMENT: Int\n   val SHOW_DOCUMENT_TYPE: Int\n   val SHOW_DOCUMENT_FRAGMENT: Int\n   val SHOW_NOTATION: Int\n   }\n}\n\n/**\n * Exposes the JavaScript [DOMTokenList](https://developer.mozilla.org/en/docs/Web/API/DOMTokenList) to Kotlin\n */\npublic external abstract class DOMTokenList : ItemArrayLike<String> {\n   open var value: String\n   fun contains(token: String): Boolean\n   fun add(vararg tokens: String)\n   fun remove(vararg tokens: String)\n   fun toggle(token: String, force: Boolean = definedExternally): Boolean\n   fun replace(token: String, newToken: String)\n   fun supports(token: String): Boolean\n   override fun item(index: Int): String?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun DOMTokenList.get(index: Int): String? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [DOMPointReadOnly](https://developer.mozilla.org/en/docs/Web/API/DOMPointReadOnly) to Kotlin\n */\npublic external open class DOMPointReadOnly(x: Double, y: Double, z: Double, w: Double) {\n   open val x: Double\n   open val y: Double\n   open val z: Double\n   open val w: Double\n   fun matrixTransform(matrix:

DOMMatrixReadOnly):
 DOMPoint\n}\n\n/**\n * Exposes the JavaScript
[DOMPoint](https://developer.mozilla.org/en/docs/Web/API/DOMPoint) to Kotlin\n */\npublic external open class
DOMPoint : DOMPointReadOnly {\n   constructor(point: DOMPointInit)\n   constructor(x: Double =
definedExternally, y: Double = definedExternally, z: Double = definedExternally, w: Double = definedExternally)\n
 override var x: Double\n   override var y: Double\n   override var z: Double\n   override var w:
Double\n}\n\n/**\n * Exposes the JavaScript
[DOMPointInit](https://developer.mozilla.org/en/docs/Web/API/DOMPointInit) to Kotlin\n */\npublic external
interface DOMPointInit {\n   var x: Double? /* = 0.0 */\n   get() = definedExternally\n   set(value) =
definedExternally\n   var y: Double? /* = 0.0 */\n   get() = definedExternally\n   set(value) =
definedExternally\n   var z: Double? /* = 0.0 */\n   get() = definedExternally\n   set(value) =
definedExternally\n   var w: Double? /* = 1.0 */\n
        get() = definedExternally\n   set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun DOMPointInit(x: Double? = 0.0, y:
Double? = 0.0, z: Double? = 0.0, w: Double? = 1.0): DOMPointInit {\n   val o = js(\"({})\")\n   o[\"x\"] = x\n
o[\"y\"] = y\n   o[\"z\"] = z\n   o[\"w\"] = w\n   return o\n}\n\n/**\n * Exposes the JavaScript
[DOMRect](https://developer.mozilla.org/en/docs/Web/API/DOMRect) to Kotlin\n */\npublic external open class
DOMRect(x: Double = definedExternally, y: Double = definedExternally, width: Double = definedExternally,
height: Double = definedExternally) : DOMRectReadOnly {\n   override var x: Double\n   override var y: Double\n
  override var width: Double\n   override var height: Double\n}\n\n/**\n * Exposes the JavaScript
[DOMRectReadOnly](https://developer.mozilla.org/en/docs/Web/API/DOMRectReadOnly) to Kotlin\n */\npublic
external open class DOMRectReadOnly(x:
 Double, y: Double, width: Double, height: Double) {\n   open val x: Double\n   open val y: Double\n   open val
width: Double\n   open val height: Double\n   open val top: Double\n   open val right: Double\n   open val bottom:
Double\n   open val left: Double\n}\n\npublic external interface DOMRectInit {\n   var x: Double? /* = 0.0 */\n
get() = definedExternally\n   set(value) = definedExternally\n   var y: Double? /* = 0.0 */\n   get() =
definedExternally\n   set(value) = definedExternally\n   var width: Double? /* = 0.0 */\n   get() =
definedExternally\n   set(value) = definedExternally\n   var height: Double? /* = 0.0 */\n   get() =
definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun DOMRectInit(x: Double? = 0.0, y:
Double? = 0.0, width: Double? = 0.0, height: Double? = 0.0): DOMRectInit {\n   val o = js(\"({})\")\n
    o[\"x\"] = x\n   o[\"y\"] = y\n   o[\"width\"] = width\n   o[\"height\"] = height\n   return o\n}\n\npublic external
interface DOMRectList : ItemArrayLike<DOMRect> {\n   override fun item(index: Int):
DOMRect?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun DOMRectList.get(index: Int):
DOMRect? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript
[DOMQuad](https://developer.mozilla.org/en/docs/Web/API/DOMQuad) to Kotlin\n */\npublic external open class
DOMQuad {\n   constructor(p1: DOMPointInit = definedExternally, p2: DOMPointInit = definedExternally, p3:
DOMPointInit = definedExternally, p4: DOMPointInit = definedExternally)\n   constructor(rect: DOMRectInit)\n
open val p1: DOMPoint\n   open val p2: DOMPoint\n   open val p3: DOMPoint\n   open val p4: DOMPoint\n
open val bounds: DOMRectReadOnly\n}\n\n/**\n * Exposes the JavaScript
[DOMMatrixReadOnly](https://developer.mozilla.org/en/docs/Web/API/DOMMatrixReadOnly)
 to Kotlin\n */\npublic external open class DOMMatrixReadOnly(numberSequence: Array<Double>) {\n   open val
a: Double\n   open val b: Double\n   open val c: Double\n   open val d: Double\n   open val e: Double\n   open val
f: Double\n   open val m11: Double\n   open val m12: Double\n   open val m13: Double\n   open val m14:
Double\n   open val m21: Double\n   open val m22: Double\n   open val m23: Double\n   open val m24: Double\n
 open val m31: Double\n   open val m32: Double\n   open val m33: Double\n   open val m34: Double\n   open val

m41: Double\n   open val m42: Double\n   open val m43: Double\n   open val m44: Double\n   open val is2D: Boolean\n   open val isIdentity: Boolean\n   fun translate(tx: Double, ty: Double, tz: Double = definedExternally): DOMMatrix\n   fun scale(scale: Double, originX: Double = definedExternally, originY: Double = definedExternally): DOMMatrix\n   fun scale3d(scale: Double, originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double = definedExternally): DOMMatrix\n   fun scaleNonUniform(scaleX: Double, scaleY: Double = definedExternally, scaleZ: Double = definedExternally, originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double = definedExternally): DOMMatrix\n   fun rotate(angle: Double, originX: Double = definedExternally, originY: Double = definedExternally): DOMMatrix\n   fun rotateFromVector(x: Double, y: Double): DOMMatrix\n   fun rotateAxisAngle(x: Double, y: Double, z: Double, angle: Double): DOMMatrix\n   fun skewX(sx: Double): DOMMatrix\n   fun skewY(sy: Double): DOMMatrix\n   fun multiply(other: DOMMatrix): DOMMatrix\n   fun flipX(): DOMMatrix\n   fun flipY(): DOMMatrix\n   fun inverse(): DOMMatrix\n   fun transformPoint(point: DOMPointInit = definedExternally): DOMPoint\n   fun toFloat32Array(): Float32Array\n   fun toFloat64Array(): Float64Array\n}\n\n/**\n * Exposes the JavaScript [DOMMatrix](https://developer.mozilla.org/en/docs/Web/API/DOMMatrix) to Kotlin\n */\npublic external open class DOMMatrix() : DOMMatrixReadOnly {\n   constructor(transformList: String)\n   constructor(other: DOMMatrixReadOnly)\n   constructor(array32: Float32Array)\n   constructor(array64: Float64Array)\n   constructor(numberSequence: Array<Double>)\n   override var a: Double\n   override var b: Double\n   override var c: Double\n   override var d: Double\n   override var e: Double\n   override var f: Double\n   override var m11: Double\n   override var m12: Double\n   override var m13: Double\n   override var m14: Double\n   override var m21: Double\n   override var m22: Double\n   override var m23: Double\n   override var m24: Double\n   override var m31: Double\n   override var m32: Double\n   override var m33: Double\n   override var m34: Double\n   override var m41: Double\n   override var m42: Double\n   override var m43: Double\n   override var m44: Double\n   fun multiplySelf(other: DOMMatrix): DOMMatrix\n   fun preMultiplySelf(other: DOMMatrix): DOMMatrix\n   fun translateSelf(tx: Double, ty: Double, tz: Double = definedExternally): DOMMatrix\n   fun scaleSelf(scale: Double, originX: Double = definedExternally, originY: Double = definedExternally): DOMMatrix\n   fun scale3dSelf(scale: Double, originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double = definedExternally): DOMMatrix\n   fun scaleNonUniformSelf(scaleX: Double, scaleY: Double = definedExternally, scaleZ: Double = definedExternally, originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double = definedExternally): DOMMatrix\n   fun rotateSelf(angle: Double, originX: Double = definedExternally, originY: Double = definedExternally): DOMMatrix\n   fun rotateFromVectorSelf(x: Double, y: Double): DOMMatrix\n   fun rotateAxisAngleSelf(x: Double, y: Double, z: Double, angle: Double): DOMMatrix\n   fun skewXSelf(sx: Double): DOMMatrix\n   fun skewYSelf(sy: Double): DOMMatrix\n   fun invertSelf(): DOMMatrix\n   fun setMatrixValue(transformList: String): DOMMatrix\n}\n\npublic external interface ScrollOptions {\n   var behavior: ScrollBehavior? /* = ScrollBehavior.AUTO */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ScrollOptions(behavior: ScrollBehavior? = ScrollBehavior.AUTO): ScrollOptions {\n   val o = js(\"({})\")\n   o[\"behavior\"] = behavior\n   return o\n}\n\n/**\n * Exposes the JavaScript [ScrollToOptions](https://developer.mozilla.org/en/docs/Web/API/ScrollToOptions) to Kotlin\n */\npublic external interface ScrollToOptions : ScrollOptions {\n   var left: Double?\n   get() = definedExternally\n   set(value) = definedExternally\n   var top: Double?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ScrollToOptions(left: Double? = undefined, top: Double? = undefined, behavior: ScrollBehavior? = ScrollBehavior.AUTO): ScrollToOptions {\n   val o = js(\"({})\")\n   o[\"left\"] = left\n   o[\"top\"] = top\n   o[\"behavior\"] = behavior\n   return o\n}\n\n/**\n *

Exposes the JavaScript [MediaQueryList](https://developer.mozilla.org/en/docs/Web/API/MediaQueryList) to Kotlin\n */\npublic external abstract class MediaQueryList : EventTarget {\n   open val media: String\n   open val matches: Boolean\n   open var onchange: ((Event) -> dynamic)?\n   fun addListener(listener: EventListener?)\n   fun addListener(listener: ((Event) -> Unit)?)\n   fun removeListener(listener: EventListener?)\n   fun removeListener(listener: ((Event) -> Unit)?)\n}\n\n/**\n * Exposes the JavaScript [MediaQueryListEvent](https://developer.mozilla.org/en/docs/Web/API/MediaQueryListEvent) to Kotlin\n */\npublic external open class MediaQueryListEvent(type: String, eventInitDict: MediaQueryListEventInit = definedExternally) : Event {\n   open val media: String\n   open val matches: Boolean\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface MediaQueryListEventInit : EventInit {\n   var media: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var matches: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaQueryListEventInit(media: String? = \"\", matches: Boolean? = false, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): MediaQueryListEventInit {\n   val o = js(\"({})\")\n   o[\"media\"] = media\n   o[\"matches\"] = matches\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [Screen](https://developer.mozilla.org/en/docs/Web/API/Screen) to Kotlin\n */\npublic external abstract class Screen {\n   open val availWidth: Int\n   open val availHeight: Int\n   open val width: Int\n   open val height: Int\n   open val colorDepth: Int\n   open val pixelDepth: Int\n}\n\n/**\n * Exposes the JavaScript [CaretPosition](https://developer.mozilla.org/en/docs/Web/API/CaretPosition) to Kotlin\n */\npublic external abstract class CaretPosition {\n   open val offsetNode: Node\n   open val offset: Int\n   fun getClientRect(): DOMRect?\n}\n\npublic external interface ScrollIntoViewOptions : ScrollOptions {\n   var block: ScrollLogicalPosition? /* = ScrollLogicalPosition.CENTER */\n   get() = definedExternally\n   set(value) = definedExternally\n   var inline: ScrollLogicalPosition? /* = ScrollLogicalPosition.CENTER */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ScrollIntoViewOptions(block: ScrollLogicalPosition? = ScrollLogicalPosition.CENTER, inline: ScrollLogicalPosition? = ScrollLogicalPosition.CENTER, behavior: ScrollBehavior? = ScrollBehavior.AUTO): ScrollIntoViewOptions {\n   val o = js(\"({})\")\n   o[\"block\"] = block\n   o[\"inline\"] = inline\n   o[\"behavior\"] = behavior\n   return o\n}\n\npublic external interface BoxQuadOptions {\n   var box: CSSBoxType? /* = CSSBoxType.BORDER */\n   get() = definedExternally\n   set(value) = definedExternally\n   var relativeTo: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun BoxQuadOptions(box: CSSBoxType? = CSSBoxType.BORDER, relativeTo: dynamic = undefined): BoxQuadOptions {\n   val o = js(\"({})\")\n   o[\"box\"] = box\n   o[\"relativeTo\"] = relativeTo\n   return o\n}\n\npublic external interface ConvertCoordinateOptions {\n   var fromBox: CSSBoxType? /* = CSSBoxType.BORDER */\n   get() = definedExternally\n   set(value) = definedExternally\n   var toBox: CSSBoxType? /* = CSSBoxType.BORDER */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConvertCoordinateOptions(fromBox: CSSBoxType? = CSSBoxType.BORDER, toBox: CSSBoxType? = CSSBoxType.BORDER): ConvertCoordinateOptions {\n   val o = js(\"({})\")\n   o[\"fromBox\"] = fromBox\n   o[\"toBox\"] = toBox\n   return o\n}\n\n/**\n * Exposes the JavaScript [GeometryUtils](https://developer.mozilla.org/en/docs/Web/API/GeometryUtils) to Kotlin\n */\npublic external

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interface GeometryUtils {\n    fun
 getBoxQuads(options: BoxQuadOptions = definedExternally): Array<DOMQuad>\n    fun
convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions = definedExternally):
DOMQuad\n    fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options:
ConvertCoordinateOptions = definedExternally): DOMQuad\n    fun convertPointFromNode(point: DOMPointInit,
from: dynamic, options: ConvertCoordinateOptions = definedExternally): DOMPoint\n}\n\n/**\n * Exposes the
JavaScript [Touch](https://developer.mozilla.org/en/docs/Web/API/Touch) to Kotlin\n */\npublic external abstract
class Touch {\n    open val identifier: Int\n    open val target: EventTarget\n    open val screenX: Int\n    open val
screenY: Int\n    open val clientX: Int\n    open val clientY: Int\n    open val pageX: Int\n    open val pageY: Int\n
open val region: String?\n}\n\npublic external abstract class TouchList : ItemArrayLike<Touch> {\n    override fun
item(index: Int): Touch?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
 \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun TouchList.get(index: Int):
Touch? = asDynamic()[index]\n\npublic external open class TouchEvent : UIEvent {\n    open val touches:
TouchList\n    open val targetTouches: TouchList\n    open val changedTouches: TouchList\n    open val altKey:
Boolean\n    open val metaKey: Boolean\n    open val ctrlKey: Boolean\n    open val shiftKey: Boolean\n\n
companion object {\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET:
Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[Image](https://developer.mozilla.org/en/docs/Web/API/Image) to Kotlin\n */\npublic external open class
Image(width: Int = definedExternally, height: Int = definedExternally) : HTMLImageElement {\n    override var
onabort: ((Event) -> dynamic)?\n    override var onblur: ((FocusEvent) -> dynamic)?\n    override var oncancel:
((Event) -> dynamic)?\n    override
 var oncanplay: ((Event) -> dynamic)?\n    override var oncanplaythrough: ((Event) -> dynamic)?\n    override var
onchange: ((Event) -> dynamic)?\n    override var onclick: ((MouseEvent) -> dynamic)?\n    override var onclose:
((Event) -> dynamic)?\n    override var oncontextmenu: ((MouseEvent) -> dynamic)?\n    override var oncuechange:
((Event) -> dynamic)?\n    override var ondblclick: ((MouseEvent) -> dynamic)?\n    override var ondrag:
((DragEvent) -> dynamic)?\n    override var ondragend: ((DragEvent) -> dynamic)?\n    override var ondragenter:
((DragEvent) -> dynamic)?\n    override var ondragexit: ((DragEvent) -> dynamic)?\n    override var ondragleave:
((DragEvent) -> dynamic)?\n    override var ondragover: ((DragEvent) -> dynamic)?\n    override var ondragstart:
((DragEvent) -> dynamic)?\n    override var ondrop: ((DragEvent) -> dynamic)?\n    override var ondurationchange:
((Event) -> dynamic)?\n    override var onemptied: ((Event) -> dynamic)?\n    override var onended: ((Event)
 -> dynamic)?\n    override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n    override var onfocus:
((FocusEvent) -> dynamic)?\n    override var oninput: ((InputEvent) -> dynamic)?\n    override var oninvalid:
((Event) -> dynamic)?\n    override var onkeydown: ((KeyboardEvent) -> dynamic)?\n    override var onkeypress:
((KeyboardEvent) -> dynamic)?\n    override var onkeyup: ((KeyboardEvent) -> dynamic)?\n    override var onload:
((Event) -> dynamic)?\n    override var onloadeddata: ((Event) -> dynamic)?\n    override var onloadedmetadata:
((Event) -> dynamic)?\n    override var onloadend: ((Event) -> dynamic)?\n    override var onloadstart:
((ProgressEvent) -> dynamic)?\n    override var onmousedown: ((MouseEvent) -> dynamic)?\n    override var
onmouseenter: ((MouseEvent) -> dynamic)?\n    override var onmouseleave: ((MouseEvent) -> dynamic)?\n
override var onmousemove: ((MouseEvent) -> dynamic)?\n    override var onmouseout: ((MouseEvent) ->
dynamic)?\n    override
 var onmouseover: ((MouseEvent) -> dynamic)?\n    override var onmouseup: ((MouseEvent) -> dynamic)?\n
override var onwheel: ((WheelEvent) -> dynamic)?\n    override var onpause: ((Event) -> dynamic)?\n    override
var onplay: ((Event) -> dynamic)?\n    override var onplaying: ((Event) -> dynamic)?\n    override var onprogress:
((ProgressEvent) -> dynamic)?\n    override var onratechange: ((Event) -> dynamic)?\n    override var onreset:
((Event) -> dynamic)?\n    override var onresize: ((Event) -> dynamic)?\n    override var onscroll: ((Event) ->
dynamic)?\n    override var onseeked: ((Event) -> dynamic)?\n    override var onseeking: ((Event) -> dynamic)?\n
override var onselect: ((Event) -> dynamic)?\n    override var onshow: ((Event) -> dynamic)?\n    override var
onstalled: ((Event) -> dynamic)?\n    override var onsubmit: ((Event) -> dynamic)?\n    override var onsuspend:
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((Event) -> dynamic)?\n   override var ontimeupdate: ((Event) -> dynamic)?\n   override var ontoggle: ((Event) -> dynamic)?\n   override var onvolumechange: ((Event) -> dynamic)?\n   override var onwaiting: ((Event) -> dynamic)?\n   override var ongotpointercapture: ((PointerEvent) -> dynamic)?\n   override var onlostpointercapture: ((PointerEvent) -> dynamic)?\n   override var onpointerdown: ((PointerEvent) -> dynamic)?\n   override var onpointermove: ((PointerEvent) -> dynamic)?\n   override var onpointerup: ((PointerEvent) -> dynamic)?\n   override var onpointercancel: ((PointerEvent) -> dynamic)?\n   override var onpointerover: ((PointerEvent) -> dynamic)?\n   override var onpointerout: ((PointerEvent) -> dynamic)?\n   override var onpointerenter: ((PointerEvent) -> dynamic)?\n   override var onpointerleave: ((PointerEvent) -> dynamic)?\n   override var oncopy: ((ClipboardEvent) -> dynamic)?\n   override var oncut: ((ClipboardEvent) -> dynamic)?\n   override var onpaste: ((ClipboardEvent) -> dynamic)?\n   override var contentEditable: String\n   override val isContentEditable: Boolean\n   override val style: CSSStyleDeclaration\n   override val children: HTMLCollection\n   override val firstElementChild: Element?\n   override val lastElementChild: Element?\n   override val childElementCount: Int\n   override val previousElementSibling: Element?\n   override val nextElementSibling: Element?\n   override val assignedSlot: HTMLSlotElement?\n   override fun prepend(vararg nodes: dynamic)\n   override fun append(vararg nodes: dynamic)\n   override fun querySelector(selectors: String): Element?\n   override fun querySelectorAll(selectors: String): NodeList\n   override fun before(vararg nodes: dynamic)\n   override fun after(vararg nodes: dynamic)\n   override fun replaceWith(vararg nodes: dynamic)\n   override fun remove()\n   override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n   override fun convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external open class Audio(src: String = definedExternally) : HTMLAudioElement {\n   override var onabort: ((Event) -> dynamic)?\n   override var onblur: ((FocusEvent) -> dynamic)?\n   override var oncancel: ((Event) -> dynamic)?\n   override var oncanplay: ((Event) -> dynamic)?\n   override var oncanplaythrough: ((Event) -> dynamic)?\n   override var onchange: ((Event) -> dynamic)?\n   override var onclick: ((MouseEvent) -> dynamic)?\n   override var onclose: ((Event) -> dynamic)?\n   override var oncontextmenu: ((MouseEvent) -> dynamic)?\n   override var oncuechange: ((Event) -> dynamic)?\n   override var ondblclick: ((MouseEvent) -> dynamic)?\n   override var ondrag: ((DragEvent) -> dynamic)?\n   override var ondragend: ((DragEvent) -> dynamic)?\n   override var ondragenter: ((DragEvent) -> dynamic)?\n   override var ondragexit: ((DragEvent) -> dynamic)?\n   override var ondragleave: ((DragEvent) -> dynamic)?\n   override var ondragover: ((DragEvent) -> dynamic)?\n   override var ondragstart: ((DragEvent) -> dynamic)?\n   override var ondrop: ((DragEvent) -> dynamic)?\n   override var ondurationchange: ((Event) -> dynamic)?\n   override var onemptied: ((Event) -> dynamic)?\n   override var onended: ((Event) -> dynamic)?\n   override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n   override var onfocus: ((FocusEvent) -> dynamic)?\n   override var oninput: ((InputEvent) -> dynamic)?\n   override var oninvalid: ((Event) -> dynamic)?\n   override var onkeydown: ((KeyboardEvent) -> dynamic)?\n   override var onkeypress: ((KeyboardEvent) -> dynamic)?\n   override var onkeyup: ((KeyboardEvent) -> dynamic)?\n   override var onload: ((Event) -> dynamic)?\n   override var onloadeddata:

((Event) -> dynamic)?\n override var onloadedmetadata: ((Event) -> dynamic)?\n override var onloadend: ((Event) -> dynamic)?\n

override var onloadstart: ((ProgressEvent) -> dynamic)?\n override var onmousedown: ((MouseEvent) -> dynamic)?\n override var onmouseenter: ((MouseEvent) -> dynamic)?\n override var onmouseleave: ((MouseEvent) -> dynamic)?\n override var onmousemove: ((MouseEvent) -> dynamic)?\n override var onmouseout: ((MouseEvent) -> dynamic)?\n override var onmouseover: ((MouseEvent) -> dynamic)?\n override var onmouseup: ((MouseEvent) -> dynamic)?\n override var onwheel: ((WheelEvent) -> dynamic)?\n override var onpause: ((Event) -> dynamic)?\n override var onplay: ((Event) -> dynamic)?\n override var onplaying: ((Event) -> dynamic)?\n override var onprogress: ((ProgressEvent) -> dynamic)?\n override var onratechange: ((Event) -> dynamic)?\n override var onreset: ((Event) -> dynamic)?\n override var onresize: ((Event) -> dynamic)?\n override var onscroll: ((Event) -> dynamic)?\n override var onseeked: ((Event) -> dynamic)?\n override var onseeking: ((Event) -> dynamic)?\n override var onselect: ((Event) -> dynamic)?\n override var onshow: ((Event) -> dynamic)?\n override var onstalled: ((Event) -> dynamic)?\n override var onsubmit: ((Event) -> dynamic)?\n override var onsuspend: ((Event) -> dynamic)?\n override var ontimeupdate: ((Event) -> dynamic)?\n override var ontoggle: ((Event) -> dynamic)?\n override var onvolumechange: ((Event) -> dynamic)?\n override var onwaiting: ((Event) -> dynamic)?\n override var ongotpointercapture: ((PointerEvent) -> dynamic)?\n override var onlostpointercapture: ((PointerEvent) -> dynamic)?\n override var onpointerdown: ((PointerEvent) -> dynamic)?\n override var onpointermove: ((PointerEvent) -> dynamic)?\n override var onpointerup: ((PointerEvent) -> dynamic)?\n override var onpointercancel: ((PointerEvent) -> dynamic)?\n override var onpointerover: ((PointerEvent) -> dynamic)?\n override var onpointerout: ((PointerEvent) -> dynamic)?\n

override var onpointerenter: ((PointerEvent) -> dynamic)?\n override var onpointerleave: ((PointerEvent) -> dynamic)?\n override var oncopy: ((ClipboardEvent) -> dynamic)?\n override var oncut: ((ClipboardEvent) -> dynamic)?\n override var onpaste: ((ClipboardEvent) -> dynamic)?\n override var contentEditable: String\n override val isContentEditable: Boolean\n override val style: CSSStyleDeclaration\n override val children: HTMLCollection\n override val firstElementChild: Element?\n override val lastElementChild: Element?\n override val childElementCount: Int\n override val previousElementSibling: Element?\n override val nextElementSibling: Element?\n override val assignedSlot: HTMLSlotElement?\n override fun prepend(vararg nodes: dynamic)\n override fun append(vararg nodes: dynamic)\n override fun querySelector(selectors: String): Element?\n override fun querySelectorAll(selectors: String): NodeList\n override fun before(vararg nodes: dynamic)\n override fun after(vararg nodes: dynamic)\n override fun replaceWith(vararg nodes: dynamic)\n override fun remove()\n override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n override fun convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n override fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n override fun convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n\n companion object {\n val NETWORK_EMPTY: Short\n val NETWORK_IDLE: Short\n val NETWORK_LOADING: Short\n val NETWORK_NO_SOURCE: Short\n val HAVE_NOTHING: Short\n val HAVE_METADATA: Short\n val HAVE_CURRENT_DATA: Short\n val HAVE_FUTURE_DATA: Short\n val HAVE_ENOUGH_DATA: Short\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n

val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [Option](https://developer.mozilla.org/en/docs/Web/API/Option) to Kotlin\n */\npublic external open class Option(text: String = definedExternally, value: String = definedExternally, defaultSelected: Boolean = definedExternally, selected: Boolean = definedExternally) : HTMLOptionElement {\n   override var onabort: ((Event) -> dynamic)?\n   override var onblur: ((FocusEvent) -> dynamic)?\n   override var oncancel: ((Event) -> dynamic)?\n   override var oncanplay: ((Event) -> dynamic)?\n   override var oncanplaythrough: ((Event) -> dynamic)?\n   override var onchange: ((Event) -> dynamic)?\n   override var onclick: ((MouseEvent) -> dynamic)?\n   override var onclose: ((Event) -> dynamic)?\n   override var oncontextmenu: ((MouseEvent) -> dynamic)?\n   override var oncuechange: ((Event) -> dynamic)?\n   override var ondblclick: ((MouseEvent) -> dynamic)?\n   override var ondrag: ((DragEvent) -> dynamic)?\n   override var ondragend: ((DragEvent) -> dynamic)?\n   override var ondragenter: ((DragEvent) -> dynamic)?\n   override var ondragexit: ((DragEvent) -> dynamic)?\n   override var ondragleave: ((DragEvent) -> dynamic)?\n   override var ondragover: ((DragEvent) -> dynamic)?\n   override var ondragstart: ((DragEvent) -> dynamic)?\n   override var ondrop: ((DragEvent) -> dynamic)?\n   override var ondurationchange: ((Event) -> dynamic)?\n   override var onemptied: ((Event) -> dynamic)?\n   override var onended: ((Event) -> dynamic)?\n   override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n   override var onfocus: ((FocusEvent) -> dynamic)?\n   override var oninput: ((InputEvent) -> dynamic)?\n   override var oninvalid: ((Event) -> dynamic)?\n   override var onkeydown: ((KeyboardEvent) -> dynamic)?\n   override var onkeypress: ((KeyboardEvent) -> dynamic)?\n   override var onkeyup: ((KeyboardEvent) -> dynamic)?\n   override var onload: ((Event) -> dynamic)?\n   override var onloadeddata: ((Event) -> dynamic)?\n   override var onloadedmetadata: ((Event) -> dynamic)?\n   override var onloadend: ((Event) -> dynamic)?\n   override var onloadstart: ((ProgressEvent) -> dynamic)?\n   override var onmousedown: ((MouseEvent) -> dynamic)?\n   override var onmouseenter: ((MouseEvent) -> dynamic)?\n   override var onmouseleave: ((MouseEvent) -> dynamic)?\n   override var onmousemove: ((MouseEvent) -> dynamic)?\n   override var onmouseout: ((MouseEvent) -> dynamic)?\n   override var onmouseover: ((MouseEvent) -> dynamic)?\n   override var onmouseup: ((MouseEvent) -> dynamic)?\n   override var onwheel: ((WheelEvent) -> dynamic)?\n   override var onpause: ((Event) -> dynamic)?\n   override var onplay: ((Event) -> dynamic)?\n   override var onplaying: ((Event) -> dynamic)?\n   override var onprogress: ((ProgressEvent) -> dynamic)?\n   override var onratechange: ((Event) -> dynamic)?\n   override var onreset: ((Event) -> dynamic)?\n   override var onresize: ((Event) -> dynamic)?\n   override var onscroll: ((Event) -> dynamic)?\n   override var onseeked: ((Event) -> dynamic)?\n   override var onseeking: ((Event) -> dynamic)?\n   override var onselect: ((Event) -> dynamic)?\n   override var onshow: ((Event) -> dynamic)?\n   override var onstalled: ((Event) -> dynamic)?\n   override var onsubmit: ((Event) -> dynamic)?\n   override var onsuspend: ((Event) -> dynamic)?\n   override var ontimeupdate: ((Event) -> dynamic)?\n   override var ontoggle: ((Event) -> dynamic)?\n   override var onvolumechange: ((Event) -> dynamic)?\n   override var onwaiting: ((Event) -> dynamic)?\n   override var ongotpointercapture: ((PointerEvent) -> dynamic)?\n   override var onlostpointercapture: ((PointerEvent) -> dynamic)?\n   override var onpointerdown: ((PointerEvent) -> dynamic)?\n   override var onpointermove: ((PointerEvent) -> dynamic)?\n   override var onpointerup: ((PointerEvent) -> dynamic)?\n   override var onpointercancel: ((PointerEvent) -> dynamic)?\n   override var onpointerover: ((PointerEvent) -> dynamic)?\n   override var onpointerout: ((PointerEvent) -> dynamic)?\n   override var onpointerenter: ((PointerEvent) -> dynamic)?\n   override var onpointerleave: ((PointerEvent) -> dynamic)?\n   override var oncopy: ((ClipboardEvent) -> dynamic)?\n   override var oncut: ((ClipboardEvent) -> dynamic)?\n   override var onpaste: ((ClipboardEvent) -> dynamic)?\n   override var contentEditable: String\n   override val isContentEditable: Boolean\n   override val style: CSSStyleDeclaration\n   override val children: HTMLCollection\n   override val firstElementChild: Element?\n   override val lastElementChild: Element?\n   override val childElementCount: Int\n   override val previousElementSibling: Element?\n   override val nextElementSibling: Element?\n   override val assignedSlot: HTMLSlotElement?\n   override fun prepend(vararg nodes: dynamic)\n   override fun append(vararg nodes: dynamic)\n   override fun querySelector(selectors: String): Element?\n   override fun querySelectorAll(selectors: String): NodeList\n   override fun before(vararg nodes: dynamic)\n   override fun after(vararg nodes: dynamic)\n   override fun replaceWith(vararg nodes: dynamic)\n   override fun remove()\n   override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n   override fun convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external interface UnionElementOrHTMLCollection\n\npublic external interface UnionElementOrRadioNodeList\n\npublic external interface UnionHTMLOptGroupElementOrHTMLOptionElement\n\npublic external interface UnionAudioTrackOrTextTrackOrVideoTrack\n\npublic external interface UnionElementOrMouseEvent\n\npublic external interface UnionMessagePortOrWindowProxy\n\npublic external interface MediaProvider\n\npublic external interface RenderingContext\n\npublic external interface HTMLOrSVGImageElement : CanvasImageSource\n\npublic external interface CanvasImageSource : ImageBitmapSource\n\npublic external interface ImageBitmapSource\n\npublic external interface HTMLOrSVGScriptElement\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface DocumentReadyState {\n   companion object\n}\n\npublic inline val DocumentReadyState.Companion.LOADING: DocumentReadyState get() = \"loading\".asDynamic().unsafeCast<DocumentReadyState>()\n\npublic inline val DocumentReadyState.Companion.INTERACTIVE: DocumentReadyState get() = \"interactive\".asDynamic().unsafeCast<DocumentReadyState>()\n\npublic inline val DocumentReadyState.Companion.COMPLETE: DocumentReadyState get() = \"complete\".asDynamic().unsafeCast<DocumentReadyState>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface CanPlayTypeResult {\n   companion object\n}\n\npublic inline val CanPlayTypeResult.Companion.EMPTY: CanPlayTypeResult get() = \"\".asDynamic().unsafeCast<CanPlayTypeResult>()\n\npublic inline val CanPlayTypeResult.Companion.MAYBE: CanPlayTypeResult get() = \"maybe\".asDynamic().unsafeCast<CanPlayTypeResult>()\n\npublic inline val CanPlayTypeResult.Companion.PROBABLY: CanPlayTypeResult get() = \"probably\".asDynamic().unsafeCast<CanPlayTypeResult>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface TextTrackMode {\n   companion object\n}\n\npublic inline val TextTrackMode.Companion.DISABLED: TextTrackMode get() = \"disabled\".asDynamic().unsafeCast<TextTrackMode>()\n\npublic inline val TextTrackMode.Companion.HIDDEN: TextTrackMode get() = \"hidden\".asDynamic().unsafeCast<TextTrackMode>()\n\npublic inline val TextTrackMode.Companion.SHOWING: TextTrackMode get() =

\"showing\".asDynamic().unsafeCast<TextTrackMode>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface TextTrackKind {\n   companion object\n}\n\npublic inline val TextTrackKind.Companion.SUBTITLES: TextTrackKind get() = \"subtitles\".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val TextTrackKind.Companion.CAPTIONS: TextTrackKind get() = \"captions\".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val TextTrackKind.Companion.DESCRIPTIONS: TextTrackKind get() = \"descriptions\".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val TextTrackKind.Companion.CHAPTERS: TextTrackKind get() = \"chapters\".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val TextTrackKind.Companion.METADATA: TextTrackKind get() = \"metadata\".asDynamic().unsafeCast<TextTrackKind>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface SelectionMode {\n   companion object\n}\n\npublic inline val SelectionMode.Companion.SELECT: SelectionMode get() = \"select\".asDynamic().unsafeCast<SelectionMode>()\n\npublic inline val SelectionMode.Companion.START: SelectionMode get() = \"start\".asDynamic().unsafeCast<SelectionMode>()\n\npublic inline val SelectionMode.Companion.END: SelectionMode get() = \"end\".asDynamic().unsafeCast<SelectionMode>()\n\npublic inline val SelectionMode.Companion.PRESERVE: SelectionMode get() = \"preserve\".asDynamic().unsafeCast<SelectionMode>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface CanvasFillRule {\n   companion object\n}\n\npublic inline val CanvasFillRule.Companion.NONZERO: CanvasFillRule get() = \"nonzero\".asDynamic().unsafeCast<CanvasFillRule>()\n\npublic inline val CanvasFillRule.Companion.EVENODD: CanvasFillRule get() = \"evenodd\".asDynamic().unsafeCast<CanvasFillRule>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ImageSmoothingQuality {\n   companion object\n}\n\npublic inline val ImageSmoothingQuality.Companion.LOW: ImageSmoothingQuality get() = \"low\".asDynamic().unsafeCast<ImageSmoothingQuality>()\n\npublic inline val ImageSmoothingQuality.Companion.MEDIUM: ImageSmoothingQuality get() = \"medium\".asDynamic().unsafeCast<ImageSmoothingQuality>()\n\npublic inline val ImageSmoothingQuality.Companion.HIGH: ImageSmoothingQuality get() = \"high\".asDynamic().unsafeCast<ImageSmoothingQuality>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface CanvasLineCap {\n   companion object\n}\n\npublic inline val CanvasLineCap.Companion.BUTT: CanvasLineCap get() = \"butt\".asDynamic().unsafeCast<CanvasLineCap>()\n\npublic inline val CanvasLineCap.Companion.ROUND: CanvasLineCap get() = \"round\".asDynamic().unsafeCast<CanvasLineCap>()\n\npublic inline val CanvasLineCap.Companion.SQUARE: CanvasLineCap get() = \"square\".asDynamic().unsafeCast<CanvasLineCap>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface CanvasLineJoin {\n   companion object\n}\n\npublic inline val CanvasLineJoin.Companion.ROUND: CanvasLineJoin get() = \"round\".asDynamic().unsafeCast<CanvasLineJoin>()\n\npublic inline val CanvasLineJoin.Companion.BEVEL: CanvasLineJoin get() = \"bevel\".asDynamic().unsafeCast<CanvasLineJoin>()\n\npublic inline val CanvasLineJoin.Companion.MITER: CanvasLineJoin get() = \"miter\".asDynamic().unsafeCast<CanvasLineJoin>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface CanvasTextAlign {\n   companion object\n}\n\npublic inline val

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CanvasTextAlign.Companion.START: CanvasTextAlign get() =
\"start\".asDynamic().unsafeCast<CanvasTextAlign>()\n\npublic inline val CanvasTextAlign.Companion.END:
CanvasTextAlign get()
 = \"end\".asDynamic().unsafeCast<CanvasTextAlign>()\n\npublic inline val CanvasTextAlign.Companion.LEFT:
CanvasTextAlign get() = \"left\".asDynamic().unsafeCast<CanvasTextAlign>()\n\npublic inline val
CanvasTextAlign.Companion.RIGHT: CanvasTextAlign get() =
\"right\".asDynamic().unsafeCast<CanvasTextAlign>()\n\npublic inline val
CanvasTextAlign.Companion.CENTER: CanvasTextAlign get() =
\"center\".asDynamic().unsafeCast<CanvasTextAlign>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface CanvasTextBaseline {\n    companion object\n}\n\npublic inline val CanvasTextBaseline.Companion.TOP:
CanvasTextBaseline get() = \"top\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val
CanvasTextBaseline.Companion.HANGING: CanvasTextBaseline get() =
\"hanging\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val
CanvasTextBaseline.Companion.MIDDLE: CanvasTextBaseline get()
 = \"middle\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val
CanvasTextBaseline.Companion.ALPHABETIC: CanvasTextBaseline get() =
\"alphabetic\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val
CanvasTextBaseline.Companion.IDEOGRAPHIC: CanvasTextBaseline get() =
\"ideographic\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val
CanvasTextBaseline.Companion.BOTTOM: CanvasTextBaseline get() =
\"bottom\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface CanvasDirection {\n    companion object\n}\n\npublic inline val CanvasDirection.Companion.LTR:
CanvasDirection get() = \"ltr\".asDynamic().unsafeCast<CanvasDirection>()\n\npublic inline val
CanvasDirection.Companion.RTL: CanvasDirection get() =
\"rtl\".asDynamic().unsafeCast<CanvasDirection>()\n\npublic inline val CanvasDirection.Companion.INHERIT:
CanvasDirection
 get() = \"inherit\".asDynamic().unsafeCast<CanvasDirection>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface ScrollRestoration {\n    companion object\n}\n\npublic inline val ScrollRestoration.Companion.AUTO:
ScrollRestoration get() = \"auto\".asDynamic().unsafeCast<ScrollRestoration>()\n\npublic inline val
ScrollRestoration.Companion.MANUAL: ScrollRestoration get() =
\"manual\".asDynamic().unsafeCast<ScrollRestoration>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface ImageOrientation {\n    companion object\n}\n\npublic inline val ImageOrientation.Companion.NONE:
ImageOrientation get() = \"none\".asDynamic().unsafeCast<ImageOrientation>()\n\npublic inline val
ImageOrientation.Companion.FLIPY: ImageOrientation get() =
\"flipY\".asDynamic().unsafeCast<ImageOrientation>()\n\n/* please,
 don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface PremultiplyAlpha {\n    companion object\n}\n\npublic inline val PremultiplyAlpha.Companion.NONE:
PremultiplyAlpha get() = \"none\".asDynamic().unsafeCast<PremultiplyAlpha>()\n\npublic inline val
PremultiplyAlpha.Companion.PREMULTIPLY: PremultiplyAlpha get() =
\"premultiply\".asDynamic().unsafeCast<PremultiplyAlpha>()\n\npublic inline val
PremultiplyAlpha.Companion.DEFAULT: PremultiplyAlpha get() =
\"default\".asDynamic().unsafeCast<PremultiplyAlpha>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
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interface ColorSpaceConversion {\n   companion object\n}\n\npublic inline val
ColorSpaceConversion.Companion.NONE: ColorSpaceConversion get() =
\"none\".asDynamic().unsafeCast<ColorSpaceConversion>()\n\npublic inline val
ColorSpaceConversion.Companion.DEFAULT: ColorSpaceConversion
get() = \"default\".asDynamic().unsafeCast<ColorSpaceConversion>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface ResizeQuality {\n   companion object\n}\n\npublic inline val ResizeQuality.Companion.PIXELATED:
ResizeQuality get() = \"pixelated\".asDynamic().unsafeCast<ResizeQuality>()\n\npublic inline val
ResizeQuality.Companion.LOW: ResizeQuality get() =
\"low\".asDynamic().unsafeCast<ResizeQuality>()\n\npublic inline val ResizeQuality.Companion.MEDIUM:
ResizeQuality get() = \"medium\".asDynamic().unsafeCast<ResizeQuality>()\n\npublic inline val
ResizeQuality.Companion.HIGH: ResizeQuality get() = \"high\".asDynamic().unsafeCast<ResizeQuality>()\n\n/*
please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface BinaryType {\n   companion object\n}\n\npublic inline val BinaryType.Companion.BLOB: BinaryType
get() = \"blob\".asDynamic().unsafeCast<BinaryType>()\n\npublic inline val
BinaryType.Companion.ARRAYBUFFER: BinaryType get() =
\"arraybuffer\".asDynamic().unsafeCast<BinaryType>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface WorkerType {\n   companion object\n}\n\npublic inline val WorkerType.Companion.CLASSIC:
WorkerType get() = \"classic\".asDynamic().unsafeCast<WorkerType>()\n\npublic inline val
WorkerType.Companion.MODULE: WorkerType get() =
\"module\".asDynamic().unsafeCast<WorkerType>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface ShadowRootMode {\n   companion object\n}\n\npublic inline val ShadowRootMode.Companion.OPEN:
ShadowRootMode get() = \"open\".asDynamic().unsafeCast<ShadowRootMode>()\n\npublic inline val
ShadowRootMode.Companion.CLOSED: ShadowRootMode get() =
\"closed\".asDynamic().unsafeCast<ShadowRootMode>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface ScrollBehavior {\n   companion object\n}\n\npublic inline val ScrollBehavior.Companion.AUTO:
ScrollBehavior get() = \"auto\".asDynamic().unsafeCast<ScrollBehavior>()\n\npublic inline val
ScrollBehavior.Companion.INSTANT: ScrollBehavior get() =
\"instant\".asDynamic().unsafeCast<ScrollBehavior>()\n\npublic inline val ScrollBehavior.Companion.SMOOTH:
ScrollBehavior get() = \"smooth\".asDynamic().unsafeCast<ScrollBehavior>()\n\n/* please, don't implement this
interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic
external interface ScrollLogicalPosition {\n   companion object\n}\n\npublic inline val
ScrollLogicalPosition.Companion.START: ScrollLogicalPosition get() =
\"start\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\npublic inline val
ScrollLogicalPosition.Companion.CENTER:
ScrollLogicalPosition get() = \"center\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\npublic inline val
ScrollLogicalPosition.Companion.END: ScrollLogicalPosition get() =
\"end\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\npublic inline val
ScrollLogicalPosition.Companion.NEAREST: ScrollLogicalPosition get() =
\"nearest\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface CSSBoxType {\n   companion object\n}\n\npublic inline val CSSBoxType.Companion.MARGIN:
CSSBoxType get() = \"margin\".asDynamic().unsafeCast<CSSBoxType>()\n\npublic inline val
CSSBoxType.Companion.BORDER: CSSBoxType get() =

\"border\".asDynamic().unsafeCast<CSSBoxType>()\n\npublic inline val CSSBoxType.Companion.PADDING: CSSBoxType get() = \"padding\".asDynamic().unsafeCast<CSSBoxType>()\n\npublic inline val CSSBoxType.Companion.CONTENT:

CSSBoxType get() = \"content\".asDynamic().unsafeCast<CSSBoxType>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.fetch\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.files.*\nimport org.w3c.xhr.*\n\n/**\n * Exposes the JavaScript [Headers](https://developer.mozilla.org/en/docs/Web/API/Headers) to Kotlin\n */\npublic external open class Headers(init: dynamic = definedExternally) {\n   fun append(name: String, value: String)\n   fun delete(name: String)\n   fun get(name: String): String?\n   fun has(name: String): Boolean\n   fun set(name: String, value: String)\n}\n\n/**\n * Exposes the JavaScript [Body](https://developer.mozilla.org/en/docs/Web/API/Body) to Kotlin\n */\npublic external

interface Body {\n   val bodyUsed: Boolean\n   fun arrayBuffer(): Promise<ArrayBuffer>\n   fun blob(): Promise<Blob>\n   fun formData(): Promise<FormData>\n   fun json(): Promise<Any?>\n   fun text(): Promise<String>\n}\n\n/**\n * Exposes the JavaScript [Request](https://developer.mozilla.org/en/docs/Web/API/Request) to Kotlin\n */\npublic external open class Request(input: dynamic, init: RequestInit = definedExternally) : Body {\n   open val method: String\n   open val url: String\n   open val headers: Headers\n   open val type: RequestType\n   open val destination: RequestDestination\n   open val referrer: String\n   open val referrerPolicy: dynamic\n   open val mode: RequestMode\n   open val credentials: RequestCredentials\n   open val cache: RequestCache\n   open val redirect: RequestRedirect\n   open val integrity: String\n   open val keepalive: Boolean\n   override val bodyUsed: Boolean\n   fun clone(): Request\n   override fun arrayBuffer(): Promise<ArrayBuffer>\n

override fun blob(): Promise<Blob>\n   override fun formData(): Promise<FormData>\n   override fun json(): Promise<Any?>\n   override fun text(): Promise<String>\n}\n\npublic external interface RequestInit {\n   var method: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var headers: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var body: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var referrer: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var referrerPolicy: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var mode: RequestMode?\n   get() = definedExternally\n   set(value) = definedExternally\n   var credentials: RequestCredentials?\n   get() = definedExternally\n   set(value) = definedExternally\n   var cache: RequestCache?\n   get()

= definedExternally\n   set(value) = definedExternally\n   var redirect: RequestRedirect?\n   get() = definedExternally\n   set(value) = definedExternally\n   var integrity: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var keepalive: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var window: Any?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun RequestInit(method: String? = undefined, headers: dynamic = undefined, body: dynamic = undefined, referrer: String? = undefined, referrerPolicy: dynamic = undefined, mode: RequestMode? = undefined, credentials: RequestCredentials? = undefined, cache: RequestCache? = undefined, redirect: RequestRedirect? = undefined, integrity: String? = undefined, keepalive: Boolean? = undefined, window: Any? = undefined):

RequestInit {\n   val o = js(\"({})\")\n   o[\"method\"] = method\n   o[\"headers\"] = headers\n   o[\"body\"] = body\n   o[\"referrer\"] = referrer\n   o[\"referrerPolicy\"] = referrerPolicy\n   o[\"mode\"] = mode\n   o[\"credentials\"] = credentials\n   o[\"cache\"] = cache\n   o[\"redirect\"] = redirect\n   o[\"integrity\"] = integrity\n   o[\"keepalive\"] = keepalive\n   o[\"window\"] = window\n   return o\n}\n\n/**\n * Exposes the JavaScript [Response](https://developer.mozilla.org/en/docs/Web/API/Response) to Kotlin\n */\npublic external open class Response(body: dynamic = definedExternally, init: ResponseInit = definedExternally) : Body {\n   open val type:

ResponseType\n   open val url: String\n   open val redirected: Boolean\n   open val status: Short\n   open val ok: Boolean\n   open val statusText: String\n   open val headers: Headers\n   open val body: dynamic\n   open val trailer: Promise<Headers>\n   override val bodyUsed: Boolean\n   fun clone(): Response\n   override fun arrayBuffer(): Promise<ArrayBuffer>\n   override fun blob(): Promise<Blob>\n override fun formData(): Promise<FormData>\n   override fun json(): Promise<Any?>\n   override fun text(): Promise<String>\n\n   companion object {\n   fun error(): Response\n   fun redirect(url: String, status: Short = definedExternally): Response\n   }\n}\n\npublic external interface ResponseInit {\n   var status: Short? /* = 200 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var statusText: String? /* = \"OK\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var headers: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ResponseInit(status: Short? = 200, statusText: String? = \"OK\", headers: dynamic = undefined): ResponseInit {\n   val o = js(\"({})\")\n   o[\"status\"] = status\n   o[\"statusText\"] = statusText\n   o[\"headers\"] = headers\n   return o\n}\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface RequestType {\n   companion object\n}\n\npublic inline val RequestType.Companion.EMPTY: RequestType get() = \"\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.AUDIO: RequestType get() = \"audio\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.FONT: RequestType get() = \"font\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.IMAGE: RequestType get() = \"image\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.SCRIPT: RequestType get() = \"script\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.STYLE: RequestType get() = \"style\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.TRACK: RequestType get() = \"track\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.VIDEO: RequestType get() = \"video\".asDynamic().unsafeCast<RequestType>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface RequestDestination {\n   companion object\n}\n\npublic inline val RequestDestination.Companion.EMPTY: RequestDestination get() = \"\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val RequestDestination.Companion.DOCUMENT: RequestDestination get() = \"document\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val RequestDestination.Companion.EMBED: RequestDestination get() = \"embed\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val RequestDestination.Companion.FONT: RequestDestination get() = \"font\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val RequestDestination.Companion.IMAGE: RequestDestination get() = \"image\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val RequestDestination.Companion.MANIFEST: RequestDestination get() = \"manifest\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val RequestDestination.Companion.MEDIA: RequestDestination get() = \"media\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val RequestDestination.Companion.OBJECT: RequestDestination get() = \"object\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val RequestDestination.Companion.REPORT: RequestDestination get() = \"report\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val

RequestDestination.Companion.SCRIPT: RequestDestination get() = \"script\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val RequestDestination.Companion.SERVICEWORKER: RequestDestination get() = \"serviceworker\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val RequestDestination.Companion.SHAREDWORKER: RequestDestination get() = \"sharedworker\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val RequestDestination.Companion.STYLE: RequestDestination get() = \"style\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val RequestDestination.Companion.WORKER: RequestDestination get() = \"worker\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val RequestDestination.Companion.XSLT: RequestDestination get() = \"xslt\".asDynamic().unsafeCast<RequestDestination>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface RequestMode {\n   companion object\n}\n\npublic inline val RequestMode.Companion.NAVIGATE: RequestMode get() = \"navigate\".asDynamic().unsafeCast<RequestMode>()\n\npublic inline val RequestMode.Companion.SAME_ORIGIN: RequestMode get() = \"same-origin\".asDynamic().unsafeCast<RequestMode>()\n\npublic inline val RequestMode.Companion.NO_CORS: RequestMode get() = \"no-cors\".asDynamic().unsafeCast<RequestMode>()\n\npublic inline val RequestMode.Companion.CORS: RequestMode get() = \"cors\".asDynamic().unsafeCast<RequestMode>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface RequestCredentials {\n   companion object\n}\n\npublic inline val RequestCredentials.Companion.OMIT: RequestCredentials get() = \"omit\".asDynamic().unsafeCast<RequestCredentials>()\n\npublic inline val RequestCredentials.Companion.SAME_ORIGIN: RequestCredentials get() = \"same-origin\".asDynamic().unsafeCast<RequestCredentials>()\n\npublic inline val RequestCredentials.Companion.INCLUDE: RequestCredentials get() = \"include\".asDynamic().unsafeCast<RequestCredentials>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface RequestCache {\n   companion object\n}\n\npublic inline val RequestCache.Companion.DEFAULT: RequestCache get() = \"default\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val RequestCache.Companion.NO_STORE: RequestCache get() = \"no-store\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val RequestCache.Companion.RELOAD: RequestCache get() = \"reload\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val RequestCache.Companion.NO_CACHE: RequestCache get() = \"no-cache\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val RequestCache.Companion.FORCE_CACHE: RequestCache get() = \"force-cache\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val RequestCache.Companion.ONLY_IF_CACHED: RequestCache get() = \"only-if-cached\".asDynamic().unsafeCast<RequestCache>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface RequestRedirect {\n   companion object\n}\n\npublic inline val RequestRedirect.Companion.FOLLOW: RequestRedirect get() = \"follow\".asDynamic().unsafeCast<RequestRedirect>()\n\npublic inline val RequestRedirect.Companion.ERROR: RequestRedirect get() = \"error\".asDynamic().unsafeCast<RequestRedirect>()\n\npublic inline val RequestRedirect.Companion.MANUAL: RequestRedirect get() = \"manual\".asDynamic().unsafeCast<RequestRedirect>()\n\n/* please, don't implement this interface!

*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ResponseType {\n   companion object\n}\n\npublic inline val ResponseType.Companion.BASIC: ResponseType get() = \"basic\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val ResponseType.Companion.CORS: ResponseType get() = \"cors\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val ResponseType.Companion.DEFAULT: ResponseType get() = \"default\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val ResponseType.Companion.ERROR:
 ResponseType get() = \"error\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val ResponseType.Companion.OPAQUE: ResponseType get() = \"opaque\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val ResponseType.Companion.OPAQUEREDIRECT: ResponseType get() = \"opaqueredirect\".asDynamic().unsafeCast<ResponseType>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.mediacapture\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\n/**\n * Exposes the JavaScript [MediaStream](https://developer.mozilla.org/en/docs/Web/API/MediaStream) to Kotlin\n */\npublic external open class MediaStream() : EventTarget, MediaProvider {\n   constructor(stream:
 MediaStream)\n   constructor(tracks: Array<MediaStreamTrack>)\n   open val id: String\n   open val active: Boolean\n   var onaddtrack: ((MediaStreamTrackEvent) -> dynamic)?\n   var onremovetrack: ((MediaStreamTrackEvent) -> dynamic)?\n   fun getAudioTracks(): Array<MediaStreamTrack>\n   fun getVideoTracks(): Array<MediaStreamTrack>\n   fun getTracks(): Array<MediaStreamTrack>\n   fun getTrackById(trackId: String): MediaStreamTrack?\n   fun addTrack(track: MediaStreamTrack)\n   fun removeTrack(track: MediaStreamTrack)\n   fun clone(): MediaStream\n}\n\n/**\n * Exposes the JavaScript [MediaStreamTrack](https://developer.mozilla.org/en/docs/Web/API/MediaStreamTrack) to Kotlin\n */\npublic external abstract class MediaStreamTrack : EventTarget {\n   open val kind: String\n   open val id: String\n   open val label: String\n   open var enabled: Boolean\n   open val muted: Boolean\n   open var onmute: ((Event) -> dynamic)?\n   open var onunmute: ((Event) -> dynamic)?\n
   open val readyState: MediaStreamTrackState\n   open var onended: ((Event) -> dynamic)?\n   open var onoverconstrained: ((Event) -> dynamic)?\n   fun clone(): MediaStreamTrack\n   fun stop()\n   fun getCapabilities(): MediaTrackCapabilities\n   fun getConstraints(): MediaTrackConstraints\n   fun getSettings(): MediaTrackSettings\n   fun applyConstraints(constraints: MediaTrackConstraints = definedExternally): Promise<Unit>\n}\n\n/**\n * Exposes the JavaScript [MediaTrackSupportedConstraints](https://developer.mozilla.org/en/docs/Web/API/MediaTrackSupportedConstraints) to Kotlin\n */\npublic external interface MediaTrackSupportedConstraints {\n   var width: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var height: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var aspectRatio: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n
    var frameRate: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var facingMode: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var resizeMode: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var volume: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var sampleRate: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var sampleSize: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var echoCancellation: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var autoGainControl: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var noiseSuppression: Boolean? /* = true

/\n   get() = definedExternally\n   set(value) = definedExternally\n   var latency: Boolean? / = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var channelCount: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var deviceId: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var groupId: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaTrackSupportedConstraints(width: Boolean? = true, height: Boolean? = true, aspectRatio: Boolean? = true, frameRate: Boolean? = true, facingMode: Boolean? = true, resizeMode: Boolean? = true, volume: Boolean? = true, sampleRate: Boolean? = true, sampleSize: Boolean? = true, echoCancellation: Boolean? = true, autoGainControl: Boolean? = true,
 noiseSuppression: Boolean? = true, latency: Boolean? = true, channelCount: Boolean? = true, deviceId: Boolean? = true, groupId: Boolean? = true): MediaTrackSupportedConstraints {\n   val o = js(\"({})\")\n   o[\"width\"] = width\n   o[\"height\"] = height\n   o[\"aspectRatio\"] = aspectRatio\n   o[\"frameRate\"] = frameRate\n   o[\"facingMode\"] = facingMode\n   o[\"resizeMode\"] = resizeMode\n   o[\"volume\"] = volume\n   o[\"sampleRate\"] = sampleRate\n   o[\"sampleSize\"] = sampleSize\n   o[\"echoCancellation\"] = echoCancellation\n   o[\"autoGainControl\"] = autoGainControl\n   o[\"noiseSuppression\"] = noiseSuppression\n   o[\"latency\"] = latency\n   o[\"channelCount\"] = channelCount\n   o[\"deviceId\"] = deviceId\n   o[\"groupId\"] = groupId\n   return o\n}\n\npublic external interface MediaTrackCapabilities {\n   var width: ULongRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var height: ULongRange?\n   get() =
 definedExternally\n   set(value) = definedExternally\n   var aspectRatio: DoubleRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var frameRate: DoubleRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var facingMode: Array<String>?\n   get() = definedExternally\n   set(value) = definedExternally\n   var resizeMode: Array<String>?\n   get() = definedExternally\n   set(value) = definedExternally\n   var volume: DoubleRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var sampleRate: ULongRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var sampleSize: ULongRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var echoCancellation: Array<Boolean>?\n   get() = definedExternally\n   set(value) = definedExternally\n   var autoGainControl: Array<Boolean>?\n   get() = definedExternally\n
        set(value) = definedExternally\n   var noiseSuppression: Array<Boolean>?\n   get() = definedExternally\n   set(value) = definedExternally\n   var latency: DoubleRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var channelCount: ULongRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var deviceId: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var groupId: String?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaTrackCapabilities(width: ULongRange? = undefined, height: ULongRange? = undefined, aspectRatio: DoubleRange? = undefined, frameRate: DoubleRange? = undefined, facingMode: Array<String>? = undefined, resizeMode: Array<String>? = undefined, volume: DoubleRange? = undefined, sampleRate: ULongRange?
 = undefined, sampleSize: ULongRange? = undefined, echoCancellation: Array<Boolean>? = undefined, autoGainControl: Array<Boolean>? = undefined, noiseSuppression: Array<Boolean>? = undefined, latency: DoubleRange? = undefined, channelCount: ULongRange? = undefined, deviceId: String? = undefined, groupId: String? = undefined): MediaTrackCapabilities {\n   val o = js(\"({})\")\n   o[\"width\"] = width\n   o[\"height\"] = height\n   o[\"aspectRatio\"] = aspectRatio\n   o[\"frameRate\"] = frameRate\n   o[\"facingMode\"] = facingMode\n   o[\"resizeMode\"] = resizeMode\n   o[\"volume\"] = volume\n   o[\"sampleRate\"] = sampleRate\n   o[\"sampleSize\"] = sampleSize\n   o[\"echoCancellation\"] = echoCancellation\n   o[\"autoGainControl\"] = autoGainControl\n   o[\"noiseSuppression\"] = noiseSuppression\n   o[\"latency\"] = latency\n   o[\"channelCount\"] = channelCount\n   o[\"deviceId\"] = deviceId\n   o[\"groupId\"] = groupId\n   return

```
o\n}\n\n/**\n * Exposes the JavaScript
 [MediaTrackConstraints](https://developer.mozilla.org/en/docs/Web/API/MediaTrackConstraints) to Kotlin\n
*/\npublic external interface MediaTrackConstraints : MediaTrackConstraintSet {\n    var advanced:
Array<MediaTrackConstraintSet>?\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaTrackConstraints(advanced:
Array<MediaTrackConstraintSet>? = undefined, width: dynamic = undefined, height: dynamic = undefined,
aspectRatio: dynamic = undefined, frameRate: dynamic = undefined, facingMode: dynamic = undefined,
resizeMode: dynamic = undefined, volume: dynamic = undefined, sampleRate: dynamic = undefined, sampleSize:
dynamic = undefined, echoCancellation: dynamic = undefined, autoGainControl: dynamic = undefined,
noiseSuppression: dynamic = undefined, latency: dynamic = undefined, channelCount: dynamic = undefined,
deviceId: dynamic = undefined,
 groupId: dynamic = undefined): MediaTrackConstraints {\n    val o = js(\"({})\")\n    o[\"advanced\"] = advanced\n
 o[\"width\"] = width\n    o[\"height\"] = height\n    o[\"aspectRatio\"] = aspectRatio\n    o[\"frameRate\"] =
frameRate\n    o[\"facingMode\"] = facingMode\n    o[\"resizeMode\"] = resizeMode\n    o[\"volume\"] = volume\n
o[\"sampleRate\"] = sampleRate\n    o[\"sampleSize\"] = sampleSize\n    o[\"echoCancellation\"] =
echoCancellation\n    o[\"autoGainControl\"] = autoGainControl\n    o[\"noiseSuppression\"] = noiseSuppression\n
o[\"latency\"] = latency\n    o[\"channelCount\"] = channelCount\n    o[\"deviceId\"] = deviceId\n    o[\"groupId\"] =
groupId\n    return o\n}\n\npublic external interface MediaTrackConstraintSet {\n    var width: dynamic\n        get()
= definedExternally\n        set(value) = definedExternally\n    var height: dynamic\n        get() = definedExternally\n
    set(value) = definedExternally\n    var aspectRatio: dynamic\n        get()
 = definedExternally\n        set(value) = definedExternally\n    var frameRate: dynamic\n        get() =
definedExternally\n        set(value) = definedExternally\n    var facingMode: dynamic\n        get() =
definedExternally\n        set(value) = definedExternally\n    var resizeMode: dynamic\n        get() =
definedExternally\n        set(value) = definedExternally\n    var volume: dynamic\n        get() = definedExternally\n
    set(value) = definedExternally\n    var sampleRate: dynamic\n        get() = definedExternally\n        set(value) =
definedExternally\n    var sampleSize: dynamic\n        get() = definedExternally\n        set(value) =
definedExternally\n    var echoCancellation: dynamic\n        get() = definedExternally\n        set(value) =
definedExternally\n    var autoGainControl: dynamic\n        get() = definedExternally\n        set(value) =
definedExternally\n    var noiseSuppression: dynamic\n        get() = definedExternally\n        set(value) =
definedExternally\n
    var latency: dynamic\n        get() = definedExternally\n        set(value) = definedExternally\n    var channelCount:
dynamic\n        get() = definedExternally\n        set(value) = definedExternally\n    var deviceId: dynamic\n        get()
= definedExternally\n        set(value) = definedExternally\n    var groupId: dynamic\n        get() =
definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaTrackConstraintSet(width:
dynamic = undefined, height: dynamic = undefined, aspectRatio: dynamic = undefined, frameRate: dynamic =
undefined, facingMode: dynamic = undefined, resizeMode: dynamic = undefined, volume: dynamic = undefined,
sampleRate: dynamic = undefined, sampleSize: dynamic = undefined, echoCancellation: dynamic = undefined,
autoGainControl: dynamic = undefined, noiseSuppression: dynamic = undefined, latency: dynamic = undefined,
channelCount: dynamic
 = undefined, deviceId: dynamic = undefined, groupId: dynamic = undefined): MediaTrackConstraintSet {\n    val o
= js(\"({})\")\n    o[\"width\"] = width\n    o[\"height\"] = height\n    o[\"aspectRatio\"] = aspectRatio\n
o[\"frameRate\"] = frameRate\n    o[\"facingMode\"] = facingMode\n    o[\"resizeMode\"] = resizeMode\n
o[\"volume\"] = volume\n    o[\"sampleRate\"] = sampleRate\n    o[\"sampleSize\"] = sampleSize\n
o[\"echoCancellation\"] = echoCancellation\n    o[\"autoGainControl\"] = autoGainControl\n
o[\"noiseSuppression\"] = noiseSuppression\n    o[\"latency\"] = latency\n    o[\"channelCount\"] = channelCount\n
o[\"deviceId\"] = deviceId\n    o[\"groupId\"] = groupId\n    return o\n}\n\n/**\n * Exposes the JavaScript
```

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[MediaTrackSettings](https://developer.mozilla.org/en/docs/Web/API/MediaTrackSettings) to Kotlin\n */\npublic
external interface MediaTrackSettings {\n    var width: Int?\n        get() = definedExternally\n        set(value) =
definedExternally\n
    var height: Int?\n        get() = definedExternally\n        set(value) = definedExternally\n    var aspectRatio:
Double?\n        get() = definedExternally\n        set(value) = definedExternally\n    var frameRate: Double?\n
get() = definedExternally\n        set(value) = definedExternally\n    var facingMode: String?\n        get() =
definedExternally\n        set(value) = definedExternally\n    var resizeMode: String?\n        get() =
definedExternally\n        set(value) = definedExternally\n    var volume: Double?\n        get() = definedExternally\n
   set(value) = definedExternally\n    var sampleRate: Int?\n        get() = definedExternally\n        set(value) =
definedExternally\n    var sampleSize: Int?\n        get() = definedExternally\n        set(value) = definedExternally\n
var echoCancellation: Boolean?\n        get() = definedExternally\n        set(value) = definedExternally\n    var
autoGainControl: Boolean?\n        get() = definedExternally\n
        set(value) = definedExternally\n    var noiseSuppression: Boolean?\n        get() = definedExternally\n
set(value) = definedExternally\n    var latency: Double?\n        get() = definedExternally\n        set(value) =
definedExternally\n    var channelCount: Int?\n        get() = definedExternally\n        set(value) = definedExternally\n
  var deviceId: String?\n        get() = definedExternally\n        set(value) = definedExternally\n    var groupId:
String?\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaTrackSettings(width: Int? =
undefined, height: Int? = undefined, aspectRatio: Double? = undefined, frameRate: Double? = undefined,
facingMode: String? = undefined, resizeMode: String? = undefined, volume: Double? = undefined, sampleRate: Int?
= undefined, sampleSize: Int? = undefined, echoCancellation: Boolean? = undefined, autoGainControl:
 Boolean? = undefined, noiseSuppression: Boolean? = undefined, latency: Double? = undefined, channelCount: Int?
= undefined, deviceId: String? = undefined, groupId: String? = undefined): MediaTrackSettings {\n    val o =
js(\"({})\")\n    o[\"width\"] = width\n    o[\"height\"] = height\n    o[\"aspectRatio\"] = aspectRatio\n
o[\"frameRate\"] = frameRate\n    o[\"facingMode\"] = facingMode\n    o[\"resizeMode\"] = resizeMode\n
o[\"volume\"] = volume\n    o[\"sampleRate\"] = sampleRate\n    o[\"sampleSize\"] = sampleSize\n
o[\"echoCancellation\"] = echoCancellation\n    o[\"autoGainControl\"] = autoGainControl\n
o[\"noiseSuppression\"] = noiseSuppression\n    o[\"latency\"] = latency\n    o[\"channelCount\"] = channelCount\n
o[\"deviceId\"] = deviceId\n    o[\"groupId\"] = groupId\n    return o\n}\n\n/**\n * Exposes the JavaScript
[MediaStreamTrackEvent](https://developer.mozilla.org/en/docs/Web/API/MediaStreamTrackEvent) to Kotlin\n
*/\npublic external open
 class MediaStreamTrackEvent(type: String, eventInitDict: MediaStreamTrackEventInit) : Event {\n    open val
track: MediaStreamTrack\n\n    companion object {\n        val NONE: Short\n        val CAPTURING_PHASE:
Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface
MediaStreamTrackEventInit : EventInit {\n    var track:
MediaStreamTrack?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaStreamTrackEventInit(track:
MediaStreamTrack?, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false):
MediaStreamTrackEventInit {\n    val o = js(\"({})\")\n    o[\"track\"] = track\n    o[\"bubbles\"] = bubbles\n
o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return o\n}\n\npublic external open class
OverconstrainedErrorEvent(type: String, eventInitDict: OverconstrainedErrorEventInit) : Event {\n    open val error:
dynamic\n\n
    companion object {\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET:
Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface OverconstrainedErrorEventInit :
EventInit {\n    var error: dynamic /* = null */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun OverconstrainedErrorEventInit(error:
```

dynamic = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): OverconstrainedErrorEventInit {\n   val o = js(\"({})\")\n   o[\"error\"] = error\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [MediaDevices](https://developer.mozilla.org/en/docs/Web/API/MediaDevices) to Kotlin\n */\npublic external abstract class MediaDevices : EventTarget {\n   open var ondevicechange: ((Event) -> dynamic)?\n   fun enumerateDevices(): Promise<Array<MediaDeviceInfo>>\n   fun getSupportedConstraints(): MediaTrackSupportedConstraints\n   fun getUserMedia(constraints: MediaStreamConstraints = definedExternally): Promise<MediaStream>\n}\n\n/**\n * Exposes the JavaScript [MediaDeviceInfo](https://developer.mozilla.org/en/docs/Web/API/MediaDeviceInfo) to Kotlin\n */\npublic external abstract class MediaDeviceInfo {\n   open val deviceId: String\n   open val kind: MediaDeviceKind\n   open val label: String\n   open val groupId: String\n   fun toJSON(): dynamic\n}\n\npublic external abstract class InputDeviceInfo : MediaDeviceInfo {\n   fun getCapabilities(): MediaTrackCapabilities\n}\n\n/**\n * Exposes the JavaScript [MediaStreamConstraints](https://developer.mozilla.org/en/docs/Web/API/MediaStreamConstraints) to Kotlin\n */\npublic external interface MediaStreamConstraints {\n   var video: dynamic /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var audio: dynamic /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaStreamConstraints(video: dynamic = false, audio: dynamic = false): MediaStreamConstraints {\n   val o = js(\"({})\")\n   o[\"video\"] = video\n   o[\"audio\"] = audio\n   return o\n}\n\npublic external interface ConstrainablePattern {\n   var onoverconstrained: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   fun getCapabilities(): Capabilities\n   fun getConstraints(): Constraints\n   fun getSettings(): Settings\n   fun applyConstraints(constraints: Constraints = definedExternally): Promise<Unit>\n}\n\n/**\n * Exposes the JavaScript [DoubleRange](https://developer.mozilla.org/en/docs/Web/API/DoubleRange) to Kotlin\n */\npublic external interface DoubleRange {\n   var max: Double?\n   get() = definedExternally\n   set(value) = definedExternally\n   var min: Double?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleRange(max: Double? = undefined, min: Double? = undefined): DoubleRange {\n   val o = js(\"({})\")\n   o[\"max\"] = max\n   o[\"min\"] = min\n   return o\n}\n\npublic external interface ConstrainDoubleRange : DoubleRange {\n   var exact: Double?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ideal: Double?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstrainDoubleRange(exact: Double? = undefined, ideal: Double? = undefined, max: Double? = undefined, min: Double? = undefined): ConstrainDoubleRange {\n   val o = js(\"({})\")\n   o[\"exact\"] = exact\n   o[\"ideal\"] = ideal\n   o[\"max\"] = max\n   o[\"min\"] = min\n   return o\n}\n\npublic external interface ULongRange {\n   var max: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n   var min: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ULongRange(max: Int? = undefined, min: Int? = undefined): ULongRange {\n   val o = js(\"({})\")\n   o[\"max\"] = max\n   o[\"min\"] = min\n   return o\n}\n\npublic external interface ConstrainULongRange : ULongRange {\n   var exact: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ideal: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstrainULongRange(exact: Int? = undefined, ideal: Int? = undefined, max: Int? = undefined, min: Int? = undefined): ConstrainULongRange {\n   val o = js(\"({})\")\n   o[\"exact\"] = exact\n   o[\"ideal\"] = ideal\n   o[\"max\"] = max\n   o[\"min\"] = min\n   return o\n}\n\n/**\n * Exposes the JavaScript

[ConstrainBooleanParameters](https://developer.mozilla.org/en/docs/Web/API/ConstrainBooleanParameters) to Kotlin\n */\npublic external interface ConstrainBooleanParameters {\n   var exact: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ideal: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstrainBooleanParameters(exact: Boolean? = undefined, ideal: Boolean? = undefined): ConstrainBooleanParameters {\n   val o = js(\"({})\")\n   o[\"exact\"] = exact\n   o[\"ideal\"] = ideal\n   return o\n}\n\n/**\n
 * Exposes the JavaScript
[ConstrainDOMStringParameters](https://developer.mozilla.org/en/docs/Web/API/ConstrainDOMStringParameters) to Kotlin\n */\npublic external interface ConstrainDOMStringParameters {\n   var exact: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var ideal: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstrainDOMStringParameters(exact: dynamic = undefined, ideal: dynamic = undefined): ConstrainDOMStringParameters {\n   val o = js(\"({})\")\n   o[\"exact\"] = exact\n   o[\"ideal\"] = ideal\n   return o\n}\n\npublic external interface Capabilities\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun Capabilities(): Capabilities {\n   val o = js(\"({})\")\n   return o\n}\n\npublic external interface Settings\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun Settings(): Settings {\n   val o = js(\"({})\")\n   return o\n}\n\npublic external interface ConstraintSet\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstraintSet(): ConstraintSet {\n   val o = js(\"({})\")\n   return o\n}\n\npublic external interface Constraints : ConstraintSet {\n   var advanced: Array<ConstraintSet>?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun Constraints(advanced: Array<ConstraintSet>? = undefined): Constraints {\n   val o = js(\"({})\")\n   o[\"advanced\"] = advanced\n   return o\n}\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface MediaStreamTrackState {\n
    companion object\n}\n\npublic inline val MediaStreamTrackState.Companion.LIVE: MediaStreamTrackState get() = \"live\".asDynamic().unsafeCast<MediaStreamTrackState>()\n\npublic inline val MediaStreamTrackState.Companion.ENDED: MediaStreamTrackState get() = \"ended\".asDynamic().unsafeCast<MediaStreamTrackState>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface VideoFacingModeEnum {\n   companion object\n}\n\npublic inline val VideoFacingModeEnum.Companion.USER: VideoFacingModeEnum get() = \"user\".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\npublic inline val VideoFacingModeEnum.Companion.ENVIRONMENT: VideoFacingModeEnum get() = \"environment\".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\npublic inline val VideoFacingModeEnum.Companion.LEFT: VideoFacingModeEnum get() = \"left\".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\npublic inline val VideoFacingModeEnum.Companion.RIGHT:
 VideoFacingModeEnum get() = \"right\".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface VideoResizeModeEnum {\n   companion object\n}\n\npublic inline val VideoResizeModeEnum.Companion.NONE: VideoResizeModeEnum get() = \"none\".asDynamic().unsafeCast<VideoResizeModeEnum>()\n\npublic inline val

VideoResizeModeEnum.Companion.CROP_AND_SCALE: VideoResizeModeEnum get() = \"crop-and-scale\".asDynamic().unsafeCast<VideoResizeModeEnum>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface MediaDeviceKind {\n   companion object\n}\n\npublic inline val MediaDeviceKind.Companion.AUDIOINPUT: MediaDeviceKind get() = \"audioinput\".asDynamic().unsafeCast<MediaDeviceKind>()\n\npublic inline val MediaDeviceKind.Companion.AUDIOOUTPUT: MediaDeviceKind get() = \"audiooutput\".asDynamic().unsafeCast<MediaDeviceKind>()\n\npublic inline val MediaDeviceKind.Companion.VIDEOINPUT: MediaDeviceKind get() = \"videoinput\".asDynamic().unsafeCast<MediaDeviceKind>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.mediasource\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\n/**\n * Exposes the JavaScript [MediaSource](https://developer.mozilla.org/en/docs/Web/API/MediaSource) to Kotlin\n */\npublic external open class MediaSource : EventTarget, MediaProvider {\n   open val sourceBuffers: SourceBufferList\n   open val activeSourceBuffers: SourceBufferList\n   open val readyState: ReadyState\n   var duration: Double\n   var onsourceopen: ((Event) -> dynamic)?\n   var onsourceended: ((Event) -> dynamic)?\n   var onsourceclose: ((Event) -> dynamic)?\n   fun addSourceBuffer(type: String): SourceBuffer\n   fun removeSourceBuffer(sourceBuffer: SourceBuffer)\n   fun endOfStream(error: EndOfStreamError = definedExternally)\n   fun setLiveSeekableRange(start: Double, end: Double)\n   fun clearLiveSeekableRange()\n\n   companion object {\n   fun isTypeSupported(type: String): Boolean\n   }\n}\n\n/**\n * Exposes the JavaScript [SourceBuffer](https://developer.mozilla.org/en/docs/Web/API/SourceBuffer) to Kotlin\n */\npublic external abstract class SourceBuffer : EventTarget {\n   open var mode: AppendMode\n   open val updating: Boolean\n   open val buffered: TimeRanges\n   open var timestampOffset: Double\n   open val audioTracks: AudioTrackList\n   open val videoTracks: VideoTrackList\n   open val textTracks: TextTrackList\n   open var appendWindowStart: Double\n   open var appendWindowEnd: Double\n   open var onupdatestart: ((Event) -> dynamic)?\n   open var onupdate: ((Event) -> dynamic)?\n   open var onupdateend: ((Event) -> dynamic)?\n   open var onerror: ((Event) -> dynamic)?\n   open var onabort: ((Event) -> dynamic)?\n   fun appendBuffer(data: dynamic)\n   fun abort()\n   fun remove(start: Double, end: Double)\n}\n\n/**\n * Exposes the JavaScript [SourceBufferList](https://developer.mozilla.org/en/docs/Web/API/SourceBufferList) to Kotlin\n */\npublic external abstract class SourceBufferList : EventTarget {\n   open val length: Int\n   open var onaddsourcebuffer: ((Event) -> dynamic)?\n   open var onremovesourcebuffer: ((Event) -> dynamic)?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SourceBufferList.get(index: Int): SourceBuffer? = asDynamic()[index]\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ReadyState {\n   companion object\n}\n\npublic inline val ReadyState.Companion.CLOSED: ReadyState get() = \"closed\".asDynamic().unsafeCast<ReadyState>()\n\npublic inline val ReadyState.Companion.OPEN: ReadyState get() = \"open\".asDynamic().unsafeCast<ReadyState>()\n\npublic inline val ReadyState.Companion.ENDED: ReadyState get() = \"ended\".asDynamic().unsafeCast<ReadyState>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface EndOfStreamError {\n   companion object\n}\n\npublic inline val EndOfStreamError.Companion.NETWORK: EndOfStreamError get() = \"network\".asDynamic().unsafeCast<EndOfStreamError>()\n\npublic inline val EndOfStreamError.Companion.DECODE: EndOfStreamError get() =

\"decode\".asDynamic().unsafeCast<EndOfStreamError>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface AppendMode {\n   companion object\n}\n\npublic inline val AppendMode.Companion.SEGMENTS: AppendMode get() = \"segments\".asDynamic().unsafeCast<AppendMode>()\n\npublic inline val AppendMode.Companion.SEQUENCE: AppendMode get() = \"sequence\".asDynamic().unsafeCast<AppendMode>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.pointerevents\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\npublic external interface PointerEventInit : MouseEventInit {\n   var pointerId: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var width: Double? /* = 1.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var height: Double? /* = 1.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var pressure: Float? /* = 0f */\n   get() = definedExternally\n   set(value) = definedExternally\n   var tangentialPressure: Float? /* = 0f */\n   get() = definedExternally\n   set(value) = definedExternally\n   var tiltX: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var tiltY: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var twist: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var pointerType: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var isPrimary: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun PointerEventInit(pointerId: Int? = 0, width: Double? = 1.0, height: Double? = 1.0, pressure: Float? = 0f, tangentialPressure: Float? = 0f, tiltX: Int? = 0, tiltY: Int? = 0, twist: Int? = 0, pointerType: String? = \"\", isPrimary: Boolean? = false, screenX: Int? = 0, screenY: Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0, buttons: Short? = 0, relatedTarget: EventTarget? = null, region: String? = null, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): PointerEventInit {\n   val o = js(\"({})\")\n   o[\"pointerId\"] = pointerId\n   o[\"width\"] = width\n   o[\"height\"] = height\n   o[\"pressure\"] = pressure\n   o[\"tangentialPressure\"] = tangentialPressure\n   o[\"tiltX\"] = tiltX\n   o[\"tiltY\"] = tiltY\n   o[\"twist\"] = twist\n   o[\"pointerType\"] = pointerType\n   o[\"isPrimary\"] = isPrimary\n   o[\"screenX\"] = screenX\n   o[\"screenY\"] = screenY\n   o[\"clientX\"] = clientX\n   o[\"clientY\"] = clientY\n   o[\"button\"] = button\n   o[\"buttons\"] = buttons\n   o[\"relatedTarget\"] = relatedTarget\n   o[\"region\"] = region\n   o[\"ctrlKey\"] = ctrlKey\n   o[\"shiftKey\"] = shiftKey\n   o[\"altKey\"] = altKey\n   o[\"metaKey\"] = metaKey\n   o[\"modifierAltGraph\"] = modifierAltGraph\n   o[\"modifierCapsLock\"] = modifierCapsLock\n   o[\"modifierFn\"] = modifierFn\n   o[\"modifierFnLock\"] = modifierFnLock\n   o[\"modifierHyper\"] = modifierHyper\n   o[\"modifierNumLock\"] = modifierNumLock\n   o[\"modifierScrollLock\"] = modifierScrollLock\n   o[\"modifierSuper\"] = modifierSuper\n   o[\"modifierSymbol\"] = modifierSymbol\n   o[\"modifierSymbolLock\"] = modifierSymbolLock\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [PointerEvent](https://developer.mozilla.org/en/docs/Web/API/PointerEvent) to Kotlin\n */\npublic external open class PointerEvent(type: String, eventInitDict: PointerEventInit = definedExternally) : MouseEvent {\n   open val pointerId: Int\n   open val width: Double\n   open val height: Double\n   open val pressure: Float\n   open val tangentialPressure: Float\n   open val tiltX: Int\n   open val tiltY: Int\n   open val twist: Int\n   open val pointerType: String\n   open val isPrimary: Boolean\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.svg\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.css.*\n\n/**\n * Exposes the JavaScript [SVGElement](https://developer.mozilla.org/en/docs/Web/API/SVGElement) to Kotlin\n */\npublic external abstract class SVGElement : Element, ElementCSSInlineStyle, GlobalEventHandlers, SVGElementInstance {\n   open val dataset: DOMStringMap\n   open val ownerSVGElement: SVGSVGElement?\n   open val viewportElement: SVGElement?\n   open var tabIndex: Int\n   fun focus()\n   fun blur()\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external interface SVGBoundingBoxOptions {\n   var fill: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var stroke: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var markers: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var clipped: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun SVGBoundingBoxOptions(fill: Boolean? = true, stroke: Boolean? = false, markers: Boolean? = false, clipped: Boolean? = false): SVGBoundingBoxOptions {\n   val o = js(\"({})\")\n   o[\"fill\"] = fill\n   o[\"stroke\"] = stroke\n   o[\"markers\"] = markers\n   o[\"clipped\"] = clipped\n   return o\n}\n\n/**\n * Exposes the JavaScript [SVGGraphicsElement](https://developer.mozilla.org/en/docs/Web/API/SVGGraphicsElement) to Kotlin\n */\npublic external abstract class SVGGraphicsElement : SVGElement, SVGTests {\n   open val transform: SVGAnimatedTransformList\n   fun getBBox(options: SVGBoundingBoxOptions = definedExternally): DOMRect\n   fun getCTM(): DOMMatrix?\n   fun getScreenCTM(): DOMMatrix?\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGGeometryElement](https://developer.mozilla.org/en/docs/Web/API/SVGGeometryElement) to Kotlin\n */\npublic external abstract class SVGGeometryElement : SVGGraphicsElement {\n   open val pathLength: SVGAnimatedNumber\n   fun isPointInFill(point: DOMPoint): Boolean\n   fun isPointInStroke(point: DOMPoint): Boolean\n   fun getTotalLength(): Float\n   fun getPointAtLength(distance: Float): DOMPoint\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE:

Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGNumber](https://developer.mozilla.org/en/docs/Web/API/SVGNumber) to Kotlin\n */\npublic external abstract class SVGNumber {\n open var value: Float\n}\n\n/**\n * Exposes the JavaScript [SVGLength](https://developer.mozilla.org/en/docs/Web/API/SVGLength) to Kotlin\n */\npublic external abstract class SVGLength {\n open val unitType: Short\n open var value: Float\n open var valueInSpecifiedUnits: Float\n open var valueAsString: String\n fun newValueSpecifiedUnits(unitType: Short, valueInSpecifiedUnits: Float)\n fun convertToSpecifiedUnits(unitType: Short)\n\n companion object {\n val SVG_LENGTHTYPE_UNKNOWN: Short\n val SVG_LENGTHTYPE_NUMBER: Short\n val SVG_LENGTHTYPE_PERCENTAGE: Short\n val SVG_LENGTHTYPE_EMS: Short\n val SVG_LENGTHTYPE_EXS: Short\n val SVG_LENGTHTYPE_PX: Short\n val SVG_LENGTHTYPE_CM: Short\n val SVG_LENGTHTYPE_MM: Short\n val SVG_LENGTHTYPE_IN: Short\n val SVG_LENGTHTYPE_PT: Short\n val SVG_LENGTHTYPE_PC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGAngle](https://developer.mozilla.org/en/docs/Web/API/SVGAngle) to Kotlin\n */\npublic external abstract class SVGAngle {\n open val unitType: Short\n open var value: Float\n open var valueInSpecifiedUnits: Float\n open var valueAsString: String\n fun newValueSpecifiedUnits(unitType: Short, valueInSpecifiedUnits: Float)\n fun convertToSpecifiedUnits(unitType: Short)\n\n companion object {\n val SVG_ANGLETYPE_UNKNOWN: Short\n val SVG_ANGLETYPE_UNSPECIFIED: Short\n val SVG_ANGLETYPE_DEG: Short\n val SVG_ANGLETYPE_RAD: Short\n val SVG_ANGLETYPE_GRAD: Short\n }\n}\n\npublic external abstract class SVGNameList {\n open val length: Int\n open val numberOfItems: Int\n fun clear()\n fun initialize(newItem: dynamic): dynamic\n fun insertItemBefore(newItem: dynamic, index: Int): dynamic\n fun replaceItem(newItem: dynamic, index: Int): dynamic\n fun removeItem(index: Int): dynamic\n fun appendItem(newItem: dynamic): dynamic\n fun getItem(index: Int): dynamic\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGNameList.get(index: Int): dynamic = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGNameList.set(index: Int, newItem: dynamic) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript [SVGNumberList](https://developer.mozilla.org/en/docs/Web/API/SVGNumberList) to Kotlin\n */\npublic external abstract class SVGNumberList {\n open val length: Int\n open val numberOfItems: Int\n fun clear()\n fun initialize(newItem: SVGNumber): SVGNumber\n fun insertItemBefore(newItem: SVGNumber, index: Int): SVGNumber\n fun replaceItem(newItem: SVGNumber, index: Int): SVGNumber\n fun removeItem(index: Int): SVGNumber\n fun appendItem(newItem: SVGNumber): SVGNumber\n fun getItem(index: Int): SVGNumber\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGNumberList.get(index: Int): SVGNumber? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGNumberList.set(index: Int, newItem: SVGNumber) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript [SVGLengthList](https://developer.mozilla.org/en/docs/Web/API/SVGLengthList) to Kotlin\n */\npublic external abstract class SVGLengthList {\n open val length: Int\n open val numberOfItems: Int\n fun clear()\n fun initialize(newItem: SVGLength): SVGLength\n fun insertItemBefore(newItem: SVGLength, index: Int):

SVGLength\n   fun replaceItem(newItem: SVGLength, index: Int): SVGLength\n   fun removeItem(index: Int): SVGLength\n   fun appendItem(newItem: SVGLength): SVGLength\n   fun getItem(index: Int): SVGLength\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGLengthList.get(index: Int): SVGLength? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGLengthList.set(index: Int, newItem: SVGLength) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript [SVGAnimatedBoolean](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedBoolean) to Kotlin\n */\npublic external abstract class SVGAnimatedBoolean {\n   open var baseVal: Boolean\n   open val animVal: Boolean\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedEnumeration](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedEnumeration) to Kotlin\n */\npublic external abstract class SVGAnimatedEnumeration {\n   open var baseVal: Short\n   open val animVal: Short\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedInteger](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedInteger) to Kotlin\n */\npublic external abstract class SVGAnimatedInteger {\n   open var baseVal: Int\n   open val animVal: Int\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedNumber](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedNumber) to Kotlin\n */\npublic external abstract class SVGAnimatedNumber {\n   open var baseVal: Float\n   open val animVal: Float\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedLength](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedLength) to Kotlin\n */\npublic external abstract class SVGAnimatedLength {\n   open val baseVal: SVGLength\n   open val animVal: SVGLength\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedAngle](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedAngle) to Kotlin\n */\npublic external abstract class SVGAnimatedAngle {\n   open val baseVal: SVGAngle\n   open val animVal: SVGAngle\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedString](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedString) to Kotlin\n */\npublic external abstract class SVGAnimatedString {\n   open var baseVal: String\n   open val animVal: String\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedRect](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedRect) to Kotlin\n */\npublic external abstract class SVGAnimatedRect {\n   open val baseVal: DOMRect\n   open val animVal: DOMRectReadOnly\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedNumberList](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedNumberList) to Kotlin\n */\npublic external abstract class SVGAnimatedNumberList {\n   open val baseVal: SVGNumberList\n   open val animVal: SVGNumberList\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedLengthList](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedLengthList) to Kotlin\n */\npublic external abstract class SVGAnimatedLengthList {\n   open val baseVal: SVGLengthList\n   open val animVal: SVGLengthList\n}\n\n/**\n * Exposes the JavaScript [SVGStringList](https://developer.mozilla.org/en/docs/Web/API/SVGStringList) to Kotlin\n */\npublic external abstract class SVGStringList {\n   open val length: Int\n   open val numberOfItems: Int\n   fun clear()\n   fun initialize(newItem: String): String\n   fun insertItemBefore(newItem: String, index: Int): String\n   fun replaceItem(newItem: String, index: Int): String\n   fun removeItem(index: Int): String\n   fun appendItem(newItem: String): String\n   fun getItem(index: Int): String\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGStringList.get(index: Int): String? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGStringList.set(index: Int, newItem: String) { asDynamic()[index]

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 = newItem }\n\n/**\n * Exposes the JavaScript
[SVGUnitTypes](https://developer.mozilla.org/en/docs/Web/API/SVGUnitTypes) to Kotlin\n
*/\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface SVGUnitTypes
{\n    companion object {\n        val SVG_UNIT_TYPE_UNKNOWN: Short\n        val
SVG_UNIT_TYPE_USERSPACEONUSE: Short\n        val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX:
Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGTests](https://developer.mozilla.org/en/docs/Web/API/SVGTests) to Kotlin\n */\npublic external interface
SVGTests {\n    val requiredExtensions: SVGStringList\n    val systemLanguage: SVGStringList\n}\n\npublic
external interface SVGFitToViewBox {\n    val viewBox: SVGAnimatedRect\n    val preserveAspectRatio:
SVGAnimatedPreserveAspectRatio\n}\n\n/**\n * Exposes the JavaScript
[SVGZoomAndPan](https://developer.mozilla.org/en/docs/Web/API/SVGZoomAndPan) to Kotlin\n
*/\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
 interface SVGZoomAndPan {\n    var zoomAndPan: Short\n\n    companion object {\n        val
SVG_ZOOMANDPAN_UNKNOWN: Short\n        val SVG_ZOOMANDPAN_DISABLE: Short\n        val
SVG_ZOOMANDPAN_MAGNIFY: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGURIReference](https://developer.mozilla.org/en/docs/Web/API/SVGURIReference) to Kotlin\n */\npublic
external interface SVGURIReference {\n    val href: SVGAnimatedString\n}\n\n/**\n * Exposes the JavaScript
[SVGSVGElement](https://developer.mozilla.org/en/docs/Web/API/SVGSVGElement) to Kotlin\n */\npublic
external abstract class SVGSVGElement : SVGGraphicsElement, SVGFitToViewBox, SVGZoomAndPan,
WindowEventHandlers {\n    open val x: SVGAnimatedLength\n    open val y: SVGAnimatedLength\n    open val
width: SVGAnimatedLength\n    open val height: SVGAnimatedLength\n    open var currentScale: Float\n    open
val currentTranslate: DOMPointReadOnly\n    fun getIntersectionList(rect: DOMRectReadOnly, referenceElement:
SVGElement?): NodeList\n
    fun getEnclosureList(rect: DOMRectReadOnly, referenceElement: SVGElement?): NodeList\n    fun
checkIntersection(element: SVGElement, rect: DOMRectReadOnly): Boolean\n    fun checkEnclosure(element:
SVGElement, rect: DOMRectReadOnly): Boolean\n    fun deselectAll()\n    fun createSVGNumber():
SVGNumber\n    fun createSVGLength(): SVGLength\n    fun createSVGAngle(): SVGAngle\n    fun
createSVGPoint(): DOMPoint\n    fun createSVGMatrix(): DOMMatrix\n    fun createSVGRect(): DOMRect\n
fun createSVGTransform(): SVGTransform\n    fun createSVGTransformFromMatrix(matrix:
DOMMatrixReadOnly): SVGTransform\n    fun getElementById(elementId: String): Element\n    fun
suspendRedraw(maxWaitMilliseconds: Int): Int\n    fun unsuspendRedraw(suspendHandleID: Int)\n    fun
unsuspendRedrawAll()\n    fun forceRedraw()\n\n    companion object {\n        val
SVG_ZOOMANDPAN_UNKNOWN: Short\n        val SVG_ZOOMANDPAN_DISABLE: Short\n        val
SVG_ZOOMANDPAN_MAGNIFY: Short\n        val ELEMENT_NODE:
 Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
     val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[SVGGElement](https://developer.mozilla.org/en/docs/Web/API/SVGGElement) to Kotlin\n */\npublic external
abstract class SVGGElement : SVGGraphicsElement {\n    companion object {\n        val ELEMENT_NODE:
Short\n        val ATTRIBUTE_NODE:
 Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
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PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val
DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external abstract class
SVGUnknownElement : SVGGraphicsElement {\n companion object {\n val ELEMENT_NODE: Short\n
val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n
val ENTITY_REFERENCE_NODE: Short\n val

ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE:
Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript
[SVGDefsElement](https://developer.mozilla.org/en/docs/Web/API/SVGDefsElement) to Kotlin\n */\npublic
external abstract class SVGDefsElement : SVGGraphicsElement {\n companion object {\n val
ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val
CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE:
Short\n

val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val
DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val
DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val
DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript
[SVGDescElement](https://developer.mozilla.org/en/docs/Web/API/SVGDescElement) to Kotlin\n */\npublic
external abstract class SVGDescElement : SVGElement {\n companion object {\n val ELEMENT_NODE:
Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE:
Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val
PROCESSING_INSTRUCTION_NODE:

Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val
DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val
NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val
DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n
val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY:
Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes
the JavaScript [SVGMetadataElement](https://developer.mozilla.org/en/docs/Web/API/SVGMetadataElement) to
Kotlin\n */\npublic external abstract class SVGMetadataElement : SVGElement {\n companion object {\n val
ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val
CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE:
Short\n val PROCESSING_INSTRUCTION_NODE:

Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val
DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val
NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val

DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGTitleElement](https://developer.mozilla.org/en/docs/Web/API/SVGTitleElement) to Kotlin\n */\npublic external abstract class SVGTitleElement : SVGElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGSymbolElement](https://developer.mozilla.org/en/docs/Web/API/SVGSymbolElement) to Kotlin\n */\npublic external abstract class SVGSymbolElement : SVGGraphicsElement, SVGFitToViewBox {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGUseElement](https://developer.mozilla.org/en/docs/Web/API/SVGUseElement) to Kotlin\n */\npublic external abstract class SVGUseElement : SVGGraphicsElement, SVGURIReference {\n open val x: SVGAnimatedLength\n open val y: SVGAnimatedLength\n open val width: SVGAnimatedLength\n open val height: SVGAnimatedLength\n open val instanceRoot: SVGElement?\n open val animatedInstanceRoot: SVGElement?\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external open class SVGUseElementShadowRoot : ShadowRoot {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val

DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external interface
SVGElementInstance {\n   val correspondingElement: SVGElement?\n   get() = definedExternally\n   val
correspondingUseElement: SVGUseElement?\n   get() = definedExternally\n}\n\npublic external open class
ShadowAnimation(source: dynamic, newTarget: dynamic) {\n   open val sourceAnimation: dynamic\n}\n\n/**\n *
Exposes the JavaScript [SVGSwitchElement](https://developer.mozilla.org/en/docs/Web/API/SVGSwitchElement)
to Kotlin\n */\npublic external abstract class SVGSwitchElement : SVGGraphicsElement {\n   companion object
{\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n
val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val
ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE:
Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val
DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external interface
GetSVGDocument {\n   fun getSVGDocument(): Document\n}\n\n/**\n * Exposes
the JavaScript [SVGStyleElement](https://developer.mozilla.org/en/docs/Web/API/SVGStyleElement) to Kotlin\n
*/\npublic external abstract class SVGStyleElement : SVGElement, LinkStyle {\n   open var type: String\n   open
var media: String\n   open var title: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val
ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val
ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val
PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val
DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val
DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC:
Short\n   }\n}\n\n/**\n * Exposes the JavaScript
[SVGTransform](https://developer.mozilla.org/en/docs/Web/API/SVGTransform) to Kotlin\n */\npublic external
abstract class SVGTransform {\n   open val type: Short\n   open val matrix: DOMMatrix\n   open val angle:
Float\n   fun setMatrix(matrix: DOMMatrixReadOnly)\n   fun setTranslate(tx: Float, ty: Float)\n   fun setScale(sx:
Float, sy: Float)\n   fun setRotate(angle: Float, cx: Float, cy: Float)\n   fun setSkewX(angle: Float)\n   fun
setSkewY(angle: Float)\n\n   companion object {\n   val SVG_TRANSFORM_UNKNOWN: Short\n   val
SVG_TRANSFORM_MATRIX: Short\n   val SVG_TRANSFORM_TRANSLATE: Short\n   val
SVG_TRANSFORM_SCALE: Short\n   val SVG_TRANSFORM_ROTATE: Short\n   val
SVG_TRANSFORM_SKEWX: Short\n   val SVG_TRANSFORM_SKEWY: Short\n   }\n}\n\n/**\n * Exposes
the JavaScript [SVGTransformList](https://developer.mozilla.org/en/docs/Web/API/SVGTransformList)
to Kotlin\n */\npublic external abstract class SVGTransformList {\n   open val length: Int\n   open val
numberOfItems: Int\n   fun clear()\n   fun initialize(newItem: SVGTransform): SVGTransform\n   fun
insertItemBefore(newItem: SVGTransform, index: Int): SVGTransform\n   fun replaceItem(newItem:
SVGTransform, index: Int): SVGTransform\n   fun removeItem(index: Int): SVGTransform\n   fun
appendItem(newItem: SVGTransform): SVGTransform\n   fun createSVGTransformFromMatrix(matrix:
DOMMatrixReadOnly): SVGTransform\n   fun consolidate(): SVGTransform?\n   fun getItem(index: Int):
SVGTransform\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGTransformList.get(index:
Int): SVGTransform? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGTransformList.set(index:

Int, newItem: SVGTransform) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript [SVGAnimatedTransformList](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedTransformList) to Kotlin\n */\npublic external abstract class SVGAnimatedTransformList {\n   open val baseVal: SVGTransformList\n   open val animVal: SVGTransformList\n}\n\n/**\n * Exposes the JavaScript [SVGPreserveAspectRatio](https://developer.mozilla.org/en/docs/Web/API/SVGPreserveAspectRatio) to Kotlin\n */\npublic external abstract class SVGPreserveAspectRatio {\n   open var align: Short\n   open var meetOrSlice: Short\n\n   companion object {\n   val SVG_PRESERVEASPECTRATIO_UNKNOWN: Short\n   val SVG_PRESERVEASPECTRATIO_NONE: Short\n   val SVG_PRESERVEASPECTRATIO_XMINYMIN: Short\n   val SVG_PRESERVEASPECTRATIO_XMIDYMIN: Short\n   val SVG_PRESERVEASPECTRATIO_XMAXYMIN: Short\n   val SVG_PRESERVEASPECTRATIO_XMINYMID: Short\n   val SVG_PRESERVEASPECTRATIO_XMIDYMID: Short\n   val SVG_PRESERVEASPECTRATIO_XMAXYMID: Short
        val SVG_PRESERVEASPECTRATIO_XMINYMAX: Short\n   val SVG_PRESERVEASPECTRATIO_XMIDYMAX: Short\n   val SVG_PRESERVEASPECTRATIO_XMAXYMAX: Short\n   val SVG_MEETORSLICE_UNKNOWN: Short\n   val SVG_MEETORSLICE_MEET: Short\n   val SVG_MEETORSLICE_SLICE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedPreserveAspectRatio](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedPreserveAspectRatio) to Kotlin\n */\npublic external abstract class SVGAnimatedPreserveAspectRatio {\n   open val baseVal: SVGPreserveAspectRatio\n   open val animVal: SVGPreserveAspectRatio\n}\n\n/**\n * Exposes the JavaScript [SVGPathElement](https://developer.mozilla.org/en/docs/Web/API/SVGPathElement) to Kotlin\n */\npublic external abstract class SVGPathElement : SVGGeometryElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGRectElement](https://developer.mozilla.org/en/docs/Web/API/SVGRectElement) to Kotlin\n */\npublic external abstract class SVGRectElement : SVGGeometryElement {\n   open val x: SVGAnimatedLength\n   open val y: SVGAnimatedLength\n   open val width: SVGAnimatedLength\n   open val height: SVGAnimatedLength\n   open val rx: SVGAnimatedLength\n   open val ry: SVGAnimatedLength\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGCircleElement](https://developer.mozilla.org/en/docs/Web/API/SVGCircleElement) to Kotlin\n */\npublic

external abstract class SVGCircleElement : SVGGeometryElement
{\n   open val cx: SVGAnimatedLength\n   open val cy: SVGAnimatedLength\n   open val r:
SVGAnimatedLength\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val
ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val
ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val
PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val
DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val
DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript
[SVGEllipseElement](https://developer.mozilla.org/en/docs/Web/API/SVGEllipseElement)
to Kotlin\n */\npublic external abstract class SVGEllipseElement : SVGGeometryElement {\n   open val cx:
SVGAnimatedLength\n   open val cy: SVGAnimatedLength\n   open val rx: SVGAnimatedLength\n   open val ry:
SVGAnimatedLength\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val
ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val
ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val
PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val
DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val
DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC:
Short\n   }\n}\n\n/**\n * Exposes the JavaScript
[SVGLineElement](https://developer.mozilla.org/en/docs/Web/API/SVGLineElement) to Kotlin\n */\npublic
external abstract class SVGLineElement : SVGGeometryElement {\n   open val x1: SVGAnimatedLength\n   open
val y1: SVGAnimatedLength\n   open val x2: SVGAnimatedLength\n   open val y2: SVGAnimatedLength\n\n
companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val
TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE:
Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val
COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n
val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n
val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY:
Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes
the JavaScript [SVGMeshElement](https://developer.mozilla.org/en/docs/Web/API/SVGMeshElement) to Kotlin\n
*/\npublic external abstract class SVGMeshElement : SVGGeometryElement, SVGURIReference {\n   companion
object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE:
Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val
ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE:
Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val
DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n   val

DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedPoints](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedPoints) to Kotlin\n */\npublic external interface SVGAnimatedPoints {\n   val points: SVGPointList\n   val animatedPoints: SVGPointList\n}\n\npublic external abstract class SVGPointList {\n   open val length: Int\n   open val numberOfItems: Int\n   fun clear()\n   fun initialize(newItem: DOMPoint): DOMPoint\n   fun insertItemBefore(newItem: DOMPoint, index: Int): DOMPoint\n   fun replaceItem(newItem: DOMPoint, index: Int): DOMPoint\n   fun removeItem(index: Int): DOMPoint\n   fun appendItem(newItem: DOMPoint): DOMPoint\n   fun getItem(index: Int): DOMPoint\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGPointList.get(index: Int): DOMPoint?
= asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGPointList.set(index: Int, newItem: DOMPoint) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript [SVGPolylineElement](https://developer.mozilla.org/en/docs/Web/API/SVGPolylineElement) to Kotlin\n */\npublic external abstract class SVGPolylineElement : SVGGeometryElement, SVGAnimatedPoints {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGPolygonElement](https://developer.mozilla.org/en/docs/Web/API/SVGPolygonElement) to Kotlin\n */\npublic external abstract class SVGPolygonElement : SVGGeometryElement, SVGAnimatedPoints {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGTextContentElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextContentElement) to Kotlin\n */\npublic external abstract class SVGTextContentElement : SVGGraphicsElement {\n   open val textLength: SVGAnimatedLength\n   open val lengthAdjust: SVGAnimatedEnumeration\n   fun getNumberOfChars(): Int\n   fun getComputedTextLength(): Float\n   fun getSubStringLength(charnum: Int, nchars: Int): Float\n   fun getStartPositionOfChar(charnum: Int): DOMPoint\n   fun getEndPositionOfChar(charnum: Int): DOMPoint\n   fun getExtentOfChar(charnum: Int): DOMRect\n   fun getRotationOfChar(charnum: Int): Float\n   fun getCharNumAtPosition(point: DOMPoint): Int\n   fun selectSubString(charnum: Int, nchars: Int)\n\n
companion object {\n   val LENGTHADJUST_UNKNOWN: Short\n   val LENGTHADJUST_SPACING: Short\n   val LENGTHADJUST_SPACINGANDGLYPHS: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val

PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val
DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val
DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript
[SVGTextPositioningElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextPositioningElement)
to Kotlin\n */\npublic external abstract class SVGTextPositioningElement : SVGTextContentElement {\n   open
val x: SVGAnimatedLengthList\n   open val y: SVGAnimatedLengthList\n   open val dx:
SVGAnimatedLengthList\n   open val dy: SVGAnimatedLengthList\n   open val rotate:
SVGAnimatedNumberList\n\n   companion object {\n   val LENGTHADJUST_UNKNOWN: Short\n   val
LENGTHADJUST_SPACING: Short\n   val LENGTHADJUST_SPACINGANDGLYPHS: Short\n   val
ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val
CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE:
Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val
DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val
DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED:
Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val
DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript
[SVGTextElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextElement) to Kotlin\n */\npublic
external abstract class SVGTextElement : SVGTextPositioningElement {\n   companion object {\n   val
LENGTHADJUST_UNKNOWN: Short\n   val LENGTHADJUST_SPACING: Short\n   val
LENGTHADJUST_SPACINGANDGLYPHS: Short\n   val ELEMENT_NODE: Short\n   val
ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val
ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val
PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val
DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n
val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript
[SVGTSpanElement](https://developer.mozilla.org/en/docs/Web/API/SVGTSpanElement) to Kotlin\n */\npublic
external abstract class SVGTSpanElement : SVGTextPositioningElement {\n   companion object {\n   val
LENGTHADJUST_UNKNOWN: Short\n   val LENGTHADJUST_SPACING: Short\n   val
LENGTHADJUST_SPACINGANDGLYPHS: Short\n   val ELEMENT_NODE: Short\n   val
ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val
ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val
PROCESSING_INSTRUCTION_NODE:
Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val
DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val
NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val
DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n
val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY:

Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGTextPathElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextPathElement) to Kotlin\n */\npublic external abstract class SVGTextPathElement : SVGTextContentElement, SVGURIReference {\n   open val startOffset: SVGAnimatedLength\n   open val method: SVGAnimatedEnumeration\n   open val spacing: SVGAnimatedEnumeration\n\n   companion object {\n   val TEXTPATH_METHODTYPE_UNKNOWN: Short\n   val TEXTPATH_METHODTYPE_ALIGN: Short\n   val TEXTPATH_METHODTYPE_STRETCH: Short\n   val TEXTPATH_SPACINGTYPE_UNKNOWN: Short\n   val TEXTPATH_SPACINGTYPE_AUTO: Short\n   val TEXTPATH_SPACINGTYPE_EXACT: Short\n   val LENGTHADJUST_UNKNOWN: Short\n   val LENGTHADJUST_SPACING: Short\n   val LENGTHADJUST_SPACINGANDGLYPHS: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGImageElement](https://developer.mozilla.org/en/docs/Web/API/SVGImageElement) to Kotlin\n */\npublic external abstract class SVGImageElement : SVGGraphicsElement, SVGURIReference, HTMLOrSVGImageElement {\n   open val x: SVGAnimatedLength\n   open val y: SVGAnimatedLength\n   open val width: SVGAnimatedLength\n   open val height: SVGAnimatedLength\n   open val preserveAspectRatio: SVGAnimatedPreserveAspectRatio\n   open var crossOrigin: String?\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGForeignObjectElement](https://developer.mozilla.org/en/docs/Web/API/SVGForeignObjectElement) to Kotlin\n */\npublic external abstract class SVGForeignObjectElement : SVGGraphicsElement {\n   open val x: SVGAnimatedLength\n   open val y: SVGAnimatedLength\n   open val width: SVGAnimatedLength\n   open val height: SVGAnimatedLength\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external abstract class SVGMarkerElement : SVGElement, SVGFitToViewBox {\n   open val refX: SVGAnimatedLength\n open val refY: SVGAnimatedLength\n   open val markerUnits: SVGAnimatedEnumeration\n   open val markerWidth: SVGAnimatedLength\n   open val markerHeight: SVGAnimatedLength\n   open val orientType: SVGAnimatedEnumeration\n   open val orientAngle: SVGAnimatedAngle\n   open var orient: String\n   fun setOrientToAuto()\n   fun setOrientToAngle(angle: SVGAngle)\n\n   companion object {\n   val SVG_MARKERUNITS_UNKNOWN: Short\n   val SVG_MARKERUNITS_USERSPACEONUSE: Short\n   val SVG_MARKERUNITS_STROKEWIDTH: Short\n   val SVG_MARKER_ORIENT_UNKNOWN: Short\n   val SVG_MARKER_ORIENT_AUTO: Short\n   val SVG_MARKER_ORIENT_ANGLE: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGSolidcolorElement](https://developer.mozilla.org/en/docs/Web/API/SVGSolidcolorElement) to Kotlin\n */\npublic external abstract class SVGSolidcolorElement : SVGElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGGradientElement](https://developer.mozilla.org/en/docs/Web/API/SVGGradientElement) to Kotlin\n */\npublic external abstract class SVGGradientElement : SVGElement, SVGURIReference, SVGUnitTypes {\n   open val gradientUnits: SVGAnimatedEnumeration\n   open val gradientTransform: SVGAnimatedTransformList\n   open val spreadMethod: SVGAnimatedEnumeration\n\n   companion object {\n   val SVG_SPREADMETHOD_UNKNOWN: Short\n   val SVG_SPREADMETHOD_PAD: Short\n   val SVG_SPREADMETHOD_REFLECT: Short\n   val SVG_SPREADMETHOD_REPEAT: Short\n   val SVG_UNIT_TYPE_UNKNOWN: Short\n   val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n   val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGLinearGradientElement](https://developer.mozilla.org/en/docs/Web/API/SVGLinearGradientElement) to Kotlin\n */\npublic external abstract class SVGLinearGradientElement : SVGGradientElement {\n   open val x1: SVGAnimatedLength\n   open val y1: SVGAnimatedLength\n   open val x2: SVGAnimatedLength\n   open val

y2: SVGAnimatedLength\n\n   companion object {\n   val SVG_SPREADMETHOD_UNKNOWN: Short\n   val SVG_SPREADMETHOD_PAD: Short\n   val SVG_SPREADMETHOD_REFLECT: Short\n   val SVG_SPREADMETHOD_REPEAT: Short\n   val SVG_UNIT_TYPE_UNKNOWN: Short\n   val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n   val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC:
Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGRadialGradientElement](https://developer.mozilla.org/en/docs/Web/API/SVGRadialGradientElement) to Kotlin\n */\npublic external abstract class SVGRadialGradientElement : SVGGradientElement {\n   open val cx: SVGAnimatedLength\n   open val cy: SVGAnimatedLength\n   open val r: SVGAnimatedLength\n   open val fx: SVGAnimatedLength\n   open val fy: SVGAnimatedLength\n   open val fr: SVGAnimatedLength\n\n   companion object {\n   val SVG_SPREADMETHOD_UNKNOWN: Short\n   val SVG_SPREADMETHOD_PAD: Short\n   val SVG_SPREADMETHOD_REFLECT: Short\n   val SVG_SPREADMETHOD_REPEAT: Short\n   val SVG_UNIT_TYPE_UNKNOWN: Short\n   val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n   val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n
        val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external abstract class SVGMeshGradientElement : SVGGradientElement {\n   companion object {\n   val SVG_SPREADMETHOD_UNKNOWN: Short\n   val SVG_SPREADMETHOD_PAD: Short\n   val SVG_SPREADMETHOD_REFLECT: Short\n   val SVG_SPREADMETHOD_REPEAT: Short\n   val SVG_UNIT_TYPE_UNKNOWN: Short\n   val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n   val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n
        val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external abstract class SVGMeshrowElement : SVGElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val

ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external abstract class SVGMeshpatchElement : SVGElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGStopElement](https://developer.mozilla.org/en/docs/Web/API/SVGStopElement) to Kotlin\n */\npublic external abstract class SVGStopElement : SVGElement {\n   open val offset: SVGAnimatedNumber\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE:
Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGPatternElement](https://developer.mozilla.org/en/docs/Web/API/SVGPatternElement) to Kotlin\n */\npublic external abstract class SVGPatternElement : SVGElement, SVGFitToViewBox, SVGURIReference, SVGUnitTypes {\n   open val patternUnits: SVGAnimatedEnumeration\n   open val patternContentUnits: SVGAnimatedEnumeration\n   open val patternTransform: SVGAnimatedTransformList\n   open val x: SVGAnimatedLength\n   open val y: SVGAnimatedLength\n   open val width: SVGAnimatedLength\n   open val height: SVGAnimatedLength\n\n   companion object {\n   val SVG_UNIT_TYPE_UNKNOWN: Short\n   val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n   val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external abstract class

SVGHatchElement : SVGElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external abstract class SVGHatchpathElement : SVGElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE:
Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGCursorElement](https://developer.mozilla.org/en/docs/Web/API/SVGCursorElement) to Kotlin\n */\npublic external abstract class SVGCursorElement : SVGElement, SVGURIReference {\n open val x: SVGAnimatedLength\n open val y: SVGAnimatedLength\n\n companion object {\n val ELEMENT_NODE:
Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGScriptElement](https://developer.mozilla.org/en/docs/Web/API/SVGScriptElement) to Kotlin\n */\npublic external abstract class SVGScriptElement : SVGElement, SVGURIReference, HTMLOrSVGScriptElement {\n open var type: String\n
open var crossOrigin: String?\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGAElement](https://developer.mozilla.org/en/docs/Web/API/SVGAElement) to Kotlin\n */\npublic external abstract class SVGAElement : SVGGraphicsElement,

SVGURIReference {\n   open val target: SVGAnimatedString\n   open val download: SVGAnimatedString\n   open val rel: SVGAnimatedString\n   open val relList: SVGAnimatedString\n   open val hreflang: SVGAnimatedString\n   open val type: SVGAnimatedString\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGViewElement](https://developer.mozilla.org/en/docs/Web/API/SVGViewElement) to Kotlin\n */\npublic external abstract class SVGViewElement : SVGElement, SVGFitToViewBox, SVGZoomAndPan {\n   companion object {\n   val SVG_ZOOMANDPAN_UNKNOWN: Short\n   val SVG_ZOOMANDPAN_DISABLE: Short\n   val SVG_ZOOMANDPAN_MAGNIFY: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.files\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\nimport org.w3c.xhr.*\n\n/**\n * Exposes the JavaScript [Blob](https://developer.mozilla.org/en/docs/Web/API/Blob) to Kotlin\n */\npublic external open class Blob(blobParts: Array<dynamic> = definedExternally, options: BlobPropertyBag = definedExternally) : MediaProvider, ImageBitmapSource {\n   open val size: Number\n   open val type: String\n   open val isClosed: Boolean\n   fun slice(start: Int = definedExternally, end: Int = definedExternally, contentType: String = definedExternally): Blob\n   fun close()\n}\n\npublic external interface BlobPropertyBag {\n   var type: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun BlobPropertyBag(type: String? = \"\"): BlobPropertyBag {\n   val o = js(\"({})\")\n   o[\"type\"] = type\n   return o\n}\n\n/**\n * Exposes the JavaScript [File](https://developer.mozilla.org/en/docs/Web/API/File) to Kotlin\n */\npublic external open class File(fileBits: Array<dynamic>, fileName: String, options: FilePropertyBag = definedExternally) : Blob {\n   open val name: String\n   open val lastModified: Int\n}\n\npublic external interface FilePropertyBag : BlobPropertyBag {\n   var lastModified: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun FilePropertyBag(lastModified: Int? = undefined, type: String? = \"\"): FilePropertyBag {\n   val o = js(\"({})\")\n   o[\"lastModified\"] = lastModified\n   o[\"type\"] = type\n   return o\n}\n\n/**\n * Exposes the JavaScript

[FileList](https://developer.mozilla.org/en/docs/Web/API/FileList) to Kotlin\n */\npublic external abstract class FileList : ItemArrayLike<File> {\n   override fun item(index: Int): File?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun FileList.get(index: Int): File? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [FileReader](https://developer.mozilla.org/en/docs/Web/API/FileReader) to Kotlin\n */\npublic external open class FileReader : EventTarget {\n   open val readyState: Short\n   open val result: dynamic\n   open val error: dynamic\n   var onloadstart: ((ProgressEvent) -> dynamic)?\n   var onprogress: ((ProgressEvent) -> dynamic)?\n   var onload: ((Event) -> dynamic)?\n   var onabort: ((Event) -> dynamic)?\n   var onerror: ((Event) -> dynamic)?\n   var onloadend: ((Event) -> dynamic)?\n   fun readAsArrayBuffer(blob: Blob)\n   fun readAsBinaryString(blob: Blob)\n   fun readAsText(blob: Blob, label: String = definedExternally)\n   fun readAsDataURL(blob: Blob)\n   fun abort()\n\n   companion object {\n   val EMPTY: Short\n   val LOADING: Short\n   val DONE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [FileReaderSync](https://developer.mozilla.org/en/docs/Web/API/FileReaderSync) to Kotlin\n */\npublic external open class FileReaderSync {\n   fun readAsArrayBuffer(blob: Blob): ArrayBuffer\n   fun readAsBinaryString(blob: Blob): String\n   fun readAsText(blob: Blob, label: String = definedExternally): String\n   fun readAsDataURL(blob: Blob): String\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.notifications\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.events.*\nimport org.w3c.workers.*\n\n/**\n * Exposes the JavaScript [Notification](https://developer.mozilla.org/en/docs/Web/API/Notification) to Kotlin\n */\npublic external open class Notification(title: String, options: NotificationOptions = definedExternally) : EventTarget {\n   var onclick: ((MouseEvent) -> dynamic)?\n   var onerror: ((Event) -> dynamic)?\n   open val title: String\n   open val dir: NotificationDirection\n   open val lang: String\n   open val body: String\n   open val tag: String\n   open val image: String\n   open val icon: String\n   open val badge: String\n   open val sound: String\n   open val vibrate: Array<out Int>\n   open val timestamp: Number\n   open val renotify: Boolean\n   open val silent: Boolean\n   open val noscreen: Boolean\n   open val requireInteraction: Boolean\n   open val sticky: Boolean\n   open val data: Any?\n   open val actions: Array<out NotificationAction>\n   fun close()\n\n   companion object {\n   val permission: NotificationPermission\n   val maxActions: Int\n   fun requestPermission(deprecatedCallback: (NotificationPermission) -> Unit = definedExternally): Promise<NotificationPermission>\n   }\n}\n\npublic external interface NotificationOptions {\n   var dir: NotificationDirection? /* = NotificationDirection.AUTO */\n   get() = definedExternally\n   set(value) = definedExternally\n   var lang: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var body: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var tag: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var image: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var icon: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var badge: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var sound: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var vibrate: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var timestamp: Number?\n   get() = definedExternally\n   set(value) = definedExternally\n   var renotify: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var silent: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var noscreen: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var requireInteraction: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var sticky: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var data: Any? /* = null */\n   get() =

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definedExternally\n        set(value) = definedExternally\n    var actions: Array<NotificationAction>? /* = arrayOf()
*/\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun NotificationOptions(dir:
NotificationDirection? = NotificationDirection.AUTO, lang: String? = \"\", body: String? = \"\", tag: String? = \"\",
image: String? = undefined, icon: String? = undefined, badge: String? = undefined, sound: String? = undefined,
vibrate: dynamic = undefined, timestamp: Number? = undefined, renotify: Boolean? = false, silent:
 Boolean? = false, noscreen: Boolean? = false, requireInteraction: Boolean? = false, sticky: Boolean? = false, data:
Any? = null, actions: Array<NotificationAction>? = arrayOf()): NotificationOptions {\n    val o = js(\"({})\")\n
o[\"dir\"] = dir\n    o[\"lang\"] = lang\n    o[\"body\"] = body\n    o[\"tag\"] = tag\n    o[\"image\"] = image\n
o[\"icon\"] = icon\n    o[\"badge\"] = badge\n    o[\"sound\"] = sound\n    o[\"vibrate\"] = vibrate\n    o[\"timestamp\"]
= timestamp\n    o[\"renotify\"] = renotify\n    o[\"silent\"] = silent\n    o[\"noscreen\"] = noscreen\n
o[\"requireInteraction\"] = requireInteraction\n    o[\"sticky\"] = sticky\n    o[\"data\"] = data\n    o[\"actions\"] =
actions\n    return o\n}\n\npublic external interface NotificationAction {\n    var action: String?\n    var title:
String?\n    var icon: String?\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic
 inline fun NotificationAction(action: String?, title: String?, icon: String? = undefined): NotificationAction {\n    val
o = js(\"({})\")\n    o[\"action\"] = action\n    o[\"title\"] = title\n    o[\"icon\"] = icon\n    return o\n}\n\npublic
external interface GetNotificationOptions {\n    var tag: String? /* = \"\" */\n        get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun GetNotificationOptions(tag: String? =
\"\"): GetNotificationOptions {\n    val o = js(\"({})\")\n    o[\"tag\"] = tag\n    return o\n}\n\n/**\n * Exposes the
JavaScript [NotificationEvent](https://developer.mozilla.org/en/docs/Web/API/NotificationEvent) to Kotlin\n
*/\npublic external open class NotificationEvent(type: String, eventInitDict: NotificationEventInit) :
ExtendableEvent {\n    open val notification: Notification\n    open val action: String\n\n    companion
 object {\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val
BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface NotificationEventInit : ExtendableEventInit {\n
var notification: Notification?\n    var action: String? /* = \"\" */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun NotificationEventInit(notification:
Notification?, action: String? = \"\", bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? =
false): NotificationEventInit {\n    val o = js(\"({})\")\n    o[\"notification\"] = notification\n    o[\"action\"] =
action\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return
o\n}\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic
 external interface NotificationPermission {\n    companion object\n}\n\npublic inline val
NotificationPermission.Companion.DEFAULT: NotificationPermission get() =
\"default\".asDynamic().unsafeCast<NotificationPermission>()\n\npublic inline val
NotificationPermission.Companion.DENIED: NotificationPermission get() =
\"denied\".asDynamic().unsafeCast<NotificationPermission>()\n\npublic inline val
NotificationPermission.Companion.GRANTED: NotificationPermission get() =
\"granted\".asDynamic().unsafeCast<NotificationPermission>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface NotificationDirection {\n    companion object\n}\n\npublic inline val
NotificationDirection.Companion.AUTO: NotificationDirection get() =
\"auto\".asDynamic().unsafeCast<NotificationDirection>()\n\npublic inline val
NotificationDirection.Companion.LTR: NotificationDirection get() =
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\"ltr\".asDynamic().unsafeCast<NotificationDirection>()\n\npublic inline val NotificationDirection.Companion.RTL: NotificationDirection get() = \"rtl\".asDynamic().unsafeCast<NotificationDirection>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.workers\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\nimport org.w3c.fetch.*\nimport org.w3c.notifications.*\n\n/**\n * Exposes the JavaScript [ServiceWorker](https://developer.mozilla.org/en/docs/Web/API/ServiceWorker) to Kotlin\n */\npublic external abstract class ServiceWorker : EventTarget, AbstractWorker, UnionMessagePortOrServiceWorker, UnionClientOrMessagePortOrServiceWorker {\n   open val scriptURL: String\n   open val state: ServiceWorkerState\n   open var onstatechange: ((Event) -> dynamic)?\n   fun postMessage(message: Any?, transfer: Array<dynamic> = definedExternally)\n}\n\n/**\n * Exposes the JavaScript [ServiceWorkerRegistration](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerRegistration) to Kotlin\n */\npublic external abstract class ServiceWorkerRegistration : EventTarget {\n   open val installing: ServiceWorker?\n   open val waiting: ServiceWorker?\n   open val active: ServiceWorker?\n   open val scope: String\n   open var onupdatefound: ((Event) -> dynamic)?\n   open val APISpace: dynamic\n   fun update(): Promise<Unit>\n   fun unregister(): Promise<Boolean>\n   fun showNotification(title: String, options: NotificationOptions = definedExternally): Promise<Unit>\n   fun getNotifications(filter: GetNotificationOptions = definedExternally): Promise<Array<Notification>>\n   fun methodName(): Promise<dynamic>\n}\n\n/**\n * Exposes the JavaScript [ServiceWorkerContainer](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerContainer) to Kotlin\n */\npublic external abstract class ServiceWorkerContainer : EventTarget {\n   open val controller: ServiceWorker?\n   open val ready: Promise<ServiceWorkerRegistration>\n   open var oncontrollerchange: ((Event) -> dynamic)?\n   open var onmessage: ((MessageEvent) -> dynamic)?\n   fun register(scriptURL: String, options: RegistrationOptions = definedExternally): Promise<ServiceWorkerRegistration>\n   fun getRegistration(clientURL: String = definedExternally): Promise<Any?>\n   fun getRegistrations(): Promise<Array<ServiceWorkerRegistration>>\n   fun startMessages()\n}\n\npublic external interface RegistrationOptions {\n   var scope: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var type: WorkerType? /* = WorkerType.CLASSIC */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun RegistrationOptions(scope: String? = undefined, type: WorkerType? = WorkerType.CLASSIC): RegistrationOptions {\n   val o = js(\"({})\")\n   o[\"scope\"] = scope\n   o[\"type\"] = type\n   return o\n}\n\n/**\n * Exposes the JavaScript [ServiceWorkerMessageEvent](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerMessageEvent) to Kotlin\n */\npublic external open class ServiceWorkerMessageEvent(type: String, eventInitDict: ServiceWorkerMessageEventInit = definedExternally) : Event {\n   open val data: Any?\n   open val origin: String\n   open val lastEventId: String\n   open val source: UnionMessagePortOrServiceWorker?\n   open val ports: Array<out MessagePort>?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface ServiceWorkerMessageEventInit : EventInit {\n   var data: Any?\n   get() = definedExternally\n   set(value) = definedExternally\n   var origin: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var lastEventId: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var source: UnionMessagePortOrServiceWorker?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ports: Array<MessagePort>?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",

\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ServiceWorkerMessageEventInit(data: Any? = undefined, origin: String? = undefined, lastEventId: String? = undefined, source: UnionMessagePortOrServiceWorker? = undefined, ports: Array<MessagePort>? = undefined, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ServiceWorkerMessageEventInit {\n   val o = js(\"({})\")\n   o[\"data\"] = data\n
 o[\"origin\"] = origin\n   o[\"lastEventId\"] = lastEventId\n   o[\"source\"] = source\n   o[\"ports\"] = ports\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [ServiceWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerGlobalScope) to Kotlin\n */\npublic external abstract class ServiceWorkerGlobalScope : WorkerGlobalScope {\n   open val clients: Clients\n   open val registration: ServiceWorkerRegistration\n   open var oninstall: ((Event) -> dynamic)?\n   open var onactivate: ((Event) -> dynamic)?\n   open var onfetch: ((FetchEvent) -> dynamic)?\n   open var onforeignfetch: ((Event) -> dynamic)?\n   open var onmessage: ((MessageEvent) -> dynamic)?\n   open var onnotificationclick: ((NotificationEvent) -> dynamic)?\n   open var onnotificationclose: ((NotificationEvent) -> dynamic)?\n   open var onfunctionalevent: ((Event) -> dynamic)?\n   fun skipWaiting():
 Promise<Unit>\n}\n\n/**\n * Exposes the JavaScript [Client](https://developer.mozilla.org/en/docs/Web/API/Client) to Kotlin\n */\npublic external abstract class Client : UnionClientOrMessagePortOrServiceWorker {\n   open val url: String\n   open val frameType: FrameType\n   open val id: String\n   fun postMessage(message: Any?, transfer: Array<dynamic> = definedExternally)\n}\n\n/**\n * Exposes the JavaScript [WindowClient](https://developer.mozilla.org/en/docs/Web/API/WindowClient) to Kotlin\n */\npublic external abstract class WindowClient : Client {\n   open val visibilityState: dynamic\n   open val focused: Boolean\n   fun focus(): Promise<WindowClient>\n   fun navigate(url: String): Promise<WindowClient>\n}\n\n/**\n * Exposes the JavaScript [Clients](https://developer.mozilla.org/en/docs/Web/API/Clients) to Kotlin\n */\npublic external abstract class Clients {\n   fun get(id: String): Promise<Any?>\n   fun matchAll(options: ClientQueryOptions = definedExternally):
 Promise<Array<Client>>\n   fun openWindow(url: String): Promise<WindowClient?>\n   fun claim(): Promise<Unit>\n}\n\npublic external interface ClientQueryOptions {\n   var includeUncontrolled: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var type: ClientType? /* = ClientType.WINDOW */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ClientQueryOptions(includeUncontrolled: Boolean? = false, type: ClientType? = ClientType.WINDOW): ClientQueryOptions {\n   val o = js(\"({})\")\n   o[\"includeUncontrolled\"] = includeUncontrolled\n   o[\"type\"] = type\n   return o\n}\n\n/**\n * Exposes the JavaScript [ExtendableEvent](https://developer.mozilla.org/en/docs/Web/API/ExtendableEvent) to Kotlin\n */\npublic external open class ExtendableEvent(type: String, eventInitDict: ExtendableEventInit =
 definedExternally) : Event {\n   fun waitUntil(f: Promise<Any?>)\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface ExtendableEventInit : EventInit\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ExtendableEventInit(bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ExtendableEventInit {\n   val o = js(\"({})\")\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [InstallEvent](https://developer.mozilla.org/en/docs/Web/API/InstallEvent) to Kotlin\n */\npublic external open class InstallEvent(type: String, eventInitDict: ExtendableEventInit = definedExternally) : ExtendableEvent {\n   fun registerForeignFetch(options: ForeignFetchOptions)\n\n   companion object

{\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface ForeignFetchOptions {\n   var scopes: Array<String>?\n   var origins: Array<String>?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ForeignFetchOptions(scopes: Array<String>?, origins: Array<String>?): ForeignFetchOptions {\n   val o = js(\"({})\")\n   o[\"scopes\"] = scopes\n   o[\"origins\"] = origins\n   return o\n}\n\n/**\n * Exposes the JavaScript [FetchEvent](https://developer.mozilla.org/en/docs/Web/API/FetchEvent) to Kotlin\n */\npublic external open class FetchEvent(type: String, eventInitDict: FetchEventInit) : ExtendableEvent {\n   open val request: Request\n   open val clientId: String?\n   open val isReload: Boolean\n   fun respondWith(r: Promise<Response>)\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface FetchEventInit : ExtendableEventInit {\n   var request: Request?\n   var clientId: String? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var isReload: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun FetchEventInit(request: Request?, clientId: String? = null, isReload: Boolean? = false, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): FetchEventInit {\n   val o = js(\"({})\")\n   o[\"request\"] = request\n   o[\"clientId\"] = clientId\n   o[\"isReload\"] = isReload\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\npublic external open class ForeignFetchEvent(type: String, eventInitDict: ForeignFetchEventInit) : ExtendableEvent {\n   open val request: Request\n   open val origin: String\n   fun respondWith(r: Promise<ForeignFetchResponse>)\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface ForeignFetchEventInit : ExtendableEventInit {\n   var request: Request?\n   var origin: String? /* = \"null\" */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ForeignFetchEventInit(request: Request?, origin: String? = \"null\", bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ForeignFetchEventInit {\n   val o = js(\"({})\")\n   o[\"request\"] = request\n   o[\"origin\"] = origin\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\npublic external interface ForeignFetchResponse {\n   var response: Response?\n   var origin: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var headers: Array<String>?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ForeignFetchResponse(response: Response?, origin: String? = undefined, headers: Array<String>? = undefined): ForeignFetchResponse {\n   val o = js(\"({})\")\n   o[\"response\"] = response\n   o[\"origin\"] = origin\n   o[\"headers\"] = headers\n   return o\n}\n\n/**\n * Exposes the JavaScript [ExtendableMessageEvent](https://developer.mozilla.org/en/docs/Web/API/ExtendableMessageEvent) to Kotlin\n */\npublic external open class ExtendableMessageEvent(type: String, eventInitDict: ExtendableMessageEventInit = definedExternally) : ExtendableEvent {\n   open val data: Any?\n   open val origin: String\n   open val lastEventId: String\n   open val source: UnionClientOrMessagePortOrServiceWorker?\n   open val ports: Array<out MessagePort>?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface ExtendableMessageEventInit : ExtendableEventInit {\n   var data: Any?\n   get() = definedExternally\n   set(value) = definedExternally\n   var origin: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var lastEventId: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var source: UnionClientOrMessagePortOrServiceWorker?\n   get() = definedExternally\n   set(value) =

definedExternally\n   var ports: Array<MessagePort>?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ExtendableMessageEventInit(data: Any? = undefined, origin: String? = undefined, lastEventId: String? = undefined, source: UnionClientOrMessagePortOrServiceWorker? = undefined, ports: Array<MessagePort>? = undefined, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ExtendableMessageEventInit {\n   val o = js(\"({})\")\n   o[\"data\"] = data\n   o[\"origin\"] = origin\n   o[\"lastEventId\"] = lastEventId\n   o[\"source\"] = source\n   o[\"ports\"] = ports\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [Cache](https://developer.mozilla.org/en/docs/Web/API/Cache) to Kotlin\n */\npublic external abstract class Cache {\n   fun match(request: dynamic, options: CacheQueryOptions = definedExternally): Promise<Any?>\n   fun matchAll(request: dynamic = definedExternally, options: CacheQueryOptions = definedExternally): Promise<Array<Response>>\n   fun add(request: dynamic): Promise<Unit>\n   fun addAll(requests: Array<dynamic>): Promise<Unit>\n   fun put(request: dynamic, response: Response): Promise<Unit>\n   fun delete(request: dynamic, options: CacheQueryOptions = definedExternally): Promise<Boolean>\n   fun keys(request: dynamic = definedExternally, options: CacheQueryOptions = definedExternally): Promise<Array<Request>>\n}\n\npublic external interface CacheQueryOptions {\n   var ignoreSearch: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var ignoreMethod: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var ignoreVary: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var cacheName: String?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CacheQueryOptions(ignoreSearch: Boolean? = false, ignoreMethod: Boolean? = false, ignoreVary: Boolean? = false, cacheName: String? = undefined): CacheQueryOptions {\n   val o = js(\"({})\")\n   o[\"ignoreSearch\"] = ignoreSearch\n   o[\"ignoreMethod\"] = ignoreMethod\n   o[\"ignoreVary\"] = ignoreVary\n   o[\"cacheName\"] = cacheName\n   return o\n}\n\npublic external interface CacheBatchOperation {\n   var type: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var request: Request?\n   get() = definedExternally\n   set(value) = definedExternally\n   var response: Response?\n   get() = definedExternally\n   set(value) = definedExternally\n   var options: CacheQueryOptions?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CacheBatchOperation(type: String? = undefined, request: Request? = undefined, response: Response? = undefined, options: CacheQueryOptions? = undefined): CacheBatchOperation {\n   val o = js(\"({})\")\n   o[\"type\"] = type\n   o[\"request\"] = request\n   o[\"response\"] = response\n   o[\"options\"] = options\n   return o\n}\n\n/**\n * Exposes the JavaScript [CacheStorage](https://developer.mozilla.org/en/docs/Web/API/CacheStorage) to Kotlin\n */\npublic external abstract class CacheStorage {\n   fun match(request: dynamic, options: CacheQueryOptions = definedExternally): Promise<Any?>\n   fun has(cacheName: String): Promise<Boolean>\n   fun open(cacheName: String): Promise<Cache>\n   fun delete(cacheName: String): Promise<Boolean>\n   fun keys(): Promise<Array<String>>\n}\n\npublic external open class FunctionalEvent : ExtendableEvent {\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface UnionMessagePortOrServiceWorker\n\npublic external interface UnionClientOrMessagePortOrServiceWorker\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ServiceWorkerState {\n   companion object\n}\n\npublic inline val ServiceWorkerState.Companion.INSTALLING: ServiceWorkerState get() =

\"installing\".asDynamic().unsafeCast<ServiceWorkerState>()\n\npublic inline val
ServiceWorkerState.Companion.INSTALLED: ServiceWorkerState get() =
\"installed\".asDynamic().unsafeCast<ServiceWorkerState>()\n\npublic inline val
ServiceWorkerState.Companion.ACTIVATING: ServiceWorkerState get() =
\"activating\".asDynamic().unsafeCast<ServiceWorkerState>()\n\npublic inline val
ServiceWorkerState.Companion.ACTIVATED: ServiceWorkerState get() =
\"activated\".asDynamic().unsafeCast<ServiceWorkerState>()\n\npublic
inline val ServiceWorkerState.Companion.REDUNDANT: ServiceWorkerState get() =
\"redundant\".asDynamic().unsafeCast<ServiceWorkerState>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface FrameType {\n   companion object\n}\n\npublic inline val FrameType.Companion.AUXILIARY:
FrameType get() = \"auxiliary\".asDynamic().unsafeCast<FrameType>()\n\npublic inline val
FrameType.Companion.TOP_LEVEL: FrameType get() = \"top-
level\".asDynamic().unsafeCast<FrameType>()\n\npublic inline val FrameType.Companion.NESTED: FrameType
get() = \"nested\".asDynamic().unsafeCast<FrameType>()\n\npublic inline val FrameType.Companion.NONE:
FrameType get() = \"none\".asDynamic().unsafeCast<FrameType>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface ClientType {\n   companion object\n}\n\npublic inline val ClientType.Companion.WINDOW:
ClientType get() = \"window\".asDynamic().unsafeCast<ClientType>()\n\npublic inline val
ClientType.Companion.WORKER: ClientType get() =
\"worker\".asDynamic().unsafeCast<ClientType>()\n\npublic inline val
ClientType.Companion.SHAREDWORKER: ClientType get() =
\"sharedworker\".asDynamic().unsafeCast<ClientType>()\n\npublic inline val ClientType.Companion.ALL:
ClientType get() = \"all\".asDynamic().unsafeCast<ClientType>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT
EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.xhr\n\nimport kotlin.js.*\nimport
org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\nimport org.w3c.files.*\n\n/**\n *
Exposes the JavaScript
[XMLHttpRequestEventTarget](https://developer.mozilla.org/en/docs/Web/API/XMLHttpRequestEventTarget)
to Kotlin\n */\npublic external abstract class XMLHttpRequestEventTarget : EventTarget {\n   open var
onloadstart: ((ProgressEvent) -> dynamic)?\n   open var onprogress: ((ProgressEvent) -> dynamic)?\n   open var
onabort: ((Event) -> dynamic)?\n   open var onerror: ((Event) -> dynamic)?\n   open var onload: ((Event) ->
dynamic)?\n   open var ontimeout: ((Event) -> dynamic)?\n   open var onloadend: ((Event) ->
dynamic)?\n}\n\npublic external abstract class XMLHttpRequestUpload : XMLHttpRequestEventTarget\n\n/**\n *
Exposes the JavaScript [XMLHttpRequest](https://developer.mozilla.org/en/docs/Web/API/XMLHttpRequest) to
Kotlin\n */\npublic external open class XMLHttpRequest : XMLHttpRequestEventTarget {\n   var
onreadystatechange: ((Event) -> dynamic)?\n   open val readyState: Short\n   var timeout: Int\n   var
withCredentials: Boolean\n   open val upload: XMLHttpRequestUpload\n   open val responseURL: String\n   open
val status: Short\n
open val statusText: String\n   var responseType: XMLHttpRequestResponseType\n   open val response: Any?\n
open val responseText: String\n   open val responseXML: Document?\n   fun open(method: String, url: String)\n
fun open(method: String, url: String, async: Boolean, username: String? = definedExternally, password: String? =
definedExternally)\n   fun setRequestHeader(name: String, value: String)\n   fun send(body: dynamic =
definedExternally)\n   fun abort()\n   fun getResponseHeader(name: String): String?\n   fun
getAllResponseHeaders(): String\n   fun overrideMimeType(mime: String)\n\n   companion object {\n   val
UNSENT: Short\n   val OPENED: Short\n   val HEADERS_RECEIVED: Short\n   val LOADING:
Short\n   val DONE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript

[FormData](https://developer.mozilla.org/en/docs/Web/API/FormData) to Kotlin\n */\npublic external open class FormData(form: HTMLFormElement = definedExternally) {\n   fun

append(name: String, value: String)\n   fun append(name: String, value: Blob, filename: String = definedExternally)\n   fun delete(name: String)\n   fun get(name: String): dynamic\n   fun getAll(name: String): Array<dynamic>\n   fun has(name: String): Boolean\n   fun set(name: String, value: String)\n   fun set(name: String, value: Blob, filename: String = definedExternally)\n}\n\n/**\n * Exposes the JavaScript [ProgressEvent](https://developer.mozilla.org/en/docs/Web/API/ProgressEvent) to Kotlin\n */\npublic external open class ProgressEvent(type: String, eventInitDict: ProgressEventInit = definedExternally) : Event {\n   open val lengthComputable: Boolean\n   open val loaded: Number\n   open val total: Number\n\n   companion object {\n

val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface ProgressEventInit : EventInit {\n   var lengthComputable: Boolean? /* = false

/\n   get() = definedExternally\n   set(value) = definedExternally\n   var loaded: Number? / = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var total: Number? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ProgressEventInit(lengthComputable: Boolean? = false, loaded: Number? = 0, total: Number? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ProgressEventInit {\n   val o = js(\"({})\")\n   o[\"lengthComputable\"] = lengthComputable\n   o[\"loaded\"] = loaded\n   o[\"total\"] = total\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface

XMLHttpRequestResponseType {\n   companion object\n}\n\npublic inline val XMLHttpRequestResponseType.Companion.EMPTY: XMLHttpRequestResponseType get() = \"\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val XMLHttpRequestResponseType.Companion.ARRAYBUFFER: XMLHttpRequestResponseType get() = \"arraybuffer\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val XMLHttpRequestResponseType.Companion.BLOB: XMLHttpRequestResponseType get() = \"blob\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val XMLHttpRequestResponseType.Companion.DOCUMENT: XMLHttpRequestResponseType get() = \"document\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val XMLHttpRequestResponseType.Companion.JSON: XMLHttpRequestResponseType get() = \"json\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val XMLHttpRequestResponseType.Companion.TEXT: XMLHttpRequestResponseType get() = \"text\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()","/*\n

* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.annotation.AnnotationRetention.BINARY\nimport kotlin.annotation.AnnotationRetention.SOURCE\nimport kotlin.annotation.AnnotationTarget.*\nimport kotlin.internal.RequireKotlin\nimport kotlin.internal.RequireKotlinVersionKind\nimport kotlin.reflect.KClass\n\n/**\n * Signals that the annotated annotation class is a marker of an experimental API.\n *\n * Any declaration annotated with that marker is considered an experimental declaration\n * and its call sites should accept the experimental aspect of it either by using [UseExperimental],\n * or by being annotated with that marker themselves, effectively causing further propagation of that experimental aspect.\n *\n * This class is deprecated in favor of a

more general approach provided by [RequiresOptIn]/[OptIn].\n */\n@Target(ANNOTATION_CLASS)\n@Retention(BINARY)\n@SinceKotlin(\"1.2\")\n@RequireKotlin(\"1.2.50\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\n@Deprecated(\"Please use RequiresOptIn instead.\")\npublic annotation class Experimental(val level: Level = Level.ERROR) {\n /**\n * Severity of the diagnostic that should be reported on usages of experimental API which did not explicitly accept the experimental aspect\n * of that API either by using [UseExperimental] or by being annotated with the corresponding marker annotation.\n */\n public enum class Level {\n /** Specifies that a warning should be reported on incorrect usages of this experimental API. */\n WARNING,\n /** Specifies that an error should be reported on incorrect usages of this experimental API. */\n ERROR,\n }\n}\n\n/**\n * Allows to use experimental API denoted by the given markers in the annotated file,

declaration, or expression.\n * If a declaration is annotated with [UseExperimental], its usages are **not** required to opt-in to that experimental API.\n *\n * This class is deprecated in favor of a more general approach provided by [RequiresOptIn]/[OptIn].\n */\n@Target(\n CLASS, PROPERTY, LOCAL_VARIABLE, VALUE_PARAMETER, CONSTRUCTOR, FUNCTION, PROPERTY_GETTER, PROPERTY_SETTER, EXPRESSION, FILE, TYPEALIAS\n)\n@Retention(SOURCE)\n@SinceKotlin(\"1.2\")\n@RequireKotlin(\"1.2.50\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\n@Deprecated(\"Please use OptIn instead.\", ReplaceWith(\"OptIn(*markerClass)\", \"kotlin.OptIn\"))\npublic annotation class UseExperimental(\n vararg val markerClass: KClass<out Annotation>\n)\n\n\n@Target(CLASS, PROPERTY, CONSTRUCTOR, FUNCTION, TYPEALIAS)\n@Retention(BINARY)\ninternal annotation class WasExperimental(\n vararg val markerClass: KClass<out Annotation>\n)\n","package kotlin\n\nimport kotlin.annotation.AnnotationTarget.*\n\n/**\n

* This annotation marks the standard library API that is considered experimental and is not subject to the\n * [general compatibility guarantees](https://kotlinlang.org/docs/reference/evolution/components-stability.html) given for the standard library:\n * the behavior of such API may be changed or the API may be removed completely in any further release.\n *\n * > Beware using the annotated API especially if you're developing a library, since your library might become binary incompatible\n * with the future versions of the standard library.\n *\n * Any usage of a declaration annotated with `@ExperimentalStdlibApi` must be accepted either by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalStdlibApi::class)`,\n * or by using the compiler argument `-Xopt-in=kotlin.ExperimentalStdlibApi`.\n */\n@Suppress(\"DEPRECATION\")\n@Experimental(level = Experimental.Level.ERROR)\n@RequiresOptIn(level = RequiresOptIn.Level.ERROR)\n@Retention(AnnotationRetention.BINARY)\n@Target(\n CLASS,\n ANNOTATION_CLASS,\n PROPERTY,\n FIELD,\n LOCAL_VARIABLE,\n VALUE_PARAMETER,\n CONSTRUCTOR,\n FUNCTION,\n PROPERTY_GETTER,\n PROPERTY_SETTER,\n TYPEALIAS\n)\n@MustBeDocumented\n@SinceKotlin(\"1.3\")\npublic annotation class ExperimentalStdlibApi\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.annotation.AnnotationTarget.*\nimport kotlin.experimental.ExperimentalTypeInference\n\n/**\n * Allows to infer generic type arguments of a function from the calls in the annotated function parameter of that function.\n *\n * When this annotation is placed on a generic function parameter of a function,\n * it enables to infer the type arguments of that generic function from the lambda body passed to that parameter.\n *\n * The calls that affect

inference are either members of the receiver type of an annotated function parameter or\n * extensions for that type. The extensions must be themselves annotated with `@BuilderInference`.\n *\n * Example: we declare\n * ```\n * fun <T> sequence(@BuilderInference block: suspend SequenceScope<T>.() -> Unit): Sequence<T>\n * ```\n * and use it like\n * ```\n * val result = sequence { yield(\"result\") }\n * ```\n * Here the type argument of the resulting sequence is inferred to `String` from\n * the argument of the [SequenceScope.yield] function, that is called inside the lambda passed to [sequence].\n *\n * Note: this annotation is experimental, see [ExperimentalTypeInference] on how to opt-in for it.\n */\n@Target(VALUE_PARAMETER, FUNCTION, PROPERTY)\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.3\")\n@ExperimentalTypeInference\npublic annotation class BuilderInference\n\n\n/**\n * Enables overload selection based on the type of the value returned from lambda argument.\n

*\n * When two or more function overloads have otherwise the same parameter lists that differ only in the return type\n * of a functional parameter, this annotation enables overload selection by the type of the value returned from\n * the lambda function passed to this functional parameter.\n *\n * Example:\n * ```\n * @OverloadResolutionByLambdaReturnType\n * fun create(intProducer: () -> Int): Int\n *\n * fun create(doubleProducer: () -> Double): Double\n *\n * val newValue = create { 3.14 }\n * ```\n *\n * The annotation being applied to one of overloads allows to resolve this ambiguity by analyzing what value is returned\n * from the lambda function.\n *\n * This annotation is also used to discriminate the annotated overloads in case if overload selection still cannot\n * choose one of them even taking in account the result of lambda parameter analysis. In that case a warning is reported.\n *\n * Note: this annotation is experimental, see [ExperimentalTypeInference] on how to opt-in
for it.\n
/\n@Target(FUNCTION)\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.4\")\n@ExperimentalTypeInference\npublic annotation class OverloadResolutionByLambdaReturnType","/\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.annotation.AnnotationTarget.*\nimport kotlin.internal.RequireKotlin\nimport kotlin.internal.RequireKotlinVersionKind\n\n/**\n * The experimental multiplatform support API marker.\n *\n * Any usage of a declaration annotated with `@ExperimentalMultiplatform` must be accepted either by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalMultiplatform::class)`,\n * or by using the compiler argument `-Xopt-in=kotlin.ExperimentalMultiplatform`.\n */\n@Suppress(\"DEPRECATION\")\n@Experimental\n@RequiresOptIn\n@MustBeDocumented\n@Target(\n CLASS,\n ANNOTATION_CLASS,\n PROPERTY,\n FIELD,\n LOCAL_VARIABLE,\n VALUE_PARAMETER,\n CONSTRUCTOR,\n FUNCTION,\n PROPERTY_GETTER,\n PROPERTY_SETTER,\n TYPEALIAS\n)\n@Retention(AnnotationRetention.BINARY)\n@RequireKotlin(\"1.2.50\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\npublic annotation class ExperimentalMultiplatform\n\n/**\n * Marks an expected annotation class that it isn't required to have actual counterparts in all platforms.\n *\n * This annotation is only applicable to `expect` annotation classes in multi-platform projects and marks that class as \"optional\".\n * Optional expected class is allowed to have no corresponding actual class on the platform. Optional annotations can only be used\n * to annotate something, not as types in signatures. If an optional annotation has no corresponding actual class on a platform,\n * the annotation entries where it's used are simply erased when compiling code on that platform.\n *\n
* Note: this annotation is experimental, see [ExperimentalMultiplatform] on how to opt-in for it.\n */\n@Target(ANNOTATION_CLASS)\n@Retention(AnnotationRetention.BINARY)\n@ExperimentalMultiplatform\n@RequireKotlin(\"1.2.50\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\npublic annotation class OptionalExpectation\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.annotation.AnnotationRetention.BINARY\nimport kotlin.annotation.AnnotationRetention.SOURCE\nimport kotlin.annotation.AnnotationTarget.*\nimport kotlin.internal.RequireKotlin\nimport kotlin.internal.RequireKotlinVersionKind\nimport kotlin.reflect.KClass\n\n/**\n * Signals that the annotated annotation class is a marker of an API that requires an explicit opt-in.\n *\n * Call sites of any declaration annotated with that
marker should opt in to the API either by using [OptIn],\n * or by being annotated with that marker themselves, effectively causing further propagation of the opt-in requirement.\n *\n * This class requires opt-in itself and can only be used with the compiler argument `-Xopt-in=kotlin.RequiresOptIn`.\n *\n * @property message message to be reported on usages of API without an explicit opt-in, or empty string for the default message.\n * The default message is: \"This declaration is experimental and its usage should be marked with 'Marker'\n *

or '@OptIn(Marker::class)'\", where `Marker` is the opt-in requirement marker.\n * @property level specifies how usages of API without an explicit opt-in are reported in code.\n */\n@Target(ANNOTATION_CLASS)\n@Retention(BINARY)\n@SinceKotlin(\"1.3\")\n@RequireKotlin(\"1.3.70\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\npublic annotation class RequiresOptIn(\n   val message: String = \"\",\n

val level: Level = Level.ERROR\n) {\n   /**\n   * Severity of the diagnostic that should be reported on usages which did not explicitly opted into\n   * the API either by using [OptIn] or by being annotated with the corresponding marker annotation.\n   */\n   public enum class Level {\n   /** Specifies that a warning should be reported on incorrect usages of this API. */\n   WARNING,\n\n   /** Specifies that an error should be reported on incorrect usages of this API. */\n   ERROR,\n   }\n}\n\n/**\n * Allows to use the API denoted by the given markers in the annotated file, declaration, or expression.\n * If a declaration is annotated with [OptIn], its usages are **not** required to opt in to that API.\n *\n * This class requires opt-in itself and can only be used with the compiler argument `-Xopt-in=kotlin.RequiresOptIn`.\n */\n@Target(\n   CLASS, PROPERTY, LOCAL_VARIABLE, VALUE_PARAMETER, CONSTRUCTOR, FUNCTION, PROPERTY_GETTER, PROPERTY_SETTER, EXPRESSION,

FILE, TYPEALIAS\n)\n@Retention(SOURCE)\n@SinceKotlin(\"1.3\")\n@RequireKotlin(\"1.3.70\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\npublic annotation class OptIn(\n   vararg val markerClass: KClass<out Annotation>\n)\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.collections\n\nimport kotlin.js.JsName\n\n/**\n * Provides a skeletal implementation of the read-only [Collection] interface.\n *\n * @param E the type of elements contained in the collection. The collection is covariant in its element type.\n */\n@SinceKotlin(\"1.1\")\npublic abstract class AbstractCollection<out E> protected constructor() : Collection<E> {\n   abstract override val size: Int\n   abstract override fun iterator(): Iterator<E>\n\n   override fun contains(element: @UnsafeVariance E): Boolean = any { it == element

}\n\n   override fun containsAll(elements: Collection<@UnsafeVariance E>): Boolean =\n   elements.all { contains(it) } // use when js will support bound refs: elements.all(this::contains)\n\n   override fun isEmpty(): Boolean = size == 0\n\n   override fun toString(): String = joinToString(\", \", \"[\", \"]\") {\n   if (it === this) \"(this Collection)\" else it.toString()\n   }\n\n   /**\n   * Returns new array of type `Array<Any?>` with the elements of this collection.\n   */\n   @JsName(\"toArray\")\n   protected open fun toArray(): Array<Any?> = copyToArrayImpl(this)\n\n   /**\n   * Fills the provided [array] or creates new array of the same type\n   * and fills it with the elements of this collection.\n   */\n   protected open fun <T> toArray(array: Array<T>): Array<T> = copyToArrayImpl(this, array)\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache

2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n\nprivate enum class State {\n   Ready,\n   NotReady,\n   Done,\n   Failed\n}\n\n/**\n * A base class to simplify implementing iterators so that implementations only have to implement [computeNext]\n * to implement the iterator, calling [done] when the iteration is complete.\n */\npublic abstract class AbstractIterator<T> : Iterator<T> {\n   private var state = State.NotReady\n   private var nextValue: T? = null\n\n   override fun hasNext(): Boolean {\n   require(state != State.Failed)\n   return when (state) {\n   State.Done -> false\n   State.Ready -> true\n   else -> tryToComputeNext()\n   }\n   }\n\n   override fun next(): T {\n   if (!hasNext()) throw NoSuchElementException()\n   state = State.NotReady\n   @Suppress(\"UNCHECKED_CAST\")\n   return nextValue as T\n   }\n\n   private fun tryToComputeNext(): Boolean

{\n   state = State.Failed\n   computeNext()\n   return state == State.Ready\n   }\n\n   /**\n   * Computes the next item in the iterator.\n   *\n   * This callback method should call one of these two methods:\n   *\n   * * [setNext] with the next value of the iteration\n   * * [done] to indicate there are no more elements\n   *\n   * Failure to call either method will result in the iteration terminating with a failed state\n   */\n   abstract protected fun computeNext(): Unit\n\n   /**\n   * Sets the next value in the iteration, called from the [computeNext] function\n   */\n   protected fun setNext(value: T): Unit {\n   nextValue = value\n   state = State.Ready\n   }\n\n   /**\n   * Sets the state to done so that the iteration terminates.\n   */\n   protected fun done() {\n   state = State.Done\n   }\n}\n\n\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this

source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/*\n * Based on GWT AbstractList\n * Copyright 2007 Google Inc.\n*/\n\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the read-only [List] interface.\n *\n * This class is intended to help implementing read-only lists so it doesn't support concurrent modification tracking.\n *\n * @param E the type of elements contained in the list. The list is covariant in its element type.\n */\n@SinceKotlin(\"1.1\")\npublic abstract class AbstractList<out E> protected constructor() : AbstractCollection<E>(), List<E> {\n   abstract override val size: Int\n   abstract override fun get(index: Int): E\n\n   override fun iterator(): Iterator<E> = IteratorImpl()\n\n   override fun indexOf(element: @UnsafeVariance E): Int = indexOfFirst { it == element }\n\n   override fun lastIndexOf(element: @UnsafeVariance E): Int = indexOfLast { it == element }\n\n   override

fun listIterator(): ListIterator<E> = ListIteratorImpl(0)\n\n   override fun listIterator(index: Int): ListIterator<E> = ListIteratorImpl(index)\n\n   override fun subList(fromIndex: Int, toIndex: Int): List<E> = SubList(this, fromIndex, toIndex)\n\n   private class SubList<out E>(private val list: AbstractList<E>, private val fromIndex: Int, toIndex: Int) : AbstractList<E>(), RandomAccess {\n   private var _size: Int = 0\n\n   init {\n   checkRangeIndexes(fromIndex, toIndex, list.size)\n   this._size = toIndex - fromIndex\n   }\n\n   override fun get(index: Int): E {\n   checkElementIndex(index, _size)\n\n   return list[fromIndex + index]\n   }\n\n   override val size: Int get() = _size\n   }\n\n   /**\n   * Compares this list with other list instance with the ordered structural equality.\n   *\n   * @return true, if [other] instance is a [List] of the same size, which contains the same elements in the same

order.\n   */\n   override fun equals(other: Any?): Boolean {\n   if (other === this) return true\n   if (other !is List<*>) return false\n\n   return orderedEquals(this, other)\n   }\n\n   /**\n   * Returns the hash code value for this list.\n   */\n   override fun hashCode(): Int = orderedHashCode(this)\n\n   private open inner class IteratorImpl : Iterator<E> {\n   /** the index of the item that will be returned on the next call to [next]`()` */\n   protected var index = 0\n\n   override fun hasNext(): Boolean = index < size\n\n   override fun next(): E {\n   if (!hasNext()) throw NoSuchElementException()\n   return get(index++)\n   }\n   }\n\n   /**\n   * Implementation of [ListIterator] for abstract lists.\n   */\n   private open inner class ListIteratorImpl(index: Int) : IteratorImpl(), ListIterator<E> {\n\n   init {\n   checkPositionIndex(index, this@AbstractList.size)\n   this.index

= index\n   }\n\n   override fun hasPrevious(): Boolean = index > 0\n\n   override fun nextIndex(): Int = index\n\n   override fun previous(): E {\n   if (!hasPrevious()) throw NoSuchElementException()\n   return get(--index)\n   }\n\n   override fun previousIndex(): Int = index - 1\n   }\n\n   internal companion object {\n   internal fun checkElementIndex(index: Int, size: Int) {\n   if (index < 0 || index >= size) {\n   throw IndexOutOfBoundsException(\"index: $index, size: $size\")\n   }\n   }\n\n   internal fun checkPositionIndex(index: Int, size: Int) {\n   if (index < 0 || index > size) {\n   throw IndexOutOfBoundsException(\"index: $index, size: $size\")\n   }\n   }\n\n   internal fun checkRangeIndexes(fromIndex: Int, toIndex: Int, size: Int) {\n   if (fromIndex < 0 || toIndex > size) {\n   throw IndexOutOfBoundsException(\"fromIndex:

$fromIndex, toIndex: $toIndex, size: $size\")\n   }\n   if (fromIndex > toIndex) {\n   throw IllegalArgumentException(\"fromIndex: $fromIndex > toIndex: $toIndex\")\n   }\n   }\n\n   internal fun checkBoundsIndexes(startIndex: Int, endIndex: Int, size: Int) {\n   if (startIndex < 0 || endIndex > size) {\n   throw IndexOutOfBoundsException(\"startIndex: $startIndex, endIndex: $endIndex, size: $size\")\n   }\n   if (startIndex > endIndex) {\n   throw IllegalArgumentException(\"startIndex: $startIndex > endIndex: $endIndex\")\n   }\n   }\n\n   internal fun orderedHashCode(c: Collection<*>): Int {\n   var hashCode = 1\n   for (e in c) {\n   hashCode = 31 * hashCode + (e?.hashCode() ?: 0)\n   }\n   return hashCode\n   }\n\n   internal fun orderedEquals(c: Collection<*>, other: Collection<*>): Boolean

{\n if (c.size != other.size) return false\n\n val otherIterator = other.iterator()\n for (elem in c) {\n val elemOther = otherIterator.next()\n if (elem != elemOther) {\n return false\n }\n }\n return true\n }\n }\n}","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/*\n * Based on GWT AbstractMap\n * Copyright 2007 Google Inc.\n */\n\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the read-only [Map] interface.\n *\n * The implementor is required to implement [entries] property, which should return read-only set of map entries.\n *\n * @param K the type of map keys. The map is invariant in its key type.\n * @param V the type of map values. The map is covariant in its value type.\n */\n@SinceKotlin(\"1.1\")\npublic abstract class AbstractMap<K, out V> protected constructor() : Map<K, V> {\n\n override fun containsKey(key: K): Boolean {\n return implFindEntry(key) != null\n }\n\n override fun containsValue(value: @UnsafeVariance V): Boolean = entries.any { it.value == value }\n\n internal fun containsEntry(entry: Map.Entry<*, *>?): Boolean {\n // since entry comes from @UnsafeVariance parameters it can be virtually anything\n if (entry !is Map.Entry<*, *>) return false\n val key = entry.key\n val value = entry.value\n val ourValue = get(key)\n\n if (value != ourValue) {\n return false\n }\n\n // Perhaps it was null and we don't contain the key?\n if (ourValue == null && !containsKey(key)) {\n return false\n }\n\n return true\n }\n\n\n /**\n * Compares this map with other instance with the ordered structural equality.\n *\n * @return true, if [other] instance is a [Map] of the same size, all entries of which are contained in the [entries] set of this map.\n */\n override fun equals(other: Any?): Boolean {\n if (other === this) return true\n if (other !is Map<*, *>) return false\n if (size != other.size) return false\n\n return other.entries.all { containsEntry(it) }\n }\n\n override operator fun get(key: K): V? = implFindEntry(key)?.value\n\n\n /**\n * Returns the hash code value for this map.\n *\n * It is the same as the hashCode of [entries] set.\n */\n override fun hashCode(): Int = entries.hashCode()\n\n override fun isEmpty(): Boolean = size == 0\n override val size: Int get() = entries.size\n\n /**\n * Returns a read-only [Set] of all keys in this map.\n *\n * Accessing this property first time creates a keys view from [entries].\n * All subsequent accesses just return the created instance.\n */\n override val keys: Set<K>\n get() {\n if (_keys == null) {\n _keys = object : AbstractSet<K>() {\n override operator fun contains(element: K): Boolean = containsKey(element)\n\n override operator fun iterator(): Iterator<K> {\n val entryIterator = entries.iterator()\n return object : Iterator<K> {\n override fun hasNext(): Boolean = entryIterator.hasNext()\n override fun next(): K = entryIterator.next().key\n }\n }\n\n override val size: Int get() = this@AbstractMap.size\n }\n }\n return _keys!!\n }\n\n @kotlin.jvm.Volatile\n private var _keys: Set<K>? = null\n\n\n override fun toString(): String = entries.joinToString(\", \", \"{\", \"}\") { toString(it) }\n\n private fun toString(entry: Map.Entry<K, V>): String = toString(entry.key) + \"=\" + toString(entry.value)\n\n private fun toString(o: Any?): String = if (o === this) \"(this Map)\" else o.toString()\n\n /**\n * Returns a read-only [Collection] of all values in this map.\n *\n * Accessing this property first time creates a values view from [entries].\n * All subsequent accesses just return the created instance.\n */\n override val values: Collection<V>\n get() {\n if (_values == null) {\n _values = object : AbstractCollection<V>() {\n override operator fun contains(element: @UnsafeVariance V): Boolean = containsValue(element)\n\n override operator fun iterator(): Iterator<V> {\n val entryIterator = entries.iterator()\n return object : Iterator<V> {\n override fun hasNext(): Boolean = entryIterator.hasNext()\n override fun next(): V = entryIterator.next().value\n }\n }\n\n override val size: Int get() = this@AbstractMap.size\n }\n }\n return _values!!\n }\n\n @kotlin.jvm.Volatile\n private var _values: Collection<V>? = null\n\n private fun implFindEntry(key: K): Map.Entry<K, V>? = entries.firstOrNull { it.key == key }\n\n internal companion object {\n\n internal fun entryHashCode(e: Map.Entry<*, *>): Int = with(e) { (key?.hashCode() ?: 0) xor (value?.hashCode() ?: 0) }\n internal fun entryToString(e: Map.Entry<*, *>): String = with(e) { \"$key=$value\" }\n internal fun entryEquals(e: Map.Entry<*, *>, other: Any?): Boolean {\n if (other !is Map.Entry<*, *>) return false\n return e.key == other.key && e.value == other.value\n }\n }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this

source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the read-only [Set] interface.\n *\n * This class is intended to help implementing read-only sets so it doesn't support concurrent modification tracking.\n *\n * @param E the type of elements contained in the set. The set is covariant in its element type.\n */\n@SinceKotlin(\"1.1\")\npublic abstract class AbstractSet<out E> protected constructor() : AbstractCollection<E>(), Set<E> {\n\n /**\n * Compares this set with other set instance with the unordered structural equality.\n *\n * @return true, if [other] instance is a [Set] of the same size, all elements of which are contained in this set.\n */\n override fun equals(other: Any?): Boolean {\n if (other === this) return true\n if (other !is Set<*>) return false\n return setEquals(this, other)\n }\n\n /**\n * Returns the hash code value for this set.\n */\n override fun hashCode(): Int = unorderedHashCode(this)\n\n internal companion object {\n internal fun unorderedHashCode(c: Collection<*>): Int {\n var hashCode = 0\n for (element in c) {\n hashCode += (element?.hashCode() ?: 0)\n }\n return hashCode\n }\n\n internal fun setEquals(c: Set<*>, other: Set<*>): Boolean {\n if (c.size != other.size) return false\n return c.containsAll(other)\n }\n }\n\n}","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n/**\n * Resizable-array implementation of the deque data structure.\n *\n * The name deque is short for \"double ended queue\" and is usually pronounced \"deck\".\n *\n *

The collection provide methods for convenient access to the both ends.\n * It also implements [MutableList] interface and supports efficient get/set operations by index.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic class ArrayDeque<E> : AbstractMutableList<E> {\n private var head: Int = 0\n private var elementData: Array<Any?>\n\n override var size: Int = 0\n private set\n\n /**\n * Constructs an empty deque with specified [initialCapacity], or throws [IllegalArgumentException] if [initialCapacity] is negative.\n */\n public constructor(initialCapacity: Int) {\n elementData = when {\n initialCapacity == 0 -> emptyElementData\n initialCapacity > 0 -> arrayOfNulls(initialCapacity)\n else -> throw IllegalArgumentException(\"Illegal Capacity: $initialCapacity\")\n }\n }\n\n /**\n * Constructs an empty deque.\n */\n public constructor() {\n elementData

= emptyElementData\n }\n\n /**\n * Constructs a deque that contains the same elements as the specified [elements] collection in the same order.\n */\n public constructor(elements: Collection<E>) {\n elementData = elements.toTypedArray()\n size = elementData.size\n if (elementData.isEmpty()) elementData = emptyElementData\n }\n\n /**\n * Ensures that the capacity of this deque is at least equal to the specified [minCapacity].\n *\n * If the current capacity is less than the [minCapacity], a new backing storage is allocated with greater capacity.\n * Otherwise, this method takes no action and simply returns.\n */\n private fun ensureCapacity(minCapacity: Int) {\n if (minCapacity < 0) throw IllegalStateException(\"Deque is too big.\") // overflow\n if (minCapacity <= elementData.size) return\n if (elementData === emptyElementData) {\n elementData = arrayOfNulls(minCapacity.coerceAtLeast(defaultMinCapacity))\n return\n }\n\n val newCapacity = newCapacity(elementData.size, minCapacity)\n copyElements(newCapacity)\n }\n\n /**\n * Creates a new array with the specified [newCapacity] size and copies elements in the [elementData] array to it.\n */\n private fun copyElements(newCapacity: Int) {\n val newElements = arrayOfNulls<Any?>(newCapacity)\n elementData.copyInto(newElements, 0, head, elementData.size)\n elementData.copyInto(newElements, elementData.size - head, 0, head)\n head = 0\n elementData = newElements\n }\n\n @kotlin.internal.InlineOnly\n private inline fun internalGet(internalIndex: Int): E {\n @Suppress(\"UNCHECKED_CAST\")\n return

elementData[internalIndex] as E\n   }\n\n   private fun positiveMod(index: Int): Int = if (index >= elementData.size) index - elementData.size else index\n\n   private fun negativeMod(index: Int): Int = if (index < 0) index +
 elementData.size else index\n\n   @kotlin.internal.InlineOnly\n   private inline fun internalIndex(index: Int): Int = positiveMod(head + index)\n\n   private fun incremented(index: Int): Int = if (index == elementData.lastIndex) 0 else index + 1\n\n   private fun decremented(index: Int): Int = if (index == 0) elementData.lastIndex else index - 1\n\n   override fun isEmpty(): Boolean = size == 0\n\n   /**\n   * Returns the first element, or throws [NoSuchElementException] if this deque is empty.\n   */\n   public fun first(): E = if (isEmpty()) throw NoSuchElementException(\"ArrayDeque is empty.\") else internalGet(head)\n\n   /**\n   * Returns the first element, or `null` if this deque is empty.\n   */\n   public fun firstOrNull(): E? = if (isEmpty()) null else internalGet(head)\n\n   /**\n   * Returns the last element, or throws [NoSuchElementException] if this deque is empty.\n   */\n   public fun last(): E = if (isEmpty()) throw NoSuchElementException(\"ArrayDeque
 is empty.\") else internalGet(internalIndex(lastIndex))\n\n   /**\n   * Returns the last element, or `null` if this deque is empty.\n   */\n   public fun lastOrNull(): E? = if (isEmpty()) null else internalGet(internalIndex(lastIndex))\n\n   /**\n   * Prepends the specified [element] to this deque.\n   */\n   public fun addFirst(element: E) {\n   ensureCapacity(size + 1)\n\n   head = decremented(head)\n   elementData[head] = element\n   size += 1\n   }\n\n   /**\n   * Appends the specified [element] to this deque.\n   */\n   public fun addLast(element: E) {\n   ensureCapacity(size + 1)\n\n   elementData[internalIndex(size)] = element\n   size += 1\n   }\n\n   /**\n   * Removes the first element from this deque and returns that removed element, or throws [NoSuchElementException] if this deque is empty.\n   */\n   public fun removeFirst(): E {\n   if (isEmpty()) throw NoSuchElementException(\"ArrayDeque is empty.\")\n\n

        val element = internalGet(head)\n   elementData[head] = null\n   head = incremented(head)\n   size -= 1\n   return element\n   }\n\n   /**\n   * Removes the first element from this deque and returns that removed element, or returns `null` if this deque is empty.\n   */\n   public fun removeFirstOrNull(): E? = if (isEmpty()) null else removeFirst()\n\n   /**\n   * Removes the last element from this deque and returns that removed element, or throws [NoSuchElementException] if this deque is empty.\n   */\n   public fun removeLast(): E {\n   if (isEmpty()) throw NoSuchElementException(\"ArrayDeque is empty.\")\n\n   val internalLastIndex = internalIndex(lastIndex)\n   val element = internalGet(internalLastIndex)\n   elementData[internalLastIndex] = null\n   size -= 1\n   return element\n   }\n\n   /**\n   * Removes the last element from this deque and returns that removed element, or returns `null` if this deque
 is empty.\n   */\n   public fun removeLastOrNull(): E? = if (isEmpty()) null else removeLast()\n\n   // MutableList, MutableCollection\n   public override fun add(element: E): Boolean {\n   addLast(element)\n   return true\n   }\n\n   public override fun add(index: Int, element: E) {\n   AbstractList.checkPositionIndex(index, size)\n\n   if (index == size) {\n   addLast(element)\n   return\n   } else if (index == 0) {\n   addFirst(element)\n   return\n   }\n\n   ensureCapacity(size + 1)\n\n   // Elements in circular array lay in 2 ways:\n   //   1. `head` is less than `tail`:   [#, #, e1, e2, e3, #]\n   //   2. `head` is greater than `tail`:   [e3, #, #, #, e1, e2]\n   // where head is the index of the first element in the circular array,\n   // and tail is the index following the last element.\n   //\n   // At this point the insertion index is not equal to head or tail.\n

        // Also the circular array can store at least one more element.\n   //\n   // Depending on where the given element must be inserted the preceding or the succeeding\n   // elements will be shifted to make room for the element to be inserted.\n   //\n   // In case the preceding elements are shifted:\n   //   * if the insertion index is greater than the head (regardless of circular array form)\n   //   -> shift the preceding elements\n   //   * otherwise, the circular array has (2) form and the insertion index is less than tail\n   //   -> shift all elements in the back of the array\n   //   -> shift preceding elements in the front of the array\n   // In case the succeeding elements are shifted:\n   //   * if the insertion index is less than the tail (regardless of circular array form)\n   //   -> shift the succeeding elements\n   //   * otherwise, the circular array has (2) form and the insertion index is greater than head\n // -> shift all elements in the front of the array\n // -> shift succeeding elements in the back of the array\n\n val internalIndex = internalIndex(index)\n\n if (index < (size + 1) shr 1) {\n // closer to the first element -> shift preceding elements\n val decrementedInternalIndex = decremented(internalIndex)\n val decrementedHead = decremented(head)\n\n if (decrementedInternalIndex >= head) {\n elementData[decrementedHead] = elementData[head] // head can be zero\n elementData.copyInto(elementData, head, head + 1, decrementedInternalIndex + 1)\n } else { // head > tail\n elementData.copyInto(elementData, head - 1, head, elementData.size) // head can't be zero\n elementData[elementData.size - 1] = elementData[0]\n elementData.copyInto(elementData, 0, 1, decrementedInternalIndex + 1)\n }\n\n elementData[decrementedInternalIndex] = element\n head = decrementedHead\n } else {\n // closer to the last element -> shift succeeding elements\n val tail = internalIndex(size)\n\n if (internalIndex < tail) {\n elementData.copyInto(elementData, internalIndex + 1, internalIndex, tail)\n } else { // head > tail\n elementData.copyInto(elementData, 1, 0, tail)\n elementData[0] = elementData[elementData.size - 1]\n elementData.copyInto(elementData, internalIndex + 1, internalIndex, elementData.size - 1)\n }\n\n elementData[internalIndex] = element\n }\n size += 1\n }\n\n private fun copyCollectionElements(internalIndex: Int, elements: Collection<E>) {\n val iterator = elements.iterator()\n\n for (index in internalIndex until elementData.size) {\n if (!iterator.hasNext()) break\n elementData[index] = iterator.next()\n }\n for (index in 0 until head) {\n if (!iterator.hasNext()) break\n elementData[index] = iterator.next()\n }\n\n size += elements.size\n }\n\n public override fun addAll(elements: Collection<E>): Boolean {\n if (elements.isEmpty()) return false\n ensureCapacity(this.size + elements.size)\n copyCollectionElements(internalIndex(size), elements)\n return true\n }\n\n public override fun addAll(index: Int, elements: Collection<E>): Boolean {\n AbstractList.checkPositionIndex(index, size)\n\n if (elements.isEmpty()) {\n return false\n } else if (index == size) {\n return addAll(elements)\n }\n\n ensureCapacity(this.size + elements.size)\n\n val tail = internalIndex(size)\n val internalIndex = internalIndex(index)\n val elementsSize = elements.size\n\n if (index < (size + 1) shr 1) {\n // closer to the first element -> shift preceding elements\n\n var shiftedHead = head - elementsSize\n\n if (internalIndex >= head) {\n if (shiftedHead >= 0) {\n elementData.copyInto(elementData, shiftedHead, head, internalIndex)\n } else { // head < tail, insertion leads to head >= tail\n shiftedHead += elementData.size\n val elementsToShift = internalIndex - head\n val shiftToBack = elementData.size - shiftedHead\n\n if (shiftToBack >= elementsToShift) {\n elementData.copyInto(elementData, shiftedHead, head, internalIndex)\n } else {\n elementData.copyInto(elementData, shiftedHead, head, head + shiftToBack)\n elementData.copyInto(elementData, 0, head + shiftToBack, internalIndex)\n }\n }\n } else { // head > tail, internalIndex < tail\n elementData.copyInto(elementData, shiftedHead, head, elementData.size)\n if (elementsSize >= internalIndex) {\n elementData.copyInto(elementData, elementData.size - elementsSize, 0, internalIndex)\n } else {\n elementData.copyInto(elementData, elementData.size - elementsSize, 0, elementsSize)\n elementData.copyInto(elementData, 0, elementsSize, internalIndex)\n }\n }\n head = shiftedHead\n copyCollectionElements(negativeMod(internalIndex - elementsSize), elements)\n } else {\n // closer to the last element -> shift succeeding elements\n\n val shiftedInternalIndex = internalIndex + elementsSize\n\n if (internalIndex < tail) {\n if (tail + elementsSize <= elementData.size) {\n elementData.copyInto(elementData, shiftedInternalIndex, internalIndex, tail)\n } else { // head < tail, insertion leads to head >= tail\n if (shiftedInternalIndex >= elementData.size) {\n elementData.copyInto(elementData, shiftedInternalIndex - elementData.size, internalIndex, tail)\n } else {\n val shiftToFront = tail + elementsSize - elementData.size\n elementData.copyInto(elementData, 0, tail - shiftToFront, tail)\n elementData.copyInto(elementData, shiftedInternalIndex, internalIndex, tail - shiftToFront)\n }\n }\n } else { // head > tail, internalIndex > head\n elementData.copyInto(elementData, elementsSize, 0, tail)\n if (shiftedInternalIndex >= elementData.size) {\n elementData.copyInto(elementData, shiftedInternalIndex - elementData.size, internalIndex, elementData.size)\n } else {\n elementData.copyInto(elementData, 0, elementData.size - elementsSize, elementData.size)\n elementData.copyInto(elementData, shiftedInternalIndex, internalIndex, elementData.size - elementsSize)\n }\n }\n copyCollectionElements(internalIndex, elements)\n }\n\n return true\n }\n\n public override fun get(index: Int): E {\n AbstractList.checkElementIndex(index, size)\n\n return internalGet(internalIndex(index))\n }\n\n public override fun set(index: Int, element: E): E {\n AbstractList.checkElementIndex(index, size)\n\n val internalIndex = internalIndex(index)\n val oldElement = internalGet(internalIndex)\n elementData[internalIndex] = element\n\n return oldElement\n }\n\n public override fun contains(element: E): Boolean = indexOf(element) != -1\n\n public override fun indexOf(element: E): Int {\n val tail = internalIndex(size)\n\n if (head < tail) {\n for (index in head until tail) {\n if (element == elementData[index]) return index - head\n }\n } else if (head >= tail) {\n for (index in head until elementData.size) {\n if (element == elementData[index]) return index - head\n }\n for (index in 0 until tail) {\n if (element == elementData[index]) return index + elementData.size - head\n }\n }\n\n return -1\n }\n\n public override fun lastIndexOf(element: E): Int {\n val tail = internalIndex(size)\n\n if (head < tail) {\n for (index in tail - 1 downTo head) {\n if (element == elementData[index]) return index - head\n }\n } else if (head > tail) {\n for (index in tail - 1 downTo 0) {\n if (element == elementData[index]) return index + elementData.size - head\n }\n for (index in elementData.lastIndex downTo head) {\n if (element == elementData[index]) return index - head\n }\n }\n\n return -1\n }\n\n public override fun remove(element: E): Boolean {\n val index = indexOf(element)\n if (index == -1) return false\n removeAt(index)\n return true\n }\n\n public override fun removeAt(index: Int): E {\n AbstractList.checkElementIndex(index, size)\n\n if (index == lastIndex) {\n return removeLast()\n } else if (index == 0) {\n return removeFirst()\n }\n\n val internalIndex = internalIndex(index)\n val element = internalGet(internalIndex)\n\n if (index < size shr 1) {\n // closer to the first element -> shift preceding elements\n if (internalIndex >= head) {\n elementData.copyInto(elementData, head + 1, head, internalIndex)\n } else { // head > tail, internalIndex < head\n elementData.copyInto(elementData, 1, 0, internalIndex)\n elementData[0] = elementData[elementData.size - 1]\n elementData.copyInto(elementData, head + 1, head, elementData.size - 1)\n }\n\n elementData[head] = null\n head = incremented(head)\n } else {\n // closer to the last element -> shift succeeding elements\n val internalLastIndex = internalIndex(lastIndex)\n\n if (internalIndex <= internalLastIndex) {\n elementData.copyInto(elementData, internalIndex, internalIndex + 1, internalLastIndex + 1)\n } else { // head > tail, internalIndex > head\n elementData.copyInto(elementData, internalIndex, internalIndex + 1, elementData.size)\n elementData[elementData.size - 1] = elementData[0]\n elementData.copyInto(elementData, 0, 1, internalLastIndex + 1)\n }\n\n elementData[internalLastIndex] = null\n }\n size -= 1\n\n return element\n }\n\n public override fun removeAll(elements: Collection<E>): Boolean = filterInPlace { !elements.contains(it) }\n\n public override fun retainAll(elements: Collection<E>): Boolean = filterInPlace { elements.contains(it) }\n\n private inline fun filterInPlace(predicate: (E) -> Boolean): Boolean {\n if (this.isEmpty() || elementData.isEmpty())\n return false\n\n val tail = internalIndex(size)\n var newTail = head\n var modified = false\n\n if (head < tail) {\n for (index in head until tail) {\n val element = elementData[index]\n\n @Suppress(\"UNCHECKED_CAST\")\n if (predicate(element as E))\n elementData[newTail++] = element\n else\n modified = true\n }\n\n

```
elementData.fill(null, newTail, tail)\n\n
        } else {\n            for (index in head until elementData.size) {\n                val element = elementData[index]\n
         elementData[index] = null\n\n                @Suppress(\"UNCHECKED_CAST\")\n                if
(predicate(element as E))\n                    elementData[newTail++] = element\n                else\n                    modified =
true\n            }\n\n            newTail = positiveMod(newTail)\n\n            for (index in 0 until tail) {\n                val
element = elementData[index]\n                elementData[index] = null\n\n
@Suppress(\"UNCHECKED_CAST\")\n                if (predicate(element as E)) {\n
elementData[newTail] = element\n                    newTail = incremented(newTail)\n                } else {\n
modified = true\n                }\n            }\n        }\n        if (modified)\n            size = negativeMod(newTail -
head)\n\n        return modified\n    }\n\n
    public override fun clear() {\n        val tail = internalIndex(size)\n        if (head < tail) {\n
elementData.fill(null, head, tail)\n        } else if (isNotEmpty()) {\n            elementData.fill(null, head,
elementData.size)\n            elementData.fill(null, 0, tail)\n        }\n        head = 0\n        size = 0\n    }\n\n
@Suppress(\"NOTHING_TO_OVERRIDE\")\n    override fun <T> toArray(array: Array<T>): Array<T> {\n
@Suppress(\"UNCHECKED_CAST\")\n        val dest = (if (array.size >= size) array else arrayOfNulls(array, size))
as Array<Any?>\n\n        val tail = internalIndex(size)\n        if (head < tail) {\n            elementData.copyInto(dest,
startIndex = head, endIndex = tail)\n        } else if (isNotEmpty()) {\n            elementData.copyInto(dest,
destinationOffset = 0, startIndex = head, endIndex = elementData.size)\n            elementData.copyInto(dest,
destinationOffset = elementData.size - head, startIndex = 0, endIndex = tail)\n
   }\n        if (dest.size > size) {\n            dest[size] = null // null-terminate\n        }\n\n
@Suppress(\"UNCHECKED_CAST\")\n        return dest as Array<T>\n    }\n\n
@Suppress(\"NOTHING_TO_OVERRIDE\")\n    override fun toArray(): Array<Any?> {\n        return
toArray(arrayOfNulls<Any?>(size))\n    }\n\n    // for testing\n    internal fun <T> testToArray(array: Array<T>):
Array<T> = toArray(array)\n    internal fun testToArray(): Array<Any?> = toArray()\n\n    internal companion
object {\n        private val emptyElementData = emptyArray<Any?>()\n        private const val maxArraySize =
Int.MAX_VALUE - 8\n        private const val defaultMinCapacity = 10\n\n        internal fun
newCapacity(oldCapacity: Int, minCapacity: Int): Int {\n            // overflow-conscious\n            var newCapacity =
oldCapacity + (oldCapacity shr 1)\n            if (newCapacity - minCapacity < 0)\n                newCapacity =
minCapacity\n            if (newCapacity - maxArraySize > 0)\n
                newCapacity = if (minCapacity > maxArraySize) Int.MAX_VALUE else maxArraySize\n            return
newCapacity\n        }\n    }\n\n    // For testing only\n    internal fun internalStructure(structure: (head: Int, elements:
Array<Any?>) -> Unit) {\n        val tail = internalIndex(size)\n        val head = if (isEmpty() || head < tail) head else
head - elementData.size\n        structure(head, toArray())\n    }\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"ArraysKt\")\n\n\npackage
kotlin.collections\n\nimport kotlin.contracts.*\n\n\n/**\n * Returns a single list of all elements from all arrays in the
given array.\n * @sample samples.collections.Arrays.Transformations.flattenArray\n */\npublic fun <T> Array<out
Array<out T>>.flatten():
 List<T> {\n    val result = ArrayList<T>(sumOf { it.size })\n    for (element in this) {\n
result.addAll(element)\n    }\n    return result\n}\n\n/**\n * Returns a pair of lists, where\n * *first* list is built from
the first values of each pair from this array,\n * *second* list is built from the second values of each pair from this
array.\n * @sample samples.collections.Arrays.Transformations.unzipArray\n */\npublic fun <T, R> Array<out
Pair<T, R>>.unzip(): Pair<List<T>, List<R>> {\n    val listT = ArrayList<T>(size)\n    val listR =
ArrayList<R>(size)\n    for (pair in this) {\n        listT.add(pair.first)\n        listR.add(pair.second)\n    }\n    return
listT to listR\n}\n\n/**\n * Returns `true` if this nullable array is either null or empty.\n * @sample
samples.collections.Arrays.Usage.arrayIsNullOrEmpty\n
*/\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun Array<*>?.isNullOrEmpty(): Boolean
```

{\n   contract {\n   returns(false) implies (this@isNullOrEmpty != null)\n   }\n\n   return this == null || this.isEmpty()\n}\n\n/**\n * Returns this array if it's not empty\n * or the result of calling [defaultValue] function if the array is empty.\n *\n * @sample samples.collections.Arrays.Usage.arrayIfEmpty\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"UPPER_BOUND_CANNOT_BE_ARRAY\")\npublic inline fun <C, R> C.ifEmpty(defaultValue: () -> R): R where C : Array<*>, C : R =\n   if (isEmpty()) defaultValue() else this\n\n\n@OptIn(ExperimentalUnsignedTypes::class)\n@SinceKotlin(\"1.3\")\n@PublishedApi\n@kotlin.jvm.JvmName(\"contentDeepEquals\")\n@kotlin.js.JsName(\"contentDeepEqualsImpl\")\ninternal fun <T> Array<out T>?.contentDeepEqualsImpl(other: Array<out T>?): Boolean {\n   if (this === other) return true\n   if (this == null || other == null || this.size != other.size) return false\n\n   for (i in indices) {\n   val v1 = this[i]\n   val v2 = other[i]\n\n   if (v1 === v2) {\n   continue\n   } else if (v1 == null || v2 == null) {\n   return false\n   }\n\n   when {\n   v1 is Array<*>   && v2 is Array<*>   -> if (!v1.contentDeepEquals(v2)) return false\n   v1 is ByteArray   && v2 is ByteArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is ShortArray   && v2 is ShortArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is IntArray   && v2 is IntArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is LongArray   && v2 is LongArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is FloatArray   && v2 is FloatArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is DoubleArray && v2 is DoubleArray -> if (!v1.contentEquals(v2)) return false\n   v1 is CharArray   && v2 is CharArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is BooleanArray && v2 is BooleanArray -> if (!v1.contentEquals(v2)) return false\n\n   v1 is UByteArray   && v2 is UByteArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is UShortArray && v2 is UShortArray -> if (!v1.contentEquals(v2)) return false\n   v1 is UIntArray   && v2 is UIntArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is ULongArray   && v2 is ULongArray   -> if (!v1.contentEquals(v2)) return false\n\n   else -> if (v1 != v2) return false\n   }\n\n   }\n   return true\n}\n\n@SinceKotlin(\"1.3\")\n@PublishedApi\n@kotlin.jvm.JvmName(\"contentDeepToString\")\n@kotlin.js.JsName(\"contentDeepToStringImpl\")\ninternal fun <T> Array<out T>?.contentDeepToStringImpl(): String {\n   if (this == null) return \"null\"\n   val length = size.coerceAtMost((Int.MAX_VALUE - 2) / 5) * 5 + 2 // in order not to overflow Int.MAX_VALUE\n   return buildString(length) {\n   contentDeepToStringInternal(this, mutableListOf())\n   }\n}\n\n@OptIn(ExperimentalUnsignedTypes::class)\nprivate fun <T> Array<out T>.contentDeepToStringInternal(result: StringBuilder, processed: MutableList<Array<*>>) {\n   if (this in processed) {\n   result.append(\"[...]\")\n   return\n   }\n   processed.add(this)\n   result.append('[')\n\n   for (i in indices) {\n   if (i != 0) {\n   result.append(\", \")\n   }\n   val element = this[i]\n   when (element) {\n   null   -> result.append(\"null\")\n   is Array<*>   -> element.contentDeepToStringInternal(result, processed)\n   is ByteArray   -> result.append(element.contentToString())\n   is ShortArray   -> result.append(element.contentToString())\n   is IntArray   -> result.append(element.contentToString())\n   is LongArray   -> result.append(element.contentToString())\n   is FloatArray   -> result.append(element.contentToString())\n   is DoubleArray -> result.append(element.contentToString())\n   is CharArray   -> result.append(element.contentToString())\n   is BooleanArray -> result.append(element.contentToString())\n\n   is UByteArray   -> result.append(element.contentToString())\n   is UShortArray -> result.append(element.contentToString())\n   is UIntArray   -> result.append(element.contentToString())\n   is ULongArray   -> result.append(element.contentToString())\n\n   else   -> result.append(element.toString())\n   }\n   }\n\n   result.append(']')\n   processed.removeAt(processed.lastIndex)\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n\n/** Returns true if the brittle contains optimization is enabled. See KT-45438. */\ninternal expect fun brittleContainsOptimizationEnabled(): Boolean\n\n/**\n * Returns true if [brittleContainsOptimizationEnabled] is true\n * and it's safe to convert this collection to a set without changing contains method behavior.\n */\nprivate fun <T> Collection<T>.safeToConvertToSet() = brittleContainsOptimizationEnabled() && size > 2 && this is ArrayList\n\n/**\n * When [brittleContainsOptimizationEnabled] is true:\n * - Converts this [Iterable] to a set if it is not a [Collection].\n * - Converts this [Collection] to a set, when it's worth so and it doesn't change contains method behavior.\n * - Otherwise returns this.\n * When [brittleContainsOptimizationEnabled] is false:\n * - Converts this [Iterable] to a list if it is not a [Collection].\n * - Otherwise returns this.\n */\ninternal fun <T> Iterable<T>.convertToSetForSetOperationWith(source: Iterable<T>): Collection<T> =\n   when (this) {\n   is Set -> this\n   is Collection ->\n   when {\n   source is Collection && source.size < 2 -> this\n   else -> if (this.safeToConvertToSet()) toHashSet() else this\n   }\n   else -> if (brittleContainsOptimizationEnabled()) toHashSet() else toList()\n   }\n\n/**\n * When [brittleContainsOptimizationEnabled] is true:\n * - Converts this [Iterable] to a set if it is not a [Collection].\n * - Converts this [Collection] to a set, when it's worth so and it doesn't change contains method behavior.\n * - Otherwise returns this.\n * When [brittleContainsOptimizationEnabled] is false:\n * - Converts this [Iterable] to a list if it is not a [Collection].\n * - Otherwise returns this.\n */\ninternal fun <T> Iterable<T>.convertToSetForSetOperation(): Collection<T> =\n   when (this) {\n   is Set -> this\n   is Collection -> if (this.safeToConvertToSet()) toHashSet() else this\n   else -> if (brittleContainsOptimizationEnabled()) toHashSet() else toList()\n   }\n\n/**\n * Converts this sequence to a set if [brittleContainsOptimizationEnabled] is true,\n * otherwise converts it to a list.\n */\ninternal fun <T> Sequence<T>.convertToSetForSetOperation(): Collection<T> =\n   if (brittleContainsOptimizationEnabled()) toHashSet() else toList()\n\n/**\n * Converts this array to a set if [brittleContainsOptimizationEnabled] is true,\n * otherwise converts it to a list.\n */\ninternal fun <T> Array<T>.convertToSetForSetOperation(): Collection<T> =\n   if (brittleContainsOptimizationEnabled()) toHashSet() else asList()","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n/**\n * Data class representing a value from a collection or sequence, along with its index in that collection or sequence.\n *\n * @property value the underlying value.\n * @property index the index of the value in the collection or sequence.\n */\npublic data class IndexedValue<out T>(public val index: Int, public val value: T)\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"MapAccessorsKt\")\n\npackage kotlin.collections\n\nimport kotlin.reflect.KProperty\nimport kotlin.internal.Exact\n\n/**\n * Returns the value of the property for the given object from this read-only map.\n * @param thisRef the object for which the value is requested (not used).\n * @param property the metadata for the property, used to get the name of property and lookup the value corresponding to this name in the map.\n * @return the property value.\n *\n * @throws NoSuchElementException when the map doesn't contain value for the property name and doesn't provide an implicit default (see [withDefault]).\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <V, V1 : V> Map<in String, @Exact V>.getValue(thisRef: Any?, property: KProperty<*>): V1 =\n   @Suppress(\"UNCHECKED_CAST\") (getOrImplicitDefault(property.name) as V1)\n\n/**\n * Returns the value of the property for the given object from this mutable map.\n * @param thisRef the object for which the value is requested (not used).\n * @param property the metadata for the property, used to get the name of property and lookup the value corresponding to this name in the map.\n * @return the property value.\n *\n * @throws NoSuchElementException when the map doesn't contain value for the property name and doesn't provide an implicit default (see [withDefault]).\n */\n@kotlin.jvm.JvmName(\"getVar\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <V, V1 : V> MutableMap<in String, out @Exact V>.getValue(thisRef: Any?, property: KProperty<*>): V1 =\n   @Suppress(\"UNCHECKED_CAST\") (getOrImplicitDefault(property.name) as V1)\n\n/**\n * Stores the value of the property for the given object in this mutable map.\n * @param thisRef the

object for which the value is requested
 (not used).\n * @param property the metadata for the property, used to get the name of property and store the value associated with that name in the map.\n * @param value the value to set.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <V> MutableMap<in String, in V>.setValue(thisRef: Any?, property: KProperty<*>, value: V) {\n   this.put(property.name, value)\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"MapsKt\")\n\npackage kotlin.collections\n\n/**\n * Returns the value for the given key, or the implicit default value for this map.\n * By default no implicit value is provided for maps and a [NoSuchElementException] is thrown.\n * To create a map with implicit default value use [withDefault] method.\n *\n * @throws NoSuchElementException
 when the map doesn't contain a value for the specified key and no implicit default was provided for that map.\n */\n@kotlin.jvm.JvmName(\"getOrImplicitDefaultNullable\")\n@PublishedApi\ninternal fun <K, V> Map<K, V>.getOrImplicitDefault(key: K): V {\n   if (this is MapWithDefault)\n   return this.getOrImplicitDefault(key)\n\n   return getOrElseNullable(key, { throw NoSuchElementException(\"Key $key is missing in the map.\") })\n}\n\n/**\n * Returns a wrapper of this read-only map, having the implicit default value provided with the specified function [defaultValue].\n *\n * This implicit default value is used when the original map doesn't contain a value for the key specified\n * and a value is obtained with [Map.getValue] function, for example when properties are delegated to the map.\n *\n * When this map already has an implicit default value provided with a former call to [withDefault], it is being replaced by this call.\n */\npublic fun <K, V> Map<K, V>.withDefault(defaultValue:
 (key: K) -> V): Map<K, V> =\n   when (this) {\n   is MapWithDefault -> this.map.withDefault(defaultValue)\n   else -> MapWithDefaultImpl(this, defaultValue)\n   }\n\n/**\n * Returns a wrapper of this mutable map, having the implicit default value provided with the specified function [defaultValue].\n *\n * This implicit default value is used when the original map doesn't contain a value for the key specified\n * and a value is obtained with [Map.getValue] function, for example when properties are delegated to the map.\n *\n * When this map already has an implicit default value provided with a former call to [withDefault], it is being replaced by this call.\n */\n@kotlin.jvm.JvmName(\"withDefaultMutable\")\npublic fun <K, V> MutableMap<K, V>.withDefault(defaultValue: (key: K) -> V): MutableMap<K, V> =\n   when (this) {\n   is MutableMapWithDefault -> this.map.withDefault(defaultValue)\n   else -> MutableMapWithDefaultImpl(this, defaultValue)\n   }\n\n\nprivate
 interface MapWithDefault<K, out V> : Map<K, V> {\n   public val map: Map<K, V>\n   public fun getOrImplicitDefault(key: K): V\n}\n\nprivate interface MutableMapWithDefault<K, V> : MutableMap<K, V>, MapWithDefault<K, V> {\n   public override val map: MutableMap<K, V>\n}\n\n\nprivate class MapWithDefaultImpl<K, out V>(public override val map: Map<K, V>, private val default: (key: K) -> V) : MapWithDefault<K, V> {\n   override fun equals(other: Any?): Boolean = map.equals(other)\n   override fun hashCode(): Int = map.hashCode()\n   override fun toString(): String = map.toString()\n   override val size: Int get() = map.size\n   override fun isEmpty(): Boolean = map.isEmpty()\n   override fun containsKey(key: K): Boolean = map.containsKey(key)\n   override fun containsValue(value: @UnsafeVariance V): Boolean = map.containsValue(value)\n   override fun get(key: K): V? = map.get(key)\n   override val keys: Set<K> get() = map.keys\n   override val values: Collection<V> get()
 = map.values\n   override val entries: Set<Map.Entry<K, V>> get() = map.entries\n\n   override fun getOrImplicitDefault(key: K): V = map.getOrElseNullable(key, { default(key) })\n}\n\nprivate class MutableMapWithDefaultImpl<K, V>(public override val map: MutableMap<K, V>, private val default: (key: K) -> V) : MutableMapWithDefault<K, V> {\n   override fun equals(other: Any?): Boolean = map.equals(other)\n   override fun hashCode(): Int = map.hashCode()\n   override fun toString(): String = map.toString()\n   override val size: Int get() = map.size\n   override fun isEmpty(): Boolean = map.isEmpty()\n   override fun containsKey(key: K): Boolean = map.containsKey(key)\n   override fun containsValue(value: @UnsafeVariance V): Boolean =

map.containsValue(value)\n   override fun get(key: K): V? = map.get(key)\n   override val keys: MutableSet<K> get() = map.keys\n   override val values: MutableCollection<V> get() = map.values\n   override val entries: MutableSet<MutableMap.MutableEntry<K,
 V>> get() = map.entries\n\n   override fun put(key: K, value: V): V? = map.put(key, value)\n   override fun remove(key: K): V? = map.remove(key)\n   override fun putAll(from: Map<out K, V>) = map.putAll(from)\n   override fun clear() = map.clear()\n\n   override fun getOrImplicitDefault(key: K): V = map.getOrElseNullable(key, { default(key) })\n}\n\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CollectionsKt\")\n\npackage kotlin.collections\n\nimport kotlin.random.Random\n\n/**\n * Removes a single instance of the specified element from this\n * collection, if it is present.\n *\n * Allows to overcome type-safety restriction of `remove` that requires to pass an element of type `E`.\n *\n * @return `true` if the element has been successfully
 removed; `false` if it was not present in the collection.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes T> MutableCollection<out T>.remove(element: T): Boolean =\n   @Suppress(\"UNCHECKED_CAST\") (this as MutableCollection<T>).remove(element)\n\n/**\n * Removes all of this collection's elements that are also contained in the specified collection.\n\n * Allows to overcome type-safety restriction of `removeAll` that requires to pass a collection of type `Collection<E>`.\n *\n * @return `true` if any of the specified elements was removed from the collection, `false` if the collection was not modified.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes T> MutableCollection<out T>.removeAll(elements: Collection<T>): Boolean =\n   @Suppress(\"UNCHECKED_CAST\") (this as MutableCollection<T>).removeAll(elements)\n\n/**\n * Retains only the elements in this collection that are contained in the specified collection.\n
 *\n * Allows to overcome type-safety restriction of `retainAll` that requires to pass a collection of type `Collection<E>`.\n *\n * @return `true` if any element was removed from the collection, `false` if the collection was not modified.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes T> MutableCollection<out T>.retainAll(elements: Collection<T>): Boolean =\n   @Suppress(\"UNCHECKED_CAST\") (this as MutableCollection<T>).retainAll(elements)\n\n/**\n * Adds the specified [element] to this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.plusAssign(element: T) {\n   this.add(element)\n}\n\n/**\n * Adds all elements of the given [elements] collection to this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.plusAssign(elements: Iterable<T>) {\n   this.addAll(elements)\n}\n\n/**\n * Adds all elements of the given [elements]
 array to this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.plusAssign(elements: Array<T>) {\n   this.addAll(elements)\n}\n\n/**\n * Adds all elements of the given [elements] sequence to this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.plusAssign(elements: Sequence<T>) {\n   this.addAll(elements)\n}\n\n/**\n * Removes a single instance of the specified [element] from this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.minusAssign(element: T) {\n   this.remove(element)\n}\n\n/**\n * Removes all elements contained in the given [elements] collection from this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.minusAssign(elements: Iterable<T>) {\n   this.removeAll(elements)\n}\n\n/**\n * Removes all elements contained in the given [elements]
 array from this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.minusAssign(elements: Array<T>) {\n   this.removeAll(elements)\n}\n\n/**\n * Removes all elements contained in the given [elements] sequence from this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.minusAssign(elements: Sequence<T>) {\n   this.removeAll(elements)\n}\n\n/**\n * Adds all elements of the given [elements] collection to

this [MutableCollection].\n */\npublic fun <T> MutableCollection<in T>.addAll(elements: Iterable<T>): Boolean {\n when (elements) {\n is Collection -> return addAll(elements)\n else -> {\n var result: Boolean = false\n for (item in elements)\n if (add(item)) result = true\n return result\n }\n }\n}\n\n/**\n * Adds all elements of the given [elements] sequence to this [MutableCollection].\n */\npublic
 fun <T> MutableCollection<in T>.addAll(elements: Sequence<T>): Boolean {\n var result: Boolean = false\n for (item in elements) {\n if (add(item)) result = true\n }\n return result\n}\n\n/**\n * Adds all elements of the given [elements] array to this [MutableCollection].\n */\npublic fun <T> MutableCollection<in T>.addAll(elements: Array<out T>): Boolean {\n return addAll(elements.asList())\n}\n\n/**\n * Removes all elements from this [MutableCollection] that are also contained in the given [elements] collection.\n */\npublic fun <T> MutableCollection<in T>.removeAll(elements: Iterable<T>): Boolean {\n return removeAll(elements.convertToSetForSetOperationWith(this))\n}\n\n/**\n * Removes all elements from this [MutableCollection] that are also contained in the given [elements] sequence.\n */\npublic fun <T> MutableCollection<in T>.removeAll(elements: Sequence<T>): Boolean {\n val set = elements.convertToSetForSetOperation()\n return set.isNotEmpty()
 && removeAll(set)\n}\n\n/**\n * Removes all elements from this [MutableCollection] that are also contained in the given [elements] array.\n */\npublic fun <T> MutableCollection<in T>.removeAll(elements: Array<out T>): Boolean {\n return elements.isNotEmpty() && removeAll(elements.convertToSetForSetOperation())\n}\n\n/**\n * Retains only elements of this [MutableCollection] that are contained in the given [elements] collection.\n */\npublic fun <T> MutableCollection<in T>.retainAll(elements: Iterable<T>): Boolean {\n return retainAll(elements.convertToSetForSetOperationWith(this))\n}\n\n/**\n * Retains only elements of this [MutableCollection] that are contained in the given [elements] array.\n */\npublic fun <T> MutableCollection<in T>.retainAll(elements: Array<out T>): Boolean {\n if (elements.isNotEmpty())\n return retainAll(elements.convertToSetForSetOperation())\n else\n return retainNothing()\n}\n\n/**\n * Retains only elements of this [MutableCollection]
 that are contained in the given [elements] sequence.\n */\npublic fun <T> MutableCollection<in T>.retainAll(elements: Sequence<T>): Boolean {\n val set = elements.convertToSetForSetOperation()\n if (set.isNotEmpty())\n return retainAll(set)\n else\n return retainNothing()\n}\n\nprivate fun MutableCollection<*>.retainNothing(): Boolean {\n val result = isNotEmpty()\n clear()\n return result\n}\n\n\n/**\n * Removes all elements from this [MutableIterable] that match the given [predicate].\n *\n * @return `true` if any element was removed from this collection, or `false` when no elements were removed and collection was not modified.\n */\npublic fun <T> MutableIterable<T>.removeAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate, true)\n\n/**\n * Retains only elements of this [MutableIterable] that match the given [predicate].\n *\n * @return `true` if any element was removed from this collection, or `false` when all elements were retained
 and collection was not modified.\n */\npublic fun <T> MutableIterable<T>.retainAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate, false)\n\nprivate fun <T> MutableIterable<T>.filterInPlace(predicate: (T) -> Boolean, predicateResultToRemove: Boolean): Boolean {\n var result = false\n with(iterator()) {\n while (hasNext())\n if (predicate(next()) == predicateResultToRemove) {\n remove()\n result = true\n }\n }\n return result\n}\n\n\n/**\n * Removes the element at the specified [index] from this list.\n * In Kotlin one should use the [MutableList.removeAt] function instead.\n */\n@Deprecated(\"Use removeAt(index) instead.\", ReplaceWith(\"removeAt(index)\"), level = DeprecationLevel.ERROR)\n@kotlin.internal.InlineOnly\npublic inline fun <T> MutableList<T>.remove(index: Int): T = removeAt(index)\n\n/**\n * Removes the first element from this mutable list and returns that removed element, or throws [NoSuchElementException]
 if this list is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> MutableList<T>.removeFirst(): T = if (isEmpty()) throw NoSuchElementException(\"List is empty.\") else removeAt(0)\n\n/**\n * Removes the first element from this mutable list and returns that removed element, or returns `null` if this list is empty.\n

*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> MutableList<T>.removeFirstOrNull(): T? = if (isEmpty()) null else removeAt(0)\n\n/**\n * Removes the last element from this mutable list and returns that removed element, or throws [NoSuchElementException] if this list is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> MutableList<T>.removeLast(): T = if (isEmpty()) throw NoSuchElementException(\"List is empty.\") else removeAt(lastIndex)\n\n/**\n * Removes the last element from this mutable list and returns that removed
 element, or returns `null` if this list is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> MutableList<T>.removeLastOrNull(): T? = if (isEmpty()) null else removeAt(lastIndex)\n\n/**\n * Removes all elements from this [MutableList] that match the given [predicate].\n *\n * @return `true` if any element was removed from this collection, or `false` when no elements were removed and collection was not modified.\n */\npublic fun <T> MutableList<T>.removeAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate, true)\n\n/**\n * Retains only elements of this [MutableList] that match the given [predicate].\n *\n * @return `true` if any element was removed from this collection, or `false` when all elements were retained and collection was not modified.\n */\npublic fun <T> MutableList<T>.retainAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate, false)\n\nprivate fun <T> MutableList<T>.filterInPlace(predicate: (T)
 -> Boolean, predicateResultToRemove: Boolean): Boolean {\n   if (this !is RandomAccess)\n   return (this as MutableIterable<T>).filterInPlace(predicate, predicateResultToRemove)\n\n   var writeIndex: Int = 0\n   for (readIndex in 0..lastIndex) {\n   val element = this[readIndex]\n   if (predicate(element) == predicateResultToRemove)\n   continue\n\n   if (writeIndex != readIndex)\n   this[writeIndex] = element\n\n   writeIndex++\n   }\n   if (writeIndex < size) {\n   for (removeIndex in lastIndex downTo writeIndex)\n   removeAt(removeIndex)\n\n   return true\n   } else {\n   return false\n   }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CollectionsKt\")\n\npackage kotlin.collections\n\nprivate
 open class ReversedListReadOnly<out T>(private val delegate: List<T>) : AbstractList<T>() {\n   override val size: Int get() = delegate.size\n   override fun get(index: Int): T = delegate[reverseElementIndex(index)]\n}\n\nprivate class ReversedList<T>(private val delegate: MutableList<T>) : AbstractMutableList<T>() {\n   override val size: Int get() = delegate.size\n   override fun get(index: Int): T = delegate[reverseElementIndex(index)]\n\n   override fun clear() = delegate.clear()\n   override fun removeAt(index: Int): T = delegate.removeAt(reverseElementIndex(index))\n\n   override fun set(index: Int, element: T): T = delegate.set(reverseElementIndex(index), element)\n   override fun add(index: Int, element: T) {\n   delegate.add(reversePositionIndex(index), element)\n   }\n}\n\nprivate fun List<*>.reverseElementIndex(index: Int) =\n   if (index in 0..lastIndex) lastIndex - index else throw IndexOutOfBoundsException(\"Element index $index must be in
 range [${0..lastIndex}].\")\n\nprivate fun List<*>.reversePositionIndex(index: Int) =\n   if (index in 0..size) size - index else throw IndexOutOfBoundsException(\"Position index $index must be in range [${0..size}].\")\n\n\n/**\n * Returns a reversed read-only view of the original List.\n * All changes made in the original list will be reflected in the reversed one.\n * @sample samples.collections.ReversedViews.asReversedList\n */\npublic fun <T> List<T>.asReversed(): List<T> = ReversedListReadOnly(this)\n\n/**\n * Returns a reversed mutable view of the original mutable List.\n * All changes made in the original list will be reflected in the reversed one and vice versa.\n * @sample samples.collections.ReversedViews.asReversedMutableList\n */\n@kotlin.jvm.JvmName(\"asReversedMutable\")\npublic fun <T> MutableList<T>.asReversed(): MutableList<T> = ReversedList(this)\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code
 is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"SequencesKt\")\n@file:OptIn(Experimenta

lTypeInference::class)\n\npackage kotlin.sequences\n\nimport kotlin.coroutines.*\nimport kotlin.coroutines.intrinsics.*\nimport kotlin.experimental.ExperimentalTypeInference\n\n/**\n * Builds a [Sequence] lazily yielding values one by one.\n *\n * @see kotlin.sequences.generateSequence\n *\n * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n * @sample samples.collections.Sequences.Building.buildFibonacciSequence\n */\n@SinceKotlin(\"1.3\")\npublic fun <T> sequence(@BuilderInference block: suspend SequenceScope<T>.() -> Unit): Sequence<T> = Sequence { iterator(block) }\n\n@SinceKotlin(\"1.3\")\n@Deprecated(\"Use 'sequence { }' function instead.\", ReplaceWith(\"sequence(builderAction)\"), level = DeprecationLevel.ERROR)\n@kotlin.internal.InlineOnly\npublic inline fun <T> buildSequence(@BuilderInference noinline builderAction: suspend SequenceScope<T>.() -> Unit): Sequence<T> = Sequence { iterator(builderAction) }\n\n/**\n * Builds an [Iterator] lazily yielding values one by one.\n *\n * @sample samples.collections.Sequences.Building.buildIterator\n * @sample samples.collections.Iterables.Building.iterable\n */\n@SinceKotlin(\"1.3\")\npublic fun <T> iterator(@BuilderInference block: suspend SequenceScope<T>.() -> Unit): Iterator<T> {\n   val iterator = SequenceBuilderIterator<T>()\n   iterator.nextStep = block.createCoroutineUnintercepted(receiver = iterator, completion = iterator)\n   return iterator\n}\n\n@SinceKotlin(\"1.3\")\n@Deprecated(\"Use 'iterator { }' function instead.\", ReplaceWith(\"iterator(builderAction)\"), level = DeprecationLevel.ERROR)\n@kotlin.internal.InlineOnly\npublic inline fun <T> buildIterator(@BuilderInference noinline builderAction: suspend SequenceScope<T>.() -> Unit): Iterator<T> = iterator(builderAction)\n\n/**\n * The scope for yielding values of a [Sequence] or an [Iterator], provides [yield] and [yieldAll] suspension functions.\n *\n * @see sequence\n * @see iterator\n *\n * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n * @sample samples.collections.Sequences.Building.buildFibonacciSequence\n */\n@RestrictsSuspension\n@SinceKotlin(\"1.3\")\npublic abstract class SequenceScope<in T> internal constructor() {\n   /**\n   * Yields a value to the [Iterator] being built and suspends\n   * until the next value is requested.\n   *\n   * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n   * @sample samples.collections.Sequences.Building.buildFibonacciSequence\n   */\n   public abstract suspend fun yield(value: T)\n\n   /**\n   * Yields all values from the `iterator` to the [Iterator] being built\n   * and suspends until all these values are iterated and the next one is requested.\n   *\n   * The sequence of values returned by the given iterator can be potentially infinite.\n   *\n   * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n   */\n   public abstract suspend fun yieldAll(iterator: Iterator<T>)\n\n   /**\n   * Yields a collections of values to the [Iterator] being built\n   * and suspends until all these values are iterated and the next one is requested.\n   *\n   * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n   */\n   public suspend fun yieldAll(elements: Iterable<T>) {\n   if (elements is Collection && elements.isEmpty()) return\n   return yieldAll(elements.iterator())\n   }\n\n   /**\n   * Yields potentially infinite sequence of values to the [Iterator] being built\n   * and suspends until all these values are iterated and the next one is requested.\n   *\n   * The sequence can be potentially infinite.\n   *\n   * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n   */\n   public suspend fun yieldAll(sequence: Sequence<T>) = yieldAll(sequence.iterator())\n}\n\n@Deprecated(\"Use SequenceScope class instead.\", ReplaceWith(\"SequenceScope<T>\"), level = DeprecationLevel.ERROR)\npublic typealias SequenceBuilder<T> = SequenceScope<T>\n\nprivate typealias State = Int\n\nprivate const val State_NotReady: State = 0\nprivate const val State_ManyNotReady: State = 1\nprivate const val State_ManyReady: State = 2\nprivate const val State_Ready: State = 3\nprivate const val State_Done: State = 4\nprivate const val State_Failed: State = 5\n\nprivate class SequenceBuilderIterator<T> : SequenceScope<T>(), Iterator<T>, Continuation<Unit> {\n   private var state = State_NotReady\n   private var nextValue: T? = null\n   private var nextIterator: Iterator<T>? = null\n   var nextStep: Continuation<Unit>? = null\n\n   override fun hasNext(): Boolean {\n   while (true) {\n   when (state) {\n   State_NotReady -> {}\n   State_ManyNotReady ->\n if (nextIterator!!.hasNext()) {\n state = State_ManyReady\n return true\n } else {\n nextIterator = null\n }\n State_Done -> return false\n State_Ready, State_ManyReady -> return true\n else -> throw exceptionalState()\n }\n\n state = State_Failed\n val step = nextStep!!\n nextStep = null\n step.resume(Unit)\n }\n }\n\n override fun next(): T {\n when (state) {\n State_NotReady, State_ManyNotReady -> return nextNotReady()\n State_ManyReady -> {\n state = State_ManyNotReady\n return nextIterator!!.next()\n }\n State_Ready -> {\n state = State_NotReady\n @Suppress(\"UNCHECKED_CAST\")\n val result = nextValue as T\n nextValue = null\n return result\n }\n else -> throw exceptionalState()\n }\n }\n\n private fun nextNotReady(): T {\n if (!hasNext()) throw NoSuchElementException() else return next()\n }\n\n private fun exceptionalState(): Throwable = when (state) {\n State_Done -> NoSuchElementException()\n State_Failed -> IllegalStateException(\"Iterator has failed.\")\n else -> IllegalStateException(\"Unexpected state of the iterator: $state\")\n }\n\n\n override suspend fun yield(value: T) {\n nextValue = value\n state = State_Ready\n return suspendCoroutineUninterceptedOrReturn { c ->\n nextStep = c\n COROUTINE_SUSPENDED\n }\n }\n\n override suspend fun yieldAll(iterator: Iterator<T>) {\n if (!iterator.hasNext()) return\n nextIterator = iterator\n state = State_ManyReady\n return suspendCoroutineUninterceptedOrReturn { c ->\n nextStep = c\n COROUTINE_SUSPENDED\n }\n }\n\n // Completion continuation implementation\n override fun resumeWith(result: Result<Unit>) {\n result.getOrThrow() // just rethrow exception if it is there\n state = State_Done\n }\n\n override val context: CoroutineContext\n get() = EmptyCoroutineContext\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\ninternal fun checkWindowSizeStep(size: Int, step: Int) {\n require(size > 0 && step > 0) {\n if (size != step)\n \"Both size $size and step $step must be greater than zero.\"\n else\n \"size $size must be greater than zero.\"\n }\n}\n\ninternal fun <T> Sequence<T>.windowedSequence(size: Int, step: Int, partialWindows: Boolean, reuseBuffer: Boolean): Sequence<List<T>> {\n checkWindowSizeStep(size, step)\n return Sequence { windowedIterator(iterator(), size, step, partialWindows, reuseBuffer) }\n}\n\ninternal fun <T> windowedIterator(iterator: Iterator<T>, size: Int, step: Int, partialWindows: Boolean, reuseBuffer: Boolean): Iterator<List<T>> {\n if (!iterator.hasNext()) return EmptyIterator\n return iterator<List<T>> {\n val bufferInitialCapacity = size.coerceAtMost(1024)\n val gap = step - size\n if (gap >= 0) {\n var buffer = ArrayList<T>(bufferInitialCapacity)\n var skip = 0\n for (e in iterator) {\n if (skip > 0) { skip -= 1; continue }\n buffer.add(e)\n if (buffer.size == size) {\n yield(buffer)\n if (reuseBuffer) buffer.clear() else buffer = ArrayList(size)\n skip = gap\n }\n }\n if (buffer.isNotEmpty()) {\n if (partialWindows || buffer.size == size) yield(buffer)\n }\n } else {\n var buffer = RingBuffer<T>(bufferInitialCapacity)\n for (e in iterator) {\n buffer.add(e)\n if (buffer.isFull()) {\n if (buffer.size < size) { buffer = buffer.expanded(maxCapacity = size); continue }\n\n yield(if (reuseBuffer) buffer else ArrayList(buffer))\n buffer.removeFirst(step)\n }\n }\n if (partialWindows) {\n while (buffer.size > step) {\n yield(if (reuseBuffer) buffer else ArrayList(buffer))\n buffer.removeFirst(step)\n }\n if (buffer.isNotEmpty()) yield(buffer)\n }\n }\n }\n}\n\ninternal class MovingSubList<out E>(private val list: List<E>) : AbstractList<E>(), RandomAccess {\n private var fromIndex: Int = 0\n private var _size: Int = 0\n\n fun move(fromIndex: Int, toIndex: Int) {\n checkRangeIndexes(fromIndex, toIndex, list.size)\n this.fromIndex = fromIndex\n this._size = toIndex - fromIndex\n }\n\n override fun get(index: Int): E {\n checkElementIndex(index, _size)\n\n return list[fromIndex + index]\n }\n\n override val size: Int get() = _size\n}\n\n\n/**\n * Provides ring buffer implementation.\n *\n * Buffer overflow is not allowed so [add] doesn't overwrite tail but raises an exception.\n */\nprivate class RingBuffer<T>(private val buffer: Array<Any?>, filledSize: Int) : AbstractList<T>(), RandomAccess {\n init {\n require(filledSize >= 0) { \"ring buffer filled size should not be negative but it is $filledSize\" }\n require(filledSize <= buffer.size) { \"ring buffer filled size: $filledSize cannot be larger than the buffer size: ${buffer.size}\" }\n }\n\n constructor(capacity: Int) : this(arrayOfNulls<Any?>(capacity), 0)\n\n private val capacity = buffer.size\n private var startIndex: Int = 0\n\n override var size: Int = filledSize\n private set\n\n override fun get(index: Int): T {\n checkElementIndex(index, size)\n @Suppress(\"UNCHECKED_CAST\")\n return buffer[startIndex.forward(index)] as T\n }\n\n fun isFull() = size == capacity\n\n override fun iterator(): Iterator<T> = object : AbstractIterator<T>() {\n private var count = size\n private var index = startIndex\n\n override fun computeNext() {\n if (count == 0) {\n done()\n } else {\n @Suppress(\"UNCHECKED_CAST\")\n setNext(buffer[index] as T)\n index = index.forward(1)\n count--\n }\n }\n }\n\n @Suppress(\"UNCHECKED_CAST\")\n override fun <T> toArray(array: Array<T>): Array<T> {\n val result: Array<T?> =\n if (array.size < this.size) array.copyOf(this.size) else array as Array<T?>\n\n val size = this.size\n\n var widx = 0\n var idx = startIndex\n\n while (widx < size && idx < capacity) {\n result[widx] = buffer[idx] as T\n widx++\n idx++\n }\n\n idx = 0\n while (widx < size) {\n result[widx] = buffer[idx] as T\n widx++\n idx++\n }\n if (result.size > this.size) result[this.size] = null\n\n return result as Array<T>\n }\n\n override fun toArray(): Array<Any?> {\n return toArray(arrayOfNulls(size))\n }\n\n /**\n * Creates a new ring buffer with the capacity equal to the minimum of [maxCapacity] and 1.5 * [capacity].\n * The returned ring buffer contains the same elements as this ring buffer.\n */\n fun expanded(maxCapacity: Int): RingBuffer<T> {\n val newCapacity = (capacity + (capacity shr 1) + 1).coerceAtMost(maxCapacity)\n val newBuffer = if (startIndex == 0) buffer.copyOf(newCapacity) else toArray(arrayOfNulls(newCapacity))\n return RingBuffer(newBuffer, size)\n }\n\n /**\n * Add [element] to the buffer or fail with [IllegalStateException] if no free space available in the buffer\n */\n fun add(element: T) {\n if (isFull()) {\n throw IllegalStateException(\"ring buffer is full\")\n }\n\n buffer[startIndex.forward(size)] = element\n size++\n }\n\n /**\n * Removes [n] first elements from the buffer or fails with [IllegalArgumentException] if not enough elements in the buffer to remove\n */\n fun removeFirst(n: Int) {\n require(n >= 0) { \"n shouldn't be negative but it is $n\" }\n require(n <= size) { \"n shouldn't be greater than the buffer size: n = $n, size = $size\" }\n\n if (n > 0) {\n val start = startIndex\n val end = start.forward(n)\n\n if (start > end) {\n buffer.fill(null, start, capacity)\n buffer.fill(null, 0, end)\n } else {\n buffer.fill(null, start, end)\n }\n\n startIndex = end\n size -= n\n }\n }\n\n\n @Suppress(\"NOTHING_TO_INLINE\")\n private inline fun Int.forward(n: Int): Int = (this + n) % capacity\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n// UByteArray ===\n@ExperimentalUnsignedTypes\nprivate fun partition(\n array: UByteArray, left: Int, right: Int): Int {\n var i = left\n var j = right\n val pivot = array[(left + right) / 2]\n while (i <= j) {\n while (array[i] < pivot)\n i++\n while (array[j] > pivot)\n j--\n if (i <= j) {\n val tmp = array[i]\n array[i] = array[j]\n array[j] = tmp\n i++\n j--\n }\n }\n return i\n}\n\n@ExperimentalUnsignedTypes\nprivate fun quickSort(\n array: UByteArray, left: Int, right: Int) {\n val index = partition(array, left, right)\n if (left < index - 1)\n quickSort(array, left, index - 1)\n if (index < right)\n quickSort(array, index, right)\n}\n\n// UShortArray ===\n@ExperimentalUnsignedTypes\nprivate fun partition(\n array: UShortArray, left: Int, right: Int): Int {\n var i = left\n var j = right\n val pivot = array[(left + right) / 2]\n while (i <= j) {\n while (array[i] < pivot)\n i++\n while (array[j] > pivot)\n j--\n if (i <= j) {\n val tmp = array[i]\n array[i] = array[j]\n array[j] = tmp\n

i++\n j--\n }\n }\n return i\n}\n\n@ExperimentalUnsignedTypes\nprivate fun quickSort(\n array: UShortArray, left: Int, right: Int) {\n val index = partition(array, left, right)\n if (left < index - 1)\n quickSort(array, left, index - 1)\n if (index < right)\n quickSort(array, index, right)\n}\n\n// UIntArray ==\n@ExperimentalUnsignedTypes\nprivate fun partition(\n array: UIntArray, left: Int, right: Int): Int {\n var i = left\n var j = right\n val pivot = array[(left + right) / 2]\n while (i <= j) {\n while (array[i] < pivot)\n i++\n while (array[j] > pivot)\n j--\n if (i <= j) {\n val tmp = array[i]\n array[i] = array[j]\n array[j] = tmp\n i++\n j--\n }\n }\n return i\n}\n\n@ExperimentalUnsignedTypes\nprivate fun quickSort(\n array:
UIntArray, left: Int, right: Int) {\n val index = partition(array, left, right)\n if (left < index - 1)\n quickSort(array, left, index - 1)\n if (index < right)\n quickSort(array, index, right)\n}\n\n// ULongArray ==\n@ExperimentalUnsignedTypes\nprivate fun partition(\n array: ULongArray, left: Int, right: Int): Int {\n var i = left\n var j = right\n val pivot = array[(left + right) / 2]\n while (i <= j) {\n while (array[i] < pivot)\n i++\n while (array[j] > pivot)\n j--\n if (i <= j) {\n val tmp = array[i]\n array[i] = array[j]\n array[j] = tmp\n i++\n j--\n }\n }\n return i\n}\n\n@ExperimentalUnsignedTypes\nprivate fun quickSort(\n array: ULongArray, left: Int, right: Int) {\n val index = partition(array, left, right)\n if (left < index - 1)\n
quickSort(array, left, index - 1)\n if (index < right)\n quickSort(array, index, right)\n}\n\n\n// Interfaces ==\n/**\n * Sorts the given array using qsort algorithm.\n */\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array: UByteArray, fromIndex: Int, toIndex: Int) = quickSort(array, fromIndex, toIndex - 1)\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array: UShortArray, fromIndex: Int, toIndex: Int) = quickSort(array, fromIndex, toIndex - 1)\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array: UIntArray, fromIndex: Int, toIndex: Int) = quickSort(array, fromIndex, toIndex - 1)\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array: ULongArray, fromIndex: Int, toIndex: Int) = quickSort(array, fromIndex, toIndex - 1)","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.internal.InlineOnly\n\n/**\n * Compares this object with the specified object for order. Returns zero if this object is equal\n * to the specified [other] object, a negative number if it's less than [other], or a positive number\n * if it's greater than [other].\n *\n * This function delegates to [Comparable.compareTo] and allows to call it in infix form.\n */\n@InlineOnly\n@SinceKotlin(\"1.6\")\npublic inline infix fun <T> Comparable<T>.compareTo(other: T): Int =\n this.compareTo(other)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.contracts\n\nimport kotlin.internal.ContractsDsl\nimport kotlin.internal.InlineOnly\n\n/**\n * This marker distinguishes the experimental contract declaration API and is
used to opt-in for that feature\n * when declaring contracts of user functions.\n *\n * Any usage of a declaration annotated with `@ExperimentalContracts` must be accepted either by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalContracts::class)`,\n * or by using the compiler argument `-Xopt-in=kotlin.contracts.ExperimentalContracts`.\n */\n@Suppress(\"DEPRECATION\")\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.3\")\n@Experimental\n@RequiresOptIn\n@MustBeDocumented\npublic annotation class ExperimentalContracts\n\n/**\n * Provides a scope, where the functions of the contract DSL, such as [returns], [callsInPlace], etc.,\n * can be used to describe the contract of a function.\n *\n * This type is used as a receiver type of the lambda function passed to the [contract] function.\n *\n * @see contract\n */\n@ContractsDsl\n@ExperimentalContracts\n@SinceKotlin(\"1.3\")\npublic interface ContractBuilder {\n /**\n * Describes a situation when

a function returns normally, without any exceptions thrown.\n   *\n   * Use [SimpleEffect.implies] function to describe a conditional effect that happens in such case.\n   *\n   */\n   // @sample samples.contracts.returnsContract\n   @ContractsDsl public fun returns(): Returns\n\n   /**\n   * Describes a situation when a function returns normally with the specified return [value].\n   *\n   * The possible values of [value] are limited to `true`, `false` or `null`.\n   *\n   * Use [SimpleEffect.implies] function to describe a conditional effect that happens in such case.\n   *\n   */\n   // @sample samples.contracts.returnsTrueContract\n   // @sample samples.contracts.returnsFalseContract\n   // @sample samples.contracts.returnsNullContract\n   @ContractsDsl public fun returns(value: Any?): Returns\n\n   /**\n   * Describes a situation when a function returns normally with any value that is not `null`.\n   *\n   * Use [SimpleEffect.implies] function to describe a conditional effect that happens in such case.\n   *\n   */\n   // @sample samples.contracts.returnsNotNullContract\n   @ContractsDsl public fun returnsNotNull(): ReturnsNotNull\n\n   /**\n   * Specifies that the function parameter [lambda] is invoked in place.\n   *\n   * This contract specifies that:\n   * 1. the function [lambda] can only be invoked during the call of the owner function,\n   * and it won't be invoked after that owner function call is completed;\n   * 2. _(optionally)_ the function [lambda] is invoked the amount of times specified by the [kind] parameter,\n   * see the [InvocationKind] enum for possible values.\n   *\n   * A function declaring the `callsInPlace` effect must be _inline_.\n   *\n   */\n   /* @sample samples.contracts.callsInPlaceAtMostOnceContract\n   * @sample samples.contracts.callsInPlaceAtLeastOnceContract\n   * @sample samples.contracts.callsInPlaceExactlyOnceContract\n   * @sample samples.contracts.callsInPlaceUnknownContract\n   */\n   @ContractsDsl public fun <R> callsInPlace(lambda: Function<R>, kind: InvocationKind = InvocationKind.UNKNOWN): CallsInPlace\n}\n\n/**\n * Specifies how many times a function invokes its function parameter in place.\n *\n * See [ContractBuilder.callsInPlace] for the details of the call-in-place function contract.\n */\n@ContractsDsl\n@ExperimentalContracts\n@SinceKotlin(\"1.3\")\npublic enum class InvocationKind {\n   /**\n   * A function parameter will be invoked one time or not invoked at all.\n   */\n   // @sample samples.contracts.callsInPlaceAtMostOnceContract\n   @ContractsDsl AT_MOST_ONCE,\n\n   /**\n   * A function parameter will be invoked one or more times.\n   *\n   */\n   // @sample samples.contracts.callsInPlaceAtLeastOnceContract\n   @ContractsDsl AT_LEAST_ONCE,\n\n   /**\n   * A function parameter will be invoked exactly one time.\n   *\n   */\n   // @sample samples.contracts.callsInPlaceExactlyOnceContract\n   @ContractsDsl EXACTLY_ONCE,\n\n   /**\n   * A function parameter is called in place, but it's unknown how many times it can be called.\n   *\n   */\n   // @sample samples.contracts.callsInPlaceUnknownContract\n   @ContractsDsl UNKNOWN\n}\n\n/**\n * Specifies the contract of a function.\n *\n * The contract description must be at the beginning of a function and have at least one effect.\n *\n * Only the top-level functions can have a contract for now.\n *\n * @param builder the lambda where the contract of a function is described with the help of the [ContractBuilder] members.\n *\n */\n/* @sample samples.contracts.returnsContract\n* @sample samples.contracts.returnsTrueContract\n* @sample samples.contracts.returnsFalseContract\n* @sample samples.contracts.returnsNullContract\n* @sample samples.contracts.returnsNotNullContract\n* @sample samples.contracts.callsInPlaceAtMostOnceContract\n* @sample samples.contracts.callsInPlaceAtLeastOnceContract\n* @sample samples.contracts.callsInPlaceExactlyOnceContract\n* @sample samples.contracts.callsInPlaceUnknownContract\n*/\n@ContractsDsl\n@ExperimentalContracts\n@InlineOnly\n@SinceKotlin(\"1.3\")\n@Suppress(\"UNUSED_PARAMETER\")\npublic inline fun contract(builder: ContractBuilder.() -> Unit) { }\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\n/**\n * Marks coroutine context element that intercepts coroutine continuations.\n * The coroutines framework uses [ContinuationInterceptor.Key] to retrieve the

interceptor and\n * intercepts all coroutine continuations with [interceptContinuation] invocations.\n *\n *
[ContinuationInterceptor] behaves like a [polymorphic element][AbstractCoroutineContextKey], meaning that\n *
its implementation delegates [get][CoroutineContext.Element.get] and
[minusKey][CoroutineContext.Element.minusKey]\n
 * to [getPolymorphicElement] and [minusPolymorphicKey] respectively.\n * [ContinuationInterceptor] subtypes
can be extracted from the coroutine context using either [ContinuationInterceptor.Key]\n * or subtype key if it
extends [AbstractCoroutineContextKey].\n */\n@SinceKotlin(\"1.3\")\npublic interface ContinuationInterceptor :
CoroutineContext.Element {\n   /**\n   * The key that defines *the* context interceptor.\n   */\n   companion
object Key : CoroutineContext.Key<ContinuationInterceptor>\n\n   /**\n   * Returns continuation that wraps the
original [continuation], thus intercepting all resumptions.\n   * This function is invoked by coroutines framework
when needed and the resulting continuations are\n   * cached internally per each instance of the original
[continuation].\n   *\n   * This function may simply return original [continuation] if it does not want to intercept
this particular continuation.\n   *\n   * When the original [continuation]
 completes, coroutine framework invokes [releaseInterceptedContinuation]\n   * with the resulting continuation if it
was intercepted, that is if `interceptContinuation` had previously\n   * returned a different continuation instance.\n
 */\n   public fun <T> interceptContinuation(continuation: Continuation<T>): Continuation<T>\n\n   /**\n   *
Invoked for the continuation instance returned by [interceptContinuation] when the original\n   * continuation
completes and will not be used anymore. This function is invoked only if [interceptContinuation]\n   * had returned
a different continuation instance from the one it was invoked with.\n   *\n   * Default implementation does
nothing.\n   *\n   * @param continuation Continuation instance returned by this interceptor's
[interceptContinuation] invocation.\n   */\n   public fun releaseInterceptedContinuation(continuation:
Continuation<*>) {\n   /* do nothing by default */\n   }\n\n   public override operator
 fun <E : CoroutineContext.Element> get(key: CoroutineContext.Key<E>): E? {\n   // getPolymorphicKey
specialized for ContinuationInterceptor key\n   @OptIn(ExperimentalStdlibApi::class)\n   if (key is
AbstractCoroutineContextKey<*, *>) {\n   @Suppress(\"UNCHECKED_CAST\")\n   return if
(key.isSubKey(this.key)) key.tryCast(this) as? E else null\n   }\n   @Suppress(\"UNCHECKED_CAST\")\n
  return if (ContinuationInterceptor === key) this as E else null\n   }\n\n\n   public override fun minusKey(key:
CoroutineContext.Key<*>): CoroutineContext {\n   // minusPolymorphicKey specialized for
ContinuationInterceptor key\n   @OptIn(ExperimentalStdlibApi::class)\n   if (key is
AbstractCoroutineContextKey<*, *>) {\n   return if (key.isSubKey(this.key) && key.tryCast(this) != null)
EmptyCoroutineContext else this\n   }\n   return if (ContinuationInterceptor === key)
EmptyCoroutineContext else this\n   }\n}\n","/*\n
 * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.coroutines\n\n/**\n * Persistent context for the coroutine. It is an indexed set of [Element] instances.\n * An
indexed set is a mix between a set and a map.\n * Every element in this set has a unique [Key].\n
*/\n@SinceKotlin(\"1.3\")\npublic interface CoroutineContext {\n   /**\n   * Returns the element with the given
[key] from this context or `null`.\n   */\n   public operator fun <E : Element> get(key: Key<E>): E?\n\n   /**\n
* Accumulates entries of this context starting with [initial] value and applying [operation]\n   * from left to right to
current accumulator value and each element of this context.\n   */\n   public fun <R> fold(initial: R, operation: (R,
Element) -> R): R\n\n   /**\n   * Returns a context containing elements from this
 context and elements from other [context].\n   * The elements from this context with the same key as in the other
one are dropped.\n   */\n   public operator fun plus(context: CoroutineContext): CoroutineContext =\n   if
(context === EmptyCoroutineContext) this else // fast path -- avoid lambda creation\n   context.fold(this) {
acc, element ->\n   val removed = acc.minusKey(element.key)\n   if (removed ===
EmptyCoroutineContext) element else {\n   // make sure interceptor is always last in the context (and thus
is fast to get when present)\n   val interceptor = removed[ContinuationInterceptor]\n   if
(interceptor == null) CombinedContext(removed, element) else {\n   val left =

removed.minusKey(ContinuationInterceptor)\n   if (left === EmptyCoroutineContext) CombinedContext(element, interceptor) else\n   CombinedContext(CombinedContext(left, element), interceptor)\n   }\n   }\n   }\n\n   /**\n   * Returns a context containing elements from this context, but without an element with\n   * the specified [key].\n   */\n   public fun minusKey(key: Key<*>): CoroutineContext\n\n   /**\n   * Key for the elements of [CoroutineContext]. [E] is a type of element with this key.\n   */\n   public interface Key<E : Element>\n\n   /**\n   * An element of the [CoroutineContext]. An element of the coroutine context is a singleton context by itself.\n   */\n   public interface Element : CoroutineContext {\n   /**\n   * A key of this coroutine context element.\n   */\n   public val key: Key<*>\n\n   public override operator fun <E : Element> get(key: Key<E>): E? =\n   @Suppress(\"UNCHECKED_CAST\")\n   if (this.key == key) this as E else null\n\n   public override fun <R> fold(initial: R, operation: (R, Element) -> R): R =\n   operation(initial, this)\n\n   public override fun minusKey(key: Key<*>): CoroutineContext =\n   if (this.key == key) EmptyCoroutineContext else this\n   }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\nimport kotlin.coroutines.CoroutineContext.Element\nimport kotlin.coroutines.CoroutineContext.Key\n\n/**\n * Base class for [CoroutineContext.Element] implementations.\n */\n@SinceKotlin(\"1.3\")\npublic abstract class AbstractCoroutineContextElement(public override val key: Key<*>) : Element\n\n/**\n * Base class for [CoroutineContext.Key] associated with polymorphic [CoroutineContext.Element] implementation.\n * Polymorphic element implementation implies delegating its [get][Element.get] and [minusKey][Element.minusKey]\n * to [getPolymorphicElement] and [minusPolymorphicKey] respectively.\n *\n * Polymorphic elements can be extracted from the coroutine context using both element key and its supertype key.\n * Example of polymorphic elements:\n * ```\n * open class BaseElement : CoroutineContext.Element {\n *   companion object Key : CoroutineContext.Key<BaseElement>\n *   override val key: CoroutineContext.Key<*> get() = Key\n *   // It is important to use getPolymorphicKey and minusPolymorphicKey\n *   override fun <E : CoroutineContext.Element> get(key: CoroutineContext.Key<E>): E? = getPolymorphicElement(key)\n *   override fun minusKey(key: CoroutineContext.Key<*>): CoroutineContext = minusPolymorphicKey(key)\n * }\n *\n * class DerivedElement : BaseElement() {\n *   companion object Key : AbstractCoroutineContextKey<BaseElement, DerivedElement>(BaseElement, { it as? DerivedElement })\n * }\n * // Now it is possible to query both `BaseElement` and `DerivedElement`\n * someContext[BaseElement] // Returns BaseElement?, non-null both for BaseElement and DerivedElement instances\n * someContext[DerivedElement] // Returns DerivedElement?, non-null only for DerivedElement instance\n * ```\n * @param B base class of a polymorphic element\n * @param baseKey an instance of base key\n * @param E element type associated with the current key\n * @param safeCast a function that can safely cast abstract [CoroutineContext.Element] to the concrete [E] type\n *   and return the element if it is a subtype of [E] or `null` otherwise.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalStdlibApi\npublic abstract class AbstractCoroutineContextKey<B : Element, E : B>(\n   baseKey: Key<B>,\n   private val safeCast: (element: Element) -> E?\n) : Key<E> {\n   private val topmostKey: Key<*> = if (baseKey is AbstractCoroutineContextKey<*, *>) baseKey.topmostKey else baseKey\n\n   internal fun tryCast(element: Element): E? = safeCast(element)\n   internal fun isSubKey(key: Key<*>): Boolean = key === this || topmostKey === key\n}\n\n/**\n * Returns the current element if it is associated with the given [key] in a polymorphic manner or `null` otherwise.\n * This method returns non-null value if either [Element.key] is equal to the given [key] or if the [key] is associated\n * with [Element.key] via [AbstractCoroutineContextKey].\n * See [AbstractCoroutineContextKey] for the example of usage.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalStdlibApi\npublic fun <E : Element> Element.getPolymorphicElement(key: Key<E>): E? {\n   if (key is AbstractCoroutineContextKey<*, *>) {\n   @Suppress(\"UNCHECKED_CAST\")\n   return if (key.isSubKey(this.key)) key.tryCast(this) as? E else null\n

}\n   @Suppress(\"UNCHECKED_CAST\")\n   return if (this.key === key) this as E else null\n}\n\n/**\n * Returns empty coroutine context if the element is associated with the given [key] in a polymorphic manner\n * or `null` otherwise.\n * This method returns empty context if either [Element.key] is equal to the given [key] or if the [key] is associated\n * with [Element.key] via [AbstractCoroutineContextKey].\n * See [AbstractCoroutineContextKey] for the example of usage.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalStdlibApi\npublic fun Element.minusPolymorphicKey(key: Key<*>): CoroutineContext {\n   if (key is AbstractCoroutineContextKey<*, *>) {\n   return if (key.isSubKey(this.key) && key.tryCast(this) != null) EmptyCoroutineContext else this\n   }\n   return if (this.key === key) EmptyCoroutineContext else this\n}\n\n/**\n * An empty coroutine context.\n */\n@SinceKotlin(\"1.3\")\npublic object EmptyCoroutineContext : CoroutineContext, Serializable {\n   private const val serialVersionUID: Long = 0\n   private fun readResolve(): Any = EmptyCoroutineContext\n\n   public override fun <E : Element> get(key: Key<E>): E? = null\n   public override fun <R> fold(initial: R, operation: (R, Element) -> R): R = initial\n   public override fun plus(context: CoroutineContext): CoroutineContext = context\n   public override fun minusKey(key: Key<*>): CoroutineContext = this\n   public override fun hashCode(): Int = 0\n   public override fun toString(): String = \"EmptyCoroutineContext\"\n}\n\n//--------------------- internal impl ---------------------\n\n// this class is not exposed, but is hidden inside implementations\n// this is a left-biased list, so that `plus` works naturally\n@SinceKotlin(\"1.3\")\ninternal class CombinedContext(\n   private val left: CoroutineContext,\n   private val element: Element\n) : CoroutineContext, Serializable {\n\n   override fun <E : Element> get(key: Key<E>): E? {\n   var cur = this\n   while (true) {\n   cur.element[key]?.let { return it }\n   val next = cur.left\n   if (next is CombinedContext) {\n   cur = next\n   } else {\n   return next[key]\n   }\n   }\n   }\n\n   public override fun <R> fold(initial: R, operation: (R, Element) -> R): R =\n   operation(left.fold(initial, operation), element)\n\n   public override fun minusKey(key: Key<*>): CoroutineContext {\n   element[key]?.let { return left }\n   val newLeft = left.minusKey(key)\n   return when {\n   newLeft === left -> this\n   newLeft === EmptyCoroutineContext -> element\n   else -> CombinedContext(newLeft, element)\n   }\n   }\n\n   private fun size(): Int {\n   var cur = this\n   var size = 2\n   while (true) {\n   cur = cur.left as? CombinedContext ?: return size\n   size++\n   }\n   }\n\n   private fun contains(element: Element): Boolean =\n   get(element.key) == element\n\n   private fun containsAll(context: CombinedContext): Boolean {\n   var cur = context\n   while (true) {\n   if (!contains(cur.element)) return false\n   val next = cur.left\n   if (next is CombinedContext) {\n   cur = next\n   } else {\n   return contains(next as Element)\n   }\n   }\n   }\n\n   override fun equals(other: Any?): Boolean =\n   this === other || other is CombinedContext && other.size() == size() && other.containsAll(this)\n\n   override fun hashCode(): Int = left.hashCode() + element.hashCode()\n\n   override fun toString(): String =\n   \"[\" + fold(\"\") { acc, element ->\n   if (acc.isEmpty()) element.toString() else \"$acc, $element\"\n   } + \"]\"\n\n   private fun writeReplace(): Any {\n   val n = size()\n   val elements = arrayOfNulls<CoroutineContext>(n)\n   var index = 0\n   fold(Unit) { _, element -> elements[index++] = element }\n   check(index == n)\n   @Suppress(\"UNCHECKED_CAST\")\n   return Serialized(elements as Array<CoroutineContext>)\n   }\n\n   private class Serialized(val elements: Array<CoroutineContext>) : Serializable {\n   companion object {\n   private const val serialVersionUID: Long = 0L\n   }\n\n   private fun readResolve(): Any = elements.fold(EmptyCoroutineContext, CoroutineContext::plus)\n   }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"IntrinsicsKt\")\n@file:kotlin.jvm.JvmMultifileClass\n\npackage kotlin.coroutines.intrinsics\n\nimport kotlin.contracts.*\nimport kotlin.coroutines.*\nimport kotlin.internal.InlineOnly\n\n/**\n * Obtains the current continuation instance inside suspend functions and either suspends\n * currently running coroutine or returns result immediately without suspension.\n *\n * If the [block] returns the special [COROUTINE_SUSPENDED] value, it means that suspend function did suspend the execution and will\n * not return any result immediately. In this case, the [Continuation] provided to the [block] shall be\n * resumed by invoking [Continuation.resumeWith] at some moment in the\n * future when the result becomes available to resume the computation.\n *\n * Otherwise, the return value of the [block] must have a type assignable to [T] and represents the result of this suspend function.\n * It means that the execution was not suspended and the [Continuation] provided to the [block] shall not be invoked.\n * As the result type of the [block] is declared as `Any?` and cannot be correctly type-checked,\n * its proper return type remains on the conscience of the suspend function's author.\n *\n * Invocation of [Continuation.resumeWith] resumes coroutine directly in the invoker's thread without going through the\n * [ContinuationInterceptor] that might be present in the coroutine's [CoroutineContext].\n * It is the invoker's responsibility to ensure that a proper invocation context is established.\n * [Continuation.intercepted] can be used to acquire the intercepted continuation.\n *\n * Note that it is not recommended to call either [Continuation.resume] nor [Continuation.resumeWithException] functions synchronously\n * in the same stackframe where suspension function is run. Use [suspendCoroutine] as a safer way to obtain current\n * continuation instance.\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\n@Suppress(\"UNUSED_PARAMETER\", \"RedundantSuspendModifier\")\npublic suspend inline fun <T> suspendCoroutineUninterceptedOrReturn(crossinline block: (Continuation<T>) -> Any?): T {\n   contract { callsInPlace(block, InvocationKind.EXACTLY_ONCE) }\n   throw NotImplementedError(\"Implementation of suspendCoroutineUninterceptedOrReturn is intrinsic\")\n}\n\n/**\n * This value is used as a return value of [suspendCoroutineUninterceptedOrReturn] `block` argument to state that\n * the execution was suspended and will not return any result immediately.\n *\n * **Note: this value should not be used in general code.** Using it outside of the context of\n * `suspendCoroutineUninterceptedOrReturn` function return value (including, but not limited to,\n * storing this value in other properties, returning it from other functions, etc)\n * can lead to unspecified behavior of the code.\n */\n// It is implemented as property with getter to avoid ProGuard <clinit> problem with multifile IntrinsicsKt class\n@SinceKotlin(\"1.3\")\npublic val COROUTINE_SUSPENDED: Any get() = CoroutineSingletons.COROUTINE_SUSPENDED\n\n// Using enum here ensures two important properties:\n// 1. It makes SafeContinuation serializable with all kinds of serialization frameworks (since all of them natively support enums)\n// 2. It improves debugging experience, since you clearly see toString() value of those objects and what package they come from\n@SinceKotlin(\"1.3\")\n@PublishedApi // This class is Published API via serialized representation of SafeContinuation, don't rename/move\ninternal enum class CoroutineSingletons { COROUTINE_SUSPENDED, UNDECIDED, RESUMED }\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.experimental\n\n/** Performs a bitwise AND operation between the two values. */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline infix fun Byte.and(other: Byte): Byte = (this.toInt() and other.toInt()).toByte()\n\n/** Performs a bitwise OR operation between the two values. */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline infix fun Byte.or(other: Byte): Byte = (this.toInt() or other.toInt()).toByte()\n\n/** Performs a bitwise XOR operation between the two values. */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline infix fun Byte.xor(other: Byte): Byte = (this.toInt() xor other.toInt()).toByte()\n\n/** Inverts the bits in this value. */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.inv(): Byte = (this.toInt().inv()).toByte()\n\n\n/** Performs a bitwise AND operation between the two values. */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline infix fun Short.and(other: Short): Short = (this.toInt() and other.toInt()).toShort()\n\n/** Performs a bitwise OR operation between the two values. */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline infix fun Short.or(other: Short): Short = (this.toInt() or other.toInt()).toShort()\n\n/** Performs a bitwise XOR operation between the two values.

*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline infix fun Short.xor(other: Short): Short = (this.toInt() xor other.toInt()).toShort()\n\n/** Inverts the bits in this value. */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.inv(): Short = (this.toInt().inv()).toShort()\n\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.experimental\n\n/**\n * The experimental marker for type inference augmenting annotations.\n *\n * Any usage of a declaration annotated with `@ExperimentalTypeInference` must be accepted either by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalTypeInference::class)`,\n * or by using the compiler argument `-Xopt-in=kotlin.experimental.ExperimentalTypeInference`.\n */\n@Suppress(\"DEPRECATION\")\n@Experimental(level = Experimental.Level.ERROR)\n@RequiresOptIn(level = RequiresOptIn.Level.ERROR)\n@MustBeDocumented\n@Retention(AnnotationRetention.BINARY)\n@Target(AnnotationTarget.ANNOTATION_CLASS)\n@SinceKotlin(\"1.3\")\npublic annotation class ExperimentalTypeInference\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.internal\n\n/**\n * Specifies that the corresponding type should be ignored during type inference.\n */\n@Target(AnnotationTarget.TYPE)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class NoInfer\n\n/**\n * Specifies that the constraint built for the type during type inference should be an equality one.\n */\n@Target(AnnotationTarget.TYPE)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class Exact\n\n/**\n * Specifies that a corresponding member has the lowest priority in overload resolution.\n */\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class LowPriorityInOverloadResolution\n\n/**\n * Specifies that the corresponding member has the highest priority in overload resolution. Effectively this means that\n * an extension annotated with this annotation will win in overload resolution over a member with the same signature.\n */\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class HidesMembers\n\n/**\n * The value of this type parameter should be mentioned in input types (argument types, receiver type or expected type).\n */\n@Target(AnnotationTarget.TYPE_PARAMETER)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class OnlyInputTypes\n\n/**\n * Specifies that this function should not be called directly without inlining\n */\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY, AnnotationTarget.PROPERTY_GETTER, AnnotationTarget.PROPERTY_SETTER)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class InlineOnly\n\n/**\n * Specifies that this declaration can have dynamic receiver type.\n */\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class DynamicExtension\n\n/**\n * The value of this parameter should be a property reference expression (`this::foo`), referencing a `lateinit` property,\n * the backing field of which is accessible at the point where the corresponding argument is passed.\n */\n@Target(AnnotationTarget.VALUE_PARAMETER)\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.2\")\ninternal annotation class AccessibleLateinitPropertyLiteral\n\n/**\n * Specifies that this declaration is only completely supported since the specified version.\n *\n * The Kotlin compiler of an earlier version is going to report a diagnostic on usages of this declaration.\n * The diagnostic message can be specified with [message], or via [errorCode] (takes less space, but might not be immediately clear\n * to the user). The diagnostic severity can be specified with [level]: WARNING/ERROR mean that either a warning or an error\n * is going to be reported, HIDDEN means that the declaration is going to be removed from resolution completely.\n *\n * [versionKind]

specifies which version should be compared with the [version] value, when compiling
the usage of the annotated declaration.\n * Note that prior to 1.2, only [RequireKotlinVersionKind.LANGUAGE_VERSION] was supported, so the Kotlin compiler before 1.2 is going to\n * treat any [RequireKotlin] as if it requires the language version. Since 1.2, the Kotlin compiler supports\n * [RequireKotlinVersionKind.LANGUAGE_VERSION], [RequireKotlinVersionKind.COMPILER_VERSION] and [RequireKotlinVersionKind.API_VERSION].\n * If the actual value of [versionKind] is something different (e.g. a new version kind, added in future versions of Kotlin),\n * Kotlin 1.2 is going to ignore this [RequireKotlin] altogether, where as Kotlin before 1.2 is going to treat this as a requirement\n * on the language version.\n *\n * This annotation is erased at compile time; its arguments are stored in a more compact form in the Kotlin metadata.\n */\n@Target(AnnotationTarget.CLASS, AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY, AnnotationTarget.CONSTRUCTOR, AnnotationTarget.TYPEALIAS)\n@Retention(AnnotationRetention.SOURCE)\n@Repeatable\n@SinceKotlin(\"1.2\")\ninternal
annotation class RequireKotlin(\n   val version: String,\n   val message: String = \"\",\n   val level: DeprecationLevel = DeprecationLevel.ERROR,\n   val versionKind: RequireKotlinVersionKind = RequireKotlinVersionKind.LANGUAGE_VERSION,\n   val errorCode: Int = -1\n)\n\n/**\n * The kind of the version that is required by [RequireKotlin].\n */\n@SinceKotlin(\"1.2\")\ninternal enum class RequireKotlinVersionKind {\n   LANGUAGE_VERSION,\n   COMPILER_VERSION,\n   API_VERSION,\n}\n\n/**\n * Specifies that this declaration is a part of special DSL, used for constructing function's contract.\n */\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.2\")\ninternal annotation class ContractsDsl\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.properties\n\nimport kotlin.reflect.KProperty\n\n/**\n * Standard property delegates.\n */\npublic object Delegates {\n   /**\n   * Returns a property delegate for a read/write property with a non-`null` value that is initialized not during\n   * object construction time but at a later time. Trying to read the property before the initial value has been\n   * assigned results in an exception.\n   *\n   * @sample samples.properties.Delegates.notNullDelegate\n   */\n   public fun <T : Any> notNull(): ReadWriteProperty<Any?, T> = NotNullVar()\n\n   /**\n   * Returns a property delegate for a read/write property that calls a specified callback function when changed.\n   * @param initialValue the initial value of the property.\n   * @param onChange the callback which is called after the change of the property is made. The value of the property\n   * has already been changed when this callback is invoked.\n   *\n   * @sample samples.properties.Delegates.observableDelegate\n
/\n   public inline fun <T> observable(initialValue: T, crossinline onChange: (property: KProperty<>, oldValue: T, newValue: T) -> Unit):\n   ReadWriteProperty<Any?, T> =\n   object : ObservableProperty<T>(initialValue) {\n   override fun afterChange(property: KProperty<*>, oldValue: T, newValue: T) = onChange(property, oldValue, newValue)\n   }\n\n   /**\n   * Returns a property delegate for a read/write property that calls a specified callback function when changed,\n   * allowing the callback to veto the modification.\n   * @param initialValue the initial value of the property.\n   * @param onChange the callback which is called before a change to the property value is attempted.\n   * The value of the property hasn't been changed yet, when this callback is invoked.\n   * If the callback returns `true` the value of the property is being set to the new value,\n   * and if the callback returns `false` the
new value is discarded and the property remains its old value.\n   *\n   * @sample samples.properties.Delegates.vetoableDelegate\n   * @sample samples.properties.Delegates.throwVetoableDelegate\n   */\n   public inline fun <T> vetoable(initialValue: T, crossinline onChange: (property: KProperty<*>, oldValue: T, newValue: T) -> Boolean):\n ReadWriteProperty<Any?, T> =\n   object : ObservableProperty<T>(initialValue) {\n   override fun beforeChange(property: KProperty<*>, oldValue: T, newValue: T): Boolean = onChange(property, oldValue,

newValue)\n   }\n\n}\n\n\nprivate class NotNullVar<T : Any>() : ReadWriteProperty<Any?, T> {\n   private var value: T? = null\n\n   public override fun getValue(thisRef: Any?, property: KProperty<*>): T {\n   return value ?: throw IllegalStateException(\"Property ${property.name} should be initialized before get.\")\n   }\n\n   public override fun setValue(thisRef: Any?, property: KProperty<*>, value: T) {\n   this.value = value\n   }\n}\n\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.properties\n\nimport kotlin.reflect.KProperty\n\n/**\n * Base interface that can be used for implementing property delegates of read-only properties.\n *\n * This is provided only for convenience; you don't have to extend this interface\n * as long as your property delegate has methods with the same signatures.\n *\n * @param T the type of object which owns the delegated property.\n * @param V the type of the property value.\n */\npublic fun interface ReadOnlyProperty<in T, out V> {\n   /**\n   * Returns the value of the property for the given object.\n   * @param thisRef the object for which the value is requested.\n   * @param property the metadata for the property.\n   * @return the property value.\n   */\n   public operator fun getValue(thisRef: T, property: KProperty<*>): V\n}\n\n/**\n * Base interface that can be used for implementing property delegates of read-write properties.\n *\n * This is provided only for convenience; you don't have to extend this interface\n * as long as your property delegate has methods with the same signatures.\n *\n * @param T the type of object which owns the delegated property.\n * @param V the type of the property value.\n */\npublic interface ReadWriteProperty<in T, V> : ReadOnlyProperty<T, V> {\n   /**\n   * Returns the value of the property for the given object.\n   * @param thisRef the object for which the value is requested.\n   * @param property the metadata for the property.\n   * @return the property value.\n   */\n   public override operator fun getValue(thisRef: T, property: KProperty<*>): V\n\n   /**\n   * Sets the value of the property for the given object.\n   * @param thisRef the object for which the value is requested.\n   * @param property the metadata for the property.\n   * @param value the value to set.\n   */\n   public operator fun setValue(thisRef: T, property: KProperty<*>, value: V)\n}\n\n/**\n * Base interface that can be used for implementing property delegate providers.\n *\n * This is provided only for convenience; you don't have to extend this interface\n * as long as your delegate provider has a method with the same signature.\n *\n * @param T the type of object which owns the delegated property.\n * @param D the type of property delegates this provider provides.\n */\n@SinceKotlin(\"1.4\")\npublic fun interface PropertyDelegateProvider<in T, out D> {\n   /**\n   * Returns the delegate of the property for the given object.\n   *\n   * This function can be used to extend the logic of creating the object (e.g. perform validation checks)\n   * to which the property implementation is delegated.\n   *\n   * @param thisRef the object for which property delegate is requested.\n   * @param property the metadata for the property.\n   * @return the property delegate.\n   */\n   public operator fun provideDelegate(thisRef: T, property: KProperty<*>): D\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.properties\n\nimport kotlin.reflect.KProperty\n\n/**\n * Implements the core logic of a property delegate for a read/write property that calls callback functions when changed.\n * @param initialValue the initial value of the property.\n */\npublic abstract class ObservableProperty<V>(initialValue: V) : ReadWriteProperty<Any?, V> {\n   private var value = initialValue\n\n   /**\n   * The callback which is called before a change to the property value is attempted.\n   * The value of the property hasn't been changed yet, when this callback is invoked.\n   * If the callback returns `true` the value of the property is being set to the new value,\n   * and if the callback returns `false` the new value is discarded and the property remains its old value.\n   */\n   protected open fun beforeChange(property: KProperty<*>, oldValue: V, newValue: V): Boolean = true\n\n   /**\n   * The callback which is called after the change of the property is made. The value of the property\n   * has already been changed when this callback is invoked.\n   */\n   protected open fun afterChange(property: KProperty<*>, oldValue: V, newValue: V): Unit {}\n\n   public override fun getValue(thisRef: Any?, property: KProperty<*>): V {\n   return value\n   }\n\n   public override fun setValue(thisRef: Any?, property: KProperty<*>, value: V) {\n   val oldValue = this.value\n   if (!beforeChange(property, oldValue, value)) {\n   return\n   }\n   this.value

= value\n   afterChange(property, oldValue, value)\n   }\n}","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:Suppress(\"PackageDirectoryMismatch\")\npackage kotlin\n\nimport kotlin.reflect.*\n\n/**\n * An extension operator that allows delegating a read-only property of type [V]\n * to a property reference to a property of type [V] or its subtype.\n *\n * @receiver A property reference to a read-only or mutable property of type [V] or its subtype.\n * The reference is without a receiver, i.e. it either references a top-level property or\n * has the receiver bound to it.\n *\n * Example:\n *\n * ```\n * class Login(val username: String)\n * val defaultLogin = Login(\"Admin\")\n * val defaultUsername by defaultLogin::username\n * // equivalent to\n * val defaultUserName get() = defaultLogin.username\n * ```\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <V> KProperty0<V>.getValue(thisRef: Any?, property: KProperty<*>): V {\n   return get()\n}\n\n/**\n * An extension operator that allows delegating a mutable property of type [V]\n * to a property reference to a mutable property of the same type [V].\n *\n * @receiver A property reference to a mutable property of type [V].\n * The reference is without a receiver, i.e. it either references a top-level property or\n * has the receiver bound to it.\n *\n * Example:\n *\n * ```\n * class Login(val username: String, var incorrectAttemptCounter: Int = 0)\n * val defaultLogin = Login(\"Admin\")\n * var defaultLoginAttempts by defaultLogin::incorrectAttemptCounter\n * // equivalent to\n * var defaultLoginAttempts: Int\n *   get() = defaultLogin.incorrectAttemptCounter\n *   set(value) { defaultLogin.incorrectAttemptCounter = value }\n * ```\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <V> KMutableProperty0<V>.setValue(thisRef: Any?, property: KProperty<*>, value: V) {\n   set(value)\n}\n\n\n/**\n * An extension operator that allows delegating a read-only member or extension property of type [V]\n * to a property reference to a member or extension property of type [V] or its subtype.\n *\n * @receiver A property reference to a read-only or mutable property of type [V] or its subtype.\n * The reference has an unbound receiver of type [T].\n *\n * Example:\n *\n * ```\n * class Login(val username: String)\n * val Login.user by Login::username\n * // equivalent to\n * val Login.user get() = this.username\n * ```\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <T, V> KProperty1<T, V>.getValue(thisRef: T, property: KProperty<*>): V {\n   return get(thisRef)\n}\n\n/**\n * An extension operator that allows delegating a mutable member or extension property of type [V]\n * to a property reference to a member or extension mutable property of the same type [V].\n *\n * @receiver A property reference to a read-only or mutable property of type [V] or its subtype.\n * The reference has an unbound receiver of type [T].\n *\n * Example:\n *\n * ```\n * class Login(val username: String, var incorrectAttemptCounter: Int)\n * var Login.attempts by Login::incorrectAttemptCounter\n * // equivalent to\n * var Login.attempts: Int\n *   get() = this.incorrectAttemptCounter\n *   set(value) { this.incorrectAttemptCounter = value }\n * ```\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <T, V> KMutableProperty1<T, V>.setValue(thisRef: T, property: KProperty<*>, value: V) {\n   set(thisRef, value)\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.random\n\nimport kotlin.math.nextDown\n\n/**\n * An abstract class that is implemented by random number generator algorithms.\n *\n * The companion object [Random.Default] is the default instance of [Random].\n *\n * To get a seeded instance of random generator use [Random] function.\n *\n * @sample samples.random.Randoms.defaultRandom\n */\n@SinceKotlin(\"1.3\")\npublic abstract class Random {\n\n   /**\n   * Gets the next random [bitCount] number of bits.\n   *\n   * Generates an `Int` whose lower [bitCount] bits are filled with random values and the remaining upper bits are zero.\n   *\n   * @param bitCount number of bits to generate, must be in range 0..32, otherwise the behavior is unspecified.\n   *\n   * @sample samples.random.Randoms.nextBits\n   */\n   public abstract fun nextBits(bitCount: Int): Int\n\n   /**\n   * Gets the next random `Int` from the random number generator.\n   *\n   * Generates an `Int` random value uniformly distributed between `Int.MIN_VALUE` and `Int.MAX_VALUE` (inclusive).\n   *\n   * @sample samples.random.Randoms.nextInt\n   */\n   public open fun nextInt(): Int = nextBits(32)\n\n /**\n * Gets the next random non-negative `Int` from the random number generator less than the specified [until] bound.\n *\n * Generates an `Int` random value uniformly distributed between `0` (inclusive) and the specified [until] bound (exclusive).\n *\n * @param until must be positive.\n *\n * @throws IllegalArgumentException if [until] is negative or zero.\n *\n * @sample samples.random.Randoms.nextIntFromUntil\n */\n public open fun nextInt(until: Int): Int = nextInt(0, until)\n\n /**\n * Gets the next random `Int` from the random number generator in the specified range.\n *\n * Generates an `Int` random value uniformly distributed between the specified [from] (inclusive) and [until] (exclusive) bounds.\n *\n * @throws IllegalArgumentException if [from] is greater than or equal to [until].\n *\n * @sample samples.random.Randoms.nextIntFromUntil\n */\n public open fun nextInt(from: Int, until: Int): Int {\n checkRangeBounds(from, until)\n val n = until - from\n if (n > 0 || n == Int.MIN_VALUE) {\n val rnd = if (n and -n == n) {\n val bitCount = fastLog2(n)\n nextBits(bitCount)\n } else {\n var v: Int\n do {\n val bits = nextInt().ushr(1)\n v = bits % n\n } while (bits - v + (n - 1) < 0)\n v\n }\n return from + rnd\n } else {\n while (true) {\n val rnd = nextInt()\n if (rnd in from until until) return rnd\n }\n }\n }\n\n /**\n * Gets the next random `Long` from the random number generator.\n *\n * Generates a `Long` random value uniformly distributed between `Long.MIN_VALUE` and `Long.MAX_VALUE` (inclusive).\n *\n * @sample samples.random.Randoms.nextLong\n */\n public open fun nextLong(): Long = nextInt().toLong().shl(32) + nextInt()\n\n /**\n * Gets the next random non-negative `Long` from the random number generator less than the specified [until] bound.\n *\n * Generates a `Long` random value uniformly distributed between `0` (inclusive) and the specified [until] bound (exclusive).\n *\n * @param until must be positive.\n *\n * @throws IllegalArgumentException if [until] is negative or zero.\n *\n * @sample samples.random.Randoms.nextLongFromUntil\n */\n public open fun nextLong(until: Long): Long = nextLong(0, until)\n\n /**\n * Gets the next random `Long` from the random number generator in the specified range.\n *\n * Generates a `Long` random value uniformly distributed between the specified [from] (inclusive) and [until] (exclusive) bounds.\n *\n * @throws IllegalArgumentException if [from] is greater than or equal to [until].\n *\n * @sample samples.random.Randoms.nextLongFromUntil\n */\n public open fun nextLong(from: Long, until: Long): Long {\n checkRangeBounds(from, until)\n val n = until - from\n if (n > 0) {\n val rnd: Long\n if (n and -n == n) {\n val nLow = n.toInt()\n val nHigh = (n ushr 32).toInt()\n rnd = when {\n nLow != 0 -> {\n val bitCount = fastLog2(nLow)\n // toUInt().toLong()\n nextBits(bitCount).toLong() and 0xFFFF_FFFF\n }\n nHigh == 1 ->\n // toUInt().toLong()\n nextInt().toLong() and 0xFFFF_FFFF\n else -> {\n val bitCount = fastLog2(nHigh)\n nextBits(bitCount).toLong().shl(32) + (nextInt().toLong() and 0xFFFF_FFFF)\n }\n }\n } else {\n var v: Long\n do {\n val bits = nextLong().ushr(1)\n v = bits % n\n } while (bits - v + (n - 1) < 0)\n rnd = v\n }\n return from + rnd\n } else {\n while (true) {\n val rnd = nextLong()\n if (rnd in from until until) return rnd\n }\n }\n }\n\n /**\n * Gets the next random [Boolean] value.\n *\n * @sample samples.random.Randoms.nextBoolean\n */\n public open fun nextBoolean(): Boolean = nextBits(1) != 0\n\n /**\n * Gets the next random [Double] value uniformly distributed between 0 (inclusive) and 1 (exclusive).\n *\n * @sample samples.random.Randoms.nextDouble\n */\n public open fun nextDouble(): Double = doubleFromParts(nextBits(26), nextBits(27))\n\n /**\n * Gets the next random non-negative `Double` from the random number generator less than the specified [until] bound.\n *\n * Generates a `Double` random value uniformly distributed between 0 (inclusive) and [until] (exclusive).\n *\n * @throws IllegalArgumentException if [until] is negative or zero.\n *\n * @sample samples.random.Randoms.nextDoubleFromUntil\n */\n public open fun nextDouble(until: Double): Double = nextDouble(0.0, until)\n\n /**\n * Gets the next random `Double` from the random number generator in the specified range.\n   *\n   * Generates a `Double` random value uniformly distributed between the specified [from] (inclusive) and [until] (exclusive) bounds.\n   *\n   * [from] and [until] must be finite otherwise the behavior is unspecified.\n   *\n   * @throws IllegalArgumentException if [from] is greater than or equal to [until].\n   *\n   * @sample samples.random.Randoms.nextDoubleFromUntil\n   */\n   public open fun nextDouble(from: Double, until: Double): Double {\n   checkRangeBounds(from, until)\n   val size = until - from\n   val r = if (size.isInfinite() && from.isFinite() && until.isFinite()) {\n val r1 = nextDouble() * (until / 2 - from / 2)\n   from + r1 + r1\n   } else {\n   from + nextDouble() * size\n   }\n   return if (r >= until) until.nextDown() else r\n   }\n\n   /**\n   * Gets the next random [Float] value uniformly distributed between 0 (inclusive) and 1 (exclusive).\n   *\n   * @sample samples.random.Randoms.nextFloat\n   */\n   public open fun nextFloat(): Float = nextBits(24) / (1 shl 24).toFloat()\n\n   /**\n   * Fills a subrange of the specified byte [array] starting from [fromIndex] inclusive and ending [toIndex] exclusive\n   * with random bytes.\n   *\n   * @return [array] with the subrange filled with random bytes.\n   *\n   * @sample samples.random.Randoms.nextBytes\n   */\n   public open fun nextBytes(array: ByteArray, fromIndex: Int = 0, toIndex: Int = array.size): ByteArray {\n   require(fromIndex in 0..array.size && toIndex in 0..array.size) { \"fromIndex ($fromIndex) or toIndex ($toIndex) are out of range: 0..${array.size}.\" }\n   require(fromIndex <= toIndex) { \"fromIndex ($fromIndex) must be not greater than toIndex ($toIndex).\" }\n\n   val steps = (toIndex - fromIndex) / 4\n\n var position = fromIndex\n   repeat(steps) {\n   val v = nextInt()\n   array[position] = v.toByte()\n array[position + 1] = v.ushr(8).toByte()\n   array[position + 2] = v.ushr(16).toByte()\n   array[position + 3] = v.ushr(24).toByte()\n   position += 4\n   }\n\n   val remainder = toIndex - position\n   val vr = nextBits(remainder * 8)\n   for (i in 0 until remainder) {\n   array[position + i] = vr.ushr(i * 8).toByte()\n }\n\n   return array\n   }\n\n   /**\n   * Fills the specified byte [array] with random bytes and returns it.\n   *\n   * @return [array] filled with random bytes.\n   *\n   * @sample samples.random.Randoms.nextBytes\n   */\n public open fun nextBytes(array: ByteArray): ByteArray = nextBytes(array, 0, array.size)\n\n   /**\n   * Creates a byte array of the specified [size], filled with random bytes.\n   *\n   * @sample samples.random.Randoms.nextBytes\n   */\n   public open fun nextBytes(size: Int): ByteArray = nextBytes(ByteArray(size))\n\n\n   /**\n   * The default random number generator.\n   *\n   * On JVM this generator is thread-safe, its methods can be invoked from multiple threads.\n   *\n   * @sample samples.random.Randoms.defaultRandom\n   */\n   companion object Default : Random(), Serializable {\n private val defaultRandom: Random = defaultPlatformRandom()\n\n   private object Serialized : Serializable {\n   private const val serialVersionUID = 0L\n\n   private fun readResolve(): Any = Random\n   }\n\n private fun writeReplace(): Any = Serialized\n\n   override fun nextBits(bitCount: Int): Int = defaultRandom.nextBits(bitCount)\n   override fun nextInt(): Int = defaultRandom.nextInt()\n   override fun nextInt(until: Int): Int = defaultRandom.nextInt(until)\n   override fun nextInt(from: Int, until: Int): Int = defaultRandom.nextInt(from, until)\n\n   override fun nextLong(): Long = defaultRandom.nextLong()\n override fun nextLong(until: Long): Long = defaultRandom.nextLong(until)\n   override fun nextLong(from: Long, until: Long): Long = defaultRandom.nextLong(from, until)\n\n   override fun nextBoolean(): Boolean = defaultRandom.nextBoolean()\n\n   override fun nextDouble(): Double = defaultRandom.nextDouble()\n override fun nextDouble(until: Double): Double = defaultRandom.nextDouble(until)\n   override fun nextDouble(from: Double, until: Double): Double = defaultRandom.nextDouble(from, until)\n\n   override fun nextFloat(): Float = defaultRandom.nextFloat()\n\n   override fun nextBytes(array: ByteArray): ByteArray = defaultRandom.nextBytes(array)\n   override fun nextBytes(size: Int): ByteArray = defaultRandom.nextBytes(size)\n   override fun nextBytes(array: ByteArray, fromIndex: Int, toIndex: Int): ByteArray =\n   defaultRandom.nextBytes(array, fromIndex, toIndex)\n   }\n}\n\n/**\n * Returns a repeatable random number generator seeded with the given [seed] `Int` value.\n *\n * Two generators with the same seed produce the same sequence of values within the same version of Kotlin runtime.\n *\n * *Note:* Future versions of

Kotlin may change the algorithm of this seeded number generator so that it will return\n * a sequence of values different from the current one for a given seed.\n *\n * On JVM the returned generator is NOT thread-safe. Do not invoke it from multiple threads without proper synchronization.\n *\n * @sample samples.random.Randoms.seededRandom\n */\n@SinceKotlin(\"1.3\")\npublic fun Random(seed: Int): Random = XorWowRandom(seed, seed.shr(31))\n\n/**\n * Returns a repeatable random number generator seeded with the given [seed] `Long` value.\n *\n * Two generators with the same seed produce the same sequence of values within the same version of Kotlin runtime.\n *\n * *Note:* Future versions of Kotlin may change the algorithm of this seeded number generator so that it will return\n * a sequence of values different from the current one for a given seed.\n *\n * On JVM the returned generator is NOT thread-safe. Do not invoke it from multiple threads without proper synchronization.\n *\n * @sample samples.random.Randoms.seededRandom\n */\n@SinceKotlin(\"1.3\")\npublic fun Random(seed: Long): Random = XorWowRandom(seed.toInt(), seed.shr(32).toInt())\n\n\n/**\n * Gets the next random `Int` from the random number generator in the specified [range].\n *\n * Generates an `Int` random value uniformly distributed in the specified [range]:\n * from `range.start` inclusive to `range.endInclusive` inclusive.\n *\n * @throws IllegalArgumentException if [range] is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun Random.nextInt(range: IntRange): Int = when {\n   range.isEmpty() -> throw IllegalArgumentException(\"Cannot get random in empty range: $range\")\n   range.last < Int.MAX_VALUE -> nextInt(range.first, range.last + 1)\n   range.first > Int.MIN_VALUE -> nextInt(range.first - 1, range.last) + 1\n   else -> nextInt()\n}\n\n/**\n * Gets the next random `Long` from the random number generator in the specified [range].\n *\n * Generates a `Long` random value uniformly distributed in the specified [range]:\n * from `range.start` inclusive to `range.endInclusive` inclusive.\n *\n * @throws IllegalArgumentException if [range] is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun Random.nextLong(range: LongRange): Long = when {\n   range.isEmpty() -> throw IllegalArgumentException(\"Cannot get random in empty range: $range\")\n   range.last < Long.MAX_VALUE -> nextLong(range.first, range.last + 1)\n   range.first > Long.MIN_VALUE -> nextLong(range.first - 1, range.last) + 1\n   else -> nextLong()\n}\n\n\ninternal expect fun defaultPlatformRandom(): Random\ninternal expect fun doubleFromParts(hi26: Int, low27: Int): Double\n\ninternal fun fastLog2(value: Int): Int = 31 - value.countLeadingZeroBits()\n\n/** Takes upper [bitCount] bits (0..32) from this number. */\ninternal fun Int.takeUpperBits(bitCount: Int): Int =\n   this.ushr(32 - bitCount) and (-bitCount).shr(31)\n\ninternal fun checkRangeBounds(from: Int, until: Int) = require(until > from) { boundsErrorMessage(from, until) }\ninternal fun checkRangeBounds(from: Long, until: Long) = require(until > from) { boundsErrorMessage(from, until) }\ninternal fun checkRangeBounds(from: Double, until: Double) = require(until > from) { boundsErrorMessage(from, until) }\n\ninternal fun boundsErrorMessage(from: Any, until: Any) = \"Random range is empty: [$from, $until).\"\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.random\n\n\n\n/**\n * Gets the next random [UInt] from the random number generator.\n *\n * Generates a [UInt] random value uniformly distributed between [UInt.MIN_VALUE] and [UInt.MAX_VALUE] (inclusive).\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextUInt(): UInt = nextInt().toUInt()\n\n/**\n * Gets the next random [UInt] from the random number generator less than the specified [until] bound.\n *\n * Generates a [UInt] random value uniformly distributed between `0` (inclusive) and the specified [until] bound (exclusive).\n *\n * @throws IllegalArgumentException if [until] is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextUInt(until: UInt): UInt = nextUInt(0u, until)\n\n/**\n * Gets the next random [UInt] from the random number generator in the specified range.\n *\n * Generates a [UInt] random value uniformly distributed between the specified [from] (inclusive) and [until] (exclusive) bounds.\n *\n * @throws IllegalArgumentException if [from] is greater than or equal to [until].\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextUInt(from: UInt, until: UInt): UInt {\n   checkUIntRangeBounds(from, until)\n\n   val signedFrom =

from.toInt() xor Int.MIN_VALUE\n   val signedUntil = until.toInt() xor Int.MIN_VALUE\n\n   val signedResult = nextInt(signedFrom, signedUntil) xor Int.MIN_VALUE\n   return signedResult.toUInt()\n}\n\n/**\n * Gets the next random [UInt] from the random number generator in the specified [range].\n *\n * Generates a [UInt] random value uniformly distributed in the specified [range]:\n * from `range.start` inclusive to `range.endInclusive` inclusive.\n *\n * @throws

IllegalArgumentException if [range] is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextUInt(range: UIntRange): UInt = when {\n   range.isEmpty() -> throw IllegalArgumentException(\"Cannot get random in empty range: $range\")\n   range.last < UInt.MAX_VALUE -> nextUInt(range.first, range.last + 1u)\n   range.first > UInt.MIN_VALUE -> nextUInt(range.first - 1u, range.last) + 1u\n   else -> nextUInt()\n}\n\n/**\n * Gets the next random [ULong] from the random number generator.\n *\n * Generates a [ULong] random value uniformly distributed between [ULong.MIN_VALUE] and [ULong.MAX_VALUE] (inclusive).\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextULong(): ULong = nextLong().toULong()\n\n/**\n * Gets the next random [ULong] from the random number generator less than the specified [until] bound.\n *\n * Generates a [ULong] random value uniformly distributed between

`0` (inclusive) and the specified [until] bound (exclusive).\n *\n * @throws IllegalArgumentException if [until] is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextULong(until: ULong): ULong = nextULong(0uL, until)\n\n/**\n * Gets the next random [ULong] from the random number generator in the specified range.\n *\n * Generates a [ULong] random value uniformly distributed between the specified [from] (inclusive) and [until] (exclusive) bounds.\n *\n * @throws IllegalArgumentException if [from] is greater than or equal to [until].\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextULong(from: ULong, until: ULong): ULong {\n   checkULongRangeBounds(from, until)\n\n   val signedFrom = from.toLong() xor Long.MIN_VALUE\n   val signedUntil = until.toLong() xor Long.MIN_VALUE\n\n   val signedResult = nextLong(signedFrom, signedUntil) xor Long.MIN_VALUE\n   return signedResult.toULong()\n}\n\n/**\n

* Gets the next random [ULong] from the random number generator in the specified [range].\n *\n * Generates a [ULong] random value uniformly distributed in the specified [range]:\n * from `range.start` inclusive to `range.endInclusive` inclusive.\n *\n * @throws IllegalArgumentException if [range] is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextULong(range: ULongRange): ULong = when {\n   range.isEmpty() -> throw IllegalArgumentException(\"Cannot get random in empty range: $range\")\n   range.last < ULong.MAX_VALUE -> nextULong(range.first, range.last + 1u)\n   range.first > ULong.MIN_VALUE -> nextULong(range.first - 1u, range.last) + 1u\n   else -> nextULong()\n}\n\n/**\n * Fills the specified unsigned byte [array] with random bytes and returns it.\n *\n * @return [array] filled with random bytes.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Random.nextUBytes(array: UByteArray):

UByteArray {\n   nextBytes(array.asByteArray())\n   return array\n}\n\n/**\n * Creates an unsigned byte array of the specified [size], filled with random bytes.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Random.nextUBytes(size: Int): UByteArray = nextBytes(size).asUByteArray()\n\n/**\n * Fills a subrange of the specified `UByte` [array] starting from [fromIndex] inclusive and ending [toIndex] exclusive with random UBytes.\n *\n * @return [array] with the subrange filled with random bytes.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Random.nextUBytes(array: UByteArray, fromIndex: Int = 0, toIndex: Int = array.size): UByteArray {\n   nextBytes(array.asByteArray(), fromIndex, toIndex)\n   return array\n}\n\n\ninternal fun checkUIntRangeBounds(from: UInt, until: UInt) = require(until > from) { boundsErrorMessage(from, until) }\ninternal fun checkULongRangeBounds(from: ULong, until: ULong) = require(until > from) { boundsErrorMessage(from,

until) }\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.random\n\n/**\n * Random number generator, using Marsaglia's \"xorwow\" algorithm\n *\n * Cycles after 2^192 - 2^32 repetitions.\n *\n * For more details, see Marsaglia, George (July 2003). \"Xorshift RNGs\". Journal of Statistical Software. 8 (14). doi:10.18637/jss.v008.i14\n *\n * Available at https://www.jstatsoft.org/v08/i14/paper\n *\n */\ninternal class XorWowRandom internal constructor(\n private var x: Int,\n private var y: Int,\n private var z: Int,\n private var w: Int,\n private var v: Int,\n private var addend: Int\n) : Random(), Serializable {\n\n internal constructor(seed1: Int, seed2: Int) :\n this(seed1, seed2, 0, 0, seed1.inv(), (seed1 shl 10) xor (seed2 ushr 4))\n\n init {\n require((x
or y or z or w or v) != 0) { \"Initial state must have at least one non-zero element.\" }\n\n // some trivial seeds can produce several values with zeroes in upper bits, so we discard first 64\n repeat(64) { nextInt() }\n }\n\n override fun nextInt(): Int {\n // Equivalent to the xorxow algorithm\n // From Marsaglia, G. 2003. Xorshift RNGs. J. Statis. Soft. 8, 14, p. 5\n var t = x\n t = t xor (t ushr 2)\n x = y\n y = z\n z = w\n val v0 = v\n w = v0\n t = (t xor (t shl 1)) xor v0 xor (v0 shl 4)\n v = t\n addend += 362437\n return t + addend\n }\n\n override fun nextBits(bitCount: Int): Int =\n nextInt().takeUpperBits(bitCount)\n\n private companion object {\n private const val serialVersionUID: Long = 0L\n }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by
the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"RangesKt\")\n\npackage kotlin.ranges\n\n/**\n * Represents a range of [Comparable] values.\n */\nprivate open class ComparableRange<T : Comparable<T>>(\n override val start: T,\n override val endInclusive: T\n) : ClosedRange<T> {\n\n override fun equals(other: Any?): Boolean {\n return other is ComparableRange<*> && (isEmpty() && other.isEmpty() ||\n start == other.start && endInclusive == other.endInclusive)\n }\n\n override fun hashCode(): Int {\n return if (isEmpty()) -1 else 31 * start.hashCode() + endInclusive.hashCode()\n }\n\n override fun toString(): String = \"$start..$endInclusive\"\n}\n\n/**\n * Creates a range from this [Comparable] value to the specified [that] value.\n *\n * This value needs to be smaller than or equal to [that] value, otherwise the returned range will be empty.\n
* @sample samples.ranges.Ranges.rangeFromComparable\n */\npublic operator fun <T : Comparable<T>> T.rangeTo(that: T): ClosedRange<T> = ComparableRange(this, that)\n\n\n/**\n * Represents a range of floating point numbers.\n * Extends [ClosedRange] interface providing custom operation [lessThanOrEquals] for comparing values of range domain type.\n *\n * This interface is implemented by floating point ranges returned by [Float.rangeTo] and [Double.rangeTo] operators to\n * achieve IEEE-754 comparison order instead of total order of floating point numbers.\n */\n@SinceKotlin(\"1.1\")\npublic interface ClosedFloatingPointRange<T : Comparable<T>> : ClosedRange<T> {\n override fun contains(value: T): Boolean = lessThanOrEquals(start, value) && lessThanOrEquals(value, endInclusive)\n override fun isEmpty(): Boolean = !lessThanOrEquals(start, endInclusive)\n\n /**\n * Compares two values of range domain type and returns true if first is less than or equal to second.\n */\n
fun lessThanOrEquals(a: T, b: T): Boolean\n}\n\n\n/**\n * A closed range of values of type `Double`.\n *\n * Numbers are compared with the ends of this range according to IEEE-754.\n */\nprivate class ClosedDoubleRange(\n start: Double,\n endInclusive: Double\n) : ClosedFloatingPointRange<Double> {\n private val _start = start\n private val _endInclusive = endInclusive\n override val start: Double get() = _start\n override val endInclusive: Double get() = _endInclusive\n\n override fun lessThanOrEquals(a: Double, b: Double): Boolean = a <= b\n\n override fun contains(value: Double): Boolean = value >= _start && value <= _endInclusive\n override fun isEmpty(): Boolean = !(_start <= _endInclusive)\n\n override fun equals(other: Any?): Boolean {\n return other is ClosedDoubleRange && (isEmpty() && other.isEmpty() ||\n _start == other._start && _endInclusive == other._endInclusive)\n }\n\n override fun hashCode(): Int {\n return

if (isEmpty()) -1 else 31 * _start.hashCode() + _endInclusive.hashCode()\n   }\n\n   override fun toString(): String = \"$_start..$_endInclusive\"\n}\n\n/**\n * Creates a range from this [Double] value to the specified [that] value.\n *\n * Numbers are compared with the ends of this range according to IEEE-754.\n * @sample samples.ranges.Ranges.rangeFromDouble\n */\n@SinceKotlin(\"1.1\")\npublic operator fun Double.rangeTo(that: Double): ClosedFloatingPointRange<Double> = ClosedDoubleRange(this, that)\n\n\n/**\n * A closed range of values of type `Float`.\n *\n * Numbers are compared with the ends of this range according to IEEE-754.\n */\nprivate class ClosedFloatRange(\n   start: Float,\n   endInclusive: Float\n) : ClosedFloatingPointRange<Float> {\n   private val _start = start\n   private val _endInclusive = endInclusive\n   override val start: Float get() = _start\n   override val endInclusive: Float get() = _endInclusive\n\n   override fun lessThanOrEquals(a: Float, b: Float): Boolean = a <= b\n\n   override fun contains(value: Float): Boolean = value >= _start && value <= _endInclusive\n   override fun isEmpty(): Boolean = !(_start <= _endInclusive)\n\n   override fun equals(other: Any?): Boolean {\n   return other is ClosedFloatRange && (isEmpty() && other.isEmpty() ||\n   _start == other._start && _endInclusive == other._endInclusive)\n   }\n\n   override fun hashCode(): Int {\n   return if (isEmpty()) -1 else 31 * _start.hashCode() + _endInclusive.hashCode()\n   }\n\n   override fun toString(): String = \"$_start..$_endInclusive\"\n}\n\n/**\n * Creates a range from this [Float] value to the specified [that] value.\n *\n * Numbers are compared with the ends of this range according to IEEE-754.\n * @sample samples.ranges.Ranges.rangeFromFloat\n */\n@SinceKotlin(\"1.1\")\npublic operator fun Float.rangeTo(that: Float): ClosedFloatingPointRange<Float> = ClosedFloatRange(this, that)\n\n\n/**\n * Returns `true` if this iterable range contains the specified [element].\n *\n * Always returns `false` if the [element] is `null`.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <T, R> R.contains(element: T?): Boolean where T : Any, R : Iterable<T>, R : ClosedRange<T> =\n   element != null && contains(element)\n\n\ninternal fun checkStepIsPositive(isPositive: Boolean, step: Number) {\n   if (!isPositive) throw IllegalArgumentException(\"Step must be positive, was: $step.\")\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"KClasses\")\n@file:Suppress(\"UNCHECKED_CAST\")\n\npackage kotlin.reflect\n\nimport kotlin.internal.LowPriorityInOverloadResolution\n\n/**\n * Casts the given [value] to the class represented by this [KClass] object.\n * Throws an exception if the value is `null` or if it is not an instance of this class.\n *\n * This is an experimental function that behaves as a similar function from kotlin.reflect.full on JVM.\n *\n * @see [KClass.isInstance]\n * @see [KClass.safeCast]\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@LowPriorityInOverloadResolution\nfun <T : Any> KClass<T>.cast(value: Any?): T {\n   if (!isInstance(value)) throw ClassCastException(\"Value cannot be cast to $qualifiedOrSimpleName\")\n   return value as T\n}\n\n// TODO: replace with qualifiedName when it is fully supported in K/JS\ninternal expect val KClass<*>.qualifiedOrSimpleName: String?\n\n/**\n * Casts the given [value] to the class represented by this [KClass] object.\n * Returns `null` if the value is `null` or if it is not an instance of this class.\n *\n * This is an experimental function that behaves as a similar function from kotlin.reflect.full on JVM.\n *\n * @see [KClass.isInstance]\n * @see [KClass.cast]\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@LowPriorityInOverloadResolution\nfun <T : Any> KClass<T>.safeCast(value: Any?): T? {\n   return if (isInstance(value)) value as T else null\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect\n\nimport kotlin.jvm.JvmField\nimport kotlin.jvm.JvmStatic\n\n\n\n/**\n * Represents a type projection. Type projection is usually the argument to another type in a type usage.\n * For example, in the type `Array<out Number>`, `out Number` is the covariant projection of the type represented by the class `Number`.\n *\n * Type projection is either the star projection, or an entity consisting of a specific type plus optional variance.\n *\n * See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/generics.html#type-projections)\n

 * for more information.\n */\n@SinceKotlin(\"1.1\")\npublic data class KTypeProjection constructor(\n /**\n * The use-site variance specified in the projection, or `null` if this is a star projection.\n */\n public val variance: KVariance?,\n /**\n * The type specified in the projection, or `null` if this is a star projection.\n */\n public val type: KType?\n) {\n\n init {\n require((variance == null) == (type == null)) {\n if (variance == null)\n \"Star projection must have no type specified.\"\n else\n \"The projection variance $variance requires type to be specified.\"\n }\n }\n\n override fun toString(): String = when (variance) {\n null -> \"*\"\n KVariance.INVARIANT -> type.toString()\n KVariance.IN -> \"in $type\"\n KVariance.OUT -> \"out $type\"\n }\n\n public companion object {\n // provided for compiler access\n @JvmField\n

@PublishedApi\n internal val star: KTypeProjection = KTypeProjection(null, null)\n\n /**\n * Star projection, denoted by the `*` character.\n * For example, in the type `KClass<*>`, `*` is the star projection.\n * See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/generics.html#star-projections)\n * for more information.\n */\n public val STAR: KTypeProjection get() = star\n\n /**\n * Creates an invariant projection of a given type. Invariant projection is just the type itself,\n * without any use-site variance modifiers applied to it.\n * For example, in the type `Set<String>`, `String` is an invariant projection of the type represented by the class `String`.\n */\n @JvmStatic\n public fun invariant(type: KType): KTypeProjection =\n KTypeProjection(KVariance.INVARIANT, type)\n\n /**\n * Creates a contravariant projection

of a given type, denoted by the `in` modifier applied to a type.\n * For example, in the type `MutableList<in Number>`, `in Number` is a contravariant projection of the type of class `Number`.\n */\n @JvmStatic\n public fun contravariant(type: KType): KTypeProjection =\n KTypeProjection(KVariance.IN, type)\n\n /**\n * Creates a covariant projection of a given type, denoted by the `out` modifier applied to a type.\n * For example, in the type `Array<out Number>`, `out Number` is a covariant projection of the type of class `Number`.\n */\n @JvmStatic\n public fun covariant(type: KType): KTypeProjection =\n KTypeProjection(KVariance.OUT, type)\n }\n}","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect\n\n/**\n

 * Represents variance applied to a type parameter on the declaration site (*declaration-site variance*),\n * or to a type in a projection (*use-site variance*).\n *\n * See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/generics.html#variance)\n * for more information.\n *\n * @see [KTypeParameter.variance]\n * @see [KTypeProjection]\n */\n@SinceKotlin(\"1.1\")\nenum class KVariance {\n /**\n * The affected type parameter or type is *invariant*, which means it has no variance applied to it.\n */\n INVARIANT,\n\n /**\n * The affected type parameter or type is *contravariant*. Denoted by the `in` modifier in the source code.\n */\n IN,\n\n /**\n * The affected type parameter or type is *covariant*. Denoted by the `out` modifier in the source code.\n */\n OUT,\n}","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache

 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect\n\n/**\n * Returns a runtime representation of the given reified type [T] as an instance of [KType].\n *\n * Note that on JVM, the created type has no annotations ([KType.annotations] returns an empty list)\n * even if the type in the source code is annotated. Support for type annotations might be added in a future version.\n

/\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <reified T> typeOf(): KType =\n throw UnsupportedOperationException(\"This function is implemented as an intrinsic on all supported platforms.\")\n","/\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n

*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n\npackage kotlin.text\n\n/**\n * An object

to which char sequences and values can be appended.\n */\nexpect interface Appendable {\n   /**\n   * Appends the specified character [value] to this Appendable and returns this instance.\n   *\n   * @param value the character to append.\n   */\n   fun append(value: Char): Appendable\n\n   /**\n   * Appends the specified character sequence [value] to this Appendable and returns this instance.\n   *\n   * @param value the character sequence to append. If [value] is `null`, then the four characters `\"null\"` are appended to this Appendable.\n   */\n   fun append(value: CharSequence?): Appendable\n\n   /**\n   * Appends a subsequence of the specified character sequence [value] to this Appendable and returns this instance.\n   *\n   * @param value the character sequence from which a subsequence is appended. If [value] is `null`,\n   * then characters are appended as if [value] contained the four characters `\"null\"`.\n   * @param startIndex the beginning (inclusive) of the subsequence to append.\n   * @param endIndex the end (exclusive) of the subsequence to append.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n   */\n   fun append(value: CharSequence?, startIndex: Int, endIndex: Int): Appendable\n}\n\n/**\n * Appends a subsequence of the specified character sequence [value] to this Appendable and returns this instance.\n *\n * @param value the character sequence from which a subsequence is appended.\n * @param startIndex the beginning (inclusive) of the subsequence to append.\n * @param endIndex the end (exclusive) of the subsequence to append.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T : Appendable> T.appendRange(value: CharSequence, startIndex: Int, endIndex: Int): T {\n   @Suppress(\"UNCHECKED_CAST\")\n   return append(value, startIndex, endIndex) as T\n}\n\n/**\n * Appends all arguments to the given [Appendable].\n */\npublic fun <T : Appendable> T.append(vararg value: CharSequence?): T {\n   for (item in value)\n   append(item)\n   return this\n}\n\n/** Appends a line feed character (`\\n`) to this Appendable. */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun Appendable.appendLine(): Appendable = append('\\n')\n\n/** Appends value to the given Appendable and a line feed character (`\\n`) after it. */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun Appendable.appendLine(value: CharSequence?): Appendable = append(value).appendLine()\n\n/** Appends value to the given Appendable and a line feed character (`\\n`) after it. */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun Appendable.appendLine(value: Char): Appendable = append(value).appendLine()\n\n\ninternal fun <T> Appendable.appendElement(element: T, transform: ((T) -> CharSequence)?) {\n   when {\n   transform != null -> append(transform(element))\n   element is CharSequence? -> append(element)\n   element is Char -> append(element)\n   else -> append(element.toString())\n   }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n\npackage kotlin.text\n\n/**\n * Trims leading whitespace characters followed by [marginPrefix] from every line of a source string and removes\n * the first and the last lines if they are blank (notice difference blank vs empty).\n *\n * Doesn't affect a line if it doesn't contain [marginPrefix] except the first and the last blank lines.\n *\n * Doesn't preserve the original line endings.\n *\n * @param marginPrefix non-blank string, which is used as a margin delimiter. Default is `|` (pipe character).\n *\n * @sample samples.text.Strings.trimMargin\n * @see trimIndent\n * @see kotlin.text.isWhitespace\n */\npublic fun String.trimMargin(marginPrefix: String = \"|\"): String =\n   replaceIndentByMargin(\"\", marginPrefix)\n\n/**\n * Detects indent by [marginPrefix] as it does [trimMargin] and replace it with [newIndent].\n *\n * @param marginPrefix non-blank string, which is used as a margin delimiter. Default is `|` (pipe character).\n */\npublic fun String.replaceIndentByMargin(newIndent: String = \"\", marginPrefix: String = \"|\"): String {\n   require(marginPrefix.isNotBlank()) { \"marginPrefix must be non-blank string.\" }\n   val lines = lines()\n\n   return lines.reindent(length + newIndent.length * lines.size, getIndentFunction(newIndent), {

line ->\n   val firstNonWhitespaceIndex = line.indexOfFirst { !it.isWhitespace() }\n\n   when {\n   firstNonWhitespaceIndex == -1 -> null\n   line.startsWith(marginPrefix, firstNonWhitespaceIndex) -> line.substring(firstNonWhitespaceIndex + marginPrefix.length)\n   else -> null\n   }\n   })\n}\n\n/**\n * Detects a common minimal indent of all the input lines, removes it from every line and also removes the first and the last\n * lines if they are blank (notice difference blank vs empty).\n *\n * Note that blank lines do not affect the detected indent level.\n *\n * In case if there are non-blank lines with no leading whitespace characters (no indent at all) then the\n * common indent is 0, and therefore this function doesn't change the indentation.\n *\n * Doesn't preserve the original line endings.\n *\n * @sample samples.text.Strings.trimIndent\n * @see trimMargin\n * @see kotlin.text.isBlank\n */\npublic fun String.trimIndent(): String = replaceIndent(\"\")\n\n/**\n * Detects a common minimal indent like it does [trimIndent] and replaces it with the specified [newIndent].\n */\npublic fun String.replaceIndent(newIndent: String = \"\"): String {\n   val lines = lines()\n\n   val minCommonIndent = lines\n   .filter(String::isNotBlank)\n   .map(String::indentWidth)\n   .minOrNull() ?: 0\n\n   return lines.reindent(length + newIndent.length * lines.size, getIndentFunction(newIndent), { line -> line.drop(minCommonIndent) })\n}\n\n/**\n * Prepends [indent] to every line of the original string.\n *\n * Doesn't preserve the original line endings.\n */\npublic fun String.prependIndent(indent: String = \"   \"): String =\n   lineSequence()\n   .map {\n   when {\n   it.isBlank() -> {\n   when {\n   it.length < indent.length -> indent\n   else -> it\n   }\n   }\n   else -> indent + it\n
            }\n   }\n   .joinToString(\"\\n\")\n\nprivate fun String.indentWidth(): Int = indexOfFirst { !it.isWhitespace() }.let { if (it == -1) length else it }\n\nprivate fun getIndentFunction(indent: String) = when {\n   indent.isEmpty() -> { line: String -> line }\n   else -> { line: String -> indent + line }\n}\n\nprivate inline fun List<String>.reindent(\n   resultSizeEstimate: Int,\n   indentAddFunction: (String) -> String,\n   indentCutFunction: (String) -> String?\n): String {\n   val lastIndex = lastIndex\n   return mapIndexedNotNull { index, value ->\n   if ((index == 0 || index == lastIndex) && value.isBlank())\n   null\n   else\n   indentCutFunction(value)?.let(indentAddFunction) ?: value\n   }\n   .joinTo(StringBuilder(resultSizeEstimate), \"\\n\")\n   .toString()\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/**\n * Defines names for Unicode symbols used in proper Typography.\n */\npublic object Typography {\n   /** The character " \u2013 quotation mark */\n   public const val quote: Char = '\\u0022'\n   /** The character $ \u2013 dollar sign */\n   public const val dollar: Char = '\\u0024'\n   /** The character & \u2013 ampersand */\n   public const val amp: Char = '\\u0026'\n   /** The character < \u2013 less-than sign */\n   public const val less: Char = '\\u003C'\n   /** The character > \u2013 greater-than sign */\n   public const val greater: Char = '\\u003E'\n   /** The non-breaking space character */\n   public const val nbsp: Char = '\\u00A0'\n   /** The character × */\n   public const val times: Char = '\\u00D7'\n   /** The character ¢ */\n   public const val cent: Char = '\\u00A2'\n   /** The character £ */\n   public const val pound:
Char = '\\u00A3'\n   /** The character § */\n   public const val section: Char = '\\u00A7'\n   /** The character © */\n   public const val copyright: Char = '\\u00A9'\n   /** The character « */\n   @SinceKotlin(\"1.6\")\n   public const val leftGuillemet: Char = '\\u00AB'\n   /** The character » */\n   @SinceKotlin(\"1.6\")\n   public const val rightGuillemet: Char = '\\u00BB'\n   /** The character ® */\n   public const val registered: Char = '\\u00AE'\n   /** The character ° */\n   public const val degree: Char = '\\u00B0'\n   /** The character ± */\n   public const val plusMinus: Char = '\\u00B1'\n   /** The character ¶ */\n   public const val paragraph: Char = '\\u00B6'\n   /** The character · */\n   public const val middleDot: Char = '\\u00B7'\n   /** The character ½ */\n   public const val half: Char = '\\u00BD'\n   /** The character – */\n   public const val ndash: Char = '\\u2013'\n   /** The character
— */\n   public const val mdash: Char = '\\u2014'\n   /** The character ‘ */\n   public const val leftSingleQuote: Char = '\\u2018'\n   /** The character ’ */\n   public const val rightSingleQuote: Char = '\\u2019'\n   /** The character ‚ */\n   public const val lowSingleQuote: Char = '\\u201A'\n   /** The

character “ */\n   public const val leftDoubleQuote: Char = '\\u201C'\n   /** The character ” */\n   public const val rightDoubleQuote: Char = '\\u201D'\n   /** The character „ */\n   public const val lowDoubleQuote: Char = '\\u201E'\n   /** The character † */\n   public const val dagger: Char = '\\u2020'\n   /** The character ‡ */\n   public const val doubleDagger: Char = '\\u2021'\n   /** The character • */\n   public const val bullet: Char = '\\u2022'\n   /** The character … */\n   public const val ellipsis: Char = '\\u2026'\n   /** The character ′ */\n   public const val prime: Char = '\\u2032'\n   /** The character ″ */\n   public const val doublePrime: Char = '\\u2033'\n   /** The character € */\n   public const val euro: Char = '\\u20AC'\n   /** The character ™ */\n   public const val tm: Char = '\\u2122'\n   /** The character ≈ */\n   public const val almostEqual: Char = '\\u2248'\n   /** The character ≠ */\n   public const val notEqual: Char = '\\u2260'\n   /** The character ≤ */\n   public const val lessOrEqual: Char = '\\u2264'\n   /** The character ≥ */\n   public const val greaterOrEqual: Char = '\\u2265'\n\n   /** The character « */\n   @Deprecated(\"This constant has a typo in the name. Use leftGuillemet instead.\", ReplaceWith(\"Typography.leftGuillemet\"))\n   @DeprecatedSinceKotlin(\"1.6\")\n   public const val leftGuillemete: Char = '\\u00AB'\n\n   /** The character » */\n   @Deprecated(\"This constant has a typo in the name. Use rightGuillemet instead.\", ReplaceWith(\"Typography.rightGuillemet\"))\n   @DeprecatedSinceKotlin(\"1.6\")\n   public const val rightGuillemete: Char = '\\u00BB'\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/**\n * Represents a collection of captured groups in a single match of a regular expression.\n *\n * This collection has size of `groupCount + 1` where `groupCount` is the count of groups in the regular expression.\n * Groups are indexed from 1 to `groupCount` and group with the index 0 corresponds to the entire match.\n *\n * An element of the collection at the particular index can be `null`,\n * if the corresponding group in the regular expression is optional and\n * there was no match captured by that group.\n */\npublic interface MatchGroupCollection : Collection<MatchGroup?> {\n\n   /** Returns a group with the specified [index].\n   *\n   * @return An instance of [MatchGroup] if the group with the specified [index] was matched or `null` otherwise.\n   *\n   * Groups are indexed from 1 to the count of groups in the regular expression. A group with the index 0\n   * corresponds to the entire match.\n   */\n   public operator fun get(index: Int): MatchGroup?\n}\n\n/**\n * Extends [MatchGroupCollection] by introducing a way to get matched groups by name, when regex supports it.\n */\n@SinceKotlin(\"1.1\")\npublic interface MatchNamedGroupCollection : MatchGroupCollection {\n   /**\n   * Returns a named group with the specified [name].\n   * @return An instance of [MatchGroup] if the group with the specified [name] was matched or `null` otherwise.\n   * @throws IllegalArgumentException if there is no group with the specified [name] defined in the regex pattern.\n   * @throws UnsupportedOperationException if getting named groups isn't supported on the current platform.\n   */\n   public operator fun get(name: String): MatchGroup?\n}\n\n/**\n * Represents the results from a single regular expression match.\n */\npublic interface MatchResult {\n   /** The range of indices in the original string where match was captured. */\n   public val range: IntRange\n   /** The substring from the input string captured by this match. */\n   public val value: String\n   /**\n   * A collection of groups matched by the regular expression.\n   *\n   * This collection has size of `groupCount + 1` where `groupCount` is the count of groups in the regular expression.\n   * Groups are indexed from 1 to `groupCount` and group with the index 0 corresponds to the entire match.\n   */\n   public val groups: MatchGroupCollection\n   /**\n   * A list of matched indexed group values.\n   *\n   * This list has size of `groupCount + 1` where `groupCount` is the count of groups in the regular expression.\n   * Groups are indexed from 1 to `groupCount` and group with the index 0 corresponds to the entire match.\n   *\n   * If the group in the regular expression is optional and there were no match captured by that group,\n   * corresponding item in [groupValues] is an empty string.\n   *\n   * @sample samples.text.Regexps.matchDestructuringToGroupValues\n   */\n   public val groupValues: List<String>\n\n   /**\n   * An instance of [MatchResult.Destructured] wrapper providing components for destructuring assignment of group values.\n   *\n   * component1 corresponds to the value of the first group, component2 \u2014 of the second, and so on.\n   *\n   * @sample

samples.text.Regexps.matchDestructuringToGroupValues\n   */\n   public val destructured: Destructured get() = Destructured(this)\n\n   /** Returns a new [MatchResult] with the results for the next match, starting at the position\n   * at which the last match ended (at the character after the last matched character).\n   */\n   public fun next(): MatchResult?\n\n
    /**\n   * Provides components for destructuring assignment of group values.\n   *\n   * [component1] corresponds to the value of the first group, [component2] \u2014 of the second, and so on.\n   *\n   * If the group in the regular expression is optional and there were no match captured by that group,\n   * corresponding component value is an empty string.\n   *\n   * @sample samples.text.Regexps.matchDestructuringToGroupValues\n   */\n   public class Destructured internal constructor(public val match: MatchResult) {\n   @kotlin.internal.InlineOnly\n   public operator inline fun component1(): String = match.groupValues[1]\n   @kotlin.internal.InlineOnly\n   public operator inline fun component2(): String = match.groupValues[2]\n   @kotlin.internal.InlineOnly\n   public operator inline fun component3(): String = match.groupValues[3]\n   @kotlin.internal.InlineOnly\n   public operator inline fun component4():
  String = match.groupValues[4]\n   @kotlin.internal.InlineOnly\n   public operator inline fun component5(): String = match.groupValues[5]\n   @kotlin.internal.InlineOnly\n   public operator inline fun component6(): String = match.groupValues[6]\n   @kotlin.internal.InlineOnly\n   public operator inline fun component7(): String = match.groupValues[7]\n   @kotlin.internal.InlineOnly\n   public operator inline fun component8(): String = match.groupValues[8]\n   @kotlin.internal.InlineOnly\n   public operator inline fun component9(): String = match.groupValues[9]\n   @kotlin.internal.InlineOnly\n   public operator inline fun component10(): String = match.groupValues[10]\n\n   /**\n   * Returns destructured group values as a list of strings.\n   * First value in the returned list corresponds to the value of the first group, and so on.\n   *\n   * @sample samples.text.Regexps.matchDestructuringToGroupValues\n
         /\n   public fun toList(): List<String> = match.groupValues.subList(1, match.groupValues.size)\n   }\n}","/\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass()\n@file:kotlin.jvm.JvmName(\"DurationUnitKt\")\n\npackage kotlin.time\n\n\n\n/**\n * The list of possible time measurement units, in which a duration can be expressed.\n *\n * The smallest time unit is [NANOSECONDS] and the largest is [DAYS], which corresponds to exactly 24 [HOURS].\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\npublic expect enum class DurationUnit {\n   /**\n   * Time unit representing one nanosecond, which is 1/1000 of a microsecond.\n   */\n   NANOSECONDS,\n   /**\n   * Time unit representing one microsecond, which is 1/1000 of a millisecond.\n   */\n
  MICROSECONDS,\n   /**\n   * Time unit representing one millisecond, which is 1/1000 of a second.\n   */\n   MILLISECONDS,\n   /**\n   * Time unit representing one second.\n   */\n   SECONDS,\n   /**\n   * Time unit representing one minute.\n   */\n   MINUTES,\n   /**\n   * Time unit representing one hour.\n   */\n   HOURS,\n   /**\n   * Time unit representing one day, which is always equal to 24 hours.\n   */\n   DAYS;\n}\n\n/** Converts the given time duration [value] expressed in the specified [sourceUnit] into the specified [targetUnit]. */\n@SinceKotlin(\"1.3\")\ninternal expect fun convertDurationUnit(value: Double, sourceUnit: DurationUnit, targetUnit: DurationUnit): Double\n\n// overflown result is unspecified\n@SinceKotlin(\"1.5\")\ninternal expect fun convertDurationUnitOverflow(value: Long, sourceUnit: DurationUnit, targetUnit: DurationUnit): Long\n\n// overflown result is coerced in the Long range boundaries\n@SinceKotlin(\"1.5\")\ninternal expect
 fun convertDurationUnit(value: Long, sourceUnit: DurationUnit, targetUnit: DurationUnit): Long\n\n\n@SinceKotlin(\"1.3\")\n@Suppress(\"REDUNDANT_ELSE_IN_WHEN\")\ninternal fun DurationUnit.shortName(): String = when (this) {\n   DurationUnit.NANOSECONDS -> \"ns\"\n   DurationUnit.MICROSECONDS -> \"us\"\n   DurationUnit.MILLISECONDS -> \"ms\"\n   DurationUnit.SECONDS -> \"s\"\n   DurationUnit.MINUTES -> \"m\"\n   DurationUnit.HOURS -> \"h\"\n

DurationUnit.DAYS -> \"d\"\n   else -> error(\"Unknown unit: $this\")\n}\n\n@SinceKotlin(\"1.5\")\ninternal fun durationUnitByShortName(shortName: String): DurationUnit = when (shortName) {\n   \"ns\" -> DurationUnit.NANOSECONDS\n   \"us\" -> DurationUnit.MICROSECONDS\n   \"ms\" -> DurationUnit.MILLISECONDS\n   \"s\" -> DurationUnit.SECONDS\n   \"m\" -> DurationUnit.MINUTES\n \"h\" -> DurationUnit.HOURS\n   \"d\" -> DurationUnit.DAYS\n   else -> throw IllegalArgumentException(\"Unknown duration unit short name: $shortName\")\n}\n\n@SinceKotlin(\"1.5\")\ninternal
 fun durationUnitByIsoChar(isoChar: Char, isTimeComponent: Boolean): DurationUnit =\n   when {\n !isTimeComponent -> {\n   when (isoChar) {\n   'D' -> DurationUnit.DAYS\n   else -> throw IllegalArgumentException(\"Invalid or unsupported duration ISO non-time unit: $isoChar\")\n   }\n   }\n
 else -> {\n   when (isoChar) {\n   'H' -> DurationUnit.HOURS\n   'M' -> DurationUnit.MINUTES\n   'S' -> DurationUnit.SECONDS\n   else -> throw IllegalArgumentException(\"Invalid duration ISO time unit: $isoChar\")\n   }\n   }\n   }","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\nimport kotlin.annotation.AnnotationTarget.*\n\n/**\n * This
 annotation marks the experimental preview of the standard library API for measuring time and working with durations.\n *\n * > Note that this API is in a preview state and has a very high chance of being changed in the future.\n * Do not use it if you develop a library since your library will become binary incompatible\n * with the future versions of the standard library.\n *\n * Any usage of a declaration annotated with `@ExperimentalTime` must be accepted either by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalTime::class)`,\n * or by using the compiler argument `-Xopt-in=kotlin.time.ExperimentalTime`.\n */\n@Suppress(\"DEPRECATION\")\n@Experimental(level = Experimental.Level.ERROR)\n@RequiresOptIn(level = RequiresOptIn.Level.ERROR)\n@MustBeDocumented\n@Retention(AnnotationRetention.BINARY)\n@Target(\n CLASS,\n   ANNOTATION_CLASS,\n   PROPERTY,\n   FIELD,\n   LOCAL_VARIABLE,\n VALUE_PARAMETER,\n   CONSTRUCTOR,\n   FUNCTION,\n   PROPERTY_GETTER,\n
    PROPERTY_SETTER,\n   TYPEALIAS\n)\n@SinceKotlin(\"1.3\")\npublic annotation class ExperimentalTime\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\n/**\n * A source of time for measuring time intervals.\n *\n * The only operation provided by the time source is [markNow]. It returns a [TimeMark], which can be used to query the elapsed time later.\n *\n * @see [measureTime]\n * @see [measureTimedValue]\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic interface TimeSource {\n   /**\n   * Marks a point in time on this time source.\n   *\n   * The returned [TimeMark] instance encapsulates the captured time point and allows querying\n   * the duration of time interval [elapsed][TimeMark.elapsedNow] from that point.\n   */\n public fun markNow(): TimeMark\n\n   /**\n
    * The most precise time source available in the platform.\n   *\n   * This time source returns its readings from a source of monotonic time when it is available in a target platform,\n   * and resorts to a non-monotonic time source otherwise.\n   */\n   public object Monotonic : TimeSource by MonotonicTimeSource {\n   override fun toString(): String = MonotonicTimeSource.toString()\n   }\n\n\n   public companion object {\n\n   }\n}\n\n/**\n * Represents a time point notched on a particular [TimeSource]. Remains bound to the time source it was taken from\n * and allows querying for the duration of time elapsed from that point (see the function [elapsedNow]).\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic abstract class TimeMark {\n   /**\n   * Returns the amount of time passed from this mark measured with the time source from which this mark was taken.\n   *\n   * Note that the value returned by this function can change on subsequent invocations.\n
  */\n   public abstract fun elapsedNow(): Duration\n\n   /**\n   * Returns a time mark on the same time source that is ahead of this time mark by the specified [duration].\n   *\n   * The returned time mark is more _late_ when

the [duration] is positive, and more _early_ when the [duration] is negative.\n   */\n   public open operator fun plus(duration: Duration): TimeMark = AdjustedTimeMark(this, duration)\n\n   /**\n   * Returns a time mark on the same time source that is behind this time mark by the specified [duration].\n   *\n   * The returned time mark is more _early_ when the [duration] is positive, and more _late_ when the [duration] is negative.\n   */\n   public open operator fun minus(duration: Duration): TimeMark = plus(-duration)\n\n\n   /**\n   * Returns true if this time mark has passed according to the time source from which this mark was taken.\n   *\n   * Note that the value returned by this function can change on subsequent invocations.\n

     * If the time source is monotonic, it can change only from `false` to `true`, namely, when the time mark becomes behind the current point of the time source.\n   */\n   public fun hasPassedNow(): Boolean = !elapsedNow().isNegative()\n\n   /**\n   * Returns false if this time mark has not passed according to the time source from which this mark was taken.\n   *\n   * Note that the value returned by this function can change on subsequent invocations.\n   * If the time source is monotonic, it can change only from `true` to `false`, namely, when the time mark becomes behind the current point of the time source.\n   */\n   public fun hasNotPassedNow(): Boolean = elapsedNow().isNegative()\n}\n\n\n@ExperimentalTime\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Deprecated(\n   \"Subtracting one TimeMark from another is not a well defined operation because these time marks could have been obtained from the different time sources.\",\n   level = DeprecationLevel.ERROR\n)\n@Suppress(\"UNUSED_PARAMETER\")\npublic inline operator fun TimeMark.minus(other: TimeMark): Duration = throw Error(\"Operation is disallowed.\")\n\n@ExperimentalTime\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Deprecated(\n   \"Comparing one TimeMark to another is not a well defined operation because these time marks could have been obtained from the different time sources.\",\n   level = DeprecationLevel.ERROR\n)\n@Suppress(\"UNUSED_PARAMETER\")\npublic inline operator fun TimeMark.compareTo(other: TimeMark): Int = throw Error(\"Operation is disallowed.\")\n\n\n@ExperimentalTime\nprivate class AdjustedTimeMark(val mark: TimeMark, val adjustment: Duration) : TimeMark() {\n   override fun elapsedNow(): Duration = mark.elapsedNow() - adjustment\n\n   override fun plus(duration: Duration): TimeMark = AdjustedTimeMark(mark, adjustment + duration)\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\ninternal expect object MonotonicTimeSource : TimeSource\n\n/**\n * An abstract class used to implement time sources that return their readings as [Long] values in the specified [unit].\n *\n * @property unit The unit in which this time source's readings are expressed.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic abstract class AbstractLongTimeSource(protected val unit: DurationUnit) : TimeSource {\n   /**\n   * This protected method should be overridden to return the current reading of the time source expressed as a [Long] number\n   * in the unit specified by the [unit] property.\n   */\n   protected abstract fun read(): Long\n\n   private class LongTimeMark(private val startedAt: Long, private val timeSource: AbstractLongTimeSource, private val offset: Duration) : TimeMark() {\n   override fun elapsedNow(): Duration = (timeSource.read() - startedAt).toDuration(timeSource.unit) - offset\n   override fun plus(duration: Duration): TimeMark = LongTimeMark(startedAt, timeSource, offset + duration)\n   }\n\n   override fun markNow(): TimeMark = LongTimeMark(read(), this, Duration.ZERO)\n}\n\n/**\n * An abstract class used to implement time sources that return their readings as [Double] values in the specified [unit].\n *\n * @property unit The unit in which this time source's readings are expressed.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic abstract class AbstractDoubleTimeSource(protected val unit: DurationUnit) : TimeSource {\n   /**\n   * This protected method should be overridden to return the current reading of the time source expressed as a [Double] number\n   * in the unit specified by the [unit] property.\n   */\n   protected abstract fun read(): Double\n\n   private class DoubleTimeMark(private val startedAt: Double, private val timeSource: AbstractDoubleTimeSource,

```
 private val offset: Duration) : TimeMark() {\n        override fun elapsedNow(): Duration = (timeSource.read() -
startedAt).toDuration(timeSource.unit) - offset\n        override fun plus(duration: Duration): TimeMark =
DoubleTimeMark(startedAt, timeSource, offset + duration)\n    }\n\n    override fun markNow(): TimeMark =
DoubleTimeMark(read(), this, Duration.ZERO)\n}\n\n/**\n * A time source that has programmatically updatable
readings. It is useful as a predictable source of time in tests.\n *\n * The current reading value can be advanced by
the specified duration amount with the operator [plusAssign]:\n *\n * ```\n * val timeSource = TestTimeSource()\n *
timeSource += 10.seconds\n * ```\n *\n * Implementation note: the current reading value is stored as a [Long]
number of nanoseconds,\n * thus it's capable to represent a time range of approximately \u00b1292 years.\n *
Should the reading value overflow as the result of [plusAssign] operation, an [IllegalStateException]
 is thrown.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic class TestTimeSource :
AbstractLongTimeSource(unit = DurationUnit.NANOSECONDS) {\n    private var reading: Long = 0L\n\n
override fun read(): Long = reading\n\n    /**\n     * Advances the current reading value of this time source by the
specified [duration].\n     *\n     * [duration] value is rounded down towards zero when converting it to a [Long]
number of nanoseconds.\n     * For example, if the duration being added is `0.6.nanoseconds`, the reading doesn't
advance because\n     * the duration value is rounded to zero nanoseconds.\n     *\n     * @throws
IllegalStateException when the reading value overflows as the result of this operation.\n     */\n    public operator fun
plusAssign(duration: Duration) {\n        val longDelta = duration.toLong(unit)\n        reading = if (longDelta !=
Long.MIN_VALUE && longDelta != Long.MAX_VALUE) {\n            // when delta fits in long, add it as long\n
    val
 newReading = reading + longDelta\n            if (reading xor longDelta >= 0 && reading xor newReading < 0)
overflow(duration)\n            newReading\n        } else {\n            val delta = duration.toDouble(unit)\n            // when
delta is greater than long, add it as double\n            val newReading = reading + delta\n            if (newReading >
Long.MAX_VALUE || newReading < Long.MIN_VALUE) overflow(duration)\n            newReading.toLong()\n
}\n    }\n\n    private fun overflow(duration: Duration) {\n        throw IllegalStateException(\"TestTimeSource will
overflow if its reading ${reading}ns is advanced by $duration.\")\n    }\n}\n","/*\n * Copyright 2010-2020 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\nimport
kotlin.contracts.*\n\n/**\n * Executes the given function [block] and returns the duration
 of elapsed time interval.\n *\n * The elapsed time is measured with [TimeSource.Monotonic].\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic inline fun measureTime(block: () -> Unit): Duration {\n
contract {\n        callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n    }\n    return
TimeSource.Monotonic.measureTime(block)\n}\n\n\n/**\n * Executes the given function [block] and returns the
duration of elapsed time interval.\n *\n * The elapsed time is measured with the specified `this` [TimeSource]
instance.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic inline fun TimeSource.measureTime(block: ()
-> Unit): Duration {\n    contract {\n        callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n    }\n\n    val
mark = markNow()\n    block()\n    return mark.elapsedNow()\n}\n\n\n\n/**\n * Data class representing a result of
executing an action, along with the duration of elapsed time interval.\n *\n * @property value the result of the
action.\n * @property duration the time
 elapsed to execute the action.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic data class
TimedValue<T>(val value: T, val duration: Duration)\n\n/**\n * Executes the given function [block] and returns an
instance of [TimedValue] class, containing both\n * the result of the function execution and the duration of elapsed
time interval.\n *\n * The elapsed time is measured with [TimeSource.Monotonic].\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic inline fun <T> measureTimedValue(block: () -> T):
TimedValue<T> {\n    contract {\n        callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n    }\n\n    return
TimeSource.Monotonic.measureTimedValue(block)\n}\n\n/**\n * Executes the given [block] and returns an
instance of [TimedValue] class, containing both\n * the result of function execution and the duration of elapsed time
interval.\n *\n * The elapsed time is measured with the specified `this` [TimeSource] instance.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic
```

inline fun <T> TimeSource.measureTimedValue(block: () -> T): TimedValue<T> {\n   contract {\n callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n\n   val mark = markNow()\n   val result = block()\n   return TimedValue(result, mark.elapsedNow())\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.coroutines.*\nimport kotlin.coroutines.intrinsics.*\nimport kotlin.native.concurrent.SharedImmutable\n\n/**\n * Defines deep recursive function that keeps its stack on the heap,\n * which allows very deep recursive computations that do not use the actual call stack.\n * To initiate a call to this deep recursive function use its [invoke] function.\n * As a rule of thumb, it should be used if recursion goes deeper than a thousand calls.\n *\n * The [DeepRecursiveFunction] takes one parameter of type [T] and returns a result of type [R].\n * The [block] of code defines the body of a recursive function. In this block\n * [callRecursive][DeepRecursiveScope.callRecursive] function can be used to make a recursive call\n * to the declared function. Other instances of [DeepRecursiveFunction] can be called\n * in this scope with `callRecursive` extension, too.\n *\n * For example, take a look at the following recursive tree class and a deeply\n * recursive instance of this tree with 100K nodes:\n *\n * ```\n * class Tree(val left: Tree? = null, val right: Tree? = null)\n * val deepTree = generateSequence(Tree()) { Tree(it) }.take(100_000).last()\n * ```\n *\n * A regular recursive function can be defined to compute a depth of a tree:\n *\n * ```\n * fun depth(t: Tree?): Int =\n * if (t == null) 0 else max(depth(t.left), depth(t.right)) + 1\n * println(depth(deepTree)) // StackOverflowError\n * ```\n *\n * If this `depth` function is called for a `deepTree` it produces [StackOverflowError] because of deep recursion.\n * However, the `depth` function can be rewritten using `DeepRecursiveFunction` in the following way, and then\n * it successfully computes [`depth(deepTree)`][DeepRecursiveFunction.invoke] expression:\n *\n * ```\n * val depth = DeepRecursiveFunction<Tree?, Int> { t ->\n *   if (t == null) 0 else max(callRecursive(t.left), callRecursive(t.right)) + 1\n * }\n * println(depth(deepTree)) // Ok\n * ```\n *\n * Deep recursive functions can also mutually call each other using a heap for the stack via\n * [callRecursive][DeepRecursiveScope.callRecursive] extension. For example, the\n * following pair of mutually recursive functions computes the number of tree nodes at even depth in the tree.\n *\n * ```\n * val mutualRecursion = object {\n *   val even: DeepRecursiveFunction<Tree?, Int> = DeepRecursiveFunction { t ->\n *   if (t == null) 0 else odd.callRecursive(t.left) + odd.callRecursive(t.right) + 1\n *   }\n *   val odd: DeepRecursiveFunction<Tree?, Int> = DeepRecursiveFunction { t ->\n *   if (t == null) 0 else even.callRecursive(t.left) + even.callRecursive(t.right)\n *   }\n * }\n * ```\n *\n * @param [T] the function parameter type.\n * @param [R] the function result type.\n * @param block the function body.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalStdlibApi\npublic class DeepRecursiveFunction<T, R>(\n   internal val block: suspend DeepRecursiveScope<T, R>.(T) -> R\n)\n\n/**\n * Initiates a call to this deep recursive function, forming a root of the call tree.\n *\n * This operator should not be used from inside of [DeepRecursiveScope] as it uses the call stack slot for\n * initial recursive invocation. From inside of [DeepRecursiveScope] use\n * [callRecursive][DeepRecursiveScope.callRecursive].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalStdlibApi\npublic operator fun <T, R> DeepRecursiveFunction<T, R>.invoke(value: T): R =\n   DeepRecursiveScopeImpl<T, R>(block, value).runCallLoop()\n\n/**\n * A scope class for [DeepRecursiveFunction] function declaration that defines [callRecursive] methods to\n * recursively call this function or another [DeepRecursiveFunction] putting the call activation frame on the heap.\n *\n * @param [T] function parameter type.\n * @param [R] function result type.\n */\n@RestrictsSuspension\n@SinceKotlin(\"1.4\")\n@ExperimentalStdlibApi\npublic sealed class DeepRecursiveScope<T, R> {\n   /**\n   * Makes recursive call to this [DeepRecursiveFunction] function putting the call activation frame on the heap,\n   * as opposed to the actual call stack that is used by a regular recursive call.\n   */\n   public abstract suspend fun callRecursive(value: T): R\n\n   /**\n   * Makes call to the specified [DeepRecursiveFunction] function putting the call activation frame on the heap,\n   * as opposed to the actual call stack that is used by a regular call.\n   */\n   public abstract suspend fun <U, S> DeepRecursiveFunction<U,

S>.callRecursive(value:
 U): S\n\n   @Deprecated(\n   level = DeprecationLevel.ERROR,\n   message =\n   \"'invoke' should not be called from DeepRecursiveScope. \" +\n   \"Use 'callRecursive' to do recursion in the heap instead of the call stack.\",\n   replaceWith = ReplaceWith(\"this.callRecursive(value)\")\n   )\n   @Suppress(\"UNUSED_PARAMETER\")\n   public operator fun DeepRecursiveFunction<*, *>.invoke(value: Any?): Nothing =\n   throw UnsupportedOperationException(\"Should not be called from DeepRecursiveScope\")\n}\n\n// ================== Implementation ==================\n\n@ExperimentalStdlibApi\nprivate typealias DeepRecursiveFunctionBlock = suspend DeepRecursiveScope<*, *>.(Any?) -> Any?\n\n@SharedImmutable\nprivate val UNDEFINED_RESULT = Result.success(COROUTINE_SUSPENDED)\n\n@Suppress(\"UNCHECKED_CAST\")\n@ExperimentalStdlibApi\nprivate class DeepRecursiveScopeImpl<T, R>(\n   block: suspend DeepRecursiveScope<T, R>.(T) -> R,\n   value: T\n)
 : DeepRecursiveScope<T, R>(), Continuation<R> {\n   // Active function block\n   private var function: DeepRecursiveFunctionBlock = block as DeepRecursiveFunctionBlock\n\n   // Value to call function with\n   private var value: Any? = value\n\n   // Continuation of the current call\n   private var cont: Continuation<Any?>? = this as Continuation<Any?>\n\n   // Completion result (completion of the whole call stack)\n   private var result: Result<Any?> = UNDEFINED_RESULT\n\n   override val context: CoroutineContext\n   get() = EmptyCoroutineContext\n\n   override fun resumeWith(result: Result<R>) {\n   this.cont = null\n   this.result = result\n   }\n\n   override suspend fun callRecursive(value: T): R = suspendCoroutineUninterceptedOrReturn { cont ->\n   // calling the same function that is currently active\n   this.cont = cont as Continuation<Any?>\n   this.value = value\n   COROUTINE_SUSPENDED\n   }\n\n   override suspend fun <U, S> DeepRecursiveFunction<U,
 S>.callRecursive(value: U): S = suspendCoroutineUninterceptedOrReturn { cont ->\n   // calling another recursive function\n   val function = block as DeepRecursiveFunctionBlock\n   with(this@DeepRecursiveScopeImpl) {\n   val currentFunction = this.function\n   if (function !== currentFunction) {\n   // calling a different function -- create a trampoline to restore function ref\n   this.function = function\n   this.cont = crossFunctionCompletion(currentFunction, cont as Continuation<Any?>)\n   } else {\n   // calling the same function -- direct\n   this.cont = cont as Continuation<Any?>\n   }\n   this.value = value\n   }\n   COROUTINE_SUSPENDED\n   }\n\n   private fun crossFunctionCompletion(\n   currentFunction: DeepRecursiveFunctionBlock,\n   cont: Continuation<Any?>\n   ): Continuation<Any?> = Continuation(EmptyCoroutineContext)
 {\n   this.function = currentFunction\n   // When going back from a trampoline we cannot just call cont.resume (stack usage!)\n   // We delegate the cont.resumeWith(it) call to runCallLoop\n   this.cont = cont\n   this.result = it\n   }\n\n   @Suppress(\"UNCHECKED_CAST\")\n   fun runCallLoop(): R {\n   while (true) {\n   // Note: cont is set to null in DeepRecursiveScopeImpl.resumeWith when the whole computation completes\n   val result = this.result\n   val cont = this.cont\n   ?: return (result as Result<R>).getOrThrow() // done -- final result\n   // The order of comparison is important here for that case of rogue class with broken equals\n   if (UNDEFINED_RESULT == result) {\n   // call \"function\" with \"value\" using \"cont\" as completion\n   val r = try {\n   // This is block.startCoroutine(this, value, cont)\n   function.startCoroutineUninterceptedOrReturn(this,
 value, cont)\n   } catch (e: Throwable) {\n   cont.resumeWithException(e)\n   continue\n   }\n   // If the function returns without suspension -- calls its continuation immediately\n   if (r !== COROUTINE_SUSPENDED)\n   cont.resume(r as R)\n   } else {\n   // we returned from a crossFunctionCompletion trampoline -- call resume here\n   this.result = UNDEFINED_RESULT // reset result back\n   cont.resumeWith(result)\n   }\n   }\n   }\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT

EDIT!\n\n@file:kotlin.jvm.JvmName(\"NumbersKt\")\n@file:kotlin.jvm.JvmMultifileClass\npackage kotlin\n\nimport kotlin.math.sign\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.floorDiv(other: Byte): Int = \n   this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.mod(other: Byte): Byte = \n   this.toInt().mod(other.toInt()).toByte()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.floorDiv(other: Short): Int = \n this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.mod(other: Short): Short = \n this.toInt().mod(other.toInt()).toShort()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.floorDiv(other: Int): Int = \n   this.toInt().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.mod(other: Int): Int = \n this.toInt().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.floorDiv(other: Long): Long = \n this.toLong().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.mod(other: Long): Long = \n   this.toLong().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.floorDiv(other: Byte): Int = \n this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.mod(other: Byte): Byte = \n this.toInt().mod(other.toInt()).toByte()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.floorDiv(other: Short): Int = \n   this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.mod(other: Short): Short = \n this.toInt().mod(other.toInt()).toShort()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.floorDiv(other: Int): Int = \n   this.toInt().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.mod(other: Int): Int = \n this.toInt().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.floorDiv(other: Long): Long = \n   this.toLong().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this

value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has
the absolute value less than the absolute value of the divisor.\n
*/\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.mod(other: Long): Long = \n
this.toLong().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer
to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.floorDiv(other:
Byte): Int = \n   this.floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by
the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less
than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun
Int.mod(other: Byte): Byte = \n   this.mod(other.toInt()).toByte()\n\n/** Divides this value by the other value,
flooring the result to an integer that is closer to negative infinity.
*/\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic
inline fun Int.floorDiv(other: Short): Int = \n   this.floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of
flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the
divisor and has the absolute value less than the absolute value of the divisor.\n
*/\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.mod(other: Short): Short = \n
this.mod(other.toInt()).toShort()\n\n/** Divides this value by the other value, flooring the result to an integer that is
closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun
Int.floorDiv(other: Int): Int {\n   var q = this / other\n   if (this xor other < 0 && q * other != this) q-- \n   return
q\n}\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is
either zero or has the same sign as the _divisor_ and has the absolute value less
than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun
Int.mod(other: Int): Int {\n   val r = this % other\n   return r + (other and (((r xor other) and (r or -r)) shr
31))\n}\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative
infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.floorDiv(other: Long): Long
= \n   this.toLong().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the
other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less
than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun
Int.mod(other: Long): Long = \n   this.toLong().mod(other)\n\n/** Divides this value by the other value, flooring
the result to an integer that is closer to negative infinity.
*/\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic
inline fun Long.floorDiv(other: Byte): Long = \n   this.floorDiv(other.toLong())\n\n/**\n * Calculates the
remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign
as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n
*/\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.mod(other: Byte): Byte = \n
this.mod(other.toLong()).toByte()\n\n/** Divides this value by the other value, flooring the result to an integer that
is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun
Long.floorDiv(other: Short): Long = \n   this.floorDiv(other.toLong())\n\n/**\n * Calculates the remainder of
flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the
divisor and has the absolute value less than the absolute value
of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.mod(other: Short):
Short = \n   this.mod(other.toLong()).toShort()\n\n/** Divides this value by the other value, flooring the result to an
integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun
Long.floorDiv(other: Int): Long = \n   this.floorDiv(other.toLong())\n\n/**\n * Calculates the remainder of flooring
division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and
has the absolute value less than the absolute value of the divisor.\n
*/\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.mod(other: Int): Int = \n
this.mod(other.toLong()).toInt()\n\n/** Divides this value by the other value, flooring the result to an integer that is
closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun

Long.floorDiv(other:
 Long): Long {\n   var q = this / other\n   if (this xor other < 0 && q * other != this) q-- \n   return q\n}\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.mod(other: Long): Long {\n   val r = this % other\n   return r + (other and (((r xor other) and (r or -r)) shr 63))\n}\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n * \n * If the result cannot be represented exactly, it is rounded to the nearest representable number. In this case the absolute value of the result can be less than or _equal to_ the absolute
 value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Float.mod(other: Float): Float {\n   val r = this % other\n   return if (r != 0.0.toFloat() && r.sign != other.sign) r + other else r\n}\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n * \n * If the result cannot be represented exactly, it is rounded to the nearest representable number. In this case the absolute value of the result can be less than or _equal to_ the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Float.mod(other: Double): Double = \n   this.toDouble().mod(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and
 has the absolute value less than the absolute value of the divisor.\n * \n * If the result cannot be represented exactly, it is rounded to the nearest representable number. In this case the absolute value of the result can be less than or _equal to_ the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Double.mod(other: Float): Double = \n   this.mod(other.toDouble())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n * \n * If the result cannot be represented exactly, it is rounded to the nearest representable number. In this case the absolute value of the result can be less than or _equal to_ the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Double.mod(other: Double): Double {\n   val r = this % other\n   return if (r != 0.0 && r.sign != other.sign) r + other else r\n}\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.internal.InlineOnly\n\n\n/**\n * Returns a hash code value for the object or zero if the object is `null`.\n *\n * @see Any.hashCode\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic inline fun Any?.hashCode(): Int = this?.hashCode() ?: 0\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n/**\n * Represents a version of the Kotlin standard library.\n *\n * [major], [minor] and [patch] are integer components of a version,\n * they must be non-negative and not greater
 than 255 ([MAX_COMPONENT_VALUE]).\n *\n * @constructor Creates a version from all three components.\n */\n@SinceKotlin(\"1.1\")\npublic class KotlinVersion(val major: Int, val minor: Int, val patch: Int) : Comparable<KotlinVersion> {\n   /**\n   * Creates a version from [major] and [minor] components, leaving [patch] component zero.\n   */\n   public constructor(major: Int, minor: Int) : this(major, minor, 0)\n\n   private val version = versionOf(major, minor, patch)\n\n   private fun versionOf(major: Int, minor: Int, patch: Int): Int {\n   require(major in 0..MAX_COMPONENT_VALUE && minor in 0..MAX_COMPONENT_VALUE && patch in 0..MAX_COMPONENT_VALUE) {\n   \"Version components are out of range: $major.$minor.$patch\"\n   }\n   return major.shl(16) + minor.shl(8) + patch\n   }\n\n   /**\n   * Returns the string representation of this version\n   */\n   override fun toString(): String = \"$major.$minor.$patch\"\n\n   override fun equals(other: Any?):

Boolean {\n   if (this === other) return true\n   val otherVersion = (other as? KotlinVersion) ?: return false\n   return this.version == otherVersion.version\n   }\n\n   override fun hashCode(): Int = version\n\n   override fun compareTo(other: KotlinVersion): Int = version - other.version\n\n   /**\n   * Returns `true` if this version is not less than the version specified\n   * with the provided [major] and [minor] components.\n   */\n   public fun isAtLeast(major: Int, minor: Int): Boolean = // this.version >= versionOf(major, minor, 0)\n   this.major > major || (this.major == major &&\n   this.minor >= minor)\n\n   /**\n   * Returns `true` if this version is not less than the version specified\n   * with the provided [major], [minor] and [patch] components.\n   */\n   public fun isAtLeast(major: Int, minor: Int, patch: Int): Boolean = // this.version >= versionOf(major, minor, patch)\n   this.major > major || (this.major == major &&\n   (this.minor > minor || this.minor == minor &&\n   this.patch >= patch))\n\n   companion object {\n   /**\n   * Maximum value a version component can have, a constant value 255.\n   */\n   // NOTE: Must be placed before CURRENT because its initialization requires this field being initialized in JS\n   public const val MAX_COMPONENT_VALUE = 255\n\n   /**\n   * Returns the current version of the Kotlin standard library.\n   */\n   @kotlin.jvm.JvmField\n   public val CURRENT: KotlinVersion = KotlinVersionCurrentValue.get()\n   }\n}\n\n// this class is ignored during classpath normalization when considering whether to recompile dependencies in Kotlin build\nprivate object KotlinVersionCurrentValue {\n   @kotlin.jvm.JvmStatic\n   fun get(): KotlinVersion = KotlinVersion(1, 6, 10) // value is written here automatically during build\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"LateinitKt\")\n@file:Suppress(\"unused\")\n\npackage kotlin\n\nimport kotlin.internal.InlineOnly\nimport kotlin.internal.AccessibleLateinitPropertyLiteral\nimport kotlin.reflect.KProperty0\n\n/**\n * Returns `true` if this lateinit property has been assigned a value, and `false` otherwise.\n *\n * Cannot be used in an inline function, to avoid binary compatibility issues.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\ninline val @receiver:AccessibleLateinitPropertyLiteral KProperty0<*>.isInitialized: Boolean\n   get() = throw NotImplementedError(\"Implementation is intrinsic\")\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"LazyKt\")\n@file:kotlin.jvm.JvmMultifileClass\n\npackage kotlin\n\nimport kotlin.reflect.KProperty\n\n/**\n * Represents a value with lazy initialization.\n *\n * To create an instance of [Lazy] use the [lazy] function.\n */\npublic interface Lazy<out T> {\n   /**\n   * Gets the lazily initialized value of the current Lazy instance.\n   * Once the value was initialized it must not change during the rest of lifetime of this Lazy instance.\n   */\n   public val value: T\n\n   /**\n   * Returns `true` if a value for this Lazy instance has been already initialized, and `false` otherwise.\n   * Once this function has returned `true` it stays `true` for the rest of lifetime of this Lazy instance.\n   */\n   public fun isInitialized(): Boolean\n}\n\n/**\n * Creates a new instance of the [Lazy] that is already initialized with the specified [value].\n */\npublic fun <T> lazyOf(value: T): Lazy<T> = InitializedLazyImpl(value)\n\n/**\n * An extension to delegate a read-only property of type [T] to an instance of [Lazy].\n *\n * This extension allows to use instances of Lazy for property delegation:\n * `val property: String by lazy { initializer }`\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Lazy<T>.getValue(thisRef: Any?, property: KProperty<*>): T = value\n\n/**\n * Specifies how a [Lazy] instance synchronizes initialization among multiple threads.\n */\npublic enum class LazyThreadSafetyMode {\n\n   /**\n   * Locks are used to ensure that only a single thread can initialize the [Lazy] instance.\n   */\n   SYNCHRONIZED,\n\n   /**\n   * Initializer function can be called several times on concurrent access to uninitialized [Lazy] instance value,\n   * but only the first returned value will be used as the value of [Lazy] instance.\n   */\n   PUBLICATION,\n\n   /**\n   * No locks are used to synchronize an access to the [Lazy] instance value; if the instance is accessed from multiple threads, its behavior is undefined.\n   *\n   * This mode should not be used unless the [Lazy] instance is guaranteed never to be initialized from more than one thread.\n   */\n   NONE,\n}\n\n\ninternal object UNINITIALIZED_VALUE\n\n//

internal to be called from lazy in JS\ninternal class UnsafeLazyImpl<out T>(initializer: () -> T) : Lazy<T>, Serializable {\n   private var initializer: (() -> T)? = initializer\n   private var _value: Any? = UNINITIALIZED_VALUE\n\n   override val value: T\n   get() {\n   if (_value === UNINITIALIZED_VALUE) {\n   _value = initializer!!()\n   initializer = null\n   }\n   @Suppress(\"UNCHECKED_CAST\")\n   return _value as T\n   }\n\n   override fun isInitialized(): Boolean = _value !== UNINITIALIZED_VALUE\n\n   override fun toString(): String = if (isInitialized()) value.toString() else \"Lazy value not initialized yet.\"\n\n   private fun writeReplace(): Any = InitializedLazyImpl(value)\n}\n\ninternal class InitializedLazyImpl<out T>(override val value: T) : Lazy<T>, Serializable {\n\n   override fun isInitialized(): Boolean = true\n\n   override fun toString(): String = value.toString()\n\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"NumbersKt\")\npackage kotlin\n\n\n/**\n * Counts the number of set bits in the binary representation of this [Int] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.countOneBits(): Int\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Int] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.countLeadingZeroBits(): Int\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Int] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.countTrailingZeroBits(): Int\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [Int] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.takeHighestOneBit(): Int\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Int] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.takeLowestOneBit(): Int\n\n/**\n * Rotates the binary representation of this [Int] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Int.SIZE_BITS] (32) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 32)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.rotateLeft(bitCount: Int): Int\n\n\n/**\n * Rotates the binary representation of this [Int] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Int.SIZE_BITS] (32) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 32)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.rotateRight(bitCount: Int): Int\n\n\n/**\n * Counts the number of set bits in the binary representation of this [Long] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.countOneBits(): Int\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Long] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.countLeadingZeroBits(): Int\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Long] number.\n

*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.countTrailingZeroBits(): Int\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [Long] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.takeHighestOneBit(): Long\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Long] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.takeLowestOneBit(): Long\n\n/**\n * Rotates the binary representation of this [Long] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Long.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 64)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.rotateLeft(bitCount: Int): Long\n\n/**\n * Rotates the binary representation of this [Long] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Long.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 64)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.rotateRight(bitCount: Int): Long\n\n/**\n * Counts the number of set bits in the binary representation of this [Byte] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.countOneBits(): Int = (toInt() and 0xFF).countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Byte] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.countLeadingZeroBits(): Int = (toInt() and 0xFF).countLeadingZeroBits() - (Int.SIZE_BITS - Byte.SIZE_BITS)\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Byte] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.countTrailingZeroBits(): Int = (toInt() or 0x100).countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [Byte] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.takeHighestOneBit(): Byte = (toInt() and 0xFF).takeHighestOneBit().toByte()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Byte] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.takeLowestOneBit(): Byte = toInt().takeLowestOneBit().toByte()\n\n\n/**\n * Rotates the binary representation of this [Byte] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Byte.SIZE_BITS] (8) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 8)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Byte.rotateLeft(bitCount: Int): Byte =\n   (toInt().shl(bitCount and 7) or (toInt() and 0xFF).ushr(8 - (bitCount and

7))).toByte()\n\n/**\n * Rotates the binary representation of this [Byte] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Byte.SIZE_BITS] (8) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 8)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Byte.rotateRight(bitCount: Int): Byte =\n   (toInt().shl(8 - (bitCount and 7)) or (toInt() and 0xFF).ushr(bitCount and 7)).toByte()\n\n/**\n * Counts the number of set bits in the binary representation of this [Short] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.countOneBits(): Int = (toInt() and 0xFFFF).countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Short] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.countLeadingZeroBits(): Int =\n   (toInt() and 0xFFFF).countLeadingZeroBits() - (Int.SIZE_BITS - Short.SIZE_BITS)\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Short] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.countTrailingZeroBits(): Int = (toInt() or 0x10000).countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [Short] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.takeHighestOneBit(): Short = (toInt() and 0xFFFF).takeHighestOneBit().toShort()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Short] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.takeLowestOneBit(): Short = toInt().takeLowestOneBit().toShort()\n\n\n/**\n * Rotates the binary representation of this [Short] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Short.SIZE_BITS] (16) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 16)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Short.rotateLeft(bitCount: Int): Short =\n   (toInt().shl(bitCount and 15) or (toInt() and 0xFFFF).ushr(16 - (bitCount and 15))).toShort()\n\n/**\n * Rotates the binary representation of this [Short] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Short.SIZE_BITS] (16) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 16)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Short.rotateRight(bitCount: Int): Short =\n   (toInt().shl(16 - (bitCount and 15)) or (toInt() and 0xFFFF).ushr(bitCount and 15)).toShort()\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.internal.RequireKotlin\nimport kotlin.internal.RequireKotlinVersionKind\n\n@kotlin.internal.InlineOnly\n@SinceKotlin(\"1.2\")\n@Suppress(\"INVISIBLE_MEMBER\", \"INVISIBLE_REFERENCE\")\n@RequireKotlin(\"1.2.30\", level =

```
 DeprecationLevel.HIDDEN, versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\npublic inline fun
<R> suspend(noinline block: suspend () -> R): suspend () -> R = block\n","/*\n * Copyright 2010-2018 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmName(\"TuplesKt\")\n\npackage kotlin\n\n\n/**\n * Represents a generic pair of two
values.\n *\n * There is no meaning attached to values in this class, it can be used for any purpose.\n * Pair exhibits
value semantics, i.e. two pairs are equal if both components are equal.\n *\n * An example of decomposing it into
values:\n * @sample samples.misc.Tuples.pairDestructuring\n *\n * @param A type of the first value.\n * @param
B type of the second value.\n * @property first First value.\n * @property second Second value.\n * @constructor
Creates a new instance of Pair.\n */\npublic data
 class Pair<out A, out B>(\n    public val first: A,\n    public val second: B\n) : Serializable {\n\n    /**\n     * Returns
string representation of the [Pair] including its [first] and [second] values.\n     */\n    public override fun toString():
String = \"($first, $second)\"\n}\n\n/**\n * Creates a tuple of type [Pair] from this and [that].\n *\n * This can be
useful for creating [Map] literals with less noise, for example:\n * @sample
samples.collections.Maps.Instantiation.mapFromPairs\n */\npublic infix fun <A, B> A.to(that: B): Pair<A, B> =
Pair(this, that)\n\n/**\n * Converts this pair into a list.\n * @sample samples.misc.Tuples.pairToList\n */\npublic
fun <T> Pair<T, T>.toList(): List<T> = listOf(first, second)\n\n/**\n * Represents a triad of values\n *\n * There is
no meaning attached to values in this class, it can be used for any purpose.\n * Triple exhibits value semantics, i.e.
two triples are equal if all three components are equal.\n * An example of decomposing it
 into values:\n * @sample samples.misc.Tuples.tripleDestructuring\n *\n * @param A type of the first value.\n *
@param B type of the second value.\n * @param C type of the third value.\n * @property first First value.\n *
@property second Second value.\n * @property third Third value.\n */\npublic data class Triple<out A, out B, out
C>(\n    public val first: A,\n    public val second: B,\n    public val third: C\n) : Serializable {\n\n    /**\n     *
Returns string representation of the [Triple] including its [first], [second] and [third] values.\n     */\n    public
override fun toString(): String = \"($first, $second, $third)\"\n}\n\n/**\n * Converts this triple into a list.\n *
@sample samples.misc.Tuples.tripleToList\n */\npublic fun <T> Triple<T, T, T>.toList(): List<T> = listOf(first,
second, third)\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n *
Use of this source code is governed by the Apache 2.0 license that can be found in the
 license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.ranges\n\n\n\nimport
kotlin.internal.*\n\n/**\n * A range of values of type `UInt`.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic class UIntRange(start:
UInt, endInclusive: UInt) : UIntProgression(start, endInclusive, 1), ClosedRange<UInt> {\n    override val start:
UInt get() = first\n    override val endInclusive: UInt get() = last\n\n    override fun contains(value: UInt): Boolean =
first <= value && value <= last\n\n    /** \n     * Checks if the range is empty.\n     \n     * The range is empty if its
start value is greater than the end value.\n     */\n    override fun isEmpty(): Boolean = first > last\n\n    override fun
equals(other: Any?): Boolean =\n        other is UIntRange && (isEmpty() && other.isEmpty() ||\n                first ==
other.first && last == other.last)\n\n    override fun hashCode(): Int =\n        if (isEmpty()) -1 else (31 *
 first.toInt() + last.toInt())\n\n    override fun toString(): String = \"$first..$last\"\n\n    companion object {\n        /**
An empty range of values of type UInt. */\n        public val EMPTY: UIntRange = UIntRange(UInt.MAX_VALUE,
UInt.MIN_VALUE)\n    }\n}\n\n/**\n * A progression of values of type `UInt`.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic open class
UIntProgression\ninternal constructor(\n    start: UInt,\n    endInclusive: UInt,\n    step: Int\n) : Iterable<UInt> {\n
init {\n        if (step == 0.toInt()) throw kotlin.IllegalArgumentException(\"Step must be non-zero.\")\n        if (step
== Int.MIN_VALUE) throw kotlin.IllegalArgumentException(\"Step must be greater than Int.MIN_VALUE to
avoid overflow on negation.\")\n    }\n\n    /**\n     * The first element in the progression.\n     */\n    public val first:
UInt = start\n\n    /**\n     * The last element in the progression.\n     */\n    public val last: UInt =
getProgressionLastElement(start,
```

endInclusive, step)\n\n /**\n * The step of the progression.\n */\n public val step: Int = step\n\n final override fun iterator(): Iterator<UInt> = UIntProgressionIterator(first, last, step)\n\n /** \n * Checks if the progression is empty.\n \n * Progression with a positive step is empty if its first element is greater than the last element.\n * Progression with a negative step is empty if its first element is less than the last element.\n */\n public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n override fun equals(other: Any?): Boolean =\n other is UIntProgression && (isEmpty() && other.isEmpty() ||\n first == other.first && last == other.last && step == other.step)\n\n override fun hashCode(): Int =\n if (isEmpty()) -1 else (31 * (31 * first.toInt() + last.toInt()) + step.toInt())\n\n override fun toString(): String = if (step > 0) \"$first..$last step $step\" else \"$first downTo $last step ${-step}\"\n\n companion object {\n /**\n * Creates UIntProgression within the specified bounds of a closed range.\n\n * The progression starts with the [rangeStart] value and goes toward the [rangeEnd] value not excluding it, with the specified [step].\n * In order to go backwards the [step] must be negative.\n *\n * [step] must be greater than `Int.MIN_VALUE` and not equal to zero.\n */\n public fun fromClosedRange(rangeStart: UInt, rangeEnd: UInt, step: Int): UIntProgression = UIntProgression(rangeStart, rangeEnd, step)\n }\n}\n\n\n/**\n * An iterator over a progression of values of type `UInt`.\n * @property step the number by which the value is incremented on each step.\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"DEPRECATION_ERROR\")\nprivate class UIntProgressionIterator(first: UInt, last: UInt, step: Int) : UIntIterator() {\n private val finalElement = last\n private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n private val step = step.toUInt() // use 2-complement math for negative steps\n private var next = if (hasNext) first else finalElement\n\n override fun hasNext(): Boolean = hasNext\n\n override fun nextUInt(): UInt {\n val value = next\n if (value == finalElement) {\n if (!hasNext) throw kotlin.NoSuchElementException()\n hasNext = false\n } else {\n next += step\n }\n return value\n }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.collections\n\n/** An iterator over a sequence of values of type `UByte`. */\n@Deprecated(\"This class is not going to be stabilized and is to be removed soon.\", level = DeprecationLevel.ERROR)\n@SinceKotlin(\"1.3\")\npublic abstract class UByteIterator : Iterator<UByte> {\n final override fun next() = nextUByte()\n\n /** Returns the next value in the sequence without boxing. */\n public abstract fun nextUByte(): UByte\n}\n\n/** An iterator over a sequence of values of type `UShort`. */\n@Deprecated(\"This class is not going to be stabilized and is to be removed soon.\", level = DeprecationLevel.ERROR)\n@SinceKotlin(\"1.3\")\npublic abstract class UShortIterator : Iterator<UShort> {\n final override fun next() = nextUShort()\n\n /** Returns the next value in the sequence without boxing. */\n public abstract fun nextUShort(): UShort\n}\n\n/** An iterator over a sequence of values of type `UInt`. */\n@Deprecated(\"This class is not going to be stabilized and is to be removed soon.\", level = DeprecationLevel.ERROR)\n@SinceKotlin(\"1.3\")\npublic abstract class UIntIterator : Iterator<UInt> {\n final override fun next() = nextUInt()\n\n /** Returns the next value in the sequence without boxing. */\n public abstract fun nextUInt(): UInt\n}\n\n/** An iterator over a sequence of values of type `ULong`. */\n@Deprecated(\"This class is not going to be stabilized and is to be removed soon.\", level = DeprecationLevel.ERROR)\n@SinceKotlin(\"1.3\")\npublic abstract class ULongIterator : Iterator<ULong> {\n final override fun next() = nextULong()\n\n /** Returns the next value in the sequence without boxing. */\n public abstract fun nextULong(): ULong\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.ranges\n\n\n\nimport kotlin.internal.*\n\n/**\n * A range of values of type `ULong`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic class ULongRange(start: ULong, endInclusive: ULong) : ULongProgression(start, endInclusive, 1), ClosedRange<ULong> {\n override val start: ULong get() = first\n override val endInclusive: ULong get() = last\n\n override fun contains(value:

ULong): Boolean = first <= value && value <= last\n\n   /** \n   * Checks if the range is empty.\n   \n   * The range is empty if its start value is greater than the end value.\n   */\n   override fun isEmpty(): Boolean = first > last\n\n   override fun equals(other: Any?): Boolean =\n   other is ULongRange && (isEmpty() && other.isEmpty() ||\n   first == other.first && last == other.last)\n\n   override fun hashCode(): Int =\n   if (isEmpty()) -1 else (31 * (first xor (first shr 32)).toInt() + (last xor (last shr 32)).toInt())\n\n   override fun toString(): String = \"$first..$last\"\n\n   companion object {\n   /** An empty range of values of type ULong. */\n   public val EMPTY: ULongRange = ULongRange(ULong.MAX_VALUE, ULong.MIN_VALUE)\n   }\n}\n\n/**\n * A progression of values of type `ULong`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic open class ULongProgression\ninternal constructor(\n   start: ULong,\n   endInclusive: ULong,\n   step: Long\n) : Iterable<ULong> {\n   init {\n   if (step == 0.toLong()) throw kotlin.IllegalArgumentException(\"Step must be non-zero.\")\n   if (step == Long.MIN_VALUE) throw kotlin.IllegalArgumentException(\"Step must be greater than Long.MIN_VALUE to avoid overflow on negation.\")\n   }\n\n   /**\n   * The first element in the progression.\n   */\n   public val first: ULong = start\n\n   /**\n   * The last element in the progression.\n   */\n   public val last: ULong = getProgressionLastElement(start, endInclusive, step)\n\n   /**\n   * The step of the progression.\n   */\n   public val step: Long = step\n\n   final override fun iterator(): Iterator<ULong> = ULongProgressionIterator(first, last, step)\n\n   /** \n   * Checks if the progression is empty.\n   \n   * Progression with a positive step is empty if its first element is greater than the last element.\n   * Progression with a negative step is empty if its first element is less than the last element.\n   */\n   public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n   override fun equals(other: Any?): Boolean =\n   other is ULongProgression && (isEmpty() && other.isEmpty() ||\n   first == other.first && last == other.last && step == other.step)\n\n   override fun hashCode(): Int =\n   if (isEmpty()) -1 else (31 * (31 * (first xor (first shr 32)).toInt() + (last xor (last shr 32)).toInt()) + (step xor (step ushr 32)).toInt())\n\n   override fun toString(): String = if (step > 0) \"$first..$last step $step\" else \"$first downTo $last step ${-step}\"\n\n   companion object {\n   /**\n   * Creates ULongProgression within the specified bounds of a closed range.\n\n   * The progression starts with the [rangeStart] value and goes toward the [rangeEnd] value not excluding it, with the specified [step].\n   * In order to go backwards the [step] must be negative.\n   *\n   * [step] must be greater than `Long.MIN_VALUE` and not equal to zero.\n   */\n   public fun fromClosedRange(rangeStart: ULong, rangeEnd: ULong, step: Long): ULongProgression = ULongProgression(rangeStart, rangeEnd, step)\n   }\n}\n\n\n/**\n * An iterator over a progression of values of type `ULong`.\n * @property step the number by which the value is incremented on each step.\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"DEPRECATION_ERROR\")\nprivate class ULongProgressionIterator(first: ULong, last: ULong, step: Long) : ULongIterator() {\n   private val finalElement = last\n   private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n   private val step = step.toULong() // use 2-complement math for negative steps\n   private var next = if (hasNext) first else finalElement\n\n   override fun hasNext(): Boolean = hasNext\n\n   override fun nextULong(): ULong {\n   val value = next\n   if (value == finalElement) {\n   if (!hasNext) throw kotlin.NoSuchElementException()\n   hasNext = false\n   } else {\n   next += step\n   }\n   return value\n   }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.math\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun min(a: UInt, b: UInt): UInt {\n   return minOf(a, b)\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic

inline fun min(a: ULong, b: ULong): ULong {\n   return minOf(a, b)\n}\n\n/**\n * Returns the greater of two values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun max(a: UInt, b: UInt): UInt {\n   return maxOf(a, b)\n}\n\n/**\n * Returns the greater of two values.\n
/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun max(a: ULong, b: ULong): ULong {\n   return maxOf(a, b)\n}","/\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmName(\"UNumbersKt\")\npackage kotlin\n\n/**\n * Counts the number of set bits in the binary representation of this [UInt] number.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.countOneBits(): Int = toInt().countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [UInt] number.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.countLeadingZeroBits(): Int = toInt().countLeadingZeroBits()\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [UInt] number.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.countTrailingZeroBits(): Int = toInt().countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [UInt]
number,\n * or zero, if this number is zero.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.takeHighestOneBit(): UInt = toInt().takeHighestOneBit().toUInt()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [UInt] number,\n * or zero, if this number is zero.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.takeLowestOneBit(): UInt = toInt().takeLowestOneBit().toUInt()\n\n/**\n * Rotates the binary representation of this [UInt] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the
negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [UInt.SIZE_BITS] (32) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 32)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.rotateLeft(bitCount: Int): UInt = toInt().rotateLeft(bitCount).toUInt()\n\n\n/**\n * Rotates the binary representation of this [UInt] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [UInt.SIZE_BITS] (32) returns the same number, or more generally\n * `number.rotateRight(n)
== number.rotateRight(n % 32)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.rotateRight(bitCount: Int): UInt = toInt().rotateRight(bitCount).toUInt()\n\n\n/**\n * Counts the number of set bits in the binary representation of this [ULong] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class,

ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.countOneBits(): Int = toLong().countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [ULong] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.countLeadingZeroBits(): Int = toLong().countLeadingZeroBits()\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [ULong] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.countTrailingZeroBits(): Int = toLong().countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [ULong] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.takeHighestOneBit(): ULong = toLong().takeHighestOneBit().toULong()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [ULong] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.takeLowestOneBit(): ULong = toLong().takeLowestOneBit().toULong()\n\n/**\n * Rotates the binary representation of this [ULong] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [ULong.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 64)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.rotateLeft(bitCount: Int): ULong = toLong().rotateLeft(bitCount).toULong()\n\n/**\n * Rotates the binary representation of this [ULong] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [ULong.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 64)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.rotateRight(bitCount: Int): ULong = toLong().rotateRight(bitCount).toULong()\n\n/**\n * Counts the number of set bits in the binary representation of this [UByte] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.countOneBits(): Int = toUInt().countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [UByte] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.countLeadingZeroBits(): Int = toByte().countLeadingZeroBits()\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [UByte] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.countTrailingZeroBits(): Int = toByte().countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [UByte] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.takeHighestOneBit(): UByte = toInt().takeHighestOneBit().toUByte()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [UByte] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.takeLowestOneBit(): UByte = toInt().takeLowestOneBit().toUByte()\n\n\n/**\n * Rotates the binary representation of this [UByte] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [UByte.SIZE_BITS] (8) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 8)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.rotateLeft(bitCount: Int): UByte = toByte().rotateLeft(bitCount).toUByte()\n\n/**\n * Rotates the binary representation of this [UByte] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [UByte.SIZE_BITS] (8) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 8)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.rotateRight(bitCount: Int): UByte = toByte().rotateRight(bitCount).toUByte()\n\n/**\n * Counts the number of set bits in the binary representation of this [UShort] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.countOneBits(): Int = toUInt().countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [UShort] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.countLeadingZeroBits(): Int = toShort().countLeadingZeroBits()\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [UShort] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.countTrailingZeroBits(): Int = toShort().countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [UShort] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.takeHighestOneBit(): UShort = toInt().takeHighestOneBit().toUShort()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [UShort] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.takeLowestOneBit(): UShort = toInt().takeLowestOneBit().toUShort()\n\n\n/**\n * Rotates the binary representation of this [UShort] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [UShort.SIZE_BITS] (16) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 16)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class,

ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.rotateLeft(bitCount: Int): UShort = toShort().rotateLeft(bitCount).toUShort()\n\n/**\n * Rotates the binary representation of this [UShort] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant
 bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [UShort.SIZE_BITS] (16) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 16)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.rotateRight(bitCount: Int): UShort = toShort().rotateRight(bitCount).toUShort()\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.internal\n\n// (a - b) mod c\nprivate fun differenceModulo(a: UInt, b: UInt, c: UInt): UInt {\n   val ac = a % c\n   val bc = b % c\n   return if (ac >= bc) ac - bc
 else ac - bc + c\n}\n\nprivate fun differenceModulo(a: ULong, b: ULong, c: ULong): ULong {\n   val ac = a % c\n   val bc = b % c\n   return if (ac >= bc) ac - bc else ac - bc + c\n}\n\n/**\n * Calculates the final element of a bounded arithmetic progression, i.e. the last element of the progression which is in the range\n * from [start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative\n * [step].\n *\n * No validation on passed parameters is performed. The given parameters should satisfy the condition:\n *\n * - either `step > 0` and `start <= end`,\n * - or `step < 0` and `start >= end`.\n *\n * @param start first element of the progression\n * @param end ending bound for the progression\n * @param step increment, or difference of successive elements in the progression\n * @return the final element of the progression\n * @suppress\n */\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal fun getProgressionLastElement(start: UInt, end: UInt, step: Int):
 UInt = when {\n   step > 0 -> if (start >= end) end else end - differenceModulo(end, start, step.toUInt())\n   step < 0 -> if (start <= end) end else end + differenceModulo(start, end, (-step).toUInt())\n   else -> throw kotlin.IllegalArgumentException(\"Step is zero.\")\n}\n\n/**\n * Calculates the final element of a bounded arithmetic progression, i.e. the last element of the progression which is in the range\n * from [start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative\n * [step].\n *\n * No validation on passed parameters is performed. The given parameters should satisfy the condition:\n *\n * - either `step > 0` and `start <= end`,\n * - or `step < 0` and `start >= end`.\n *\n * @param start first element of the progression\n * @param end ending bound for the progression\n * @param step increment, or difference of successive elements in the progression\n * @return the final element of the progression\n * @suppress\n */\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal
 fun getProgressionLastElement(start: ULong, end: ULong, step: Long): ULong = when {\n   step > 0 -> if (start >= end) end else end - differenceModulo(end, start, step.toULong())\n   step < 0 -> if (start <= end) end else end + differenceModulo(start, end, (-step).toULong())\n   else -> throw kotlin.IllegalArgumentException(\"Step is zero.\")\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"UStringsKt\") // string representation of unsigned numbers\n\npackage kotlin.text\n\n/**\n * Returns a string representation of this [Byte] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n//@kotlin.internal.InlineOnly\npublic
 /*inline*/ fun UByte.toString(radix: Int): String = this.toInt().toString(radix)\n\n/**\n * Returns a string representation of this [Short] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n//@kotlin.internal.InlineOnly

\npublic /*inline*/ fun UShort.toString(radix: Int): String = this.toInt().toString(radix)\n\n\n/**\n * Returns a string representation of this [Int] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n//@kotlin.internal.InlineOnly
\npublic /*inline*/ fun UInt.toString(radix: Int): String = this.toLong().toString(radix)\n\n/**\n * Returns a string representation of this [Long] value in the specified [radix].\n
 *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
ULong.toString(radix: Int): String = ulongToString(this.toLong(), checkRadix(radix))\n\n\n/**\n * Parses the string as a signed [UByte] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUByte(): UByte = toUByteOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a signed [UByte] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
String.toUByte(radix:
 Int): UByte = toUByteOrNull(radix) ?: numberFormatError(this)\n\n\n/**\n * Parses the string as a [UShort] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUShort(): UShort = toUShortOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a [UShort] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUShort(radix: Int): UShort = toUShortOrNull(radix) ?: numberFormatError(this)\n\n/**\n * Parses the string as an [UInt] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of
 a number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUInt(): UInt = toUIntOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as an [UInt] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
String.toUInt(radix: Int): UInt = toUIntOrNull(radix) ?: numberFormatError(this)\n\n/**\n * Parses the string as a [ULong] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toULong(): ULong = toULongOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a [ULong] number and returns the
 result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
String.toULong(radix: Int): ULong = toULongOrNull(radix) ?: numberFormatError(this)\n\n\n\n\n\n/**\n * Parses the string as an [UByte] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUByteOrNull(): UByte? = toUByteOrNull(radix = 10)\n\n/**\n * Parses the string as an [UByte] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic

```
 fun String.toUByteOrNull(radix: Int): UByte? {\n    val int = this.toUIntOrNull(radix) ?: return null\n    if (int >
UByte.MAX_VALUE) return null\n    return int.toUByte()\n}\n\n/**\n * Parses the string as an [UShort] number
and returns the result\n * or `null` if the string is not a valid representation of a number.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
String.toUShortOrNull(): UShort? = toUShortOrNull(radix = 10)\n\n/**\n * Parses the string as an [UShort] number
and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws
IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
String.toUShortOrNull(radix: Int): UShort? {\n    val int = this.toUIntOrNull(radix) ?: return null\n    if (int >
UShort.MAX_VALUE) return null\n    return int.toUShort()\n}\n\n/**\n
 * Parses the string as an [UInt] number and returns the result\n * or `null` if the string is not a valid representation
of a number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
String.toUIntOrNull(): UInt? = toUIntOrNull(radix = 10)\n\n/**\n * Parses the string as an [UInt] number and
returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws
IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
String.toUIntOrNull(radix: Int): UInt? {\n    checkRadix(radix)\n\n    val length = this.length\n    if (length == 0)
return null\n\n    val limit: UInt = UInt.MAX_VALUE\n    val start: Int\n\n    val firstChar = this[0]\n    if (firstChar
< '0') {\n        if (length == 1 || firstChar != '+') return null\n        start = 1\n    } else {\n
 start = 0\n    }\n\n    val limitForMaxRadix = 119304647u  //  limit / 36\n\n    var limitBeforeMul =
limitForMaxRadix\n    val uradix = radix.toUInt()\n    var result = 0u\n    for (i in start until length) {\n        val digit
= digitOf(this[i], radix)\n\n        if (digit < 0) return null\n        if (result > limitBeforeMul) {\n            if
(limitBeforeMul == limitForMaxRadix) {\n                limitBeforeMul = limit / uradix\n\n                if (result >
limitBeforeMul) {\n                    return null\n                }\n            } else {\n                return null\n            }\n
}\n\n        result *= uradix\n\n        val beforeAdding = result\n        result += digit.toUInt()\n        if (result <
beforeAdding) return null // overflow has happened\n    }\n\n    return result\n}\n\n/**\n * Parses the string as an
[ULong] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic
 fun String.toULongOrNull(): ULong? = toULongOrNull(radix = 10)\n\n/**\n * Parses the string as an [ULong]
number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws
IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
String.toULongOrNull(radix: Int): ULong? {\n    checkRadix(radix)\n\n    val length = this.length\n    if (length ==
0) return null\n\n    val limit: ULong = ULong.MAX_VALUE\n    val start: Int\n\n    val firstChar = this[0]\n    if
(firstChar < '0') {\n        if (length == 1 || firstChar != '+') return null\n        start = 1\n    } else {\n        start = 0\n
}\n\n\n    val limitForMaxRadix = 512409557603043100uL  //  limit / 36\n\n    var limitBeforeMul =
limitForMaxRadix\n    val uradix = radix.toULong()\n    var result = 0uL\n
    for (i in start until length) {\n        val digit = digitOf(this[i], radix)\n\n        if (digit < 0) return null\n        if (result
> limitBeforeMul) {\n            if (limitBeforeMul == limitForMaxRadix) {\n                limitBeforeMul = limit /
uradix\n\n                if (result > limitBeforeMul) {\n                    return null\n                }\n            } else {\n
return null\n            }\n        }\n\n        result *= uradix\n\n        val beforeAdding = result\n        result +=
digit.toUInt()\n        if (result < beforeAdding) return null // overflow has happened\n    }\n\n    return
result\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use
of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\npackage kotlin\n\nimport
kotlin.annotation.AnnotationTarget.*\nimport kotlin.internal.RequireKotlin\nimport
 kotlin.internal.RequireKotlinVersionKind\n\n/**\n * Marks the API that is dependent on the experimental unsigned
types, including those types themselves.\n *\n * Usages of such API will be reported as warnings unless an explicit
```

opt-in with\n * the [OptIn] annotation, e.g. `@OptIn(ExperimentalUnsignedTypes::class)`,\n * or with the `-Xopt-in=kotlin.ExperimentalUnsignedTypes` compiler option is given.\n *\n * It's recommended to propagate the experimental status to the API that depends on unsigned types by annotating it with this annotation.\n */\n@Suppress(\"DEPRECATION\")\n@Experimental(level = Experimental.Level.WARNING)\n@RequiresOptIn(level = RequiresOptIn.Level.WARNING)\n@MustBeDocumented\n@Target(CLASS, ANNOTATION_CLASS, PROPERTY, FIELD, LOCAL_VARIABLE, VALUE_PARAMETER, CONSTRUCTOR, FUNCTION, PROPERTY_GETTER, PROPERTY_SETTER, TYPEALIAS)\n@Retention(AnnotationRetention.BINARY)\n@RequireKotlin(\"1.2.50\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\npublic annotation class ExperimentalUnsignedTypes\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"MathKt\")\n\n\npackage kotlin.math\n\n\n\n\n// constants, can't use them from nativeMath as they are not constants there\n\n/** Ratio of the circumference of a circle to its diameter, approximately 3.14159. */\n@SinceKotlin(\"1.2\")\npublic const val PI: Double = 3.141592653589793\n/** Base of the natural logarithms, approximately 2.71828. */\n@SinceKotlin(\"1.2\")\npublic const val E: Double = 2.718281828459045\n\n// region ================ Double Math ==\n\n/** Computes the sine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `sin(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sin(x: Double): Double\n\n/** Computes the cosine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `cos(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun cos(x: Double): Double\n\n/** Computes the tangent of the angle [x] given in radians.\n *\n * Special cases:\n *   - `tan(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun tan(x: Double): Double\n\n/**\n * Computes the arc sine of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `asin(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun asin(x: Double): Double\n\n/**\n * Computes the arc cosine of the value [x];\n * the returned value is an angle in the range from `0.0` to `PI` radians.\n *\n * Special cases:\n *   - `acos(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun acos(x: Double): Double\n\n/**\n * Computes the arc tangent of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `atan(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun atan(x: Double): Double\n\n/**\n * Returns the angle `theta` of the polar coordinates `(r, theta)` that correspond\n * to the rectangular coordinates `(x, y)` by computing the arc tangent of the value [y] / [x];\n * the returned value is an angle in the range from `-PI` to `PI` radians.\n *\n * Special cases:\n *   - `atan2(0.0, 0.0)` is `0.0`\n *   - `atan2(0.0, x)` is `0.0` for `x > 0` and `PI` for `x < 0`\n *   - `atan2(-0.0, x)` is `-0.0` for 'x > 0` and `-PI` for `x < 0`\n *   - `atan2(y, +Inf)` is `0.0` for `0 < y < +Inf` and `-0.0` for '-Inf < y < 0`\n *   - `atan2(y, -Inf)` is `PI` for `0 < y < +Inf` and `-PI` for `-Inf < y < 0`\n *   - `atan2(y, 0.0)` is `PI/2` for `y > 0` and `-PI/2` for `y < 0`\n *   - `atan2(+Inf, x)` is `PI/2` for finite `x`y\n *
  - `atan2(-Inf, x)` is `-PI/2` for finite `x`\n *   - `atan2(NaN, x)` and `atan2(y, NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun atan2(y: Double, x: Double): Double\n\n/**\n * Computes the hyperbolic sine of the value [x].\n *\n * Special cases:\n *   - `sinh(NaN)` is `NaN`\n *   - `sinh(+Inf)` is `+Inf`\n *   - `sinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sinh(x: Double): Double\n\n/**\n * Computes the hyperbolic cosine of the value [x].\n *\n * Special cases:\n *   - `cosh(NaN)` is `NaN`\n *   - `cosh(+Inf|-Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun cosh(x: Double): Double\n\n/**\n * Computes the hyperbolic tangent of the value [x].\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(+Inf)` is `1.0`\n *   - `tanh(-Inf)` is `-1.0`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun tanh(x: Double): Double\n\n/**\n * Computes the inverse hyperbolic sine of the value [x].\n *\n * The returned value is `y` such that `sinh(y)

 == x`.\n *\n * Special cases:\n *   - `asinh(NaN)` is `NaN`\n *   - `asinh(+Inf)` is `+Inf`\n *   - `asinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun asinh(x: Double): Double\n\n/**\n * Computes the inverse hyperbolic cosine of the value [x].\n *\n * The returned value is positive `y` such that `cosh(y) == x`.\n *\n * Special cases:\n *   - `acosh(NaN)` is `NaN`\n *   - `acosh(x)` is `NaN` when `x < 1`\n *   - `acosh(+Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun acosh(x: Double): Double\n\n/**\n * Computes the inverse hyperbolic tangent of the value [x].\n *\n * The returned value is `y` such that `tanh(y) == x`.\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(x)` is `NaN` when `x > 1` or `x < -1`\n *   - `tanh(1.0)` is `+Inf`\n *   - `tanh(-1.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun atanh(x: Double): Double\n\n/**\n * Computes `sqrt(x^2 + y^2)` without intermediate overflow or underflow.\n *\n * Special

 cases:\n *   - returns `+Inf` if any of arguments is infinite\n *   - returns `NaN` if any of arguments is `NaN` and the other is not infinite\n */\n@SinceKotlin(\"1.2\")\npublic expect fun hypot(x: Double, y: Double): Double\n\n/**\n * Computes the positive square root of the value [x].\n *\n * Special cases:\n *   - `sqrt(x)` is `NaN` when `x < 0` or `x` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sqrt(x: Double): Double\n\n/**\n * Computes Euler's number `e` raised to the power of the value [x].\n *\n * Special cases:\n *   - `exp(NaN)` is `NaN`\n *   - `exp(+Inf)` is `+Inf`\n *   - `exp(-Inf)` is `0.0`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun exp(x: Double): Double\n\n/**\n * Computes `exp(x) - 1`.\n *\n * This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `expm1(NaN)` is `NaN`\n *   - `expm1(+Inf)` is `+Inf`\n *   - `expm1(-Inf)` is `-1.0`\n *\n * @see [exp] function.\n */\n@SinceKotlin(\"1.2\")\npublic

 expect fun expm1(x: Double): Double\n\n/**\n * Computes the logarithm of the value [x] to the given [base].\n *\n * Special cases:\n *   - `log(x, b)` is `NaN` if either `x` or `b` are `NaN`\n *   - `log(x, b)` is `NaN` when `x < 0` or `b <= 0` or `b == 1.0`\n *   - `log(+Inf, +Inf)` is `NaN`\n *   - `log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1`\n *   - `log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b > 1`\n *\n * See also logarithm functions for common fixed bases: [ln], [log10] and [log2].\n */\n@SinceKotlin(\"1.2\")\npublic expect fun log(x: Double, base: Double): Double\n\n/**\n * Computes the natural logarithm (base `E`) of the value [x].\n *\n * Special cases:\n *   - `ln(NaN)` is `NaN`\n *   - `ln(x)` is `NaN` when `x < 0.0`\n *   - `ln(+Inf)` is `+Inf`\n *   - `ln(0.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun ln(x: Double): Double\n\n/**\n * Computes the common logarithm (base 10) of the value [x].\n *\n * @see [ln] function for special

 cases.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun log10(x: Double): Double\n\n/**\n * Computes the binary logarithm (base 2) of the value [x].\n *\n * @see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun log2(x: Double): Double\n\n/**\n * Computes `ln(x + 1)`.\n *\n * This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `ln1p(NaN)` is `NaN`\n *   - `ln1p(x)` is `NaN` where `x < -1.0`\n *   - `ln1p(-1.0)` is `-Inf`\n *   - `ln1p(+Inf)` is `+Inf`\n *\n * @see [ln] function\n * @see [expm1] function\n */\n@SinceKotlin(\"1.2\")\npublic expect fun ln1p(x: Double): Double\n\n/**\n * Rounds the given value [x] to an integer towards positive infinity.\n\n * @return the smallest double value that is greater than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `ceil(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic

 expect fun ceil(x: Double): Double\n\n/**\n * Rounds the given value [x] to an integer towards negative infinity.\n\n * @return the largest double value that is smaller than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `floor(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun floor(x: Double): Double\n\n/**\n * Rounds the given value [x] to an integer towards zero.\n *\n * @return the value [x] having its fractional part truncated.\n *\n * Special cases:\n *   - `truncate(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun truncate(x: Double): Double\n\n/**\n * Rounds the given value [x] towards the closest integer with ties rounded towards even integer.\n *\n * Special cases:\n *   - `round(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already

 a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun round(x: Double): Double\n\n/**\n * Returns the absolute value of the given value [x].\n *\n * Special cases:\n *   - `abs(NaN)` is `NaN`\n *\n * @see absoluteValue extension property for [Double]\n */\n@SinceKotlin(\"1.2\")\npublic expect fun abs(x: Double):

Double\n\n/**\n * Returns the sign of the given value [x]:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `sign(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sign(x: Double): Double\n\n\n/**\n * Returns the smaller of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun min(a: Double, b: Double): Double\n\n/**\n * Returns the greater of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun max(a: Double, b: Double): Double\n\n// extensions\n\n/**\n * Raises this value to the power [x].\n *\n * Special cases:\n *   - `b.pow(0.0)` is `1.0`\n *   - `b.pow(1.0) == b`\n *   - `b.pow(NaN)` is `NaN`\n *   - `NaN.pow(x)` is `NaN` for `x != 0.0`\n *   - `b.pow(Inf)` is `NaN` for `abs(b) == 1.0`\n *   - `b.pow(x)` is `NaN` for `b < 0` and `x` is finite and not an integer\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.pow(x: Double): Double\n\n/**\n * Raises this value to the integer power [n].\n *\n * See the other overload of [pow] for details.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.pow(n: Int): Double\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n *   - `NaN.absoluteValue` is `NaN`\n *\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\npublic expect val Double.absoluteValue: Double\n\n/**\n * Returns the sign of this value:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `NaN.sign` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect val Double.sign: Double\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n *\n * If [sign] is `NaN` the sign of the result is undefined.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.withSign(sign: Double): Double\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.withSign(sign: Int): Double\n\n/**\n * Returns the ulp (unit in the last place) of this value.\n *\n * An ulp is a positive distance between this value and the next nearest [Double] value larger in magnitude.\n *\n * Special Cases:\n *   - `NaN.ulp` is `NaN`\n *   - `x.ulp` is `+Inf` when `x` is `+Inf` or `-Inf`\n *   - `0.0.ulp` is `Double.MIN_VALUE`\n */\n@SinceKotlin(\"1.2\")\npublic expect val Double.ulp: Double\n\n/**\n * Returns the [Double] value nearest to this value in direction of positive infinity.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.nextUp(): Double\n\n/**\n * Returns the [Double] value nearest to this value in direction of negative infinity.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.nextDown(): Double\n\n/**\n * Returns the [Double] value nearest to this value in direction from this value towards the value [to].\n *\n * Special cases:\n *   - `x.nextTowards(y)` is `NaN` if either `x` or `y` are `NaN`\n *   - `x.nextTowards(x) == x`\n *\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.nextTowards(to: Double): Double\n\n/**\n * Rounds this [Double] value to the nearest integer and converts the result to [Int].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToInt() == Int.MAX_VALUE` when `x > Int.MAX_VALUE`\n *   - `x.roundToInt() == Int.MIN_VALUE` when `x < Int.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.roundToInt(): Int\n\n/**\n * Rounds this [Double] value to the nearest integer and converts the result to [Long].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToLong() == Long.MAX_VALUE` when `x > Long.MAX_VALUE`\n *   - `x.roundToLong() == Long.MIN_VALUE` when `x < Long.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.roundToLong(): Long\n\n// endregion\n\n\n\n// region ================ Float Math ==\n\n/** Computes the sine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `sin(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sin(x: Float): Float\n\n/** Computes the cosine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `cos(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun cos(x: Float): Float\n\n/** Computes the tangent of the angle [x] given in radians.\n *\n * Special cases:\n *   - `tan(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun tan(x: Float): Float\n\n/**\n * Computes the arc sine of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `asin(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun asin(x: Float): Float\n\n/**\n * Computes the arc cosine of the value

[x];\n * the returned value is an angle in the range from `0.0` to `PI` radians.\n *\n * Special cases:\n *   - `acos(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun acos(x: Float): Float\n\n/**\n * Computes the arc tangent of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `atan(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun atan(x: Float): Float\n\n/**\n * Returns the angle `theta` of the polar coordinates `(r, theta)` that correspond\n * to the rectangular coordinates `(x, y)` by computing the arc tangent of the value [y] / [x];\n * the returned value is an angle in the range from `-PI` to `PI` radians.\n *\n * Special cases:\n *   - `atan2(0.0, 0.0)` is `0.0`\n *   - `atan2(0.0, x)` is `0.0` for `x > 0` and `PI` for `x < 0`\n *   - `atan2(-0.0, x)` is `-0.0` for 'x > 0` and `-PI` for `x < 0`\n *   - `atan2(y, +Inf)` is `0.0` for `0 < y < +Inf` and `-0.0` for '-Inf < y < 0`\n *   - `atan2(y, -Inf)` is `PI` for `0 < y < +Inf` and `-PI` for `-Inf < y < 0`\n *   - `atan2(y, 0.0)` is `PI/2` for `y > 0` and `-PI/2` for `y < 0`\n *   - `atan2(+Inf, x)` is `PI/2` for finite `x`y\n *   - `atan2(-Inf, x)` is `-PI/2` for finite `x`\n *   - `atan2(NaN, x)` and `atan2(y, NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun atan2(y: Float, x: Float): Float\n\n/**\n * Computes the hyperbolic sine of the value [x].\n *\n * Special cases:\n *   - `sinh(NaN)` is `NaN`\n *   - `sinh(+Inf)` is `+Inf`\n *   - `sinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sinh(x: Float): Float\n\n/**\n * Computes the hyperbolic cosine of the value [x].\n *\n * Special cases:\n *   - `cosh(NaN)` is `NaN`\n *   - `cosh(+Inf|-Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun cosh(x: Float): Float\n\n/**\n * Computes the hyperbolic tangent of the value [x].\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(+Inf)` is `1.0`\n *   - `tanh(-Inf)` is `-1.0`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun tanh(x: Float): Float\n\n/**\n * Computes the inverse hyperbolic sine of the value [x].\n *\n * The returned value is `y` such that `sinh(y) == x`.\n *\n * Special cases:\n *   - `asinh(NaN)` is `NaN`\n *   - `asinh(+Inf)` is `+Inf`\n *   - `asinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun asinh(x: Float): Float\n\n/**\n * Computes the inverse hyperbolic cosine of the value [x].\n *\n * The returned value is positive `y` such that `cosh(y) == x`.\n *\n * Special cases:\n *   - `acosh(NaN)` is `NaN`\n *   - `acosh(x)` is `NaN` when `x < 1`\n *   - `acosh(+Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun acosh(x: Float): Float\n\n/**\n * Computes the inverse hyperbolic tangent of the value [x].\n *\n * The returned value is `y` such that `tanh(y) == x`.\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(x)` is `NaN` when `x > 1` or `x < -1`\n *   - `tanh(1.0)` is `+Inf`\n *   - `tanh(-1.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun atanh(x: Float): Float\n\n/**\n * Computes `sqrt(x^2 + y^2)` without intermediate overflow or underflow.\n *\n * Special cases:\n *   - returns `+Inf` if any of arguments is infinite\n *   - returns `NaN` if any of arguments is `NaN` and the other is not infinite\n */\n@SinceKotlin(\"1.2\")\npublic expect fun hypot(x: Float, y: Float): Float\n\n/**\n * Computes the positive square root of the value [x].\n *\n * Special cases:\n *   - `sqrt(x)` is `NaN` when `x < 0` or `x` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sqrt(x: Float): Float\n\n/**\n * Computes Euler's number `e` raised to the power of the value [x].\n *\n * Special cases:\n *   - `exp(NaN)` is `NaN`\n *   - `exp(+Inf)` is `+Inf`\n *   - `exp(-Inf)` is `0.0`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun exp(x: Float): Float\n\n/**\n * Computes `exp(x) - 1`.\n *\n * This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `expm1(NaN)` is `NaN`\n *   - `expm1(+Inf)` is `+Inf`\n *   - `expm1(-Inf)` is `-1.0`\n *\n * @see [exp] function.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun expm1(x: Float): Float\n\n/**\n * Computes the logarithm of the value [x] to the given [base].\n *\n * Special cases:\n *   - `log(x, b)` is `NaN` if either `x` or `b` are `NaN`\n *   - `log(x, b)` is `NaN` when `x < 0` or `b <= 0` or `b == 1.0`\n *   - `log(+Inf, +Inf)` is `NaN`\n *   - `log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1`\n *   - `log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b > 1`\n *\n * See also logarithm functions for common fixed bases: [ln], [log10] and [log2].\n */\n@SinceKotlin(\"1.2\")\npublic expect fun log(x: Float, base: Float): Float\n\n/**\n * Computes the natural logarithm (base `E`) of the value [x].\n *\n * Special cases:\n *   - `ln(NaN)` is `NaN`\n *   - `ln(x)` is `NaN` when `x < 0.0`\n *   - `ln(+Inf)` is `+Inf`\n *   - `ln(0.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun ln(x: Float): Float\n\n/**\n * Computes the common logarithm (base 10) of the value [x].\n *\n * @see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun log10(x: Float): Float\n\n/**\n * Computes the binary logarithm (base 2) of the value [x].\n *\n * @see [ln] function

for special cases.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun log2(x: Float): Float\n\n/**\n * Computes `ln(a + 1)`.\n *\n * This function can be implemented to produce more precise result
for [x] near zero.\n *\n * Special cases:\n *   - `ln1p(NaN)` is `NaN`\n *   - `ln1p(x)` is `NaN` where `x < -1.0`\n *   - `ln1p(-1.0)` is `-Inf`\n *   - `ln1p(+Inf)` is `+Inf`\n *\n * @see [ln] function\n * @see [expm1] function\n */\n@SinceKotlin(\"1.2\")\npublic expect fun ln1p(x: Float): Float\n\n/**\n * Rounds the given value [x] to an integer towards positive infinity.\n\n * @return the smallest Float value that is greater than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `ceil(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun ceil(x: Float): Float\n\n/**\n * Rounds the given value [x] to an integer towards negative infinity.\n\n * @return the largest Float value that is smaller than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `floor(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical
integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun floor(x: Float): Float\n\n/**\n * Rounds the given value [x] to an integer towards zero.\n *\n * @return the value [x] having its fractional part truncated.\n *\n * Special cases:\n *   - `truncate(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun truncate(x: Float): Float\n\n/**\n * Rounds the given value [x] towards the closest integer with ties rounded towards even integer.\n *\n * Special cases:\n *   - `round(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun round(x: Float): Float\n\n\n/**\n * Returns the absolute value of the given value [x].\n *\n * Special cases:\n *   - `abs(NaN)` is `NaN`\n *\n * @see absoluteValue extension property for [Float]\n */\n@SinceKotlin(\"1.2\")\npublic expect fun abs(x: Float): Float\n\n/**\n * Returns the sign of the given
value [x]:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `sign(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sign(x: Float): Float\n\n\n\n/**\n * Returns the smaller of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun min(a: Float, b: Float): Float\n\n/**\n * Returns the greater of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun max(a: Float, b: Float): Float\n\n// extensions\n\n\n/**\n * Raises this value to the power [x].\n *\n * Special cases:\n *   - `b.pow(0.0)` is `1.0`\n *   - `b.pow(1.0) == b`\n *   - `b.pow(NaN)` is `NaN`\n *   - `NaN.pow(x)` is `NaN` for `x != 0.0`\n *   - `b.pow(Inf)` is `NaN` for `abs(b) == 1.0`\n *   - `b.pow(x)` is `NaN` for `b < 0` and `x` is finite and not an integer\n */\n@SinceKotlin(\"1.2\")\npublic
expect fun Float.pow(x: Float): Float\n\n/**\n * Raises this value to the integer power [n].\n *\n * See the other overload of [pow] for details.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Float.pow(n: Int): Float\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n *   - `NaN.absoluteValue` is `NaN`\n *\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\npublic expect val Float.absoluteValue: Float\n\n/**\n * Returns the sign of this value:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `NaN.sign` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect val Float.sign: Float\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n *\n * If [sign] is `NaN` the sign of the result is undefined.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Float.withSign(sign: Float): Float\n\n/**\n * Returns this value with the sign bit same as of the [sign]
value.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Float.withSign(sign: Int): Float\n\n\n/**\n * Rounds this [Float] value to the nearest integer and converts the result to [Int].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToInt() == Int.MAX_VALUE` when `x > Int.MAX_VALUE`\n *   - `x.roundToInt() == Int.MIN_VALUE` when `x < Int.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Float.roundToInt(): Int\n\n/**\n * Rounds this [Float] value to the nearest integer and converts the result to [Long].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToLong() == Long.MAX_VALUE` when `x > Long.MAX_VALUE`\n *   - `x.roundToLong() == Long.MIN_VALUE` when `x < Long.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Float.roundToLong(): Long\n\n\n// endregion\n\n// region

=============== Integer Math ==\n\n\n/**\n * Returns
the absolute value of the given value [n].\n *\n * Special cases:\n *   - `abs(Int.MIN_VALUE)` is
`Int.MIN_VALUE` due to an overflow\n *\n * @see absoluteValue extension property for [Int]\n
*/\n@SinceKotlin(\"1.2\")\npublic expect fun abs(n: Int): Int\n\n/**\n * Returns the smaller of two values.\n
*/\n@SinceKotlin(\"1.2\")\npublic expect fun min(a: Int, b: Int): Int\n\n/**\n * Returns the greater of two values.\n
*/\n@SinceKotlin(\"1.2\")\npublic expect fun max(a: Int, b: Int): Int\n\n/**\n * Returns the absolute value of this
value.\n *\n * Special cases:\n *   - `Int.MIN_VALUE.absoluteValue` is `Int.MIN_VALUE` due to an overflow\n
*\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\npublic expect val Int.absoluteValue: Int\n\n/**\n * Returns
the sign of this value:\n *   - `-1` if the value is negative,\n *   - `0` if the value is zero,\n *   - `1` if the value is
positive\n */\n@SinceKotlin(\"1.2\")\npublic
 expect val Int.sign: Int\n\n\n\n/**\n * Returns the absolute value of the given value [n].\n *\n * Special cases:\n *   -
`abs(Long.MIN_VALUE)` is `Long.MIN_VALUE` due to an overflow\n *\n * @see absoluteValue extension
property for [Long]\n */\n@SinceKotlin(\"1.2\")\npublic expect fun abs(n: Long): Long\n\n/**\n * Returns the
smaller of two values.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun min(a: Long, b: Long): Long\n\n/**\n *
Returns the greater of two values.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun max(a: Long, b: Long):
Long\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n *   -
`Long.MIN_VALUE.absoluteValue` is `Long.MIN_VALUE` due to an overflow\n *\n * @see abs function\n
*/\n@SinceKotlin(\"1.2\")\npublic expect val Long.absoluteValue: Long\n\n/**\n * Returns the sign of this value:\n
*   - `-1` if the value is negative,\n *   - `0` if the value is zero,\n *   - `1` if the value is positive\n
*/\n@SinceKotlin(\"1.2\")\npublic
 expect val Long.sign: Int\n\n\n//
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C,C;MACb,eAAe,CAAC,YAAY,OAAZ,IAAD,IAAwB,CAAxB,I;MACf,IAAI,cAAa,QAAjB,C;QAA2B,M;MAC3
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AGX,+B;MAII,IA2nEO,qBAAQ,CA3nEf,C;QAAe,OAAO,W;MACtB,WAAW,0B;MACN,WAAL,IAAK,C;MAC
L,OAAO,I;K;IAGX,+B;MAII,IAynEO,qBAAQ,CAznEf,C;QAAe,OAAO,W;MACtB,WAAW,0B;MACN,WAAL,I
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AO,W;MACtB,WAAW,0B;MACN,WAAL,IAAK,C;MACL,OAAO,I;K;IAGX,+B;MAII,IAinEO,qBAAQ,CAjnEf,
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V,EAAU,sBAAV,WAAmB,OAAnB,C;UACC,OAAZ,WAAY,EAAO,IAAP,C;;QAEhB,OAAO,W;O;KAfX,C;wG
AkBA,yB;MAAA,oC;MAAA,gD;MAAA,gC;MAAA,oD;QAWoB,UACS,M;QAFzB,YAAY,C;QACZ,wBAAgB,S
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WoB,UACS,M;QAFzB,YAAY,C;QACZ,wBAAgB,SAAhB,gB;UAAgB,cAAA,SAAhB,M;UACI,WAAW,WAAU,
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uFAkBA,yB;MAAA,gD;MAAA,oD;QAIoB,Q;QAAhB,wBAAgB,SAAhB,gB;UAAgB,cAAA,SAAhB,M;UACI,W
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A,gD;MAAA,oD;QAIoB,Q;QAAhB,wBAAgB,SAAhB,gB;UAAgB,cAAA,SAAhB,M;UACI,WAAW,UAAU,OAA
V,C;UACC,OAAZ,WAAY,EAAO,IAAP,C;;QAEhB,OAAO,W;O;KARX,C;0FAWA,yB;MAAA,gD;MAAA,oD;Q
AIoB,Q;QAAhB,wBAAgB,SAAhB,gB;UAAgB,cAAA,SAAhB,M;UACI,WAAW,UAAU,OAAV,C;UACC,OAAZ,
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AP,C;;QAEhB,OAAO,W;O;KARX,C;0FAWA,yB;MAAA,gD;MAAA,oD;QAIoB,Q;QAAhB,wBAAgB,SAAhB,g
B;UAAgB,cAAA,SAAhB,M;UACI,WAAW,UAAU,OAAV,C;UACC,OAAZ,WAAY,EAAO,IAAP,C;;QAEhB,OA
AO,W;O;KARX,C;0FAWA,yB;MAAA,gD;MAAA,oD;QAIoB,Q;QAAhB,wBAAgB,SAAhB,gB;UAAgB,cAAA,S
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On5UX,aPm5UgC,GOn5UhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPg5UA,iB;UACA,IAAK,WAAI,OAAJ,C;;Q
ApOT,OAsOO,W;O;KA/OX,C;sFAYA,yB;MAAA,wE;MAsOA,+D;MAtOA,yC;QASW,kBAAU,oB;QAsOD,Q;Q
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A,yB;MAAA,wE;MA2OA,+D;MA3OA,yC;QASW,kBAAU,oB;QA2OD,Q;QAAhB,iD;UAAgB,cAAhB,e;UACI,U
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A,iB;UACA,IAAK,WAAI,OAAJ,C;;QA9OT,OAgPO,W;O;KAzPX,C;sFAYA,yB;MAAA,wE;MAgPA,+D;MAhP
A,yC;QASW,kBAAU,oB;QAgPD,Q;QAAhB,iD;UAAgB,cAAhB,e;UACI,UAjPmD,WAiPzC,CAAY,OAAZ,C;UO
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AAT,C;YACA,e;;YAEA,c;;UPo9UA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAxPT,OA0PO,W;O;KAnQX,C;sFAYA,
yB;MAAA,wE;MA0PA,+D;MA1PA,yC;QASW,kBAAU,oB;QA0PD,Q;QAAhB,iD;UAAgB,cAAhB,e;UACI,UA3
PqD,WA2P3C,CAAY,OAAZ,C;UOz+UP,U;UADP,YP2+Ue,WO3+UH,WP2+UwB,GO3+UxB,C;UACL,IAAI,aA
AJ,C;YACH,aPy+UuC,gB;YAA5B,WOx+UX,aPw+UgC,GOx+UhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPq+U
A,iB;UACA,IAAK,WAAI,OAAJ,C;;QA7PT,OA+PO,W;O;KAxQX,C;sFAYA,yB;MAAA,wE;MA+PA,+D;MA/P
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O1/UP,U;UADP,YP4/Ue,WO5/UH,WP4/UwB,GO5/UxB,C;UACL,IAAI,aAAJ,C;YACH,aP0/UuC,gB;YAA5B,W
Oz/UX,aPy/UgC,GOz/UhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPs/UA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAlQ
T,OAoQO,W;O;KA7QX,C;sFAYA,yB;MAAA,wE;MAoQA,+D;MApQA,yC;QASW,kBAAU,oB;QAoQD,Q;QAA
hB,iD;UAAgB,cAAhB,e;UACI,UArQuD,WAqQ7C,CAAY,OAAZ,C;UO3gVP,U;UADP,YP6gVe,WO7gVH,WP6
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AAT,C;YACA,e;;YAEA,c;;UPugVA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAvQT,OAyQO,W;O;KAlRX,C;sFAYA,
yB;MAAA,wE;MAyQA,oC;MAAA,+D;MAAA,gC;MAzQA,yC;QASW,kBAAU,oB;QAyQD,Q;QAAhB,iD;UAA
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ACA,e;;YAEA,c;;UPwhVA,iB;UACA,IAAK,WAAI,oBAAJ,C;;QA5QT,OA8QO,W;O;KAvRX,C;sFAYA,yB;MA
AA,wE;MA8QA,+D;MA9QA,yD;QAUW,kBAAU,oB;QA8QD,Q;QAAhB,iD;UAAgB,cAAhB,e;UACI,UA/QiD,
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,IAAK,WAjRyD,cAiRrD,CAAe,OAAf,CAAAJ,C;;QAjRT,OAmRO,W;O;KA7RX,C;sFAaaA,yB;MAAA,wE;MAmR
A,+D;MAnRA,yD;QAUW,kBAAU,oB;QAmRD,Q;QAAhB,iD;UAAgB,cAAhB,e;UACI,UApRiD,WAoRvC,CAA
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,gB;YAA5B,WO/jVX,aP+jVgC,GO/jVhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UP4jVA,iB;UACA,IAAK,WAtRy
D,cAsRrD,CAAe,OAAf,CAAAJ,C;;QAtRT,OAwRO,W;O;KAlSX,C;uFAaaA,yB;MAAA,wE;MAwRA,+D;MAxRA,
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lVP,U;UADP,YPolVe,WOplVH,WPolVwB,GOplVxB,C;UACL,IAAI,aAAJ,C;YACH,aPklVuC,gB;YAA5B,WOjl
VX,aPilVgC,GOjlVhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UP8kVA,iB;UACA,IAAK,WA3RyD,cA2RrD,CAAe,
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U,oB;QA6RD,Q;QAAhB,iD;UAAgB,cAAhB,e;UACI,UA9RiD,WA8RvC,CAAY,OAAZ,C;UOpmVP,U;UADP,Y
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VgC,GOnmVhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPgmVA,iB;UACA,IAAK,WAhSyD,cAgSrD,CAAe,OAAf,
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hC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPknVA,iB;UACA,IAAK,WArSyD,cAqSrD,CAAe,OAAf,CAAAJ,C;;QAr
ST,OAuSO,W;O;KAjTX,C;uFAaaA,yB;MAAA,wE;MAuSA,+D;MAvSA,yD;QAUW,kBAAU,oB;QAuSD,Q;QAAh
B,iD;UAAgB,cAAhB,e;UACI,UAxSiD,WAwSvC,CAAY,OAAZ,C;UOxoVP,U;UADP,YP0oVe,WO1oVH,WP0o
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AT,C;YACA,e;;YAEA,c;;UPooVA,iB;UACA,IAAK,WA1SyD,cA0SrD,CAAe,OAAf,CAAAJ,C;;QA1ST,OA4SO,W
;O;KAtTX,C;uFAaaA,yB;MAAA,wE;MA4SA,+D;MA5SA,yD;QAUW,kBAAU,oB;QA4SD,Q;QAAhB,iD;UAAgB,
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;YAEA,c;;UPspVA,iB;UACA,IAAK,WA/SyD,cA+SrD,CAAe,OAAf,CAAJ,C;;QA/ST,OAiTO,W;O;KA3TX,C;uF
AaA,yB;MAAA,wE;MAiTA,+D;MAjTA,yD;QAUW,kBAAU,oB;QAiTD,Q;QAAhB,iD;UAAgB,cAAhB,e;UACI,
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VA,iB;UACA,IAAK,WApTyD,cAoTrD,CAAe,OAAf,CAAJ,C;;QApTT,OAsTO,W;O;KAhUX,C;uFAaA,yB;MAA
A,wE;MAsTA,oC;MAAA,+D;MAAA,gC;MAtTA,yD;QAUW,kBAAU,oB;QAsTD,Q;QAAhB,iD;UAAgB,cAAhB,
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,c;;UP0rVA,iB;UACA,IAAK,WAzTyD,cAyTrD,CAAe,oBAAf,CAAJ,C;;QAzTT,OA2TO,W;O;KArUX,C;wFAaA,
yB;MAAA,+D;MAAA,sD;QASoB,Q;QAAhB,wBAAgB,SAAhB,gB;UAAgB,cAAA,SAAhB,M;UACI,UAAU,YA
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C,gB;YAA5B,WOn5UX,aPm5UgC,GOn5UhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPg5UA,iB;UACA,IAAK,W
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T,C;YACA,e;;YAEA,c;;UPi6UA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OAAO,W;O;KAdX,C;0FAiBA,yB;MA
AA,+D;MAAA,sD;QASoB,Q;QAAhB,wBAAgB,SAAhB,gB;UAAgB,cAAA,SAAhB,M;UACI,UAAU,YAAY,OA
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CA,e;;YAEA,c;;UPm8UA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OAAO,W;O;KAdX,C;0FAiBA,yB;MAAA,+
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B,C;UACL,IAAI,aAAJ,C;YACH,aPy+UuC,gB;YAA5B,WOx+UX,aPw+UgC,GOx+UhC,EAAS,MAAT,C;YACA,
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/UX,aPy/UgC,GOz/UhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPs/UA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,O
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,6B;QAC/B,eAAe,SAAS,QAAS,OAAlB,C;QACf,OAAO,QAAS,UAAhB,C;UACI,QAAQ,SAAS,QAAS,OAAlB,C
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CA,e;;YAEA,c;;UyBmkBA,iB;UACA,IAAK,WAAI,eAAe,oBAAf,CAAJ,C;;QAET,OAAO,W;O;KAfX,C;qFAkB
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C,MAAM,gCAAuB,mDAAvB,C;O;KAfV,C;+FAkBA,yB;MAAA,0D;MAAA,qC;QAOI,OAAe,YAAR,iBAAQ,EA

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CV,cAAc,sBAAK,KAAL,C;UACd,IAAI,UAAU,OAAV,CAAJ,C;YAAwB,OAAO,O;;QAEnC,OAAO,I;O;KAbX,
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BjkJhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;U+B8jJA,iB;UACA,IAAK,WAAI,eAAe,OAAf,CAAJ,C;;QAET,OA
AO,W;O;KAlBX,C;2FAqBA,yB;MAAA,+D;MAAA,sE;QAaoB,Q;QAAA,2B;QAAhB,OAAgB,cAAhB,C;UAAgB
,yB;UACZ,UAAU,YAAY,OAAZ,C;U/BvlJP,U;UADP,Y+BylJe,W/BzlJH,W+BylJwB,G/BzlJxB,C;UACL,IAAI,a

AAJ,C;YACH,a+BulJuC,gB;YAA5B,W/BtlJX,a+BslJgC,G/BtlJhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;U+BmlJA
,iB;UACA,IAAK,WAAI,eAAe,OAAf,CAAJ,C;;QAET,OAAO,W;O;KAlBX,C;2FAqBA,yB;MAAA,+D;MAAA,sE
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,Y+B8mJe,W/B9mJH,W+B8mJwB,G/B9mJxB,C;UACL,IAAI,aAAJ,C;YACH,a+B4mJuC,gB;YAA5B,W/B3mJX,
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,gE;MpBjoTA,iB;MoBioTA,8C;QAWI,WpBtoTO,MAAO,KoBsoTG,cpBtoTH,EoBsoTS,KAAM,OpBtoTf,C;QoB
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,CAAV,EAAmB,MAAM,CAAN,CAAnB,CAAJ,C;;QAET,OAAO,I;O;KAhBX,C;+EAmBA,yB;MAAA,gE;MpBp
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O,I;K;IAxEX,kC;MAyFoB,gB;MAHhB,gBAAgB,c;MAChB,WAAW,iBpB/yTJ,MAAO,KoB+yTsB,wBA9EzB,K
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,kBADR,M;MAAA,U;MAAA,2C;QAAA,e;;QAES,gBADD,2CAAQ,yCAAR,gDAAwD,IAAxD,6BAAiE,I;QACz
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EI,6B;MACA,gC;MAKuB,UAAT,MAAS,EAAT,MAAS,EAAT,M;MAFV,eAAe,kE;MACf,iBAAiB,eAAS,GAAT,
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DAC9C,mB;MAAgD,OAAA,gBAAY,gBAAS,OAAT,C;K;mDAC5D,iB;MACI,oCAAa,2BAAkB,KAAlB,EAAyB,
SAAzB,C;MACb,OAAO,6BAAY,KAAZ,C;K;qDAEX,mB;MAES,Q;MAAL,IAAI,eAAC,0EAAD,OAAJ,C;QAAg
C,OAAO,E;MACvC,OxCsrBO,UwCtrBA,gBxCsrBR,QAAQ,EwCtrBoB,O3EgOF,KmCsdlB,C;K;yDwCprBX,mB;
MAES,Q;MAAL,IAAI,eAAC,0EAAD,OAAJ,C;QAAgC,OAAO,E;MACvC,OxCy6BO,cwCz6BA,gBxCy6BR,QA
AQ,EwCz6BwB,O3E2NN,KmC8sBlB,C;K;;IwC/7BnB,6B;MAMI,4C;K;IA2BO,6C;MAAA,8B;MAAS,uB;K;8FA
CW,Y;MAAQ,OAAA,gBAAY,K;K;+CAC3C,Y;MAAkC,OAAA,gBAAY,U;K;sDAC9C,mB;MAAiD,OAAA,gBA
AY,gBAAS,OAAT,C;K;mDAC7D,iB;MACI,oCAAa,2BAAkB,KAAlB,EAAyB,SAAzB,C;MACb,OAAO,6BAAY,
KAAZ,C;K;qDAEX,mB;MAES,Q;MAAL,IAAI,eAAC,0EAAD,QAAJ,C;QAAiC,OAAO,E;MACxC,OxCqqBO,U
wCrqBA,gBxCqqBR,QAAQ,EwCrqBoB,O3DgNA,KmBqdpB,C;K;yDwCnqBX,mB;MAES,Q;MAAL,IAAI,eAAC
,0EAAD,QAAJ,C;QAAiC,OAAO,E;MACxC,OxCw5BO,cwCx5BA,gBxCw5BR,QAAQ,EwCx5BwB,O3D2MJ,K
mB6sBpB,C;K;;IwC96BnB,6B;MAMI,4C;K;IA2BO,6C;MAAA,8B;MAAS,uB;K;8FACW,Y;MAAQ,OAAA,gBA
AY,K;K;+CAC3C,Y;MAAkC,OAAA,gBAAY,U;K;sDAC9C,mB;MAAiD,OAAA,gBAAY,gBAAS,OAAT,C;K;m
DAC7D,iB;MACI,oCAAa,2BAAkB,KAAlB,EAAyB,SAAzB,C;MACb,OAAO,6BAAY,KAAZ,C;K;qDAEX,mB;
MAES,Q;MAAL,IAAI,eAAC,0EAAD,QAAJ,C;QAAiC,OAAO,E;MACxC,OxCopBO,UwCppBA,gBxCopBR,QA
AQ,EwCppBoB,O5EkIA,KoCkhBpB,C;K;yDwClpBX,mB;MAES,Q;MAAL,IAAI,eAAC,0EAAD,QAAJ,C;QAAi
C,OAAO,E;MACxC,OxCu4BO,cwCv4BA,gBxCu4BR,QAAQ,EwCv4BwB,O5E6HJ,KoC0wBpB,C;K;;IwC75BnB
,8B;MAMI,4C;K;IA2BO,6C;MAAA,8B;MAAS,uB;K;8FACW,Y;MAAQ,OAAA,gBAAY,K;K;+CAC3C,Y;MAAk
C,OAAA,gBAAY,U;K;sDAC9C,mB;MAAkD,OAAA,gBAAY,gBAAS,OAAT,C;K;mDAC9D,iB;MACI,oCAAa,2
BAAkB,KAAlB,EAAyB,SAAzB,C;MACb,OAAO,6BAAY,KAAZ,C;K;qDAEX,mB;MAES,Q;MAAL,IAAI,eAAC
,0EAAD,SAAJ,C;QAAkC,OAAO,E;MACzC,OxCmoBO,UwCnoBA,gBxCmoBR,QAAQ,EwCnoBoB,O1EkHE,Kk
CihBtB,C;K;yDwCjoBX,mB;MAES,Q;MAAL,IAAI,eAAC,0EAAD,SAAJ,C;QAAkC,OAAO,E;MACzC,OxCs3B
O,cwCt3BA,gBxCs3BR,QAAQ,EwCt3BwB,O1E6GF,KkCywBtB,C;K;;IwC54BnB,8B;MAMI,4C;K;ICtIJ,qC;MAI
I,SAAS,SlD+BiC,I;MkD9B1C,OAAa,CAAN,gBAAc,EAAd,KACU,EAAN,gBAAc,EADlB,KAEI,OAAM,GAFV,
KAGI,KAAK,IAAL,KACC,OAAM,IAAN,KACS,IAAN,gBAAc,IADjB,KAEG,OAAM,IAFT,IAGG,OAAM,IAHT
,IAIG,OAAM,IAJT,IAKG,OAAM,IALT,IAMG,OAAM,KAPV,CAHJ,C;K;;;;mCCTP,gB;;K;;ICAJ,wB;K;;IAIA,w
B;K;;IAIA,wB;K;;IAKiC,uB;MAAC,oB;QAAA,OAA0B,E;MAA1B,gB;K;;IAElC,kB;K;;IAqCqC,sB;MAAC,gB;K
;;IAgCN,4B;MAAC,sB;K;;IAEjC,uB;K;;IA8DmC,4B;MAAC,kB;K;;IAEpC,oB;K;;ICpJA,oB;K;;IAIA,wB;K;;oF7

DLA,qB;MAKqE,uCoCHtB,E;K;iGpCK/C,yB;MAAA,kD;MAAA,4B;QAQsE,mBAAY,SAAZ,C;O;KARtE,C;IAU
A,iC;MAGI,OAAsB,UAAY,QAAvB,KAAmC,SAA9C,GACe,UAAY,UAD3B,GAGI,gBAAgB,UAAhB,C;K;IAG
R,qC;MAEI,YoC1B2C,E;MpC2B3C,eAAe,UAAW,W;MAC1B,OAAO,QAAS,UAAhB,C;QACU,KAAY,MAAK,
QAAS,OAAd,C;MACtB,OAAO,K;K;IAGX,8C;MAQc,Q;MANV,IAAI,KAAM,OAAN,GAAa,UAAW,KAA5B,C;
QACI,OAAO,gBAAgB,UAAhB,C;OAEX,eAAe,UAAW,W;MAC1B,YAAY,C;MACZ,OAAO,QAAS,UAAhB,C;
QACI,MAAM,YAAN,EAAM,oBAAN,UAAiB,QAAS,O;;MAE9B,IAAI,QAAQ,KAAM,OAAlB,C;QACI,MAAM,
KAAN,IAAe,I;OAEnB,OAAO,K;K;IAIX,yB;MAG6C,sBAAY,OAAZ,E;K;wGAE7C,yB;MAAA,+D;MAAA,gC;Q
AI0B,gBAAf,gB;QAAqB,aJW5B,W;QIXA,OJYO,SIZoC,Q;O;KAJ/C,C;yGAOA,yB;MAAA,4E;MAAA,gE;MAA
A,0C;QAII,qBAAqB,QAArB,C;QAC8B,gBAAvB,eAAa,QAAb,C;QAA6B,aJGpC,W;QIHA,OJIO,SIJ4C,Q;O;KA
LvD,C;IASA,wB;MAG2C,oBAAU,OAAV,E;K;sGAE3C,yB;MAAA,uE;MAAA,gC;QAI8B,gBAAnB,oB;QAAyB,
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,yB;MAAA,uE;MAAA,0C;QAIyC,gBAA9B,mBAAoB,QAApB,C;QAAoC,aJtC3C,W;QIsCA,OJrCO,SIqCmD,Q;
O;KAJ9D,C;IAQA,mC;MAOqB,Q;MAAA,kC;MAAjB,iBAAc,CAAd,yB;QACI,sBAAK,KAAL,EAAc,KAAd,C;;
K;IAIR,+B;MAMuD,sBAAQ,4BAAR,C;K;IAEvD,6B;MAIwE,kBAAhB,0B;MAAwB,uB;MAAxB,OJjE7C,W;K;II
mEX,4B;MAQI,gBAAgB,SAAhB,EAAsB,cAAtB,C;K;IAGJ,2C;MAQI,gBAAgB,SAAhB,EAAsB,UAAtB,C;K;IA
GJ,2C;MACI,IAAI,IAAK,KAAL,IAAa,CAAjB,C;QAAoB,M;MAEpB,YAAY,YAAY,IAAZ,C;MACZ,gBAAc,KA
Ad,EAAqB,UAArB,C;MAEA,aAAU,CAAV,MAAkB,KAAM,OAAxB,M;QACI,iBAAK,CAAL,EAAU,MAAM,C
AAN,CAAV,C;;K;IAIR,uC;MACI,OAAO,gBAAkB,IAAlB,O;K;IAGX,iF;MAII,oCAAa,2BAAkB,UAAlB,EAA8B
,QAA9B,EAAwC,MAAO,OAA/C,C;MACb,gBAAgB,WAAW,UAAX,I;MAChB,oCAAa,2BAAkB,iBAAlB,EAAq
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AJ,EAAc,iBAAd,C;;QAExB,IAAI,WAAW,WAAX,IAA0B,qBAAqB,UAAnD,C;UACI,iBAAc,CAAd,UAAsB,SA
AtB,U;YACI,YAAY,oBAAoB,KAApB,IAAZ,IAAyC,OAAO,aAAa,KAAb,IAAP,C;;;UAG7C,mBAAc,YAAY,CA
AZ,IAAd,aAAmC,CAAnC,Y;YACI,YAAY,oBAAoB,OAApB,IAAZ,IAAyC,OAAO,aAAa,OAAb,IAAP,C;;;;K;8G
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A,gC;MAEI,OAAI,SAAJ,GAEI,SAFJ,GAII,SN83BoB,Q;K;IM13B5B,mC;MAEI,IAAI,QAAQ,CAAZ,C;QACI,oB
;OAEJ,OAAO,K;K;IAGX,mC;MAEI,IAAI,QAAQ,CAAZ,C;QACI,oB;OAEJ,OAAO,K;K;IAIX,mC;MAIqD,mB;K
;IAErD,wC;MPzNI,IAAI,EOgOI,YAAY,CPhOhB,CAAJ,C;QACI,cO+NqB,gC;QP9NrB,MAAM,gCAAyB,OAAAQ,
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,C;QAAgB,yB;QACZ,IAAI,eAAI,OAAJ,CAAJ,C;UAAkB,WAAW,I;;MAEjC,OAAO,Q;K;IAKuC,sE;MAAA,qB;
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AAV,C;K;IAKU,sE;MAAA,qB;QAAE,QAAO,gBAAP,mB;O;K;4DAFpD,oB;MAEY,Q;MADR,qB;MACA,OAAo
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AAiC,oC;MACjF,gBAA8B,C;K;8CAM9B,mB;MAMI,qB;MACA,iBAAI,SAAJ,EAAU,OAAV,C;MACA,OAAO,I
;K;mDAGX,2B;MAMc,UACF,M;MANR,oCAAa,4BAAmB,KAAnB,EAA0B,SAA1B,C;MAEb,qB;MACA,aAAa,
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Ad,C;QACA,UAAU,I;;MAEd,OAAO,O;K;0CAGX,Y;MACI,qB;MACA,yBAAY,CAAZ,EAAe,SAAf,C;K;IAKiB,
gE;MAAA,qB;QAAE,OAAM,gBAAN,mB;O;K;sDAFvB,oB;MACI,qB;MACA,OAAO,kBAAU,8CAAV,C;K;IAK
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AIX,Y;MAAqD,iD;K;mDAErD,mB;MAAoD,0BAAQ,OAAR,KAAoB,C;K;kDAExE,mB;MACqB,Q;MAAA,6B;
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sDAGX,mB;MACI,iBAAc,sBAAd,WAA+B,CAA/B,U;QACI,IAAI,wBAAI,KAAJ,GAAc,OAAd,CAAJ,C;UACI,O
AAO,K;;MAGf,OAAO,E;K;iDAGX,Y;MAA6D,iCAAa,CAAb,C;K;yDAC7D,iB;MAAuE,sDAAiB,KAAjB,C;K;o

DAGvE,8B;MAA4E,uCAAQ,IAAR,EAAc,SAAd,EAAyB,OAAzB,C;K;wDAE5E,8B;MAII,eAAe,0BAAa,SAAb,
C;MACf,YAAO,UAAU,SAAV,I;MnEuDX,iBAAc,CAAd,UAAsB,KAAtB,U;QmEtDiB,e;QACA,iB;;K;2CAIjB,iB
;MAMI,IAAI,UAAU,IAAd,C;QAAoB,OAAO,I;MAC3B,IAAI,2BAAJ,C;QAAuB,OAAO,K;MAE9B,OAAO,oCA
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AJ,C;K;wDAGX,Y;MtE5CJ,IAAI,EsE6CU,gBAAQ,EtE7ClB,CAAJ,C;QACI,csE4CwB,sE;QtE3CxB,MAAM,6BA
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MAGmD,wD;MAG3C,oCAAa,4BAAmB,KAAnB,EAA0B,WAAyB,KAAnD,C;MACb,eAAa,K;K;iEAGjB,Y;MA
AsC,sBAAQ,C;K;+DAE9C,Y;MAAgC,mB;K;8DAEhC,Y;MACI,IAAI,CAAC,kBAAL,C;QAAoB,MAAM,6B;MA
E1B,eAAO,mCAAP,EAAO,YAAP,C;MACA,OAAO,wBAAI,WAAJ,C;K;mEAGX,Y;MAAoC,sBAAQ,CAAR,I;K
;+DAEpC,mB;MACI,wBAAI,YAAJ,EAAW,OAAX,C;MACA,mC;MACA,cAAO,E;K;+DAGX,mB;MtElFJ,IAAI,
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BAAI,WAAJ,EAAU,OAAV,C;K;;IAIgB,+D;MAAuF,8B;MAAtF,kB;MAA0C,4B;MAC/D,eAAyB,C;MAGrB,oC
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AvB,C;MACL,mC;K;wDAGJ,iB;MACI,oCAAa,2BAAkB,KAAlB,EAAyB,YAAzB,C;MAEb,OAAO,wBAAK,mB
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;K;2DAE/B,Y;MAA+C,WAAK,iB;K;;;ICxMN,8B;MAAiC,sB;MAwCnF,uBAAoC,I;MA+CpC,yBAA6C,I;K;IAlF
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EAAc,IAAd,C;K;sDAClC,iB;MAA4C,+DAAY,IAAZ,EAAkB,KAAlB,C;K;;IAlB5C,8E;MAAAA,wE;MAAsC,2CA
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yB,OAAAA,0BAAc,OAAO,I;K;2GAC9C,Y;MAAwB,0BAAc,S;K;;sFAL9C,Y;MACI,oBAAoB,oCAAQ,W;MAC5
B,6G;K;0FAOJ,mB;MACI,qB;MACA,IAAI,+CAAY,OAAZ,CAAJ,C;QACI,4BAAwB,cAAO,OAAP,C;QACxB,O
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B,0BAAc,S;K;;wFAL9C,Y;MACI,oBAAoB,oCAAQ,W;MAC5B,+G;K;sIAOmB,Y;MAAQ,OAAA,4BAAwB,K;K
;8FAEvD,Y;MAAsC,4BAAwB,iB;K;;4FAnB1E,Y;MACI,IAAI,8BAAJ,C;QACI,iG;OAoBJ,OAAO,qC;K;gDAGf,e
;MACI,qB;MACA,WAAW,YAAQ,W;MACnB,OAAO,IAAK,UAAZ,C;QACI,YAAY,IAAK,O;QACjB,QAAQ,KA
AM,I;QACd,IAAI,YAAO,CAAP,CAAJ,C;UACI,YAAY,KAAM,M;UAClB,IAAK,S;UACL,OAAO,K;;MAGf,OA
AO,I;K;kDAIX,Y;K;;IC3I+C,8B;MAAiC,oC;K;0CAEhF,iB;MAMI,IAAI,UAAU,IAAd,C;QAAoB,OAAO,I;MAC3
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;wCAKf,Y;MACI,oBAAa,kB;MACb,YAAO,C;K;IAKA,0E;MAAA,oD;MACH,cAAkC,MAAa,MAAK,mCAAL,C
;MAC/C,kBAA4B,qBAAL,WAAK,C;MAC5B,iBAA+B,I;K;iEAE/B,Y;MAAkC,OAAA,eAAS,U;K;8DAE3C,Y;M
AIuB,gB;MAHnB,UAAU,eAAS,O;MACnB,iBAAU,G;MAES,+E;MAAnB,OAAO,iD;K;gEAGX,Y;MAEkC,UAA
9B,M;MAAA,oC;MAA8B,YAAa,c;MjFchD,uB;MAeP,IAfoB,KAehB,QAAJ,C;QACI,cAhByB,0B;QAiBzB,MAA
M,6BAAsB,OAAQ,WAA9B,C;;QAEN,sBAnBgB,K;;MiFde,oBAAO,sFAAP,C;K;;2CAjBnC,Y;MACI,yD;K;IAqB
kD,0F;MAAA,8B;MAAA,oD;K;kHAC9B,Y;MAAQ,uB;K;oHACN,Y;MAAQ,6CAAuB,gBAAvB,C;K;2EAE9B,o
B;MAAwC,OAAA,2BAAuB,aAAI,gBAAJ,EAAS,QAAT,C;K;qEAE/D,Y;MAA+B,OAAA,mCAAY,uBAAc,IAAd
,C;K;qEAC3C,Y;MAAkC,OAAA,mCAAY,uBAAc,IAAd,C;K;mEAC9C,iB;MAA4C,OAAA,mCAAY,qBAAY,IA
AZ,EAAkB,KAAlB,C;K;;gDAR5D,e;MAAsD,iE;K;;;MCItD,sBAOsC,I;MA6CtC,yB;MAOA,4BAAkC,K;;IArIE,s
D;MAZpC,oB;MAYyD,0CAAqC,GAArC,EAA0C,KAA1C,C;MACrD,oBAAuC,I;MACvC,oBAAuC,I;K;wDAEv
C,oB;MACI,WAAmB,iB;MACnB,OAAa,mEAAS,QAAT,C;K;;IAIrB,wC;MAAA,oB;MAA+B,8C;K;IAE3B,sD;M
AAA,oB;MACI,cACsC,I;MAEtC,cACsC,I;MAGlC,cAAO,iC;K;6DAIX,Y;MACI,OAAO,gBAAS,I;K;0DAGpB,Y;
MAEI,IAAI,CAAC,cAAL,C;QAAgB,MAAM,6B;MAEtB,cAAc,0B;MACd,cAAO,O;MACa,gBAAb,OAAQ,a;;M
AAf,c/E0DS,S+E1DoB,KAAO,iC/E0DzC,GAAqB,SAArB,GAA+B,I;M+EzD1B,OAAO,O;K;4DAGX,Y;MlFwBR
,IAAI,EkFvBc,eAAQ,IlFuBtB,CAAJ,C;QACI,cAdW,e;QAeX,MAAM,6BAAsB,OAAQ,WAA9B,C;OkFxBE,WA
Ac,iB;MAGP,oCAAP,0BAAO,C;MACP,gCAAI,cAAO,0BAAO,IAAd,C;MAEJ,cAAO,I;K;;iDAIf,mB;MAAyD,M
AAM,qCAA8B,iCAA9B,C;K;6CAC/D,Y;MACI,WAAmB,Q;K;6DAGvB,mB;MAAgE,OAAA,WAAmB,uBAAc,
OAAd,C;K;gDAEnF,Y;MAAwE,qD;K;2DAExE,mB;MACI,qB;MACA,IAAI,iBAAS,OAAT,CAAJ,C;QACI,WAA
mB,cAAO,OAAQ,IAAf,C;QACnB,OAAO,I;OAEX,OAAO,K;K;8FAGY,Y;MAAQ,OAAA,WAAmB,K;K;sDAEl
D,Y;MAAsC,WAAmB,iB;K;;iDAa7D,qB;MlFrBA,IAAI,EkF0BM,0BAAQ,IAAR,IAAgB,0BAAQ,IlF1B9B,CAAJ
,C;QACI,cAdW,e;QAeX,MAAM,6BAAsB,OAAQ,WAA9B,C;OkF0BN,YAAY,mB;MACZ,IAAI,SAAS,IAAb,C;
QACI,sBAAO,S;QACP,yBAAO,S;QACP,yBAAO,S;;QAGK,YAAa,KAAM,a;QlFlBhC,uB;QAeP,IAfoB,KAehB,
QAAJ,C;UACI,gBAhByB,0B;UAiBzB,MAAM,6BAAsB,SAAQ,WAA9B,C;;UAEN,sBAnBgB,K;;QkFkBZ,+B;Q
AEA,yBAAO,K;QACP,yBAAO,K;QAEP,qBAAa,S;QACb,qBAAa,S;;K;+CAIrB,qB;MAII,IAAI,SAAK,aAAL,KA
Ac,SAAlB,C;QAEI,sBAAO,I;;QAEP,IAAI,wBAAS,SAAb,C;UAEI,sBAAO,sB;SAEX,qDAAc,sB;QACd,qDAAc,s
B;;MAElB,yBAAO,I;MACP,yBAAO,I;K;oCA8CX,Y;MAEI,qB;MACA,4BAAa,I;MACb,OAAO,I;K;oCAGX,Y;
MACI,qB;MACA,kBAAI,Q;MACJ,sBAAO,I;K;gDASX,e;MAAmD,OAAA,kBAAI,mBAAY,GAAZ,C;K;kDAEv
D,iB;MACiC,Q;MAAA,0B;MAAA,iB;QAAQ,OAAO,K;OAA5C,WAA6B,I;;QAEzB,IAAI,OAAA,IAAK,MAAL,
EAAc,KAAd,CAAJ,C;UACI,OAAO,I;SAEX,OAAO,cAAA,IAAK,aAAL,C;;MACF,iBAAS,mBAAT,C;MACT,O
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K;0CAE/C,sB;MACI,qB;MAEA,UAAU,kBAAI,WAAI,GAAJ,C;MACd,IAAI,OAAO,IAAX,C;QACI,eAAe,mCA

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AO,I;;QAEP,OAAO,GAAI,gBAAS,KAAT,C;;K;2CAInB,e;MACI,qB;MAEA,YAAY,kBAAI,cAAO,GAAP,C;MA
ChB,IAAI,SAAS,IAAb,C;QACU,sBAAN,KAAM,C;QACN,OAAO,KAAM,M;OAEjB,OAAO,I;K;qFAGmB,Y;M
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GuB,qB;MA9J3B,yB;MA+JQ,sBAAM,gB;MAJV,Y;K;IAOA,iD;MAAA,uD;MAAoD,qB;MAlKxD,yB;MAoKc,Q;
MAAN,sBAAM,+D;MAFV,Y;K;IAKA,kE;MAAA,uD;MAQ8D,eAAM,eAAN,EAAuB,UAAvB,Q;MA/KlE,yB;M
AgLQ,sBAAM,gB;MATV,Y;K;IAYA,sD;MAAA,uD;MAA2C,qBAAK,eAAL,EAAsB,GAAtB,Q;MAA3C,Y;K;IA
EA,+C;MAAA,uD;MAG2C,qB;MAxL/C,yB;MAyLQ,sBAAM,gB;MACN,KAAK,gBAAO,QAAP,C;MALT,Y;K;I
A6EJ,kC;MAKwD,gBAA7C,qBAAyB,eAAzB,C;MAAqD,wB;MAA5D,O/EjMO,S;K;;;oCgFvCP,Y;MAEK,Q;MA
A8B,CAA9B,2EAA8B,S;MAC/B,OAAO,I;K;6CAGX,Y;MAA+C,gBAAI,iB;K;;IAhCnD,wC;MAAA,uD;MAAmD
,eAAM,GAAN,Q;MAPvD,yB;MAOI,Y;K;IAEA,qC;MAAA,uD;MAGuB,eAAM,oBAAN,Q;MAZ3B,yB;MASI,Y;
K;IAKA,+C;MAAA,uD;MAG8C,eAAM,oBAAN,Q;MAjBlD,yB;MAkBQ,qBAAO,QAAP,C;MAJJ,Y;K;IAOA,kE;
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;MAAgD,6B;MAAvD,OhFoBO,S;K;;;;kFiFzEX,uB;MAQI,OAAO,O;K;ICXX,sB;K;mCACI,Y;MACI,mBAAM,IA
AN,C;K;2CAGJ,mB;MACI,mBAAM,OAAN,C;MACA,c;K;iCAKJ,Y;K;;IAKuB,oC;MAA8B,qB;MAA7B,gC;K;2
CACxB,mB;MAEI,oBA+DyC,OA/Dd,OA+Dc,C;MA9DzC,iBAAa,OAAM,aAAN,C;K;;IAIrB,8B;MAEoC,qB;K;i
DAChC,mB;MACI,OAAQ,KAAI,OAAJ,C;K;mDAGZ,mB;MACI,OAAQ,KAAI,OAAJ,C;K;2CAGZ,Y;MACI,OA
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C;K;qCAjC7C,Y;MACI,cAAS,E;K;;IAIjB,sC;MAE4C,yB;K;yDACxC,mB;MACI,QAwByC,OAxB1B,OAwB0B,C
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AU,CxE+J0E,WwE/J9D,CxE+J8D,EwE/J3D,CxE+J2D,C;QwE9JpF,Y;QACA,IAAI,CxE0JiE,WwE1JrD,IAAI,CA
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M,qCAA8B,4CAA9B,C;K;IClGlD,mD;MACI,0B;MASA,gBAA2B,a;K;2FAFvB,Y;MAAQ,OAAA,eAAS,Q;K;oD
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ALP,IAAI,kBAAW,2CAAf,C;QACI,gBAAS,yB;QACT,OAAO,yB;OAEX,aAAa,IAAK,S;MAEd,eAAW,yCAAX,
C;QAAsB,gC;WACtB,0C;QAA4B,MAAM,MAAO,U;;QACjC,a;MAHZ,W;K;;IA7BJ,gD;MAAA,0D;MACyD,6B
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;MAAA,+D;MAAuC,6BAAM,OAAN,Q;MAH3C,iC;MAGI,Y;K;IACA,6D;MAAA,+D;MAAmD,kCAAM,OAAN,
EAAe,KAAf,C;MAJvD,iC;MAII,Y;K;IACA,oD;MAAA,+D;MAAiC,6BAAM,KAAN,Q;MALrC,iC;MAKI,Y;K;Ix
C4CJ,yE;MASI,sC;MAAA,4C;K;IATJ,iGAWY,Y;MAAQ,2B;KAXpB,E;IAAA,0DAaQ,kB;MACI,wBAAW,MAA
X,C;K;IAdZ,sF;IyC5C2E,0C;M1CkKhE,Q;MADP,e0ChKA,M1CgKA,C;MACO,Q0CjKP,M1CiKO,+D;M0ChKX,
W;K;;+FCuHA,gB;MACI,aAAa,IAAb,MAAa,E;MACb,KAAK,MAAL,C;MACA,OAAO,M;K;wFC3HX,yB;MAA
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A,6C;MAAA,sC;QAOyD,OAAK,SAAL,SAAK,EAAY,QAAZ,C;O;KAP9D,C;8EASA,yB;MAAA,6C;MAAA,wC;
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,cAAvB,M;K;;ICCO,6C;MAAA,8B;MAAS,uB;K;8FAClC,Y;MAAQ,OAAA,gBAAY,O;K;mDAE3C,iB;MACI,IA
DoC,KACpC,IAAG,CAAH,IADoC,KACpC,IAAM,sBAAN,C;QAD8B,OACX,gBAAY,MAAK,KAAL,C;;QACvB
,MAAM,8BAA0B,WAAQ,KAAR,6BAAmC,sBAAnC,MAA1B,C;K;;IARtB,8B;MAGoD,4C;K;wECFpD,yB;MA
AA,uC;MAAA,4B;QAOsC,MAAL,SAAK,C;O;KAPtC,C;kFASA,yB;MAAA,iD;MAAA,kC;QAWuD,OAAK,WA
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MyE,gB;K;IAEzE,6B;MAiBa,UAPF,M;MAFP,QAAc,S;MAGV,cAAK,UAAL,U;QACI,mBAAK,UAAL,G;;QACJ
,I/CzBqC,MAAa,Y+CyBvC,C/CzBuC,C+CyBlD,C;UAC6B,8BAAzB,CAAyB,C;;UAGN,UAAlB,uDAAkB,Y;;MA
P3B,a;K;IC9BJ,2B;MAEI,MAAM,yBAAqB,OAArB,C;K;IAGV,sB;MAEI,MAAM,uBAAmB,cAAnB,C;K;IAGV,2
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,8B;MC8CW,kB1GqBiD,oB;M0GM9C,Q;MAAA,OAAK,0B;MAAf,OAAU,cAAV,C;QAAU,mB;QACN,UAAU,s
BAAM,CAAN,C;QACV,kBAAkB,sBAAY,GAAZ,C;QAkFiD,U;QAjFnE,W1GuKJ,a0GvKgB,G1GuKhB,EyG1Oo
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hB,OAAO,G;K;IAGX,+B;MAMgB,Q;MADZ,WAA0B,MAAa,MAAK,KAAL,C;MACvC,wBAAY,IAAZ,gB;QAA
Y,UAAA,IAAZ,M;QACI,IAAU,KAAY,gBAAe,GAAf,CAAtB,C;UACI,UAAK,GAAL,IAAY,MAAM,GAAN,C;;
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ASA,yB;MAAA,iB;MAAA,oB;QAOkD,OAAA,MAAW,KAAI,CAAJ,C;O;KAP7D,C;qEASA,yB;MAAA,iB;MA
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L,C;O;KAT9D,C;uEAWA,yB;MAAA,iB;MAAA,oB;QASmD,OAAA,MAAW,MAAK,CAAL,C;O;KAT9D,C;yEA
WA,yB;MAAA,iB;MAAA,uB;QAkB+D,OAAA,MAAW,OAAM,CAAN,EAAS,CAAT,C;O;KAlB1E,C;uEAoBA,y
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,yB;MAAA,iB;MAAA,oB;QAgBmD,OAAA,MAAW,OAAM,CAAN,C;O;KAhB9D,C;uEAkBA,yB;MAAA,iB;M
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,GAtC+C,MAAW,MAsCb,CAtCa,C;K;qEAyC9D,yB;MAAA,iB;MAAA,oB;QAUkD,OAAA,MAAW,KAAI,CAAJ
,C;O;KAV7D,C;uEAYA,yB;MAAA,iB;MAAA,oB;QAWmD,OAAA,MAAW,MAAK,CAAL,C;O;KAX9D,C;wEA
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AX,C;aACL,C;UAFwE,OAEnE,+B;gBAFmE,OAGhE,iB;;K;IAGZ,oC;MAEU,IAAN,I;MAAAA,QvEhB0C,OuEgB3
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A,yF;K;;IAAA,0C;MAAA,a;aAAA,S;UAAA,+C;aAAA,O;UAAA,6C;gBAAA,8D;;K;;;IAyBmC,sC;MACnC,8B;K
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C;K;mDAE5C,iB;MAI4D,yBAAgB,IAAhB,EAAsB,KAAtB,C;K;;IC/BhE,8B;MAAA,e;MAAA,iB;MAAA,uB;K;I
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;;QAEJ,sBAAO,E;;;MsJvUiD,0B;K;+CAExD,mB;MAA4D,sB;;QtJ2V5D,eAAoB,0BAAa,SAAb,C;QACpB,OAAO
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B;MAAA,+D;MAAA,mB;QAMwD,uB;O;KANxD,C;2FAQA,yB;MAAA,+D;MAAA,mB;QAMoD,uB;O;KANpD,
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B,OAAO,W;K;2FAGX,yB;MAAA,wE;MAAA,uC;QAOW,kBAAY,oB;QAfH,Q;QAAA,OApJoE,iBAAQ,W;QAoJ
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ACJ,gF;MAAA,0D;MACnC,gBAAe,oCAAS,W;K;iEACxB,Y;MACI,OAAO,6CAAY,aAAS,OAArB,C;K;oEAGX,
Y;MACI,OAAO,aAAS,U;K;;8CAPxB,Y;MAAuC,4D;K;qDAWvC,oB;MACI,OAAO,uBAA4B,eAA5B,EAAsC,kB
AAtC,EAAmD,QAAnD,C;K;;IAUf,4D;MAAY,0B;MAAmC,gC;K;IACJ,8F;MAAA,wE;MACnC,gBAAe,2CAAS,
W;MACxB,aAAY,C;K;wEACZ,Y;MAC0C,Q;MAAtC,OAAO,oDAAY,oBAAmB,iBAAnB,EAAmB,yBAAnB,QA
AZ,EAAyC,aAAS,OAAlD,C;K;2EAGX,Y;MACI,OAAO,aAAS,U;K;;qDARxB,Y;MAAuC,mE;K;;IAkB3C,oC;M
AAY,0B;K;IAC6C,wE;MACjD,gBAAe,gCAAS,W;MACxB,aAAY,C;K;6DACZ,Y;MAC2C,Q;MAAvC,OAAO,iB
AAa,oBAAmB,iBAAnB,EAAmB,yBAAnB,QAAb,EAA0C,aAAS,OAAnD,C;K;gEAGX,Y;MACI,OAAO,aAAS,U
;K;;0CARxB,Y;MAAqD,wD;K;;IAmBzD,0D;MACI,4B;MACA,4B;MACA,4B;K;IAEuC,sE;MAAA,gD;MACnC,i
BAAgB,gCAAU,W;MAC1B,iBAAgB,gCAAU,W;K;4DAC1B,Y;MACI,OAAO,sCAAU,cAAU,OAApB,EAA4B,c
AAU,OAAtC,C;K;+DAGX,Y;MACI,OAAO,cAAU,UAAV,IAAuB,cAAU,U;K;;yCARhD,Y;MAAuC,uD;K;;IAc3
C,6D;MACI,0B;MACA,gC;MACA,0B;K;IAEuC,4E;MAAA,sD;MACnC,gBAAe,kCAAS,W;MACxB,oBAAiC,I;K
;+DAEjC,Y;MACI,IAAI,CAAC,2BAAL,C;QACI,MAAM,6B;MACV,OAAO,gCAAe,O;K;kEAG1B,Y;MACI,OA
AO,2B;K;+EAGX,Y;MACQ,Q;MAAJ,IAAI,iEAA2B,KAA/B,C;QACI,oBAAe,I;MAEnB,OAAO,yBAAP,C;QACI
,IAAI,CAAC,aAAS,UAAd,C;UACI,OAAO,K;;UAEP,cAAc,aAAS,O;UACvB,uBAAuB,wCAAS,2CAAY,OAAZ,
CAAT,C;UACvB,IAAI,gBAAiB,UAArB,C;YACI,oBAAe,gB;YACf,OAAO,I;;;MAInB,OAAO,I;K;;4CA9Bf,Y;M
AAuC,0D;K;;IAoC9B,6I;MAAA,wC;MAAA,6B;MAAA,yB;MAAA,4C;MAAA,kD;MAAA,gD;MAAA,wB;MAA
A,yB;MAAA,kC;K;;;;yDAAA,Y;;;;;kBAGyC,I;iCAFlC,C;cACI,sD;cAAhB,gB;;;;;cAAA,KAAgB,yBAAhB,C;gBA
AA,gB;;;cAAgB,oC;cACZ,aAAa,6BAAU,oBAAmB,uBAAnB,EAAmB,+BAAnB,QAAV,EAAuC,OAAvC,C;cAC
b,gB;8BAAA,sCAAS,4BAAS,MAAT,CAAT,O;kBAAA,2C;uBAAA,yB;cAAA,Q;;cAFJ,gB;;;cAIJ,W;;;;;;;;;;;;;K;I
ANS,0F;MAAA,yD;uBAAA,iI;YAAA,S;iBAAA,Q;;iBAAA,uB;O;K;IADb,wD;MACI,gBAAS,kDAAT,C;K;;;;IAo
ByB,qD;MACzB,0B;MACA,8B;MACA,0B;MC3TA,IAAI,ED+TQ,qBAAc,CC/TtB,CAAJ,C;QACI,cD8T2B,+CA
A4C,iB;QC7TvE,MAAM,gCAAyB,OAAAQ,WAAjC,C;OAFV,IAAI,EDgUQ,mBAAY,CChUpB,CAAJ,C;QACI,gB
D+TyB,6CAA0C,e;QC9TnE,MAAM,gCAAyB,SAAQ,WAAjC,C;OAFV,IAAI,EDiUQ,mBAAY,iBCjUpB,CAAJ,
C;QACI,gBDgUkC,0DAAuD,eAAvD,WAAmE,iB;QC/TrG,MAAM,gCAAyB,SAAQ,WAAjC,C;Q;sFDkUa,Y;MA
AQ,yBAAW,iBAAX,I;K;yCAE/B,a;MAAyC,OAAI,KAAK,YAAT,GAAgB,eAAhB,GAAqC,gBAAY,eAAZ,EAAs
B,oBAAa,CAAb,IAAtB,EAAsC,eAAtC,C;K;yCAC9E,a;MAAyC,OAAI,KAAK,YAAT,GAAgB,IAAhB,GAA0B,g
BAAY,eAAZ,EAAsB,iBAAtB,EAAkC,oBAAa,CAAb,IAAlC,C;K;IAEzC,8D;MAAA,wC;MAEtB,gBAAe,2BAAS
,W;MACxB,gBAAe,C;K;0DAEf,Y;MAEI,OAAO,gBAAW,kCAAX,IAAyB,aAAS,UAAzC,C;QACI,aAAS,O;QAC
T,qC;;K;2DAIR,Y;MACI,a;MACA,OAAQ,gBAAW,gCAAZ,IAAyB,aAAS,U;K;wDAG7C,Y;MACI,a;MACA,IA
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gCA,uC;MAC1B,0B;MACA,oB;MC3WA,IAAI,ED+WQ,gBAAS,CC/WjB,CAAJ,C;QACI,cD8WsB,yCAAsC,YA
AtC,M;QC7WtB,MAAM,gCAAyB,OAAQ,WAAjC,C;Q;0CDgXV,a;MAAyC,OAAI,KAAK,YAAT,GAAgB,eAAh
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B,IAAhB,GAA0B,iBAAa,eAAb,EAAuB,CAAvB,C;K;IAE5B,gE;MACnC,YAAW,yB;MACX,gBAAe,4BAAS,W;
K;yDAExB,Y;MACI,IAAI,cAAQ,CAAZ,C;QACI,MAAM,6B;MACV,6B;MACA,OAAO,aAAS,O;K;4DAGpB,Y;
MACI,OAAO,YAAO,CAAP,IAAY,aAAS,U;K;;sCAZpC,Y;MAAuC,oD;K;;IAsB3C,gD;MACI,0B;MACA,4B;K;I
AEuC,0E;MAAA,oD;MACnC,gBAAe,iCAAS,W;MACxB,iBAAqB,E;MACrB,gBAAmB,I;K;oEAEnB,Y;MACI,I
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AW,I;UACX,M;UAGR,iBAAY,C;K;8DAGhB,Y;MAMiB,Q;MALb,IAAI,mBAAa,EAAjB,C;QACI,iB;MACJ,IAA
I,mBAAa,CAAjB,C;QACI,MAAM,6B;MACV,aACa,gF;MAGb,gBAAW,I;MACX,iBAAY,E;MACZ,OAAO,M;K;
iEAGX,Y;MACI,IAAI,mBAAa,EAAjB,C;QACI,iB;MACJ,OAAO,mBAAa,C;K;;2CAlC5B,Y;MAAuC,yD;K;;IA2
Cb,uC;MAC1B,0B;MACA,oB;MC5bA,IAAI,ED+bQ,gBAAS,CC/bjB,CAAJ,C;QACI,cD8bsB,yCAAsC,YAAtC,M
;QC7btB,MAAM,gCAAyB,OAAQ,WAAjC,C;Q;0CDgcV,a;MItXO,SJsXmC,eAAQ,CAAR,I;MAAD,OAA4B,KA
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R,I;MAAD,OAA4B,KAAK,CAAT,GAAY,yBAAZ,GAAuC,gBAAY,eAAZ,EAAsB,YAAtB,EAA6B,EAA7B,C;K;
IAEjE,gE;MACnC,gBAAe,4BAAS,W;MACxB,YAAW,yB;K;2DAEX,Y;MAEI,OAAO,YAAO,CAAP,IAAY,aAA
S,UAA5B,C;QACI,aAAS,O;QACT,6B;;K;yDAIR,Y;MACI,a;MACA,OAAO,aAAS,O;K;4DAGpB,Y;MACI,a;MA
CA,OAAO,aAAS,U;K;;sCAnBxB,Y;MAAuC,oD;K;;IA6B3C,gD;MACI,0B;MACA,4B;K;IAGuC,0E;MAAA,oD;
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MACnC,gBAAe,iCAAS,W;MACxB,iBAAqB,E;MACrB,gBAAmB,I;K;gEAEnB,Y;MACI,OAAO,aAAS,UAAhB,
C;QACI,WAAW,aAAS,O;QACpB,IAAI,CAAC,wCAAU,IAAV,CAAL,C;UACI,gBAAW,I;UACX,iBAAY,C;UA
CZ,M;;MAGR,iBAAY,C;K;8DAGhB,Y;MAMqB,Q;MALjB,IAAI,mBAAa,EAAjB,C;QACI,a;MAEJ,IAAI,mBAA
a,CAAjB,C;QACI,aACa,gF;QACb,gBAAW,I;QACX,iBAAY,C;QACZ,OAAO,M;OAEX,OAAO,aAAS,O;K;iEAG
pB,Y;MACI,IAAI,mBAAa,EAAjB,C;QACI,a;MACJ,OAAO,mBAAa,CAAb,IAAkB,aAAS,U;K;;2CAlC1C,Y;MA
AuC,yD;K;;IAuCN,+C;MAAC,sB;MAAiC,gC;K;0CACnE,Y;MAAuC,4BAAiB,aAAO,WAAxB,EAAoC,kBAApC
,C;K;;IAGP,+C;MAAuE,2B;MAAtE,sB;MAAiC,gC;MAClE,kBAAuB,c;K;6CAEvB,Y;MACI,OAAO,aAAO,UAA
d,C;QACI,WAAW,aAAO,O;QAClB,UAAU,mBAAY,IAAZ,C;QAEV,IAAI,eAAS,WAAI,GAAJ,CAAb,C;UACI,
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BAAb,C;MACvD,iBAAgB,qBAAJ,GAAsB,CAAtB,GAA6B,C;K;8DAG7C,Y;MAMiB,Q;MALb,IAAI,iBAAY,CA
AhB,C;QACI,iB;MAEJ,IAAI,mBAAa,CAAjB,C;QACI,MAAM,6B;MACV,aAAa,8D;MAEb,iBAAY,E;MACZ,O
AAO,M;K;iEAGX,Y;MACI,IAAI,iBAAY,CAAhB,C;QACI,iB;MACJ,OAAO,mBAAa,C;K;;2CAxB5B,Y;MAAuC
,yD;K;;IA6B3C,kC;MAWI,OAAW,iDAAJ,GAAwC,SAAxC,GAAkD,4BAAwB,SAAxB,C;K;IAelB,uD;MAAA,q
B;QAAE,6B;O;K;IAX7C,wC;MAWI,OAA2D,cAApD,sBAAkB,YAAlB,EAAgC,qCAAhC,CAAoD,C;K;IAqBrC,i
D;MAAA,mB;QAAE,mB;O;K;IAlB5B,gD;MAeI,OAAI,YAAJ,GACI,2BADJ,GAGI,sBAAkB,+BAAlB,EAA4B,Y
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A,2D;MAAA,mB;QAGgD,qB;O;KAHhD,C;IAKA,+B;MAC2D,OAAS,aAAT,QAAS,EAAa,eAAQ,YAAY,QAAS,
OAArB,CAAR,CAAb,C;K;2FAEpE,yB;MAAA,uE;MAAA,mB;QAMwD,2B;O;KANxD,C;IAQA,iC;MAKmE,OA
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qB,MAAM,OAAN,CAArB,GAAyC,U;K;IAElG,kC;MAQI,OAAgB,gBAAT,QAAS,EAAgB,sBAAhB,C;K;sFAGp
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wFA0BA,yB;Ma1CA,wE;Mb0CA,0C;QatCsC,gBAA3B,mBb4DiB,Qa5DjB,C;Qb4D2B,aS7ElC,W;QT6EA,OS5E
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D,QAAM,cAAN,C;aAC5C,C;UAD4C,OACvC,U;aACL,C;UAF4C,OAEvC,MAAM,oBAAW,OAAjB,C;gBAFuC,
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A,oCAAgB,6EAAhB,C;K;IAKyB,yL;MAAA,wC;MAAA,6B;MAAA,yB;MAAA,wC;MAAA,wC;MAAA,gD;MA
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cA1BJ,iB;;;cAGI,KAAU,yBAAV,C;gBAAA,iB;;;6BAAU,sB;cACN,IAAI,kBAAO,CAAX,C;gBAAgB,oCAAQ,C
```

AAR,I;gBAAW,iB;;;gBAA3B,iB;;;;;cACA,iBAAO,WAAI,YAAJ,C;cACP,IAAI,iBAAO,KAAP,KAAe,uBAAnB,C
;gBACI,iB;gCAAA,iCAAM,iBAAN,O;oBAAA,2C;yBAAA,yB;gBAAA,Q;;gBADJ,iB;;;;;cAEI,IAAI,8BAAJ,C;gB
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CJ,W;;;;;;;;;;;;;;K;IArCyB,sI;MAAA,yD;uBAAA,6K;YAAA,S;iBAAA,Q;;iBAAA,uB;O;K;IAF7B,6E;MACI,IAAI,
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,aAAO,O;QxKtD3H,MAAM,gCAAyB,SAAQ,WAAjC,C;OwK2DV,kBAAuB,aAAO,O;MAC9B,oBAA8B,C;MAE
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AlB,EAAyB,SAAzB,C;MAEA,OAAO,sBAmGmC,CAnG5B,iBAmG6B,GAnGV,KAmGU,IAAD,IAAa,eAnGhD,4
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C,iB;MAGiE,UAQ1C,MAR0C,EAe1C,MAf0C,EAqBtD,M;MAtBP,aACQ,KAAM,OAAN,GAAa,IAAK,KAAtB,G
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gE;QACf,mB;QACA,iB;;MAGJ,MAAM,C;MACN,OAAO,OAAO,IAAd,C;QACI,OAAO,IAAP,IAAe,wBAAO,G
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AyB,OAAzB,C;;UACrB,WAAW,OAAQ,kBAAS,yCAAT,C;UAL3B,OAMY,SAAS,mCAAb,GAAoC,oBAAgB,O
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K;8CAdxB,mB;MAKI,OAAI,YAAY,mCAAhB,GAAuC,IAAvC,GACI,OAAQ,cAAK,IAAL,EAAW,4BAAX,C;K;
;;;;;qDAiCZ,e;MAEyB,Q;MADrB,OACI,OAAA,IAAK,IAAL,EAAY,GAAZ,CAAJ,GAAqB,0EAArB,GAAoC,I;K;
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C;MAEA,4BAAqC,mDAAJ,GAAkD,OAAQ,qBAA1D,GAA0E,O;K;4DAE3G,mB;MAA6C,+BAAS,OAAT,C;K;6
DAC7C,e;MAA8C,eAAQ,IAAR,IAAgB,8BAAe,G;K;;IAGjF,+C;MAW2C,IAAI,IAAJ,EAGV,M;MAL7B,IAAI,+
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AA,4C;QAAA,2B;OAAA,qC;K;IAqB8B,wC;MAC1B,kB;MACA,wB;K;4CAGA,e;MAGQ,Q;MAFJ,UAAU,I;MA
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B,cAAA,SAAhB,M;QAAsB,cAAwB,yBAAa,OAAb,C;;M4Ln9YT,O5Lo9Y9B,W;K;;;I6LtoZX,oE;MA4BI,MAA
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OA,sB;K;;IAOA,4B;K;;IAOA,6C;K;;IA+BuC,wE;MAEnC,uB;QAAAA,UAAsB,E;MACAtB,qB;QAAAA,8B;MACAA,2
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,qC;MAAA,yD;K;;IACA,iE;MAAA,qC;MAAA,yD;K;;IACA,4D;MAAA,qC;MAAA,oD;K;;IAPJ,2C;MAAA,6K;K
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,C;O;KANpD,C;wFAOA,yB;MA+LA,kBAS6D,sB;MAT7D,+B;MgB/LA,oD;MhBAA,wB;QAMsD,OgBAA,ehBk
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B;MC7LA,4C;MAoCA,wB;QAMiD,OAxCG,WAAW,IAAX,EDoMjB,cC5J4B,KD4JlB,KAAL,GAAiB,GAAtB,C
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MgD,OAtDI,WAAW,IAAX,EAsDA,KAtDA,C;O;KAgDpD,C;kGAOA,yB;MAkKA,kBAS6D,sB;MAT7D,+B;Mg
BxNA,8C;MhBsDA,wB;QAMkD,OgB1DI,YhB+NjB,eAAW,oBAAL,SAAK,CAAL,iBAAN,CgB/NiB,EhB0DoB,
KgB1DpB,C;O;KhBoDtD,C;wFAQA,yB;MD4HA,6B;MCxKA,kD;MDuOJ,0B;MAAA,+B;MC3LI,wB;QAQ6C,O
D8LR,eAAW,OC5OI,cAAc,IAAd,ED2KjB,cC7HmB,KD6HT,KAAL,GAAiB,GAAtB,CC3KiB,CAkLf,KD0DW,C
AAX,C;O;KCtMrC,C;wFASA,yB;MCoHA,6B;MDzKA,kD;MCwOJ,4B;MAAA,iC;MDnLI,wB;QAQ+C,OCsLR,g
BAAY,QD7OC,cAAc,IAAd,EC4KjB,cDrHqB,KCqHX,KAAL,GAAiB,KAAtB,CD5KiB,CA4Lb,KCiDY,CAAZ,C;
O;KD9LvC,C;wFASA,yB;MA9DA,kD;MA8DA,wB;QAQ2C,OAhES,cAAc,IAAd,EAgEL,KAhEK,C;O;KAwDpD
,C;wFASA,yB;MA+HA,kBAS6D,sB;MAT7D,+B;MgB/LA,oD;MhBgEA,wB;QAQ6C,OgBlES,ehBkMjB,eAAW,o
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AV,C;O;KANzC,C;gGAQA,yB;MAAA,8C;MAAA,wB;QAE6D,0BAAU,IAAV,EAAgB,KAAhB,C;O;KAF7D,C;
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TrD,mB;QASmC,OAAK,oBAAL,SAAK,CAAL,iB;O;KATnC,C;gFAWA,yB;MDwDJ,0B;MAAA,+B;MCxDI,mB;
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BAS6D,sB;MAT7D,+B;MAAA,mB;QASqC,sBAAW,oBAAL,SAAK,CAAL,iBAAN,C;O;KATrC,C;gFAWA,yB;
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C;O;KATzC,C;wEAUA,yB;MAAA,gD;MAAA,4B;QAS0C,oBAAa,SAAb,C;O;KAT1C,C;IgC3ZA,4B;MACqB,sB
;K;sCAKjB,iB;MAM4C,OhCuXT,SgCvXS,aAAQ,KAAR,ChCuXT,C;K;sCgCrXnC,wB;MAOI,aAAQ,KAAR,IAA
iB,KhCyQY,K;K;iFgCrQH,Y;MAAQ,OAAA,YAAQ,O;K;mCAE9C,Y;MAC6E,8BAAS,YAAT,C;K;IAGvD,mC;
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B,4BAAK,UAA/B,C;K;;;IAFlC,2C;MAAA,0C;QAAA,yB;OAAA,mC;K;;IAYJ,oD;MA4CI,uC;MAtCI,IAAI,SAA
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B,I;K;yCAEvB,Y;MAAgD,mCAAwB,UAAxB,EAA+B,SAA/B,EAAqC,SAArC,C;K;wCAEhD,Y;MAMqC,OAAI,
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S4NkD7C,W5NlDuD,KAAK,G4NkDpD,W5NlD+D,KAAX,IAAf,C;;M4NoDjD,OAAO,K;K;;IC3Hf,yB;K;mCAII,
Y;MAA4B,uB;K;;IAMhC,0B;K;oCAII,Y;MAA4B,wB;K;;IAMhC,wB;K;kCAII,Y;MAA4B,sB;K;;IAMhC,yB;K;m
CAII,Y;MAA4B,uB;K;;I7M5BP,qB;MAErB,6B;MAFwD,gB;K;IAExD,2B;MAAA,+B;MACI,iBAGoC,a;MAEpC,
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,yB;MjBqRA,WAS6D,wB;MAT7D,+B;MiB7PA,gD;MAxBA,wB;QAM0D,OAyBS,aAAa,IAAK,KAAlB,EAA8B,
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MAT7D,+B;MgBjRA,gD;MARA,wB;QAMyD,OASU,aAAa,IAAK,KAAlB,EAA8B,ChBmR5D,eAAW,oBgB5Rw
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mE,oBAAa,IAAK,KAAlB,EAAwB,KAAM,KAA9B,C;O;KAPnE,C;4FASA,yB;MjBoPA,WAS6D,wB;MAT7D,+B
;MiBpPA,wB;QAEuD,OASA,eAAM,IAAK,KAAK,KAAW,CjBkP7C,eAAW,oBiB3PiB,KjB2PtB,KAAK,CAAL,
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,OAMD,eAAM,IAAK,KAAK,KAAW,CfmP7C,eAAW,oBezPkB,KfyPvB,KAAK,CAAL,YAAN,CenP6C,MAAX,
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6D,sB;MAT7D,+B;MgBrPA,wB;QAEuD,OAGC,eAAM,IAAK,KAAK,UAAY,ChByP/C,eAAW,oBgB5PkB,KhB4
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D,+B;MiB1NA,wB;QAEwD,OASA,eAAM,IAAK,KAAK,UAAY,CjBwN/C,eAAW,oBiBjOmB,KjBiOxB,KAAK,
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B;QAEyD,OAMD,eAAM,IAAK,KAAK,UAAY,CfyN/C,eAAW,oBe/NoB,Kf+NzB,KAAK,CAAL,YAAN,CezN+
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,CAAhB,C;O;KAFxD,C;0FAIA,yB;MjB6MA,WAS6D,wB;MAT7D,+B;MiBpMA,8C;MATA,wB;QAEsD,OASA,
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NiB,C;O;KALtD,C;0FAGA,yB;MAAA,8C;MAAA,wB;QAEsD,mBAAY,IAAZ,EAAkB,KAAlB,C;O;KAFtD,C;0F
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D,+B;Me5KA,oD;MAdA,wB;QAMuD,OAcD,eAAe,IAAf,Ef+KjB,eAAW,oBe7LgB,Kf6LrB,KAAK,CAAL,YAA
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1.254 picocontainer 2.15

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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/ComponentLifecycle.java

* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/security/CustomPermissionsURLClassLoader.java
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 /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/ComponentMonitorStrategy.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Stored.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/FactoryInjector.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/references/SimpleReference.java
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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/Provider.java
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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/CompositeInjection.java
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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/Reinjector.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/MultiInjection.java
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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/classname/ClassName.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/classname/ClassLoadingPicoContainer.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/parameters/DefaultConstructorParameter.java
*
 /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/classname/DefaultClassLoadingPicoContainer.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/parameters/NullParameter.java
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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/lifecycle/StartableLifecycleStrategy.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/visitors/MethodCallingVisitor.java
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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/visitors/TraversalCheckingVisitor.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/converters/Converter.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/lifecycle/ReflectionLifecycleStrategy.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/PicoVisitor.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/ComponentAdapter.java

* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/lifecycle/JavaEE5LifecycleStrategy.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/Converters.java
*
 /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/LifecycleStrategy.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/visitors/VerifyingVisitor.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/lifecycle/DefaultLifecycleState.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/lifecycle/CompositeLifecycleStrategy.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/lifecycle/ReflectionLifecycleException.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/visitors/AbstractPicoVisitor.java
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Found in path(s):
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/AnnotatedFieldInjection.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/NamedFieldInjector.java
*
 /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Automated.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Locked.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/NameBinding.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/AdaptingBehavior.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/PropertyApplicator.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/AnnotatedFieldInjector.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-

jar/org/picocontainer/monitors/LifecycleComponentMonitor.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/PicoContainer.java
*
 /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Automating.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/ComponentFactory.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/adapters/AbstractAdapter.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/Injectors.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/Characteristics.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/PropertyApplying.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/annotations/Inject.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/containers/TransientPicoContainer.java
*
 /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/DefaultPicoContainer.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/lifecycle/NullLifecycleStrategy.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/parameters/BasicComponentParameter.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Synchronizing.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/NamedMethodInjector.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/PicoVerificationException.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/PicoException.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/annotations/Cache.java
*
 /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/containers/CommandLinePicoContainer.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/TypedFieldInjection.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/adapters/InstanceAdapter.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/TypedFieldInjector.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/NamedFieldInjection.java

* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/parameters/CollectionComponentParameter.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Locking.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/annotations/Nullable.java
*
 /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Behaviors.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/AbstractInjector.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/BehaviorFactory.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/PicoBuilder.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/InjectionFactory.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/AnnotatedMethodInjector.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/ImplementationHiding.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/HiddenImplementation.java
*
 /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/parameters/ComponentParameter.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/containers/ImmutablePicoContainer.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Synchronized.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/SetterInjector.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/PicoClassNotFoundException.java
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Found in path(s):
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-

jar/org/picocontainer/monitors/NullComponentMonitor.java
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Found in path(s):
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/AbstractBehavior.java
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Found in path(s):
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Decorating.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/FieldDecorating.java
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Found in path(s):
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/monitors/ComponentMonitorHelper.java

* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/monitors/WriterComponentMonitor.java
*
/opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/monitors/ConsoleComponentMonitor.java
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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/containers/AbstractDelegatingMutablePicoContainer.java
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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/PrimitiveMemberChecker.java
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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/BindKey.java

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 *                                                                           *
 * Original code by Paul Hammant & Obie Fernandez & Aslak                    *
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Found in path(s):
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/ComponentMonitor.java
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 * Idea by Rachel Davies, Original code by various                           *
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Found in path(s):
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/containers/CompositePicoContainer.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/MutablePicoContainer.java
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Found in path(s):
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/monitors/AbstractComponentMonitor.java

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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/AbstractBehaviorFactory.java
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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/containers/PropertiesPicoContainer.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/MethodInjector.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Intercepting.java
*
/opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/PicoLifecycleException.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/ForgetfulConstructorInjection.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Intercepted.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/containers/SystemPropertiesPicoContainer.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/containers/CommandLineArgumentsPicoContainer.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/ParameterNameBinding.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/parameters/AbstractParameter.java
*

/opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/SingleMemberInjector.java
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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/monitors/ComposingMonitor.java
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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/parameters/ConstantParameter.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/Parameter.java
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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/Behavior.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-

jar/org/picocontainer/containers/EmptyPicoContainer.java
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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/Disposable.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/Startable.java
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* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/ThreadCached.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Guarding.java
*
/opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/SetterInjection.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/MethodInjection.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/AnnotatedMethodInjection.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/AdaptingInjection.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/injectors/ConstructorInjection.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/ThreadCaching.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-

jar/org/picocontainer/injectors/ConstructorInjector.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Storing.java
*
 /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Caching.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/PicoCompositionException.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/OptInCaching.java
* /opt/cola/permits/1266565840_1644246713.67/0/picocontainer-2-15-sources-jar/org/picocontainer/behaviors/Cached.java

1.255 vault-java-driver 4.1.0

1.255.1 Available under license :

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* <p>Intended for internal use by other classes within the Vault driver library.</p>
*
* <p>JSON parsing functionality. The classes in this package are adapted from Ralf Sternberg's excellent
* "minimal-json" library, available under the MIT License.
* The package names have all been changed, to prevent any conflicts should you happen to be using a different
* version of this library elsewhere in your project dependencies.</p>
*/

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* /opt/cola/permits/1268276294_1644386808.09/0/vault-java-driver-4-1-0-sources-jar/com/bettercloud/vault/json/package-info.java
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* /opt/cola/permits/1268276294_1644386808.09/0/vault-java-driver-4-1-0-sources-jar/com/bettercloud/vault/json/PrettyPrint.java
* /opt/cola/permits/1268276294_1644386808.09/0/vault-java-driver-4-1-0-sources-jar/com/bettercloud/vault/json/WritingBuffer.java
* /opt/cola/permits/1268276294_1644386808.09/0/vault-java-driver-4-1-0-sources-jar/com/bettercloud/vault/json/WriterConfig.java
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jar/com/bettercloud/vault/json/JsonLiteral.java
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* /opt/cola/permits/1268276294_1644386808.09/0/vault-java-driver-4-1-0-sources-jar/com/bettercloud/vault/json/ParseException.java
* /opt/cola/permits/1268276294_1644386808.09/0/vault-java-driver-4-1-0-sources-jar/com/bettercloud/vault/json/JsonNumber.java

1.256 json-path 2.7.0

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* /opt/cola/permits/1271842986_1644941733.33/0/json-path-2-7-0-sources-jar/com/jayway/jsonpath/ParseContext.java

1.257 open-ldap 2.4.44-25.el7_9

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1.258 javax-annotation-api 1.3.2

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* /opt/cola/permits/1278736967_1646032019.89/0/proto-google-common-protos-2-5-1-sources-jar/com/google/rpc/BadRequestOrBuilder.java
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* /opt/cola/permits/1278736967_1646032019.89/0/proto-google-common-protos-2-5-1-sources-jar/com/google/type/MoneyOrBuilder.java
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 /opt/cola/permits/1278736967_1646032019.89/0/proto-google-common-protos-2-5-1-sources-jar/com/google/api/ServiceProto.java
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* /opt/cola/permits/1278736967_1646032019.89/0/proto-google-common-protos-2-5-1-sources-jar/com/google/api/ConsumerProto.java
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* /opt/cola/permits/1278736967_1646032019.89/0/proto-google-common-protos-2-5-1-sources-jar/google/api/config_change.proto

1.260 slf4j 1.7.36

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1.261 jul-to-slf4j 1.7.36

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* /opt/cola/permits/1287386049_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/concurrent/GuardedBy.java
*

/opt/cola/permits/1287386049_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/OverridingMethodsMustInvokeSuper.java
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* /opt/cola/permits/1287386049_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/CompileTimeConstant.java
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* /opt/cola/permits/1287386049_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/IncompatibleModifiers.java
* /opt/cola/permits/1287386049_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/SuppressPackageLocation.java
* /opt/cola/permits/1287386049_1647249958.14/0/error-prone-annotations-2-10-0-sources-jar/com/google/errorprone/annotations/ForOverride.java

1.263 xmlunit-core 2.9.0

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Manifest-Version: 1.0

```
Bundle-License: http://www.apache.org/licenses/LICENSE-2.0.txt
Bundle-SymbolicName: org.xmlunit.xmlunit-core
Built-By: stefan
X-Git-Hash: e8420e80ed5ff60236d09f2950f5e0c5d8fcc59d (Branch main)
Bnd-LastModified: 1643130746894
Specification-Title: org.xmlunit:xmlunit-core
Implementation-Vendor-Id: org.xmlunit
Bundle-DocURL: https://www.xmlunit.org/
Import-Package: javax.xml.bind,javax.xml.bind.annotation,javax.xml.bin
d.util,javax.xml.namespace,javax.xml.parsers,javax.xml.transform,java
x.xml.transform.dom,javax.xml.transform.sax,javax.xml.transform.strea
m,javax.xml.validation,javax.xml.xpath,org.w3c.dom,org.xml.sax,org.xm
l.sax.helpers
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.7))"
Export-Package: org.xmlunit;version="2.9.0",org.xmlunit.builder;versio
n="2.9.0",org.xmlunit.builder.javax_jaxb;version="2.9.0",org.xmlunit.
diff;version="2.9.0",org.xmlunit.input;version="2.9.0",org.xmlunit.tr
 ansform;version="2.9.0",org.xmlunit.util;version="2.9.0",org.xmlunit.
validation;version="2.9.0",org.xmlunit.xpath;version="2.9.0"
Bundle-Name: org.xmlunit:xmlunit-core
Implementation-Title: org.xmlunit:xmlunit-core
Bundle-Description: XMLUnit for Java
Automatic-Module-Name: org.xmlunit
Implementation-Version: 2.9.0
Specification-Vendor: XMLUnit
Bundle-ManifestVersion: 2
Bundle-Vendor: XMLUnit
Tool: Bnd-3.2.0.201605172007
Implementation-Vendor: XMLUnit
Bundle-Version: 2.9.0
X-Compile-Target-JDK: 1.7
build-time: 2022-01-25T17:11:48Z
X-Compile-Source-JDK: 1.7
Created-By: Apache Maven Bundle Plugin
Build-Jdk: 1.8.0_312
Specification-Version: 2.9
Implementation-URL: https://www.xmlunit.org/
```

Found in path(s):
* /opt/cola/permits/1288584608_1647358783.33/0/xmlunit-core-2-9-0-jar/META-INF/MANIFEST.MF
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Found in path(s):
* /opt/cola/permits/1288584608_1647358783.33/0/xmlunit-core-2-9-0-jar/META-INF/maven/org.xmlunit/xmlunit-core/pom.xml

1.264 jcl-over-slf4j 1.7.36

1.264.1 Available under license :

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Found in path(s):
* /opt/cola/permits/1288583223_1647358914.34/0/jcl-over-slf4j-1-7-36-jar/META-INF/maven/org.slf4j/jcl-over-slf4j/pom.xml

1.265 protobuf-java-util 3.19.4

1.265.1 Available under license :

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```
Manifest-Version: 1.0
Automatic-Module-Name: com.google.protobuf.util
Bnd-LastModified: 1643389787246
Build-Jdk: 1.8.0_181-google-v7
Built-By: acozzette
Bundle-Description: Utilities for Protocol Buffers
Bundle-DocURL: https://developers.google.com/protocol-buffers/
Bundle-License: https://opensource.org/licenses/BSD-3-Clause
Bundle-ManifestVersion: 2
Bundle-Name: Protocol Buffers [Util]
Bundle-SymbolicName: com.google.protobuf.util
Bundle-Version: 3.19.4
Created-By: Apache Maven Bundle Plugin
Export-Package: com.google.protobuf.util;version="3.19.4";uses:="com.goo
gle.protobuf,javax.annotation"
Import-Package: com.google.common.base;version="[30.1,31)",com.google.co
mmon.io;version="[30.1,31)",com.google.common.math;version="[30.1,31)",
com.google.common.primitives;version="[30.1,31)",com.google.gson;versio
n="[2.8,3)",com.google.gson.stream;version="[2.8,3)",com.google.protobu
```

f;version="[3.19,4)",javax.annotation;version="[3.0,4)"
Require-Capability:
 osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.7))"
Tool: Bnd-3.0.0.201509101326

Found in path(s):
* /opt/cola/permits/1289964033_1647508689.51/0/protobuf-java-util-3-19-4-jar/META-INF/MANIFEST.MF

1.266 logback-access 1.2.11

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1.267 logback-core 1.2.11

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1.268 error_prone_annotations 2.11.0

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1.269 cyrus-sasl 2.1.26-24.el7_9

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/*
  * This method was rewritten in Java from an intermediate step of the Murmur hash function in
  * http://code.google.com/p/smhasher/source/browse/trunk/MurmurHash3.cpp, which contained the
  * following header:
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  */
```

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jar/com/google/common/base/SmallCharMatcher.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/JdkFutureAdapters.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/xml/XmlEscapers.java
*
 /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/ByteArrayDataInput.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/Cut.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/Callables.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/net/UrlEscapers.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/escape/ArrayBasedEscaperMap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/AbstractService.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/ByteArrayDataOutput.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/html/HtmlEscapers.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/DirectExecutor.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/AbstractFuture.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/Flushables.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/eventbus/EventBus.java
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 /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/LittleEndianDataInputStream.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/Predicates.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/TransformedListIterator.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ForwardingImmutableSet.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/TreeRangeMap.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/AggregateFutureState.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/hash/FarmHashFingerprint64.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/AsyncCallable.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ConsumingQueueIterator.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/Platform.java

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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableMapEntry.java
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*/
/**
* Holder for web specializations of methods of {@code Floats}. Intended to be empty for regular
* version.
*/

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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/ListenableScheduledFuture.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/BaseEncoding.java
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/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableRangeMap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/math/Stats.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/math/PairedStats.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/math/StatsAccumulator.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/xml/package-info.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/SmoothRateLimiter.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/reflect/Parameter.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/FileWriteMode.java

* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/math/PairedStatsAccumulator.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/hash/ChecksumHashFunction.java
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 /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/hash/AbstractByteHasher.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/reflect/ClassPath.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/reflect/TypeToInstanceMap.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/ByteSource.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/reflect/ImmutableTypeToInstanceMap.java
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*/
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* Holder for extra methods of {@code Objects} only in web. Intended to be empty for regular
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*/

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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/RegularImmutableSet.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ListMultimap.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/CompoundOrdering.java
*
 /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ForwardingCollection.java

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*/

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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/SortedMultiset.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/SortedMultisets.java
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*/
/**
 * Returns an array containing all of the elements in the specified collection. This method
 * returns the elements in the order they are returned by the collection's iterator. The returned
 * array is "safe" in that no references to it are maintained by the collection. The caller is
 * thus free to modify the returned
array.
 *
 * <p>This method assumes that the collection size doesn't change while the method is running.
 *
 * <p>TODO(kevinb): support concurrently modified collections?
 *

* @param c the collection for which to return an array of elements
*/

Found in path(s):
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ObjectArrays.java
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*/
/*
* This method was rewritten in Java from an intermediate step of the Murmur hash function in
* http://code.google.com/p/smhasher/source/browse/trunk/MurmurHash3.cpp, which contained the
* following header:
*
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*/

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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/ClosingFuture.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/AbstractBaseGraph.java
*
 /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/BaseGraph.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/JdkBackedImmutableBiMap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/JdkBackedImmutableMap.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/BaseImmutableMultimap.java
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*/
/**
* Holder for web specializations of methods of {@code Shorts}. Intended to be empty for regular
* version.
*/

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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/primitives/ShortsMethodsForWeb.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/Atomics.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/primitives/package-info.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/SortedLists.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/net/package-info.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/annotations/Beta.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ContiguousSet.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/ForwardingBlockingQueue.java

* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/ThreadFactoryBuilder.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/Ascii.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/Equivalence.java
*
 /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/UncaughtExceptionHandlers.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/ListeningExecutorService.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/Monitor.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/Strings.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/primitives/ImmutableIntArray.java
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 /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/hash/AbstractHashFunction.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/primitives/ImmutableDoubleArray.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/primitives/ImmutableLongArray.java
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*/
/**
* Holder for web specializations of methods of {@code Doubles}. Intended to be empty for regular
* version.
*/

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*/
/*
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 *
 * As of 2010/06/11, this method is identical to the (package private) hash method in OpenJDK 7's
 * java.util.HashMap
class.
 */

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*/
/**
  * Not supported. You are attempting to create a map that may contain a non-{@code Comparable}
  * key. Proper calls will resolve to the version in {@code ImmutableSortedMap}, not this dummy
  * version.
  *
  * @throws UnsupportedOperationException always
  * @deprecated Pass a key of type {@code Comparable}
 to use {@link
  *   ImmutableSortedMap#of(Comparable, Object)}.
  */

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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableSortedMapFauxverideShim.java
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jar/com/google/common/hash/package-info.java
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*/
/**
* Outer class that exists solely to let us write {@code Partially.GwtIncompatible} instead of plain
* {@code GwtIncompatible}. This is more accurate for {@link Futures#catching}, which is available
* under GWT but with a slightly different signature.
*
* <p>We can't use {@code PartiallyGwtIncompatible} because then the GWT compiler
wouldn't recognize
* it as a {@code GwtIncompatible} annotation. And for {@code Futures.catching}, we need the GWT
* compiler to autostrip the normal server method in order to expose the special, inherited GWT
* version.
*/

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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/PredecessorsFunction.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/ImmutableGraph.java
*
 /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/MutableGraph.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/RecursiveDeleteOption.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/SuccessorsFunction.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/Graph.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/ImmutableNetwork.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/Graphs.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/TopKSelector.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/MutableNetwork.java
*
 /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/InsecureRecursiveDeleteException.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/hash/ImmutableSupplier.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/ExecutionSequencer.java
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/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/JdkBackedImmutableMultiset.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableAsList.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ComparisonChain.java
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/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableClassToInstanceMap.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/SingletonImmutableList.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/TableCollectors.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/MultiEdgesConnecting.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/Comparators.java
*
/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/AbstractGraphBuilder.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/GraphConnections.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/AbstractDirectedNetworkConnections.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/AbstractNetwork.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/ImmutableValueGraph.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/ValueGraph.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/UndirectedGraphConnections.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/MapRetrievalCache.java
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/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/HashMultimapGwtSerializationDependencies.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/ValueGraphBuilder.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/StandardMutableNetwork.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/NetworkBuilder.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/MutableValueGraph.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/ForwardingValueGraph.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/GraphConstants.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/StandardMutableGraph.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/EndpointPair.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/AbstractValueGraph.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/StandardValueGraph.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/RangeGwtSerializationDependencies.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/MapIteratorCache.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/CollectCollectors.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/MoreCollectors.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableMultisetGwtSerializationDependencies.java
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/opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/graph/StandardNetwork.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/net/InetAddresses.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/FluentIterable.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-

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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/primitives/Chars.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/primitives/Bytes.java
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 /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/primitives/Booleans.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/util/concurrent/ListenableFutureTask.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/escape/Escaper.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/primitives/Shorts.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/internal/Finalizer.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/Stopwatch.java
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 /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/CharMatcher.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/primitives/Floats.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/Converter.java
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*/
/**
* Holder for web specializations of methods of {@code Ints}. Intended to be empty for regular
* version.
*/

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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/eventbus/Subscriber.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/base/MoreObjects.java
*
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/math/Quantiles.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/eventbus/Dispatcher.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/eventbus/SubscriberRegistry.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableSortedMultisetFauxverideShim.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/GeneralRange.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/SortedIterable.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/SortedIterables.java
* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/ImmutableSortedMultiset.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/math/ToDoubleRounder.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/collect/SortedMapDifference.java
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* /opt/cola/permits/1301953781_1649307346.56/0/guava-31-1-jre-sources-1-jar/com/google/common/io/ElementTypesAreNonnullByDefault.java
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1.272 velocity-engine-scripting 2.3

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Bnd-LastModified: 1649085198980
Build-Jdk: 1.8.0_151
Built-By: frantuma
Bundle-Description: Sonatype helps open source projects to set up Mave

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Bundle-License: http://www.apache.org/licenses/LICENSE-2.0.html
Bundle-ManifestVersion: 2
Bundle-Name: swagger-annotations
Bundle-SymbolicName: io.swagger.annotations
Bundle-Version: 1.6.6
Created-By: Apache Maven Bundle Plugin
Export-Package: io.swagger.annotations;version="1.6.6"
implementation-version: 1.6.6
mode: development
package: io.swagger
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.7))"
Tool: Bnd-3.3.0.201609221906
url: https://github.com/swagger-api/swagger-core/modules/swagger-annot
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/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/StandardRowSortedTable.java
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*/
/**
* Holder for web specializations of methods of {@code Shorts}. Intended to be empty for regular
* version.
*/

Found in path(s):
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/ShortsMethodsForWeb.java
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Found in path(s):
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/BaseImmutableMultimap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/IndexedImmutableSet.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingSetMultimap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractSequentialIterator.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/SortedMapDifference.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingSortedSetMultimap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/RowSortedTable.java

* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/UnmodifiableListIterator.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingImmutableCollection.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingListMultimap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/MinMaxPriorityQueue.java

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*/
```

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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/IncidentEdgeSet.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/CompactHashing.java

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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/Runnables.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/eventbus/SubscriberExceptionContext.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/TypeVisitor.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/HashingInputStream.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/WrappingScheduledExecutorService.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/CharSequenceReader.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Utf8.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractTable.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/VerifyException.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/thirdparty/publicsuffix/PublicSuffixType.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/eventbus/SubscriberExceptionHandler.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Verify.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/FilteredMultimapValues.java
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*/
/**
  * Returns an array containing all of the elements in the specified collection. This method

* returns the elements in the order they are returned by the collection's iterator. The returned
* array is "safe" in that no references to it are maintained by the collection. The caller is
* thus free to modify the returned
array.
*
* <p>This method assumes that the collection size doesn't change while the method is running.
*
* <p>TODO(kevinb): support concurrently modified collections?
*
* @param c the collection for which to return an array of elements
*/

Found in path(s):
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ObjectArrays.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/GwtTransient.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Strings.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ThreadFactoryBuilder.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/Atomics.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/SortedLists.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/Monitor.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Ascii.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ForwardingBlockingQueue.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/annotations/package-info.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ListeningExecutorService.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ContiguousSet.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/annotations/Beta.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/package-info.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Equivalence.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/UncaughtExceptionHandlers.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/net/package-info.java
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*/
/**
* Holder for web specializations of methods of {@code Floats}. Intended to be empty for regular
* version.
*/

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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/FloatsMethodsForWeb.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/MapRetrievalCache.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/DirectedNetworkConnections.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/ForwardingNetwork.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/HashMultimapGwtSerializationDependencies.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/UndirectedGraphConnections.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Comparators.java

* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/EdgesConnecting.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/NetworkBuilder.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/StandardMutableValueGraph.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/StandardNetwork.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/ForwardingValueGraph.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/ValueGraphBuilder.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/MapIteratorCache.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/StandardMutableGraph.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/NetworkConnections.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/GraphBuilder.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ArrayListMultimapGwtSerializationDependencies.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/AbstractDirectedNetworkConnections.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/LinkedHashMultimapGwtSerializationDependencies.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/StandardValueGraph.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/GraphConstants.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/RangeGwtSerializationDependencies.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/EndpointPairIterator.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/ImmutableValueGraph.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/EndpointPair.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/GraphConnections.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/UndirectedMultiNetworkConnections.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/ValueGraph.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-

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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/MultiEdgesConnecting.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/MutableValueGraph.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/UndirectedNetworkConnections.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/AbstractGraphBuilder.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/AbstractUndirectedNetworkConnections.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/DirectedMultiNetworkConnections.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/StandardMutableNetwork.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/DirectedGraphConnections.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/AbstractNetwork.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/ElementOrder.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableMultisetGwtSerializationDependencies.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/AbstractGraph.java
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*/
/**
* Holder for extra methods of {@code Objects} only in web. Intended to be empty for regular
* version.
*/

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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-

jar/com/google/common/collect/CompactLinkedHashSet.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/RangeMap.java
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/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingDeque.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/RegularImmutableAsList.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/FilteredMultimap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingImmutableMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/FilteredEntrySetMultimap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/EvictingQueue.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/FilteredEntryMultimap.java
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/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractSortedKeySortedSetMultimap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/FilteredKeyListMultimap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/FilteredSetMultimap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractNavigableMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/UnmodifiableSortedMultiset.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/TransformedIterator.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/TreeTraverser.java
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/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingImmutableSet.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/SortedMultisetBridge.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AllEqualOrdering.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/CompactHashSet.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ForwardingBlockingDeque.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/DescendingMultiset.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/AggregateFutureState.java
*

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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/FarmHashFingerprint64.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/ReaderInputStream.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ConsumingQueueIterator.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/InterruptibleTask.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/CombinedFuture.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/LongAdder.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/cache/LongAdder.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/AtomicDoubleArray.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/cache/Striped64.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/MultiInputStream.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Objects.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/FinalizableSoftReference.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/LineReader.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Charsets.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/FinalizableWeakReference.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/LineBuffer.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Predicate.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ExecutionList.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/ByteStreams.java
*

/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Function.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/Files.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/eventbus/AsyncEventBus.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/AbstractIterator.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/eventbus/DeadEvent.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/eventbus/package-info.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/FinalizablePhantomReference.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/FinalizableReferenceQueue.java
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/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Interners.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Predicates.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/CountingInputStream.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/CharStreams.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Suppliers.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/Primitives.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/AbstractFuture.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/Flushables.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Throwables.java

* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/HashBiMap.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/LittleEndianDataInputStream.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/FinalizableReference.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/EnumMultiset.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/LittleEndianDataOutputStream.java
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 * As of 2010/06/11, this method is identical to the (package private) hash method in OpenJDK 7's
 * java.util.HashMap
 class.
 */

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/**
  * Not supported. <b>You are attempting to create a map that may contain a non-{@code Comparable}
  * key.</b> Proper calls will resolve to the version in {@code ImmutableSortedMap}, not this dummy
  * version.
  *
  * @throws UnsupportedOperationException always
  * @deprecated <b>Pass a key of type {@code Comparable}
 to use {@link
  *     ImmutableSortedMap#of(Comparable, Object)}.</b>
  */
```

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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/BaseEncoding.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/ByteSink.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/StandardSystemProperty.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/ImmutableTypeToInstanceMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/CartesianList.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ServiceManager.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableRangeMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/math/PairedStatsAccumulator.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/AbstractByteHasher.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/Closer.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/math/PairedStats.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/SipHashFunction.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/LongAddable.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/xml/package-info.java

* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/ClassPath.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/CharSink.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/package-info.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/ChecksumHashFunction.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/TypeCapture.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/escape/package-info.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/FilteredKeyMultimap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/FileWriteMode.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/Invokable.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableRangeSet.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/cache/LongAddable.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/CharSource.java
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 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/MutableTypeToInstanceMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/TypeToInstanceMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/math/LinearTransformation.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ListenableScheduledFuture.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/SmoothRateLimiter.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/RateLimiter.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/LongAddables.java
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 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/ByteSource.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/math/StatsAccumulator.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/math/Stats.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-

jar/com/google/common/cache/LongAddables.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/Parameter.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/AbstractInvocationHandler.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ClosingFuture.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/AbstractBaseGraph.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/Traverser.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/graph/BaseGraph.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ObjectCountHashMap.java
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*/
/*
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/SequentialExecutor.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/Shorts.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/Ints.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-

jar/com/google/common/net/InetAddresses.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/Longs.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/MultiReader.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/escape/UnicodeEscaper.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/Doubles.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ListenableFutureTask.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/Chars.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/net/PercentEscaper.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/internal/Finalizer.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/CharMatcher.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/thirdparty/publicsuffix/TrieParser.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Joiner.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/escape/Escaper.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Converter.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/Booleans.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Stopwatch.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/FluentIterable.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/Bytes.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/FileBackedOutputStream.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableSortedMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ArrayTable.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableSetMultimap.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/RegularImmutableSortedSet.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableTable.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ComputationException.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractIndexedListIterator.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/EmptyImmutableSetMultimap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableClassToInstanceMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableEnumSet.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ComparisonChain.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableAsList.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/SingletonImmutableTable.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/RegularImmutableList.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/DiscreteDomain.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableSortedSetFauxverideShim.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingTable.java
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*/
/**
* Outer class that exists solely to let us write {@code Partially.GwtIncompatible} instead of plain
* {@code GwtIncompatible}. This is more accurate for {@link Futures#catching}, which is available
* under GWT but with a slightly different signature.
*
* <p>We can't use {@code PartiallyGwtIncompatible} because then the GWT compiler
wouldn't recognize
* it as a {@code GwtIncompatible} annotation. And for {@code Futures.catching}, we need the GWT
* compiler to autostrip the normal server method in order to expose the special, inherited GWT
* version.
*/

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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ExplicitOrdering.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Multiset.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/LexicographicalOrdering.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractIterator.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractSortedSetMultimap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/UsingToStringOrdering.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingObject.java
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 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractMapEntry.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/package-info.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractMultiset.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Lists.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingListIterator.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/LinkedListMultimap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/NaturalOrdering.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingMultiset.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractBiMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/LinkedHashMultimap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingMultimap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ReverseNaturalOrdering.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractListMultimap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingSortedMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/SetMultimap.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Multisets.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/SingletonImmutableSet.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/MutableClassToInstanceMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/MapDifference.java

* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/NullsLastOrdering.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Ordering.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableSet.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/TreeMultiset.java
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 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Sets.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingCollection.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Synchronized.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ListMultimap.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractMapBasedMultimap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Multimaps.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ArrayListMultimap.java
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 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingSortedSet.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingConcurrentMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/TreeMultimap.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Iterators.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Maps.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ComparatorOrdering.java
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 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/LinkedHashMultiset.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Interner.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-

jar/com/google/common/collect/BiMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Iterables.java
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*/
/*
 * This method was rewritten in Java from an intermediate step of the Murmur hash function in
 * http://code.google.com/p/smhasher/source/browse/trunk/MurmurHash3.cpp, which contained the
 * following header:
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/CommonPattern.java

* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/JdkPattern.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/CommonMatcher.java
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*/
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* following header:
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/MapMakerInternalMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/AbstractExecutionThreadService.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/net/HostSpecifier.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/TypeResolver.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/Platform.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/annotations/GwtCompatible.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/AbstractIdleService.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/cache/ReferenceEntry.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/UnsignedBytes.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ForwardingFuture.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/escape/ArrayBasedCharEscaper.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/ByteProcessor.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/html/HtmlEscapers.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/net/UrlEscapers.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Cut.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/Callables.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/net/InternetDomainName.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/ByteArrayDataInput.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-

jar/com/google/common/escape/ArrayBasedEscaperMap.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/RegularImmutableTable.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/MapMaker.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ForwardingFluentFuture.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/JdkFutureAdapters.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/ForwardingListenableFuture.java
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/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/escape/Escapers.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/DenseImmutableTable.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/cache/CacheBuilder.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/escape/Platform.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/FluentFuture.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/GwtFuturesCatchingSpecialization.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/SimpleTimeLimiter.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/CollectionFuture.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/TypeToken.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/annotations/VisibleForTesting.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/AppendableWriter.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-

jar/com/google/common/util/concurrent/GwtFluentFutureCatchingSpecialization.java
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/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/TimeLimiter.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/util/concurrent/FakeTimeLimiter.java
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*/
/**
* Holder for web specializations of methods of {@code Doubles}. Intended to be empty for regular
* version.
*/

Found in path(s):
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/DoublesMethodsForWeb.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/ParametricNullness.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/math/ParametricNullness.java
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/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/net/ElementTypesAreNonnullByDefault.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/html/ElementTypesAreNonnullByDefault.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/eventbus/ElementTypesAreNonnullByDefault.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/reflect/ParametricNullness.java

* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/escape/ParametricNullness.java
*
 /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/hash/ElementTypesAreNonnullByDefault.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ElementTypesAreNonnullByDefault.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/io/ElementTypesAreNonnullByDefault.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/base/ElementTypesAreNonnullByDefault.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/cache/ElementTypesAreNonnullByDefault.java
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*/
/**
* Holder for web specializations of methods of {@code Ints}. Intended to be empty for regular
* version.
*/

Found in path(s):
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/primitives/IntsMethodsForWeb.java
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* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/SortedIterables.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableSortedMultiset.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/Count.java
*
/opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/RangeSet.java

* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ForwardingSortedMultiset.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/ImmutableSortedMultisetFauxverideShim.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/GeneralRange.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/SortedIterable.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/RegularImmutableSortedMultiset.java
* /opt/cola/permits/1312950193_1650560245.64/0/guava-31-0-1-android-sources-1-jar/com/google/common/collect/AbstractRangeSet.java

1.276 swagger-core 1.6.6

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```
Manifest-Version: 1.0
Bnd-LastModified: 1649085244161
Build-Jdk: 1.8.0_151
Built-By: frantuma
Bundle-Description: Sonatype helps open source projects to set up Mave
n repositories on https://oss.sonatype.org/
Bundle-License: http://www.apache.org/licenses/LICENSE-2.0.html
Bundle-ManifestVersion: 2
Bundle-Name: swagger-core
Bundle-SymbolicName: io.swagger.core
Bundle-Version: 1.6.6
Created-By: Apache Maven Bundle Plugin
Export-Package: io.swagger.converter;version="1.6.6";uses:="com.faster
xml.jackson.annotation,io.swagger.models,io.swagger.models.properties
",io.swagger.core.filter;version="1.6.6";uses:="io.swagger.model,io.s
wagger.models,io.swagger.models.parameters,io.swagger.models.properti
es",io.swagger.config;version="1.6.6";uses:="io.swagger.core.filter,i
o.swagger.models",io.swagger.model;version="1.6.6";uses:="io.swagger.
models",io.swagger.util;version="1.6.6";uses:="com.fasterxml.jackson.
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dule,io.swagger.annotations,io.swagger.models,io.swagger.models.auth,
io.swagger.models.parameters,io.swagger.models.properties",io.swagger
.core;version="1.6.6",io.swagger.core.util;version="1.6.6",io.swagger
.reader;version="1.6.6"
implementation-version: 1.6.6
Import-Package: javax.validation.constraints;version="[1.1,3)",com.fas
terxml.jackson.annotation;version="[2.13,3)",com.fasterxml.jackson.co
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3)",com.fasterxml.jackson.core.util;version="[2.13,3)",com.fasterxml.
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mode: development
package: io.swagger
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.7))"
Tool: Bnd-3.3.0.201609221906
url: https://github.com/swagger-api/swagger-core/modules/swagger-core

Found in path(s):
* /opt/cola/permits/1317016471_1651059595.18/0/swagger-core-1-6-6-jar/META-INF/MANIFEST.MF

1.277 byte-buddy 1.12.9

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1.278 bouncy-castle 1.71

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* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/bind/TypeAdapterRuntimeTypeWrapper.java
*
 /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/bind/CollectionTypeAdapterFactory.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/bind/MapTypeAdapterFactory.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/TypeAdapterFactory.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-

jar/com/google/gson/internal/JsonReaderInternalAccess.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/bind/ReflectiveTypeAdapterFactory.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/bind/TypeAdapters.java
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* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/TypeAdapter.java
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* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/JsonObject.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/JsonArray.java
*
 /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/FieldNamingStrategy.java
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* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/JsonDeserializationContext.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/Excluder.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/FieldNamingPolicy.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/$Gson$Preconditions.java

* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/bind/DefaultDateTypeAdapter.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/JsonSerializationContext.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/JsonParseException.java
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 /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/ObjectConstructor.java
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* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/reflect/TypeToken.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/JsonDeserializer.java
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* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/Primitives.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/GsonBuilder.java
*
 /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/JsonSerializer.java
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* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/InstanceCreator.java
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* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/annotations/JsonAdapter.java
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* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/FieldAttributes.java
*
/opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/JsonParser.java

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a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the

Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

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END OF TERMS AND CONDITIONS

Appendix: How to Apply These Terms to Your New Libraries

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To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>
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<name of author>

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Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

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@subheading Preamble

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For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

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When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative
of the original library. The ordinary
General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the @dfn{Lesser} General Public License because it does @emph{Less} to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the
same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a ``work based on the library'' and a ``work that uses the library''. The former
contains code derived from the library, whereas the latter must be combined with the library in order to run.

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This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called ``this License''). Each licensee is addressed as ``you''.

A ``library'' means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The ``Library'', below, refers to any such software library or work

which has been distributed under these terms. A ``work based on the
Library" means either the Library or any derivative work under
copyright law: that is to say, a work containing the Library or a
portion of it,
either verbatim or with modifications and/or translated
straightforwardly into another language. (Hereinafter, translation is
included without limitation in the term ``modification".)

``Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

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all the notices that refer to this License and to the absence of any
warranty; and distribute a copy of this License along with the
Library.

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You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

@enumerate a
@item
The modified work must itself be a software library.

@item
You must cause the files modified to carry prominent notices

stating that you changed the files and the date of any change.

@item
You must
 cause the whole of the work to be licensed at no
charge to all third parties under the terms of this License.

@item
If a facility in the modified Library refers to a function or a
table of data to be supplied by an application program that uses
the facility, other than as an argument passed when the facility
is invoked, then you must make a good faith effort to ensure that,
in the event an application does not supply such function or
table, the facility still operates, and performs whatever part of
its purpose remains meaningful.

(For example, a function in a library to compute square roots has
a purpose that is entirely well-defined independent of the
application. Therefore, Subsection 2d requires that any
application-supplied function or table used by this function must
be optional: if the application does not supply it, the square
root function must still compute square roots.)
@end enumerate

These requirements apply to the modified work as a whole. If
identifiable sections
 of that work are not derived from the Library,
and can be reasonably considered independent and separate works in
themselves, then this License, and its terms, do not apply to those
sections when you distribute them as separate works. But when you
distribute the same sections as part of a whole which is a work based
on the Library, the distribution of the whole must be on the terms of
this License, whose permissions for other licensees extend to the
entire whole, and thus to each and every part regardless of who wrote
it.

Thus, it is not the intent of this section to claim rights or contest
your rights to work written entirely by you; rather, the intent is to
exercise the right to control the distribution of derivative or
collective works based on the Library.

In addition, mere aggregation of another work not based on the Library
with the Library (or with a work based on the Library) on a volume of
a storage or distribution medium does not bring the other work under
the scope of this
 License.

@item

You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

@item
You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and
2 above provided that you accompany
it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

@item
A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a ``work that uses the Library''. Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a ``work that uses the Library'' with the Library creates an executable that is a derivative of the Library (because
it
contains portions of the Library), rather than a ``work that uses the library''. The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a ``work that uses the Library'' uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not.

Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise,
if the work is a derivative of the Library, you may
distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

@item
As an exception to the Sections above, you may also combine or link a ``work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of
this License. Also, you must do one
of these things:

@enumerate a
@item
Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable ``work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

@item
Use a suitable shared library mechanism for linking with the Library. A
suitable mechanism is one that (1) uses at run time a copy of the
library already present on the user's computer system, rather than
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 and (2) will operate
properly with a modified version of the library, if the user installs
one, as long as the modified version is interface-compatible with the
version that the work was made with.

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Accompany the work with a written offer, valid for at
least three years, to give the same user the materials
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If distribution of the work is made by offering access to copy
from a designated place, offer equivalent access to copy the above
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@item
Verify that the user has already received a copy of these
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@end enumerate

 For an executable, the required form of the ``work that uses the
Library'' must include any data and utility programs needed for
reproducing the executable from it. However, as a special exception,
the materials to be distributed need not include anything that
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normally distributed (in either source or binary form) with the major
components (compiler, kernel, and so on) of the operating system on
which the executable runs, unless that component itself accompanies the
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 It may happen that this requirement contradicts the license
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Accompany the combined library with a copy of the same work
based on the Library,
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facilities. This must be distributed under the terms of the
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Give prominent notice with the combined library of the fact
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@end enumerate

@subheading END OF TERMS AND CONDITIONS

@page

@subheading How to Apply These Terms to Your New Libraries

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To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source
file to most effectively
convey the exclusion of warranty; and each file should have at least the ``copyright'' line and a pointer to where the full notice is found.

```
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Introduction

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# All lines in this file are patterns, including the comment lines; this
# means that e.g. `FTL.TXT' matches all files that have this string in
# the file name (including the path relative to the current directory,
# always starting with `./').
#
# Don't put empty lines into this file!
#
builds/unix/pkg.m4
#
docs/FTL.TXT
docs/GPLv2.TXT
#
include/freetype/internal/fthash.h
#
src/base/fthash.c
src/base/md5.c
src/base/md5.h
#
src/bdf/bdf.c
src/bdf/bdf.h
src/bdf/bdfdrivr.c
src/bdf/bdfdrivr.h
src/bdf/bdferror.h
src/bdf/bdflib.c
src/bdf/module.mk
src/bdf/README
```

src/bdf/rules.mk
#
src/pcf/module.mk
src/pcf/pcf.c
src/pcf/pcf.h
src/pcf/pcfdrivr.c
src/pcf/pcfdrivr.h
src/pcf/pcferror.h
src/pcf/pcfread.c
src/pcf/pcfread.h
src/pcf/pcfutil.c
src/pcf/pcfutil.h
src/pcf/README
src/pcf/rules.mk
#
src/gzip/adler32.c
src/gzip/infblock.c
src/gzip/infblock.h
src/gzip/infcodes.c
src/gzip/infcodes.h
src/gzip/inffixed.h
src/gzip/inflate.c
src/gzip/inftrees.c
src/gzip/inftrees.h
src/gzip/infutil.c
src/gzip/infutil.h
src/gzip/zconf.h
src/gzip/zlib.h
src/gzip/zutil.c
src/gzip/zutil.h
#
src/tools/apinames.c
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Bundle-SymbolicName: org.xmlunit.xmlunit-placeholders
Built-By: stefan
X-Git-Hash: e8420e80ed5ff60236d09f2950f5e0c5d8fcc59d (Branch main)
Bnd-LastModified: 1643130831687
Specification-Title: org.xmlunit:xmlunit-placeholders
Implementation-Vendor-Id: org.xmlunit
Bundle-DocURL: https://www.xmlunit.org/xmlunit-placeholders/
Include-Resource: META-INF/services/org.xmlunit.placeholder.Placeholde
rHandler=src/main/resources/META-INF/services/org.xmlunit.placeholder
.PlaceholderHandler
Import-Package: javax.xml.namespace,org.w3c.dom,org.xmlunit,org.xmluni
t.builder,org.xmlunit.diff,org.xmlunit.util
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.7))"
Export-Package: org.xmlunit.placeholder;version="2.9.0"
Bundle-Name: org.xmlunit:xmlunit-placeholders
Implementation-Title: org.xmlunit:xmlunit-placeholders
Bundle-Description:
 Parent POM for all artifacts of XMLUnit
Automatic-Module-Name: org.xmlunit.placeholder
Implementation-Version: 2.9.0
Specification-Vendor: XMLUnit
Bundle-ManifestVersion: 2
Bundle-Vendor: XMLUnit
Tool: Bnd-3.2.0.201605172007
Implementation-Vendor: XMLUnit
Bundle-Version: 2.9.0
X-Compile-Target-JDK: 1.7
build-time: 2022-01-25T17:11:48Z
X-Compile-Source-JDK: 1.7
Created-By: Apache Maven Bundle Plugin
Build-Jdk: 1.8.0_312
Specification-Version: 2.9
Implementation-URL: https://www.xmlunit.org/xmlunit-placeholders/
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1.288 okhttp 4.10.0

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1.289 txw2 4.0.0

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1.290 jaxb-core 4.0.0

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1.291 istack-commons 4.1.1

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```
Manifest-Version: 1.0
Bnd-LastModified: 1648465920192
Bundle-Description: istack common utility code
Bundle-DocURL: https://www.eclipse.org
Bundle-License: http://www.eclipse.org/org/documents/edl-v10.php
Bundle-ManifestVersion: 2
Bundle-Name: istack common utility code runtime
Bundle-SymbolicName: com.sun.istack.commons-runtime
Bundle-Vendor: Eclipse Foundation
Bundle-Version: 4.1.1
Created-By: Apache Maven Bundle Plugin 5.1.4
Export-Package: com.sun.istack;uses:="jakarta.activation,javax.xml.strea
m,org.xml.sax,org.xml.sax.helpers";version="4.1.1",com.sun.istack.local
ization;version="4.1.1",com.sun.istack.logging;version="4.1.1"
Implementation-Build-Id: 4.1.1 - d6e5d28
Implementation-Vendor: Eclipse Foundation
Implementation-Vendor-Id: com.sun.istack
Import-Package: jakarta.activation;version="[2.1,3)";resolution:=optiona
l,javax.xml.namespace,javax.xml.stream,org.xml.sax,org.xml.sax.helpers
Require-Capability:
 osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=11))"
Tool: Bnd-5.1.1.202006162103
```

Found in path(s):

* /opt/cola/permits/1347861499_1662959328.9923127/0/istack-commons-runtime-4-1-1-jar/META-INF/MANIFEST.MF

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-->
```

Found in path(s):

* /opt/cola/permits/1347861499_1662959328.9923127/0/istack-commons-runtime-4-1-1-jar/META-

INF/maven/com.sun.istack/istack-commons-runtime/pom.xml

1.292 antlr 3.5.3

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*/

/** Templates for building ASTs during normal parsing.
*
*  Deal with many combinations.  Dimensions are:
*  Auto build or rewrite
*    no label, label, list label  (label/no-label handled together)
*    child, root
*    token, set, rule, wildcard
*
```

```
*  The situation is not too bad as rewrite (->) usage makes ^ and
 !
*  invalid. There is no huge explosion of combinations.
*/

@rule.setErrorReturnValue() ::= <<
retval.Tree = (<ASTLabelType>)adaptor.ErrorNode(input, retval.Start, input.LT(-1), re);
<! System.out.WriteLine("<ruleName> returns "+((CommonTree)retval.tree).toStringTree()); !>
>>

// TOKEN AST STUFF

/** ID and output=AST */
tokenRef(token,label,elementIndex,terminalOptions={}) ::= <<
<super.tokenRef(...)>
<if(backtracking)>if (state.backtracking == 0) {<endif>
<label>_tree = <createNodeFromToken(...)>;
adaptor.AddChild(root_0, <label>_tree);
<if(backtracking)>}<endif>
>>

/** ID! and output=AST (same as plain tokenRef) */
tokenRefBang(token,label,elementIndex) ::= "<super.tokenRef(...)>"

/** ID^ and output=AST */
tokenRefRuleRoot(token,label,elementIndex,terminalOptions={}) ::= <<
<super.tokenRef(...)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
<label>_tree = <createNodeFromToken(...)>;
root_0 = (<ASTLabelType>)adaptor.BecomeRoot(<label>_tree, root_0);
<if(backtracking)>}<endif>
>>

/**
 ids+=ID! and output=AST */
tokenRefBangAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRefBang(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

/** label+=TOKEN when output=AST but not rewrite alt */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRef(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

/** Match label+=TOKEN^ when output=AST but not rewrite alt */
tokenRefRuleRootAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
```

```
<tokenRefRuleRoot(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

// SET AST

// the match set stuff is interesting in that it uses an argument list
// to pass code to the default matchSet; another possible way to alter
// inherited code.  I don't use the region stuff because I need to pass
// different chunks depending on the operator.  I don't like making
// the template name have the operator as the number of templates gets
//
 large but this is the most flexible--this is as opposed to having
// the code generator call matchSet then add root code or ruleroot code
// plus list label plus ...  The combinations might require complicated
// rather than just added on code.  Investigate that refactoring when
// I have more time.

matchSet(s,label,elementIndex,postmatchCode,terminalOptions={}) ::= <<
<super.matchSet(postmatchCode={<if(backtracking)>if (<actions.(actionScope).synpredgate>)
<endif>adaptor.AddChild(root_0, <createNodeFromToken(...)>);}, ...)>
>>

matchRuleBlockSet(s,label,elementIndex,postmatchCode,treeLevel="0",terminalOptions={}) ::= <<
<matchSet(...)>
>>

matchSetBang(s,label,elementIndex,postmatchCode,terminalOptions={}) ::= "<super.matchSet(...)>"

// note there is no matchSetTrack because -> rewrites force sets to be
// plain old blocks of alts: (A|B|...|C)

matchSetRuleRoot(s,label,elementIndex,debug,terminalOptions={}) ::= <<
<if(label)>
<label>=(<labelType>)input.LT(1);
<endif>
<super.matchSet(postmatchCode={<if(backtracking)>if
 (<actions.(actionScope).synpredgate>) <endif>root_0 =
(<ASTLabelType>)adaptor.BecomeRoot(<createNodeFromToken(...)>, root_0);}, ...)>
>>

// RULE REF AST

/** rule when output=AST */
ruleRef(rule,label,elementIndex,args,scope) ::= <<
<super.ruleRef(...)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) <endif>adaptor.AddChild(root_0, <label>.Tree);
>>
```

```
/** rule! is same as normal rule ref */
ruleRefBang(rule,label,elementIndex,args,scope) ::= "<super.ruleRef(...)>"

/** rule^ */
ruleRefRuleRoot(rule,label,elementIndex,args,scope) ::= <<
<super.ruleRef(...)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) <endif>root_0 =
(<ASTLabelType>)adaptor.BecomeRoot(<label>.Tree, root_0);
>>

/** x+=rule when output=AST */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabelElem(elem={<label>.Tree},elemType=ASTLabelType,...)>
>>

/** x+=rule! when output=AST is a rule ref with list addition */
ruleRefBangAndListLabel(rule,label,elementIndex,args,scope)
 ::= <<
<ruleRefBang(...)>
<listLabelElem(elem={<label>.Tree},elemType=ASTLabelType,...)>
>>

/** x+=rule^ */
ruleRefRuleRootAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRoot(...)>
<listLabelElem(elem={<label>.Tree},elemType=ASTLabelType,...)>
>>

// WILDCARD AST

wildcard(token,label,elementIndex,terminalOptions={}) ::= <<
<super.wildcard(...)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
<label>_tree = (<ASTLabelType>)adaptor.Create(<label>);
adaptor.AddChild(root_0, <label>_tree);
<if(backtracking)>}<endif>
>>

wildcardBang(label,elementIndex) ::= "<super.wildcard(token=[],...)>"

wildcardRuleRoot(token,label,elementIndex,terminalOptions={}) ::= <<
<super.wildcard(...)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
<label>_tree = (<ASTLabelType>)adaptor.Create(<label>);
root_0 = (<ASTLabelType>)adaptor.BecomeRoot(<label>_tree, root_0);
<if(backtracking)>}<endif>
```

```
>>

createNodeFromToken(label,terminalOptions={})
 ::= <%
<if(terminalOptions.node)>
new
<terminalOptions.node>(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text; format="string"><endif>)
<else>
(<ASTLabelType>)adaptor.Create(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text; format="string"><endif>)
<endif>
%>

ruleCleanUp() ::= <<
<super.ruleCleanUp()>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
retval.Tree = (<ASTLabelType>)adaptor.RulePostProcessing(root_0);
adaptor.SetTokenBoundaries(retval.Tree, retval.Start, retval.Stop);
<if(backtracking)>}<endif>
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/CSharp2/ASTParser.stg
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*/
/** Template subgroup to add template rewrite output
*  If debugging, then you'll also get STDbg.stg loaded.
*/

@outputFile.imports() ::= <<
<@super.imports()>
using Antlr3.ST;
using Antlr3.ST.Language;
>>

@genericParser.members() ::= <<
<@super.members()>
private StringTemplateGroup _templateGroup = new StringTemplateGroup("<name>Templates",
 typeof(AngleBracketTemplateLexer) );

public StringTemplateGroup TemplateGroup
{
 get { return _templateGroup; }
 set { _templateGroup = value; }
}
>>

ruleReturnBaseType() ::= <%
Template<if(TREE_PARSER)>Tree<else>Parser<endif>RuleReturnScope\<StringTemplate, <labelType>>
%>

/** x+=rule when output=template */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabelElem(elem={<label>.Template},elemType="StringTemplate",...)>
>>

rewriteTemplate(alts) ::= <<

// TEMPLATE REWRITE
<if(backtracking)>
if (<actions.(actionScope).synpredgate>)
```

```
{
 <alts:rewriteTemplateAlt(); separator="else ">
 <if(rewriteMode)><replaceTextInLine()><endif>
}
<else>
<alts:rewriteTemplateAlt(); separator="else ">
<if(rewriteMode)><replaceTextInLine()><endif>
<endif>
>>

replaceTextInLine() ::= <<
<if(TREE_PARSER)>
((TokenRewriteStream)input.TokenStream).Replace(
 input.TreeAdaptor.GetTokenStartIndex(retval.Start),
 input.TreeAdaptor.GetTokenStopIndex(retval.Start),
 retval.Template);
<else>
((TokenRewriteStream)input).Replace(
 retval.Start.TokenIndex,
 input.LT(-1).TokenIndex,
 retval.Template);
<endif>
>>

rewriteTemplateAlt(it)
 ::= <<
// <it.description>
<if(it.pred)>
if (<it.pred>)
{
 retval.Template = <it.alt>;
}<\n>
<else>
{
 retval.Template = <it.alt>;
}<\n>
<endif>
>>

rewriteEmptyTemplate(alts) ::= <<
null;
>>

/** Invoke a template with a set of attribute name/value pairs.
*  Set the value of the rule's template *after* having set
*  the attributes because the rule's template might be used as
*  an attribute to build a bigger template; you get a self-embedded
*  template.
```

```
*/
rewriteExternalTemplate(name,args) ::= <%
TemplateGroup.GetInstanceOf("<name>"<optionalArguments(args)>)
%>

/** expr is a string expression that says what template to load */
rewriteIndirectTemplate(expr,args) ::= <%
TemplateGroup.GetInstanceOf(<expr><optionalArguments(args)>)
%>

/** Invoke an inline template with a set of attribute name/value pairs */
rewriteInlineTemplate(args,
 template) ::= <%
new StringTemplate(TemplateGroup, "<template>"<optionalArguments(args)>)
%>

optionalArguments(args) ::= <<
<if(args)>,
 new Dictionary\<string, object>() { <args:optionalArgument(); separator=", "> }
<endif>
>>

optionalArgument(it) ::= <<
{"<it.name>", <it.value>}
>>

/** plain -> {foo} action */
rewriteAction(action) ::= <<
<action>
>>

/** An action has %st.attrName=expr; or %{st}.attrName=expr; */
actionSetAttribute(st,attrName,expr) ::= <<
(<st>).SetAttribute("<attrName>",<expr>);
>>

/** Translate %{stringExpr} */
actionStringConstructor(stringExpr) ::= <<
new StringTemplate(TemplateGroup,<stringExpr>)
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/CSharp3/ST.stg
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*/
/*
New style messages. This file only contains the messages in English, but no
information about which file, line, or column it occurred in.
The location and message ids are taken out of the formats directory.
		Kay Roepke
*/
group en_US;

// TOOL ERRORS
// file errors
CANNOT_WRITE_FILE(arg,exception,stackTrace) ::= <<
cannot write file <arg>: <exception>
<stackTrace; separator="\n">
>>
CANNOT_CLOSE_FILE(arg,exception,stackTrace) ::= "cannot close file <arg>: <exception>"
CANNOT_FIND_TOKENS_FILE(arg)
 ::= "cannot find tokens file <arg>"
ERROR_READING_TOKENS_FILE(arg,exception,stackTrace) ::= <<
problem reading token vocabulary file <arg>: <exception>
<stackTrace; separator="\n">
>>
DIR_NOT_FOUND(arg,exception,stackTrace) ::= "directory not found: <arg>"
OUTPUT_DIR_IS_FILE(arg,exception,stackTrace) ::= "output directory is a file: <arg>"
CANNOT_OPEN_FILE(arg,exception,stackTrace) ::= "cannot find or open file: <arg><if(exception)>; reason:
<exception><endif>"
CIRCULAR_DEPENDENCY() ::= "your grammars contain a circular dependency and cannot be sorted into a valid
build order."

INTERNAL_ERROR(arg,arg2,exception,stackTrace) ::= <<
internal error: <arg> <arg2><if(exception)>: <exception><endif>
<stackTrace; separator="\n">
>>
INTERNAL_WARNING(arg) ::= "internal warning: <arg>"
ERROR_CREATING_ARTIFICIAL_RULE(arg,exception,stackTrace) ::= <<
problems creating lexer rule listing all tokens: <exception>
<stackTrace; separator="\n">
>>
TOKENS_FILE_SYNTAX_ERROR(arg,arg2)
 ::=
 "problems parsing token vocabulary file <arg> on line <arg2>"
```

```
CANNOT_GEN_DOT_FILE(arg,exception,stackTrace) ::=
 "cannot write DFA DOT file <arg>: <exception>"
BAD_ACTION_AST_STRUCTURE(exception,stackTrace) ::=
 "bad internal tree structure for action '<arg>': <exception>"
BAD_AST_STRUCTURE(arg,exception,stackTrace) ::= <<
bad internal tree structure '<arg>': <exception>
<stackTrace; separator="\n">
>>
FILE_AND_GRAMMAR_NAME_DIFFER(arg,arg2) ::=
 "file <arg2> contains grammar <arg>; names must be identical"
FILENAME_EXTENSION_ERROR(arg) ::=
 "file <arg> must end in a file extension, normally .g"

// code gen errors
MISSING_CODE_GEN_TEMPLATES(arg) ::=
 "cannot find code generation templates <arg>.stg"
MISSING_CYCLIC_DFA_CODE_GEN_TEMPLATES() ::=
 "cannot find code generation cyclic DFA templates for language <arg>"
CODE_GEN_TEMPLATES_INCOMPLETE(arg) ::=
 "at least one code generation template missing for language <arg>"
CANNOT_CREATE_TARGET_GENERATOR(arg,exception,stackTrace)
 ::=
 "cannot create target <arg> code generator: <exception>"
STRING_TEMPLATE_ERROR(arg,exception,stackTrace) ::=
 "template error: <arg>"
CANNOT_COMPUTE_SAMPLE_INPUT_SEQ() ::=
 "cannot generate a sample input sequence from lookahead DFA"

// grammar interpretation errors
/*
NO_VIABLE_DFA_ALT(arg,arg2) ::=
 "no viable transition from state <arg> on <arg2> while interpreting DFA"
*/

// GRAMMAR ERRORS
SYNTAX_ERROR(arg) ::= "syntax error: <arg>"
RULE_REDEFINITION(arg) ::=
 "rule <arg> redefinition"
LEXER_RULES_NOT_ALLOWED(arg) ::=
 "lexer rule <arg> not allowed in parser"
PARSER_RULES_NOT_ALLOWED(arg) ::=
 "parser rule <arg> not allowed in lexer"
CANNOT_FIND_ATTRIBUTE_NAME_IN_DECL(arg) ::=
 "cannot find an attribute name in attribute declaration"
NO_TOKEN_DEFINITION(arg) ::=
 "no lexer rule corresponding to token: <arg>"
UNDEFINED_RULE_REF(arg) ::=
 "reference to undefined rule: <arg>"
```

LITERAL_NOT_ASSOCIATED_WITH_LEXER_RULE(arg) ::=
 "literal has no associated lexer rule: <arg>"
CANNOT_ALIAS_TOKENS_IN_LEXER(arg)
 ::=
 "literals are illegal in lexer tokens{} section: <arg>"
ATTRIBUTE_REF_NOT_IN_RULE(arg,arg2) ::=
 "reference to attribute outside of a rule: <arg><if(arg2)>.<arg2><endif>"
UNKNOWN_ATTRIBUTE_IN_SCOPE(arg,arg2) ::=
 "unknown attribute for <arg>: <arg2>"
UNKNOWN_RULE_ATTRIBUTE(arg,arg2) ::=
 "unknown attribute for rule <arg>: <arg2>"
UNKNOWN_SIMPLE_ATTRIBUTE(arg,args2) ::=
 "attribute is not a token, parameter, or return value: <arg>"
ISOLATED_RULE_SCOPE(arg) ::=
 "missing attribute access on rule scope: <arg>"
INVALID_RULE_PARAMETER_REF(arg,arg2) ::=
 "cannot access rule <arg>'s parameter: <arg2>"
INVALID_RULE_SCOPE_ATTRIBUTE_REF(arg,arg2) ::=
 "cannot access rule <arg>'s dynamically-scoped attribute: <arg2>"
SYMBOL_CONFLICTS_WITH_GLOBAL_SCOPE(arg) ::=
 "symbol <arg> conflicts with global dynamic scope with same name"
WRITE_TO_READONLY_ATTR(arg,arg2,arg3) ::=
 "cannot write to read only attribute: $<arg><if(arg2)>.<arg2><endif>"
LABEL_CONFLICTS_WITH_RULE(arg)
 ::=
 "label <arg> conflicts with rule with same name"
LABEL_CONFLICTS_WITH_TOKEN(arg) ::=
 "label <arg> conflicts with token with same name"
LABEL_CONFLICTS_WITH_RULE_SCOPE_ATTRIBUTE(arg,arg2) ::=
 "label <arg> conflicts with rule <arg2>'s dynamically-scoped attribute with same name"
LABEL_CONFLICTS_WITH_RULE_ARG_RETVAL(arg,arg2) ::=
 "label <arg> conflicts with rule <arg2>'s return value or parameter with same name"
ATTRIBUTE_CONFLICTS_WITH_RULE(arg,arg2) ::=
 "rule <arg2>'s dynamically-scoped attribute <arg> conflicts with the rule name"
ATTRIBUTE_CONFLICTS_WITH_RULE_ARG_RETVAL(arg,arg2) ::=
 "rule <arg2>'s dynamically-scoped attribute <arg> conflicts with<arg2>'s return value or parameter with same name"
LABEL_TYPE_CONFLICT(arg,arg2) ::=
 "label <arg> type mismatch with previous definition: <arg2>"
ARG_RETVAL_CONFLICT(arg,arg2) ::=
 "rule <arg2>'s argument <arg> conflicts a return value with same name"
NONUNIQUE_REF(arg) ::=
 "<arg> is a non-unique reference"
FORWARD_ELEMENT_REF(arg)
 ::=
 "illegal forward reference: <arg>"
MISSING_RULE_ARGS(arg) ::=
 "missing parameter(s) on rule reference: <arg>"

```
RULE_HAS_NO_ARGS(arg) ::=
 "rule <arg> has no defined parameters"
ARGS_ON_TOKEN_REF(arg) ::=
 "token reference <arg> may not have parameters"
ILLEGAL_OPTION(arg) ::=
 "illegal option <arg>"
LIST_LABEL_INVALID_UNLESS_RETVAL_STRUCT(arg) ::=
 "rule '+=' list labels are not allowed w/o output option: <arg>"
UNDEFINED_TOKEN_REF_IN_REWRITE(arg) ::=
 "reference to undefined token in rewrite rule: <arg>"
REWRITE_ELEMENT_NOT_PRESENT_ON_LHS(arg) ::=
 "reference to rewrite element <arg> without reference on left of ->"
UNDEFINED_LABEL_REF_IN_REWRITE(arg) ::=
 "reference to undefined label in rewrite rule: $<arg>"
NO_GRAMMAR_START_RULE (arg) ::=
 "grammar <arg>: no start rule (no rule can obviously be followed by EOF)"
EMPTY_COMPLEMENT(arg) ::= <<
<if(arg)>
set complement ~<arg> is empty
<else>
set complement is empty
<endif>
>>
UNKNOWN_DYNAMIC_SCOPE(arg) ::=
 "unknown
 dynamic scope: <arg>"
UNKNOWN_DYNAMIC_SCOPE_ATTRIBUTE(arg,arg2) ::=
 "unknown dynamically-scoped attribute for scope <arg>: <arg2>"
RULE_REF_AMBIG_WITH_RULE_IN_ALT(arg) ::=
 "reference $<arg> is ambiguous; rule <arg> is enclosing rule and referenced in the production (assuming enclosing rule)"
ISOLATED_RULE_ATTRIBUTE(arg) ::=
 "reference to locally-defined rule scope attribute without rule name: <arg>"
INVALID_ACTION_SCOPE(arg,arg2) ::=
 "unknown or invalid action scope for <arg2> grammar: <arg>"
ACTION_REDEFINITION(arg) ::=
 "redefinition of <arg> action"
DOUBLE_QUOTES_ILLEGAL(arg) ::=
 "string literals must use single quotes (such as \'begin\'): <arg>"
INVALID_TEMPLATE_ACTION(arg) ::=
 "invalid StringTemplate % shorthand syntax: '<arg>'"
MISSING_ATTRIBUTE_NAME() ::=
 "missing attribute name on $ reference"
ARG_INIT_VALUES_ILLEGAL(arg) ::=
 "rule parameters may not have init values: <arg>"
REWRITE_OR_OP_WITH_NO_OUTPUT_OPTION(arg) ::=
 "<if(arg)>rule <arg> uses <endif>rewrite
```

```
 syntax or operator with no output option; setting output=AST"
AST_OP_WITH_NON_AST_OUTPUT_OPTION(arg) ::=
 "AST operator with non-AST output option: <arg>"
NO_RULES(arg) ::= "grammar file <arg> has no rules"
MISSING_AST_TYPE_IN_TREE_GRAMMAR(arg) ::=
 "tree grammar <arg> has no ASTLabelType option"
REWRITE_FOR_MULTI_ELEMENT_ALT(arg) ::=
 "with rewrite=true, alt <arg> not simple node or obvious tree element; text attribute for rule not guaranteed to be
correct"
RULE_INVALID_SET(arg) ::=
 "Cannot complement rule <arg>; not a simple set or element"
HETERO_ILLEGAL_IN_REWRITE_ALT(arg) ::=
 "alts with rewrites can't use heterogeneous types left of ->"
NO_SUCH_GRAMMAR_SCOPE(arg,arg2) ::=
 "reference to undefined grammar in rule reference: <arg>.<arg2>"
NO_SUCH_RULE_IN_SCOPE(arg,arg2) ::=
 "rule <arg2> is not defined in grammar <arg>"
TOKEN_ALIAS_CONFLICT(arg,arg2) ::=
 "cannot alias <arg>; string already assigned to <arg2>"
TOKEN_ALIAS_REASSIGNMENT(arg,arg2) ::=
 "cannot alias <arg>;
 token name already assigned to <arg2>"
TOKEN_VOCAB_IN_DELEGATE(arg,arg2) ::=
 "tokenVocab option ignored in imported grammar <arg>"
INVALID_IMPORT(arg,arg2) ::=
 "<arg.grammarTypeString> grammar <arg.name> cannot import <arg2.grammarTypeString> grammar
<arg2.name>"
IMPORTED_TOKENS_RULE_EMPTY(arg,arg2) ::=
 "no lexer rules contributed to <arg> from imported grammar <arg2>"
IMPORT_NAME_CLASH(arg,arg2) ::=
 "combined grammar <arg.name> and imported <arg2.grammarTypeString> grammar <arg2.name> both generate
<arg2.recognizerName>; import ignored"
AST_OP_IN_ALT_WITH_REWRITE(arg,arg2) ::=
 "rule <arg> alt <arg2> uses rewrite syntax and also an AST operator"
WILDCARD_AS_ROOT(arg) ::= "Wildcard invalid as root; wildcard can itself be a tree"
CONFLICTING_OPTION_IN_TREE_FILTER(arg,arg2) ::= "option <arg>=<arg2> conflicts with tree grammar
filter mode"
ILLEGAL_OPTION_VALUE(arg, arg2) ::= "value '<arg2>' invalid for option <arg>"
ALL_OPS_NEED_SAME_ASSOC(arg) ::= "all operators of alt <alt> of
 left-recursive rule must have same associativity"
RANGE_OP_ILLEGAL(arg) ::= "the .. range operator isn't allowed in parser rules"

// GRAMMAR WARNINGS

GRAMMAR_NONDETERMINISM(input,conflictingAlts,paths,disabled,hasPredicateBlockedByAction) ::=
<<
<if(paths)>
Decision can match input such as "<input>" using multiple alternatives:
```

```
<paths:{ it |  alt <it.alt> via NFA path <it.states; separator=","><\n>}>
<else>
Decision can match input such as "<input>" using multiple alternatives: <conflictingAlts; separator=", ">
<endif>
<if(disabled)><\n>As a result, alternative(s) <disabled; separator=","> were disabled for that
input<endif><if(hasPredicateBlockedByAction)><\n>Semantic predicates were present but were hidden by
actions.<endif>
>>

DANGLING_STATE(danglingAlts,input) ::= <<
the decision cannot distinguish between alternative(s) <danglingAlts; separator=","> for input such as "<input>"
>>

UNREACHABLE_ALTS(alts) ::= <<
The following alternatives can never be matched: <alts; separator=","><\n>
>>

INSUFFICIENT_PREDICATES(upon,altToLocations,hasPredicateBlockedByAction)
 ::= <<
Input such as "<upon>" is insufficiently covered with predicates at locations: <altToLocations.keys:{alt|alt <alt>:
<altToLocations.(alt):{loc| line <loc.line>:<loc.column> at <loc.text>}; separator=", ">}; separator=",
"><if(hasPredicateBlockedByAction)><\n>Semantic predicates were present but were hidden by actions.<endif>
>>

DUPLICATE_SET_ENTRY(arg) ::=
 "duplicate token type <arg> when collapsing subrule into set"

ANALYSIS_ABORTED(enclosingRule) ::= <<
ANTLR could not analyze this decision in rule <enclosingRule>; often this is because of recursive rule references
visible from the left edge of alternatives.  ANTLR will re-analyze the decision with a fixed lookahead of k=1.
Consider using "options {k=1;}" for that decision and possibly adding a syntactic predicate.
>>

RECURSION_OVERLOW(alt,input,targetRules,callSiteStates) ::= <<
Alternative <alt>: after matching input such as <input> decision
 cannot predict what comes next due to recursion overflow <targetRules,callSiteStates:{t,c|to <t> from
<c:{s|<s.enclosingRule.name>};separator=", ">}; separator=" and ">
>>

LEFT_RECURSION(targetRules,alt,callSiteStates) ::= <<
Alternative <alt> discovers infinite left-recursion <targetRules,callSiteStates:{t,c|to <t> from
<c:{s|<s.enclosingRule>};separator=", ">}; separator=" and ">
>>

UNREACHABLE_TOKENS(tokens) ::= <<
The following token definitions can never be matched because prior tokens match the same input: <tokens;
separator=",">
>>
```

```
TOKEN_NONDETERMINISM(input,conflictingTokens,paths,disabled,hasPredicateBlockedByAction) ::=
<<
<if(paths)>
Decision can match input such as "<input>" using multiple alternatives:
<paths:{ it | alt <it.alt> via NFA path <it.states; separator=","><\n>}>
<else>
Multiple token rules can match input such as "<input>": <conflictingTokens; separator=", "><\n>
<endif>
<if(disabled)><\n>As a result, token(s) <disabled; separator=","> were disabled for
 that input<endif><if(hasPredicateBlockedByAction)><\n>Semantic predicates were present but were hidden by
actions.<endif>
>>

LEFT_RECURSION_CYCLES(listOfCycles) ::= <<
The following sets of rules are mutually left-recursive <listOfCycles:{c| [<c:{r|<r.name>}; separator=", ">]};
separator=" and ">
>>

NONREGULAR_DECISION(ruleName,alts) ::= <<
[fatal] rule <ruleName> has non-LL(*) decision due to recursive rule invocations reachable from alts <alts;
separator=",">.  Resolve by left-factoring or using syntactic predicates or using backtrack=true option.
>>

/* l10n for message levels */
warning() ::= "warning"
error() ::= "error"
```

Found in path(s):

* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/tool/templates/messages/languages/en.stg

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*/
/*
New style messages. This file contains the actual layout of the messages emitted by ANTLR.
The text itself is coming out of the languages/*stg files, according to the chosen locale.
This file contains the format that mimicks GCC output.
*/

group gnu;

location(file, line, column) ::= "<file>:<line>:"

message(id, text) ::= "<text> (<id>)"

report(location, message, type) ::= "<location> <type>: <message>"

wantsSingleLineMessage() ::= "true"

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*/

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/ObjC/Dbg.stg
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*
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*/

csharpVisibilityMap ::= [
 "private":"private",
 "protected":"protected",
 "public":"public",
 "fragment":"private",
 default:"private"
]

/** The overall file structure of a recognizer; stores methods for rules
*  and cyclic DFAs plus support code.
*/
outputFile( LEXER,PARSER,TREE_PARSER, actionScope, actions,
   docComment, recognizer,
   name,
 tokens, tokenNames, rules, cyclicDFAs,
   bitsets, buildTemplate, buildAST, rewriteMode, profile,
   backtracking, synpreds, memoize, numRules,
   fileName, ANTLRVersion, generatedTimestamp, trace,
   scopes, superClass, literals) ::=
<<
//------------------------------------------------------------------------------
// \<auto-generated>
//     This code was generated by a tool.
//     ANTLR Version: <ANTLRVersion>
//
//     Changes to this file may cause incorrect behavior and will be lost if
//     the code is regenerated.
// \</auto-generated>
//------------------------------------------------------------------------------

// $ANTLR <ANTLRVersion> <fileName> <generatedTimestamp>

// The variable 'variable' is assigned but its value is never used.
#pragma warning disable 219
// Unreachable code detected.
#pragma warning disable 162
// Missing XML comment for publicly visible type or member 'Type_or_Member'
#pragma warning disable 1591
// CLS compliance checking will not
 be performed on 'type' because it is not visible from outside this assembly.
#pragma warning disable 3019

<actions.(actionScope).header>

<@imports>
```

```
using System.Collections.Generic;
using Antlr.Runtime;
using Antlr.Runtime.Misc;
<if(TREE_PARSER)>
using Antlr.Runtime.Tree;
using RewriteRuleITokenStream = Antlr.Runtime.Tree.RewriteRuleTokenStream;
<endif>
<@end>
<if(actions.(actionScope).namespace)>
namespace <actions.(actionScope).namespace>
{
<endif>
<docComment>
<recognizer>
<if(actions.(actionScope).namespace)>

} // namespace <actions.(actionScope).namespace>
<endif>
>>

lexerInputStreamType() ::= <<
<actions.(actionScope).inputStreamType; null="ICharStream">
>>

lexer(grammar, name, tokens, scopes, rules, numRules, filterMode, labelType="CommonToken",
superClass={<if(actions.(actionScope).superClass)><actions.(actionScope).superClass><else>Antlr.Runtime.Lexer
<endif>},
   rewriteElementType={}, ASTLabelType={}) ::= <<
[System.CodeDom.Compiler.GeneratedCode("ANTLR", "<ANTLRVersion>")]
[System.CLSCompliant(false)]
<parserModifier(grammar=grammar,
 actions=actions)> partial class <grammar.recognizerName> : <@superClassName><superClass><@end>
{
 <tokens:{it|public const int <it.name; format="id">=<it.type>;}; separator="\n">
 <scopes:{it|<if(it.isDynamicGlobalScope)><globalAttributeScope(scope=it)><endif>}>
 <actions.lexer.members>

 // delegates
 <grammar.delegates:
   {g|private <g.recognizerName> <g:delegateName()>;}; separator="\n">
 // delegators
 <grammar.delegators:
   {g|private <g.recognizerName> <g:delegateName()>;}; separator="\n">
 <last(grammar.delegators):{g|private <g.recognizerName> gParent;}>

 <actions.(actionScope).ctorModifier; null="public"> <grammar.recognizerName>()<! needed by subclasses !>
 {
  OnCreated();
```

```
 }

 <actions.(actionScope).ctorModifier; null="public"> <grammar.recognizerName>(<lexerInputStreamType()>
input<grammar.delegators:{g|, <g.recognizerName> <g:delegateName()>}> )
  : this(input, new RecognizerSharedState()<grammar.delegators:{g|,
 <g:delegateName()>}>)
 {
 }

 <actions.(actionScope).ctorModifier; null="public"> <grammar.recognizerName>(<lexerInputStreamType()> input,
RecognizerSharedState state<grammar.delegators:{g|, <g.recognizerName> <g:delegateName()>}>)
  : base(input, state)
 {
<if(memoize)>
<if(grammar.grammarIsRoot)>
  state.ruleMemo = new System.Collections.Generic.Dictionary\<int, int>[<numRules>+1];<\n><! index from 1..n !>
<endif>
<endif>
  <grammar.directDelegates:
   {g|<g:delegateName()> = new <g.recognizerName>(input, this.state<trunc(g.delegators):{p|,
<p:delegateName()>}>, this);}; separator="\n">
  <grammar.delegators:
   {g|this.<g:delegateName()> = <g:delegateName()>;}; separator="\n">
  <last(grammar.delegators):{g|gParent = <g:delegateName()>;}>

  OnCreated();
 }
 public override string GrammarFileName { get { return "<fileName>"; } }

<if(grammar.hasDelegates)>
 public override <lexerInputStreamType()> CharStream
 {
  get
  {
   return base.CharStream;
  }
  set
  {
   base.CharStream
 = value;
   <grammar.directDelegates:
    {g|<g:delegateName()> = new <g.recognizerName>(input, state<trunc(g.delegators):{p|, <p:delegateName()>}>,
this);}; separator="\n">
   <grammar.delegators:
    {g|this.<g:delegateName()> = <g:delegateName()>;}; separator="\n">
   <last(grammar.delegators):{g|gParent = <g:delegateName()>;}>
  }
 }
```

```
<if(grammar.delegates)>
 public override void SetState(RecognizerSharedState state)
 {
  base.SetState(state);
  <grammar.delegates:{g|<g:delegateName()>.SetState(state);}; separator="\n">
 }
<endif>

<endif>
<if(filterMode)>
 <filteringNextToken()>
<endif>


 partial void OnCreated();
 partial void EnterRule(string ruleName, int ruleIndex);
 partial void LeaveRule(string ruleName, int ruleIndex);

 <rules; separator="\n">

 <insertLexerSynpreds(synpreds)>

 #region DFA
 <cyclicDFAs:{dfa | DFA<dfa.decisionNumber> dfa<dfa.decisionNumber>;}; separator="\n">

 protected override void InitDFAs()
 {
  base.InitDFAs();
  <cyclicDFAs:{dfa | dfa<dfa.decisionNumber>
 = new DFA<dfa.decisionNumber>(this<if(dfa.specialStateSTs)>,
SpecialStateTransition<dfa.decisionNumber><endif>);}; separator="\n">
 }

 <cyclicDFAs:cyclicDFA()><! dump tables for all DFA !>
 #endregion

}
>>

/** A override of Lexer.nextToken() that backtracks over mTokens() looking
*  for matches.  No error can be generated upon error; just rewind, consume
*  a token and then try again.  backtracking needs to be set as well.
*  Make rule memoization happen only at levels above 1 as we start mTokens
*  at backtracking==1.
*/
filteringNextToken() ::= <<
public override IToken NextToken()
```

```
{
 while (true)
 {
  if (input.LA(1) == CharStreamConstants.EndOfFile)
  {
   IToken eof = new CommonToken((ICharStream)input, CharStreamConstants.EndOfFile, TokenChannels.Default,
input.Index, input.Index);
   eof.Line = Line;
   eof.CharPositionInLine = CharPositionInLine;
   return eof;
  }
  state.token = null;
  state.channel = TokenChannels.Default;
  state.tokenStartCharIndex
 = input.Index;
  state.tokenStartCharPositionInLine = input.CharPositionInLine;
  state.tokenStartLine = input.Line;
  state.text = null;
  try
  {
   int m = input.Mark();
   state.backtracking=1;<! means we won't throw slow exception !>
   state.failed=false;
   mTokens();
   state.backtracking=0;
   <! mTokens backtracks with synpred at backtracking==2
      and we set the synpredgate to allow actions at level 1. !>
   if (state.failed)
   {
    input.Rewind(m);
    input.Consume();<! advance one char and try again !>
   }
   else
   {
    Emit();
    return state.token;
   }
  }
  catch (RecognitionException re)
  {
   // shouldn't happen in backtracking mode, but...
   ReportError(re);
   Recover(re);
  }
 }
}

public override void Memoize(IIntStream input, int ruleIndex, int ruleStartIndex)
```

```
{
 if (state.backtracking > 1)
  base.Memoize(input, ruleIndex, ruleStartIndex);
}

public override bool AlreadyParsedRule(IIntStream input, int ruleIndex)
{
 if (state.backtracking > 1)
  return
 base.AlreadyParsedRule(input, ruleIndex);

 return false;
}
>>

actionGate() ::= "state.backtracking == 0"

filteringActionGate() ::= "state.backtracking == 1"

/** How to generate a parser */
genericParser(grammar, name, scopes, tokens, tokenNames, rules, numRules,
            bitsets, inputStreamType, superClass,
            labelType, members, rewriteElementType,
            filterMode, ASTLabelType="object") ::= <<
[System.CodeDom.Compiler.GeneratedCode("ANTLR", "<ANTLRVersion>")]
[System.CLSCompliant(false)]
<parserModifier(grammar=grammar, actions=actions)> partial class <grammar.recognizerName> :
<@superClassName><superClass><@end>
{
<if(grammar.grammarIsRoot)>
 internal static readonly string[] tokenNames = new string[] {
  "\<invalid>", "\<EOR>", "\<DOWN>", "\<UP>", <tokenNames; separator=", ">
 };
<endif>
 <tokens:{it|public const int <it.name; format="id">=<it.type>;}; separator="\n">

<if(grammar.delegates)>
 // delegates
 <grammar.delegates:
   {g|private <g.recognizerName>
 <g:delegateName()>;}; separator="\n">
<endif>
<if(grammar.delegators)>
 // delegators
 <grammar.delegators:
   {g|private <g.recognizerName> <g:delegateName()>;}; separator="\n">
 <last(grammar.delegators):{g|private <g.recognizerName> gParent;}>
<endif>
```

```
<if(grammar.delegates)>
 public override void SetState(RecognizerSharedState state)
 {
  base.SetState(state);
  <grammar.delegates:{g|<g:delegateName()>.SetState(state);}; separator="\n">
 }

<if(TREE_PARSER)>
 public override void SetTreeNodeStream(ITreeNodeStream input)
 {
  base.SetTreeNodeStream(input);
  <grammar.delegates:{g|<g:delegateName()>.SetTreeNodeStream(input);}; separator="\n">
 }
<endif>
<endif>

 <scopes:{it|<if(it.isDynamicGlobalScope)><globalAttributeScope(scope=it)><endif>}>
 <@members()>

 public override string[] TokenNames { get { return
<grammar.composite.rootGrammar.recognizerName>.tokenNames; } }
 public override string GrammarFileName { get { return "<fileName>"; } }

 <members>

 partial void
 OnCreated();
 partial void EnterRule(string ruleName, int ruleIndex);
 partial void LeaveRule(string ruleName, int ruleIndex);

 #region Rules
 <rules; separator="\n">
 #endregion Rules

<if(grammar.delegatedRules)>
<! generate rule/method definitions for imported rules so they
  appear to be defined in this recognizer. !>
 #region Delegated rules
<grammar.delegatedRules:{ruleDescriptor|
 <ruleModifier(grammar=grammar,ruleDescriptor=ruleDescriptor)> <returnType(ruleDescriptor)>
<ruleDescriptor.name; format="id">(<ruleDescriptor.parameterScope:parameterScope()>)<!throws
RecognitionException !>{ <if(ruleDescriptor.hasReturnValue)>return
<endif><ruleDescriptor.grammar:delegateName()>.<ruleDescriptor.name;
format="id">(<if(ruleDescriptor.parameterScope)><ruleDescriptor.parameterScope.attributes:{a|<a.name;
format="id">}; separator=", "><endif>); \}}; separator="\n">
 #endregion Delegated rules
<endif>
```

```
 <insertSynpreds(synpreds)>

<if(cyclicDFAs)>
 #region DFA
 <cyclicDFAs:{dfa | private
 DFA<dfa.decisionNumber> dfa<dfa.decisionNumber>;}; separator="\n">

 protected override void InitDFAs()
 {
  base.InitDFAs();
  <cyclicDFAs:{dfa | dfa<dfa.decisionNumber> = new DFA<dfa.decisionNumber>( this<if(dfa.specialStateSTs)>,
SpecialStateTransition<dfa.decisionNumber><endif> );}; separator="\n">
 }

 <cyclicDFAs:cyclicDFA()><! dump tables for all DFA !>
 #endregion DFA
<endif>

<if(bitsets)>
 #region Follow sets
 private static class Follow
 {
  <bitsets:{it|<bitset(name={_<it.name>_in_<it.inName><it.tokenIndex>}, words64=it.bits)>}; separator="\n">
 }
 #endregion Follow sets
<endif>
}
>>

@genericParser.members() ::= <<
<! WARNING. bug in ST: this is cut-n-paste into Dbg.stg !>
<actions.(actionScope).ctorModifier; null="public"> <grammar.recognizerName>(<inputStreamType>
input<grammar.delegators:{g|, <g.recognizerName> <g:delegateName()>}>)
 : this(input, new RecognizerSharedState()<grammar.delegators:{g|, <g:delegateName()>}>)
{
}
<actions.(actionScope).ctorModifier; null="public">
 <grammar.recognizerName>(<inputStreamType> input, RecognizerSharedState state<grammar.delegators:{g|,
<g.recognizerName> <g:delegateName()>}>)
 : base(input, state)
{
<if(grammar.directDelegates)>
 <grammar.directDelegates:
  {g|<g:delegateName()> = new <g.recognizerName>(input, state<trunc(g.delegators):{p|, <p:delegateName()>}>,
this);}; separator="\n">
<endif>
<if(grammar.indirectDelegates)>
```

```
 <grammar.indirectDelegates:{g | <g:delegateName()> = <g.delegator:delegateName()>.<g:delegateName()>;};
separator="\n">
<endif>
<if(grammar.delegators)>
 <last(grammar.delegators):{g|gParent = <g:delegateName()>;}>
<endif>
 <parserCtorBody()>
 OnCreated();
}
>>

// imported grammars are 'public' (can't be internal because their return scope classes must be accessible)
parserModifier(grammar, actions) ::= <<
<if(grammar.grammarIsRoot)><actions.(actionScope).modifier; null="public"><else>public<endif>
>>

parserCtorBody() ::= <<
<if(memoize)>
<if(grammar.grammarIsRoot)>
this.state.ruleMemo
 = new System.Collections.Generic.Dictionary\<int, int>[<length(grammar.allImportedRules)>+1];<\n><! index
from 1..n !>
<endif>
<endif>
<grammar.delegators:
{g|this.<g:delegateName()> = <g:delegateName()>;}; separator="\n">
>>

parser(grammar, name, scopes, tokens, tokenNames, rules, numRules, bitsets,
      ASTLabelType="object",
superClass={<if(actions.(actionScope).superClass)><actions.(actionScope).superClass><else>Antlr.Runtime.Parser
<endif>}, labelType="IToken",
      members={<actions.parser.members>}) ::= <<
<genericParser(inputStreamType="ITokenStream", rewriteElementType="IToken", filterMode=false, ...)>
>>

/** How to generate a tree parser; same as parser except the input
*  stream is a different type.
*/
treeParser(grammar, name, scopes, tokens, tokenNames, globalAction, rules,
          numRules, bitsets, filterMode, labelType={<ASTLabelType>}, ASTLabelType="object",
superClass={<if(actions.(actionScope).superClass)><actions.(actionScope).superClass><else>Antlr.Runtime.Tree.<
if(filterMode)><if(buildAST)>TreeRewriter<else>TreeFilter<endif><else>TreeParser<endif><endif>},
           members={<actions.treeparser.members>}) ::= <<
<genericParser(inputStreamType="ITreeNodeStream", rewriteElementType="Node", ...)>
>>

/** A simpler version of a rule template that is specific to the imaginary
```

```
*  rules created for syntactic predicates.  As they never have return values
*  nor parameters etc..., just give simplest possible method.  Don't do
*  any of the normal memoization stuff in here either; it's a waste.
*  As predicates cannot be inlined into the invoking rule, they need to
*  be in a rule by themselves.
*/
synpredRule(ruleName, ruleDescriptor, block, description, nakedBlock) ::=
<<

partial void EnterRule_<ruleName>_fragment();
partial void LeaveRule_<ruleName>_fragment();

// $ANTLR start <ruleName>
<ruleModifier(grammar=grammar,ruleDescriptor=ruleDescriptor)> void
<ruleName>_fragment(<ruleDescriptor.parameterScope:parameterScope()>)
{
 <ruleLabelDefs(...)>
 EnterRule_<ruleName>_fragment();
 EnterRule("<ruleName>_fragment",
 <ruleDescriptor.index>);
 TraceIn("<ruleName>_fragment", <ruleDescriptor.index>);
 try
 {
  <block>
 }
 finally
 {
  TraceOut("<ruleName>_fragment", <ruleDescriptor.index>);
  LeaveRule("<ruleName>_fragment", <ruleDescriptor.index>);
  LeaveRule_<ruleName>_fragment();
 }
}
// $ANTLR end <ruleName>
>>

insertLexerSynpreds(synpreds) ::= <<
<insertSynpreds(synpreds)>
>>

insertSynpreds(synpreds) ::= <<
<if(synpreds)>
#region Synpreds
private bool EvaluatePredicate(System.Action fragment)
{
 bool success = false;
 state.backtracking++;
 <@start()>
 try { DebugBeginBacktrack(state.backtracking);
```

```
 int start = input.Mark();
 try
 {
  fragment();
 }
 catch ( RecognitionException re )
 {
  System.Console.Error.WriteLine("impossible: "+re);
 }
 success = !state.failed;
 input.Rewind(start);
 } finally { DebugEndBacktrack(state.backtracking, success); }
 <@stop()>
 state.backtracking--;
 state.failed=false;
 return
 success;
}
#endregion Synpreds
<endif>
>>

ruleMemoization(name) ::= <<
<if(memoize)>
if (state.backtracking > 0 && AlreadyParsedRule(input, <ruleDescriptor.index>)) { <returnFromRule()> }
<endif>
>>

/** How to test for failure and return from rule */
checkRuleBacktrackFailure() ::= <<
<if(backtracking)>if (state.failed) <returnFromRule()><endif>
>>

/** This rule has failed, exit indicating failure during backtrack */
ruleBacktrackFailure() ::= <<
<if(backtracking)>if (state.backtracking>0) {state.failed=true; <returnFromRule()>}<endif>
>>

ruleWrapperMap ::= [
 "bottomup":{<ruleWrapperBottomup()>},
 "topdown":{<ruleWrapperTopdown()>},
 default:""
]

ruleWrapperBottomup() ::= <<
<if(TREE_PARSER && filterMode)>
protected override <if(buildAST)>IAstRuleReturnScope<else>void<endif> Bottomup() { <if(buildAST)>return <endif>bottomup(); }
```

```
<endif>
>>

ruleWrapperTopdown() ::= <<
<if(TREE_PARSER && filterMode)>
protected override <if(buildAST)>IAstRuleReturnScope<else>void<endif>
 Topdown() { <if(buildAST)>return <endif>topdown(); }
<endif>
>>

/** How to generate code for a rule.  This includes any return type
*  data aggregates required for multiple return values.
*/
rule(ruleName,ruleDescriptor,block,emptyRule,description,exceptions,finally,memoize) ::= <<
<ruleAttributeScope(scope=ruleDescriptor.ruleScope)>
<returnScope(ruleDescriptor.returnScope)>
partial void EnterRule_<ruleName>();
partial void LeaveRule_<ruleName>();
<ruleWrapperMap.(ruleName)>
// $ANTLR start "<ruleName>"
// <fileName>:<description>
[GrammarRule("<ruleName>")]
<ruleModifier(grammar=grammar,ruleDescriptor=ruleDescriptor)> <returnType(ruleDescriptor)> <ruleName;
format="id">(<ruleDescriptor.parameterScope:parameterScope()>)
{
 EnterRule_<ruleName>();
 EnterRule("<ruleName>", <ruleDescriptor.index>);
 TraceIn("<ruleName>", <ruleDescriptor.index>);
 <ruleScopeSetUp()>
 <ruleDeclarations()>
 <ruleLabelDefs(...)>
 <ruleDescriptor.actions.init>
 try { DebugEnterRule(GrammarFileName, "<ruleName>");
 DebugLocation(<ruleDescriptor.tree.line>,
 <ruleDescriptor.EORNode.charPositionInLine>);
 <@preamble()>
 try
 {
  <ruleMemoization(name=ruleName)>
  <block>
  <ruleCleanUp()>
  <(ruleDescriptor.actions.after):execAction()>
 }
<if(exceptions)>
 <exceptions:{e|<catch(decl=e.decl,action=e.action)><\n>}>
<else>
<if(!emptyRule)>
<if(actions.(actionScope).rulecatch)>
```

```
 <actions.(actionScope).rulecatch>
<else>
 catch (RecognitionException re)
 {
  ReportError(re);
  Recover(input,re);
  <@setErrorReturnValue()>
 }
<endif>
<endif>
<endif>
 finally
 {
  TraceOut("<ruleName>", <ruleDescriptor.index>);
  LeaveRule("<ruleName>", <ruleDescriptor.index>);
  LeaveRule_<ruleName>();
  <memoize()>
  <ruleScopeCleanUp()>
  <finally>
 }
 DebugLocation(<ruleDescriptor.EORNode.line>, <ruleDescriptor.EORNode.charPositionInLine>);
 } finally { DebugExitRule(GrammarFileName, "<ruleName>"); }
 <@postamble()>
 <returnFromRule()><\n>
}
// $ANTLR end "<ruleName>"
>>

// imported grammars need to have internal
 rules
ruleModifier(grammar,ruleDescriptor) ::= <<
<if(grammar.grammarIsRoot)><csharpVisibilityMap.(ruleDescriptor.modifier);
null="private"><else>internal<endif>
>>

// imported grammars need to have public return scopes
returnScopeModifier(grammar,ruleDescriptor) ::= <<
<if(grammar.grammarIsRoot)><csharpVisibilityMap.(ruleDescriptor.modifier);
null="private"><else>public<endif>
>>

catch(decl,action) ::= <<
catch (<e.decl>)
{
 <e.action>
}
>>
```

```
ruleDeclarations() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
<returnType(ruleDescriptor)> retval = new
<returnType(ruleDescriptor)>(<if(ruleDescriptor.returnScope.attributes)>this<endif>);
retval.Start = (<labelType>)input.LT(1);
<elseif(ruleDescriptor.returnScope)>
<ruleDescriptor.returnScope.attributes:{ a |
<a.type> <a.name; format="id"> = <if(a.initValue)><a.initValue><else><initValue(a.type)><endif>;
}>
<endif>
<if(memoize)>
int <ruleDescriptor.name>_StartIndex = input.Index;
<endif>
>>

ruleScopeSetUp() ::= <<
<ruleDescriptor.useScopes:{it|<it>_stack.Push(new
 <it>_scope(this));<it>_scopeInit(<it>_stack.Peek());}; separator="\n">
<ruleDescriptor.ruleScope:{it|<it.name>_stack.Push(new
<it.name>_scope(this));<it.name>_scopeInit(<it.name>_stack.Peek());}; separator="\n">
>>

ruleScopeCleanUp() ::= <<
<ruleDescriptor.useScopes:{it|<it>_scopeAfter(<it>_stack.Peek());<it>_stack.Pop();}; separator="\n">
<ruleDescriptor.ruleScope:{it|<it.name>_scopeAfter(<it.name>_stack.Peek());<it.name>_stack.Pop();};
separator="\n">
>>

ruleLabelDefs(ruleDescriptor, labelType, ASTLabelType, rewriteElementType) ::= <<
<[ruleDescriptor.tokenLabels,ruleDescriptor.tokenListLabels,ruleDescriptor.wildcardTreeLabels,ruleDescriptor.wil
dcardTreeListLabels]
 :{it|<labelType> <it.label.text> = default(<labelType>);}; separator="\n"
>
<ruleDescriptor.tokenListLabels
 :{it|List\<<labelType>\> list_<it.label.text> = null;}; separator="\n"
>
<[ruleDescriptor.ruleListLabels,ruleDescriptor.wildcardTreeListLabels]
 :{it|List\<<ASTLabelType>\> list_<it.label.text>
 = null;}; separator="\n"
>
<ruleDescriptor.ruleLabels:ruleLabelDef(); separator="\n">
<ruleDescriptor.ruleListLabels:ruleLabelDef(); separator="\n">
>>

lexerRuleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,
 ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleLabels]
```

```
 :{it|<labelType> <it.label.text> = default(<labelType>);}; separator="\n"
>
<[ruleDescriptor.charListLabels,
 ruleDescriptor.charLabels]
 :{it|int <it.label.text> = 0;}; separator="\n"
>
<[ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleListLabels]
 :{it|List\<<labelType>\> list_<it.label.text> = null;}; separator="\n"
>
<ruleDescriptor.charListLabels:{it|List\<int> list_<it.label.text> = null;}; separator="\n"
>
>>

returnFromRule() ::= <%
return
<if(!ruleDescriptor.isSynPred)>
<if(ruleDescriptor.hasReturnValue)>
<if(ruleDescriptor.hasSingleReturnValue)>
<! This comment is a hack to make sure the following
  single space appears in the output. !> <ruleDescriptor.singleValueReturnName>
<else>
<!!>
 retval
<endif>
<endif>
<endif>
;
%>

ruleCleanUp() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
<if(!TREE_PARSER)>
retval.Stop = (<labelType>)input.LT(-1);
<endif>
<endif>
>>

memoize() ::= <<
<if(memoize)>
<if(backtracking)>
if (state.backtracking > 0) { Memoize(input, <ruleDescriptor.index>, <ruleDescriptor.name>_StartIndex); }
<endif>
<endif>
>>

/** How to generate a rule in the lexer; naked blocks are used for
*  fragment rules.
```

```
*/
lexerRule(ruleName,nakedBlock,ruleDescriptor,block,memoize) ::= <<

partial void EnterRule_<ruleName>();
partial void LeaveRule_<ruleName>();

// $ANTLR start "<ruleName>"
[GrammarRule("<ruleName>")]
<ruleModifier(grammar=grammar,ruleDescriptor=ruleDescriptor)> void
m<ruleName>(<ruleDescriptor.parameterScope:parameterScope()>)
{
 EnterRule_<ruleName>();
 EnterRule("<ruleName>", <ruleDescriptor.index>);
 TraceIn("<ruleName>", <ruleDescriptor.index>);
 <ruleScopeSetUp()>
 <ruleDeclarations()>
 try
 {
<if(nakedBlock)>
  <ruleMemoization(name=ruleName)>
  <lexerRuleLabelDefs()>
  <ruleDescriptor.actions.init>
  <block>
<else>
  int
 _type = <ruleName>;
  int _channel = DefaultTokenChannel;
  <ruleMemoization(name=ruleName)>
  <lexerRuleLabelDefs()>
  <ruleDescriptor.actions.init>
  <block>
  <ruleCleanUp()>
  state.type = _type;
  state.channel = _channel;
  <(ruleDescriptor.actions.after):execAction()>
<endif>
 }
 finally
 {
  TraceOut("<ruleName>", <ruleDescriptor.index>);
  LeaveRule("<ruleName>", <ruleDescriptor.index>);
  LeaveRule_<ruleName>();
  <ruleScopeCleanUp()>
  <memoize()>
 }
}
// $ANTLR end "<ruleName>"
>>
```

```
/** How to generate code for the implicitly-defined lexer grammar rule
*  that chooses between lexer rules.
*/
tokensRule(ruleName,nakedBlock,args,block,ruleDescriptor) ::= <<

public override void mTokens()
{
 <block><\n>
}
>>

// S U B R U L E S

/** A (...) subrule with multiple alternatives */
block(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
//
 <fileName>:<description>
int alt<decisionNumber>=<maxAlt>;
<decls>
<@predecision()>
try { DebugEnterSubRule(<decisionNumber>);
try { DebugEnterDecision(<decisionNumber>, false<!<decision.dfa.hasSynPred>!>);
<decision>
} finally { DebugExitDecision(<decisionNumber>); }
<@postdecision()>
<@prebranch()>
switch (alt<decisionNumber>)
{
<alts:{a|<altSwitchCase(i,a)>}>
}
} finally { DebugExitSubRule(<decisionNumber>); }
<@postbranch()>
>>

/** A rule block with multiple alternatives */
ruleBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
// <fileName>:<description>
int alt<decisionNumber>=<maxAlt>;
<decls>
<@predecision()>
try { DebugEnterDecision(<decisionNumber>, false<!<decision.dfa.hasSynPred>!>);
<decision>
} finally { DebugExitDecision(<decisionNumber>); }
<@postdecision()>
switch (alt<decisionNumber>)
{
<alts:{a|<altSwitchCase(i,a)>}>
```

```
}
>>

ruleBlockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description)
 ::= <<
// <fileName>:<description>
<decls>
<@prealt()>
DebugEnterAlt(1);
<alts>
<@postalt()>
>>

/** A special case of a (...) subrule with a single alternative */
blockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
// <fileName>:<description>
<decls>
<@prealt()>
DebugEnterAlt(1);
<alts>
<@postalt()>
>>

/** A (..)+ block with 1 or more alternatives */
positiveClosureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,descriptio
n) ::= <<
// <fileName>:<description>
int cnt<decisionNumber>=0;
<decls>
<@preloop()>
try { DebugEnterSubRule(<decisionNumber>);
while (true)
{
 int alt<decisionNumber>=<maxAlt>;
 <@predecision()>
 try { DebugEnterDecision(<decisionNumber>, false<!<decision.dfa.hasSynPred>!>);
 <decision>
 } finally { DebugExitDecision(<decisionNumber>); }
 <@postdecision()>
 switch (alt<decisionNumber>)
 {
 <alts:{a|<altSwitchCase(i,a)>}>
 default:
  if (cnt<decisionNumber> >= 1)
   goto loop<decisionNumber>;

  <ruleBacktrackFailure()>
  EarlyExitException
```

```
 eee<decisionNumber> = new EarlyExitException( <decisionNumber>, input );
  DebugRecognitionException(eee<decisionNumber>);
  <@earlyExitException()>
  throw eee<decisionNumber>;
 }
 cnt<decisionNumber>++;
}
loop<decisionNumber>:
 ;

} finally { DebugExitSubRule(<decisionNumber>); }
<@postloop()>
>>

positiveClosureBlockSingleAlt ::= positiveClosureBlock

/** A (..)* block with 1 or more alternatives */
closureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::=
<<
// <fileName>:<description>
<decls>
<@preloop()>
try { DebugEnterSubRule(<decisionNumber>);
while (true)
{
 int alt<decisionNumber>=<maxAlt>;
 <@predecision()>
 try { DebugEnterDecision(<decisionNumber>, false<!<decision.dfa.hasSynPred>!>);
 <decision>
 } finally { DebugExitDecision(<decisionNumber>); }
 <@postdecision()>
 switch ( alt<decisionNumber> )
 {
 <alts:{a|<altSwitchCase(i,a)>}>
 default:
  goto loop<decisionNumber>;
 }
}

loop<decisionNumber>:
 ;

}
 finally { DebugExitSubRule(<decisionNumber>); }
<@postloop()>
>>

closureBlockSingleAlt ::= closureBlock
```

```
/** Optional blocks (x)? are translated to (x|) by before code generation
*  so we can just use the normal block template
*/
optionalBlock ::= block

optionalBlockSingleAlt ::= block

/** A case in a switch that jumps to an alternative given the alternative
*  number.  A DFA predicts the alternative and then a simple switch
*  does the jump to the code that actually matches that alternative.
*/
altSwitchCase(altNum,alt) ::= <<
case <altNum>:
 <@prealt()>
 DebugEnterAlt(<altNum>);
 <alt>
 break;<\n>
>>

/** An alternative is just a list of elements; at outermost level */
alt(elements,altNum,description,autoAST,outerAlt,treeLevel,rew) ::= <<
// <fileName>:<description>
{
<@declarations()>
<elements:element()>
<rew>
<@cleanup()>
}
>>

/** What to emit when there is no rewrite.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel,
 treeLevel) ::= ""

// E L E M E N T S

/** Dump the elements one per line */
element(it) ::= <%
<@prematch()>
DebugLocation(<it.line>, <it.pos>);<\n>
<it.el><\n>
%>

/** match a token optionally with a label in front */
tokenRef(token,label,elementIndex,terminalOptions={}) ::= <<
```

```
<if(label)><label>=(<labelType>)<endif>Match(input,<token>,Follow._<token>_in_<ruleName><elementIndex>);
<checkRuleBacktrackFailure()>
>>

/** ids+=ID */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRef(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

listLabel(label,elem) ::= <<
#error The listLabel template should not be used with this target.<\n>
>>

listLabelElem(label,elem,elemType) ::= <<
if (list_<label>==null) list_<label>=new List\<<elemType; null={<labelType>}>\>();
list_<label>.Add(<elem>);<\n>
>>

/** match a character */
charRef(char,label) ::= <<
<if(label)>
<label> = input.LA(1);<\n>
<endif>
Match(<char>); <checkRuleBacktrackFailure()>
>>

/**
 match a character range */
charRangeRef(a,b,label) ::= <<
<if(label)>
<label> = input.LA(1);<\n>
<endif>
MatchRange(<a>,<b>); <checkRuleBacktrackFailure()>
>>

/** For now, sets are interval tests and must be tested inline */
matchSet(s,label,elementIndex,postmatchCode="",terminalOptions={}) ::= <<
<if(label)>
<matchSetLabel()>
<endif>
if (<s>)
{
 input.Consume();
 <postmatchCode>
 <if(!LEXER)>state.errorRecovery=false;<endif><if(backtracking)>state.failed=false;<endif>
}
else
```

```
{
 <ruleBacktrackFailure()>
 MismatchedSetException mse = new MismatchedSetException(null,input);
 DebugRecognitionException(mse);
 <@mismatchedSetException()>
<if(LEXER)>
 Recover(mse);
 throw mse;
<else>
 throw mse;
 <! use following code to make it recover inline; remove throw mse;
 recoverFromMismatchedSet(input,mse,Follow._set_in_<ruleName><elementIndex>);
 !>
<endif>
}<\n>
>>

matchSetUnchecked(s,label,elementIndex,postmatchCode=false) ::= <%
<if(label)>
<matchSetLabel()><\n>
<endif>
input.Consume();<\n>
<if(postmatchCode)>
<postmatchCode><\n>
<endif>
<if(!LEXER)>state.errorRecovery=false;<endif><if(backtracking)>state.failed=false;<endif>
%>

matchSetLabel()
 ::= <%
<if(LEXER)>
<label>= input.LA(1);
<else>
<label>=(<labelType>)input.LT(1);
<endif>
%>

matchRuleBlockSet ::= matchSet

matchSetAndListLabel(s,label,elementIndex,postmatchCode) ::= <<
<matchSet(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

/** Match a string literal */
lexerStringRef(string,label,elementIndex) ::= <%
<if(label)>
int <label>Start = CharIndex;<\n>
```

```
Match(<string>); <checkRuleBacktrackFailure()><\n>
int <label>StartLine<elementIndex> = Line;<\n>
int <label>StartCharPos<elementIndex> = CharPositionInLine;<\n>
<label> = new <labelType>(input, TokenTypes.Invalid, TokenChannels.Default, <label>Start, CharIndex-1);<\n>
<label>.Line = <label>StartLine<elementIndex>;<\n>
<label>.CharPositionInLine = <label>StartCharPos<elementIndex>;
<else>
Match(<string>); <checkRuleBacktrackFailure()><\n>
<endif>
%>

wildcard(token,label,elementIndex,terminalOptions={})
 ::= <<
<if(label)>
<label>=(<labelType>)input.LT(1);<\n>
<endif>
MatchAny(input); <checkRuleBacktrackFailure()>
>>

wildcardAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<wildcard(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

/** Match . wildcard in lexer */
wildcardChar(label, elementIndex) ::= <<
<if(label)>
<label> = input.LA(1);<\n>
<endif>
MatchAny(); <checkRuleBacktrackFailure()>
>>

wildcardCharListLabel(label, elementIndex) ::= <<
<wildcardChar(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

/** Match a rule reference by invoking it possibly with arguments
*  and a return value or values.  The 'rule' argument was the
*  target rule name, but now is type Rule, whose toString is
*  same: the rule name.  Now though you can access full rule
*  descriptor stuff.
*/
ruleRef(rule,label,elementIndex,args,scope) ::= <<
PushFollow(Follow._<rule.name>_in_<ruleName><elementIndex>);
<if(label)><label>=<endif><if(scope)><scope:delegateName()>.<endif><rule.name;
 format="id">(<args; separator=", ">);
PopFollow();
```

```
<checkRuleBacktrackFailure()>
>>

/** ids+=r */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabelElem(elem=label,elemType={<ASTLabelType>},...)>
>>

/** A lexer rule reference.
*
*  The 'rule' argument was the target rule name, but now
*  is type Rule, whose toString is same: the rule name.
*  Now though you can access full rule descriptor stuff.
*/
lexerRuleRef(rule,label,args,elementIndex,scope) ::= <%
<if(label)>
int <label>Start<elementIndex> = CharIndex;<\n>
int <label>StartLine<elementIndex> = Line;<\n>
int <label>StartCharPos<elementIndex> = CharPositionInLine;<\n>
<if(scope)><scope:delegateName()>.<endif>m<rule.name>(<args; separator=", ">);
<checkRuleBacktrackFailure()><\n>
<label> = new <labelType>(input, TokenTypes.Invalid, TokenChannels.Default, <label>Start<elementIndex>,
CharIndex-1);<\n>
<label>.Line
 = <label>StartLine<elementIndex>;<\n>
<label>.CharPositionInLine = <label>StartCharPos<elementIndex>;
<else>
<if(scope)><scope:delegateName()>.<endif>m<rule.name>(<args; separator=", ">);
<checkRuleBacktrackFailure()>
<endif>
%>

/** i+=INT in lexer */
lexerRuleRefAndListLabel(rule,label,args,elementIndex,scope) ::= <<
<lexerRuleRef(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

/** EOF in the lexer */
lexerMatchEOF(label,elementIndex) ::= <%
<if(label)>
int <label>Start<elementIndex> = CharIndex;<\n>
int <label>StartLine<elementIndex> = Line;<\n>
int <label>StartCharPos<elementIndex> = CharPositionInLine;<\n>
Match(EOF); <checkRuleBacktrackFailure()><\n>
<labelType> <label> = new <labelType>(input, EOF, TokenChannels.Default, <label>Start<elementIndex>,
CharIndex-1);<\n>
```

```
<label>.Line = <label>StartLine<elementIndex>;<\n>
<label>.CharPositionInLine = <label>StartCharPos<elementIndex>;
<else>
Match(EOF); <checkRuleBacktrackFailure()>
<endif>
%>

// used for left-recursive
 rules
recRuleDefArg()                       ::= "int <recRuleArg()>"
recRuleArg()                          ::= "_p"
recRuleAltPredicate(ruleName,opPrec)  ::= "<recRuleArg()> \<= <opPrec>"
recRuleSetResultAction()              ::= "root_0=$<ruleName>_primary.tree;"

/** match ^(root children) in tree parser */
tree(root, actionsAfterRoot, children, nullableChildList,
    enclosingTreeLevel, treeLevel) ::= <<
<root:element()>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if (input.LA(1) == TokenTypes.Down)
{
 Match(input, TokenTypes.Down, null); <checkRuleBacktrackFailure()>
 <children:element()>
 Match(input, TokenTypes.Up, null); <checkRuleBacktrackFailure()>
}
<else>
Match(input, TokenTypes.Down, null); <checkRuleBacktrackFailure()>
<children:element()>
Match(input, TokenTypes.Up, null); <checkRuleBacktrackFailure()>
<endif>
>>

/** Every predicate is used as a validating predicate (even when it is
*  also hoisted into a prediction expression).
*/
validateSemanticPredicate(pred,description)
 ::= <<
if (!(<evalPredicate(...)>))
{
 <ruleBacktrackFailure()>
 throw new FailedPredicateException(input, "<ruleName>", "<description>");
}
>>

// F i x e d  D F A  (if-then-else)

dfaState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
```

```
int LA<decisionNumber>_<k> = input.LA(<k>);<\n>
<edges; separator="\nelse ">
else
{
<if(eotPredictsAlt)>
 alt<decisionNumber> = <eotPredictsAlt>;
<else>
 <ruleBacktrackFailure()>
 NoViableAltException nvae = new NoViableAltException("<description>", <decisionNumber>, <stateNumber>,
input, <k>);
 DebugRecognitionException(nvae);
 <@noViableAltException()>
 throw nvae;
<endif>
}
>>

/** Same as a normal DFA state except that we don't examine lookahead
*  for the bypass alternative.  It delays error detection but this
*  is faster, smaller, and more what people expect.  For (X)? people
*  expect "if ( LA(1)==X ) match(X);" and that's it.
*/
dfaOptionalBlockState(k,edges,eotPredictsAlt,description,stateNumber,semPredState)
 ::= <<
int LA<decisionNumber>_<k> = input.LA(<k>);<\n>
<edges; separator="\nelse ">
>>

/** A DFA state that is actually the loopback decision of a closure
*  loop.  If end-of-token (EOT) predicts any of the targets then it
*  should act like a default clause (i.e., no error can be generated).
*  This is used only in the lexer so that for ('a')* on the end of a rule
*  anything other than 'a' predicts exiting.
*/
dfaLoopbackState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
int LA<decisionNumber>_<k> = input.LA(<k>);<\n>
<edges; separator="\nelse "><\n>
<if(eotPredictsAlt)>
<if(!edges)>
alt<decisionNumber> = <eotPredictsAlt>;<! if no edges, don't gen ELSE !>
<else>
else
{
 alt<decisionNumber> = <eotPredictsAlt>;
}<\n>
<endif>
<endif>
>>
```

```
/** An accept state indicates a unique alternative has been predicted */
dfaAcceptState(alt) ::= "alt<decisionNumber> = <alt>;"

/** A simple edge with an expression.  If the expression is satisfied,
*  enter
 to the target state.  To handle gated productions, we may
*  have to evaluate some predicates for this edge.
*/
dfaEdge(labelExpr, targetState, predicates) ::= <<
if ((<labelExpr>)<if(predicates)> && (<predicates>)<endif>)
{
 <targetState>
}
>>

// F i x e d  D F A  (switch case)

/** A DFA state where a SWITCH may be generated.  The code generator
*  decides if this is possible: CodeGenerator.canGenerateSwitch().
*/
dfaStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch (input.LA(<k>))
{
<edges; separator="\n">
default:
<if(eotPredictsAlt)>
 alt<decisionNumber>=<eotPredictsAlt>;
 break;<\n>
<else>
 {
  <ruleBacktrackFailure()>
  NoViableAltException nvae = new NoViableAltException("<description>", <decisionNumber>, <stateNumber>, input, <k>);
  DebugRecognitionException(nvae);
  <@noViableAltException()>
  throw nvae;
 }
<endif>
}<\n>
>>

dfaOptionalBlockStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch (input.LA(<k>))
{
<edges;
 separator="\n">
}<\n>
```

```
>>

dfaLoopbackStateSwitch(k, edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch (input.LA(<k>))
{
<edges; separator="\n">
<if(eotPredictsAlt)>
default:
 alt<decisionNumber>=<eotPredictsAlt>;
 break;<\n>
<endif>
}<\n>
>>

dfaEdgeSwitch(labels, targetState) ::= <<
<labels:{it|case <it>:}; separator="\n">
 {
 <targetState>
 }
 break;
>>

// C y c l i c  D F A

/** The code to initiate execution of a cyclic DFA; this is used
*  in the rule to predict an alt just like the fixed DFA case.
*  The <name> attribute is inherited via the parser, lexer, ...
*/
dfaDecision(decisionNumber,description) ::= <<
try
{
 alt<decisionNumber> = dfa<decisionNumber>.Predict(input);
}
catch (NoViableAltException nvae)
{
 DebugRecognitionException(nvae);
 throw;
}
>>

/* Dump DFA tables as run-length-encoded Strings of octal values.
* Can't use hex as compiler translates them before compilation.
* These strings are split into multiple, concatenated
 strings.
* Java puts them back together at compile time thankfully.
* Java cannot handle large static arrays, so we're stuck with this
* encode/decode approach.  See analysis and runtime DFA for
* the encoding methods.
```

```
*/
cyclicDFA(dfa) ::= <<
private class DFA<dfa.decisionNumber> : DFA
{
 private const string DFA<dfa.decisionNumber>_eotS =
  "<dfa.javaCompressedEOT; wrap="\"+\n\t\t\"">";
 private const string DFA<dfa.decisionNumber>_eofS =
  "<dfa.javaCompressedEOF; wrap="\"+\n\t\t\"">";
 private const string DFA<dfa.decisionNumber>_minS =
  "<dfa.javaCompressedMin; wrap="\"+\n\t\t\"">";
 private const string DFA<dfa.decisionNumber>_maxS =
  "<dfa.javaCompressedMax; wrap="\"+\n\t\t\"">";
 private const string DFA<dfa.decisionNumber>_acceptS =
  "<dfa.javaCompressedAccept; wrap="\"+\n\t\t\"">";
 private const string DFA<dfa.decisionNumber>_specialS =
  "<dfa.javaCompressedSpecial; wrap="\"+\n\t\t\"">}>";
 private static readonly string[] DFA<dfa.decisionNumber>_transitionS
 =
  {
   <dfa.javaCompressedTransition:{s|"<s; wrap="\"+\n\"">"}; separator=",\n">
  };

 private static readonly short[] DFA<dfa.decisionNumber>_eot =
DFA.UnpackEncodedString(DFA<dfa.decisionNumber>_eotS);
 private static readonly short[] DFA<dfa.decisionNumber>_eof =
DFA.UnpackEncodedString(DFA<dfa.decisionNumber>_eofS);
 private static readonly char[] DFA<dfa.decisionNumber>_min =
DFA.UnpackEncodedStringToUnsignedChars(DFA<dfa.decisionNumber>_minS);
 private static readonly char[] DFA<dfa.decisionNumber>_max =
DFA.UnpackEncodedStringToUnsignedChars(DFA<dfa.decisionNumber>_maxS);
 private static readonly short[] DFA<dfa.decisionNumber>_accept =
DFA.UnpackEncodedString(DFA<dfa.decisionNumber>_acceptS);
 private static readonly short[] DFA<dfa.decisionNumber>_special =
DFA.UnpackEncodedString(DFA<dfa.decisionNumber>_specialS);
 private static readonly short[][] DFA<dfa.decisionNumber>_transition;

 static DFA<dfa.decisionNumber>()
 {
  int numStates = DFA<dfa.decisionNumber>_transitionS.Length;
  DFA<dfa.decisionNumber>_transition
 = new short[numStates][];
  for ( int i=0; i \< numStates; i++ )
  {
   DFA<dfa.decisionNumber>_transition[i] =
DFA.UnpackEncodedString(DFA<dfa.decisionNumber>_transitionS[i]);
  }
 }
```

```
 public DFA<dfa.decisionNumber>( BaseRecognizer recognizer<if(dfa.specialStateSTs)>,
SpecialStateTransitionHandler specialStateTransition<endif> )
<if(dfa.specialStateSTs)>
  : base(specialStateTransition)
<endif>
 {
  this.recognizer = recognizer;
  this.decisionNumber = <dfa.decisionNumber>;
  this.eot = DFA<dfa.decisionNumber>_eot;
  this.eof = DFA<dfa.decisionNumber>_eof;
  this.min = DFA<dfa.decisionNumber>_min;
  this.max = DFA<dfa.decisionNumber>_max;
  this.accept = DFA<dfa.decisionNumber>_accept;
  this.special = DFA<dfa.decisionNumber>_special;
  this.transition = DFA<dfa.decisionNumber>_transition;
 }

 public override string Description { get { return "<dfa.description>"; } }

 public override void Error(NoViableAltException nvae)
 {
  DebugRecognitionException(nvae);
 }
}<\n>
<if(dfa.specialStateSTs)>
private
 int SpecialStateTransition<dfa.decisionNumber>(DFA dfa, int s, IIntStream _input)<! throws
NoViableAltException!>
{
 <if(LEXER)>
 IIntStream input = _input;
 <endif>
 <if(PARSER)>
 ITokenStream input = (ITokenStream)_input;
 <endif>
 <if(TREE_PARSER)>
 ITreeNodeStream input = (ITreeNodeStream)_input;
 <endif>
 int _s = s;
 s = -1;
 <! pull these outside the switch cases to save space on locals !>
 int LA<dfa.decisionNumber>_1 = input.LA(1);
 int index<dfa.decisionNumber>_1 = input.Index;
 switch (_s)
 {
 <dfa.specialStateSTs:{state |case <i0>:<! compressed special state numbers 0..n-1 !>
 <state>}; separator="\n">
```

```
 default:
  break;
 }

 if (s >= 0)
  return s;

<if(backtracking)>
 if (state.backtracking > 0) {state.failed=true; return -1;}
<endif>
 NoViableAltException nvae = new NoViableAltException(dfa.Description, <dfa.decisionNumber>, _s, input);
 dfa.Error(nvae);
 throw nvae;
}
<endif>
>>

/** A state in a cyclic
 DFA; it's a special state and part of a big switch on
*  state.
*/
cyclicDFAState(decisionNumber,stateNumber,edges,needErrorClause,semPredState) ::= <<
{
<if(semPredState)>
 <! get next lookahead symbol to test edges, then rewind !>
 input.Rewind();
<endif>
 <edges; separator="\nelse ">
<if(semPredState)>
 <! return input cursor to state before we rewound !>
 input.Seek(index<decisionNumber>_1);
<endif>
 break;
}
>>

/** Just like a fixed DFA edge, test the lookahead and indicate what
*  state to jump to next if successful.
*/
cyclicDFAEdge(labelExpr, targetStateNumber, edgeNumber, predicates) ::= <<
if ((<labelExpr>)<if(predicates)> && (<predicates>)<endif>) {s = <targetStateNumber>;}<\n>
>>

/** An edge pointing at end-of-token; essentially matches any char;
*  always jump to the target.
*/
eotDFAEdge(targetStateNumber,edgeNumber, predicates) ::= <<
s = <targetStateNumber>;<\n>
```

```
>>


// D F A  E X P R E S S I O N S

andPredicates(left,right) ::= "(<left>&&<right>)"

orPredicates(operands)
 ::= "(<operands; separator=\"||\">)"

notPredicate(pred) ::= "!(<evalPredicate(...)>)"

evalPredicate(pred,description) ::= "(<pred>)"

evalSynPredicate(pred,description) ::= "EvaluatePredicate(<pred>_fragment)"

lookaheadTest(atom,k,atomAsInt) ::= "LA<decisionNumber>_<k>==<atom>"

/** Sometimes a lookahead test cannot assume that LA(k) is in a temp variable
*  somewhere.  Must ask for the lookahead directly.
*/
isolatedLookaheadTest(atom,k,atomAsInt) ::= "input.LA(<k>)==<atom>"

lookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= <%
(LA<decisionNumber>_<k><ge()><lower> && LA<decisionNumber>_<k><le()><upper>)
%>

isolatedLookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::=
"(input.LA(<k>)<ge()><lower> && input.LA(<k>)<le()><upper>)"

le() ::= "\<="
ge() ::= ">="

setTest(ranges) ::= <<
<ranges; separator="||">
>>

// A T T R I B U T E S

attributeScope(scope) ::= <<
<if(scope)>
<if(scope.attributes)>
protected sealed partial class
 <scope.name>_scope
{
 <scope.attributes:{it|public <it.decl>;}; separator="\n">

 public <scope.name>_scope(<grammar.recognizerName> grammar) { OnCreated(grammar); }
```

```
 partial void OnCreated(<grammar.recognizerName> grammar);
}
<if(scope.actions.scopeinit)>
protected void <scope.name>_scopeInit( <scope.name>_scope scope )
{
 <scope.actions.scopeinit>
}
<else>
partial void <scope.name>_scopeInit( <scope.name>_scope scope );
<endif>
<if(scope.actions.scopeafter)>
protected void <scope.name>_scopeAfter( <scope.name>_scope scope )
{
 <scope.actions.scopeafter>
}
<else>
partial void <scope.name>_scopeAfter( <scope.name>_scope scope );
<endif>
protected readonly ListStack\<<scope.name>_scope> <scope.name>_stack = new
ListStack\<<scope.name>_scope>();
<endif>
<endif>
>>

globalAttributeScope(scope) ::= <<
<attributeScope(...)>
>>

ruleAttributeScope(scope) ::= <<
<attributeScope(...)>
>>

returnStructName(it) ::= "<it.name>_return"

returnType(ruleDescriptor) ::= <%
<if(ruleDescriptor.returnScope.attributes
 && ruleDescriptor.hasMultipleReturnValues)>
 <ruleDescriptor.grammar.recognizerName>.<ruleDescriptor:returnStructName()>
<elseif(ruleDescriptor.hasMultipleReturnValues)>
 <ruleReturnBaseType()>
<elseif(ruleDescriptor.hasSingleReturnValue)>
 <ruleDescriptor.singleValueReturnType>
<else>
 void
<endif>
%>

/** Generate the C# type associated with a single or multiple return
```

```
*  values.
*/
ruleLabelType(referencedRule) ::= <%
<if(referencedRule.hasMultipleReturnValues)>
 <ruleReturnBaseType()>
<elseif(referencedRule.hasSingleReturnValue)>
 <referencedRule.singleValueReturnType>
<else>
 void
<endif>
%>

delegateName(it) ::= <<
<if(it.label)><it.label><else>g<it.name><endif>
>>

/** Using a type to init value map, try to init a type; if not in table
*  must be an object, default value is "null".
*/
initValue(typeName) ::= <<
default(<typeName>)
>>

/** Define a rule label including default value */
ruleLabelDef(label) ::= <%
<ruleLabelType(label.referencedRule)> <label.label.text>
 = <initValue(ruleLabelType(label.referencedRule))>;
%>

/** Define a return struct for a rule if the code needs to access its
*  start/stop tokens, tree stuff, attributes, ...  Leave a hole for
*  subgroups to stick in members.
*/
returnScope(scope) ::= <<
<if(scope.attributes && ruleDescriptor.hasMultipleReturnValues)>
<returnScopeModifier(grammar=grammar,ruleDescriptor=ruleDescriptor)> sealed partial class
<ruleDescriptor:returnStructName()> : <ruleReturnBaseType()><@ruleReturnInterfaces()>
{
 <scope.attributes:{it|public <it.decl>;}; separator="\n">
 <@ruleReturnMembers()>
}
<endif>
>>

ruleReturnBaseType() ::= <%
<if(TREE_PARSER)>Tree<else>Parser<endif>RuleReturnScope\<<labelType>>
%>
```

```
@returnScope.ruleReturnMembers() ::= <<
public <ruleDescriptor:returnStructName()>(<grammar.recognizerName> grammar) {OnCreated(grammar);}
partial void OnCreated(<grammar.recognizerName> grammar);
>>

parameterScope(scope) ::= <<
<scope.attributes:{it|<it.decl>}; separator=", ">
>>

parameterAttributeRef(attr)
 ::= <<
<attr.name; format="id">
>>

parameterSetAttributeRef(attr,expr) ::= <<
<attr.name; format="id"> =<expr>;
>>

scopeAttributeRef(scope,attr,index,negIndex) ::= <%
<if(negIndex)>
<scope>_stack[<scope>_stack.Count - <negIndex> - 1].<attr.name; format="id">
<else>
<if(index)>
<scope>_stack[<index>].<attr.name; format="id">
<else>
<scope>_stack.Peek().<attr.name; format="id">
<endif>
<endif>
%>

scopeSetAttributeRef(scope,attr,expr,index,negIndex) ::= <%
<if(negIndex)>
<scope>_stack[<scope>_stack.Count - <negIndex> - 1].<attr.name; format="id"> = <expr>;
<else>
<if(index)>
<scope>_stack[<index>].<attr.name; format="id"> = <expr>;
<else>
<scope>_stack.Peek().<attr.name; format="id"> = <expr>;
<endif>
<endif>
%>

/** $x is either global scope or x is rule with dynamic scope; refers
*  to stack itself not top of stack.  This is useful for predicates
*  like {$function.Count>0 && $function::name.Equals("foo")}?
*/
isolatedDynamicScopeRef(scope) ::= "<scope>_stack"
```

```
/**
 reference an attribute of rule; might only have single return value */
ruleLabelRef(referencedRule,scope,attr) ::= <%
<if(referencedRule.hasMultipleReturnValues)>
(<scope>!=null?((<returnType(referencedRule)>)<scope>).<attr.name; format="id">:<initValue(attr.type)>)
<else>
<scope>
<endif>
%>

returnAttributeRef(ruleDescriptor,attr) ::= <%
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name; format="id">
<else>
<attr.name; format="id">
<endif>
%>

returnSetAttributeRef(ruleDescriptor,attr,expr) ::= <%
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name; format="id"> =<expr>;
<else>
<attr.name; format="id"> =<expr>;
<endif>
%>

/** How to translate $tokenLabel */
tokenLabelRef(label) ::= "<label>"

/** ids+=ID {$ids} or e+=expr {$e} */
listLabelRef(label) ::= "list_<label>"


// not sure the next are the right approach

tokenLabelPropertyRef_text(scope,attr) ::= "(<scope>!=null?<scope>.Text:default(string))"
tokenLabelPropertyRef_type(scope,attr) ::= "(<scope>!=null?<scope>.Type:0)"
tokenLabelPropertyRef_line(scope,attr)
 ::= "(<scope>!=null?<scope>.Line:0)"
tokenLabelPropertyRef_pos(scope,attr) ::= "(<scope>!=null?<scope>.CharPositionInLine:0)"
tokenLabelPropertyRef_channel(scope,attr) ::= "(<scope>!=null?<scope>.Channel:0)"
tokenLabelPropertyRef_index(scope,attr) ::= "(<scope>!=null?<scope>.TokenIndex:0)"
tokenLabelPropertyRef_tree(scope,attr) ::= "<scope>_tree"
tokenLabelPropertyRef_int(scope,attr) ::= "(<scope>!=null?int.Parse(<scope>.Text):0)"

ruleLabelPropertyRef_start(scope,attr) ::= "(<scope>!=null?((<labelType>)<scope>.Start):default(<labelType>))"
ruleLabelPropertyRef_stop(scope,attr) ::= "(<scope>!=null?((<labelType>)<scope>.Stop):default(<labelType>))"
ruleLabelPropertyRef_tree(scope,attr) ::=
```

```
"(<scope>!=null?((<ASTLabelType>)<scope>.Tree):default(<ASTLabelType>))"
ruleLabelPropertyRef_text(scope,attr) ::= <%
<if(TREE_PARSER)>
(<scope>!=null?(input.TokenStream.ToString(
 input.TreeAdaptor.GetTokenStartIndex(<scope>.Start),
 input.TreeAdaptor.GetTokenStopIndex(<scope>.Start))):default(string))
<else>
(<scope>!=null?input.ToString(<scope>.Start,<scope>.Stop):default(string))
<endif>
%>

ruleLabelPropertyRef_st(scope,attr)
 ::= "(<scope>!=null?<scope>.Template:null)"

/** Isolated $RULE ref ok in lexer as it's a Token */
lexerRuleLabel(label) ::= "<label>"

lexerRuleLabelPropertyRef_type(scope,attr) ::=
   "(<scope>!=null?<scope>.Type:0)"

lexerRuleLabelPropertyRef_line(scope,attr) ::=
   "(<scope>!=null?<scope>.Line:0)"

lexerRuleLabelPropertyRef_pos(scope,attr) ::=
   "(<scope>!=null?<scope>.CharPositionInLine:-1)"

lexerRuleLabelPropertyRef_channel(scope,attr) ::=
   "(<scope>!=null?<scope>.Channel:0)"

lexerRuleLabelPropertyRef_index(scope,attr) ::=
   "(<scope>!=null?<scope>.TokenIndex:0)"

lexerRuleLabelPropertyRef_text(scope,attr) ::=
   "(<scope>!=null?<scope>.Text:default(string))"

lexerRuleLabelPropertyRef_int(scope,attr) ::=
   "(<scope>!=null?int.Parse(<scope>.Text):0)"

// Somebody may ref
 $template or $tree or $stop within a rule:
rulePropertyRef_start(scope,attr) ::= "retval.Start"
rulePropertyRef_stop(scope,attr) ::= "retval.Stop"
rulePropertyRef_tree(scope,attr) ::= "retval.Tree"
rulePropertyRef_text(scope,attr) ::= <%
<if(TREE_PARSER)>
input.TokenStream.ToString(
 input.TreeAdaptor.GetTokenStartIndex(retval.Start),
 input.TreeAdaptor.GetTokenStopIndex(retval.Start))
```

```
<else>
input.ToString(retval.Start,input.LT(-1))
<endif>
%>
rulePropertyRef_st(scope,attr) ::= "retval.Template"

lexerRulePropertyRef_text(scope,attr) ::= "Text"
lexerRulePropertyRef_type(scope,attr) ::= "_type"
lexerRulePropertyRef_line(scope,attr) ::= "state.tokenStartLine"
lexerRulePropertyRef_pos(scope,attr) ::= "state.tokenStartCharPositionInLine"
lexerRulePropertyRef_index(scope,attr) ::= "-1" // undefined token index in lexer
lexerRulePropertyRef_channel(scope,attr) ::= "_channel"
lexerRulePropertyRef_start(scope,attr) ::= "state.tokenStartCharIndex"
lexerRulePropertyRef_stop(scope,attr) ::= "(CharIndex-1)"
lexerRulePropertyRef_int(scope,attr)
 ::= "int.Parse(<scope>.Text)"

// setting $st and $tree is allowed in local rule. everything else
// is flagged as error
ruleSetPropertyRef_tree(scope,attr,expr) ::= "retval.Tree = <expr>;"
ruleSetPropertyRef_st(scope,attr,expr) ::= "retval.Template =<expr>;"

/** How to execute an action (only when not backtracking) */
execAction(action) ::= <%
<if(backtracking)>
if (<actions.(actionScope).synpredgate>)<\n>
{<\n>
<@indentedAction()><\n>
}
<else>
<action>
<endif>
%>

@execAction.indentedAction() ::= <<
 <action>
>>

/** How to always execute an action even when backtracking */
execForcedAction(action) ::= "<action>"

// M I S C (properties, etc...)

bitset(name, words64) ::= <<
public static readonly BitSet <name> = new BitSet(new ulong[]{<words64:{it|<it>UL};separator=",">});
>>

codeFileExtension() ::= ".cs"
```

```
true_value() ::= "true"
false_value() ::= "false"
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/CSharp3/CSharp3.stg
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```
/*
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* THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
* (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF
* THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
*/
/** Template subgroup to add template rewrite output
*  If debugging, then you'll also get STDbg.stg loaded.
*/

@outputFile.imports() ::= <<
<@super.imports()>
using Antlr.StringTemplate;
using Antlr.StringTemplate.Language;
```

```
<if(!backtracking)>
using Hashtable = System.Collections.Hashtable;
<endif>

>>

/** Add this
 to each rule's return value struct */
@returnScope.ruleReturnMembers() ::= <<
private StringTemplate _st;
public StringTemplate Template { get { return _st; } set { _st = value; } }
public override string ToString() { return (Template==null) ? string.Empty : Template.ToString(); }
>>

@genericParser.members() ::= <<
<@super.members()>
protected StringTemplateGroup templateLib = new StringTemplateGroup("<name>Templates",
typeof(AngleBracketTemplateLexer) );

public StringTemplateGroup TemplateLib
{
 get { return this.templateLib; }
 set { this.templateLib = value; }
}

/// \<summary> Allows convenient multi-value initialization:
///  "new STAttrMap().Add(...).Add(...)"
/// \</summary>
protected class STAttrMap : Hashtable
{
 public STAttrMap Add(string attrName, object value)
 {
   base.Add(attrName, value);
   return this;
 }
 public STAttrMap Add(string attrName, int value)
 {
   base.Add(attrName, value);
   return this;
 }
}
>>

/** x+=rule when output=template */
ruleRefAndListLabel(rule,label,elementIndex,args,scope)
 ::= <<
<ruleRef(...)>
<listLabel(elem=label+".Template",...)>
```

```
>>

rewriteTemplate(alts) ::= <<

// TEMPLATE REWRITE
<if(backtracking)>
if ( <actions.(actionScope).synpredgate> )
{
 <alts:rewriteTemplateAlt(); separator="else ">
 <if(rewriteMode)><replaceTextInLine()><endif>
}
<else>
<alts:rewriteTemplateAlt(); separator="else ">
<if(rewriteMode)><replaceTextInLine()><endif>
<endif>
>>

replaceTextInLine() ::= <<
<if(TREE_PARSER)>
((TokenRewriteStream)input.TokenStream).Replace(
 input.TreeAdaptor.GetTokenStartIndex(retval.Start),
 input.TreeAdaptor.GetTokenStopIndex(retval.Start),
 retval.Template);
<else>
((TokenRewriteStream)input).Replace(
 ((IToken)retval.Start).TokenIndex,
 input.LT(-1).TokenIndex,
 retval.Template);
<endif>
>>

rewriteTemplateAlt() ::= <<
// <it.description>
<if(it.pred)>
if (<it.pred>) {
   retval.Template = <it.alt>;
}<\n>
<else>
{
   retval.Template = <it.alt>;
}<\n>
<endif>
>>

rewriteEmptyTemplate(alts)
 ::= <<
null;
>>
```

```
/** Invoke a template with a set of attribute name/value pairs.
*  Set the value of the rule's template *after* having set
*  the attributes because the rule's template might be used as
*  an attribute to build a bigger template; you get a self-embedded
*  template.
*/
rewriteExternalTemplate(name,args) ::= <<
templateLib.GetInstanceOf("<name>"<if(args)>,
 new STAttrMap()<args:{a | .Add("<a.name>", <a.value>)}>
 <endif>)
>>

/** expr is a string expression that says what template to load */
rewriteIndirectTemplate(expr,args) ::= <<
templateLib.GetInstanceOf(<expr><if(args)>,
 new STAttrMap()<args:{a | .Add("<a.name>", <a.value>)}>
 <endif>)
>>

/** Invoke an inline template with a set of attribute name/value pairs */
rewriteInlineTemplate(args, template) ::= <<
new StringTemplate(templateLib, "<template>"<if(args)>,
 new STAttrMap()<args:{a | .Add("<a.name>", <a.value>)}>
 <endif>)
>>

/** plain -> {foo} action */
rewriteAction(action) ::= <<
<action>
>>

/**
 An action has %st.attrName=expr; or %{st}.attrName=expr; */
actionSetAttribute(st,attrName,expr) ::= <<
(<st>).SetAttribute("<attrName>",<expr>);
>>

/** Translate %{stringExpr} */
actionStringConstructor(stringExpr) ::= <<
new StringTemplate(templateLib,<stringExpr>)
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/CSharp2/ST.stg
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```
/*
```

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* THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
*/

/** Templates for building ASTs during tree parsing.
*
*  Deal with many combinations.  Dimensions are:
*  Auto build or rewrite
*    no label, label, list label  (label/no-label handled together)
*    child, root
*    token, set, rule, wildcard
*
*  Each combination has its own template except that label/no label
 *  is combined into tokenRef, ruleRef, ...
*/

/** Add a variable to track last element matched */
ruleDeclarations() ::= <<
<super.ruleDeclarations()>
<if(!ruleDescriptor.isSynPred)>
<ASTLabelType> _first_0 = default(<ASTLabelType>);
```

```
<ASTLabelType> _last = default(<ASTLabelType>);
<endif>
>>

/** What to emit when there is no rewrite rule.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel=false, treeLevel=false) ::= <<
<if(!ruleDescriptor.isSynPred)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
<if(rewriteMode)>
retval.Tree = (<ASTLabelType>)_first_0;
if (adaptor.GetParent(retval.Tree)!=null && adaptor.IsNil(adaptor.GetParent(retval.Tree)))
   retval.Tree = (<ASTLabelType>)adaptor.GetParent(retval.Tree);
<endif>
<if(backtracking)>}<endif>
<endif>
>>

/** match ^(root children) in tree parser; override here to
*  add tree construction actions.
*/
tree(root, actionsAfterRoot, children, nullableChildList,
    enclosingTreeLevel, treeLevel)
 ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
{
<ASTLabelType> _save_last_<treeLevel> = _last;
<ASTLabelType> _first_<treeLevel> = default(<ASTLabelType>);
<if(!rewriteMode)>
<ASTLabelType> root_<treeLevel> = (<ASTLabelType>)adaptor.Nil();
<endif>
<root:element()>
<if(rewriteMode)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>)<endif>
<if(root.el.rule)>
if (_first_<enclosingTreeLevel> == null) _first_<enclosingTreeLevel> = <root.el.label>.Tree;
<else>
if (_first_<enclosingTreeLevel> == null) _first_<enclosingTreeLevel> = <root.el.label>;
<endif>
<endif>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if (input.LA(1) == TokenTypes.Down) {
   Match(input, TokenTypes.Down, null); <checkRuleBacktrackFailure()>
   <children:element()>
   Match(input, TokenTypes.Up, null); <checkRuleBacktrackFailure()>
```

```
}
<else>
Match(input, TokenTypes.Down, null); <checkRuleBacktrackFailure()>
<children:element()>
Match(input, TokenTypes.Up, null); <checkRuleBacktrackFailure()>
<endif>
<if(!rewriteMode)>
adaptor.AddChild(root_<enclosingTreeLevel>,
 root_<treeLevel>);
<endif>
_last = _save_last_<treeLevel>;
}
<else>
<super.tree(...)>
<endif>
>>

// TOKEN AST STUFF

/** ID! and output=AST (same as plain tokenRef) 'cept add
*  setting of _last
*/
tokenRefBang(token,label,elementIndex,terminalOptions) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.tokenRef(...)>
<else>
<super.tokenRefBang(...)>
<endif>
>>

/** ID auto construct */
tokenRef(token,label,elementIndex,terminalOptions) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.tokenRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
<if(terminalOptions.node)>
<label>_tree = new
<terminalOptions.node>(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text; format="string"><endif>);
<else>
<label>_tree =
(<ASTLabelType>)adaptor.DupNode(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text;
 format="string"><endif>);
<endif><\n>
```

```
adaptor.AddChild(root_<treeLevel>, <label>_tree);
<if(backtracking)>}<endif>
<else> <! rewrite mode !>
<if(backtracking)>if (<actions.(actionScope).synpredgate>)<endif>
if (_first_<treeLevel> == null) _first_<treeLevel> = <label>;
<endif>
<else>
<super.tokenRef(...)>
<endif>
>>

/** label+=TOKEN auto construct */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<if(!ruleDescriptor.isSynPred)>
<tokenRef(...)>
<listLabelElem(elem=label,...)>
<else>
<super.tokenRefAndListLabel(...)>
<endif>
>>

/** ^(ID ...) auto construct */
tokenRefRuleRoot(token,label,elementIndex,terminalOptions) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.tokenRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
<if(terminalOptions.node)>
<label>_tree
 = new
<terminalOptions.node>(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text; format="string"><endif>);
<else>
<label>_tree =
(<ASTLabelType>)adaptor.DupNode(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text; format="string"><endif>);
<endif><\n>
root_<treeLevel> = (<ASTLabelType>)adaptor.BecomeRoot(<label>_tree, root_<treeLevel>);
<if(backtracking)>}<endif>
<endif>
<else>
<super.tokenRefRuleRoot(...)>
<endif>
>>

/** Match ^(label+=TOKEN ...) auto construct */
tokenRefRuleRootAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
```

```
<if(!ruleDescriptor.isSynPred)>
<tokenRefRuleRoot(...)>
<listLabelElem(elem=label,...)>
<else>
<super.tokenRefRuleRootAndListLabel(...)>
<endif>
>>

/** Match . wildcard and auto dup the node/subtree */
wildcard(token,label,elementIndex,terminalOptions) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.wildcard(...)>
<if(!rewriteMode)>
<if(backtracking)>if
 (<actions.(actionScope).synpredgate>) {<endif>
<label>_tree = (<ASTLabelType>)adaptor.DupTree(<label>);
adaptor.AddChild(root_<treeLevel>, <label>_tree);
<if(backtracking)>}<endif>
<else> <! rewrite mode !>
<if(backtracking)>if (<actions.(actionScope).synpredgate>)<endif>
if (_first_<treeLevel> == null) _first_<treeLevel> = <label>;
<endif>
<else>
<super.wildcard(...)>
<endif>
>>

// SET AST

matchSet(s,label,terminalOptions,elementIndex,postmatchCode) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.matchSet(postmatchCode={
<if(!rewriteMode)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
<if(terminalOptions.node)>
<label>_tree = new
<terminalOptions.node>(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text; format="string"><endif>);
<else>
<label>_tree =
(<ASTLabelType>)adaptor.DupNode(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text;
 format="string"><endif>);
<endif><\n>
adaptor.AddChild(root_<treeLevel>, <label>_tree);
<if(backtracking)>\}<endif>
```

```
<endif>
}, ...
)>
<else>
<super.matchSet(...)>
<endif>
>>

matchRuleBlockSet(s,label,terminalOptions,elementIndex,postmatchCode,treeLevel="0") ::= <<
<if(!ruleDescriptor.isSynPred)>
<matchSet(...)>
<noRewrite(...)> <! set return tree !>
<else>
<super.matchRuleBlockSet(...)>
<endif>
>>

matchSetBang(s,label,terminalOptions,elementIndex,postmatchCode) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.matchSet(...)>
<else>
<super.matchSetBang(...)>
<endif>
>>

matchSetRuleRoot(s,label,terminalOptions,elementIndex,debug) ::= <<
<if(!ruleDescriptor.isSynPred)>
<super.matchSet(postmatchCode={
<if(!rewriteMode)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
<if(terminalOptions.node)>
<label>_tree = new
<terminalOptions.node>(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text;
 format="string"><endif>);
<else>
<label>_tree =
(<ASTLabelType>)adaptor.DupNode(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text; format="string"><endif>);
<endif><\n>
root_<treeLevel> = (<ASTLabelType>)adaptor.BecomeRoot(<label>_tree, root_<treeLevel>);
<if(backtracking)>\}<endif>
<endif>
}, ...
)>
<else>
<super.matchSetRuleRoot(...)>
```

```
<endif>
>>

// RULE REF AST

/** rule auto construct */
ruleRef(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRef(...)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>)<endif>
<if(!rewriteMode)>
adaptor.AddChild(root_<treeLevel>, <label>.Tree);
<else> <! rewrite mode !>
if (_first_<treeLevel> == null) _first_<treeLevel> = <label>.Tree;
<endif>
<else>
<super.ruleRef(...)>
<endif>
>>

/** x+=rule auto construct
 */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
<ruleRef(...)>
<listLabelElem(elem={<label>.Tree},...)>
<else>
<super.ruleRefAndListLabel(...)>
<endif>
>>

/** ^(rule ...) auto construct */
ruleRefRuleRoot(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) <endif>root_<treeLevel> =
(<ASTLabelType>)adaptor.BecomeRoot(<label>.Tree, root_<treeLevel>);
<endif>
<else>
<super.ruleRefRuleRoot(...)>
<endif>
>>

/** ^(x+=rule ...) auto construct */
ruleRefRuleRootAndListLabel(rule,label,elementIndex,args,scope) ::= <<
```

```
<if(!ruleDescriptor.isSynPred)>
<ruleRefRuleRoot(...)>
<listLabelElem(elem={<label>.Tree},...)>
<else>
<super.ruleRefRuleRootAndListLabel(...)>
<endif>
>>

/** rule when output=AST and tracking for rewrite */
ruleRefTrack(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last
 = (<ASTLabelType>)input.LT(1);
<super.ruleRefTrack(...)>
<else>
<super.ruleRefTrack(...)>
<endif>
>>

/** x+=rule when output=AST and tracking for rewrite */
ruleRefTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRefTrackAndListLabel(...)>
<else>
<super.ruleRefTrackAndListLabel(...)>
<endif>
>>

/** ^(rule ...) rewrite */
ruleRefRuleRootTrack(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRefRootTrack(...)>
<else>
<super.ruleRefRuleRootTrack(...)>
<endif>
>>

/** ^(x+=rule ...) rewrite */
ruleRefRuleRootTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRefRuleRootTrackAndListLabel(...)>
<else>
<super.ruleRefRuleRootTrackAndListLabel(...)>
<endif>
>>
```

```
/** Streams for token refs are tree nodes now;
 override to
*  change NextToken to NextNode.
*/
createRewriteNodeFromElement(token,terminalOptions,args) ::= <%
<if(terminalOptions.node)>
new
<terminalOptions.node>(<if(terminalOptions.type)><terminalOptions.type>,<endif>stream_<token>.NextNode())
<else>
stream_<token>.NextNode()
<endif>
%>

ruleCleanUp() ::= <<
<super.ruleCleanUp()>
<if(!ruleDescriptor.isSynPred)>
<if(!rewriteMode)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
retval.Tree = (<ASTLabelType>)adaptor.RulePostProcessing(root_0);
<if(backtracking)>}<endif>
<endif>
<endif>
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/CSharp2/ASTTreeParser.stg
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*/
group AST;

@outputFile.imports() ::= <<
<@super.imports()><if(!TREE_PARSER)><! tree parser would already have imported !>
Antlr.Runtime.Tree,<\n><endif>
>>

@genericParser.members() ::= <<
<@super.members()>
<parserMembers()>
>>

@genericParser.membersConstructor() ::= <<
<@super.membersConstructor()>
<parserMembersConstructor()>
>>

@genericParser.membersImplementation()
 ::= <<
<@super.membersImplementation()>
<parserMembersImplementation()>
>>

/** Add an adaptor property that knows how to build trees */
parserMembers() ::= <<
 strict protected
   FAdaptor: ITreeAdaptor;
   procedure SetAdaptor(const Value: ITreeAdaptor);
   property Adaptor: ITreeAdaptor read FAdaptor;
 public
   property TreeAdaptor: ITreeAdaptor read FAdaptor write SetAdaptor;

>>

parserMembersConstructor() ::= <<
```

```
FAdaptor := TCommonTreeAdaptor.Create;
>>

parserMembersImplementation() ::= <<
procedure T<grammar.recognizerName>.SetAdaptor(const Value: ITreeAdaptor);
begin
 FAdaptor := Value;
 <grammar.directDelegates:{g|<g:delegateName()>.TreeAdaptor := FAdaptor;}>
end;
>>

@returnScope.ruleReturnMembers() ::= <<
function T<grammar.recognizerName>.T<ruleDescriptor:returnStructName()>.GetTree: IANTLRInterface;
begin
 Result := FTree;
end;

procedure T<grammar.recognizerName>.T<ruleDescriptor:returnStructName()>.SetTree(const Value:
IANTLRInterface);
begin
 FTree := Value
 as I<ASTLabelType>;
end;
>>

@returnScopeDeclaration.ruleReturnMembers() ::= <<
strict private
 FTree: I<ASTLabelType>;
protected
 { IRuleReturnScope }
 function GetTree: IANTLRInterface; override;
 procedure SetTree(const Value: IANTLRInterface); override;
>>

/** Add a variable to track rule's return AST */
ruleDeclarations() ::= <<
<super.ruleDeclarations()>
Root[0] := nil;<\n>
>>

ruleDeclarationVars() ::= <<
<super.ruleDeclarationVars()>
Root: array [0..63] of I<ASTLabelType>;
>>

ruleLabelDefs() ::= <<
<super.ruleLabelDefs()>
<ruleDescriptor.tokenLabels:{<it.label.text>_tree := nil;}; separator="\n">
```

```
<ruleDescriptor.tokenListLabels:{<it.label.text>_tree := nil;}; separator="\n">
<ruleDescriptor.allTokenRefsInAltsWithRewrites:{Locals['Stream_<it>'] :=
TRewriteRule<rewriteElementType>Stream.Create(Adaptor,'token <it>');}; separator="\n">
<ruleDescriptor.allRuleRefsInAltsWithRewrites:{Locals['Stream_<it>'] :=
TRewriteRuleSubtreeStream.Create(Adaptor,'rule <it>');}; separator="\n">
>>

ruleLabelDefVars()
 ::= <<
<super.ruleLabelDefVars()>
<ruleDescriptor.tokenLabels:{<it.label.text>_tree: I<ASTLabelType>;}; separator="\n">
<ruleDescriptor.tokenListLabels:{<it.label.text>_tree: I<ASTLabelType>;}; separator="\n">
>>
/** When doing auto AST construction, we must define some variables;
*  These should be turned off if doing rewrites.  This must be a "mode"
*  as a rule could have both rewrite and AST within the same alternative
*  block.
*/
@alt.declarations() ::= <<
<if(autoAST)>
<if(outerAlt)>
<if(!rewriteMode)>
Root[0] := Adaptor.GetNilNode as I<ASTLabelType>;
<endif>
<endif>
<endif>
>>

// T r a c k i n g  R u l e  E l e m e n t s

/** ID and track it for use in a rewrite rule */
tokenRefTrack(token,label,elementIndex,terminalOptions) ::= <<
<tokenRefBang(...)> <! Track implies no auto AST construction!>
<if(backtracking)>if (State.Backtracking = 0) then <endif>(Locals['Stream_<token>'] as
IRewriteRuleElementStream).Add(<label>);<\n>
>>

/** ids+=ID and track
 it for use in a rewrite rule; adds to ids *and*
*  to the tracking list stream_ID for use in the rewrite.
*/
tokenRefTrackAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRefTrack(...)>
<listLabel(elem=label,...)>
>>

/** ^(ID ...) track for rewrite */
tokenRefRuleRootTrack(token,label,elementIndex,terminalOptions) ::= <<
```

```
<tokenRefBang(...)>
<if(backtracking)>if (State.Backtracking = 0) then <endif>(Locals['Stream_<token>'] as
IRewriteRuleElementStream).Add(<label>);<\n>
>>

/** Match ^(label+=TOKEN ...) track for rewrite */
tokenRefRuleRootTrackAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRefRuleRootTrack(...)>
<listLabel(elem=label,...)>
>>

wildcardTrack(label,elementIndex) ::= <<
<super.wildcard(...)>
>>

/** rule when output=AST and tracking for rewrite */
ruleRefTrack(rule,label,elementIndex,args,scope) ::= <<
<super.ruleRef(...)>
<if(backtracking)>if (State.Backtracking = 0) then <endif>(Locals['Stream_<rule.name>'] as
IRewriteRuleElementStream).Add(<label>.Tree);<\n>
>>

/**
 x+=rule when output=AST and tracking for rewrite */
ruleRefTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefTrack(...)>
<listLabel(elem=label+".Tree",...)>
>>

/** ^(rule ...) rewrite */
ruleRefRuleRootTrack(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRoot(...)>
<if(backtracking)>if (State.Backtracking = 0) then <endif>(Locals['Stream_<rule>'] as
IRewriteRuleElementStream).Add(<label>.Tree);
>>

/** ^(x+=rule ...) rewrite */
ruleRefRuleRootTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRootTrack(...)>
<listLabel(elem=label+".Tree",...)>
>>

// R e w r i t e

rewriteCode(
 alts, description,
 referencedElementsDeep, // ALL referenced elements to right of ->
 referencedTokenLabels,
```

```
 referencedTokenListLabels,
 referencedRuleLabels,
 referencedRuleListLabels,
   referencedWildcardLabels,
   referencedWildcardListLabels,
 rewriteBlockLevel, enclosingTreeLevel, treeLevel) ::=
<<

// AST
 REWRITE
// elements:          <referencedElementsDeep; separator=", ">
// token labels:      <referencedTokenLabels; separator=", ">
// rule labels:       <referencedRuleLabels; separator=", ">
// token list labels: <referencedTokenListLabels; separator=", ">
// rule list labels:  <referencedRuleListLabels; separator=", ">
<if(backtracking)>
if (State.Backtracking = 0) then
begin<\n>
<endif>
<prevRuleRootRef()>.Tree := Root[0];
<rewriteCodeLabels()>
Root[0] := Adaptor.GetNilNode as I<ASTLabelType>;
<alts:rewriteAlt(); separator="else ">
<! if tree parser and rewrite=true !>
<if(TREE_PARSER)>
<if(rewriteMode)>
<prevRuleRootRef()>.Tree = (<ASTLabelType>)adaptor.rulePostProcessing(root[0]);
input.ReplaceChildren(adaptor.GetParent(retval.Start),
                      adaptor.GetChildIndex(retval.Start),
                      adaptor.GetChildIndex(_last),
                      retval.Tree);
<endif>
<endif>
<! if parser or rewrite!=true, we need to set result !>
<if(!TREE_PARSER)>
<prevRuleRootRef()>.Tree
 := Root[0];<\n>
<endif>
<if(!rewriteMode)>
<prevRuleRootRef()>.Tree := Root[0];<\n>
<endif>
<if(backtracking)>
end;
<endif>
>>

rewriteCodeLabels() ::= <<
<referencedTokenLabels
```

```
   :{Locals['Stream_<it>'] := TRewriteRule<rewriteElementType>Stream.Create(Adaptor, 'token <it>', <it>);};
   separator="\n"
>
<referencedTokenListLabels
   :{Locals['Stream_<it>'] := TRewriteRule<rewriteElementType>Stream.Create(Adaptor,'token <it>', list_<it>);};
   separator="\n"
>
<referencedRuleLabels:{
if Assigned(<it>) then
 Locals['Stream_<it>'] := TRewriteRuleSubtreeStream.Create(Adaptor, 'token <it>', <it>.Tree)
else
 Locals['Stream_<it>'] := TRewriteRuleSubtreeStream.Create(Adaptor, 'token <it>', nil);}; separator="\n">
<referencedRuleListLabels
   :{Locals['Stream_<it>'] := TRewriteRuleSubtreeStream.Create(Adaptor, 'token <it>', list_<it>);};
   separator="\n"
>
>>

/** Generate code for an optional rewrite block; note it uses the deep ref'd element
 *  list rather shallow
 like other blocks.
 */
rewriteOptionalBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements,     // elements in immediately block; no nested blocks
 description) ::=
<<
(* <fileName>:<description> *)
if (<referencedElementsDeep:{el | (Locals['Stream_<el>'] as IRewriteRuleElementStream).HasNext}; separator="
or ">) then
begin
 <alt>
end;
<referencedElementsDeep:{el | (Locals['Stream_<el>'] as IRewriteRuleElementStream).Reset;<\n>}>
>>

rewriteClosureBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements,     // elements in immediately block; no nested blocks
 description) ::=
<<
(* <fileName>:<description> *)
while (<referencedElements:{el | (Locals['Stream_<el>'] as IRewriteRuleElementStream).HasNext}; separator=" or
">) do
begin
 <alt>
```

```
end;
<referencedElements:{el | (Locals['Stream_<el>'] as IRewriteRuleElementStream).Reset();<\n>}>
>>

rewritePositiveClosureBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep,
 // all nested refs
 referencedElements,     // elements in immediately block; no nested blocks
 description) ::=
<<
if (not (<referencedElements:{el | (Locals['Stream_<el>'] as IRewriteRuleElementStream).HasNext}; separator=" or
">)) then
 raise ERewriteEarlyExitException.Create('');

while (<referencedElements:{el | (Locals['Stream_<el>'] as IRewriteRuleElementStream).HasNext}; separator=" or
">) do
begin
 <alt>
end;
<referencedElements:{el | (Locals['Stream_<el>'] as IRewriteRuleElementStream).Reset();<\n>}>
>>

rewriteAlt(a) ::= <<
(* <a.description> *)
<if(a.pred)>
if (<a.pred>) then
begin
 <a.alt>
end<\n>
<else>
begin
 <a.alt>
end;<\n>
<endif>
>>

/** For empty rewrites: "r : ... -> ;" */
rewriteEmptyAlt() ::= "Root[0] = null;"

rewriteTree(root,children,description,enclosingTreeLevel,treeLevel) ::= <<
(* <fileName>:<description> *)
begin
 Root[<treeLevel>] := Adaptor.GetNilNode as I<ASTLabelType>;
 <root:rewriteElement()>
 <children:rewriteElement()>
 Adaptor.AddChild(Root[<enclosingTreeLevel>],
```

```
 Root[<treeLevel>]);
end;<\n>
>>

rewriteElementList(elements) ::= "<elements:rewriteElement()>"

rewriteElement(e) ::= <<
<@pregen()>
<e.el>
>>

/** Gen ID or ID[args] */
rewriteTokenRef(token,elementIndex,terminalOptions,args) ::= <<
Adaptor.AddChild(Root[<treeLevel>], <createRewriteNodeFromElement(...)>);<\n>
>>

/** Gen $label ... where defined via label=ID */
rewriteTokenLabelRef(label,elementIndex) ::= <<
Adaptor.AddChild(Root[<treeLevel>], (Locals['Stream_<label>'] as
IRewriteRuleElementStream).NextNode());<\n>
>>

/** Gen $label ... where defined via label+=ID */
rewriteTokenListLabelRef(label,elementIndex) ::= <<
Adaptor.AddChild(Root[<treeLevel>], (Locals['Stream_<label>'] as IRewriteRuleElementStream).NextNode);<\n>
>>

/** Gen ^($label ...) */
rewriteTokenLabelRefRoot(label,elementIndex) ::= <<
Root[<treeLevel>] := Adaptor.BecomeRoot((Locals['Stream_<label>'] as
IRewriteRuleElementStream).NextNode(), Root[<treeLevel>]) as I<ASTLabelType>;<\n>
>>

/**
 Gen ^($label ...) where label+=... */
rewriteTokenListLabelRefRoot ::= rewriteTokenLabelRefRoot

/** Gen ^(ID ...) or ^(ID[args] ...) */
rewriteTokenRefRoot(token,elementIndex,terminalOptions,args) ::= <<
Root[<treeLevel>] := Adaptor.BecomeRoot(<createRewriteNodeFromElement(...)>, Root[<treeLevel>]) as
I<ASTLabelType>;<\n>
>>

rewriteImaginaryTokenRef(args,token,terminalOptions,elementIndex) ::= <<
Adaptor.AddChild(Root[<treeLevel>], <createImaginaryNode(tokenType=token, ...)>);<\n>
>>

rewriteImaginaryTokenRefRoot(args,token,terminalOptions,elementIndex) ::= <<
```

```
Root[<treeLevel>] := Adaptor.BecomeRoot(<createImaginaryNode(tokenType=token, ...)>, Root[<treeLevel>]) as
I<ASTLabelType>;<\n>
>>

/** plain -> {foo} action */
rewriteAction(action) ::= <<
Root[0] = <action>;<\n>
>>

/** What is the name of the previous value of this rule's root tree?  This
*  let's us refer to $rule to mean previous value.  I am reusing the
*  variable 'tree' sitting in retval struct to hold the
 value of Root[0] right
*  before I set it during rewrites.  The assign will be to retval.Tree.
*/
prevRuleRootRef() ::= "RetVal"

rewriteRuleRef(rule) ::= <<
Adaptor.AddChild(Root[<treeLevel>], (Locals['Stream_<rule>'] as IRewriteRuleElementStream).NextTree());<\n>
>>

rewriteRuleRefRoot(rule) ::= <<
Root[<treeLevel>] := Adaptor.BecomeRoot((Locals['Stream_<rule>'] as IRewriteRuleElementStream).NextNode,
Root[<treeLevel>]) as I<ASTLabelType>;<\n>
>>

rewriteNodeAction(action) ::= <<
Adaptor.AddChild(Root[<treeLevel>], <action>);<\n>
>>

rewriteNodeActionRoot(action) ::= <<
Root[<treeLevel>] := Adaptor.BecomeRoot(<action>, Root[<treeLevel>]) as I<ASTLabelType>;<\n>
>>

/** Gen $ruleLabel ... where defined via ruleLabel=rule */
rewriteRuleLabelRef(label) ::= <<
Adaptor.AddChild(Root[<treeLevel>], (Locals['Stream_<label>'] as IRewriteRuleElementStream).NextTree());<\n>
>>

/** Gen $ruleLabel ... where defined via ruleLabel+=rule */
rewriteRuleListLabelRef(label) ::= <<
Adaptor.AddChild(Root[<treeLevel>],
 (Locals['Stream_<label>'] as IRewriteRuleElementStream).NextTree());<\n>
>>

/** Gen ^($ruleLabel ...) where ruleLabel=rule */
rewriteRuleLabelRefRoot(label) ::= <<
Root[<treeLevel>] := Adaptor.BecomeRoot((Locals['Stream_<label>'] as IRewriteRuleElementStream).NextNode,
```

```
Root[<treeLevel>]) as I<ASTLabelType>;<\n>
>>

/** Gen ^($ruleLabel ...) where ruleLabel+=rule */
rewriteRuleListLabelRefRoot(label) ::= <<
Root[<treeLevel>] := Adaptor.BecomeRoot((Locals['Stream_<label>'] as IRewriteRuleElementStream).NextNode,
Root[<treeLevel>]) as I<ASTLabelType>;<\n>
>>

createImaginaryNode(tokenType,terminalOptions,args) ::= <<
<if(terminalOptions.node)>
<! new MethodNode(IDLabel, args) !>
T<terminalOptions.node>.Create(<tokenType><if(args)>, <args; separator=", "><endif>)
<else>
Adaptor.CreateNode(<tokenType>, <args; separator=", "><if(!args)>'<tokenType>'<endif>) as I<ASTLabelType>
<endif>
>>

createRewriteNodeFromElement(token,terminalOptions,args) ::= <<
<if(terminalOptions.node)>
T<terminalOptions.node>.Create((Locals['Stream_<token>']
 as IRewriteRuleElementStream).NextToken<if(args)>, <args; separator=", "><endif>)
<else>
<if(args)> <! must create new node from old !>
Adaptor.Create(<token>, <args; separator=", ">)
<else>
(Locals['Stream_<token>'] as IRewriteRuleElementStream).NextNode
<endif>
<endif>
>>
```

Found in path(s):

* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Delphi/AST.stg

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```
*/
/** Template overrides to add debugging to normal C output;
*  If ASTs are built, then you'll also get ASTDbg.stg loaded.
*/
@genericParser.members() ::= <<
<if(grammar.grammarIsRoot)>
const char *
ruleNames[] =
 {
  "invalidRule", <grammar.allImportedRules:{rST | "<rST.name>"}; wrap="\n  ", separator=", ">
 };<\n>
<endif>
<if(grammar.grammarIsRoot)> <! grammar imports other grammar(s) !>
static ANTLR3_UINT32
 ruleLevel = 0;
static ANTLR3_UINT32 getRuleLevel()
{
 return ruleLevel;
}
static void incRuleLevel()
{
 ruleLevel++;
}
static void decRuleLevel()
{
 ruleLevel--;
}
<else> <! imported grammar !>
static ANTLR3_UINT32
getRuleLevel()
{
```

```
 return <grammar.delegators:{g| <g:delegateName()>}>->getRuleLevel();
}
static void incRuleLevel()
{
 <grammar.delegators:{g| <g:delegateName()>}>->incRuleLevel();
}
static void
decRuleLevel()
{
 <grammar.delegators:{g| <g:delegateName()>}>.decRuleLevel();
}
<endif>
<if(profile)>
// Profiling not yet implemented for C target
//
<endif>
<if(grammar.grammarIsRoot)>
<ctorForPredefinedListener()>
<else>
<ctorForDelegateGrammar()>
<endif>

static ANTLR3_BOOLEAN
evalPredicate(p<name> ctx, ANTLR3_BOOLEAN result, const char * predicate)
{
   DBG->semanticPredicate(DBG, result, predicate);
   return result;
}<\n>
>>

@genericParser.debugStuff() ::= <<
<if(grammar.grammarIsRoot)>
<createListenerAndHandshake()>
<endif>
>>

ctorForProfilingRootGrammar() ::=
 <<
>>

/** Basically we don't want to set any dbg listeners as root will have it. */
ctorForDelegateGrammar() ::= <<

>>

ctorForPredefinedListener() ::= <<

>>
```

```
createListenerAndHandshake() ::= <<
{
 // DEBUG MODE code
 //
 pANTLR3_DEBUG_EVENT_LISTENER  proxy;
 proxy = antlr3DebugListenerNew();
 proxy->grammarFileName = INPUT->tokenSource->strFactory->newStr8(INPUT->tokenSource->strFactory,
(pANTLR3_UINT8)ctx->getGrammarFileName());

<if(TREE_PARSER)>
 proxy->adaptor = ADAPTOR;
<endif>
 PARSER->setDebugListener(PARSER, proxy);

 // Try to connect to the debugger (waits forever for a connection)
 //
 proxy->handshake(proxy);

 // End DEBUG MODE code
 //
}
>>



@rule.preamble() ::= <<
if ( getRuleLevel()==0 )
{
 DBG->commence(DBG);
}
DBG->enterRule(DBG, getGrammarFileName(), (const char *)"<ruleName>");
incRuleLevel();
DBG->location(DBG, <ruleDescriptor.tree.line>, <ruleDescriptor.tree.column>);<\n>
>>

@rule.postamble() ::= <<
DBG->location(DBG, <ruleDescriptor.EORNode.line>, <ruleDescriptor.EORNode.column>);<\n>
DBG->exitRule(DBG,
 getGrammarFileName(), (const char *)"<ruleName>");
decRuleLevel();
if ( getRuleLevel()==0 )
{
 DBG->terminate(DBG);
}
<\n>
>>

@checkRuleBacktrackFailure.debugClean() ::= <<
```

```
DBG->exitRule(DBG, getGrammarFileName(), (const char *)"<ruleName>");
decRuleLevel();
>>

@synpred.start() ::= "DBG->beginBacktrack(DBG, BACKTRACKING);"

@synpred.stop() ::= "DBG->endBacktrack(DBG, BACKTRACKING, success);"

// Common debug event triggers used by region overrides below

enterSubRule() ::=
   "DBG->enterSubRule(DBG, <decisionNumber>);<\n>"

exitSubRule() ::=
   "DBG->exitSubRule(DBG, <decisionNumber>);<\n>"

enterDecision() ::=
   "DBG->enterDecision(DBG, <decisionNumber>);<\n>"

exitDecision() ::=
   "DBG->exitDecision(DBG, <decisionNumber>);<\n>"

enterAlt(n) ::= "DBG->enterAlt(DBG, <n>);<\n>"

// Region overrides that tell various constructs to add debugging triggers

@block.predecision() ::= "<enterSubRule()><enterDecision()>"

@block.postdecision()
 ::= "<exitDecision()>"

@block.postbranch() ::= "<exitSubRule()>"

@ruleBlock.predecision() ::= "<enterDecision()>"

@ruleBlock.postdecision() ::= "<exitDecision()>"

@ruleBlockSingleAlt.prealt() ::= "<enterAlt(n=\"1\")>"

@blockSingleAlt.prealt() ::= "<enterAlt(n=\"1\")>"

@positiveClosureBlock.preloop() ::= "<enterSubRule()>"

@positiveClosureBlock.postloop() ::= "<exitSubRule()>"

@positiveClosureBlock.predecision() ::= "<enterDecision()>"

@positiveClosureBlock.postdecision() ::= "<exitDecision()>"
```

```
@positiveClosureBlock.earlyExitException() ::=
   "DBG->recognitionException(DBG, EXCEPTION);<\n>"

@closureBlock.preloop() ::= "<enterSubRule()>"

@closureBlock.postloop() ::= "<exitSubRule()>"

@closureBlock.predecision() ::= "<enterDecision()>"

@closureBlock.postdecision() ::= "<exitDecision()>"

@altSwitchCase.prealt() ::= "<enterAlt(altNum)>"

@element.prematch() ::=
   "DBG->location(DBG, <e.line>, <e.pos>);" // e is arg of element

@matchSet.mismatchedSetException() ::=
    "DBG->recognitionException(DBG, EXCEPTION);"

@newNVException.noViableAltException() ::= "DBG->recognitionException(DBG, EXCEPTION);"

dfaDecision(decisionNumber,description) ::= <<
alt<decisionNumber> = cdfa<decisionNumber>.predict(ctx, RECOGNIZER, ISTREAM,
&cdfa<decisionNumber>);
if  (HASEXCEPTION())
{
 DBG->recognitionException(DBG, EXCEPTION);
   goto rule<ruleDescriptor.name>Ex;
}
<checkRuleBacktrackFailure()>
>>

@cyclicDFA.errorMethod() ::= <<
//static void
//dfaError(p<name> ctx)
//{
//    DBG->recognitionException(DBG, EXCEPTION);
//}
>>

/** Force predicate validation to trigger an event */
evalPredicate(pred,description) ::= <<
evalPredicate(ctx, <pred>, (const char *)"<description>")
>>
```

Found in path(s):

* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/C/Dbg.stg

No license file was found, but licenses were detected in source scan.

```
/*
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THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
(INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF
THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
*/

/** The API version of the runtime that recognizers generated by this runtime
*  need.
*/
apiVersion() ::= "1"

/** The overall file structure of a recognizer; stores methods for rules
*  and cyclic DFAs plus support code.
*/
outputFile(LEXER,PARSER,TREE_PARSER, actionScope, actions,
          docComment, recognizer,
          name, tokens, tokenNames, rules, cyclicDFAs,
          bitsets, buildTemplate, buildAST, rewriteMode, profile,
          backtracking, synpreds, memoize,
 numRules,
          fileName, ANTLRVersion, generatedTimestamp, trace,
          scopes, superClass, literals) ::=
<<
```

```
# $ANTLR <ANTLRVersion> <fileName> <generatedTimestamp>

<@imports>
import sys
from antlr3 import *
<if(TREE_PARSER)>
from antlr3.tree import *<\n>
<endif>
<@end>

<actions.(actionScope).header>

<! <docComment> !>

# for convenience in actions
HIDDEN = BaseRecognizer.HIDDEN

# token types
<tokens:{it | <it.name>=<it.type>}; separator="\n">

# token names
tokenNamesMap = {
  0: "\<invalid>", 1: "\<EOR>", 2: "\<DOWN>", 3: "\<UP>",
  <tokens:{it | <it.type>: "<it.name>"}; wrap, separator=", ">
}
Token.registerTokenNamesMap(tokenNamesMap)

<recognizer>

<if(actions.(actionScope).main)>
<actions.(actionScope).main>
<else>
def main(argv, stdin=sys.stdin, stdout=sys.stdout, stderr=sys.stderr):
<if(LEXER)>
  from antlr3.main import LexerMain
  main = LexerMain(<recognizer.name>)<\n>
<endif>
<if(PARSER)>
  from antlr3.main import ParserMain
  main = ParserMain("<recognizer.grammar.name>Lexer",
 <recognizer.name>)<\n>
<endif>
<if(TREE_PARSER)>
  from antlr3.main import WalkerMain
  main = WalkerMain(<recognizer.name>)<\n>
<endif>
  main.stdin = stdin
  main.stdout = stdout
```

```
    main.stderr = stderr
    main.execute(argv)<\n>
<endif>

<actions.(actionScope).footer>

if __name__ == '__main__':
    main(sys.argv)

>>

lexer(grammar, name, tokens, scopes, rules, numRules, filterMode,
      labelType="CommonToken", superClass="Lexer") ::= <<
<if(grammar.directDelegates)>
# path hack to allow absolute import of related grammars.
from os.path import dirname
__path__ = [dirname(__file__)]
del dirname

<grammar.directDelegates:
{g|from .<g.recognizerName> import <g.recognizerName>}; separator="\n">
<endif>

class <grammar.recognizerName>(<@superClassName><superClass><@end>):
    <scopes:{it|<if(it.isDynamicGlobalScope)><globalAttributeScope(scope=it)><endif>}>

    grammarFileName = "<fileName>"
    api_version = <apiVersion()>

    def __init__(self<grammar.delegators:{g|,
 <g:delegateName()>}>, input=None, state=None):
        if state is None:
            state = RecognizerSharedState()
        super().__init__(input, state)

<if(memoize)>
<if(grammar.grammarIsRoot)>
        self._state.ruleMemo = {}
<endif>
<endif>

        <grammar.directDelegates:
         {g|self.<g:delegateName()> = <g.recognizerName>(<trunc(g.delegators):{p|<p:delegateName()>, }>self, input,
state)}; separator="\n">
        <grammar.directDelegates:
         {g|<g.delegates:{h|self.<h:delegateName()> = self.<g:delegateName()>.<h:delegateName()>};
separator="\n">}; separator="\n">
        <grammar.delegators:
```

```
     {g|self.<g:delegateName()> = <g:delegateName()>}; separator="\n">
    <last(grammar.delegators):
     {g|self.gParent = <g:delegateName()>}; separator="\n">
    self.delegates = [<grammar.delegates: {g|self.<g:delegateName()>}; separator = ", ">]

    <cyclicDFAs:{dfa | <cyclicDFAInit(dfa)>}; separator="\n">


 <actions.lexer.init>



  <actions.lexer.members>



<if(filterMode)>
  <filteringNextToken()>
<endif>
  <rules; separator="\n\n">

  <synpreds:{p | <lexerSynpred(p)>}>

  <cyclicDFAs:cyclicDFA()> <! dump tables for all DFA !>


>>

/** A override of Lexer.nextToken() that backtracks over mTokens() looking
*  for matches.  No error can be generated upon error; just rewind, consume
*  a token and then try again.  backtracking needs to be set as well.
*  Make rule memoization happen only at levels above 1 as we start mTokens
*  at backtracking==1.
*/
filteringNextToken() ::= <<
def nextToken(self):
  while True:
    if self.input.LA(1) == EOF:
      return self.makeEOFToken()

    self._state.token = None
    self._state.channel = DEFAULT_CHANNEL
    self._state.tokenStartCharIndex = self.input.index()
    self._state.tokenStartCharPositionInLine = self.input.charPositionInLine
    self._state.tokenStartLine = self.input.line
    self._state._text
 = None
    try:
      m = self.input.mark()
      try:
```

```
               # means we won't throw slow exception
               self._state.backtracking = 1
               try:
                   self.mTokens()
               finally:
                   self._state.backtracking = 0

           except BacktrackingFailed:
               # mTokens backtracks with synpred at backtracking==2
               # and we set the synpredgate to allow actions at level 1.
               self.input.rewind(m)
               self.input.consume() # advance one char and try again

           else:
               self.emit()
               return self._state.token

       except RecognitionException as re:
           # shouldn't happen in backtracking mode, but...
           self.reportError(re)
           self.recover(re)


def memoize(self, input, ruleIndex, ruleStartIndex, success):
   if self._state.backtracking > 1:
       # is Lexer always superclass?

 super().memoize(input, ruleIndex, ruleStartIndex, success)


def alreadyParsedRule(self, input, ruleIndex):
   if self._state.backtracking > 1:
       return super().alreadyParsedRule(input, ruleIndex)
   return False



>>

actionGate() ::= "self._state.backtracking == 0"

filteringActionGate() ::= "self._state.backtracking == 1"

/** How to generate a parser */

genericParser(grammar, name, scopes, tokens, tokenNames, rules, numRules,
             bitsets, inputStreamType, superClass, labelType, members,
             rewriteElementType, filterMode, init, ASTLabelType="Object") ::= <<
# token names
```

```
tokenNames = [
    "\<invalid>", "\<EOR>", "\<DOWN>", "\<UP>",
    <tokenNames; wrap, separator=", ">
]

<scopes:{it|<if(it.isDynamicGlobalScope)><globalAttributeScopeClass(scope=it)><endif>}>

<if(grammar.directDelegates)>
# path hack to allow absolute import of related grammars.
from os.path import dirname
__path__ = [dirname(__file__)]
del dirname

<grammar.directDelegates:
{g|from
 .<g.recognizerName> import <g.recognizerName>}; separator="\n">
<endif>

<rules:{it|<ruleAttributeScopeClass(scope=it.ruleDescriptor.ruleScope)>}>

class <grammar.recognizerName>(<@superClassName><superClass><@end>):
    grammarFileName = "<fileName>"
    api_version = <apiVersion()>
    tokenNames = tokenNames

    def __init__(self<grammar.delegators:{g|, <g:delegateName()>}>, input, state=None, *args, **kwargs):
        if state is None:
            state = RecognizerSharedState()

        <@args()>
        super().__init__(input, state, *args, **kwargs)

<if(memoize)>
<if(grammar.grammarIsRoot)>
        self._state.ruleMemo = {}
<endif>
<endif>

        <cyclicDFAs:{dfa | <cyclicDFAInit(dfa)>}; separator="\n">

        <scopes:{it | <if(it.isDynamicGlobalScope)><globalAttributeScopeStack(scope=it)><endif>}>
        <rules:{it | <ruleAttributeScopeStack(scope=it.ruleDescriptor.ruleScope)>}>

        <init>

        <grammar.delegators:
         {g|self.<g:delegateName()> = <g:delegateName()>};
```

```
 separator="\n">
      <grammar.directDelegates:
       {g|self.<g:delegateName()> = <g.recognizerName>(<trunc(g.delegators):{p|<p:delegateName()>, }>self, input,
state)}; separator="\n">
      <grammar.directDelegates:
       {g|<g.delegates:{h|self.<h:delegateName()> = self.<g:delegateName()>.<h:delegateName()>};
separator="\n">}; separator="\n">
      <last(grammar.delegators):
       {g|self.gParent = self.<g:delegateName()>}; separator="\n">
      self.delegates = [<grammar.delegates: {g|self.<g:delegateName()>}; separator = ", ">]

      <@init><@end>



   <@members><@end>

   <members>

   <rules; separator="\n\n">

   <! generate rule/method definitions for imported rules so they
      appear to be defined in this recognizer. !>
   <grammar.delegatedRules:{ruleDescriptor| <delegateRule(ruleDescriptor)> }; separator="\n">

   <synpreds:{p | <synpred(p)>}>

   <cyclicDFAs:cyclicDFA()> <! dump tables for all DFA !>

   <bitsets:{it | FOLLOW_<it.name>_in_<it.inName><it.tokenIndex>
 = frozenset([<it.tokenTypes:{it | <it>};separator=", ">])<\n>}>

>>

delegateRule(ruleDescriptor) ::= <<
def <ruleDescriptor.name>(self, <ruleDescriptor.parameterScope:parameterScope()>):
<\ >   <if(ruleDescriptor.hasReturnValue)>return
<endif>self.<ruleDescriptor.grammar:delegateName()>.<ruleDescriptor.name>(<if(ruleDescriptor.parameterScope)
><ruleDescriptor.parameterScope.attributes:{a|<a.name>}; separator=", "><endif>)



>>

parser(grammar, name, scopes, tokens, tokenNames, rules, numRules, bitsets,
      ASTLabelType="Object", superClass="Parser", labelType="Token",
      members={<actions.parser.members>},
      init={<actions.parser.init>}
      ) ::= <<
<genericParser(grammar, name, scopes, tokens, tokenNames, rules, numRules,
```

```
            bitsets, "TokenStream", superClass,
            labelType, members, "Token",
            false, init, ASTLabelType)>
>>

/** How to generate a tree parser; same as parser except the input
*  stream
 is a different type.
*/
treeParser(grammar, name, scopes, tokens, tokenNames, globalAction, rules,
          numRules, bitsets, filterMode, labelType={<ASTLabelType>}, ASTLabelType="Object",
superClass={<if(filterMode)><if(buildAST)>TreeRewriter<else>TreeFilter<endif><else>TreeParser<endif>},
 members={<actions.treeparser.members>},
          init={<actions.treeparser.init>}
          ) ::= <<
<genericParser(grammar, name, scopes, tokens, tokenNames, rules, numRules,
            bitsets, "TreeNodeStream", superClass,
            labelType, members, "Node",
            filterMode, init, ASTLabelType)>
>>

/** A simpler version of a rule template that is specific to the imaginary
*  rules created for syntactic predicates.  As they never have return values
*  nor parameters etc..., just give simplest possible method.  Don't do
*  any of the normal memoization stuff in here either; it's a waste.
*  As predicates cannot be inlined into the invoking rule,
 they need to
*  be in a rule by themselves.
*/
synpredRule(ruleName, ruleDescriptor, block, description, nakedBlock) ::=
<<
# $ANTLR start "<ruleName>"
def <ruleName>_fragment(self, <ruleDescriptor.parameterScope:parameterScope()>):
   <ruleLabelDefs()>
<if(trace)>
   self.traceIn("<ruleName>_fragment", <ruleDescriptor.index>)
   try:
       <block>

   finally:
       self.traceOut("<ruleName>_fragment", <ruleDescriptor.index>)

<else>
   <block>
<endif>
# $ANTLR end "<ruleName>"
```

```
>>

synpred(name) ::= <<
def <name>(self):
   self._state.backtracking += 1
   <@start()>
   start = self.input.mark()
   try:
       self.<name>_fragment()
   except BacktrackingFailed:
       success = False
   else:
       success = True
   self.input.rewind(start)
   <@stop()>
   self._state.backtracking -= 1
   return success



>>

lexerSynpred(name) ::= <<
<synpred(name)>
>>

ruleMemoization(name) ::= <<
<if(memoize)>
if self._state.backtracking > 0 and self.alreadyParsedRule(self.input,
 <ruleDescriptor.index>):
   # for cached failed rules, alreadyParsedRule will raise an exception
   success = True
   return <ruleReturnValue()>

<endif>
>>

/** This rule has failed, exit indicating failure during backtrack */
ruleBacktrackFailure() ::= <<
<if(backtracking)>
if self._state.backtracking > 0:
   raise BacktrackingFailed

<endif>
>>

/** How to generate code for a rule.  This includes any return type
*  data aggregates required for multiple return values.
*/
```

```
rule(ruleName,ruleDescriptor,block,emptyRule,description,exceptions,finally,memoize) ::= <<
<returnScope(scope=ruleDescriptor.returnScope)>

# $ANTLR start "<ruleName>"
# <fileName>:<description>
<ruleDescriptor.actions.decorate>
def <ruleName>(self, <ruleDescriptor.parameterScope:parameterScope()>):
<if(trace)>
   self.traceIn("<ruleName>", <ruleDescriptor.index>)<\n>
<endif>
   <ruleScopeSetUp()>
   <ruleDeclarations()>
   <ruleLabelDefs()>
   <ruleDescriptor.actions.init>
   <@preamble()>

 <@body><ruleBody()><@end>
   <@postamble()>
   return <ruleReturnValue()>

# $ANTLR end "<ruleName>"
>>

ruleBody() ::= <<
<if(memoize)>
<if(backtracking)>
success = False<\n>
<endif>
<endif>
try:
   try:
       <ruleMemoization(name=ruleName)>
       <block>
       <ruleCleanUp()>
       <(ruleDescriptor.actions.after):execAction()>

<if(memoize)>
<if(backtracking)>
       success = True<\n>
<endif>
<endif>
<if(exceptions)>
   <exceptions:{e|<catch(decl=e.decl,action=e.action)><\n>}>
<else>
<if(!emptyRule)>
<if(actions.(actionScope).rulecatch)>
   <actions.(actionScope).rulecatch>
<else>
```

```
  except RecognitionException as re:
      self.reportError(re)
      self.recover(self.input, re)
      <@setErrorReturnValue()>

<endif>
<else>
  finally:
      pass

<endif>
<endif>
finally:
<if(trace)>
  self.traceOut("<ruleName>", <ruleDescriptor.index>)<\n>
<endif>
  <memoize()>
  <ruleScopeCleanUp()>
  <finally>
  pass
>>

catch(decl,action) ::= <<
except <e.decl>:
   <e.action>

>>

ruleDeclarations() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
retval = self.<ruleDescriptor.name>_return()
retval.start = self.input.LT(1)<\n>
<elseif(ruleDescriptor.returnScope)>
<ruleDescriptor.returnScope.attributes:{ a |
<a.name> = <if(a.initValue)><a.initValue><else>None<endif>
}>
<endif>
<if(memoize)>
<ruleDescriptor.name>_StartIndex = self.input.index()
<endif>
>>

ruleScopeSetUp() ::= <<
<ruleDescriptor.useScopes:{it | self.<it>_stack.append(<it>_scope())}; separator="\n">
<ruleDescriptor.ruleScope:{it | self.<it.name>_stack.append(<it.name>_scope())}; separator="\n">
>>

ruleScopeCleanUp() ::= <<
```

```
<ruleDescriptor.useScopes:{it | self.<it>_stack.pop()}; separator="\n">
<ruleDescriptor.ruleScope:{it | self.<it.name>_stack.pop()}; separator="\n">
>>

ruleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,ruleDescriptor.tokenListLabels,
 ruleDescriptor.wildcardTreeLabels,ruleDescriptor.wildcardTreeListLabels]
   :{it | <it.label.text> = None}; separator="\n"
>
<[ruleDescriptor.tokenListLabels,ruleDescriptor.ruleListLabels,
  ruleDescriptor.wildcardTreeListLabels]
   :{it | list_<it.label.text> = None}; separator="\n"
>
<ruleDescriptor.ruleLabels:ruleLabelDef(); separator="\n">
<ruleDescriptor.ruleListLabels:{it | <it.label.text> = None}; separator="\n">
>>

lexerRuleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,
 ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleLabels]
   :{it | <it.label.text> = None}; separator="\n"
>
<ruleDescriptor.charLabels:{it | <it.label.text> = None}; separator="\n">
<[ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleListLabels]
   :{it | list_<it.label.text> = None}; separator="\n"
>
>>

ruleReturnValue() ::= <%
<if(!ruleDescriptor.isSynPred)>
<if(ruleDescriptor.hasReturnValue)>
<if(ruleDescriptor.hasSingleReturnValue)>
<ruleDescriptor.singleValueReturnName>
<else>
retval
<endif>
<endif>
<endif>
%>

ruleCleanUp() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
<if(!TREE_PARSER)>
retval.stop
 = self.input.LT(-1)<\n>
<endif>
```

```
<endif>
>>

memoize() ::= <<
<if(memoize)>
<if(backtracking)>
if self._state.backtracking > 0:
   self.memoize(self.input, <ruleDescriptor.index>, <ruleDescriptor.name>_StartIndex, success)

<endif>
<endif>
>>

/** How to generate a rule in the lexer; naked blocks are used for
*  fragment rules.
*/
lexerRule(ruleName,nakedBlock,ruleDescriptor,block,memoize) ::= <<
# $ANTLR start "<ruleName>"
def m<ruleName>(self, <ruleDescriptor.parameterScope:parameterScope()>):
<if(trace)>
   self.traceIn("<ruleName>", <ruleDescriptor.index>)<\n>
<endif>
   <ruleScopeSetUp()>
   <ruleDeclarations()>
<if(memoize)>
<if(backtracking)>
   success = False<\n>
<endif>
<endif>
   try:
<if(nakedBlock)>
       <ruleMemoization(name=ruleName)>
       <lexerRuleLabelDefs()>
       <ruleDescriptor.actions.init>
       <block><\n>
<else>
       _type = <ruleName>
       _channel = DEFAULT_CHANNEL

       <ruleMemoization(name=ruleName)>
       <lexerRuleLabelDefs()>
        <ruleDescriptor.actions.init>
       <block>
       <ruleCleanUp()>
       self._state.type = _type
       self._state.channel = _channel
       <(ruleDescriptor.actions.after):execAction()>
<endif>
```

```
<if(memoize)>
<if(backtracking)>
       success = True<\n>
<endif>
<endif>

   finally:
<if(trace)>
       self.traceOut("<ruleName>", <ruleDescriptor.index>)<\n>
<endif>
       <ruleScopeCleanUp()>
       <memoize()>
       pass

# $ANTLR end "<ruleName>"



>>

/** How to generate code for the implicitly-defined lexer grammar rule
*  that chooses between lexer rules.
*/
tokensRule(ruleName,nakedBlock,args,block,ruleDescriptor) ::= <<
def mTokens(self):
   <block><\n>



>>

// S U B R U L E S

/** A (...) subrule with multiple alternatives */
block(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
# <fileName>:<description>
alt<decisionNumber> = <maxAlt>
<decls>
<@body><blockBody()><@end>
>>

blockBody() ::= <<
<@predecision()>
<@decision><decision><@end>
<@postdecision()>
<@prebranch()>
<alts:{a
 | <altSwitchCase(i, a)>}; separator="\nel">
<@postbranch()>
>>
```

```
/** A rule block with multiple alternatives */
ruleBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
# <fileName>:<description>
alt<decisionNumber> = <maxAlt>
<decls>
<@predecision()>
<@decision><decision><@end>
<@postdecision()>
<alts:{a | <altSwitchCase(i, a)>}; separator="\nel">
>>

ruleBlockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
# <fileName>:<description>
<decls>
<@prealt()>
<alts>
<@postalt()>
>>

/** A special case of a (...) subrule with a single alternative */
blockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
# <fileName>:<description>
<decls>
<@prealt()>
<alts>
<@postalt()>
>>

/** A (..)+ block with 1 or more alternatives */
positiveClosureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,descriptio
n)
 ::= <<
# <fileName>:<description>
cnt<decisionNumber> = 0
<decls>
<@preloop()>
<@loopBody>
<positiveClosureBlockLoop()>
<@end>
<@postloop()>
>>

positiveClosureBlockLoop() ::= <<
while True: #loop<decisionNumber>
   alt<decisionNumber> = <maxAlt>
   <@predecision()>
   <@decisionBody><decision><@end>
```

```
   <@postdecision()>
   <alts:{a | <altSwitchCase(i, a)>}; separator="\nel">
   else:
       if cnt<decisionNumber> >= 1:
           break #loop<decisionNumber>

       <ruleBacktrackFailure()>
       eee = EarlyExitException(<decisionNumber>, self.input)
       <@earlyExitException()>
       raise eee

   cnt<decisionNumber> += 1
>>

positiveClosureBlockSingleAlt ::= positiveClosureBlock

/** A (..)* block with 1 or more alternatives */
closureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::=
<<
# <fileName>:<description>
<decls>
<@preloop()>
<@loopBody>
<closureBlockLoop()>
<@end>
<@postloop()>
>>

closureBlockLoop()
 ::= <<
while True: #loop<decisionNumber>
   alt<decisionNumber> = <maxAlt>
   <@predecision()>
   <@decisionBody><decision><@end>
   <@postdecision()>
   <alts:{a | <altSwitchCase(i, a)>}; separator="\nel">
   else:
       break #loop<decisionNumber>
>>

closureBlockSingleAlt ::= closureBlock

/** Optional blocks (x)? are translated to (x|) by before code generation
*  so we can just use the normal block template
*/
optionalBlock ::= block

optionalBlockSingleAlt ::= block
```

```
/** A case in a switch that jumps to an alternative given the alternative
*  number.  A DFA predicts the alternative and then a simple switch
*  does the jump to the code that actually matches that alternative.
*/
altSwitchCase(altNum,alt) ::= <<
if alt<decisionNumber> == <altNum>:
   <@prealt()>
   <alt>
>>

/** An alternative is just a list of elements; at outermost level */
alt(elements,altNum,description,autoAST,outerAlt, treeLevel,rew) ::= <<
#
 <fileName>:<description>
pass <! so empty alternatives are a valid block !>
<@declarations()>
<elements:element()>
<rew>
<@cleanup()>
>>

/** What to emit when there is no rewrite.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel, treeLevel) ::= ""

// E L E M E N T S

/** Dump the elements one per line */
element(e) ::= <<
<@prematch()>
<e.el><\n>
>>

/** match a token optionally with a label in front */
tokenRef(token,label,elementIndex,terminalOptions={}) ::= <<
<if(label)><label> = <endif>self.match(self.input, <token>,
self.FOLLOW_<token>_in_<ruleName><elementIndex>)
>>

/** ids+=ID */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRef(token,label,elementIndex,terminalOptions)>
<listLabel(label, label)>
>>

listLabel(label, elem) ::= <<
```

```
if list_<label> is None:
   list_<label> = []
list_<label>.append(<elem>)<\n>
>>

/** match a character */
charRef(char,label) ::= <<
<if(label)>
<label> = self.input.LA(1)<\n>
<endif>
self.match(<char>)
>>

/**
 match a character range */
charRangeRef(a,b,label) ::= <<
<if(label)>
<label> = self.input.LA(1)<\n>
<endif>
self.matchRange(<a>, <b>)
>>

/** For now, sets are interval tests and must be tested inline */
matchSet(s,label,elementIndex,postmatchCode="",terminalOptions={}) ::= <<
<if(label)>
<label> = self.input.LT(1)<\n>
<endif>
if <s>:
   self.input.consume()
   <postmatchCode>
<if(!LEXER)>
   self._state.errorRecovery = False<\n>
<endif>

else:
   <ruleBacktrackFailure()>
   mse = MismatchedSetException(None, self.input)
   <@mismatchedSetException()>
<if(LEXER)>
   self.recover(mse)
   raise mse
<else>
   raise mse
   <! use following code to make it recover inline; remove throw mse;
   self.recoverFromMismatchedSet(
       self.input, mse, self.FOLLOW_set_in_<ruleName><elementIndex>
       )
   !>
```

```
<endif>
<\n>
>>

matchRuleBlockSet ::= matchSet

matchSetAndListLabel(s,label,elementIndex,postmatchCode) ::= <<
<matchSet(...)>
<listLabel(label, label)>
>>

/**
 Match a string literal */
lexerStringRef(string,label,elementIndex="0") ::= <<
<if(label)>
<label>Start = self.getCharIndex()
self.match(<string>)
<label>StartLine<elementIndex> = self.getLine()
<label>StartCharPos<elementIndex> = self.getCharPositionInLine()
<label> = <labelType>(input=self.input, type=INVALID_TOKEN_TYPE, channel=DEFAULT_CHANNEL,
start=<label>Start, stop=self.getCharIndex()-1)
<label>.line = <label>StartLine<elementIndex>
<label>.charPositionInLine = <label>StartCharPos<elementIndex>
<else>
self.match(<string>)
<endif>
>>

wildcard(token,label,elementIndex,terminalOptions={}) ::= <<
<if(label)>
<label> = self.input.LT(1)<\n>
<endif>
self.matchAny()
>>

wildcardAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<wildcard(...)>
<listLabel(label,label)>
>>

/** Match . wildcard in lexer */
wildcardChar(label, elementIndex) ::= <<
<if(label)>
<label> = self.input.LA(1)<\n>
<endif>
self.matchAny()
>>
```

```
wildcardCharListLabel(label, elementIndex) ::=
 <<
<wildcardChar(label, elementIndex)>
<listLabel(label, label)>
>>

/** Match a rule reference by invoking it possibly with arguments
*  and a return value or values. The 'rule' argument was the
*  target rule name, but now is type Rule, whose toString is
*  same: the rule name.  Now though you can access full rule
*  descriptor stuff.
*/
ruleRef(rule,label,elementIndex,args,scope) ::= <<
self._state.following.append(self.FOLLOW_<rule.name>_in_<ruleName><elementIndex>)
<if(label)><label> = <endif>self.<if(scope)><scope:delegateName()>.<endif><rule.name>(<args; separator=",
">)<\n>
self._state.following.pop()
>>

/** ids+=rule */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(rule,label,elementIndex,args,scope)>
<listLabel(label, label)>
>>

/** A lexer rule reference
*  The 'rule' argument was the target rule name, but now
*  is type Rule, whose toString is same: the rule name.
*  Now though you can access full rule descriptor stuff.
*/
lexerRuleRef(rule,label,args,elementIndex,scope)
 ::= <<
<if(label)>
<label>Start<elementIndex> = self.getCharIndex()
self.<if(scope)><scope:delegateName()>.<endif>m<rule.name>(<args; separator=", ">)
<label>StartLine<elementIndex> = self.getLine()
<label>StartCharPos<elementIndex> = self.getCharPositionInLine()
<label> = <labelType>(
   input=self.input,
   type=INVALID_TOKEN_TYPE,
   channel=DEFAULT_CHANNEL,
   start=<label>Start<elementIndex>,
   stop=self.getCharIndex()-1)
<label>.line = <label>StartLine<elementIndex>
<label>.charPositionInLine = <label>StartCharPos<elementIndex>
<else>
self.<if(scope)><scope:delegateName()>.<endif>m<rule.name>(<args; separator=", ">)
<endif>
```

```
>>

/** i+=INT in lexer */
lexerRuleRefAndListLabel(rule,label,args,elementIndex,scope) ::= <<
<lexerRuleRef(rule,label,args,elementIndex,scope)>
<listLabel(label, label)>
>>

/** EOF in the lexer */
lexerMatchEOF(label,elementIndex) ::= <<
<if(label)>
<label>Start<elementIndex> = self.getCharIndex()
<label>StartLine<elementIndex>
 = self.getLine()
<label>StartCharPos<elementIndex> = self.getCharPositionInLine()
self.match(EOF)
<label> = <labelType>(input=self.input, type=EOF, channel=DEFAULT_CHANNEL,
start=<label>Start<elementIndex>, stop=self.getCharIndex()-1)
<label>.line = <label>StartLine<elementIndex>
<label>.charPositionInLine = <label>StartCharPos<elementIndex>
<else>
self.match(EOF)
<endif>
>>

// used for left-recursive rules
recRuleDefArg()                       ::= "<recRuleArg()>"
recRuleArg()                          ::= "_p"
recRuleAltPredicate(ruleName, opPrec) ::= "<recRuleArg()> \<= <opPrec>"
recRuleSetResultAction()              ::= "root_0 = $<ruleName>_primary.tree"
recRuleSetReturnAction(src, name)     ::= "$<name> = $<src>.<name>"

/** match ^(root children) in tree parser */
tree(root, actionsAfterRoot, children, nullableChildList,
    enclosingTreeLevel, treeLevel) ::= <<
<root:element()>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if self.input.LA(1) == DOWN:
   self.match(self.input,
 DOWN, None)
   <children:element()>
   self.match(self.input, UP, None)

<else>
self.match(self.input, DOWN, None)
<children:element()>
self.match(self.input, UP, None)
```

```
<endif>
>>

/** Every predicate is used as a validating predicate (even when it is
*  also hoisted into a prediction expression).
*/
validateSemanticPredicate(pred,description) ::= <<
if not (<evalPredicate(pred, description)>):
   <ruleBacktrackFailure()>
   raise FailedPredicateException(self.input, "<ruleName>", "<description>")

>>

// F i x e d  D F A  (if-then-else)

dfaState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
LA<decisionNumber>_<stateNumber> = self.input.LA(<k>)<\n>
<edges; separator="\nel">
else:
<if(eotPredictsAlt)>
   alt<decisionNumber> = <eotPredictsAlt>
<else>
   <ruleBacktrackFailure()>
   nvae = NoViableAltException("<description>", <decisionNumber>, <stateNumber>, self.input)<\n>
   <@noViableAltException()>
   raise nvae<\n>
<endif>
>>

/**
 Same as a normal DFA state except that we don't examine lookahead
*  for the bypass alternative.  It delays error detection but this
*  is faster, smaller, and more what people expect.  For (X)? people
*  expect "if ( LA(1)==X ) match(X);" and that's it.
*/
dfaOptionalBlockState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
LA<decisionNumber>_<stateNumber> = self.input.LA(<k>)<\n>
<edges; separator="\nel">
>>

/** A DFA state that is actually the loopback decision of a closure
*  loop.  If end-of-token (EOT) predicts any of the targets then it
*  should act like a default clause (i.e., no error can be generated).
*  This is used only in the lexer so that for ('a')* on the end of a rule
*  anything other than 'a' predicts exiting.
*/
dfaLoopbackState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
LA<decisionNumber>_<stateNumber> = self.input.LA(<k>)<\n>
```

```
<edges; separator="\nel"><\n>
<if(eotPredictsAlt)>
<if(!edges)>
alt<decisionNumber>
 = <eotPredictsAlt> <! if no edges, don't gen ELSE !>
<else>
else:
   alt<decisionNumber> = <eotPredictsAlt>
<\n>
<endif>
<endif>
>>

/** An accept state indicates a unique alternative has been predicted */
dfaAcceptState(alt) ::= "alt<decisionNumber> = <alt>"

/** A simple edge with an expression.  If the expression is satisfied,
*  enter to the target state.  To handle gated productions, we may
*  have to evaluate some predicates for this edge.
*/
dfaEdge(labelExpr, targetState, predicates) ::= <<
if (<labelExpr>) <if(predicates)>and (<predicates>)<endif>:
   <targetState>
>>

// F i x e d  D F A  (switch case)

/** A DFA state where a SWITCH may be generated.  The code generator
*  decides if this is possible: CodeGenerator.canGenerateSwitch().
*/
dfaStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
<!
 FIXME: this is one of the few occasion, where I miss a switch statement
 in Python. ATM this is implemented as a list of if .. elif ..
 This
 may be replaced by faster a dictionary lookup, when I find a solution
 for the cases when an edge is not a plain dfaAcceptState.
!>
LA<decisionNumber> = self.input.LA(<k>)
<edges; separator="\nel">
else:
<if(eotPredictsAlt)>
   alt<decisionNumber> = <eotPredictsAlt>
<else>
   <ruleBacktrackFailure()>
   nvae = NoViableAltException("<description>", <decisionNumber>, <stateNumber>, self.input)<\n>
   <@noViableAltException()>
   raise nvae<\n>
```

```
<endif>

>>

dfaOptionalBlockStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
LA<decisionNumber> = self.input.LA(<k>)
<edges; separator="\nel">
>>

dfaLoopbackStateSwitch(k, edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
LA<decisionNumber> = self.input.LA(<k>)
<edges; separator="\nel">
<if(eotPredictsAlt)>
else:
   alt<decisionNumber> = <eotPredictsAlt>
<endif>
>>

dfaEdgeSwitch(labels, targetState) ::= <<
if LA<decisionNumber> in {<labels; separator=", ">}:
   <targetState>
>>

// C y c l
 i c  D F A

/** The code to initiate execution of a cyclic DFA; this is used
*  in the rule to predict an alt just like the fixed DFA case.
*  The <name> attribute is inherited via the parser, lexer, ...
*/
dfaDecision(decisionNumber,description) ::= <<
alt<decisionNumber> = self.dfa<decisionNumber>.predict(self.input)
>>

/* Dump DFA tables as run-length-encoded Strings of octal values.
* Can't use hex as compiler translates them before compilation.
* These strings are split into multiple, concatenated strings.
* Java puts them back together at compile time thankfully.
* Java cannot handle large static arrays, so we're stuck with this
* encode/decode approach.  See analysis and runtime DFA for
* the encoding methods.
*/
cyclicDFA(dfa) ::= <<
# lookup tables for DFA #<dfa.decisionNumber>

DFA<dfa.decisionNumber>_eot = DFA.unpack(
   "<dfa.javaCompressedEOT; wrap="\"\n    \"">"
   )
```

```
DFA<dfa.decisionNumber>_eof = DFA.unpack(
  "<dfa.javaCompressedEOF; wrap="\"\n    \"">"
   )

DFA<dfa.decisionNumber>_min = DFA.unpack(
  "<dfa.javaCompressedMin; wrap="\"\n    \"">"
  )

DFA<dfa.decisionNumber>_max = DFA.unpack(
  "<dfa.javaCompressedMax; wrap="\"\n    \"">"
  )

DFA<dfa.decisionNumber>_accept = DFA.unpack(
  "<dfa.javaCompressedAccept; wrap="\"\n    \"">"
  )

DFA<dfa.decisionNumber>_special = DFA.unpack(
  "<dfa.javaCompressedSpecial; wrap="\"\n    \"">"
  )


DFA<dfa.decisionNumber>_transition = [
  <dfa.javaCompressedTransition:{s|DFA.unpack("<s; wrap="\"\n\"">")}; separator=",\n">
]

# class definition for DFA #<dfa.decisionNumber>

class DFA<dfa.decisionNumber>(DFA):
  pass

  <@errorMethod()>

<if(dfa.specialStateSTs)>
  def specialStateTransition(self_, s, input):
      # convince pylint that my self_ magic is ok ;)
      # pylint: disable-msg=E0213

      # pretend we are a member of the recognizer
      # thus semantic predicates can be evaluated
      self = self_.recognizer

      _s = s

      <dfa.specialStateSTs:{state
 | if s == <i0>: <! compressed special state numbers 0..n-1 !>
  <state>}; separator="\nel">
```

```
<if(backtracking)>
    if self._state.backtracking > 0:
        raise BacktrackingFailed

<endif>
    nvae = NoViableAltException(self_.getDescription(), <dfa.decisionNumber>, _s, input)
    self_.error(nvae)
    raise nvae<\n>
<endif>

>>

cyclicDFAInit(dfa) ::= <<
self.dfa<dfa.decisionNumber> = self.DFA<dfa.decisionNumber>(
  self, <dfa.decisionNumber>,
  eot = self.DFA<dfa.decisionNumber>_eot,
  eof = self.DFA<dfa.decisionNumber>_eof,
  min = self.DFA<dfa.decisionNumber>_min,
  max = self.DFA<dfa.decisionNumber>_max,
  accept = self.DFA<dfa.decisionNumber>_accept,
  special = self.DFA<dfa.decisionNumber>_special,
  transition = self.DFA<dfa.decisionNumber>_transition
  )<\n>
>>

/** A state in a cyclic DFA; it's a special state and part of a big switch on
*  state.
*/
cyclicDFAState(decisionNumber,stateNumber,edges,needErrorClause,semPredState)
 ::= <<
LA<decisionNumber>_<stateNumber> = input.LA(1)<\n>
<if(semPredState)> <! get next lookahead symbol to test edges, then rewind !>
index<decisionNumber>_<stateNumber> = input.index()
input.rewind()<\n>
<endif>
s = -1
<edges; separator="\nel">
<if(semPredState)> <! return input cursor to state before we rewound !>
input.seek(index<decisionNumber>_<stateNumber>)<\n>
<endif>
if s >= 0:
  return s
>>

/** Just like a fixed DFA edge, test the lookahead and indicate what
*  state to jump to next if successful.
*/
cyclicDFAEdge(labelExpr, targetStateNumber, edgeNumber, predicates) ::= <<
```

```
if (<labelExpr>)<if(predicates)> and (<predicates>)<endif>:
   s = <targetStateNumber><\n>
>>

/** An edge pointing at end-of-token; essentially matches any char;
*  always jump to the target.
*/
eotDFAEdge(targetStateNumber,edgeNumber, predicates) ::= <<
se:
   s = <targetStateNumber><\n>
>>


// D F A  E X P R E S S I O N S

andPredicates(left,right) ::= "((<left>) and (<right>))"

orPredicates(operands)
 ::= "(<operands; separator=\" or \">)"

notPredicate(pred) ::= "not (<evalPredicate(pred, {})>)"

evalPredicate(pred,description) ::= "(<pred>)"

evalSynPredicate(pred,description) ::= "self.<pred>()"

lookaheadTest(atom,k,atomAsInt) ::= "LA<decisionNumber>_<stateNumber> == <atom>"

/** Sometimes a lookahead test cannot assume that LA(k) is in a temp variable
*  somewhere.  Must ask for the lookahead directly.
*/
isolatedLookaheadTest(atom,k,atomAsInt) ::= "self.input.LA(<k>) == <atom>"

lookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= <%
(<lower> \<= LA<decisionNumber>_<stateNumber> \<= <upper>)
%>

isolatedLookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= "(<lower> \<=
self.input.LA(<k>) \<= <upper>)"

lookaheadSetTest(values,k,valuesAsInt) ::= <%
LA<decisionNumber>_<stateNumber> in {<values; separator=", ">}
%>

isolatedLookaheadSetTest(values,k,valuesAsInt) ::= <%
self.input.LA(<k>) in {<values; separator=", ">}
%>
```

```
lookaheadVarName(k)
 ::= "LA<decisionNumber>_<stateNumber>"
isolatedLookaheadVarName(k) ::= "self.input.LA(<k>)"

setTest(ranges) ::= "<ranges; separator=\" or \">"

// A T T R I B U T E S

globalAttributeScopeClass(scope) ::= <<
<if(scope)>
<if(scope.attributes)>
class <scope.name>_scope(object):
   def __init__(self):
       <scope.attributes:{it | self.<it.decl> = None}; separator="\n">

<endif>
<endif>
>>

globalAttributeScopeStack(scope) ::= <<
<if(scope)>
<if(scope.attributes)>
self.<scope.name>_stack = []<\n>
<endif>
<endif>
>>

ruleAttributeScopeClass(scope) ::= <<
<if(scope)>
<if(scope.attributes)>
class <scope.name>_scope(object):
   def __init__(self):
       <scope.attributes:{it | self.<it.decl> = None}; separator="\n">

<endif>
<endif>
>>

ruleAttributeScopeStack(scope) ::= <<
<if(scope)>
<if(scope.attributes)>
self.<scope.name>_stack = []<\n>
<endif>
<endif>
>>

delegateName(d) ::= <<
<if(d.label)><d.label><else>g<d.name><endif>
```

```
>>

/** Define a rule label including
 default value */
ruleLabelDef(label) ::= <<
<label.label.text> = None
>>

returnStructName(r) ::= "<r.name>_return"

/** Define a return struct for a rule if the code needs to access its
*  start/stop tokens, tree stuff, attributes, ...  Leave a hole for
*  subgroups to stick in members.
*/
returnScope(scope) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
class <ruleDescriptor:returnStructName()>(<if(TREE_PARSER)>Tree<else>Parser<endif>RuleReturnScope):
    def __init__(self):
        super().__init__()

        <if(scope)><scope.attributes:{it | self.<it.decl> = None}; separator="\n"><endif>
        <@ruleReturnInit()>


    <@ruleReturnMembers()>

<endif>
>>

parameterScope(scope) ::= <<
<if(scope)><scope.attributes:{it | <it.decl>}; separator=", "><endif>
>>

parameterAttributeRef(attr) ::= "<attr.name>"
parameterSetAttributeRef(attr,expr) ::= "<attr.name> = <expr>"

scopeAttributeRef(scope,attr,index,negIndex) ::= <%
<if(negIndex)>
self.<scope>_stack[-<negIndex>].<attr.name>
<else>
<if(index)>
self.<scope>_stack[<index>].<attr.name>
<else>
self.<scope>_stack[-1].<attr.name>
<endif>
<endif>
%>
```

```
/*
 not applying patch because of bug in action parser!

<if(negIndex)>
((len(self.<scope>_stack) - <negIndex> - 1) >= 0 and [self.<scope>_stack[-<negIndex>].<attr.name>] or [None])[0]
<else>
<if(index)>
((<index> \< len(self.<scope>_stack)) and [self.<scope>_stack[<index>].<attr.name>] or [None])[0]
<else>
((len(self.<scope>_stack) > 0) and [self.<scope>_stack[-1].<attr.name>] or [None])[0]
<endif>
<endif>

*/

scopeSetAttributeRef(scope,attr,expr,index,negIndex) ::= <%
<if(negIndex)>
<!FIXME: this seems not to be used by ActionTranslator...!>
self.<scope>_stack[-<negIndex>].<attr.name> = <expr>
<else>
<if(index)>
<!FIXME: this seems not to be used by ActionTranslator...!>
self.<scope>_stack[<index>].<attr.name> = <expr>
<else>
self.<scope>_stack[-1].<attr.name> = <expr>
<endif>
<endif>
%>

/** $x is either global scope or x is rule with dynamic scope; refers
 *  to stack itself not top of stack.  This is useful for predicates
*  like {$function.size()>0 && $function::name.equals("foo")}?
*/
isolatedDynamicScopeRef(scope) ::= "self.<scope>_stack"

/** reference an attribute of rule; might only have single return value */
ruleLabelRef(referencedRule,scope,attr) ::= <%
<if(referencedRule.hasMultipleReturnValues)>
((<scope> is not None) and [<scope>.<attr.name>] or [None])[0]
<else>
<scope>
<endif>
%>

returnAttributeRef(ruleDescriptor,attr) ::= <%
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name>
<else>
```

```
<attr.name>
<endif>
%>

returnSetAttributeRef(ruleDescriptor,attr,expr) ::= <%
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name> = <expr>
<else>
<attr.name> = <expr>
<endif>
%>

/** How to translate $tokenLabel */
tokenLabelRef(label) ::= "<label>"

/** ids+=ID {$ids} or e+=expr {$e} */
listLabelRef(label) ::= "list_<label>"



// not sure the next are the right approach; and they are evaluated early;
// they cannot
 see TREE_PARSER or PARSER attributes for example. :(

tokenLabelPropertyRef_text(scope,attr) ::= "<scope>.text"
tokenLabelPropertyRef_type(scope,attr) ::= "<scope>.type"
tokenLabelPropertyRef_line(scope,attr) ::= "<scope>.line"
tokenLabelPropertyRef_pos(scope,attr) ::= "<scope>.charPositionInLine"
tokenLabelPropertyRef_channel(scope,attr) ::= "<scope>.channel"
tokenLabelPropertyRef_index(scope,attr) ::= "<scope>.index"
tokenLabelPropertyRef_tree(scope,attr) ::= "<scope>_tree"

ruleLabelPropertyRef_start(scope,attr) ::= "<scope>.start"
ruleLabelPropertyRef_stop(scope,attr) ::= "<scope>.stop"
ruleLabelPropertyRef_tree(scope,attr) ::= "<scope>.tree"
ruleLabelPropertyRef_text(scope,attr) ::= <%
<if(TREE_PARSER)>
((<scope> is not None) and [self.input.getTokenStream().toString(
   self.input.getTreeAdaptor().getTokenStartIndex(<scope>.start),
   self.input.getTreeAdaptor().getTokenStopIndex(<scope>.start)
   )] or [None])[0]
<else>
((<scope> is not None) and [self.input.toString(<scope>.start,<scope>.stop)]
 or [None])[0]
<endif>
%>
ruleLabelPropertyRef_st(scope,attr) ::= "((<scope> is not None) and [<scope>.st] or [None])[0]"

/** Isolated $RULE ref ok in lexer as it's a Token */
```

```
lexerRuleLabel(label) ::= "<label>"

lexerRuleLabelPropertyRef_type(scope,attr) ::= "((<scope> is not None) and [<scope>.type] or [0])[0]"
lexerRuleLabelPropertyRef_line(scope,attr) ::= "((<scope> is not None) and [<scope>.line] or [0])[0]"
lexerRuleLabelPropertyRef_pos(scope,attr) ::= "((<scope> is not None) and [<scope>.charPositionInLine] or
[0])[0]"
lexerRuleLabelPropertyRef_channel(scope,attr) ::= "((<scope> is not None) and [<scope>.channel] or [0])[0]"
lexerRuleLabelPropertyRef_index(scope,attr) ::= "((<scope> is not None) and [<scope>.index] or [0])[0]"
lexerRuleLabelPropertyRef_text(scope,attr) ::= "((<scope> is not None) and [<scope>.text] or [None])[0]"
lexerRuleLabelPropertyRef_int(scope,attr) ::= "((<scope> is not None) and [int(<scope>.text)] or [0])[0]"

// Somebody may ref $template
 or $tree or $stop within a rule:
rulePropertyRef_start(scope,attr) ::= "retval.start"
rulePropertyRef_stop(scope,attr) ::= "retval.stop" //mmm... or input.LT(-1)??
rulePropertyRef_tree(scope,attr) ::= "retval.tree"
rulePropertyRef_text(scope,attr) ::= "self.input.toString(retval.start, self.input.LT(-1))"
rulePropertyRef_st(scope,attr) ::= "retval.st"

lexerRulePropertyRef_text(scope,attr) ::= "self.text"
lexerRulePropertyRef_type(scope,attr) ::= "_type"
lexerRulePropertyRef_line(scope,attr) ::= "self._state.tokenStartLine"
lexerRulePropertyRef_pos(scope,attr) ::= "self._state.tokenStartCharPositionInLine"
lexerRulePropertyRef_index(scope,attr) ::= "-1" // undefined token index in lexer
lexerRulePropertyRef_channel(scope,attr) ::= "_channel"
lexerRulePropertyRef_start(scope,attr) ::= "self._state.tokenStartCharIndex"
lexerRulePropertyRef_stop(scope,attr) ::= "(self.getCharIndex()-1)"
lexerRulePropertyRef_int(scope,attr) ::= "int(<scope>.text)"

// setting $st and $tree is allowed
 in local rule. everything else
// is flagged as error
ruleSetPropertyRef_tree(scope,attr,expr) ::= "retval.tree =<expr>"
ruleSetPropertyRef_st(scope,attr,expr) ::= "retval.st =<expr>"



/** How to execute an action (only when not backtracking) */
execAction(action) ::= <<
<if(backtracking)>
<if(actions.(actionScope).synpredgate)>
if <actions.(actionScope).synpredgate>:
   pass
   <action>

<else>
if <actions.(actionScope).synpredgate>:
   pass
   <action>
```

```
<endif>
<else>
#action start
<action>
#action end
<endif>
>>

/** How to always execute an action even when backtracking */
execForcedAction(action) ::= "<action>"


// M I S C (properties, etc...)

codeFileExtension() ::= ".py"

true_value() ::= "True"
false_value() ::= "False"
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Python3/Python3.stg

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```
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*/

/** Templates for building ASTs during normal parsing.
*
*  Deal with many combinations.  Dimensions are:
*  Auto build or rewrite
*    no label, label, list label  (label/no-label handled together)
*    child, root
*    token, set, rule, wildcard
*
*  The situation is not too bad as rewrite (->) usage makes ^ and !
*  invalid.
 There is no huge explosion of combinations.
*/

@rule.setErrorReturnValue() ::= <<
retval.Tree = (<ASTLabelType>)adaptor.ErrorNode(input, retval.Start, input.LT(-1), re);
<! System.out.WriteLine("<ruleName> returns "+((CommonTree)retval.tree).toStringTree()); !>
>>

// TOKEN AST STUFF

/** ID and output=AST */
tokenRef(token,label,elementIndex,terminalOptions={}) ::= <%
<super.tokenRef(...)>
<if(!ruleDescriptor.isSynPred)>
<if(backtracking)><\n>if (state.backtracking == 0) {<endif>
<\n><label>_tree = <createNodeFromToken(...)>;
<\n>adaptor.AddChild(root_0, <label>_tree);
<if(backtracking)><\n>}<endif>
<endif>
%>

/** ID! and output=AST (same as plain tokenRef) */
tokenRefBang(token,label,elementIndex,terminalOptions={}) ::= "<super.tokenRef(...)>"

/** ID^ and output=AST */
tokenRefRuleRoot(token,label,elementIndex,terminalOptions={}) ::= <%
<super.tokenRef(...)>
```

```
<if(!ruleDescriptor.isSynPred)>
<if(backtracking)><\n>if (<actions.(actionScope).synpredgate>) {<endif>
<\n><label>_tree =
 <createNodeFromToken(...)>;
<\n>root_0 = (<ASTLabelType>)adaptor.BecomeRoot(<label>_tree, root_0);
<if(backtracking)><\n>}<endif>
<endif>
%>

/** ids+=ID! and output=AST */
tokenRefBangAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRefBang(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

/** label+=TOKEN when output=AST but not rewrite alt */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRef(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

/** Match label+=TOKEN^ when output=AST but not rewrite alt */
tokenRefRuleRootAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRefRuleRoot(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

// SET AST

// the match set stuff is interesting in that it uses an argument list
// to pass code to the default matchSet; another possible way to alter
// inherited code.  I don't use the region stuff because I need to pass
// different chunks depending
 on the operator.  I don't like making
// the template name have the operator as the number of templates gets
// large but this is the most flexible--this is as opposed to having
// the code generator call matchSet then add root code or ruleroot code
// plus list label plus ...  The combinations might require complicated
// rather than just added on code.  Investigate that refactoring when
// I have more time.

matchSet(s,label,elementIndex,postmatchCode,terminalOptions={}) ::= <<
<super.matchSet(postmatchCode={<if(!ruleDescriptor.isSynPred)><if(backtracking)>if
(<actions.(actionScope).synpredgate>) <endif>adaptor.AddChild(root_0, <createNodeFromToken(...)>);<endif>},
...)>
>>

matchRuleBlockSet(s,label,elementIndex,postmatchCode,treeLevel="0",terminalOptions={}) ::= <<
```

```
<matchSet(...)>
>>

matchSetBang(s,label,elementIndex,postmatchCode,terminalOptions={}) ::= "<super.matchSet(...)>"

// note there is no matchSetTrack because -> rewrites force sets to be
// plain old blocks of alts:
 (A|B|...|C)

matchSetRuleRoot(s,label,elementIndex,debug,terminalOptions={}) ::= <<
<if(label)>
<label>=(<labelType>)input.LT(1);
<endif>
<super.matchSet(postmatchCode={<if(!ruleDescriptor.isSynPred)><if(backtracking)>if
(<actions.(actionScope).synpredgate>) <endif>root_0 =
(<ASTLabelType>)adaptor.BecomeRoot(<createNodeFromToken(...)>, root_0);<endif>}, ...)>
>>

// RULE REF AST

/** rule when output=AST */
ruleRef(rule,label,elementIndex,args,scope) ::= <%
<super.ruleRef(...)>
<if(!ruleDescriptor.isSynPred)>
<\n><if(backtracking)>if (<actions.(actionScope).synpredgate>) <endif>adaptor.AddChild(root_0, <label>.Tree);
<endif>
%>

/** rule! is same as normal rule ref */
ruleRefBang(rule,label,elementIndex,args,scope) ::= "<super.ruleRef(...)>"

/** rule^ */
ruleRefRuleRoot(rule,label,elementIndex,args,scope) ::= <<
<super.ruleRef(...)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) <endif>root_0 =
(<ASTLabelType>)adaptor.BecomeRoot(<label>.Tree, root_0);
>>

/** x+=rule when
 output=AST */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabelElem(elem={<label>.Tree},elemType=ASTLabelType,...)>
>>

/** x+=rule! when output=AST is a rule ref with list addition */
ruleRefBangAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefBang(...)>
```

```
<listLabelElem(elem={<label>.Tree},elemType=ASTLabelType,...)>
>>

/** x+=rule^ */
ruleRefRuleRootAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRoot(...)>
<listLabelElem(elem={<label>.Tree},elemType=ASTLabelType,...)>
>>

// WILDCARD AST

wildcard(token,label,elementIndex,terminalOptions={}) ::= <<
<super.wildcard(...)>
<if(!ruleDescriptor.isSynPred)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
<label>_tree = (<ASTLabelType>)adaptor.Create(<label>);
adaptor.AddChild(root_0, <label>_tree);
<if(backtracking)>}<endif>
<endif>
>>

wildcardBang(label,elementIndex) ::= "<super.wildcard(token=[],...)>"

wildcardRuleRoot(token,label,elementIndex,terminalOptions={})
 ::= <<
<super.wildcard(...)>
<if(!ruleDescriptor.isSynPred)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
<label>_tree = (<ASTLabelType>)adaptor.Create(<label>);
root_0 = (<ASTLabelType>)adaptor.BecomeRoot(<label>_tree, root_0);
<if(backtracking)>}<endif>
<endif>
>>

createNodeFromToken(label,terminalOptions={}) ::= <%
<if(terminalOptions.node)>
new
<terminalOptions.node>(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text; format="string"><endif>)
<else>
(<ASTLabelType>)adaptor.Create(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text; format="string"><endif>)
<endif>
%>

ruleCleanUp() ::= <<
<super.ruleCleanUp()>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
```

```
retval.Tree = (<ASTLabelType>)adaptor.RulePostProcessing(root_0);
adaptor.SetTokenBoundaries(retval.Tree, retval.Start, retval.Stop);
<if(backtracking)>}<endif>
>>
```

Found
 in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/CSharp3/ASTParser.stg
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THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
(INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF
THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
*/

```
/** Template overrides to add debugging to AST stuff.  Dynamic inheritance
*  hierarchy is set up as ASTDbg : AST : Dbg : Java by code generator.
*/

parserMembers() ::= <<
 protected DebugTreeAdaptor adaptor;
 public void setTreeAdaptor(TreeAdaptor adaptor) {
<if(grammar.grammarIsRoot)>
```

```
  this.adaptor = new DebugTreeAdaptor(dbg,adaptor);
<else>
  this.adaptor = (DebugTreeAdaptor)adaptor; // delegator sends dbg adaptor
<endif>
  <grammar.directDelegates:{g|<g:delegateName()>.setTreeAdaptor(this.adaptor);}>
 }
 public
 TreeAdaptor getTreeAdaptor() {
  return adaptor;
 }
>>

parserCtorBody() ::= <<
<super.parserCtorBody()>
>>

createListenerAndHandshake() ::= <<
DebugEventSocketProxy proxy =
 new DebugEventSocketProxy(this,port,<if(TREE_PARSER)>input.getTreeAdaptor()<else>adaptor<endif>);
setDebugListener(proxy);
set<inputStreamType>(new Debug<inputStreamType>(input,proxy));
try {
 proxy.handshake();
}
catch (IOException ioe) {
 reportError(ioe);
}
>>

@ctorForRootGrammar.finally() ::= <<
TreeAdaptor adap = new CommonTreeAdaptor();
setTreeAdaptor(adap);
proxy.setTreeAdaptor(adap);
>>

@ctorForProfilingRootGrammar.finally() ::=<<
TreeAdaptor adap = new CommonTreeAdaptor();
setTreeAdaptor(adap);
>>

@ctorForPredefinedListener.superClassRef() ::= "super(input, dbg);"

@ctorForPredefinedListener.finally() ::=<<
<if(grammar.grammarIsRoot)> <! don't create new adaptor for delegates !>
TreeAdaptor adap = new CommonTreeAdaptor();
setTreeAdaptor(adap);
<endif>
>>
```

```
@rewriteElement.pregen()
 ::= "dbg.location(<e.line>,<e.pos>);"
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Java/ASTDbg.stg
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```
/** Templates for building ASTs during normal parsing.
 *
 *  Deal with many combinations.  Dimensions are:
 *  Auto build or rewrite
 *    no label, label, list label  (label/no-label handled together)
 *    child, root
 *    token, set, rule, wildcard
 *
 *  The situation is not too bad as rewrite (->) usage makes ^ and !
 *  invalid. There is no huge explosion of combinations.
```

```
*/

finishedBacktracking(block) ::= <<
<if(!ruleDescriptor.isSynPred)>
<if(backtracking)>
if <actions.(actionScope).synpredgate>:
    <block>
<else>
<block>
<endif>
<endif>
>>

@ruleBody.setErrorReturnValue() ::= <<
retval.tree = self._adaptor.errorNode(self.input, retval.start, self.input.LT(-1), re)
>>

// TOKEN AST STUFF

/** ID and output=AST */
tokenRef(token,label,elementIndex,terminalOptions={}) ::= <<
<super.tokenRef(...)>
<finishedBacktracking({
<label>_tree = <createNodeFromToken(...)>
self._adaptor.addChild(root_0, <label>_tree)
})>
>>

/** ID! and output=AST (same as plain tokenRef) */
tokenRefBang(token,label,elementIndex,terminalOptions={}) ::= "<super.tokenRef(...)>"

/** ID^ and output=AST */
tokenRefRuleRoot(token,label,elementIndex,terminalOptions={}) ::= <<
<super.tokenRef(...)>
<finishedBacktracking({
<label>_tree = <createNodeFromToken(...)>
root_0 = self._adaptor.becomeRoot(<label>_tree, root_0)
})>
>>

/** ids+=ID! and output=AST */
tokenRefBangAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRefBang(...)>
<listLabel(elem=label,...)>
>>

/**
```

```
 label+=TOKEN when output=AST but not rewrite alt */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRef(...)>
<listLabel(elem=label,...)>
>>

/** Match label+=TOKEN^ when output=AST but not rewrite alt */
tokenRefRuleRootAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRefRuleRoot(...)>
<listLabel(elem=label,...)>
>>

// SET AST

// the match set stuff is interesting in that it uses an argument list
// to pass code to the default matchSet; another possible way to alter
// inherited code.  I don't use the region stuff because I need to pass
// different chunks depending on the operator.  I don't like making
// the template name have the operator as the number of templates gets
// large but this is the most flexible--this is as opposed to having
// the code generator call matchSet then add root code or ruleroot code
// plus list label plus ...  The combinations might require complicated
// rather than just added on code.  Investigate
 that refactoring when
// I have more time.

matchSet(s,label,elementIndex,postmatchCode,terminalOptions={}) ::= <%
<super.matchSet(postmatchCode={<finishedBacktracking({self._adaptor.addChild(root_0,
<createNodeFromToken(...)>)})>}, ...)>
%>

matchRuleBlockSet(s,label,elementIndex,postmatchCode,treeLevel="0",terminalOptions={}) ::= <<
<matchSet(...)>
>>

matchSetBang(s,label,elementIndex,postmatchCode,terminalOptions={}) ::= "<super.matchSet(...)>"

// note there is no matchSetTrack because -> rewrites force sets to be
// plain old blocks of alts: (A|B|...|C)

matchSetRuleRoot(s,label,elementIndex,debug,terminalOptions={}) ::= <<
<if(label)>
<label> = self.input.LT(1)<\n>
<endif>
<super.matchSet(postmatchCode={<finishedBacktracking({root_0 =
self._adaptor.becomeRoot(<createNodeFromToken(...)>, root_0)})>}, ...)>
>>
```

```
// RULE REF AST

/** rule when output=AST */
ruleRef(rule,label,elementIndex,args,scope) ::= <<
<super.ruleRef(...)>
<finishedBacktracking({self._adaptor.addChild(root_0,
 <label>.tree)})>
>>

/** rule! is same as normal rule ref */
ruleRefBang(rule,label,elementIndex,args,scope) ::= "<super.ruleRef(...)>"

/** rule^ */
ruleRefRuleRoot(rule,label,elementIndex,args,scope) ::= <<
<super.ruleRef(...)>
<finishedBacktracking({root_0 = self._adaptor.becomeRoot(<label>.tree, root_0)})>
>>

/** x+=rule when output=AST */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabel(label, {<label>.tree})>
>>

/** x+=rule! when output=AST is a rule ref with list addition */
ruleRefBangAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefBang(...)>
<listLabel(label, {<label>.tree})>
>>

/** x+=rule^ */
ruleRefRuleRootAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRoot(...)>
<listLabel(label, {<label>.tree})>
>>

// WILDCARD AST

wildcard(token,label,elementIndex,terminalOptions={}) ::= <<
<super.wildcard(...)>
<finishedBacktracking({
<label>_tree = self._adaptor.createWithPayload(<label>)
self._adaptor.addChild(root_0,
 <label>_tree)
})>
>>

wildcardBang(label,elementIndex) ::= "<super.wildcard(...)>"
```

```
wildcardRuleRoot(token,label,elementIndex,terminalOptions={}) ::= <<
<super.wildcard(...)>
<finishedBacktracking({
<label>_tree = self._adaptor.createWithPayload(<label>)
root_0 = self._adaptor.becomeRoot(<label>_tree, root_0)
})>
>>

createNodeFromToken(label,terminalOptions={}) ::= <%
<if(terminalOptions.node)>
<terminalOptions.node>(<label>) <! new MethodNode(IDLabel) !>
<else>
self._adaptor.createWithPayload(<label>)
<endif>
%>

ruleCleanUp() ::= <<
<super.ruleCleanUp()>
<finishedBacktracking({
retval.tree = self._adaptor.rulePostProcessing(root_0)
self._adaptor.setTokenBoundaries(retval.tree, retval.start, retval.stop)
})>
>>
```

Found in path(s):

* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Python3/ASTParser.stg

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```
*/

/** Templates for building ASTs during normal parsing.
*
*  Deal with many combinations.  Dimensions are:
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*    no label, label, list label  (label/no-label handled together)
*    child, root
*    token, set, rule, wildcard
*
*  The situation is not too bad as rewrite (->) usage makes ^ and !
*  invalid. There is no huge explosion of
 combinations.
*/
group ASTParser;

@rule.setErrorReturnValue() ::= <<
RetVal.Tree := Adaptor.ErrorNode(Input, RetVal.Start as IToken,
 Input.LT(-1), RE) as I<ASTLabelType>;
>>

// TOKEN AST STUFF

/** ID and output=AST */
tokenRef(token,label,elementIndex,terminalOptions) ::= <<
<super.tokenRef(...)>
<if(backtracking)>
if (State.Backtracking = 0) then
begin<\n>
<endif>
<label>_tree := <createNodeFromToken(...)>;
Adaptor.AddChild(Root[0], <label>_tree);
<if(backtracking)>
end;
<endif>
>>
```

```
/** ID! and output=AST (same as plain tokenRef) */
tokenRefBang(token,label,elementIndex) ::= "<super.tokenRef(...)>"

/** ID^ and output=AST */
tokenRefRuleRoot(token,label,elementIndex,terminalOptions) ::= <<
<super.tokenRef(...)>
<if(backtracking)>
if (State.Backtracking = 0) then
begin
<endif>
<label>_tree := <createNodeFromToken(...)>;
Root[0] := Adaptor.BecomeRoot(<label>_tree, Root[0]) as I<ASTLabelType>;
<if(backtracking)>
end;
<endif>
>>

/** ids+=ID! and output=AST */
tokenRefBangAndListLabel(token,label,elementIndex,terminalOptions)
 ::= <<
<tokenRefBang(...)>
<listLabel(elem=label,...)>
>>

/** label+=TOKEN when output=AST but not rewrite alt */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRef(...)>
<listLabel(elem=label,...)>
>>

/** Match label+=TOKEN^ when output=AST but not rewrite alt */
tokenRefRuleRootAndListLabel(token,label,terminalOptions,elementIndex) ::= <<
<tokenRefRuleRoot(...)>
<listLabel(elem=label,...)>
>>

// SET AST

// the match set stuff is interesting in that it uses an argument list
// to pass code to the default matchSet; another possible way to alter
// inherited code.  I don't use the region stuff because I need to pass
// different chunks depending on the operator.  I don't like making
// the template name have the operator as the number of templates gets
// large but this is the most flexible--this is as opposed to having
// the code generator call matchSet then add root code or ruleroot code
// plus list label
```

```
 plus ...  The combinations might require complicated
// rather than just added on code.  Investigate that refactoring when
// I have more time.

matchSet(s,label,terminalOptions,elementIndex,postmatchCode) ::= <<
<super.matchSet(..., postmatchCode={<if(backtracking)>if (State.Backtracking = 0) then
<endif>Adaptor.AddChild(Root[0], <createNodeFromToken(...)>);})>
>>

matchRuleBlockSet(s,label,terminalOptions,elementIndex,postmatchCode,treeLevel="0") ::= <<
<matchSet(...)>
>>

matchSetBang(s,label,elementIndex,postmatchCode) ::= "<super.matchSet(...)>"

// note there is no matchSetTrack because -> rewrites force sets to be
// plain old blocks of alts: (A|B|...|C)

matchSetRuleRoot(s,label,terminalOptions,elementIndex,debug) ::= <<
<if(label)>
<label> := Input.LT(1) as I<labelType>;<\n>
<endif>
<super.matchSet(..., postmatchCode={<if(backtracking)>if (State.Backtracking = 0) then <endif>Root[0] :=
Adaptor.BecomeRoot(<createNodeFromToken(...)>, Root[0]) as I<ASTLabelType>;})>
>>

// RULE REF
 AST

/** rule when output=AST */
ruleRef(rule,label,elementIndex,args,scope) ::= <<
<super.ruleRef(...)>
<if(backtracking)>if (State.Backtracking = 0) then <endif>Adaptor.AddChild(Root[0], <label>.Tree);
>>

/** rule! is same as normal rule ref */
ruleRefBang(rule,label,elementIndex,args,scope) ::= "<super.ruleRef(...)>"

/** rule^ */
ruleRefRuleRoot(rule,label,elementIndex,args,scope) ::= <<
<super.ruleRef(...)>
<if(backtracking)>if (State.Backtracking = 0) then <endif>Root[0] := Adaptor.BecomeRoot(<label>.Tree, Root[0])
as I<ASTLabelType>;
>>

/** x+=rule when output=AST */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
```

```
<listLabel(elem=label+".Tree",...)>
>>

/** x+=rule! when output=AST is a rule ref with list addition */
ruleRefBangAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefBang(...)>
<listLabel(elem=label+".Tree",...)>
>>

/** x+=rule^ */
ruleRefRuleRootAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRoot(...)>
<listLabel(elem=label+".Tree",...)>
>>

//
 WILDCARD AST

wildcard(label,elementIndex) ::= <<
<super.wildcard(...)>
<if(backtracking)>
if (State.Backtracking = 0) then
begin
<endif>
 <label>_tree := Adaptor.CreateNode(<label>) as I<ASTLabelType>;
 Adaptor.AddChild(Root[0], <label>_tree);
<if(backtracking)>
end;
<endif>
>>

wildcardBang(label,elementIndex) ::= "<super.wildcard(...)>"

wildcardRuleRoot(label,elementIndex) ::= <<
<super.wildcard(...)>
<if(backtracking)>
if (State.Backtracking = 0) then
begin
<endif>
 <label>_tree := Adaptor.CreateNode(<label>) as I<ASTLabelType>;
 Root[0] := Adaptor.BecomeRoot(<label>_tree, Root[0]) as I<ASTLabelType>;
<if(backtracking)>
end;
<endif>
>>

createNodeFromToken(label,terminalOptions) ::= <<
<if(terminalOptions.node)>
```

```
T<terminalOptions.node>.Create(<label>) <! new MethodNode(IDLabel) !>
<else>
Adaptor.CreateNode(<label>) as I<ASTLabelType>
<endif>
>>

ruleCleanUp() ::= <<
<super.ruleCleanUp()>
<if(backtracking)>
if (State.Backtracking = 0)
 then
begin<\n>
<endif>
RetVal.Tree := Adaptor.RulePostProcessing(Root[0]) as I<ASTLabelType>;
<if(!TREE_PARSER)>
Adaptor.SetTokenBoundaries(RetVal.Tree, RetVal.Start as IToken, RetVal.Stop as IToken);
<endif>
<if(backtracking)>
<\n>end;
<endif>
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Delphi/ASTParser.stg
No license file was found, but licenses were detected in source scan.

/*
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*/

group Perl5;

/** The overall file structure of a recognizer; stores methods for rules
*  and cyclic DFAs plus support code.
*/
outputFile(LEXER,PARSER,TREE_PARSER, actionScope, actions,
        docComment, recognizer,
        name, tokens, tokenNames, rules, cyclicDFAs,
    bitsets, buildTemplate, buildAST, rewriteMode, profile,
    backtracking, synpreds, memoize, numRules,
    fileName, ANTLRVersion, generatedTimestamp, trace,

   scopes, superClass, literals) ::=
<<
# $ANTLR <ANTLRVersion> <fileName> <generatedTimestamp>
<actions.(actionScope).header>

<@imports>
<if(TREE_PARSER)>
<endif>
<if(backtracking)>
<endif>
<@end>

<docComment>
<recognizer>
>>

lexer(grammar, name, tokens, scopes, rules, numRules, labelType="Token",
     filterMode, superClass="ANTLR::Runtime::Lexer")  ::= <<
package <name>;

use Carp;
use English qw( -no_match_vars ) ;
use Readonly;
use Switch;

use ANTLR::Runtime::BaseRecognizer;
```

```
use ANTLR::Runtime::DFA;
use ANTLR::Runtime::NoViableAltException;

use Moose;

extends 'ANTLR::Runtime::Lexer';

Readonly my $HIDDEN => ANTLR::Runtime::BaseRecognizer->HIDDEN;
sub HIDDEN { $HIDDEN }

use constant {
   <tokens:{ <it.name> => <it.type>, }; separator="\n">
};
<scopes:{<if(it.isDynamicGlobalScope)><globalAttributeScope(scope=it)><endif>}>
<actions.lexer.members>

sub BUILD {
   my ($self, $arg_ref) = @_;

   $self->init_dfas();
}

sub get_grammar_file_name {
   return "<fileName>";
}

<if(filterMode)>
<filteringNextToken()>
<endif>
<rules;
 separator="\n\n">

<synpreds:{p | <lexerSynpred(p)>}>

<cyclicDFAs:{dfa | has 'dfa<dfa.decisionNumber>';}; separator="\n">

sub init_dfas {
   my ($self) = @_;

   <cyclicDFAs:{dfa |
   $self->dfa<dfa.decisionNumber>(<name>::DFA<dfa.decisionNumber>->new({ recognizer => $self }));
   }; separator="\n">

   return;
}

<cyclicDFAs:cyclicDFA()> <! dump tables for all DFA !>
```

```
no Moose;
__PACKAGE__->meta->make_immutable();
1;

>>

perlTypeInitMap ::= [
 "$":"undef",
 "@":"()",
 "%":"()",
 default:"undef"
]

/** A override of Lexer.nextToken() that backtracks over mTokens() looking
*  for matches.  No error can be generated upon error; just rewind, consume
*  a token and then try again.  backtracking needs to be set as well.
*  Make rule memoization happen only at levels above 1 as we start mTokens
*  at backtracking==1.
*/
filteringNextToken() ::= <<
public Token nextToken() {
   while (true) {
       if ( input.LA(1)==CharStream.EOF
 ) {
           return Token.EOF_TOKEN;
       }
       token = null;
 channel = Token.DEFAULT_CHANNEL;
       tokenStartCharIndex = input.index();
       tokenStartCharPositionInLine = input.getCharPositionInLine();
       tokenStartLine = input.getLine();
 text = null;
       try {
           int m = input.mark();
           backtracking=1; <! means we won't throw slow exception !>
           failed=false;
           mTokens();
           backtracking=0;
           <! mTokens backtracks with synpred at backtracking==2
              and we set the synpredgate to allow actions at level 1. !>
           if ( failed ) {
               input.rewind(m);
               input.consume(); <! advance one char and try again !>
           }
           else {
               emit();
               return token;
           }
```

```
        }
        catch (RecognitionException re) {
            // shouldn't happen in backtracking mode, but...
            reportError(re);

        recover(re);
        }
    }
}

public void memoize(IntStream input,
  int ruleIndex,
  int ruleStartIndex)
{
if ( backtracking>1 ) super.memoize(input, ruleIndex, ruleStartIndex);
}

public boolean alreadyParsedRule(IntStream input, int ruleIndex) {
if ( backtracking>1 ) return super.alreadyParsedRule(input, ruleIndex);
return false;
}
>>

actionGate() ::= "$self->state->backtracking==0"

filteringActionGate() ::= "backtracking==1"

/** How to generate a parser */
genericParser(grammar, name, scopes, tokens, tokenNames, rules, numRules,
             bitsets, inputStreamType, superClass, filterMode,
             ASTLabelType="Object", labelType, members) ::= <<
package <name>;

use English qw( -no_match_vars ) ;
use Readonly;
use Switch;
use Carp;
use ANTLR::Runtime::BitSet;

use Moose;

extends '<@superClassName><superClass><@end>';

Readonly my $token_names => [
   "\<invalid>", "\<EOR>", "\<DOWN>", "\<UP>", <tokenNames; separator=", ">
];

use constant {
```

```
<tokens:{ <it.name>
 => <it.type>, }; separator="\n">
};

<bitsets:bitset(name={FOLLOW_<it.name>_in_<it.inName><it.tokenIndex>},
                    words64=it.bits)>

<scopes:{<if(it.isDynamicGlobalScope)><globalAttributeScope(scope=it)><endif>}>
<@members>
<! WARNING. bug in ST: this is cut-n-paste into Dbg.stg !>

sub BUILD {
  my ($self, $arg_ref) = @_;

<if(backtracking)>
  $self->state->rule_memo({});<\n>
<endif>
}
<@end>

sub get_token_names {
  return $token_names;
}

sub get_grammar_file_name {
  return "<fileName>";
}

<members>

<rules; separator="\n\n">

<synpreds:{p | <synpred(p)>}>

<cyclicDFAs:{dfa | dfa<dfa.decisionNumber> = __PACKAGE__::DFA<dfa.decisionNumber>->new($self);};
separator="\n">
<cyclicDFAs:cyclicDFA()> <! dump tables for all DFA !>

no Moose;
__PACKAGE__->meta->make_immutable();
1;
__END__
>>

parser(grammar, name, scopes, tokens, tokenNames, rules, numRules, bitsets, ASTLabelType,
superClass="ANTLR::Runtime::Parser", labelType="ANTLR::Runtime::Token",
members={<actions.parser.members>})
```

```
 ::= <<
<genericParser(inputStreamType="ANTLR::Runtime::TokenStream", ...)>
>>

/** How to generate a tree parser; same as parser except the input
*  stream is a different type.
*/
treeParser(grammar, name, scopes, tokens, tokenNames, globalAction, rules, numRules, bitsets,
labelType={<ASTLabelType>}, ASTLabelType="Object", superClass="ANTLR::Runtime::TreeParser",
members={<actions.treeparser.members>}, filterMode) ::= <<
<genericParser(inputStreamType="TreeNodeStream", ...)>
>>

/** A simpler version of a rule template that is specific to the imaginary
*  rules created for syntactic predicates.  As they never have return values
*  nor parameters etc..., just give simplest possible method.  Don't do
*  any of the normal memoization stuff in here either; it's a waste.
*  As predicates cannot be inlined into the invoking rule, they need to
*  be in a rule by themselves.
*/
synpredRule(ruleName, ruleDescriptor, block, description, nakedBlock) ::=
<<
# $ANTLR start
 <ruleName>
sub <ruleName>_fragment {
# <ruleDescriptor.parameterScope:parameterScope(scope=it)>

<if(trace)>
   $self->traceIn("<ruleName>_fragment", <ruleDescriptor.index>);
   eval {
       <block>
   };
   $self->traceOut("<ruleName>_fragment", <ruleDescriptor.index>);
   if ($EVAL_ERROR) {
       croak $EVAL_ERROR;
   }
<else>
   <block>
<endif>
}
# $ANTLR end <ruleName>
>>

synpred(name) ::= <<
public final boolean <name>() {
   backtracking++;
   <@start()>
   int start = input.mark();
```

```
   try {
       <name>_fragment(); // can never throw exception
   } catch (RecognitionException re) {
       System.err.println("impossible: "+re);
   }
   boolean success = !failed;
   input.rewind(start);
   <@stop()>
   backtracking--;
   failed=false;
   return success;
}<\n>
>>

lexerSynpred(name) ::= <<
<synpred(name)>
>>

ruleMemoization(name) ::= <<
<if(memoize)>
if ( backtracking>0 && alreadyParsedRule(input, <ruleDescriptor.index>) ) { return <ruleReturnValue()>;
 }
<endif>
>>

/** How to test for failure and return from rule */
checkRuleBacktrackFailure() ::= <<
<if(backtracking)>
if ($self->state->failed) {
   return <ruleReturnValue()>;
}
<endif>
>>

/** This rule has failed, exit indicating failure during backtrack */
ruleBacktrackFailure() ::= <<
<if(backtracking)>if (backtracking>0) {failed=true; return <ruleReturnValue()>;}<endif>
>>

/** How to generate code for a rule.  This includes any return type
*  data aggregates required for multiple return values.
*/
rule(ruleName,ruleDescriptor,block,emptyRule,description,exceptions,finally,memoize) ::= <<
<ruleAttributeScope(scope=ruleDescriptor.ruleScope)>
<returnScope(scope=ruleDescriptor.returnScope)>

# $ANTLR start <ruleName>
# <fileName>:<description>
```

```
sub <ruleName>() {
   my ($self, <ruleDescriptor.parameterScope:parameterScope(scope=it)>) = @_;
   <if(trace)>$self->traceIn("<ruleName>", <ruleDescriptor.index>);<endif>
   <ruleScopeSetUp()>
   <ruleDeclarations()>
   <ruleLabelDefs()>
    <ruleDescriptor.actions.init>
   <@preamble()>
   eval {
       <ruleMemoization(name=ruleName)>
       <block>
       <ruleCleanUp()>
       <(ruleDescriptor.actions.after):execAction()>
   };
<if(exceptions)>
   <exceptions:{e|<catch(decl=e.decl,action=e.action)><\n>}>
<else>
<if(!emptyRule)>
<if(actions.(actionScope).rulecatch)>
   <actions.(actionScope).rulecatch>
<else>
   my $exception = $EVAL_ERROR;
   if (ref $exception && $exception->isa('ANTLR::Runtime::RecognitionException')) {
       $self->report_error($exception);
       $self->recover($self->input, $exception);
       $exception = undef;
   }<\n>
<endif>
<endif>
<endif>
   <if(trace)>$self->traceOut("<ruleName>", <ruleDescriptor.index>);<endif>
   <memoize()>
   <ruleScopeCleanUp()>
   <finally>
   if ($exception) {
       croak $exception;
       #$exception->rethrow();
   }
   <@postamble()>
   return <ruleReturnValue()>;
}
# $ANTLR end <ruleName>
>>

catch(decl,action) ::= <<
catch
 (<e.decl>) {
   <e.action>
```

```
}
>>

ruleDeclarations() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
my $retval = <returnType()>->new();
$retval->set_start($self->input->LT(1));<\n>
<else>
<ruleDescriptor.returnScope.attributes:{ a |
my $<a.name> = <if(a.initValue)><a.initValue><else><initValue(a.type)><endif>;
}>
<endif>
<if(memoize)>
my $<ruleDescriptor.name>_start_index = $self->input->index();
<endif>
>>

ruleScopeSetUp() ::= <<
<ruleDescriptor.useScopes:{<it>_stack.push(new <it>_scope());}; separator="\n">
<ruleDescriptor.ruleScope:{<it.name>_stack.push(new <it.name>_scope());}; separator="\n">
>>

ruleScopeCleanUp() ::= <<
<ruleDescriptor.useScopes:{<it>_stack.pop();}; separator="\n">
<ruleDescriptor.ruleScope:{<it.name>_stack.pop();}; separator="\n">
>>

ruleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,ruleDescriptor.tokenListLabels]
   :{my $<it.label.text> = undef;}; separator="\n"
>
<[ruleDescriptor.tokenListLabels,ruleDescriptor.ruleListLabels]
   :{List list_<it.label.text>=null;};
 separator="\n"
>
<ruleDescriptor.ruleLabels:ruleLabelDef(label=it); separator="\n">
<ruleDescriptor.ruleListLabels:{ll|RuleReturnScope <ll.label.text> = null;}; separator="\n">
>>

lexerRuleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,
 ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleLabels]
   :{<labelType> <it.label.text>=null;}; separator="\n"
>
<ruleDescriptor.charLabels:{my $<it.label.text>;}; separator="\n">
<[ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleListLabels,
```

```
 ruleDescriptor.ruleListLabels]
   :{List list_<it.label.text>=null;}; separator="\n"
>
>>

ruleReturnValue() ::= <<
<if(!ruleDescriptor.isSynPred)>
<if(ruleDescriptor.hasReturnValue)>
<if(ruleDescriptor.hasSingleReturnValue)>
$<ruleDescriptor.singleValueReturnName>
<else>
$retval
<endif>
<endif>
<endif>
>>

ruleCleanUp() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
<if(!TREE_PARSER)>
$retval->set_stop($self->input->LT(-1));<\n>
<endif>
<endif>
>>

memoize() ::= <<
<if(memoize)>
<if(backtracking)>
if
 ( backtracking>0 ) { memoize(input, <ruleDescriptor.index>, <ruleDescriptor.name>_StartIndex); }
<endif>
<endif>
>>

/** How to generate a rule in the lexer; naked blocks are used for
*  fragment rules.
*/
lexerRule(ruleName,nakedBlock,ruleDescriptor,block,memoize) ::= <<
# $ANTLR start <ruleName>
sub m_<ruleName> {
# <ruleDescriptor.parameterScope:parameterScope(scope=it)>
   my ($self) = @_;
   <if(trace)>traceIn("<ruleName>", <ruleDescriptor.index>);<endif>
   <ruleDeclarations()>
   eval {
<if(nakedBlock)>
       <ruleMemoization(name=ruleName)>
       <lexerRuleLabelDefs()>
```

```
        <ruleDescriptor.actions.init>
        <block><\n>
<else>
        my $_type = <ruleName>;
        my $_channel = $self->DEFAULT_TOKEN_CHANNEL;
        <ruleMemoization(name=ruleName)>
        <lexerRuleLabelDefs()>
        <ruleDescriptor.actions.init>
        <block>
        <ruleCleanUp()>
        $self->state->type($_type);
        $self->state->channel($_channel);
         <(ruleDescriptor.actions.after):execAction()>
<endif>
    };
    <if(trace)>traceOut("<ruleName>", <ruleDescriptor.index>);<endif>
    <memoize()>

    if ($EVAL_ERROR) {
        croak $EVAL_ERROR;
    }
}
# $ANTLR end <ruleName>
>>

/** How to generate code for the implicitly-defined lexer grammar rule
*  that chooses between lexer rules.
*/
tokensRule(ruleName,nakedBlock,args,block,ruleDescriptor) ::= <<
sub m_tokens {
    my ($self) = @_;
    <block><\n>
}
>>

// S U B R U L E S

/** A (...) subrule with multiple alternatives */
block(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
# <fileName>:<description>
my $alt<decisionNumber> = <maxAlt>;
<decls>
<@predecision()>
<decision>
<@postdecision()>
<@prebranch()>
switch ($alt<decisionNumber>) {
    <alts:altSwitchCase()>
```

```
}
<@postbranch()>
>>

/** A rule block with multiple alternatives */
ruleBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description)
 ::= <<
# <fileName>:<description>
my $alt<decisionNumber> = <maxAlt>;
<decls>
<@predecision()>
<decision>
<@postdecision()>
switch ($alt<decisionNumber>) {
   <alts:altSwitchCase()>
}
>>

ruleBlockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
# <fileName>:<description>
<decls>
<@prealt()>
<alts>
<@postalt()>
>>

/** A special case of a (...) subrule with a single alternative */
blockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
# <fileName>:<description>
<decls>
<@prealt()>
<alts>
<@postalt()>
>>

/** A (..)+ block with 1 or more alternatives */
positiveClosureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,descriptio
n) ::= <<
# <fileName>:<description>
my $cnt<decisionNumber> = 0;
<decls>
<@preloop()>
LOOP<decisionNumber>:
while (1) {
   my $alt<decisionNumber> = <maxAlt>;
   <@predecision()>
   <decision>
   <@postdecision()>
```

```
 switch ($alt<decisionNumber>) {
     <alts:altSwitchCase()>
     else {
         if ( $cnt<decisionNumber> >= 1 ) { last LOOP<decisionNumber> }
         <ruleBacktrackFailure()>
           my $eee =
               ANTLR::Runtime::EarlyExitException->new(<decisionNumber>, $self->input);
           <@earlyExitException()>
           croak $eee;
       }
   }
   ++$cnt<decisionNumber>;
}
<@postloop()>
>>

positiveClosureBlockSingleAlt ::= positiveClosureBlock

/** A (..)* block with 1 or more alternatives */
closureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::=
<<
# <fileName>:<description>
<decls>
<@preloop()>
LOOP<decisionNumber>:
while (1) {
   my $alt<decisionNumber> = <maxAlt>;
   <@predecision()>
   <decision>
   <@postdecision()>
   switch ($alt<decisionNumber>) {
     <alts:altSwitchCase()>
     else { last LOOP<decisionNumber> }
   }
}
<@postloop()>
>>

closureBlockSingleAlt ::= closureBlock

/** Optional blocks (x)?
 are translated to (x|) by before code generation
*  so we can just use the normal block template
*/
optionalBlock ::= block

optionalBlockSingleAlt ::= block
```

```
/** A case in a switch that jumps to an alternative given the alternative
*  number.  A DFA predicts the alternative and then a simple switch
*  does the jump to the code that actually matches that alternative.
*/
altSwitchCase() ::= <<
case <i> {
   <@prealt()>
   <it>
}<\n>
>>

/** An alternative is just a list of elements; at outermost level */
alt(elements,altNum,description,autoAST,outerAlt,treeLevel,rew) ::= <<
# <fileName>:<description>
{
<@declarations()>
<elements:element()>
<rew>
<@cleanup()>
}
>>

/** What to emit when there is no rewrite.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel, treeLevel) ::= ""

// E L E M E N T S

/** Dump the elements one per line */
element() ::= <<
<@prematch()>
<it.el><\n>
>>

/** match a token optionally with a label in front */
tokenRef(token,label,elementIndex,terminalOptions)
 ::= <<
<if(label)>$<label> =<endif>$self->match($self->input, <token>,
$FOLLOW_<token>_in_<ruleName><elementIndex>);
<checkRuleBacktrackFailure()>
>>

/** ids+=ID */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRef(...)>
<listLabel(elem=label,...)>
```

```
>>

listLabel(label,elem) ::= <<
if (list_<label>==null) list_<label>=new ArrayList();
list_<label>.add(<elem>);<\n>
>>

/** match a character */
charRef(char,label) ::= <<
<if(label)>
<label> = $self->input->LA(1);<\n>
<endif>
$self->match(<char>); <checkRuleBacktrackFailure()>
>>

/** match a character range */
charRangeRef(a,b,label) ::= <<
<if(label)>
<label> = $self->input->LA(1);<\n>
<endif>
$self->match_range(<a>,<b>); <checkRuleBacktrackFailure()>
>>

/** For now, sets are interval tests and must be tested inline */
matchSet(s,label,elementIndex,postmatchCode="") ::= <<
<if(label)>
<if(LEXER)>
<label>= $self->input->LA(1);<\n>
<else>
<label>=(<labelType>)input.LT(1);<\n>
<endif>
<endif>
if
 ( <s> ) {
   $self->input->consume();
   <postmatchCode>
<if(!LEXER)>
   $self->state->error_recovery(0);
<endif>
   <if(backtracking)>failed=false;<endif>
}
else {
   <ruleBacktrackFailure()>
   my $mse =
       ANTLR::Runtime::MismatchedSetException->new(undef, $self->input);
   <@mismatchedSetException()>
<if(LEXER)>
   $self->recover($mse);
```

```
  $mse->throw();
<else>
  $mse->throw();
  <! use following code to make it recover inline; remove throw mse;
  $self->recoverFromMismatchedSet($self->input, $mse, $FOLLOW_set_in_<ruleName><elementIndex>);
  !>
<endif>
}<\n>
>>

matchRuleBlockSet ::= matchSet

matchSetAndListLabel(s,label,elementIndex,postmatchCode) ::= <<
<matchSet(...)>
<listLabel(elem=label,...)>
>>

/** Match a string literal */
lexerStringRef(string,label,elementIndex) ::= <<
<if(label)>
int <label>Start = getCharIndex();
$self->match(<string>); <checkRuleBacktrackFailure()>
<labelType> <label> = new CommonToken(input, Token.INVALID_TOKEN_TYPE,
 Token.DEFAULT_CHANNEL, <label>Start, getCharIndex()-1);
<else>
$self->match(<string>); <checkRuleBacktrackFailure()><\n>
<endif>
>>

wildcard(label,elementIndex) ::= <<
<if(label)>
<label>=(<labelType>)input.LT(1);<\n>
<endif>
matchAny(input); <checkRuleBacktrackFailure()>
>>

wildcardAndListLabel(label,elementIndex) ::= <<
<wildcard(...)>
<listLabel(elem=label,...)>
>>

/** Match . wildcard in lexer */
wildcardChar(label, elementIndex) ::= <<
<if(label)>
<label> = $self->input->LA(1);<\n>
<endif>
matchAny(); <checkRuleBacktrackFailure()>
>>
```

```
wildcardCharListLabel(label, elementIndex) ::= <<
<wildcardChar(...)>
<listLabel(elem=label,...)>
>>

/** Match a rule reference by invoking it possibly with arguments
*  and a return value or values.
*/
ruleRef(rule,label,elementIndex,args,scope) ::= <<
$self->push_follow($FOLLOW_<rule.name>_in_<ruleName><elementIndex>);
<if(label)>
$<label> = $self-><rule.name>(<args; separator=", ">);<\n>
<else>
$self-><rule.name>(<args; separator=", ">);<\n>
<endif>
$self->state->_fsp($self->state->_fsp
 - 1);
<checkRuleBacktrackFailure()>
>>

/** ids+=r */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabel(elem=label,...)>
>>

/** A lexer rule reference.
*
*  The 'rule' argument was the target rule name, but now
*  is type Rule, whose toString is same: the rule name.
*  Now though you can access full rule descriptor stuff.
*/
lexerRuleRef(rule,label,args,elementIndex,scope) ::= <<
<if(label)>
int <label>Start<elementIndex> = getCharIndex();
$self->m_<rule>(<args; separator=", ">); <checkRuleBacktrackFailure()>
<label> = new CommonToken(input, Token.INVALID_TOKEN_TYPE, Token.DEFAULT_CHANNEL,
<label>Start<elementIndex>, getCharIndex()-1);
<else>
$self->m_<rule.name>(<args; separator=", ">); <checkRuleBacktrackFailure()>
<endif>
>>

/** i+=INT in lexer */
lexerRuleRefAndListLabel(rule,label,args,elementIndex,scope) ::= <<
<lexerRuleRef(...)>
<listLabel(elem=label,...)>
```

```
>>

/** EOF in the lexer
 */
lexerMatchEOF(label,elementIndex) ::= <<
<if(label)>
int <label>Start<elementIndex> = getCharIndex();
match(EOF); <checkRuleBacktrackFailure()>
<labelType> <label> = new CommonToken(input, EOF, Token.DEFAULT_CHANNEL,
<label>Start<elementIndex>, getCharIndex()-1);
<else>
match(EOF); <checkRuleBacktrackFailure()>
<endif>
>>

/** match ^(root children) in tree parser */
tree(root, actionsAfterRoot, children, nullableChildList,
    enclosingTreeLevel, treeLevel) ::= <<
<root:element()>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if ( input.LA(1)==Token.DOWN ) {
   match(input, Token.DOWN, null); <checkRuleBacktrackFailure()>
   <children:element()>
   match(input, Token.UP, null); <checkRuleBacktrackFailure()>
}
<else>
match(input, Token.DOWN, null); <checkRuleBacktrackFailure()>
<children:element()>
match(input, Token.UP, null); <checkRuleBacktrackFailure()>
<endif>
>>

/** Every predicate is used as a validating predicate (even when it is
*  also hoisted into a prediction
 expression).
*/
validateSemanticPredicate(pred,description) ::= <<
if ( !(<evalPredicate(...)>) ) {
   <ruleBacktrackFailure()>
   throw new FailedPredicateException(input, "<ruleName>", "<description>");
}
>>

// F i x e d  D F A  (if-then-else)

dfaState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
my $LA<decisionNumber>_<stateNumber> = $self->input->LA(<k>);<\n>
```

```
<edges; separator="\nels">
else {
<if(eotPredictsAlt)>
   $alt<decisionNumber> = <eotPredictsAlt>;
<else>
   <ruleBacktrackFailure()>
   my $nvae =
       ANTLR::Runtime::NoViableAltException->new({
           grammar_decision_description => "<description>",
           decision_number => <decisionNumber>,
           state_number => <stateNumber>,
           input => $self->input,
       });<\n>
   <@noViableAltException()>
   croak $nvae;<\n>
<endif>
}
>>

/** Same as a normal DFA state except that we don't examine lookahead
*  for the bypass alternative.  It delays error detection but
 this
*  is faster, smaller, and more what people expect.  For (X)? people
*  expect "if ( LA(1)==X ) match(X);" and that's it.
*/
dfaOptionalBlockState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
my $LA<decisionNumber>_<stateNumber> = $self->input->LA(<k>);<\n>
<edges; separator="\nels">
>>

/** A DFA state that is actually the loopback decision of a closure
*  loop.  If end-of-token (EOT) predicts any of the targets then it
*  should act like a default clause (i.e., no error can be generated).
*  This is used only in the lexer so that for ('a')* on the end of a rule
*  anything other than 'a' predicts exiting.
*/
dfaLoopbackState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
my $LA<decisionNumber>_<stateNumber> = $self->input->LA(<k>);<\n>
<edges; separator="\nels"><\n>
<if(eotPredictsAlt)>
<if(!edges)>
$alt<decisionNumber> = <eotPredictsAlt>; <! if no edges, don't gen ELSE !>
<else>
else {
   $alt<decisionNumber> = <eotPredictsAlt>;
}<\n>
<endif>
<endif>
```

```
>>

/**
 An accept state indicates a unique alternative has been predicted */
dfaAcceptState(alt) ::= "$alt<decisionNumber> = <alt>;"

/** A simple edge with an expression.  If the expression is satisfied,
*  enter to the target state.  To handle gated productions, we may
*  have to evaluate some predicates for this edge.
*/
dfaEdge(labelExpr, targetState, predicates) ::= <<
if ( (<labelExpr>) <if(predicates)>&& (<predicates>)<endif>) {
   <targetState>
}
>>

// F i x e d  D F A  (switch case)

/** A DFA state where a SWITCH may be generated.  The code generator
*  decides if this is possible: CodeGenerator.canGenerateSwitch().
*/
dfaStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch ( $self->input->LA(<k>) ) {
   <edges; separator="\n">
   else {
   <if(eotPredictsAlt)>
       $alt<decisionNumber> = <eotPredictsAlt>;
   <else>
       <ruleBacktrackFailure()>
       my $nvae =
           ANTLR::Runtime::NoViableAltException->new({
                grammar_decision_description => "<description>",
               decision_number => <decisionNumber>,
               state_number => <stateNumber>,
               input => $self->input,
           });<\n>
       <@noViableAltException()>
       croak $nvae;<\n>
   <endif>
   }
}<\n>
>>

dfaOptionalBlockStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch ( $self->input->LA(<k>) ) {
   <edges; separator="\n">
}<\n>
>>
```

```
dfaLoopbackStateSwitch(k, edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch ( $self->input->LA(<k>) ) {
<edges; separator="\n"><\n>
<if(eotPredictsAlt)>
else { $alt<decisionNumber> = <eotPredictsAlt> }<\n>
<endif>
}<\n>
>>

dfaEdgeSwitch(labels, targetState) ::= <<
case [<labels:{ <it> }; separator=", ">] { <targetState> }
>>

// C y c l i c  D F A

/** The code to initiate execution of a cyclic DFA; this is used
*  in the rule to predict an alt just like the fixed DFA
 case.
*  The <name> attribute is inherited via the parser, lexer, ...
*/
dfaDecision(decisionNumber,description) ::= <<
$alt<decisionNumber> = $self->dfa<decisionNumber>->predict($self->input);
>>

/* Dump DFA tables as run-length-encoded Strings of octal values.
* Can't use hex as compiler translates them before compilation.
* These strings are split into multiple, concatenated strings.
* Java puts them back together at compile time thankfully.
* Java cannot handle large static arrays, so we're stuck with this
* encode/decode approach.  See analysis and runtime DFA for
* the encoding methods.
*/
cyclicDFA(dfa) ::= <<
Readonly my $DFA<dfa.decisionNumber>_eot => ANTLR::Runtime::DFA->unpack_rle([
<dfa.javaCompressedEOT; separator=", "> ]);
Readonly my $DFA<dfa.decisionNumber>_eof => ANTLR::Runtime::DFA->unpack_rle([
<dfa.javaCompressedEOF; separator=", "> ]);
Readonly my $DFA<dfa.decisionNumber>_min => ANTLR::Runtime::DFA->unpack_rle([
<dfa.javaCompressedMin; separator=", "> ]);
Readonly
 my $DFA<dfa.decisionNumber>_max => ANTLR::Runtime::DFA->unpack_rle([ <dfa.javaCompressedMax;
separator=", "> ]);
Readonly my $DFA<dfa.decisionNumber>_accept => ANTLR::Runtime::DFA->unpack_rle([
<dfa.javaCompressedAccept; separator=", "> ]);
Readonly my $DFA<dfa.decisionNumber>_special => ANTLR::Runtime::DFA->unpack_rle([
<dfa.javaCompressedSpecial; separator=", "> ]);
Readonly my $DFA<dfa.decisionNumber>_transition => [
```

```
<dfa.javaCompressedTransition:{s|ANTLR::Runtime::DFA->unpack_rle([ <s; separator=", "> ])}; separator=", "> ];

{
package <name>::DFA<dfa.decisionNumber>;
use ANTLR::Runtime::Class;

use strict;
use warnings;

extends 'ANTLR::Runtime::DFA';

sub BUILD {
  my $self = shift;
  my $param_ref = __PACKAGE__->unpack_params(@_, {
     spec => [
        {
           name => 'recognizer',
           isa  => 'ANTLR::Runtime::BaseRecognizer'
        },
     ]
  });

  $self->recognizer($param_ref->{recognizer});
  $self->decision_number(<dfa.decisionNumber>);
   $self->eot($DFA<dfa.decisionNumber>_eot);
  $self->eof($DFA<dfa.decisionNumber>_eof);
  $self->min($DFA<dfa.decisionNumber>_min);
  $self->max($DFA<dfa.decisionNumber>_max);
  $self->accept($DFA<dfa.decisionNumber>_accept);
  $self->special($DFA<dfa.decisionNumber>_special);
  $self->transition($DFA<dfa.decisionNumber>_transition);
}

sub get_description {
  return "<dfa.description>";
}

<@errorMethod()>

<if(dfa.specialStateSTs)>
sub special_state_transition {
  my ($self, $param_ref) = unpack_params(@_, {
     spec => [
        {
           name => 's',
           type => SCALAR,
        },
        {
```

```
            name => 'input',
            isa  => 'ANTLR::Runtime::IntStream',
        }
      ]
  });
  my $s = $param_ref->{s};
  my $input = $param_ref->{input};

  switch ($s) {
      <dfa.specialStateSTs:{state |
      case <i0> \{ <! compressed special state numbers 0..n-1 !>
          <state>};
 separator="\n">
      }
  }

<if(backtracking)>
  if ($self->state->backtracking > 0) {
      $self->state->failed = 1;
      return -1;
  }<\n>
<endif>

  my $nvae =
      ANTLR::Runtime::NoViableAltException->new({
          grammar_decision_description => $self->get_description(),
          decision_number => <dfa.decisionNumber>,
          state_number => $s,
          input => $input,
      });<\n>
  $self->error($nvae);
  $nvae->throw();
  }<\n>
<endif>
}<\n>
>>

/** A state in a cyclic DFA; it's a special state and part of a big switch on
*  state.
*/
cyclicDFAState(decisionNumber,stateNumber,edges,needErrorClause,semPredState) ::= <<
my $input = $self->input;
my $LA<decisionNumber>_<stateNumber> = $input->LA(1);<\n>
<if(semPredState)> <! get next lookahead symbol to test edges, then rewind !>
my $index<decisionNumber>_<stateNumber> = $input->index();
$input->rewind();<\n>
<endif>
s = -1;
```

```
<edges; separator="\nels">
<if(semPredState)> <!
 return input cursor to state before we rewound !>
input.seek(index<decisionNumber>_<stateNumber>);<\n>
<endif>
if ( s>=0 ) return s;
break;
>>

/** Just like a fixed DFA edge, test the lookahead and indicate what
*  state to jump to next if successful.
*/
cyclicDFAEdge(labelExpr, targetStateNumber, edgeNumber, predicates) ::= <<
if ( (<labelExpr>) <if(predicates)>&& (<predicates>)<endif>) {s = <targetStateNumber>;}<\n>
>>

/** An edge pointing at end-of-token; essentially matches any char;
*  always jump to the target.
*/
eotDFAEdge(targetStateNumber,edgeNumber, predicates) ::= <<
s = <targetStateNumber>;<\n>
>>


// D F A  E X P R E S S I O N S

andPredicates(left,right) ::= "(<left> && <right>)"

orPredicates(operands) ::= "(<operands; separator=\"||\">)"

notPredicate(pred) ::= "!(<evalPredicate(...)>)"

evalPredicate(pred,description) ::= "<pred>"

evalSynPredicate(pred,description) ::= "<pred>()"

lookaheadTest(atom,k,atomAsInt) ::= "$LA<decisionNumber>_<stateNumber> eq <atom>"

/**
 Sometimes a lookahead test cannot assume that LA(k) is in a temp variable
*  somewhere.  Must ask for the lookahead directly.
*/
isolatedLookaheadTest(atom,k,atomAsInt) ::= "$self->input->LA(<k>) eq <atom>"

lookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= <<
($LA<decisionNumber>_<stateNumber> ge <lower> && $LA<decisionNumber>_<stateNumber> le <upper>)
>>
```

```
isolatedLookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= "($self->input->LA(<k>) ge <lower> && $self->input->LA(<k>) le <upper>)"

setTest(ranges) ::= "<ranges; separator=\" || \">"

// A T T R I B U T E S

globalAttributeScope(scope) ::= <<
<if(scope.attributes)>
protected static class <scope.name>_scope {
  <scope.attributes:{<it.decl>;}; separator="\n">
}
protected Stack <scope.name>_stack = new Stack();<\n>
<endif>
>>

ruleAttributeScope(scope) ::= <<
<if(scope.attributes)>
protected static class <scope.name>_scope {
  <scope.attributes:{<it.decl>;}; separator="\n">
}
protected
 Stack <scope.name>_stack = new Stack();<\n>
<endif>
>>

returnType() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
<ruleDescriptor.name>_return
<else>
<if(ruleDescriptor.hasSingleReturnValue)>
<ruleDescriptor.singleValueReturnType>
<else>
void
<endif>
<endif>
>>

/** Generate the Java type associated with a single or multiple return
*  values.
*/
ruleLabelType(referencedRule) ::= <<
<if(referencedRule.hasMultipleReturnValues)>
<referencedRule.name>_return
<else>
<if(referencedRule.hasSingleReturnValue)>
<referencedRule.singleValueReturnType>
<else>
```

```
void
<endif>
<endif>
>>

/** Using a type to init value map, try to init a type; if not in table
*  must be an object, default value is "undef".
*/
initValue(typeName) ::= <<
<if(typeName)>
<perlTypeInitMap.(typeName)>
<else>
undef
<endif>
>>

/** Define a rule label including default value */
ruleLabelDef(label) ::= <<
my $<label.label.text> = <initValue(typeName=ruleLabelType(referencedRule=label.referencedRule))>;<\n>
>>

/**
 Define a return struct for a rule if the code needs to access its
*  start/stop tokens, tree stuff, attributes, ...  Leave a hole for
*  subgroups to stick in members.
*/
returnScope(scope) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
{
   package <returnType()>;
   use ANTLR::Runtime::Class;

   extends 'ANTLR::Runtime::<if(TREE_PARSER)>Tree<else>Parser<endif>RuleReturnScope';

   <scope.attributes:{public <it.decl>;}; separator="\n">
   <@ruleReturnMembers()>
}
<endif>
>>

parameterScope(scope) ::= <<
<scope.attributes:{$<it.name>}; separator=", ">
>>

parameterAttributeRef(attr) ::= "$<attr.name>"
parameterSetAttributeRef(attr,expr) ::= "$<attr.name> =<expr>;"

scopeAttributeRef(scope,attr,index,negIndex) ::= <<
```

```
<if(negIndex)>
((<scope>_scope)<scope>_stack.elementAt(<scope>_stack.size()-<negIndex>-1)).<attr.name>
<else>
<if(index)>
((<scope>_scope)<scope>_stack.elementAt(<index>)).<attr.name>
<else>
((<scope>_scope)<scope>_stack.peek()).<attr.name>
<endif>
<endif>
>>

scopeSetAttributeRef(scope,attr,expr,index,negIndex)
 ::= <<
<if(negIndex)>
((<scope>_scope)<scope>_stack.elementAt(<scope>_stack.size()-<negIndex>-1)).<attr.name> =<expr>;
<else>
<if(index)>
((<scope>_scope)<scope>_stack.elementAt(<index>)).<attr.name> =<expr>;
<else>
((<scope>_scope)<scope>_stack.peek()).<attr.name> =<expr>;
<endif>
<endif>
>>

/** $x is either global scope or x is rule with dynamic scope; refers
*  to stack itself not top of stack.  This is useful for predicates
*  like {$function.size()>0 && $function::name.equals("foo")}?
*/
isolatedDynamicScopeRef(scope) ::= "<scope>_stack"

/** reference an attribute of rule; might only have single return value */
ruleLabelRef(referencedRule,scope,attr) ::= <<
<if(referencedRule.hasMultipleReturnValues)>
$<scope>.<attr.name>
<else>
$<scope>
<endif>
>>

returnAttributeRef(ruleDescriptor,attr) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name>
<else>
$<attr.name>
<endif>
>>

returnSetAttributeRef(ruleDescriptor,attr,expr)
```

```
 ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name> =<expr>;
<else>
$<attr.name> =<expr>;
<endif>
>>

/** How to translate $tokenLabel */
tokenLabelRef(label) ::= "$<label>"

/** ids+=ID {$ids} or e+=expr {$e} */
listLabelRef(label) ::= "list_<label>"


// not sure the next are the right approach

tokenLabelPropertyRef_text(scope,attr) ::= "$<scope>->get_text()"
tokenLabelPropertyRef_type(scope,attr) ::= "<scope>.getType()"
tokenLabelPropertyRef_line(scope,attr) ::= "<scope>.getLine()"
tokenLabelPropertyRef_pos(scope,attr) ::= "<scope>.getCharPositionInLine()"
tokenLabelPropertyRef_channel(scope,attr) ::= "<scope>.getChannel()"
tokenLabelPropertyRef_index(scope,attr) ::= "<scope>.getTokenIndex()"
tokenLabelPropertyRef_tree(scope,attr) ::= "<scope>_tree"

ruleLabelPropertyRef_start(scope,attr) ::= "((<labelType>)<scope>.start)"
ruleLabelPropertyRef_stop(scope,attr) ::= "((<labelType>)<scope>.stop)"
ruleLabelPropertyRef_tree(scope,attr) ::= "((<ASTLabelType>)<scope>.tree)"
ruleLabelPropertyRef_text(scope,attr)
 ::= <<
<if(TREE_PARSER)>
input.getTokenStream().toString(
 input.getTreeAdaptor().getTokenStartIndex(<scope>.start),
 input.getTreeAdaptor().getTokenStopIndex(<scope>.start))
<else>
substr($self->input, $<scope>->start, $<scope>->stop)
<endif>
>>

ruleLabelPropertyRef_st(scope,attr) ::= "<scope>.st"

/** Isolated $RULE ref ok in lexer as it's a Token */
lexerRuleLabel(label) ::= "$<label>"

lexerRuleLabelPropertyRef_type(scope,attr) ::= "<scope>.getType()"
lexerRuleLabelPropertyRef_line(scope,attr) ::= "<scope>.getLine()"
lexerRuleLabelPropertyRef_pos(scope,attr) ::= "<scope>.getCharPositionInLine()"
lexerRuleLabelPropertyRef_channel(scope,attr) ::= "<scope>.getChannel()"
```

```
lexerRuleLabelPropertyRef_index(scope,attr) ::= "<scope>.getTokenIndex()"
lexerRuleLabelPropertyRef_text(scope,attr) ::= "<scope>.getText()"

// Somebody may ref $template or $tree or $stop within a rule:
rulePropertyRef_start(scope,attr) ::= "((<labelType>)retval.start)"
rulePropertyRef_stop(scope,attr)
 ::= "((<labelType>)retval.stop)"
rulePropertyRef_tree(scope,attr) ::= "((<ASTLabelType>)retval.tree)"
rulePropertyRef_text(scope,attr) ::= <<
<if(TREE_PARSER)>
input.getTokenStream().toString(
 input.getTreeAdaptor().getTokenStartIndex(retval.start),
 input.getTreeAdaptor().getTokenStopIndex(retval.start))
<else>
input.toString(retval.start,input.LT(-1))
<endif>
>>
rulePropertyRef_st(scope,attr) ::= "retval.st"

lexerRulePropertyRef_text(scope,attr) ::= "getText()"
lexerRulePropertyRef_type(scope,attr) ::= "$_type"
lexerRulePropertyRef_line(scope,attr) ::= "tokenStartLine"
lexerRulePropertyRef_pos(scope,attr) ::= "tokenStartCharPositionInLine"
lexerRulePropertyRef_index(scope,attr) ::= "-1" // undefined token index in lexer
lexerRulePropertyRef_channel(scope,attr) ::= "$_channel"
lexerRulePropertyRef_start(scope,attr) ::= "tokenStartCharIndex"
lexerRulePropertyRef_stop(scope,attr) ::= "(getCharIndex()-1)"
lexerRulePropertyRef_self(scope,attr)
 ::= "$self"

// setting $st and $tree is allowed in local rule. everything else
// is flagged as error
ruleSetPropertyRef_tree(scope,attr,expr) ::= "retval.tree =<expr>;"
ruleSetPropertyRef_st(scope,attr,expr) ::= "retval.st =<expr>;"



/** How to execute an action */
execAction(action) ::= <<
<if(backtracking)>
<if(actions.(actionScope).synpredgate)>
if ( <actions.(actionScope).synpredgate> ) {
 <action>
}
<else>
if ( backtracking==0 ) {
 <action>
}
<endif>
```

```
<else>
<action>
<endif>
>>

// M I S C (properties, etc...)

bitset(name, words64) ::= <<
Readonly my $<name> => ANTLR::Runtime::BitSet->new({ words64 => [ <words64:{'<it>'};separator=", "> ]
});<\n>
>>

codeFileExtension() ::= ".pm"

true() ::= "1"
false() ::= "0"
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Perl5/Perl5.stg
No license file was found, but licenses were detected in source scan.

```
asTypeInitMap ::= [
 "int":"0",
 "uint":"0",
 "Number":"0.0",
 "Boolean":"false",
 default:"null" // anything other than an atomic type
]

/** The overall file structure of a recognizer; stores methods for rules
*  and cyclic DFAs plus support code.
*/
outputFile(LEXER,PARSER,TREE_PARSER, actionScope, actions,
           docComment, recognizer,
           name, tokens, tokenNames, rules, cyclicDFAs,
    bitsets, buildTemplate, buildAST, rewriteMode, profile,
    backtracking, synpreds,
 memoize, numRules,
    fileName, ANTLRVersion, generatedTimestamp, trace,
    scopes, superClass, literals) ::=
<<
// $ANTLR <ANTLRVersion> <fileName> <generatedTimestamp>
package<if(actions.(actionScope).package)> <actions.(actionScope).package><endif> {
   <actions.(actionScope).header>
   <@imports>
import org.antlr.runtime.*;
<if(TREE_PARSER)>
   import org.antlr.runtime.tree.*;
<endif>
   <@end>

   <docComment>
   <recognizer>
}
>>

lexer(grammar, name, tokens, scopes, rules, numRules, filterMode, labelType="Token",
     superClass="Lexer") ::= <<
public class <grammar.recognizerName> extends
<if(actions.(actionScope).superClass)><actions.(actionScope).superClass><else><@superClassName><superClass
><@end><endif> {
   <tokens:{it |public static const <it.name>:int=<it.type>;}; separator="\n">
   <scopes:{it |<if(it.isDynamicGlobalScope)><globalAttributeScope(it)><endif>}>
   <actions.lexer.members>

   // delegates
   <grammar.delegates:
        {g|public var <g:delegateName()>:<g.recognizerName>;};
```

```
 separator="\n">
  // delegators
  <grammar.delegators:
       {g|public var <g:delegateName()>:<g.recognizerName>;}; separator="\n">
  <last(grammar.delegators):{g|public var gParent:<g.recognizerName>;}>

  public function <grammar.recognizerName>(<grammar.delegators:{g|<g:delegateName()>:<g.recognizerName>,
}>input:CharStream = null, state:RecognizerSharedState = null) {
      super(input, state);
      <cyclicDFAs:cyclicDFACtor()>
<if(memoize)>
<if(grammar.grammarIsRoot)>
      this.state.ruleMemo = new Array(<numRules>+1);<\n> <! index from 1..n !>
<endif>
<endif>
      <grammar.directDelegates:
       {g|<g:delegateName()> = new <g.recognizerName>(<trunc(g.delegators):{p|<p:delegateName()>, }>this,
input, this.state);}; separator="\n">
      <grammar.delegators:
       {g|this.<g:delegateName()> = <g:delegateName()>;}; separator="\n">
      <last(grammar.delegators):{g|gParent = <g:delegateName()>;}>
  }
  public override
 function get grammarFileName():String { return "<fileName>"; }

<if(filterMode)>
  <filteringNextToken()>
<endif>
  <rules; separator="\n\n">

  <synpreds:{p | <lexerSynpred(p)>}>

  <cyclicDFAs:cyclicDFA()> <! dump tables for all DFA !>

}
>>

/** A override of Lexer.nextToken() that backtracks over mTokens() looking
*  for matches.  No error can be generated upon error; just rewind, consume
*  a token and then try again.  backtracking needs to be set as well.
*  Make rule memoization happen only at levels above 1 as we start mTokens
*  at backtracking==1.
*/
filteringNextToken() ::= <<
public override function nextToken():Token {
  while (true) {
      if ( input.LA(1)==CharStreamConstants.EOF ) {
          return TokenConstants.EOF_TOKEN;
```

```
        }
        this.state.token = null;
      this.state.channel = TokenConstants.DEFAULT_CHANNEL;
        this.state.tokenStartCharIndex = input.index;
        this.state.tokenStartCharPositionInLine = input.charPositionInLine;
         this.state.tokenStartLine = input.line;
      this.state.text = null;
        try {
            var m:int = input.mark();
            this.state.backtracking=1; <! means we won't throw slow exception !>
            this.state.failed=false;
            mTokens();
            this.state.backtracking=0;
            <! mTokens backtracks with synpred at backtracking==2
               and we set the synpredgate to allow actions at level 1. !>
            if ( this.state.failed ) {
                input.rewindTo(m);
                input.consume(); <! advance one char and try again !>
            }
            else {
                emit();
                return this.state.token;
            }
        }
        catch (re:RecognitionException) {
            // shouldn't happen in backtracking mode, but...
            reportError(re);
            recover(re);
        }
    }
    // Not reached - For ActionScript compiler
    throw new Error();
}

public override function memoize(input:IntStream,
  ruleIndex:int,
  ruleStartIndex:int):void
{
if
 ( this.state.backtracking>1 ) super.memoize(input, ruleIndex, ruleStartIndex);
}

public override function alreadyParsedRule(input:IntStream, ruleIndex:int):Boolean {
if ( this.state.backtracking>1 ) return super.alreadyParsedRule(input, ruleIndex);
return false;
}
>>
```

```
actionGate() ::= "this.state.backtracking==0"

filteringActionGate() ::= "this.state.backtracking==1"

/** How to generate a parser */
genericParser(grammar, name, scopes, tokens, tokenNames, rules, numRules,
              bitsets, inputStreamType, superClass,
              labelType, members, rewriteElementType,
              filterMode, ASTLabelType="Object") ::= <<
public class <grammar.recognizerName> extends
<if(actions.(actionScope).superClass)><actions.(actionScope).superClass><else><@superClassName><superClass
><@end><endif> {
<if(grammar.grammarIsRoot)>
    public static const tokenNames:Array = [
        "\<invalid>", "\<EOR>", "\<DOWN>", "\<UP>",
 <tokenNames; separator=", ">
    ];<\n>
<endif>
    <tokens:{it |public static const <it.name>:int=<it.type>;}; separator="\n">

    // delegates
    <grammar.delegates: {g|public var <g:delegateName()>:<g.recognizerName>;}; separator="\n">
    // delegators
    <grammar.delegators:
         {g|public var <g:delegateName()>:<g.recognizerName>;}; separator="\n">
    <last(grammar.delegators):{g|public var gParent:<g.recognizerName>;}>

    <scopes:{it |<if(it.isDynamicGlobalScope)><globalAttributeScope(it)><endif>}>
    <@members>
   <! WARNING. bug in ST: this is cut-n-paste into Dbg.stg !>
    public function <grammar.recognizerName>(<grammar.delegators:{g|<g:delegateName()>:<g.recognizerName>,
}>input:<inputStreamType>, state:RecognizerSharedState = null) {
        super(input, state);
        <cyclicDFAs:cyclicDFACtor()>
        <parserCtorBody()>
        <grammar.directDelegates:
         {g|<g:delegateName()> = new <g.recognizerName>(<trunc(g.delegators):{p|<p:delegateName()>,
 }>this, input, this.state);}; separator="\n">
        <grammar.indirectDelegates:{g | <g:delegateName()> = <g.delegator:delegateName()>.<g:delegateName()>;};
separator="\n">
        <last(grammar.delegators):{g|gParent = <g:delegateName()>;}>
    }
    <@end>

    public override function get tokenNames():Array { return
<grammar.composite.rootGrammar.recognizerName>.tokenNames; }
    public override function get grammarFileName():String { return "<fileName>"; }
```

```
    <members>

    <rules; separator="\n\n">

    <! generate rule/method definitions for imported rules so they
       appear to be defined in this recognizer. !>
       // Delegated rules
    <grammar.delegatedRules:{ruleDescriptor|
        public function <ruleDescriptor.name>(<ruleDescriptor.parameterScope:parameterScope()>):<returnType()> {
<if(ruleDescriptor.hasReturnValue)>return
<endif><ruleDescriptor.grammar:delegateName()>.<ruleDescriptor.name>(<ruleDescriptor.parameterScope.attribut
es:{a|<a.name>}; separator=", ">);
 \}}; separator="\n">

    <synpreds:{p | <synpred(p)>}>

    <cyclicDFAs:cyclicDFA()> <! dump tables for all DFA !>

    <bitsets:{it | <bitset(name={FOLLOW_<it.name>_in_<it.inName><it.tokenIndex>},
                        words64=it.bits)>}>
}
>>

parserCtorBody() ::= <<
<if(memoize)>
<if(grammar.grammarIsRoot)>
this.state.ruleMemo = new Array(<length(grammar.allImportedRules)>+1);<\n> <! index from 1..n !>
<endif>
<endif>
<grammar.delegators:
{g|this.<g:delegateName()> = <g:delegateName()>;}; separator="\n">
>>

parser(grammar, name, scopes, tokens, tokenNames, rules, numRules, bitsets, ASTLabelType="Object",
superClass="Parser", labelType="Token", members={<actions.parser.members>}) ::= <<
<genericParser(grammar, name, scopes, tokens, tokenNames, rules, numRules,
            bitsets, "TokenStream", superClass,
            labelType, members, "Token",
            false, ASTLabelType)>
>>

/** How to generate a tree parser; same as parser except the input
*  stream is a different
 type.
*/
treeParser(grammar, name, scopes, tokens, tokenNames, globalAction, rules,
         numRules, bitsets, filterMode, labelType={<ASTLabelType>}, ASTLabelType="Object",
         superClass="TreeParser", members={<actions.treeparser.members>}) ::= <<
```

```
<genericParser(grammar, name, scopes, tokens, tokenNames, rules, numRules,
            bitsets, "TreeNodeStream", superClass,
            labelType, members, "Node",
            filterMode, ASTLabelType)>
>>

/** A simpler version of a rule template that is specific to the imaginary
*  rules created for syntactic predicates.  As they never have return values
*  nor parameters etc..., just give simplest possible method.  Don't do
*  any of the normal memoization stuff in here either; it's a waste.
*  As predicates cannot be inlined into the invoking rule, they need to
*  be in a rule by themselves.
*/
synpredRule(ruleName, ruleDescriptor, block, description, nakedBlock) ::=
<<
// $ANTLR start <ruleName>
public
 final function <ruleName>_fragment(<ruleDescriptor.parameterScope:parameterScope()>):void {
   <ruleLabelDefs()>
<if(trace)>
   traceIn("<ruleName>_fragment", <ruleDescriptor.index>);
   try {
       <block>
   }
   finally {
       traceOut("<ruleName>_fragment", <ruleDescriptor.index>);
   }
<else>
   <block>
<endif>
}
// $ANTLR end <ruleName>
>>

synpred(name) ::= <<
public final function <name>():Boolean {
   this.state.backtracking++;
   <@start()>
   var start:int = input.mark();
   try {
       <name>_fragment(); // can never throw exception
   } catch (re:RecognitionException) {
       trace("impossible: "+re);
   }
   var success:Boolean = !this.state.failed;
   input.rewindTo(start);
   <@stop()>
   this.state.backtracking--;
```

```
   this.state.failed=false;
   return success;
}<\n>
>>

lexerSynpred(name) ::= <<
<synpred(name)>
>>

ruleMemoization(name) ::= <<
<if(memoize)>
if ( this.state.backtracking>0 && alreadyParsedRule(input, <ruleDescriptor.index>) )
 { return <ruleReturnValue()>; }
<endif>
>>

/** How to test for failure and return from rule */
checkRuleBacktrackFailure() ::= <<
<if(backtracking)>if (this.state.failed) return <ruleReturnValue()>;<endif>
>>

/** This rule has failed, exit indicating failure during backtrack */
ruleBacktrackFailure() ::= <<
<if(backtracking)>if (this.state.backtracking>0) {this.state.failed=true; return <ruleReturnValue()>;}<endif>
>>

/** How to generate code for a rule.  This includes any return type
*  data aggregates required for multiple return values.
*/
rule(ruleName,ruleDescriptor,block,emptyRule,description,exceptions,finally,memoize) ::= <<
<ruleAttributeScope(scope=ruleDescriptor.ruleScope)>
// $ANTLR start <ruleName>
// <fileName>:<description>
public final function <ruleName>(<ruleDescriptor.parameterScope:parameterScope()>):<returnType()> {
   <if(trace)>traceIn("<ruleName>", <ruleDescriptor.index>);<endif>
   <ruleScopeSetUp()>
   <ruleDeclarations()>
   <ruleLabelDefs()>
   <ruleDescriptor.actions.init>
    <@preamble()>
   try {
       <ruleMemoization(name=ruleName)>
       <block>
       <ruleCleanUp()>
       <(ruleDescriptor.actions.after):execAction()>
   }
<if(exceptions)>
   <exceptions:{e|<catch(decl=e.decl,action=e.action)><\n>}>
```

```
<else>
<if(!emptyRule)>
<if(actions.(actionScope).rulecatch)>
   <actions.(actionScope).rulecatch>
<else>
   catch (re:RecognitionException) {
       reportError(re);
       recoverStream(input,re);
       <@setErrorReturnValue()>
   }<\n>
<endif>
<endif>
<endif>
   finally {
       <if(trace)>traceOut("<ruleName>", <ruleDescriptor.index>);<endif>
       <memoize()>
       <ruleScopeCleanUp()>
       <finally>
   }
   <@postamble()>
   return <ruleReturnValue()>;
}
// $ANTLR end <ruleName>
>>

catch(decl,action) ::= <<
catch (<e.decl>) {
   <e.action>
}
>>

ruleDeclarations() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
var retval:<returnType()> = new <returnType()>();
retval.start = input.LT(1);<\n>
<else>
<ruleDescriptor.returnScope.attributes:{
 a |
var <a.name>:<a.type> = <if(a.initValue)><a.initValue><else><initValue(a.type)><endif>;
}>
<endif>
<if(memoize)>
var <ruleDescriptor.name>_StartIndex:int = input.index;
<endif>
>>

ruleScopeSetUp() ::= <<
<ruleDescriptor.useScopes:{it |<it>_stack.push(new Object());}; separator="\n">
```

```
<ruleDescriptor.ruleScope:{it |<it.name>_stack.push(new Object());}; separator="\n">
>>

ruleScopeCleanUp() ::= <<
<ruleDescriptor.useScopes:{it |<it>_stack.pop();}; separator="\n">
<ruleDescriptor.ruleScope:{it |<it.name>_stack.pop();}; separator="\n">
>>

ruleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,ruleDescriptor.tokenListLabels,
 ruleDescriptor.wildcardTreeLabels,ruleDescriptor.wildcardTreeListLabels]
   :{it |var <it.label.text>:<labelType>=null;}; separator="\n"
>
<[ruleDescriptor.tokenListLabels,ruleDescriptor.ruleListLabels,ruleDescriptor.wildcardTreeListLabels]
   :{it |var list_<it.label.text>:Array=null;}; separator="\n"
>
<ruleDescriptor.ruleLabels:ruleLabelDef();
 separator="\n">
<ruleDescriptor.ruleListLabels:{ll|var <ll.label.text>:RuleReturnScope = null;}; separator="\n">
>>

lexerRuleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,
 ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleLabels]
   :{it |var <it.label.text>:<labelType>=null;}; separator="\n"
>
<ruleDescriptor.charLabels:{it |var <it.label.text>:int;}; separator="\n">
<[ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleListLabels]
   :{it |var list_<it.label.text>:Array=null;}; separator="\n"
>
>>

ruleReturnValue() ::= <%
<if(!ruleDescriptor.isSynPred)>
<if(ruleDescriptor.hasReturnValue)>
<if(ruleDescriptor.hasSingleReturnValue)>
<ruleDescriptor.singleValueReturnName>
<else>
retval
<endif>
<endif>
<endif>
%>

ruleCleanUp() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
```

```
<if(!TREE_PARSER)>
retval.stop = input.LT(-1);<\n>
<endif>
<endif>
>>

memoize() ::= <<
<if(memoize)>
<if(backtracking)>
if ( this.state.backtracking>0 ) { memoize(input,
 <ruleDescriptor.index>, <ruleDescriptor.name>_StartIndex); }
<endif>
<endif>
>>

/** How to generate a rule in the lexer; naked blocks are used for
*  fragment rules.
*/
lexerRule(ruleName,nakedBlock,ruleDescriptor,block,memoize) ::= <<
// $ANTLR start <ruleName>
public final function m<ruleName>(<ruleDescriptor.parameterScope:parameterScope()>):void {
   <if(trace)>traceIn("<ruleName>", <ruleDescriptor.index>);<endif>
   <ruleScopeSetUp()>
   <ruleDeclarations()>
   try {
<if(nakedBlock)>
       <ruleMemoization(name=ruleName)>
       <lexerRuleLabelDefs()>
       <ruleDescriptor.actions.init>
       <block><\n>
<else>
       var _type:int = <ruleName>;
       var _channel:int = DEFAULT_TOKEN_CHANNEL;
       <ruleMemoization(name=ruleName)>
       <lexerRuleLabelDefs()>
       <ruleDescriptor.actions.init>
       <block>
       <ruleCleanUp()>
       this.state.type = _type;
       this.state.channel = _channel;
       <(ruleDescriptor.actions.after):execAction()>
<endif>
    }
   finally {
       <if(trace)>traceOut("<ruleName>", <ruleDescriptor.index>);<endif>
       <ruleScopeCleanUp()>
       <memoize()>
   }
```

```
}
// $ANTLR end <ruleName>
>>

/** How to generate code for the implicitly-defined lexer grammar rule
*  that chooses between lexer rules.
*/
tokensRule(ruleName,nakedBlock,args,block,ruleDescriptor) ::= <<
public override function mTokens():void {
   <block><\n>
}
>>

// S U B R U L E S

/** A (...) subrule with multiple alternatives */
block(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
// <fileName>:<description>
var alt<decisionNumber>:int=<maxAlt>;
<decls>
<@predecision()>
<decision>
<@postdecision()>
<@prebranch()>
switch (alt<decisionNumber>) {
   <alts:{a | <altSwitchCase(i, a)>}>
}
<@postbranch()>
>>

/** A rule block with multiple alternatives */
ruleBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
// <fileName>:<description>
var
 alt<decisionNumber>:int=<maxAlt>;
<decls>
<@predecision()>
<decision>
<@postdecision()>
switch (alt<decisionNumber>) {
   <alts:{a | <altSwitchCase(i, a)>}>
}
>>

ruleBlockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
// <fileName>:<description>
<decls>
<@prealt()>
```

```
<alts>
<@postalt()>
>>

/** A special case of a (...) subrule with a single alternative */
blockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
// <fileName>:<description>
<decls>
<@prealt()>
<alts>
<@postalt()>
>>

/** A (..)+ block with 1 or more alternatives */
positiveClosureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
// <fileName>:<description>
var cnt<decisionNumber>:int=0;
<decls>
<@preloop()>
loop<decisionNumber>:
do {
   var alt<decisionNumber>:int=<maxAlt>;
   <@predecision()>
   <decision>
   <@postdecision()>
   switch (alt<decisionNumber>)
 {
 <alts:{a | <altSwitchCase(i, a)>}>
 default :
     if ( cnt<decisionNumber> >= 1 ) break loop<decisionNumber>;
     <ruleBacktrackFailure()>
           throw new EarlyExitException(<decisionNumber>, input);
           <! Need to add support for earlyExitException debug hook !>
   }
   cnt<decisionNumber>++;
} while (true);
<@postloop()>
>>

positiveClosureBlockSingleAlt ::= positiveClosureBlock

/** A (..)* block with 1 or more alternatives */
closureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
// <fileName>:<description>
<decls>
<@preloop()>
```

```
loop<decisionNumber>:
do {
   var alt<decisionNumber>:int=<maxAlt>;
   <@predecision()>
   <decision>
   <@postdecision()>
   switch (alt<decisionNumber>) {
 <alts:{a | <altSwitchCase(i, a)>}>
 default :
     break loop<decisionNumber>;
   }
} while (true);
<@postloop()>
>>

closureBlockSingleAlt ::= closureBlock

/** Optional blocks (x)? are translated to (x|)
 by before code generation
*  so we can just use the normal block template
*/
optionalBlock ::= block

optionalBlockSingleAlt ::= block

/** A case in a switch that jumps to an alternative given the alternative
*  number.  A DFA predicts the alternative and then a simple switch
*  does the jump to the code that actually matches that alternative.
*/
altSwitchCase(altNum, alt) ::= <<
case <altNum> :
   <@prealt()>
   <alt>
   break;<\n>
>>

/** An alternative is just a list of elements; at outermost level */
alt(elements,altNum,description,autoAST,outerAlt,treeLevel,rew) ::= <<
// <fileName>:<description>
{
<@declarations()>
<elements:element()>
<rew>
<@cleanup()>
}
>>

/** What to emit when there is no rewrite.  For auto build
```

```
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel, treeLevel) ::= ""

// E L E M E N T S

/** Dump the elements one per line */
element(e) ::= <<
<@prematch()>
<e.el><\n>
>>

/** match a token optionally with a label in front */
tokenRef(token,label,elementIndex,terminalOptions)
 ::= <<
<if(label)><label>=<labelType>(<endif>matchStream(input,<token>,FOLLOW_<token>_in_<ruleName><element
Index>)<if(label)>)<endif>; <checkRuleBacktrackFailure()>
>>

/** ids+=ID */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRef(token,label,elementIndex,terminalOptions)>
<listLabel(label, label)>
>>

listLabel(label,elem) ::= <<
if (list_<label>==null) list_<label>=new Array();
list_<label>.push(<elem>);<\n>
>>

/** match a character */
charRef(char,label) ::= <<
<if(label)>
<label> = input.LA(1);<\n>
<endif>
match(<char>); <checkRuleBacktrackFailure()>
>>

/** match a character range */
charRangeRef(a,b,label) ::= <<
<if(label)>
<label> = input.LA(1);<\n>
<endif>
matchRange(<a>,<b>); <checkRuleBacktrackFailure()>
>>

/** For now, sets are interval tests and must be tested inline */
matchSet(s,label,elementIndex,terminalOptions,postmatchCode="") ::= <<
```

```
<if(label)>
<if(LEXER)>
<label>= input.LA(1);<\n>
<else>
<label>=<labelType>(input.LT(1));<\n>
<endif>
<endif>
if
 ( <s> ) {
  input.consume();
  <postmatchCode>
<if(!LEXER)>
  this.state.errorRecovery=false;
<endif>
  <if(backtracking)>this.state.failed=false;<endif>
}
else {
  <ruleBacktrackFailure()>
  <@mismatchedSetException()>
<if(LEXER)>
  throw recover(new MismatchedSetException(null,input));<\n>
<else>
  throw new MismatchedSetException(null,input);
  <! use following code to make it recover inline; remove throw mse;
  recoverFromMismatchedSet(input,mse,FOLLOW_set_in_<ruleName><elementIndex>);
  !>
<endif>
}<\n>
>>

matchRuleBlockSet ::= matchSet

matchSetAndListLabel(s,label,elementIndex,postmatchCode) ::= <<
<matchSet(...)>
<listLabel(label, label)>
>>

/** Match a string literal */
lexerStringRef(string,label,elementIndex="0") ::= <<
<if(label)>
var <label>Start:int = charIndex;
matchString(<string>); <checkRuleBacktrackFailure()>
var <label>StartLine<elementIndex>:int = line;
var <label>StartCharPos<elementIndex>:int =
 charPositionInLine;
<label> = CommonToken.createFromStream(input, TokenConstants.INVALID_TOKEN_TYPE,
TokenConstants.DEFAULT_CHANNEL, <label>Start, charIndex-1);
<label>.line = <label>StartLine<elementIndex>;
```

```
<label>.charPositionInLine = <label>StartCharPos<elementIndex>;
<else>
matchString(<string>); <checkRuleBacktrackFailure()><\n>
<endif>
>>

wildcard(token,label,elementIndex,terminalOptions) ::= <<
<if(label)>
<label>=<labelType>(input.LT(1));<\n>
<endif>
matchAny(input); <checkRuleBacktrackFailure()>
>>

wildcardAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<wildcard(...)>
<listLabel(label, label)>
>>

/** Match . wildcard in lexer */
wildcardChar(label, elementIndex) ::= <<
<if(label)>
<label> = input.LA(1);<\n>
<endif>
matchAny(); <checkRuleBacktrackFailure()>
>>

wildcardCharListLabel(label, elementIndex) ::= <<
<wildcardChar(label, elementIndex)>
<listLabel(label, label)>
>>

/** Match a rule reference by invoking it possibly with arguments
*  and a return value
 or values.  The 'rule' argument was the
*  target rule name, but now is type Rule, whose toString is
*  same: the rule name.  Now though you can access full rule
*  descriptor stuff.
*
* GMS: Note:  do not use post-decrement operator!  ASC produces bad code for exceptions in this case.
*      See: https://bugs.adobe.com/jira/browse/ASC-3625
*/
ruleRef(rule,label,elementIndex,args,scope) ::= <<
pushFollow(FOLLOW_<rule.name>_in_<ruleName><elementIndex>);
<if(label)><label>=<endif><if(scope)><scope:delegateName()>.<endif><rule.name>(<args; separator=", ">);<\n>
state._fsp = state._fsp - 1;
<checkRuleBacktrackFailure()>
>>
```

```
/** ids+=r */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(rule,label,elementIndex,args,scope)>
<listLabel(label, label)>
>>

/** A lexer rule reference.
*
*  The 'rule' argument was the target rule name, but now
*  is type Rule, whose toString is same: the rule name.
*  Now though you can access full rule descriptor stuff.
*/
lexerRuleRef(rule,label,args,elementIndex,scope)
 ::= <<
<if(label)>
var <label>Start<elementIndex>:int = charIndex;
var <label>StartLine<elementIndex>:int = line;
var <label>StartCharPos<elementIndex>:int = charPositionInLine;
<if(scope)><scope:delegateName()>.<endif>m<rule.name>(<args; separator=", ">);
<checkRuleBacktrackFailure()>
<label> = CommonToken.createFromStream(input, TokenConstants.INVALID_TOKEN_TYPE,
TokenConstants.DEFAULT_CHANNEL, <label>Start<elementIndex>, charIndex-1);
<label>.line = <label>StartLine<elementIndex>;
<label>.charPositionInLine = <label>StartCharPos<elementIndex>;
<else>
<if(scope)><scope:delegateName()>.<endif>m<rule.name>(<args; separator=", ">);
<checkRuleBacktrackFailure()>
<endif>
>>

/** i+=INT in lexer */
lexerRuleRefAndListLabel(rule,label,args,elementIndex,scope) ::= <<
<lexerRuleRef(rule,label,args,elementIndex,scope)>
<listLabel(label, label)>
>>

/** EOF in the lexer */
lexerMatchEOF(label,elementIndex) ::= <<
<if(label)>
var <label>Start<elementIndex>:int
 = charIndex;
var <label>StartLine<elementIndex>:int = line;
var <label>StartCharPos<elementIndex>:int = charPositionInLine;
match(EOF); <checkRuleBacktrackFailure()>
var <label>:<labelType> = CommonToken.createFromStream(input, EOF,
TokenConstants.DEFAULT_CHANNEL, <label>Start<elementIndex>, charIndex-1);
<label>.line = <label>StartLine<elementIndex>;
```

```
<label>.charPositionInLine = <label>StartCharPos<elementIndex>;
<else>
match(EOF); <checkRuleBacktrackFailure()>
<endif>
>>

// used for left-recursive rules
recRuleDefArg()                       ::= "var <recRuleArg()>:int"
recRuleArg()                          ::= "_p"
recRuleAltPredicate(ruleName,opPrec)  ::= "<recRuleArg()> \<= <opPrec>"
recRuleSetResultAction()              ::= "root_0=$<ruleName>_primary.tree;"
recRuleSetReturnAction(src,name)      ::= "$<name>=$<src>.<name>;"

/** match ^(root children) in tree parser */
tree(root, actionsAfterRoot, children, nullableChildList,
    enclosingTreeLevel, treeLevel) ::=
 <<
<root:element()>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if ( input.LA(1)==TokenConstants.DOWN ) {
   matchStream(input, TokenConstants.DOWN, null); <checkRuleBacktrackFailure()>
   <children:element()>
   matchStream(input, TokenConstants.UP, null); <checkRuleBacktrackFailure()>
}
<else>
matchStream(input, TokenConstants.DOWN, null); <checkRuleBacktrackFailure()>
<children:element()>
matchStream(input, TokenConstants.UP, null); <checkRuleBacktrackFailure()>
<endif>
>>

/** Every predicate is used as a validating predicate (even when it is
*  also hoisted into a prediction expression).
*/
validateSemanticPredicate(pred,description) ::= <<
if ( !(<evalPredicate(pred,description)>) ) {
   <ruleBacktrackFailure()>
   throw new FailedPredicateException(input, "<ruleName>", "<description>");
}
>>

// F i x e d  D F A  (if-then-else)

dfaState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
var LA<decisionNumber>_<stateNumber>:int = input.LA(<k>);<\n>
<edges;
```

```
 separator="\nelse ">
else {
<if(eotPredictsAlt)>
  alt<decisionNumber>=<eotPredictsAlt>;
<else>
  <ruleBacktrackFailure()>
  throw new NoViableAltException("<description>", <decisionNumber>, <stateNumber>, input);<\n>
  <! Need to add hook for noViableAltException() !>
<endif>
}
>>

/** Same as a normal DFA state except that we don't examine lookahead
*  for the bypass alternative.  It delays error detection but this
*  is faster, smaller, and more what people expect.  For (X)? people
*  expect "if ( LA(1)==X ) match(X);" and that's it.
*/
dfaOptionalBlockState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
var LA<decisionNumber>_<stateNumber>:int = input.LA(<k>);<\n>
<edges; separator="\nelse ">
>>

/** A DFA state that is actually the loopback decision of a closure
*  loop.  If end-of-token (EOT) predicts any of the targets then it
*  should act like a default clause (i.e., no error can be generated).
*  This is used only in the lexer so
 that for ('a')* on the end of a rule
*  anything other than 'a' predicts exiting.
*/
dfaLoopbackState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
var LA<decisionNumber>_<stateNumber>:int = input.LA(<k>);<\n>
<edges; separator="\nelse "><\n>
<if(eotPredictsAlt)>
<if(!edges)>
alt<decisionNumber>=<eotPredictsAlt>; <! if no edges, don't gen ELSE !>
<else>
else {
  alt<decisionNumber>=<eotPredictsAlt>;
}<\n>
<endif>
<endif>
>>

/** An accept state indicates a unique alternative has been predicted */
dfaAcceptState(alt) ::= "alt<decisionNumber>=<alt>;"

/** A simple edge with an expression.  If the expression is satisfied,
*  enter to the target state.  To handle gated productions, we may
```

```
*  have to evaluate some predicates for this edge.
*/
dfaEdge(labelExpr, targetState, predicates) ::= <<
if ( (<labelExpr>) <if(predicates)>&& (<predicates>)<endif>) {
   <targetState>
}
>>

// F i x e d  D F A  (switch case)

/** A DFA state where a SWITCH may be generated.
  The code generator
*  decides if this is possible: CodeGenerator.canGenerateSwitch().
*/
dfaStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch ( input.LA(<k>) ) {
<edges; separator="\n">
default:
<if(eotPredictsAlt)>
   alt<decisionNumber>=<eotPredictsAlt>;
<else>
   <ruleBacktrackFailure()>
   throw new NoViableAltException("<description>", <decisionNumber>, <stateNumber>, input);<\n>
   <! Need to add hook for noViableAltException !>
<endif>
}<\n>
>>

dfaOptionalBlockStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch ( input.LA(<k>) ) {
   <edges; separator="\n">
}<\n>
>>

dfaLoopbackStateSwitch(k, edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch ( input.LA(<k>) ) {
<edges; separator="\n"><\n>
<if(eotPredictsAlt)>
default:
   alt<decisionNumber>=<eotPredictsAlt>;
   break;<\n>
<endif>
}<\n>
>>

dfaEdgeSwitch(labels, targetState) ::= <<
<labels:{it |case <it>:}; separator="\n">
```

```
   {
  <targetState>
  }
  break;
>>

// C y c l i c  D F A

/** The code to initiate execution of a cyclic DFA; this is used
*  in the rule to predict an alt just like the fixed DFA case.
*  The <name> attribute is inherited via the parser, lexer, ...
*/
dfaDecision(decisionNumber,description) ::= <<
alt<decisionNumber> = dfa<decisionNumber>.predict(input);
>>

cyclicDFACtor(dfa) ::= <<

dfa<dfa.decisionNumber> = new DFA(this, <dfa.decisionNumber>,
          "<dfa.description>",
          DFA<dfa.decisionNumber>_eot, DFA<dfa.decisionNumber>_eof, DFA<dfa.decisionNumber>_min,
          DFA<dfa.decisionNumber>_max, DFA<dfa.decisionNumber>_accept, DFA<dfa.decisionNumber>_special,
          DFA<dfa.decisionNumber>_transition<if(dfa.specialStateSTs)>,
DFA<dfa.decisionNumber>_specialStateTransition<endif>);

>>
/* Dump DFA tables as run-length-encoded Strings of octal values.
* Can't use hex as compiler translates them before compilation.
* These strings are split into multiple,
 concatenated strings.
* Java puts them back together at compile time thankfully.
* Java cannot handle large static arrays, so we're stuck with this
* encode/decode approach.  See analysis and runtime DFA for
* the encoding methods.
*/
cyclicDFA(dfa) ::= <<

private const DFA<dfa.decisionNumber>_eot:Array =
  DFA.unpackEncodedString("<dfa.javaCompressedEOT; wrap="\"+\n    \"">");
private const DFA<dfa.decisionNumber>_eof:Array =
  DFA.unpackEncodedString("<dfa.javaCompressedEOF; wrap="\"+\n    \"">");
private const DFA<dfa.decisionNumber>_min:Array =
  DFA.unpackEncodedString("<dfa.javaCompressedMin; wrap="\"+\n    \"">", true);
private const DFA<dfa.decisionNumber>_max:Array =
  DFA.unpackEncodedString("<dfa.javaCompressedMax; wrap="\"+\n    \"">", true);
private const DFA<dfa.decisionNumber>_accept:Array =
  DFA.unpackEncodedString("<dfa.javaCompressedAccept; wrap="\"+\n    \"">");
private const DFA<dfa.decisionNumber>_special:Array =
```

```
  DFA.unpackEncodedString("<dfa.javaCompressedSpecial;
 wrap="\"+\n    \"">");
private const DFA<dfa.decisionNumber>_transition:Array = [
    <dfa.javaCompressedTransition:{s|DFA.unpackEncodedString("<s; wrap="\"+\n\"">")}; separator=",\n">
];
<if(dfa.specialStateSTs)>
  private function DFA<dfa.decisionNumber>_specialStateTransition(dfa:DFA, s:int, _input:IntStream):int {
    <if(LEXER)>
    var input:IntStream = _input;
    <endif>
    <if(PARSER)>
    var input:TokenStream = TokenStream(_input);
    <endif>
    <if(TREE_PARSER)>
    var input:TreeNodeStream = TreeNodeStream(_input);
    <endif>
   var _s:int = s;
    switch ( s ) {
    <dfa.specialStateSTs:{state |
    case <i0> : <! compressed special state numbers 0..n-1 !>
      <state>}; separator="\n">
    }
<if(backtracking)>
    if (this.state.backtracking>0) {this.state.failed=true; return -1;}<\n>
<endif>
    throw dfa.error(new NoViableAltException(dfa.description, <dfa.decisionNumber>,
 _s, input));
  }<\n>
<endif>

protected var dfa<dfa.decisionNumber>:DFA;  // initialized in constructor

>>

/** A state in a cyclic DFA; it's a special state and part of a big switch on
*  state.
*/
cyclicDFAState(decisionNumber,stateNumber,edges,needErrorClause,semPredState) ::= <<
var LA<decisionNumber>_<stateNumber>:int = input.LA(1);<\n>
<if(semPredState)> <! get next lookahead symbol to test edges, then rewind !>
var index<decisionNumber>_<stateNumber>:int = input.index;
input.rewind();<\n>
<endif>
s = -1;
<edges; separator="\nelse ">
<if(semPredState)> <! return input cursor to state before we rewound !>
input.seek(index<decisionNumber>_<stateNumber>);<\n>
<endif>
```

```
if ( s>=0 ) return s;
break;
>>

/** Just like a fixed DFA edge, test the lookahead and indicate what
*  state to jump to next if successful.
*/
cyclicDFAEdge(labelExpr, targetStateNumber, edgeNumber, predicates) ::= <<
if ( (<labelExpr>) <if(predicates)>&& (<predicates>)<endif>) {s = <targetStateNumber>;}<\n>
>>

/**
 An edge pointing at end-of-token; essentially matches any char;
*  always jump to the target.
*/
eotDFAEdge(targetStateNumber,edgeNumber, predicates) ::= <<
s = <targetStateNumber>;<\n>
>>


// D F A  E X P R E S S I O N S

andPredicates(left,right) ::= "(<left>&&<right>)"

orPredicates(operands) ::= "(<operands; separator=\"||\">)"

notPredicate(pred) ::= "!(<evalPredicate(pred,{})>)"

evalPredicate(pred,description) ::= "(<pred>)"

evalSynPredicate(pred,description) ::= "<pred>()"

lookaheadTest(atom,k,atomAsInt) ::= "LA<decisionNumber>_<stateNumber>==<atomAsInt>"

/** Sometimes a lookahead test cannot assume that LA(k) is in a temp variable
*  somewhere.  Must ask for the lookahead directly.
*/
isolatedLookaheadTest(atom,k,atomAsInt) ::= "input.LA(<k>)==<atomAsInt>"

lookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= <%
(LA<decisionNumber>_<stateNumber> >= <lowerAsInt> && LA<decisionNumber>_<stateNumber> \<=
<upperAsInt>)
%>

isolatedLookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt)
 ::= "(input.LA(<k>) >= <lowerAsInt> && input.LA(<k>) \<= <upperAsInt>)"

setTest(ranges) ::= <<
```

```
<ranges; separator="||">
>>

// A T T R I B U T E S

globalAttributeScope(scope) ::= <<
<if(scope.attributes)>
protected var <scope.name>_stack:Array = new Array();<\n>
<endif>
>>

ruleAttributeScope(scope) ::= <<
<if(scope.attributes)>
protected var <scope.name>_stack:Array = new Array();<\n>
<endif>
>>

returnStructName() ::= "<if(TREE_PARSER)>Tree<else>Parser<endif>RuleReturnScope"

returnType() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
<returnStructName()>
<else>
<if(ruleDescriptor.hasSingleReturnValue)>
<ruleDescriptor.singleValueReturnType>
<else>
void
<endif>
<endif>
>>

/** Generate the Java type associated with a single or multiple return
*  values.
*/
ruleLabelType(referencedRule) ::= <<
<if(referencedRule.hasMultipleReturnValues)>
<returnStructName()>
<else>
<if(referencedRule.hasSingleReturnValue)>
<referencedRule.singleValueReturnType>
<else>
void
<endif>
<endif>
>>

delegateName(d)
```

```
 ::= <<
<if(d.label)><d.label><else>g<d.name><endif>
>>

/** Using a type to init value map, try to init a type; if not in table
*  must be an object, default value is "null".
*/
initValue(typeName) ::= <<
<asTypeInitMap.(typeName)>
>>

/** Define a rule label including default value */
ruleLabelDef(label) ::= <<
var <label.label.text>:<ruleLabelType(referencedRule=label.referencedRule)> =
<initValue(typeName=ruleLabelType(referencedRule=label.referencedRule))>;<\n>
>>

/** Define a return struct for a rule if the code needs to access its
*  start/stop tokens, tree stuff, attributes, ...  Leave a hole for
*  subgroups to stick in members.
*/
returnScope(scope) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
public static class <returnType()> extends <if(TREE_PARSER)>Tree<else>Parser<endif>RuleReturnScope {
   <scope.attributes:{it |public <it.decl>;}; separator="\n">
   <@ruleReturnMembers()>
};
<endif>
>>

parameterScope(scope)
 ::= <<
<scope.attributes:{it |<it.name>:<it.type>}; separator=", ">
>>

parameterAttributeRef(attr) ::= "<attr.name>"
parameterSetAttributeRef(attr,expr) ::= "<attr.name> =<expr>;"

scopeAttributeRef(scope,attr,index,negIndex) ::= <<
<if(negIndex)>
<scope>_stack[<scope>_stack.length-<negIndex>-1].<attr.name>
<else>
<if(index)>
<scope>_stack[<index>].<attr.name>
<else>
<scope>_stack[<scope>_stack.length-1].<attr.name>
<endif>
<endif>
```

```
>>

scopeSetAttributeRef(scope,attr,expr,index,negIndex) ::= <<
<if(negIndex)>
<scope>_stack[<scope>_stack.length-<negIndex>-1].<attr.name> =<expr>;
<else>
<if(index)>
<scope>_stack[<index>].<attr.name> =<expr>;
<else>
<scope>_stack[<scope>_stack.length-1].<attr.name> =<expr>;
<endif>
<endif>
>>

/** $x is either global scope or x is rule with dynamic scope; refers
*  to stack itself not top of stack.  This is useful for predicates
*  like {$function.size()>0 && $function::name.equals("foo")}?
*/
isolatedDynamicScopeRef(scope)
 ::= "<scope>_stack"

/** reference an attribute of rule; might only have single return value */
ruleLabelRef(referencedRule,scope,attr) ::= <<
<if(referencedRule.hasMultipleReturnValues)>
(<scope>!=null?<scope>.values.<attr.name>:<initValue(attr.type)>)
<else>
<scope>
<endif>
>>

returnAttributeRef(ruleDescriptor,attr) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.values.<attr.name>
<else>
<attr.name>
<endif>
>>

returnSetAttributeRef(ruleDescriptor,attr,expr) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.values.<attr.name> =<expr>;
<else>
<attr.name> =<expr>;
<endif>
>>

/** How to translate $tokenLabel */
tokenLabelRef(label) ::= "<label>"
```

```
/** ids+=ID {$ids} or e+=expr {$e} */
listLabelRef(label) ::= "list_<label>"


// not sure the next are the right approach

tokenLabelPropertyRef_text(scope,attr) ::= "(<scope>!=null?<scope>.text:null)"
tokenLabelPropertyRef_type(scope,attr) ::= "(<scope>!=null?<scope>.type:0)"
tokenLabelPropertyRef_line(scope,attr)
 ::= "(<scope>!=null?<scope>.line:0)"
tokenLabelPropertyRef_pos(scope,attr) ::= "(<scope>!=null?<scope>.charPositionInLine:0)"
tokenLabelPropertyRef_channel(scope,attr) ::= "(<scope>!=null?<scope>.channel:0)"
tokenLabelPropertyRef_index(scope,attr) ::= "(<scope>!=null?<scope>.tokenIndex:0)"
tokenLabelPropertyRef_tree(scope,attr) ::= "<scope>_tree"
tokenLabelPropertyRef_int(scope,attr) ::= "(<scope>!=null?int(<scope>.text):0)"

ruleLabelPropertyRef_start(scope,attr) ::= "(<scope>!=null?<labelType>(<scope>.start):null)"
ruleLabelPropertyRef_stop(scope,attr) ::= "(<scope>!=null?<labelType>(<scope>.stop):null)"
ruleLabelPropertyRef_tree(scope,attr) ::= "(<scope>!=null?<ASTLabelType>(<scope>.tree):null)"
ruleLabelPropertyRef_text(scope,attr) ::= <<
<if(TREE_PARSER)>
(<scope>!=null?(input.tokenStream.toStringWithRange(
 input.treeAdaptor.getTokenStartIndex(<scope>.start),
 input.treeAdaptor.getTokenStopIndex(<scope>.start))):null)
<else>
(<scope>!=null?input.toStringWithTokenRange(<scope>.start,<scope>.stop):null)
<endif>
>>

ruleLabelPropertyRef_st(scope,attr)
 ::= "(<scope>!=null?<scope>.st:null)"

/** Isolated $RULE ref ok in lexer as it's a Token */
lexerRuleLabel(label) ::= "<label>"

lexerRuleLabelPropertyRef_type(scope,attr) ::=
   "(<scope>!=null?<scope>.type:0)"
lexerRuleLabelPropertyRef_line(scope,attr) ::=
   "(<scope>!=null?<scope>.lien:0)"
lexerRuleLabelPropertyRef_pos(scope,attr) ::=
   "(<scope>!=null?<scope>.charPositionInLine:0)"
lexerRuleLabelPropertyRef_channel(scope,attr) ::=
   "(<scope>!=null?<scope>.channel:0)"
lexerRuleLabelPropertyRef_index(scope,attr) ::=
   "(<scope>!=null?<scope>.tokenIndex:0)"
lexerRuleLabelPropertyRef_text(scope,attr) ::=
   "(<scope>!=null?<scope>.text:null)"
```

```
lexerRuleLabelPropertyRef_int(scope,attr) ::=
   "(<scope>!=null?int(<scope>.text):0)"

// Somebody may ref $template or $tree or $stop within a rule:
rulePropertyRef_start(scope,attr) ::= "<labelType>(retval.start)"
rulePropertyRef_stop(scope,attr) ::= "<labelType>(retval.stop)"
rulePropertyRef_tree(scope,attr)
 ::= "<ASTLabelType>(retval.tree)"
rulePropertyRef_text(scope,attr) ::= <<
<if(TREE_PARSER)>
input.tokenStream.toStringWithRange(
 input.treeAdaptor.getTokenStartIndex(retval.start),
 input.treeAdaptor.getTokenStopIndex(retval.start))
<else>
input.toStringWithTokenRange(retval.start,input.LT(-1))
<endif>
>>
rulePropertyRef_st(scope,attr) ::= "retval.st"

lexerRulePropertyRef_text(scope,attr) ::= "text"
lexerRulePropertyRef_type(scope,attr) ::= "_type"
lexerRulePropertyRef_line(scope,attr) ::= "state.tokenStartLine"
lexerRulePropertyRef_pos(scope,attr) ::= "state.tokenStartCharPositionInLine"
lexerRulePropertyRef_index(scope,attr) ::= "-1" // undefined token index in lexer
lexerRulePropertyRef_channel(scope,attr) ::= "_channel"
lexerRulePropertyRef_start(scope,attr) ::= "state.tokenStartCharIndex"
lexerRulePropertyRef_stop(scope,attr) ::= "(charIndex-1)"
lexerRulePropertyRef_int(scope,attr) ::= "int(<scope>.text)"

// setting $st
 and $tree is allowed in local rule. everything else
// is flagged as error
ruleSetPropertyRef_tree(scope,attr,expr) ::= "retval.tree =<expr>;"
ruleSetPropertyRef_st(scope,attr,expr) ::= "retval.st =<expr>;"

/** How to execute an action (only when not backtracking) */
execAction(action) ::= <<
<if(backtracking)>
if ( <actions.(actionScope).synpredgate> ) {
 <action>
}
<else>
<action>
<endif>
>>

/** How to always execute an action even when backtracking */
execForcedAction(action) ::= "<action>"
```

```
// M I S C (properties, etc...)

bitset(name, words64) ::= <<
public static const <name>:BitSet = new BitSet([<words64:{it |<it>};separator=", ">]);<\n>
>>

codeFileExtension() ::= ".as"

true_value() ::= "true"
false_value() ::= "false"
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/ActionScript/ActionScript.stg
No license file was found, but licenses were detected in source scan.

/*
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*/

```
scalaTypeInitMap ::= [
```

```
 "Int":"0",
 "Long":"0",
 "Float":"0.0f",
 "Double":"0.0",
 "Boolean":"false",
 "Byte":"0",
 "Short":"0",
 "Char":"0",
 default:"null" // anything other than an atomic type
]

/** The overall file structure of a recognizer; stores methods for rules
*  and cyclic DFAs plus support code.
*/
outputFile(LEXER,PARSER,TREE_PARSER, actionScope, actions,
           docComment, recognizer,
           name, tokens, tokenNames, rules, cyclicDFAs,

   bitsets, buildTemplate, buildAST, rewriteMode, profile,
    backtracking, synpreds, memoize, numRules,
    fileName, ANTLRVersion, generatedTimestamp, trace,
    scopes, superClass, literals) ::=
<<
// $ANTLR <ANTLRVersion> <fileName> <generatedTimestamp>
<actions.(actionScope).header>

<@imports>
import org.antlr.runtime._
<if(TREE_PARSER)>
import org.antlr.runtime.tree._
<endif>
<@end>

<docComment>
<recognizer>
>>

lexer(grammar, name, tokens, scopes, rules, numRules, filterMode, labelType="CommonToken",
     superClass="Lexer") ::= <<
object <grammar.recognizerName> {
   <tokens:{it | val <it.name> = <it.type>}; separator="\n">

   <cyclicDFAs:cyclicDFA()> <! dump tables for all DFA !>
}

class <grammar.recognizerName>(input: CharStream, state<grammar.delegators:{g|, <g.recognizerName>
<g:delegateName()>}>: RecognizerSharedState) extends <@superClassName><superClass><@end>(input,
state<grammar.delegators:{g|, <g.recognizerName> <g:delegateName()>}>) {
```

```
  import <grammar.recognizerName>._
   <actions.lexer.members>

  // delegates
  <grammar.delegates:
      {g|<g.recognizerName> <g:delegateName()>}; separator="\n">
  // delegators
  <grammar.delegators:
      {g|<g.recognizerName> <g:delegateName()>}; separator="\n">
  <last(grammar.delegators):{g|public <g.recognizerName> gParent;}>

  <scopes:{it | <if(it.isDynamicGlobalScope)><globalAttributeScope()><endif>}>

  def this(input<grammar.delegators:{g|, <g.recognizerName> <g:delegateName()>}>: CharStream) =
     this(input, new RecognizerSharedState()<grammar.delegators:{g|, <g:delegateName()>}>)

<if(memoize)>
<if(grammar.grammarIsRoot)>
     state.ruleMemo = new Array[java.util.Map[_,_]](<numRules>+1)<\n> <! index from 1..n !>
<endif>
<endif>
     <grammar.directDelegates:
      {g|<g:delegateName()> = new <g.recognizerName>(input, state<trunc(g.delegators):{p|,
<p:delegateName()>}>, this)}; separator="\n">
     <grammar.delegators:
      {g|this.<g:delegateName()>
 = <g:delegateName()>}; separator="\n">
     <last(grammar.delegators):{g|gParent = <g:delegateName()>}>

  override def getGrammarFileName = "<fileName>"

<if(filterMode)>
  <filteringNextToken()>
<endif>
  <rules; separator="\n\n">

  <synpreds:{p | <lexerSynpred(p)>}>
  <cyclicDFAs:{dfa | private val dfa<dfa.decisionNumber> = new
<grammar.recognizerName>.DFA<dfa.decisionNumber>(this)}; separator="\n">
}
>>

/** A override of Lexer.nextToken() that backtracks over mTokens() looking
*  for matches.  No error can be generated upon error; just rewind, consume
*  a token and then try again.  backtracking needs to be set as well.
*  Make rule memoization happen only at levels above 1 as we start mTokens
*  at backtracking==1.
*/
```

```
filteringNextToken() ::= <<
override def nextToken(): Token = {
   while (true) {
       if ( input.LA(1)==CharStream.EOF ) {
           var eof: Token = new CommonToken((CharStream)input,Token.EOF,

        Token.DEFAULT_CHANNEL,
                                       input.index(),input.index())
           eof.setLine(getLine())
           eof.setCharPositionInLine(getCharPositionInLine())
           return eof
       }
       state.token = null
 state.channel = Token.DEFAULT_CHANNEL
       state.tokenStartCharIndex = input.index()
       state.tokenStartCharPositionInLine = input.getCharPositionInLine()
       state.tokenStartLine = input.getLine()
 state.text = null
       try {
           val m = input.mark()
           state.backtracking=1 <! means we won't throw slow exception !>
           state.failed=false
           mTokens()
           state.backtracking=0
           <! mTokens backtracks with synpred at backtracking==2
              and we set the synpredgate to allow actions at level 1. !>
           if ( state.failed ) {
               input.rewind(m)
               input.consume() <! advance one char and try again !>
           }
           else
 {
               emit()
               return state.token
           }
       }
       catch {
           case re: RecognitionException =>
           // shouldn't happen in backtracking mode, but...
           reportError(re)
           recover(re)
       }
   }
}

override def memoize(input: IntStream,
  ruleIndex: Int,
  ruleStartIndex: Int) = {
```

```
if ( state.backtracking>1 ) super.memoize(input, ruleIndex, ruleStartIndex)
}

override def alreadyParsedRule(input: IntStream, ruleIndex: Int):Boolean {
if ( state.backtracking>1 ) return super.alreadyParsedRule(input, ruleIndex)
return false
}
>>

actionGate() ::= "state.backtracking==0"

filteringActionGate() ::= "state.backtracking==1"

/** How to generate a parser */
genericParser(grammar, name, scopes, tokens, tokenNames, rules, numRules,
              bitsets, inputStreamType, superClass,
              labelType, members, rewriteElementType,
              filterMode, ASTLabelType="Object") ::= <<
object <grammar.recognizerName>
 {
<if(grammar.grammarIsRoot)>
  val tokenNames = Array(
      "\<invalid>", "\<EOR>", "\<DOWN>", "\<UP>", <tokenNames; separator=", ">
  )<\n>
<endif>

  <tokens:{it | val <it.name> = <it.type>}; separator="\n">

  <cyclicDFAs:cyclicDFA()> <! dump tables for all DFA !>

  <bitsets:{it | <bitset(name={FOLLOW_<it.name>_in_<it.inName><it.tokenIndex>},
                 words64=it.bits)>}>
}

class <grammar.recognizerName>(input: <inputStreamType>, state<grammar.delegators:{g|, <g.recognizerName>
<g:delegateName()>}>: RecognizerSharedState) extends <@superClassName><superClass><@end>(input, state) {
  import <grammar.recognizerName>._
  // delegates
  <grammar.delegates:
      {g|public <g.recognizerName> <g:delegateName()>}; separator="\n">
  // delegators
  <grammar.delegators:
      {g|public <g.recognizerName> <g:delegateName()>}; separator="\n">
  <last(grammar.delegators):{g|public <g.recognizerName> gParent;}>

  <scopes:{it | <if(it.isDynamicGlobalScope)><globalAttributeScope()><endif>}>
```

```
    <@members>
   <! WARNING. bug in ST: this is cut-n-paste into Dbg.stg !>
   def this(input<grammar.delegators:{g|, <g.recognizerName> <g:delegateName()>}>: <inputStreamType>) =
       this(input, new RecognizerSharedState()<grammar.delegators:{g|, <g:delegateName()>}>)

       <parserCtorBody()>
       <grammar.directDelegates:
        {g|<g:delegateName()> = new <g.recognizerName>(input, state<trunc(g.delegators):{p|,
<p:delegateName()>}>, this)}; separator="\n">
       <grammar.indirectDelegates:{g | <g:delegateName()> = <g.delegator:delegateName()>.<g:delegateName()>};
separator="\n">
       <last(grammar.delegators):{g|gParent = <g:delegateName()>}>
   <@end>

   override def getTokenNames: Array[String] = tokenNames
   override def getGrammarFileName = "<fileName>"

   <members>

   <rules; separator="\n\n">

<! generate rule/method definitions for imported rules so they
  appear to be defined in this recognizer. !>
    // Delegated rules
<grammar.delegatedRules:{ruleDescriptor|
   @throws(classOf[RecognitionException])
   def <ruleDescriptor.name>(<ruleDescriptor.parameterScope:parameterScope()>): <returnType()> = \{
<if(ruleDescriptor.hasReturnValue)>return
<endif><ruleDescriptor.grammar:delegateName()>.<ruleDescriptor.name>(<ruleDescriptor.parameterScope.attribut
es:{a|<a.name>}; separator=", ">) \}}; separator="\n">

   <synpreds:{p | <synpred(p)>}>

   <cyclicDFAs:{dfa | private val dfa<dfa.decisionNumber> = new
<grammar.recognizerName>.DFA<dfa.decisionNumber>(this)}; separator="\n">
}
>>

parserCtorBody() ::= <<
<if(memoize)>
<if(grammar.grammarIsRoot)>
this.state.ruleMemo = new Array[java.util.Map[_,_]](<length(grammar.allImportedRules)>+1)<\n> <! index from
1..n !>
<endif>
<endif>
<grammar.delegators:
{g|this.<g:delegateName()> = <g:delegateName()>}; separator="\n">
>>
```

```
parser(grammar, name, scopes, tokens, tokenNames, rules, numRules, bitsets,
      ASTLabelType="Object", superClass="Parser",
 labelType="Token",
      members={<actions.parser.members>}) ::= <<
<genericParser(inputStreamType="TokenStream", rewriteElementType="Token", ...)>
>>

/** How to generate a tree parser; same as parser except the input
*  stream is a different type.
*/
treeParser(grammar, name, scopes, tokens, tokenNames, globalAction, rules,
          numRules, bitsets, filterMode, labelType={<ASTLabelType>}, ASTLabelType="Object",
superClass={<if(filterMode)><if(buildAST)>TreeRewriter<else>TreeFilter<endif><else>TreeParser<endif>},
 members={<actions.treeparser.members>}
          ) ::= <<
<genericParser(inputStreamType="TreeNodeStream", rewriteElementType="Node", ...)>
>>

/** A simpler version of a rule template that is specific to the imaginary
*  rules created for syntactic predicates.  As they never have return values
*  nor parameters etc..., just give simplest possible method.  Don't do
*  any of the normal memoization stuff in here either; it's a waste.
 *  As predicates cannot be inlined into the invoking rule, they need to
*  be in a rule by themselves.
*/
synpredRule(ruleName, ruleDescriptor, block, description, nakedBlock) ::=
<<
// $ANTLR start <ruleName>
@throws(classOf[RecognitionException])
def <ruleName>_fragment(<ruleDescriptor.parameterScope:parameterScope()>): Unit = {
   <ruleLabelDefs()>
<if(trace)>
   traceIn("<ruleName>_fragment", <ruleDescriptor.index>)
   try {
       <block>
   }
   finally {
       traceOut("<ruleName>_fragment", <ruleDescriptor.index>);
   }
<else>
   <block>
<endif>
}
// $ANTLR end <ruleName>
>>

synpred(name) ::= <<
```

```
final def <name>(): Boolean = {
   state.backtracking+=1
   <@start()>
   val start = input.mark()
   try {
       <name>_fragment() // can never throw exception
   } catch {
       case re: RecognitionException =>
       System.err.println("impossible: "+re)
   }
   val success = !state.failed
   input.rewind(start)
   <@stop()>
   state.backtracking-=1
   state.failed=false
    success
}<\n>
>>

lexerSynpred(name) ::= <<
<synpred(name)>
>>

ruleMemoization(name) ::= <<
<if(memoize)>
if ( state.backtracking>0 && alreadyParsedRule(input, <ruleDescriptor.index>) ) { return <ruleReturnValue()> }
<endif>
>>

/** How to test for failure and return from rule */
checkRuleBacktrackFailure() ::= <<
<if(backtracking)>if (state.failed) return <ruleReturnValue()><endif>
>>

/** This rule has failed, exit indicating failure during backtrack */
ruleBacktrackFailure() ::= <<
<if(backtracking)>if (state.backtracking>0) {state.failed=true; return <ruleReturnValue()>}<endif>
>>

/** How to generate code for a rule.  This includes any return type
*  data aggregates required for multiple return values.
*/
rule(ruleName,ruleDescriptor,block,emptyRule,description,exceptions,finally,memoize) ::= <<
<ruleAttributeScope(scope=ruleDescriptor.ruleScope)>
<returnScope(scope=ruleDescriptor.returnScope)>

// $ANTLR start "<ruleName>"
// <fileName>:<description>
```

```
@throws(classOf[RecognitionException])
final
 def <ruleName>(<ruleDescriptor.parameterScope:parameterScope()>): <returnType()> = {
   <if(trace)>traceIn("<ruleName>", <ruleDescriptor.index>)<endif>
   <ruleScopeSetUp()>
   <ruleDeclarations()>
   <ruleLabelDefs()>
   <ruleDescriptor.actions.init>
   <@preamble()>
   try {
       <ruleMemoization(name=ruleName)>
       <block>
       <ruleCleanUp()>
       <(ruleDescriptor.actions.after):execAction()>
   }
<if(exceptions)>
   <exceptions:{e|<catch(decl=e.decl,action=e.action)><\n>}>
<else>
<if(!emptyRule)>
<if(actions.(actionScope).rulecatch)>
   <actions.(actionScope).rulecatch>
<else>
   catch {
       case re: RecognitionException =>
       reportError(re)
       recover(input,re)
 <@setErrorReturnValue()>
   }<\n>
<endif>
<endif>
<endif>
   finally {
       <if(trace)>traceOut("<ruleName>", <ruleDescriptor.index>);<endif>
       <memoize()>
       <ruleScopeCleanUp()>
       <finally>
   }
   <@postamble()>

 return <ruleReturnValue()>
}
// $ANTLR end "<ruleName>"
>>

catch(decl,action) ::= <<
catch (<e.decl>) {
   <e.action>
}
```

```
>>

ruleDeclarations() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
val retval = new <returnType()>()
retval.start = input.LT(1)<\n>
<else>
<ruleDescriptor.returnScope.attributes:{ a |
var <a.name>: <a.type> = <if(a.initValue)><a.initValue><else><initValue(a.type)><endif>
}>
<endif>
<if(memoize)>
val <ruleDescriptor.name>_StartIndex = input.index()
<endif>
>>

ruleScopeSetUp() ::= <<
<ruleDescriptor.useScopes:{it | <it>_stack.push(new <it>_scope())}; separator="\n">
<ruleDescriptor.ruleScope:{it | <it.name>_stack.push(new <it.name>_scope())}; separator="\n">
>>

ruleScopeCleanUp() ::= <<
<ruleDescriptor.useScopes:{it | <it>_stack.pop()}; separator="\n">
<ruleDescriptor.ruleScope:{it | <it.name>_stack.pop()}; separator="\n">
>>


ruleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,ruleDescriptor.tokenListLabels,
 ruleDescriptor.wildcardTreeLabels,ruleDescriptor.wildcardTreeListLabels]
    :{it | var <it.label.text>: <labelType> = null}; separator="\n"
>
<[ruleDescriptor.tokenListLabels,ruleDescriptor.ruleListLabels,ruleDescriptor.wildcardTreeListLabels]
   :{it | var list_<it.label.text>: java.util.List=null}; separator="\n"
>
<ruleDescriptor.ruleLabels:ruleLabelDef(); separator="\n">
<ruleDescriptor.ruleListLabels:{ll|var <ll.label.text>: RuleReturnScope = null}; separator="\n">
>>

lexerRuleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,
 ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleLabels]
   :{it | var <it.label.text>: <labelType>=null}; separator="\n"
>
<ruleDescriptor.charLabels:{it | int <it.label.text>;}; separator="\n">
<[ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleListLabels]
```

```
   :{it | var list_<it.label.text>: java.util.List=null}; separator="\n"
>
>>

ruleReturnValue() ::= <<
<if(!ruleDescriptor.isSynPred)>
<if(ruleDescriptor.hasReturnValue)>
<if(ruleDescriptor.hasSingleReturnValue)>
<ruleDescriptor.singleValueReturnName>
<else>
retval
<endif>
<endif>
<endif>
>>

ruleCleanUp()
 ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
<if(!TREE_PARSER)>
retval.stop = input.LT(-1)<\n>
<endif>
<endif>
>>

memoize() ::= <<
<if(memoize)>
<if(backtracking)>
if ( state.backtracking>0 ) { memoize(input, <ruleDescriptor.index>, <ruleDescriptor.name>_StartIndex) }
<endif>
<endif>
>>

/** How to generate a rule in the lexer; naked blocks are used for
*  fragment rules.
*/
lexerRule(ruleName,nakedBlock,ruleDescriptor,block,memoize) ::= <<
// $ANTLR start "<ruleName>"
@throws(classOf[RecognitionException])
final def m<ruleName>(<ruleDescriptor.parameterScope:parameterScope()>): Unit = {
   <if(trace)>traceIn("<ruleName>", <ruleDescriptor.index>)<endif>
   <ruleScopeSetUp()>
   <ruleDeclarations()>
   try {
<if(nakedBlock)>
       <ruleMemoization(name=ruleName)>
       <lexerRuleLabelDefs()>
       <ruleDescriptor.actions.init>
```

```
      try <block><\n>
<else>
      var _type = <ruleName>

  var _channel = BaseRecognizer.DEFAULT_TOKEN_CHANNEL
      <ruleMemoization(name=ruleName)>
      <lexerRuleLabelDefs()>
      <ruleDescriptor.actions.init>
      try <block>
      <ruleCleanUp()>
      state.`type` = _type
      state.channel = _channel
      <(ruleDescriptor.actions.after):execAction()>
<endif>
   }
   finally {
      <if(trace)>traceOut("<ruleName>", <ruleDescriptor.index>)<endif>
      <ruleScopeCleanUp()>
      <memoize()>
   }
}
// $ANTLR end "<ruleName>"
>>

/** How to generate code for the implicitly-defined lexer grammar rule
*  that chooses between lexer rules.
*/
tokensRule(ruleName,nakedBlock,args,block,ruleDescriptor) ::= <<
@throws(classOf[RecognitionException])
def mTokens(): Unit = {
   <block><\n>
}
>>

// S U B R U L E S

/** A (...) subrule with multiple alternatives */
block(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
// <fileName>:<description>
var alt<decisionNumber>
 = <maxAlt>
<decls>
<@predecision()>
<decision>
<@postdecision()>
<@prebranch()>
alt<decisionNumber> match {
   <alts:{a | <altSwitchCase(i,a)>}>
```

```
   case _ =>
}
<@postbranch()>
>>

/** A rule block with multiple alternatives */
ruleBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
// <fileName>:<description>
var alt<decisionNumber> = <maxAlt>
<decls>
<@predecision()>
<decision>
<@postdecision()>
alt<decisionNumber> match {
   <alts:{a | <altSwitchCase(i,a)>}>
   case _ =>
}
>>

ruleBlockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
// <fileName>:<description>
<decls>
<@prealt()>
<alts>
<@postalt()>
>>

/** A special case of a (...) subrule with a single alternative */
blockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
// <fileName>:<description>
<decls>
<@prealt()>
<alts>
<@postalt()>
>>

/** A (..)+ block with 1 or more alternatives
 */
positiveClosureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,descriptio
n) ::= <<
// <fileName>:<description>
var cnt<decisionNumber>: Int = 0
<decls>
<@preloop()>
var loop<decisionNumber>_quitflag = false
while (!loop<decisionNumber>_quitflag) {
   var alt<decisionNumber>:Int = <maxAlt>
   <@predecision()>
```

```
   <decision>
   <@postdecision()>
   alt<decisionNumber> match {
       <alts:{a | <altSwitchCase(i,a)>}>
 case _ =>
     if ( cnt<decisionNumber> >= 1 ) loop<decisionNumber>_quitflag = true
     else {
     <ruleBacktrackFailure()>
           val eee = new EarlyExitException(<decisionNumber>, input)
           <@earlyExitException()>
           throw eee
     }
   }
   cnt<decisionNumber>+=1
}
<@postloop()>
>>

positiveClosureBlockSingleAlt ::= positiveClosureBlock

/** A (..)* block with 1 or more alternatives */
closureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::=
<<
//
 <fileName>:<description>
<decls>
<@preloop()>
var loop<decisionNumber>_quitflag = false
while (!loop<decisionNumber>_quitflag) {
   var alt<decisionNumber>:Int = <maxAlt>
   <@predecision()>
   <decision>
   <@postdecision()>
   alt<decisionNumber> match {
       <alts:{a | <altSwitchCase(i,a)>}>
 case _ => loop<decisionNumber>_quitflag = true
   }
}
<@postloop()>
>>

closureBlockSingleAlt ::= closureBlock

/** Optional blocks (x)? are translated to (x|) by before code generation
*  so we can just use the normal block template
*/
optionalBlock ::= block
```

```
optionalBlockSingleAlt ::= block

/** A case in a switch that jumps to an alternative given the alternative
*  number.  A DFA predicts the alternative and then a simple switch
*  does the jump to the code that actually matches that alternative.
*/
altSwitchCase(altNum, alt) ::= <<
case <altNum> =>
   <@prealt()>
   <alt>
>>

/** An alternative is just a list of elements; at outermost level */
alt(elements,altNum,description,autoAST,outerAlt,treeLevel,rew)
 ::= <<
// <fileName>:<description>
{
<@declarations()>
<elements:element()>
<rew>
<@cleanup()>
}
>>

/** What to emit when there is no rewrite.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel, treeLevel) ::= ""

// E L E M E N T S

/** Dump the elements one per line */
element(e) ::= <<
<@prematch()>
<e.el><\n>
>>

/** match a token optionally with a label in front */
tokenRef(token,label,elementIndex,terminalOptions) ::= <<
<if(label)><label>=<endif>`match`(input,<token>,FOLLOW_<token>_in_<ruleName><elementIndex>)<if(label)>
.asInstanceOf[<labelType>]<endif>
<checkRuleBacktrackFailure()>
>>

/** ids+=ID */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRef(...)>
<listLabel(elem=label,...)>
```

```
>>

listLabel(label,elem) ::= <<
if (list_<label>==null) list_<label>=new java.util.ArrayList()
list_<label>.add(<elem>)<\n>
>>

/** match a character */
charRef(char,label) ::= <<
<if(label)>
<label> = input.LA(1)<\n>
<endif>
`match`(<char>)
<checkRuleBacktrackFailure()>
>>

/**
 match a character range */
charRangeRef(a,b,label) ::= <<
<if(label)>
<label> = input.LA(1)<\n>
<endif>
matchRange(<a>,<b>); <checkRuleBacktrackFailure()>
>>

/** For now, sets are interval tests and must be tested inline */
matchSet(s,label,elementIndex,terminalOptions,postmatchCode="") ::= <<
<if(label)>
<if(LEXER)>
<label>= input.LA(1)<\n>
<else>
<label>=input.LT(1).asInstanceOf[<labelType>]<\n>
<endif>
<endif>
if ( <s> ) {
   input.consume()
   <postmatchCode>
<if(!LEXER)>
   state.errorRecovery=false<\n>
<endif>
   <if(backtracking)>state.failed=false<endif>
}
else {
   <ruleBacktrackFailure()>
   val mse = new MismatchedSetException(null,input)
   <@mismatchedSetException()>
<if(LEXER)>
   recover(mse)
```

```
  throw mse
<else>
  throw mse
  <! use following code to make it recover inline; remove throw mse;
  recoverFromMismatchedSet(input,mse,FOLLOW_set_in_<ruleName><elementIndex>)
  !>
<endif>
}<\n>
>>

matchRuleBlockSet
 ::= matchSet

matchSetAndListLabel(s,label,elementIndex,postmatchCode) ::= <<
<matchSet(...)>
<listLabel(elem=label,...)>
>>

/** Match a string literal */
lexerStringRef(string,label,elementIndex="0") ::= <<
<if(label)>
val <label>Start = getCharIndex()
`match`(<string>)
<checkRuleBacktrackFailure()>
val <label>StartLine<elementIndex> = getLine()
val <label>StartCharPos<elementIndex> = getCharPositionInLine()
<label> = new <labelType>(input, Token.INVALID_TOKEN_TYPE, Token.DEFAULT_CHANNEL, <label>Start,
getCharIndex()-1)
<label>.setLine(<label>StartLine<elementIndex>)
<label>.setCharPositionInLine(<label>StartCharPos<elementIndex>)
<else>
`match`(<string>)
<checkRuleBacktrackFailure()><\n>
<endif>
>>

wildcard(token,label,elementIndex,terminalOptions) ::= <<
<if(label)>
<label>=input.LT(1).asInstanceOf[<labelType>]<\n>
<endif>
matchAny(input)
<checkRuleBacktrackFailure()>
>>

wildcardAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<wildcard(...)>
<listLabel(elem=label,...)>
>>
```

```
/**
 Match . wildcard in lexer */
wildcardChar(label, elementIndex) ::= <<
<if(label)>
<label> = input.LA(1)<\n>
<endif>
matchAny()
<checkRuleBacktrackFailure()>
>>

wildcardCharListLabel(label, elementIndex) ::= <<
<wildcardChar(...)>
<listLabel(elem=label,...)>
>>

/** Match a rule reference by invoking it possibly with arguments
*  and a return value or values.  The 'rule' argument was the
*  target rule name, but now is type Rule, whose toString is
*  same: the rule name.  Now though you can access full rule
*  descriptor stuff.
*/
ruleRef(rule,label,elementIndex,args,scope) ::= <<
pushFollow(FOLLOW_<rule.name>_in_<ruleName><elementIndex>)
<if(label)><label>=<endif><if(scope)><scope:delegateName()>.<endif><rule.name>(<args; separator=", ">)<\n>
state._fsp-=1
<checkRuleBacktrackFailure()>
>>

/** ids+=r */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabel(elem=label,...)>
>>

/** A lexer rule reference.
*
*
  The 'rule' argument was the target rule name, but now
*  is type Rule, whose toString is same: the rule name.
*  Now though you can access full rule descriptor stuff.
*/
lexerRuleRef(rule,label,args,elementIndex,scope) ::= <<
<if(label)>
val <label>Start<elementIndex> = getCharIndex()
val <label>StartLine<elementIndex> = getLine()
val <label>StartCharPos<elementIndex> = getCharPositionInLine()
<if(scope)><scope:delegateName()>.<endif>m<rule.name>(<args; separator=", ">)
```

```
<checkRuleBacktrackFailure()>
<label> = new <labelType>(input, Token.INVALID_TOKEN_TYPE, Token.DEFAULT_CHANNEL,
<label>Start<elementIndex>, getCharIndex()-1)
<label>.setLine(<label>StartLine<elementIndex>)
<label>.setCharPositionInLine(<label>StartCharPos<elementIndex>)
<else>
<if(scope)><scope:delegateName()>.<endif>m<rule.name>(<args; separator=", ">)
<checkRuleBacktrackFailure()>
<endif>
>>

/** i+=INT in lexer */
lexerRuleRefAndListLabel(rule,label,args,elementIndex,scope) ::= <<
<lexerRuleRef(...)>
<listLabel(elem=label,...)>
>>

/**
 EOF in the lexer */
lexerMatchEOF(label,elementIndex) ::= <<
<if(label)>
val <label>Start<elementIndex> = getCharIndex()
val <label>StartLine<elementIndex> = getLine()
val <label>StartCharPos<elementIndex> = getCharPositionInLine()
`match`(EOF)
<checkRuleBacktrackFailure()>
val <label> = new <labelType>(input, EOF, Token.DEFAULT_CHANNEL, <label>Start<elementIndex>,
getCharIndex()-1)
<label>.setLine(<label>StartLine<elementIndex>)
<label>.setCharPositionInLine(<label>StartCharPos<elementIndex>)
<else>
`match`(EOF)
<checkRuleBacktrackFailure()>
<endif>
>>

// used for left-recursive rules
recRuleDefArg()                       ::= "int <recRuleArg()>"
recRuleArg()                          ::= "_p"
recRuleAltPredicate(ruleName,opPrec)  ::= "<recRuleArg()> \<= <opPrec>"
recRuleSetResultAction()              ::= "root_0=$<ruleName>_primary.tree;"
recRuleSetReturnAction(src,name)      ::= "$<name>=$<src>.<name>;"

/** match ^(root children) in tree parser */
tree(root,
 actionsAfterRoot, children, nullableChildList,
   enclosingTreeLevel, treeLevel) ::= <<
<root:element()>
```

```
<actionsAfterRoot:element()>
<if(nullableChildList)>
if ( input.LA(1)==Token.DOWN ) {
   `match`(input, Token.DOWN, null)
   <checkRuleBacktrackFailure()>
   <children:element()>
   `match`(input, Token.UP, null)
   <checkRuleBacktrackFailure()>
}
<else>
`match`(input, Token.DOWN, null)
<checkRuleBacktrackFailure()>
<children:element()>
`match`(input, Token.UP, null)
<checkRuleBacktrackFailure()>
<endif>
>>

/** Every predicate is used as a validating predicate (even when it is
*  also hoisted into a prediction expression).
*/
validateSemanticPredicate(pred,description) ::= <<
if ( !(<evalPredicate(...)>) ) {
   <ruleBacktrackFailure()>
   throw new FailedPredicateException(input, "<ruleName>", "<description>")
}
>>

// F i x e d  D F A  (if-then-else)

dfaState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
val LA<decisionNumber>_<stateNumber> = input.LA(<k>)<\n>
<edges;
 separator="\nelse ">
else {
<if(eotPredictsAlt)>
   alt<decisionNumber>=<eotPredictsAlt>
<else>
   <ruleBacktrackFailure()>
   val nvae = new NoViableAltException("<description>", <decisionNumber>, <stateNumber>, input)<\n>
   <@noViableAltException()>
   throw nvae<\n>
<endif>
}
>>

/** Same as a normal DFA state except that we don't examine lookahead
*  for the bypass alternative.  It delays error detection but this
```

```
*  is faster, smaller, and more what people expect.  For (X)? people
*  expect "if ( LA(1)==X ) match(X);" and that's it.
*/
dfaOptionalBlockState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
val LA<decisionNumber>_<stateNumber> = input.LA(<k>)<\n>
<edges; separator="\nelse ">
>>

/** A DFA state that is actually the loopback decision of a closure
*  loop.  If end-of-token (EOT) predicts any of the targets then it
*  should act like a default clause (i.e., no error can be generated).
*  This is used only in the lexer
 so that for ('a')* on the end of a rule
*  anything other than 'a' predicts exiting.
*/
dfaLoopbackState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
val LA<decisionNumber>_<stateNumber> = input.LA(<k>)<\n>
<edges; separator="\nelse "><\n>
<if(eotPredictsAlt)>
<if(!edges)>
alt<decisionNumber>=<eotPredictsAlt> <! if no edges, don't gen ELSE !>
<else>
else {
   alt<decisionNumber>=<eotPredictsAlt>
}<\n>
<endif>
<endif>
>>

/** An accept state indicates a unique alternative has been predicted */
dfaAcceptState(alt) ::= "alt<decisionNumber>=<alt>"

/** A simple edge with an expression.  If the expression is satisfied,
*  enter to the target state.  To handle gated productions, we may
*  have to evaluate some predicates for this edge.
*/
dfaEdge(labelExpr, targetState, predicates) ::= <<
if ( (<labelExpr>) <if(predicates)>&& (<predicates>)<endif>) {
   <targetState>
}
>>

// F i x e d  D F A  (switch case)

/** A DFA state where a SWITCH may be generated.  The
 code generator
*  decides if this is possible: CodeGenerator.canGenerateSwitch().
*/
```

```
dfaStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
input.LA(<k>) match {
<edges; separator="\n">
case _ =>
<if(eotPredictsAlt)>
  alt<decisionNumber>=<eotPredictsAlt>
<else>
  <ruleBacktrackFailure()>
  val nvae = new NoViableAltException("<description>", <decisionNumber>, <stateNumber>, input)<\n>
  <@noViableAltException()>
  throw nvae<\n>
<endif>
}<\n>
>>

dfaOptionalBlockStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
input.LA(<k>) match {
  <edges; separator="\n">
  case _ =>
}<\n>
>>

dfaLoopbackStateSwitch(k, edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
input.LA(<k>) match {
<edges; separator="\n"><\n>
case _ =>
<if(eotPredictsAlt)>
  alt<decisionNumber>=<eotPredictsAlt>;
<endif>
}<\n>
>>

dfaEdgeSwitch(labels, targetState) ::= <<
case <labels:{it | <it>}; separator=" | "> =>
  {
  <targetState>
   }
>>

// C y c l i c  D F A

/** The code to initiate execution of a cyclic DFA; this is used
*  in the rule to predict an alt just like the fixed DFA case.
*  The <name> attribute is inherited via the parser, lexer, ...
*/
dfaDecision(decisionNumber,description) ::= <<
alt<decisionNumber> = dfa<decisionNumber>.predict(input)
>>
```

```
/* Dump DFA tables as run-length-encoded Strings of octal values.
* Can't use hex as compiler translates them before compilation.
* These strings are split into multiple, concatenated strings.
* Java puts them back together at compile time thankfully.
* Java cannot handle large static arrays, so we're stuck with this
* encode/decode approach.  See analysis and runtime DFA for
* the encoding methods.
*/
cyclicDFA(dfa) ::= <<
val DFA<dfa.decisionNumber>_eotS =
  "<dfa.javaCompressedEOT; wrap="\"+\n    \"">"
val DFA<dfa.decisionNumber>_eofS =
  "<dfa.javaCompressedEOF; wrap="\"+\n    \"">"
val DFA<dfa.decisionNumber>_minS =
  "<dfa.javaCompressedMin;
 wrap="\"+\n    \"">"
val DFA<dfa.decisionNumber>_maxS =
  "<dfa.javaCompressedMax; wrap="\"+\n    \"">"
val DFA<dfa.decisionNumber>_acceptS =
  "<dfa.javaCompressedAccept; wrap="\"+\n    \"">"
val DFA<dfa.decisionNumber>_specialS =
  "<dfa.javaCompressedSpecial; wrap="\"+\n    \"">}>"
val DFA<dfa.decisionNumber>_transitionS: Array[String] = Array(
    <dfa.javaCompressedTransition:{s|"<s; wrap="\"+\n\"">"}; separator=",\n">
)

val DFA<dfa.decisionNumber>_eot: Array[Short] = DFA.unpackEncodedString(DFA<dfa.decisionNumber>_eotS)
val DFA<dfa.decisionNumber>_eof: Array[Short] = DFA.unpackEncodedString(DFA<dfa.decisionNumber>_eofS)
val DFA<dfa.decisionNumber>_min: Array[Char] =
DFA.unpackEncodedStringToUnsignedChars(DFA<dfa.decisionNumber>_minS)
val DFA<dfa.decisionNumber>_max: Array[Char] =
DFA.unpackEncodedStringToUnsignedChars(DFA<dfa.decisionNumber>_maxS)
val DFA<dfa.decisionNumber>_accept: Array[Short] =
DFA.unpackEncodedString(DFA<dfa.decisionNumber>_acceptS)
val
 DFA<dfa.decisionNumber>_special: Array[Short] =
DFA.unpackEncodedString(DFA<dfa.decisionNumber>_specialS)
val DFA<dfa.decisionNumber>_transition = new
Array[Array[Short]](DFA<dfa.decisionNumber>_transitionS.length)

for (i \<- DFA<dfa.decisionNumber>_transition.indices) {
  DFA<dfa.decisionNumber>_transition(i) =
DFA.unpackEncodedString(DFA<dfa.decisionNumber>_transitionS(i))
}

class DFA<dfa.decisionNumber> extends DFA {
```

```
  def this(recognizer: BaseRecognizer) = {
    this()
    this.recognizer = recognizer
    this.decisionNumber = <dfa.decisionNumber>
    this.eot = DFA<dfa.decisionNumber>_eot
    this.eof = DFA<dfa.decisionNumber>_eof
    this.min = DFA<dfa.decisionNumber>_min
    this.max = DFA<dfa.decisionNumber>_max
    this.accept = DFA<dfa.decisionNumber>_accept
    this.special = DFA<dfa.decisionNumber>_special
    this.transition = DFA<dfa.decisionNumber>_transition
  }
  override def getDescription = "<dfa.description>"
   <@errorMethod()>
<if(dfa.specialStateSTs)>
  @throws(classOf[NoViableAltException])
  override def specialStateTransition(s: Int, _input: IntStream):Int = {
    <if(LEXER)>
    val input = _input
    <endif>
    <if(PARSER)>
    val input = _input.asInstanceOf[TokenStream]
    <endif>
    <if(TREE_PARSER)>
    val input = _input.asInstanceOf[TreeNodeStream]
    <endif>
   val _s = s
    s match {
    <dfa.specialStateSTs:{state |
    case <i0> => <! compressed special state numbers 0..n-1 !>
      <state>}; separator="\n">
    case _ =>
    }
<if(backtracking)>
    if (state.backtracking>0) {state.failed=true; return -1}<\n>
<endif>
    val nvae = new NoViableAltException(getDescription(), <dfa.decisionNumber>, _s, input)
    error(nvae)
    throw nvae
  }<\n>
<endif>
}<\n>
>>

/** A state in a cyclic DFA; it's a special state and part of a big switch on
*  state.
*/
cyclicDFAState(decisionNumber,stateNumber,edges,needErrorClause,semPredState)
```

```
 ::= <<
val LA<decisionNumber>_<stateNumber>: Int = input.LA(1)<\n>
<if(semPredState)> <! get next lookahead symbol to test edges, then rewind !>
val index<decisionNumber>_<stateNumber>: Int = input.index()
input.rewind()<\n>
<endif>
s = -1
<edges; separator="\nelse ">
<if(semPredState)> <! return input cursor to state before we rewound !>
input.seek(index<decisionNumber>_<stateNumber>)<\n>
<endif>
if ( s>=0 ) return s
>>

/** Just like a fixed DFA edge, test the lookahead and indicate what
*  state to jump to next if successful.
*/
cyclicDFAEdge(labelExpr, targetStateNumber, edgeNumber, predicates) ::= <<
if ( (<labelExpr>) <if(predicates)>&& (<predicates>)<endif>) {s = <targetStateNumber>}<\n>
>>

/** An edge pointing at end-of-token; essentially matches any char;
*  always jump to the target.
*/
eotDFAEdge(targetStateNumber,edgeNumber, predicates) ::= <<
s = <targetStateNumber><\n>
>>


// D F A  E X P R E S S I O N S

andPredicates(left,right)
 ::= "(<left>&&<right>)"

orPredicates(operands) ::= "(<operands; separator=\"||\">)"

notPredicate(pred) ::= "!(<evalPredicate(pred,\"\")>)"

evalPredicate(pred,description) ::= "(<pred>)"

evalSynPredicate(pred,description) ::= "<pred>()"

lookaheadTest(atom,k,atomAsInt) ::= "LA<decisionNumber>_<stateNumber>==<atom>"

/** Sometimes a lookahead test cannot assume that LA(k) is in a temp variable
*  somewhere.  Must ask for the lookahead directly.
*/
isolatedLookaheadTest(atom,k,atomAsInt) ::= "input.LA(<k>)==<atom>"
```

```
lookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= <<
(LA<decisionNumber>_<stateNumber> >= <lower> && LA<decisionNumber>_<stateNumber> \<= <upper>)
>>

isolatedLookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= "(input.LA(<k>) >=<lower>
&& input.LA(<k>) \<= <upper>)"

setTest(ranges) ::= "<ranges; separator=\"||\">"

// A T T R I B U T E S

globalAttributeScope(scope) ::= <<
<if(scope.attributes)>
class <scope.name>_scope
 {
   <scope.attributes:{it | var <it.name>: <it.type> = _}; separator="\n">
}
val <scope.name>_stack = new collection.mutable.Stack[<scope.name>_scope]<\n>
<endif>
>>

ruleAttributeScope(scope) ::= <<
<if(scope.attributes)>
class <scope.name>_scope {
   <scope.attributes:{it | var <it.name>: <it.type> = _}; separator="\n">
}
val <scope.name>_stack = new collection.mutable.Stack[<scope.name>_scope]<\n>
<endif>
>>

returnStructName(r) ::= "<r.name>_return"

returnType() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
<ruleDescriptor:returnStructName()>
<else>
<if(ruleDescriptor.hasSingleReturnValue)>
<ruleDescriptor.singleValueReturnType>
<else>
Unit
<endif>
<endif>
>>

/** Generate the Java type associated with a single or multiple return
*  values.
*/
```

```
ruleLabelType(referencedRule) ::= <<
<if(referencedRule.hasMultipleReturnValues)>
<referencedRule.name>_return
<else>
<if(referencedRule.hasSingleReturnValue)>
<referencedRule.singleValueReturnType>
<else>
Unit
<endif>
<endif>
>>

delegateName(d)
 ::= <<
<if(d.label)><d.label><else>g<d.name><endif>
>>

/** Using a type to init value map, try to init a type; if not in table
*  must be an object, default value is "null".
*/
initValue(typeName) ::= <<
<scalaTypeInitMap.(typeName)>
>>

/** Define a rule label including default value */
ruleLabelDef(label) ::= <<
var <label.label.text>: <ruleLabelType(referencedRule=label.referencedRule)> =
<initValue(typeName=ruleLabelType(referencedRule=label.referencedRule))><\n>
>>

/** Define a return struct for a rule if the code needs to access its
*  start/stop tokens, tree stuff, attributes, ...  Leave a hole for
*  subgroups to stick in members.
*  TODO(matthewlloyd): make this static
*/
returnScope(scope) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
final class <ruleDescriptor:returnStructName()> extends
<if(TREE_PARSER)>Tree<else>Parser<endif>RuleReturnScope {
   <scope.attributes:{it | var <it.name>: <it.type> = _}; separator="\n">
   <@ruleReturnMembers()>
}
<endif>
>>

parameterScope(scope)
 ::= <<
<scope.attributes:{it | <it.name>: <it.type>}; separator=", ">
```

```
>>

parameterAttributeRef(attr) ::= "<attr.name>"
parameterSetAttributeRef(attr,expr) ::= "<attr.name> =<expr>"

scopeAttributeRef(scope,attr,index,negIndex) ::= <%
<if(negIndex)>
<scope>_stack(<scope>_stack.size-<negIndex>-1).<attr.name>
<else>
<if(index)>
<scope>_stack(<index>).<attr.name>
<else>
<scope>_stack.top.<attr.name>
<endif>
<endif>
%>

scopeSetAttributeRef(scope,attr,expr,index,negIndex) ::= <%
<if(negIndex)>
<scope>_stack(<scope>_stack.size-<negIndex>-1).<attr.name> = <expr>
<else>
<if(index)>
<scope>_stack(<index>).<attr.name> = <expr>
<else>
<scope>_stack.top.<attr.name> = <expr>
<endif>
<endif>
%>

/** $x is either global scope or x is rule with dynamic scope; refers
*  to stack itself not top of stack.  This is useful for predicates
*  like {$function.size()>0 && $function::name.equals("foo")}?
*/
isolatedDynamicScopeRef(scope) ::= "<scope>_stack"

/**
 reference an attribute of rule; might only have single return value */
ruleLabelRef(referencedRule,scope,attr) ::= <%
<if(referencedRule.hasMultipleReturnValues)>
(if (<scope>!=null) <scope>.<attr.name> else <initValue(attr.type)>)
<else>
<scope>
<endif>
%>

returnAttributeRef(ruleDescriptor,attr) ::= <%
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name>
```

```
<else>
<attr.name>
<endif>
%>

returnSetAttributeRef(ruleDescriptor,attr,expr) ::= <%
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name> =<expr>
<else>
<attr.name> =<expr>
<endif>
%>

/** How to translate $tokenLabel */
tokenLabelRef(label) ::= "<label>"

/** ids+=ID {$ids} or e+=expr {$e} */
listLabelRef(label) ::= "list_<label>"



// not sure the next are the right approach

tokenLabelPropertyRef_text(scope,attr) ::= "(if (<scope>!=null) <scope>.getText() else null)"
tokenLabelPropertyRef_type(scope,attr) ::= "(if (<scope>!=null) <scope>.getType() else 0)"
tokenLabelPropertyRef_line(scope,attr) ::= "(if (<scope>!=null)
 <scope>.getLine() else 0)"
tokenLabelPropertyRef_pos(scope,attr) ::= "(if (<scope>!=null) <scope>.getCharPositionInLine() else 0)"
tokenLabelPropertyRef_channel(scope,attr) ::= "(if (<scope>!=null) <scope>.getChannel() else 0)"
tokenLabelPropertyRef_index(scope,attr) ::= "(if (<scope>!=null) <scope>.getTokenIndex() else 0)"
tokenLabelPropertyRef_tree(scope,attr) ::= "<scope>_tree"
tokenLabelPropertyRef_int(scope,attr) ::= "(if (<scope>!=null) Integer.valueOf(<scope>.getText()) else 0)"

ruleLabelPropertyRef_start(scope,attr) ::= "(if (<scope>!=null) <scope>.start.asInstanceOf[<labelType>] else null)"
ruleLabelPropertyRef_stop(scope,attr) ::= "(if (<scope>!=null) <scope>.stop.asInstanceOf[<labelType>] else null)"
ruleLabelPropertyRef_tree(scope,attr) ::= "(if (<scope>!=null) <scope>.tree.asInstanceOf[<ASTLabelType>] else
null)"
ruleLabelPropertyRef_text(scope,attr) ::= <<
<if(TREE_PARSER)>
(if (<scope>!=null) (input.getTokenStream().toString(
 input.getTreeAdaptor().getTokenStartIndex(<scope>.start),
  input.getTreeAdaptor().getTokenStopIndex(<scope>.start))) else null)
<else>
(if (<scope>!=null) input.toString(<scope>.start,<scope>.stop) else null)
<endif>
>>

ruleLabelPropertyRef_st(scope,attr) ::= "(if (<scope>!=null) <scope>.st else null)"
```

```
/** Isolated $RULE ref ok in lexer as it's a Token */
lexerRuleLabel(label) ::= "<label>"

lexerRuleLabelPropertyRef_type(scope,attr) ::=
   "(if (<scope>!=null) <scope>.getType() else 0)"
lexerRuleLabelPropertyRef_line(scope,attr) ::=
   "(if (<scope>!=null) <scope>.getLine() else 0)"
lexerRuleLabelPropertyRef_pos(scope,attr) ::=
   "(if (<scope>!=null) <scope>.getCharPositionInLine() else -1)"
lexerRuleLabelPropertyRef_channel(scope,attr) ::=
   "(if (<scope>!=null) <scope>.getChannel() else 0)"
lexerRuleLabelPropertyRef_index(scope,attr) ::=
   "(if (<scope>!=null) <scope>.getTokenIndex() else 0)"
lexerRuleLabelPropertyRef_text(scope,attr) ::=
   "(if (<scope>!=null) <scope>.getText() else null)"
lexerRuleLabelPropertyRef_int(scope,attr)
 ::=
   "(if (<scope>!=null) Integer.valueOf(<scope>.getText()) else 0)"

// Somebody may ref $template or $tree or $stop within a rule:
rulePropertyRef_start(scope,attr) ::= "(retval.start.asInstanceOf[<labelType>])"
rulePropertyRef_stop(scope,attr) ::= "(retval.stop.asInstanceOf[<labelType>])"
rulePropertyRef_tree(scope,attr) ::= "(retval.tree.asInstanceOf[<ASTLabelType>])"
rulePropertyRef_text(scope,attr) ::= <<
<if(TREE_PARSER)>
input.getTokenStream().toString(
 input.getTreeAdaptor().getTokenStartIndex(retval.start),
 input.getTreeAdaptor().getTokenStopIndex(retval.start))
<else>
input.toString(retval.start,input.LT(-1))
<endif>
>>
rulePropertyRef_st(scope,attr) ::= "retval.st"

lexerRulePropertyRef_text(scope,attr) ::= "getText()"
lexerRulePropertyRef_type(scope,attr) ::= "_type"
lexerRulePropertyRef_line(scope,attr) ::= "state.tokenStartLine"
lexerRulePropertyRef_pos(scope,attr) ::= "state.tokenStartCharPositionInLine"
lexerRulePropertyRef_index(scope,attr)
 ::= "-1" // undefined token index in lexer
lexerRulePropertyRef_channel(scope,attr) ::= "_channel"
lexerRulePropertyRef_start(scope,attr) ::= "state.tokenStartCharIndex"
lexerRulePropertyRef_stop(scope,attr) ::= "(getCharIndex()-1)"
lexerRulePropertyRef_int(scope,attr) ::= "Integer.valueOf(<scope>.getText())"

// setting $st and $tree is allowed in local rule. everything else
// is flagged as error
ruleSetPropertyRef_tree(scope,attr,expr) ::= "retval.tree =<expr>"
```

```
ruleSetPropertyRef_st(scope,attr,expr) ::= "retval.st =<expr>"

/** How to execute an action (only when not backtracking) */
execAction(action) ::= <<
<if(backtracking)>
if ( <actions.(actionScope).synpredgate> ) {
 <action>
}
<else>
<action>
<endif>
>>

/** How to always execute an action even when backtracking */
execForcedAction(action) ::= "<action>"

// M I S C (properties, etc...)

bitset(name, words64) ::= <<
val <name> = new BitSet(Array[Long](<words64:{it | <it>L};separator=",">))<\n>
>>

codeFileExtension()
 ::= ".scala"

true_value() ::= "true"
false_value() ::= "false"
```

Found in path(s):

* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Scala/Scala.stg

No license file was found, but licenses were detected in source scan.

```
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THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
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THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
*/

/** Templates for building ASTs during tree parsing.
*
*  Deal with many combinations.  Dimensions are:
*  Auto build or rewrite
*    no label, label, list label  (label/no-label handled together)
*    child, root
*    token, set, rule, wildcard
*
*  Each combination has its own template except that label/no label
*  is combined into tokenRef, ruleRef, ...
*/

finishedBacktracking(block) ::= <<
<if(backtracking)>
if <actions.(actionScope).synpredgate>:
   <block>
<else>
<block>
<endif>
>>

/**
 Add a variable to track last element matched */
ruleDeclarations() ::= <<
<super.ruleDeclarations()>
_first_0 = None
_last = None<\n>
>>

/** What to emit when there is no rewrite rule.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel, treeLevel) ::= <<
<finishedBacktracking({
<if(rewriteMode)>
```

```
retval.tree = _first_0
if self._adaptor.getParent(retval.tree) is not None and self._adaptor.isNil(self._adaptor.getParent(retval.tree)):
   retval.tree = self._adaptor.getParent(retval.tree)
<endif>
})>
>>

/** match ^(root children) in tree parser; override here to
*  add tree construction actions.
*/
tree(root, actionsAfterRoot, children, nullableChildList,
    enclosingTreeLevel, treeLevel) ::= <<
_last = self.input.LT(1)
_save_last_<treeLevel> = _last
_first_<treeLevel> = None
<if(!rewriteMode)>
root_<treeLevel> = self._adaptor.nil()<\n>
<endif>
<root:element()>
<if(rewriteMode)>
<finishedBacktracking({
<if(root.el.rule)>
if _first_<enclosingTreeLevel>
 is None:
   _first_<enclosingTreeLevel> = <root.el.label>.tree<\n>
<else>
if _first_<enclosingTreeLevel> is None:
   _first_<enclosingTreeLevel> = <root.el.label><\n>
<endif>
})>
<endif>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if self.input.LA(1) == DOWN:
   self.match(self.input, DOWN, None)
   <children:element()>
   self.match(self.input, UP, None)

<else>
self.match(self.input, DOWN, None)
<children:element()>
self.match(self.input, UP, None)<\n>
<endif>
<if(!rewriteMode)>
self._adaptor.addChild(root_<enclosingTreeLevel>, root_<treeLevel>)<\n>
<endif>
_last = _save_last_<treeLevel>
```

```
>>

// TOKEN AST STUFF

/** ID! and output=AST (same as plain tokenRef) 'cept add
*  setting of _last
*/
tokenRefBang(token,label,elementIndex,terminalOptions={}) ::= <<
_last = self.input.LT(1)
<super.tokenRef(...)>
>>

/** ID auto construct */
tokenRef(token,label,elementIndex,terminalOptions={}) ::= <<
_last = self.input.LT(1)
<super.tokenRef(...)>
<if(!rewriteMode)>
<finishedBacktracking({
<if(terminalOptions.node)>
<label>_tree
 = <terminalOptions.node>(<label>)
<else>
<label>_tree = self._adaptor.dupNode(<label>)
<endif><\n>
self._adaptor.addChild(root_<treeLevel>, <label>_tree)
})>
<else> <! rewrite mode !>
<finishedBacktracking({
if _first_<treeLevel> is None:
   _first_<treeLevel> = <label><\n>
})>
<endif>
>>

/** label+=TOKEN auto construct */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRef(...)>
<listLabel(elem=label,...)>
>>

/** ^(ID ...) auto construct */
tokenRefRuleRoot(token,label,elementIndex,terminalOptions={}) ::= <<
_last = self.input.LT(1)
<super.tokenRef(...)>
<if(!rewriteMode)>
<finishedBacktracking({
<if(terminalOptions.node)>
<label>_tree = <terminalOptions.node>(<label>)
```

```
<else>
<label>_tree = self._adaptor.dupNode(<label>)
<endif><\n>
root_<treeLevel> = self._adaptor.becomeRoot(<label>_tree, root_<treeLevel>)
})>
<endif>
>>

/** Match ^(label+=TOKEN ...) auto construct */
tokenRefRuleRootAndListLabel(token,label,elementIndex,terminalOptions={})
 ::= <<
<tokenRefRuleRoot(...)>
<listLabel(elem=label,...)>
>>

/** Match . wildcard and auto dup the node/subtree */
wildcard(token,label,elementIndex,terminalOptions={}) ::= <<
_last = self.input.LT(1)
<super.wildcard(...)>
<if(!rewriteMode)>
<finishedBacktracking({
<label>_tree = self._adaptor.dupTree(<label>)
self._adaptor.addChild(root_<treeLevel>, <label>_tree)
})>
<else> <! rewrite mode !>
<finishedBacktracking({
if _first_<treeLevel> is None:
   _first_<treeLevel> = <label>
})>
<endif>
>>

// SET AST
matchSet(s,label,elementIndex,postmatchCode,terminalOptions={}) ::= <<
_last = self.input.LT(1)
<super.matchSet(postmatchCode={
<if(!rewriteMode)>
<finishedBacktracking({
<if(terminalOptions.node)>
<label>_tree = <terminalOptions.node>(<label>)
<else>
<label>_tree = self._adaptor.dupNode(<label>)
<endif><\n>
self._adaptor.addChild(root_<treeLevel>, <label>_tree)
})>
<endif>
}, ...)>
>>
```

```
matchRuleBlockSet(s,label,elementIndex,postmatchCode,treeLevel="0",terminalOptions={})
 ::= <<
<matchSet(...)>
<noRewrite(...)> <! set return tree !>
>>

matchSetBang(s,label,elementIndex,postmatchCode,terminalOptions={}) ::= <<
_last = self.input.LT(1)
<super.matchSet(...)>
>>

matchSetRuleRoot(s,label,elementIndex,debug,terminalOptions={}) ::= <<
<super.matchSet(postmatchCode={
<if(!rewriteMode)>
<finishedBacktracking({
<if(terminalOptions.node)>
<label>_tree = <terminalOptions.node>(<label>)
<else>
<label>_tree = self._adaptor.dupNode(<label>)
<endif><\n>
root_<treeLevel> = self._adaptor.becomeRoot(<label>_tree, root_<treeLevel>)
})>
<endif>
}, ...)>
>>

// RULE REF AST

/** rule auto construct */
ruleRef(rule,label,elementIndex,args,scope) ::= <<
_last = self.input.LT(1)
<super.ruleRef(...)>
<finishedBacktracking({
<if(!rewriteMode)>
self._adaptor.addChild(root_<treeLevel>, <label>.tree)
<else> <! rewrite mode !>
if _first_<treeLevel> is None:
   _first_<treeLevel> = <label>.tree<\n>
<endif>
})>
>>

/** x+=rule auto construct
 */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabel(label, {<label>.tree})>
```

```
>>

/** ^(rule ...) auto construct */
ruleRefRuleRoot(rule,label,elementIndex,args,scope) ::= <<
_last = self.input.LT(1)
<super.ruleRef(...)>
<if(!rewriteMode)>
<finishedBacktracking({
root_<treeLevel> = self._adaptor.becomeRoot(<label>.tree, root_<treeLevel>)
})>
<endif>
>>

/** ^(x+=rule ...) auto construct */
ruleRefRuleRootAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRoot(...)>
<listLabel(label, {<label>.tree})>
>>

/** rule when output=AST and tracking for rewrite */
ruleRefTrack(rule,label,elementIndex,args,scope) ::= <<
_last = self.input.LT(1)
<super.ruleRefTrack(...)>
>>

/** x+=rule when output=AST and tracking for rewrite */
ruleRefTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
_last = self.input.LT(1)
<super.ruleRefTrackAndListLabel(...)>
>>

/** ^(rule ...) rewrite */
ruleRefRuleRootTrack(rule,label,elementIndex,args,scope)
 ::= <<
_last = self.input.LT(1)
<super.ruleRefRootTrack(...)>
>>

/** ^(x+=rule ...) rewrite */
ruleRefRuleRootTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
_last = self.input.LT(1)
<super.ruleRefRuleRootTrackAndListLabel(...)>
>>

/** Streams for token refs are tree nodes now; override to
*  change nextToken to nextNode.
*/
createRewriteNodeFromElement(token,scope,terminalOptions={}) ::= <<
```

```
<if(terminalOptions.node)>
<terminalOptions.node>(stream_<token>.nextNode())
<else>
stream_<token>.nextNode()
<endif>
>>

ruleCleanUp() ::= <<
<super.ruleCleanUp()>
<if(!rewriteMode)>
<finishedBacktracking({
retval.tree = self._adaptor.rulePostProcessing(root_0)
})>
<endif>
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Python3/ASTTreeParser.stg
No license file was found, but licenses were detected in source scan.

/*
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```
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*/

/*
* This code generating template and the associated Cpp runtime was produced by:
* Gokulakannan Somasundaram ( heavy lifting from C Run-time by Jim Idle )
*/
cTypeInitMap ::= [
 "int"      : "0",              // Integers     start out being 0
 "long"      : "0",              // Longs       start out being 0
 "float"      : "0.0",           // Floats       start out being 0
 "double"     : "0.0",           // Doubles      start out being 0
 "bool"         : "false",
   // Booleans     start out being Antlr C for false
 "byte"      : "0",              // Bytes        start out being 0
 "short"      : "0",              // Shorts       start out being 0
 "char"      : "0"              // Chars        start out being 0
]

leadIn(type) ::=
<<
/** \file
*  This <type> file was generated by $ANTLR version <ANTLRVersion>
*
*     -  From the grammar source file : <fileName>
*     -                           On : <generatedTimestamp>
<if(LEXER)>
*     -                 for the lexer : <name>Lexer
<endif>
<if(PARSER)>
*     -                for the parser : <name>Parser
<endif>
<if(TREE_PARSER)>
*     -           for the tree parser : <name>TreeParser
<endif>
*
* Editing it, at least manually, is not wise.
*
* C++ language generator and runtime by Gokulakannan Somasundaram ( heavy lifting from C Run-time by Jim
Idle )
*
*
>>

/** The overall file structure of a recognizer; stores methods for rules
*  and cyclic DFAs plus support code.
 */
outputFile( LEXER,
```

PARSER,
TREE_PARSER,
actionScope,
actions,
docComment,
recognizer,
name,
tokens,
tokenNames,
rules,
cyclicDFAs,
bitsets,
buildTemplate,
buildAST,
rewriteMode,
profile,
backtracking,
synpreds,
memoize,
numRules,
fileName,
ANTLRVersion,
generatedTimestamp,
trace,
scopes,
superClass,
literals
) ::=
<<
<leadIn("C++ source")>
*/
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<if(actions.(actionScope).header)>

/* ==============================================================================
* This is what the grammar programmer asked us to put at the top of every file.
*/
<actions.(actionScope).header>
/* End of Header action.
* ==============================================================================
*/
<endif>

/* -----------------------------------------
* Include the ANTLR3 generated header file.
*/
#include    "<name>.hpp"
<if(trace)>
#include \<iostream>
<endif>
<if(recognizer.grammar.delegators)>
// Include delegator definition header files
//
<recognizer.grammar.delegators: {g|#include "<g.recognizerName>.hpp" }; separator="\n">
<endif>

<actions.(actionScope).postinclude>
/* ----------------------------------------- */

<docComment>

<if(literals)>

<beginNamespace(actions)>

/**
 String literals used by <name> that we must do things like MATCHS() with.
*  C will normally just lay down 8 bit characters, and you can use L"xxx" to
```

```
*  get wchar_t, but wchar_t is 16 bits on Windows, which is not UTF32 and so
*  we perform this little trick of defining the literals as arrays of UINT32
*  and passing in the address of these.
*/
<literals:{it | static ANTLR_UCHAR lit_<i>[]  = <it>;}; separator="\n">

<endNamespace(actions)>

<endif>

/* ============================================================================= */

/* =============================================================================
* Start of recognizer
*/

<recognizer>

/* End of code
* =============================================================================
*/

>>
headerFileExtension() ::= ".hpp"

beginNamespace(actions) ::= <%
 <if(actions.(actionScope).namespace)>
 namespace <actions.(actionScope).namespace> {
 <endif>
%>

endNamespace(actions) ::=
 <%
 <if(actions.(actionScope).namespace)>
 }
 <endif>
%>


headerFile( LEXER,
          PARSER,
          TREE_PARSER,
          actionScope,
          actions,
          docComment,
          recognizer,
          name,
          tokens,
```

```
        tokenNames,
        rules,
        cyclicDFAs,
        bitsets,
        buildTemplate,
        buildAST,
        rewriteMode,
        profile,
        backtracking,
        synpreds,
        memoize,
        numRules,
        fileName,
        ANTLRVersion,
        generatedTimestamp,
        trace,
        scopes,
        superClass,
        literals
    ) ::=
<<
<leadIn("C++ header")>
<if(PARSER)>
* The parser <mainName()> has the callable functions (rules) shown below,
<endif>
<if(LEXER)>
* The lexer <mainName()> has the callable functions (rules) shown below,
<endif>
<if(TREE_PARSER)>
* The tree parser <mainName()> has the callable functions
 (rules) shown below,
<endif>
* which will invoke the code for the associated rule in the source grammar
* assuming that the input stream is pointing to a token/text stream that could begin
* this rule.
*
* For instance if you call the first (topmost) rule in a parser grammar, you will
* get the results of a full parse, but calling a rule half way through the grammar will
* allow you to pass part of a full token stream to the parser, such as for syntax checking
* in editors and so on.
*
*/
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```

```
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 SUCH DAMAGE.

#ifndef _<name>_H
#define _<name>_H
<actions.(actionScope).preincludes>
/* =============================================================================
* Standard antlr3 C++ runtime definitions
*/
#include \<antlr3.hpp>

/* End of standard antlr 3 runtime definitions
* =============================================================================
*/

<actions.(actionScope).includes>

<if(recognizer.grammar.delegates)>
// Include delegate definition header files
//
<recognizer.grammar.delegates: {g|#include "<g.recognizerName>.hpp"}; separator="\n">

<endif>



<actions.(actionScope).header>

#ifdef WIN32
```

```
// Disable: Unreferenced parameter,        - Rules with parameters that are not used
//          constant conditional,       - ANTLR realizes that a prediction is always true (synpred usually)
//          initialized but unused variable     - tree rewrite variables declared but not needed
//          Unreferenced local variable      - lexer rule declares but does not always
 use _type
//          potentially unitialized variable used   - retval always returned from a rule
//   unreferenced local function has been removed - susually getTokenNames or freeScope, they can go without
warnigns
//
// These are only really displayed at warning level /W4 but that is the code ideal I am aiming at
// and the codegen must generate some of these warnings by necessity, apart from 4100, which is
// usually generated when a parser rule is given a parameter that it does not use. Mostly though
// this is a matter of orthogonality hence I disable that one.
//
#pragma warning( disable : 4100 )
#pragma warning( disable : 4101 )
#pragma warning( disable : 4127 )
#pragma warning( disable : 4189 )
#pragma warning( disable : 4505 )
#pragma warning( disable : 4701 )
#endif
<if(backtracking)>

/* ========================
* BACKTRACKING IS ENABLED
* ========================
*/
<endif>

<beginNamespace(actions)>

<if(recognizer.grammar.delegators)>
// Include delegator definition
 classes
//
<recognizer.grammar.delegators: {g|class <g.recognizerName>; }; separator="\n">
<endif>

<actions.(actionScope).traits>
typedef <name>Traits <name>ImplTraits;

<rules:{r | <if(r.ruleDescriptor.isSynPred)> struct <r.ruleDescriptor.name> {\}; <endif>}; separator="\n">

class <name>Tokens
{
public:
 /** Symbolic definitions of all the tokens that the <grammarType()> will work with.
  *
```

```
  * Antlr will define EOF, but we can't use that as it it is too common in
  * in C header files and that would be confusing. There is no way to filter this out at the moment
  * so we just undef it here for now. That isn't the value we get back from C recognizers
  * anyway. We are looking for ANTLR_TOKEN_EOF.
  */
 enum Tokens
 {
  EOF_TOKEN = <name>ImplTraits::CommonTokenType::TOKEN_EOF
  <tokens:{it | , <it.name> = <it.type> }; separator="\n">
 };

};

/** Context tracking structure for <mainName()>
*/
class <name> : public <componentBaseType()>, public <name>Tokens
{
public:
 typedef
 <name>ImplTraits ImplTraits;
 typedef <name> ComponentType;
 typedef ComponentType::StreamType StreamType;
 typedef <componentBaseType()> BaseType;
 typedef ImplTraits::RecognizerSharedStateType\<StreamType> RecognizerSharedStateType;
 typedef StreamType InputType;
<if(recognizer.filterMode)>
 static const bool IsFiltered = true;
<else>
 static const bool IsFiltered = false;
<endif>

 <scopes:{it | <if(it.isDynamicGlobalScope)><globalAttributeScopeDecl(it)><endif>}>
 <rules:{r | <if(r.ruleDescriptor.ruleScope)><ruleAttributeScopeDecl(scope=r.ruleDescriptor.ruleScope)><endif>}>

private:
<if(recognizer.grammar.delegates)>
 <recognizer.grammar.delegates:
	{g|<g.recognizerName>*  m_<g:delegateName()>;}; separator="\n">
<endif>
<if(recognizer.grammar.delegators)>
 <recognizer.grammar.delegators:
	{g|<g.recognizerName>*  m_<g:delegateName()>;}; separator="\n">
<endif>
<scopes:{it | <if(it.isDynamicGlobalScope)>
   <globalAttributeScopeDef(it)>
<endif>}; separator="\n\n">
<rules:
```

```
 {r |<if(r.ruleDescriptor.ruleScope)>
   <ruleAttributeScopeDef(scope=r.ruleDescriptor.ruleScope)>
<endif>}>
   <@members>
   <@end>

public:
   <name>(InputType* instream<recognizer.grammar.delegators:{g|, <g.recognizerName>*
<g:delegateName()>}>);
   <name>(InputType* instream, RecognizerSharedStateType* state<recognizer.grammar.delegators:{g|,
<g.recognizerName>* <g:delegateName()>}>);

   void init(InputType* instream <recognizer.grammar.delegators:{g|, <g.recognizerName>* <g:delegateName()>}>
);

   <actions.(actionScope).context>

<if(LEXER)>
<if(recognizer.filterMode)>
   void  memoize(ANTLR_MARKER  ruleIndex, ANTLR_MARKER  ruleParseStart);
   bool  alreadyParsedRule(ANTLR_MARKER ruleIndex);
   <filteringNextToken()>
<endif>
   <rules:{r | <if(!r.ruleDescriptor.isSynPred)><headerReturnType(ruleDescriptor=r.ruleDescriptor)>
m<r.ruleDescriptor.name>( <r.ruleDescriptor.parameterScope:parameterScope()>);<endif>}; separator="\n">
   <rules:{r | <if(r.ruleDescriptor.isSynPred)>
  <headerReturnType(ruleDescriptor=r.ruleDescriptor)> msynpred( antlr3::ClassForwarder\<
<r.ruleDescriptor.name> > <r.ruleDescriptor.parameterScope:parameterScope()>);
   void m<r.ruleDescriptor.name>_fragment (<r.ruleDescriptor.parameterScope:parameterScope()>);<endif>};
separator="\n">
<endif>
<if(!LEXER)>
   <rules:{r | <headerReturnScope(ruleDescriptor=r.ruleDescriptor)>}>
   <rules:{r | <if(!r.ruleDescriptor.isSynPred)> <headerReturnType(ruleDescriptor=r.ruleDescriptor)>
<r.ruleDescriptor.name> (<r.ruleDescriptor.parameterScope:parameterScope()>); <endif>}; separator="\n">
   <rules:{r | <if(r.ruleDescriptor.isSynPred)>  <headerReturnType(ruleDescriptor=r.ruleDescriptor)> msynpred(
antlr3::ClassForwarder\< <r.ruleDescriptor.name> > <r.ruleDescriptor.parameterScope:parameterScope()>);
   void m<r.ruleDescriptor.name>_fragment (<r.ruleDescriptor.parameterScope:parameterScope()>);<endif>};
separator="\n">
<! generate rule/method definitions for imported rules
 so they
  appear to be defined in this recognizer. !>
   // Delegated rules
<recognizer.grammar.delegatedRules:{ruleDescriptor|
   <headerReturnType(ruleDescriptor)>
<ruleDescriptor.name>(<ruleDescriptor.parameterScope:parameterScope()>);}; separator="\n">
<endif>
```

```
   const char *    getGrammarFileName();
   void            reset();
   ~<name>();

};

// Function protoypes for the constructor functions that external translation units
// such as delegators and delegates may wish to call.
//
<if(!recognizer.grammar.grammarIsRoot)>
extern ANTLR_UINT8*   <recognizer.grammar.composite.rootGrammar.recognizerName>TokenNames[];
<endif>


/* End of token definitions for <name>
* ================================================================================
*/

<endNamespace(actions)>

#endif

/* END - Note:Keep extra line feed to satisfy UNIX systems */

>>

grammarType() ::= <%
<if(PARSER)>
parser
<endif>
<if(LEXER)>
lexer
<endif>
<if(TREE_PARSER)>
tree parser
<endif>
%>

componentType()
 ::= <<
<if(PARSER)>
<name>ImplTraits::ParserType
<endif>
<if(LEXER)>
<name>ImplTraits::LexerType
<endif>
<if(TREE_PARSER)>
<name>ImplTraits::TreeParserType
```

```
<endif>
>>

componentBaseType() ::= <%
<if(PARSER)>
<name>ImplTraits::BaseParserType
<endif>
<if(LEXER)>
<name>ImplTraits::BaseLexerType
<endif>
<if(TREE_PARSER)>
<name>ImplTraits::BaseTreeParserType
<endif>
%>

streamType() ::= <<
<if(PARSER)>
<name>ImplTraits::ParserType::StreamType
<endif>
<if(LEXER)>
<name>ImplTraits::LexerType::StreamType
<endif>
<if(TREE_PARSER)>
<name>ImplTraits::TreeParserType::StreamType
<endif>
>>


mainName() ::= <%
<if(PARSER)>
<name>
<endif>
<if(LEXER)>
<name>
<endif>
<if(TREE_PARSER)>
<name>
<endif>
%>

headerReturnScope(ruleDescriptor) ::= "<returnScope(scope=ruleDescriptor.returnScope)>"

headerReturnType(ruleDescriptor) ::= <%
<if(LEXER)>
<if(!ruleDescriptor.isSynPred)>
void
<else>
<returnType()>
```

```
<endif>
<else>
<returnType()>
<endif>
%>

// Produce the lexer output
//
lexer(  grammar,
 name,
        tokens,
       scopes,
       rules,
       numRules,
       filterMode,
       superClass,
       labelType="ImplTraits::CommonTokenType*") ::= <<

using namespace antlr3;

<beginNamespace(actions)>

<if(filterMode)>

/* Override the normal MEMOIZE and HAVEALREADYPARSED macros as this is a filtering
* lexer. In filter mode, the memoizing and backtracking are gated at BACKTRACKING > 1 rather
* than just BACKTRACKING. In some cases this might generate code akin to:
*   if (BACKTRACKING) if (BACKTRACKING > 1) memoize.
*/
void <name>::memoize(ANTLR_MARKER  ruleIndex, ANTLR_MARKER  ruleParseStart)
{
 BaseType* base = this;
 if ( this->get_backtracking()>1 )
  base->memoize( ruleIndex, ruleParseStart );

}

bool <name>::alreadyParsedRule(ANTLR_MARKER ruleIndex)
{
 BaseType* base = this;
 if ( this->get_backtracking() > 1 )
  return base->haveParsedRule(ruleIndex);
 return false;
}

<endif>

/* =============================================================================
```

```
* Lexer
 matching rules end.
* ==============================================================================
*/

<scopes:{it |<if(it.isDynamicGlobalScope)><globalAttributeScope(it)><endif>}>

<actions.lexer.members>

<name>::~<name>()
{
<if(memoize)>
 RuleMemoType* rulememo = this->getRuleMemo();
 if(rulememo != NULL)
 {
  delete rulememo;
  this->setRuleMemo(NULL);
 }
<endif>
<if(grammar.directDelegates)>
 // Free the lexers that we delegated to
 // functions to. NULL the state so we only free it once.
 //
 <grammar.directDelegates:
        {g| m_<g:delegateName()>->set_lexstate(NULL);
        delete m_<g:delegateName()>; }; separator="\n">
<endif>
}

void
<name>::reset()
{
   this->get_rec()->reset();
}

/** \brief Name of the grammar file that generated this code
*/
static const char fileName[] = "<fileName>";

/** \brief Return the name of the grammar file that generated this code.
*/
const char* <name>::getGrammarFileName()
{
 return fileName;
}

/** \brief Create a new lexer called
```

```
 <name>
*
* \param[in]    instream Pointer to an initialized input stream
* \return
*     - Success p<name> initialized for the lex start
*     - Fail NULL
*/
<name>::<name>(StreamType* instream<grammar.delegators:{g|, <g.recognizerName>* <g:delegateName()>}>)
:<name>ImplTraits::BaseLexerType(ANTLR_SIZE_HINT, instream, NULL)
{
 // See if we can create a new lexer with the standard constructor
 //
 this->init(instream <grammar.delegators:{g|, <g:delegateName()>}>);
}

/** \brief Create a new lexer called <name>
*
* \param[in]    instream Pointer to an initialized input stream
* \param[state] state Previously created shared recognizer stat
* \return
*     - Success p<name> initialized for the lex start
*     - Fail NULL
*/
<name>::<name>(StreamType* instream, RecognizerSharedStateType* state<grammar.delegators:{g|,
<g.recognizerName>* <g:delegateName()>}>)
:<name>ImplTraits::BaseLexerType(ANTLR_SIZE_HINT, instream, state)
{
 this->init(instream <grammar.delegators:{g|, <g:delegateName()>}
 >);
}

void <name>::init(StreamType* instream<grammar.delegators:{g|, <g.recognizerName>* <g:delegateName()>} >)
{
   /* -----------------------------------------------------------------
    * Memory for basic structure is allocated, now to fill in
    * in base ANTLR3 structures. We initialize the function pointers
    * for the standard ANTLR3 lexer function set, but upon return
    * from here, the programmer may set the pointers to provide custom
    * implementations of each function.
    *
    * We don't use the macros defined in <name>.h here so you can get a sense
    * of what goes where.
    */

<if(memoize)>
<if(grammar.grammarIsRoot)>
   // Create a LIST for recording rule memos.
   //
```

```
   this->setRuleMemo( new IntTrie(15) ); /* 16 bit depth is enough for 32768 rules! */
<endif>
<endif>

<if(grammar.directDelegates)>
 // Initialize the lexers that we are going to delegate some
 // functions to.
 //
 <grammar.directDelegates:
        {g|m_<g:delegateName()>
 = new <g.recognizerName>(instream, this->get_lexstate(), this<grammar.delegators:{g|, <g:delegateName()>}>);};
separator="\n">
<endif>
<if(grammar.delegators)>
 // Install the pointers back to lexers that will delegate us to perform certain functions
 // for them.
 //
 <grammar.delegators:
        {g| m_<g:delegateName()> = <g:delegateName()>;}; separator="\n">
<endif>
}

<if(cyclicDFAs)>

/* =========================================================================
* DFA tables for the lexer
*/
<cyclicDFAs:cyclicDFA()> <! dump tables for all DFA !>
/* =========================================================================
* End of DFA tables for the lexer
*/
<endif>

/* =========================================================================
* Functions to match the lexer grammar defined tokens from the input stream
*/

<rules; separator="\n\n">

/* =========================================================================
* Lexer matching rules end.
* =========================================================================
 */
<if(synpreds)>

/* =========================================================================
* Lexer syntactic predicates
*/
```

```
<synpreds:{p | <lexerSynpred(predname=p)>}>
/* =============================================================================
* Lexer syntactic predicates end.
* =============================================================================
*/
<endif>

/* End of Lexer code
* ================================================
* ================================================
*/

<endNamespace(actions)>

>>



filteringNextToken() ::= <<
<name>ImplTraits::CommonTokenType*
<name>ImplTraits::TokenSourceType::nextToken()
{
   LexerType*   lexer;
   typename LexerType::RecognizerSharedStateType* state;

   lexer   = this->get_super();
   state = lexer->get_lexstate();

   /* Get rid of any previous token (token factory takes care of
    * any deallocation when this token is finally used up.

 */
   state->set_token_present( false );
   state->set_error( false );     /* Start out without an exception */
   state->set_failedflag(false);

   /* Record the start of the token in our input stream.
    */
   state->set_tokenStartCharIndex( lexer->index();
   state->set_tokenStartCharPositionInLine( lexer->getCharPositionInLine() );
   state->set_tokenStartLine( lexer->getLine() );
   state->set_text("");

   /* Now call the matching rules and see if we can generate a new token
    */
   for (;;)
   {
  if (lexer->LA(1) == ANTLR_CHARSTREAM_EOF)
  {
```

```
   /* Reached the end of the stream, nothing more to do.
    */
   CommonTokenType&    teof = m_eofToken;

   teof.set_startIndex(lexer->getCharIndex());
   teof.set_stopIndex(lexer->getCharIndex());
   teof.setLine(lexer->getLine());
   return  &teof;
  }

  state->set_token_present(false);
  state->set_error(false);     /* Start out without an exception */

  {
   ANTLR_MARKER   m;

   m = this->get_istream()->mark();
   state->set_backtracking(1);    /*
 No exceptions */
   state->set_failedflag(false);

   /* Call the generated lexer, see if it can get a new token together.
    */
   lexer->mTokens();
      state->set_backtracking(0);

     <! mTokens backtracks with synpred at BACKTRACKING==2
    and we set the synpredgate to allow actions at level 1. !>

   if(state->get_failed())
   {
    lexer->rewind(m);
    lexer->consume(); <! advance one char and try again !>
   }
   else
   {
    lexer->emit();     /* Assemble the token and emit it to the stream */
    TokenType& tok = state->get_token();
    return &tok;
   }
  }
   }
}
>>

actionGate() ::= "this->get_backtracking()==0"

filteringActionGate() ::= "this->get_backtracking()==1"
```

```
/** How to generate a parser */
genericParser(  grammar, name, scopes, tokens, tokenNames, rules, numRules,
              bitsets, inputStreamType, superClass,
              labelType, members, rewriteElementType,
              filterMode, ASTLabelType="ImplTraits::TreeType*")
 ::= <<

using namespace antlr3;
<if(grammar.grammarIsRoot)>
/** \brief Table of all token names in symbolic order, mainly used for
*         error reporting.
*/
ANTLR_UINT8* <name>TokenNames[<length(tokenNames)>+4]
    = {
       (ANTLR_UINT8*) "\<invalid>",       /* String to print to indicate an invalid token */
       (ANTLR_UINT8*) "\<EOR>",
       (ANTLR_UINT8*) "\<DOWN>",
       (ANTLR_UINT8*) "\<UP>",
       <tokenNames:{it |(ANTLR_UINT8*) <it>}; separator=",\n">
      };
<endif>

   <@members>

   <@end>

/** \brief Name of the grammar file that generated this code
*/
static const char fileName[] = "<fileName>";

/** \brief Return the name of the grammar file that generated this code.
*/
const char* <name>::getGrammarFileName()
{
 return fileName;
}
/** \brief Create a new <name> parser and return a context for it.
*
* \param[in] instream Pointer to an input stream interface.
*
* \return Pointer to new parser context upon success.
*/
<name>::<name>(
 StreamType* instream<grammar.delegators:{g|, <g.recognizerName>* <g:delegateName()>}>)
<constructorInitializerType("NULL")>
{
 // See if we can create a new parser with the standard constructor
```

```
 //
 this->init(instream<grammar.delegators:{g|, <g:delegateName()>}>);
}

/** \brief Create a new <name> parser and return a context for it.
*
* \param[in] instream Pointer to an input stream interface.
*
* \return Pointer to new parser context upon success.
*/
<name>::<name>( StreamType* instream, RecognizerSharedStateType* state<grammar.delegators:{g|,
<g.recognizerName>* <g:delegateName()>}>)
<constructorInitializerType("state")>
{
 this->init(instream <grammar.delegators:{g|, <g:delegateName()>}>);
}

void <name>::init(StreamType* instream<grammar.delegators:{g|, <g.recognizerName>* <g:delegateName()>}>)
{
   <actions.parser.apifuncs>
<if(memoize)>
<if(grammar.grammarIsRoot)>
   /* Create a LIST for recording rule memos.
    */
    typedef RecognizerSharedStateType::RuleMemoType
 RuleMemoType;
    this->setRuleMemo( new RuleMemoType(15) ); /* 16 bit depth is enough for 32768 rules! */<\n>
<endif>
<endif>
<if(grammar.directDelegates)>
 // Initialize the lexers that we are going to delegate some
 // functions to.
 //
 <grammar.directDelegates:
        {g|m_<g:delegateName()> = new <g.recognizerName>(instream, this->get_psrstate(),
this<grammar.delegators:{g|, <g:delegateName()>}>);}; separator="\n">
 <endif>
      <if(grammar.delegators)>
    // Install the pointers back to lexers that will delegate us to perform certain functions
    // for them.
    //
     <grammar.delegators: {g| m_<g:delegateName()> = <g:delegateName()>;}; separator="\n">
 <endif>
 /* Install the token table
 */
 this->get_psrstate()->set_tokenNames( <grammar.composite.rootGrammar.recognizerName>TokenNames );

 <@debugStuff()>
```

```
}

void
<name>::reset()
{
   this->get_rec()->reset();
}

/** Free the parser resources
*/
<name>::~<name>()
{
   <@cleanup>
   <@end>
<if(grammar.directDelegates)>
 //
 Free the parsers that we delegated to
 // functions to.NULL the state so we only free it once.
 //
 <grammar.directDelegates:
        {g| m_<g:delegateName()>->set_psrstate( NULL );
        delete m_<g:delegateName()>;}; separator="\n">
<endif>
<if(memoize)>
<if(grammar.grammarIsRoot)>
 if(this->getRuleMemo() != NULL)
 {
  delete this->getRuleMemo();
  this->setRuleMemo(NULL);
 }
<endif>
<endif>
}

/** Return token names used by this <grammarType()>
*
* The returned pointer is used as an index into the token names table (using the token
* number as the index).
*
* \return Pointer to first char * in the table.
*/
static ANTLR_UINT8** getTokenNames()
{
       return <grammar.composite.rootGrammar.recognizerName>TokenNames;
}

   <members>
```

```
/* Declare the bitsets
*/
<bitsets:{it | <bitsetDeclare(bitsetname={FOLLOW_<it.name>_in_<it.inName><it.tokenIndex>},
                  words64=it.bits, traits={<name>ImplTraits} )>}>


<if(cyclicDFAs)>

/* =========================================================================
 * DFA tables for the parser
*/
<cyclicDFAs:cyclicDFA()> <! dump tables for all DFA !>
/* =========================================================================
* End of DFA tables for the parser
*/
<endif>

/* =============================================
* Parsing rules
*/
<rules; separator="\n\n">
<if(grammar.delegatedRules)>
 // Delegated methods that appear to be a part of this
 // parser
 //
<grammar.delegatedRules:{ruleDescriptor|
   <returnType()> <name>::<ruleDescriptor.name>(<ruleDescriptor.parameterScope:parameterScope()>)
   {
       <if(ruleDescriptor.hasReturnValue)>return <endif>m_<ruleDescriptor.grammar:delegateName()>-
><ruleDescriptor.name>(<if(ruleDescriptor.parameterScope)><ruleDescriptor.parameterScope.attributes:{a|<a.nam
e>}; separator=", "><endif>);
   \}}; separator="\n">

<endif>
/* End of parsing rules
* =============================================
*/

/* =============================================
 * Syntactic predicates
*/
<synpreds:{p | <synpred(predname=p)>}>
/* End of syntactic predicates
* =============================================
*/

>>
```

```
constructorInitializerType(rec_state) ::=<<
<if(PARSER)>
   :ImplTraits::BaseParserType(ANTLR_SIZE_HINT, instream, <rec_state>)
<endif>
<if(TREE_PARSER)>
   :ImplTraits::BaseTreeParserType(ANTLR_SIZE_HINT, instream, <rec_state>)
<endif>
>>

parser( grammar,
  name,
  scopes,
  tokens,
  tokenNames,
  rules,
  numRules,
  bitsets,
  ASTLabelType,
  superClass="Parser",
  labelType="const ImplTraits::CommonTokenType*",
  members={<actions.parser.members>}
  ) ::= <<
<beginNamespace(actions)>
<genericParser(inputStreamType="CommonTokenStreamType*", rewriteElementType="Token", filterMode=false,
...)>
<endNamespace(actions)>
>>

/** How to generate a tree parser; same as parser except the input
*  stream is a different type.
*/
treeParser( grammar,
   name,
   scopes,
   tokens,
   tokenNames,
   globalAction,
   rules,
   numRules,
   bitsets,
   filterMode,
   labelType={<ASTLabelType>},
   ASTLabelType="ImplTraits::TreeType*",
   superClass="TreeParser",
   members={<actions.treeparser.members>}
   )
```

```
 ::= <<
<beginNamespace(actions)>
<genericParser(inputStreamType="CommonTreeNodeStream*", rewriteElementType="Node", ...)>
<endNamespace(actions)>
>>

/** A simpler version of a rule template that is specific to the imaginary
*  rules created for syntactic predicates.  As they never have return values
*  nor parameters etc..., just give simplest possible method.  Don't do
*  any of the normal memoization stuff in here either; it's a waste.
*  As predicates cannot be inlined into the invoking rule, they need to
*  be in a rule by themselves.
*/
synpredRule(ruleName, ruleDescriptor, block, description, nakedBlock) ::=
<<
// $ANTLR start <ruleName>
void <name>::m<ruleName>_fragment( <ruleDescriptor.parameterScope:parameterScope()> )
{
 <ruleLabelDefs()>
 <ruleLabelInitializations()>
<if(trace)>
    ANTLR_PRINTF("enter <ruleName> %d failed = %d, backtracking = %d\\n", this->LT(1),failed,this->get_backtracking() );
   <block>
   ANTLR_PRINTF("exit <ruleName> %d, failed = %d, backtracking = %d\\n", this->LT(1),failed,this->get_backtracking());

<else>
   <block>
<endif>

goto rule<ruleDescriptor.name>Ex; /* Prevent compiler warnings */
rule<ruleDescriptor.name>Ex: ;
}
// $ANTLR end <ruleName>
>>

synpred(predname) ::= <<

bool <name>::msynpred( antlr3::ClassForwarder\< <predname> >  )
{
   ANTLR_MARKER   start;
   bool  success;

   this->inc_backtracking();
   <@start()>
   start = this->mark();
   this->m<predname>_fragment();     // can never throw exception
```

```
   success = !( this->get_failedflag() );
   this->rewind(start);
   <@stop()>
   this->dec_backtracking();
   this->set_failedflag(false);
   return success;
}<\n>
>>

lexerSynpred(predname) ::= <<
<synpred(predname)>
>>

ruleMemoization(rname) ::= <<
<if(memoize)>
if ( (this->get_backtracking()>0)
 && (this->haveParsedRule(<ruleDescriptor.index>)) )
{
<if(ruleDescriptor.hasMultipleReturnValues)>
<if(!ruleDescriptor.isSynPred)>
 retval.start = 0;<\n>
<endif>
<endif>
   <(ruleDescriptor.actions.after):execAfter()>
   <finalCode(finalBlock=finally)>
<if(!ruleDescriptor.isSynPred)>
   <scopeClean()><\n>
<endif>
   return <ruleReturnValue()>;
}
<endif>
>>

/** How to test for failure and return from rule */
checkRuleBacktrackFailure() ::= <<
if  (this->hasException())
{
   goto rule<ruleDescriptor.name>Ex;
}
<if(backtracking)>
if (this->hasFailed())
{
   <scopeClean()>
   <@debugClean()>
   return <ruleReturnValue()>;
}
<endif>
>>
```

```
/** This rule has failed, exit indicating failure during backtrack */
ruleBacktrackFailure() ::= <<
<if(backtracking)>
if (this->get_backtracking()>0)
{
   this->set_failedflag( true );
   <scopeClean()>
   return <ruleReturnValue()>;
}
<endif>
>>

/** How to generate code for a rule.  This includes any return type
*  data aggregates required
 for multiple return values.
*/
rule(ruleName,ruleDescriptor,block,emptyRule,description,exceptions,finally,memoize) ::= <<
/**
* $ANTLR start <ruleName>
* <fileName>:<description>
*/
<returnType()>
<name>::<ruleName>(<ruleDescriptor.parameterScope:parameterScope()>)
{
   <if(trace)>ANTLR_PRINTF("enter <ruleName> %s failed=%d, backtracking=%d\n", this->LT(1), this-
>get_backtracking() );<endif>
   <ruleDeclarations()>
   <ruleDescriptor.actions.declarations>
   <ruleLabelDefs()>
   <ruleInitializations()>
   <ruleDescriptor.actions.init>
   <ruleMemoization(rname=ruleName)>
   <ruleLabelInitializations()>

   <if(actions.(actionScope).rulecatch)>
    try {
   <else>
   <if(exceptions)>
       try {
   <endif>
   <endif>
   <@preamble()>
   {
       <block>
   }
   <ruleCleanUp()>
```

```
<if(exceptions)>
  <(ruleDescriptor.actions.after):execAfter()>
  <exceptions:{e|<catch(decl=e.decl,action=e.action)><\n>}>
<else>
  <if(!emptyRule)>
   if (this->hasException())
       {
          this->preporterror();
          this->precover();
          <@setErrorReturnValue()>
      }
      <if(ruleDescriptor.actions.after)>
      else
      {
          <(ruleDescriptor.actions.after):execAfter()>
      }<\n>
      <endif>
 <if(actions.(actionScope).rulecatch)>
    } <actions.(actionScope).rulecatch>
      <endif>
  <endif>
<endif>

  <if(trace)>ANTLR_PRINTF("exit <ruleName> %d failed=%s backtracking=%s\n", this->LT(1), failed, this->get_backtracking() );<endif>
  <memoize()>
<if(finally)>
  <finalCode(finalBlock=finally)>
<endif>
  <scopeClean()>
  <@postamble()>
  return <ruleReturnValue()>;
}
/* $ANTLR end <ruleName> */
>>

finalCode(finalBlock) ::= <<
{
  <finalBlock>
}

>>

catch(decl,action) ::= <<
/* catch(decl,action)
*/
}catch (<e.decl>) {
 <e.action>
```

```
}
>>

ruleDeclarations() ::= <<

<if(ruleDescriptor.hasMultipleReturnValues)>
<returnType()> retval(this);<\n>
<else>
<if(PARSER)>
   <name>ImplTraits::RuleReturnValueType
 _antlr_rule_exit(this);
<endif>
<if(ruleDescriptor.returnScope)>
<ruleDescriptor.returnScope.attributes:{ a |
<a.type> <a.name>;
}>
<endif>
<endif>
<if(memoize)>
ANTLR_MARKER <ruleDescriptor.name>_StartIndex;
<endif>
>>

ruleInitializations() ::= <<
/* Initialize rule variables
*/
<if(ruleDescriptor.returnScope)>
<if(ruleDescriptor.hasMultipleReturnValues)>
<ruleDescriptor.returnScope.attributes:{ a | <if(a.initValue)>retval.<a.name> = <a.initValue>;<endif> }>
<else>
<ruleDescriptor.returnScope.attributes:{ a | <if(a.initValue)><a.name> = <a.initValue>;<endif> }>
<endif>
<endif>
<if(memoize)>
<ruleDescriptor.name>_StartIndex = this->index();<\n>
<endif>
<ruleDescriptor.useScopes:{it | m_<it>_stack.push(<it>Scope()); }; separator="\n">
<ruleDescriptor.ruleScope:{it | m_<it.name>_stack.push(<it.name>Scope()); }; separator="\n">
>>

ruleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,ruleDescriptor.tokenListLabels,
 ruleDescriptor.wildcardTreeLabels,ruleDescriptor.wildcardTreeListLabels]
    :{it |<labelType> <it.label.text> = NULL;}; separator="\n"
>
<[ruleDescriptor.tokenListLabels,ruleDescriptor.ruleListLabels,ruleDescriptor.wildcardTreeListLabels]
   :{it |ImplTraits::TokenPtrsListType list_<it.label.text>;}; separator="\n"
>
```

```
<ruleDescriptor.ruleLabels:ruleLabelDef(); separator="\n">
>>

ruleLabelInitializations() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
<if(!ruleDescriptor.isSynPred)>
retval.call_start_placeholder();
<endif>
<endif>
>>

lexerRuleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,
 ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleLabels]
   :{it |<labelType> <it.label.text> = NULL;}; separator="\n"
>
<ruleDescriptor.charLabels:{it |ANTLR_UINT32 <it.label.text>;}; separator="\n">
<[ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleListLabels,
 ruleDescriptor.ruleListLabels]
   :{it | ImplTraits::IntTrieType<CommonTokenType>* list_<it.label.text>;}; separator="\n"
>
>>

lexerRuleLabelInit() ::= <<
<[ruleDescriptor.tokenListLabels,
  ruleDescriptor.ruleListLabels,
 ruleDescriptor.ruleListLabels]
   :{it |list_<it.label.text> = new ImplTraits::IntTrieType<CommonTokenType>(31);}; separator="\n"
>
>>

lexerRuleLabelFree() ::= <<
<[ruleDescriptor.tokenLabels,
 ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleLabels]
   :{it |<it.label.text> = NULL;}; separator="\n"
>
<[ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleListLabels,
 ruleDescriptor.ruleListLabels]
   :{it | delete list_<it.label.text>;}; separator="\n"
>
>>

ruleReturnValue() ::= <%
<if(!ruleDescriptor.isSynPred)>
```

```
<if(ruleDescriptor.hasReturnValue)>
<if(ruleDescriptor.hasSingleReturnValue)>
<ruleDescriptor.singleValueReturnName>
<else>
retval
<endif>
<endif>
<endif>
%>

memoize() ::= <<
<if(memoize)>
<if(backtracking)>
if ( this->get_backtracking() > 0 ) { this->memoize(<ruleDescriptor.index>, <ruleDescriptor.name>_StartIndex); }
<endif>
<endif>
>>

ruleCleanUp() ::= <<

// This is where rules clean up and exit
//
goto
 rule<ruleDescriptor.name>Ex; /* Prevent compiler warnings */
rule<ruleDescriptor.name>Ex: ;
<if(ruleDescriptor.hasMultipleReturnValues)>
<if(!TREE_PARSER)>
<if(!ruleDescriptor.isSynPred)>
retval.call_stop_placeholder();<\n>
<endif>
<endif>
<endif>
>>

scopeClean() ::= <<
<ruleDescriptor.useScopes:{it | m_<it>_stack.pop(); }; separator="\n">
<ruleDescriptor.ruleScope:{it | m_<it.name>_stack.pop(); }; separator="\n">

>>
/** How to generate a rule in the lexer; naked blocks are used for
*  fragment rules, which do not produce tokens.
*/
lexerRule(ruleName,nakedBlock,ruleDescriptor,block,memoize) ::= <<
//   Comes from: <block.description>
/** \brief Lexer rule generated by ANTLR3
*
* $ANTLR start <ruleName>
*
```

```
* Looks to match the characters the constitute the token <ruleName>
* from the attached input stream.
*
*
* \remark
*  - lexer->error == true if an exception was thrown.
*/
void <name>::m<ruleName>(<ruleDescriptor.parameterScope:parameterScope()>)
{
   ANTLR_UINT32 _type;
    <ruleDeclarations()>
   <ruleDescriptor.actions.declarations>
   <lexerRuleLabelDefs()>
   <if(trace)>
   std::cout \<\< "enter <ruleName> '" \<\< (char)this->LA(1)
             \<\< "' line=" \<\< this->getLine() \<\< ":" \<\< this->getCharPositionInLine()
             \<\< " failed=" \<\< this->get_failedflag() \<\< " backtracking=" \<\< this->get_backtracking() \<\<
std::endl;
   <endif>

<if(nakedBlock)>
   <ruleMemoization(rname=ruleName)>
   <lexerRuleLabelInit()>
   <ruleDescriptor.actions.init>

   <block><\n>
<else>
   <ruleMemoization(rname=ruleName)>
   <lexerRuleLabelInit()>
   _type     = <ruleName>;

   <ruleDescriptor.actions.init>

   <block>
 this->get_lexstate()->set_type(_type);
<endif>
   <if(trace)>
   std::cout \<\< "exit <ruleName> '" \<\< (char)this->LA(1)
             \<\< "' line=" \<\< this->getLine() \<\< ":" \<\< this->getCharPositionInLine()
             \<\< " failed=" \<\< this->get_failedflag() \<\< " backtracking="
 \<\< this->get_backtracking() \<\< std::endl;
   <endif>
   <ruleCleanUp()>
   <lexerRuleLabelFree()>
   <(ruleDescriptor.actions.after):execAfter()>
   <memoize>
}
// $ANTLR end <ruleName>
```

```
>>

/** How to generate code for the implicitly-defined lexer grammar rule
*  that chooses between lexer rules.
*/
tokensRule(ruleName,nakedBlock,args,block,ruleDescriptor) ::= <<
/** This is the entry point in to the lexer from an object that
*  wants to generate the next token, such as a pCOMMON_TOKEN_STREAM
*/
void
<name>::mTokens()
{
   <block><\n>

   goto ruleTokensEx; /* Prevent compiler warnings */
ruleTokensEx: ;
}
>>

// S U B R U L E S

/** A (...) subrule with multiple alternatives */
block(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<

// <fileName>:<description>
{
   int alt<decisionNumber>=<maxAlt>;
   <decls>
   <@predecision()>
   <decision>
   <@postdecision()>
   <@prebranch()>
   switch (alt<decisionNumber>)

   {
 <alts:{a | <altSwitchCase(i,a)>}>
   }
   <@postbranch()>
}
>>

/** A rule block with multiple alternatives */
ruleBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
{
   //  <fileName>:<description>

   ANTLR_UINT32 alt<decisionNumber>;
```

```
   alt<decisionNumber>=<maxAlt>;

   <decls>
   <@predecision()>
   <decision>
   <@postdecision()>
   switch (alt<decisionNumber>)
   {
 <alts:{a | <altSwitchCase(i,a)>}>
   }
}
>>

ruleBlockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
// <fileName>:<description>
<decls>
<@prealt()>
<alts>
<@postalt()>
>>

/** A special case of a (...) subrule with a single alternative */
blockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
// <fileName>:<description>
<decls>
<@prealt()>
<alts>
<@postalt()>
>>

/** A (..)+ block with 1 or more alternatives */
positiveClosureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,descriptio
n)
 ::= <<
// <fileName>:<description>
{
   int cnt<decisionNumber>=0;
   <decls>
   <@preloop()>

   for (;;)
   {
       int alt<decisionNumber>=<maxAlt>;
 <@predecision()>
 <decision>
 <@postdecision()>
 switch (alt<decisionNumber>)
 {
```

```
    <alts:{a | <altSwitchCase(i,a)>}>
    default:

  if ( cnt<decisionNumber> >= 1 )
  {
      goto loop<decisionNumber>;
  }
  <ruleBacktrackFailure()>
  <earlyExitEx()>
  <@earlyExitException()>
  goto rule<ruleDescriptor.name>Ex;
 }
 cnt<decisionNumber>++;
   }
   loop<decisionNumber>: ; /* Jump to here if this rule does not match */
   <@postloop()>
}
>>

earlyExitEx() ::= <<
/* mismatchedSetEx()
*/
new ANTLR_Exception\< <name>ImplTraits, EARLY_EXIT_EXCEPTION, StreamType>( this->get_rec(), "" );
<\n>
>>
positiveClosureBlockSingleAlt ::= positiveClosureBlock

/** A (..)* block with 1 or more alternatives */
closureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description)
 ::= <<

// <fileName>:<description>
<decls>

<@preloop()>
for (;;)
{
   int alt<decisionNumber>=<maxAlt>;
   <@predecision()>
   <decision>
   <@postdecision()>
   switch (alt<decisionNumber>)
   {
 <alts:{a | <altSwitchCase(i,a)>}>
 default:
     goto loop<decisionNumber>; /* break out of the loop */
     break;
   }
```

```
}
loop<decisionNumber>: ; /* Jump out to here if this rule does not match */
<@postloop()>
>>

closureBlockSingleAlt ::= closureBlock

/** Optional blocks (x)? are translated to (x|) by antlr before code generation
*  so we can just use the normal block template
*/
optionalBlock ::= block

optionalBlockSingleAlt ::= block

/** A case in a switch that jumps to an alternative given the alternative
*  number.  A DFA predicts the alternative and then a simple switch
*  does the jump to the code that actually matches that alternative.
*/
altSwitchCase(altNum,alt) ::= <<
case <altNum>:
   <@prealt()>
   <alt>
   break;<\n>
>>

/**
 An alternative is just a list of elements; at outermost level */
alt(elements,altNum,description,autoAST,outerAlt,treeLevel,rew) ::= <<
// <fileName>:<description>
{
   <@declarations()>
   <@initializations()>
   <elements:element()>
   <rew>
   <@cleanup()>
}
>>

// E L E M E N T S
/** What to emit when there is no rewrite.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel, treeLevel) ::= ""

/** Dump the elements one per line */
element(e) ::= <<
<@prematch()>
<e.el><\n>
```

```
>>

/** match a token optionally with a label in front */
tokenRef(token,label,elementIndex,terminalOptions) ::= <<
<if(label)><label> = <endif> this->matchToken(<token>, &FOLLOW_<token>_in_<ruleName><elementIndex>);
<checkRuleBacktrackFailure()>
>>

/** ids+=ID */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRef(...)>
<listLabel(elem=label,...)>
>>

listLabel(label,elem) ::= <<
list_<label>.push_back(<elem>);
>>



/** match a character */
charRef(char,label)
 ::= <<
<if(label)>
<label> = this->LA(1);<\n>
<endif>
this->matchc(<char>);
<checkRuleBacktrackFailure()>
>>

/** match a character range */
charRangeRef(a,b,label) ::= <<
<if(label)>
<label> = this->LA(1);<\n>
<endif>
this->matchRange(<a>, <b>);
<checkRuleBacktrackFailure()>
>>

/** For now, sets are interval tests and must be tested inline */
matchSet(s,label,elementIndex,terminalOptions,postmatchCode="") ::= <<
<if(label)>
<if(LEXER)>
<label>= this->LA(1);<\n>
<else>
<label>=(<labelType>) this->LT(1);<\n>
<endif>
<endif>
if ( <s> )
```

```
{
  this->consume();
  <postmatchCode>
<if(!LEXER)>
  this->set_perror_recovery(false);
<endif>
  <if(backtracking)> this->set_failedflag(false); <\n><endif>
}
else
{
  <ruleBacktrackFailure()>
  <mismatchedSetEx()>
  <@mismatchedSetException()>
<if(LEXER)>
  this->recover();
<else>
<! use following code to make it recover inline;
  this->recoverFromMismatchedSet(&FOLLOW_set_in_<ruleName><elementIndex>);
!>
<endif>
  goto rule<ruleDescriptor.name>Ex;
}<\n>
>>

mismatchedSetEx()
 ::= <<
new ANTLR_Exception\< <name>ImplTraits, MISMATCHED_SET_EXCEPTION, StreamType>( this->get_rec(),
"" );
<if(PARSER)>
this->get_exception()->set_expectingSet(NULL);
<! use following code to make it recover inline;
this->get_exception()->set_expectingSet( &FOLLOW_set_in_<ruleName><elementIndex> );
!>
<endif>
>>

matchRuleBlockSet ::= matchSet

matchSetAndListLabel(s,label,elementIndex,postmatchCode) ::= <<
<matchSet(...)>
<listLabel(elem=label,...)>
>>

/** Match a string literal */
lexerStringRef(string,label,elementIndex) ::= <<
<if(label)>
ANTLR_MARKER <label>Start = this->getCharIndex();
ANTLR_UINT32 <label>StartLine<elementIndex> = this->getLine();
```

```
ANTLR_UINT32 <label>StartCharPos<elementIndex> = this->getCharPositionInLine();
this->matchs(<string>);
<checkRuleBacktrackFailure()>
<label> = new CommonTokenType;
<label>->set_type( CommonTokenType::TOKEN_INVALID );
<label>->set_startIndex( <label>Start);
<label>->set_stopIndex(
 this->getCharIndex()-1);
<label>->set_input( this->get_input() );
<label>->set_line( <label>StartLine<elementIndex> );
<label>->set_charPositionInLine( <label>StartCharPos<elementIndex> );
<else>
this->matchs(<string>);
<checkRuleBacktrackFailure()><\n>
<endif>
>>

wildcard(token,label,elementIndex,terminalOptions) ::= <<
<if(label)>
<label>=(<labelType>)this->LT(1);<\n>
<endif>
this->matchAnyToken();
<checkRuleBacktrackFailure()>
>>

wildcardAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<wildcard(...)>
<listLabel(elem=label,...)>
>>

/** Match . wildcard in lexer */
wildcardChar(label, elementIndex) ::= <<
<if(label)>
<label> = this->LA(1);<\n>
<endif>
this->matchAny();
<checkRuleBacktrackFailure()>
>>

wildcardCharListLabel(label, elementIndex) ::= <<
<wildcardChar(...)>
<listLabel(elem=label,...)>
>>

/** Match a rule reference by invoking it possibly with arguments
*  and a return value or values. The 'rule' argument was the
*  target rule name, but now is type
```

```
 Rule, whose toString is
*  same: the rule name.  Now though you can access full rule
*  descriptor stuff.
*/
ruleRef(rule,label,elementIndex,args,scope) ::= <<
this->followPush(FOLLOW_<rule.name>_in_<ruleName><elementIndex>);
<if(label)><label>=<endif><if(scope)>m_<scope:delegateName()>-><endif><rule.name>(<if(args)><args;
separator=", "><endif>);<\n>
this->followPop();
<checkRuleBacktrackFailure()>
>>

/** ids+=r */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabel(elem=label,...)>
>>

/** A lexer rule reference
*  The 'rule' argument was the target rule name, but now
*  is type Rule, whose toString is same: the rule name.
*  Now though you can access full rule descriptor stuff.
*/
lexerRuleRef(rule,label,args,elementIndex,scope) ::= <<
/* <description> */
<if(label)>
{
   ANTLR_MARKER <label>Start<elementIndex> = this->getCharIndex();
   ANTLR_UINT32 <label>StartLine<elementIndex> = this->getLine();
   ANTLR_UINT32 <label>StartCharPos<elementIndex>
 = this->getCharPositionInLine();
   <if(scope)>m_<scope:delegateName()>-><endif>m<rule.name>(<if(scope)>m_<scope:delegateName()><endif>
<if(args)>, <endif><args; separator=", ">);
   <checkRuleBacktrackFailure()>
   <label> = new CommonTokenType();
   <label>->set_type( CommonTokenType::TOKEN_INVALID);
   <label>->set_startIndex( <label>Start<elementIndex> );
   <label>->set_stopIndex( this->getCharIndex()-1 );
   <label>->set_input( this->get_input() );
   <label>->set_line( <label>StartLine<elementIndex> );
   <label>->set_charPositionInLine( <label>StartCharPos<elementIndex> );
}
<else>
<if(scope)>m_<scope:delegateName()>-><endif>m<rule.name>(<args; separator=", ">);
<checkRuleBacktrackFailure()>
<endif>
>>
```

```
/** i+=INT in lexer */
lexerRuleRefAndListLabel(rule,label,args,elementIndex,scope) ::= <<
<lexerRuleRef(...)>
<listLabel(elem=label,...)>
>>

/** EOF in the lexer */
lexerMatchEOF(label,elementIndex) ::= <<
<if(label)>
{
   ANTLR_UINT32 <label>Start<elementIndex>;
    ANTLR_UINT32 <label>StartLine<elementIndex> = this->getLine();
   ANTLR_UINT32 <label>StartCharPos<elementIndex> = this->getCharPositionInLine();
   <labelType> <label>;
   <label>Start<elementIndex> = this->getCharIndex();
   this->matchc(ANTLR_CHARSTREAM_EOF);
   <checkRuleBacktrackFailure()>
   <label> = new CommonTokenType();
   <label>->set_type( CommonTokenType::TOKEN_EOF );
   <label>->set_startIndex(<label>Start<elementIndex>);
   <label>->set_stopIndex(this->getCharIndex()-1);
   <label>->set_input( this->get_input() );
   <label>->set_line( <label>StartLine<elementIndex> );
   <label>->set_charPositionInLine( <label>StartCharPos<elementIndex> );
}
<else>
   this->matchc(ANTLR_CHARSTREAM_EOF);
   <checkRuleBacktrackFailure()>
   <endif>
>>

// used for left-recursive rules
recRuleDefArg()                       ::= "int <recRuleArg()>"
recRuleArg()                          ::= "_p"
recRuleAltPredicate(ruleName,opPrec)  ::= "<recRuleArg()> \<= <opPrec>"
recRuleSetResultAction()
              ::= "root_0=$<ruleName>_primary.tree;"
recRuleSetReturnAction(src,name)      ::= "$<name>=$<src>.<name>;"

/** match ^(root children) in tree parser */
tree(root, actionsAfterRoot, children, nullableChildList, enclosingTreeLevel, treeLevel) ::= <<
<root:element()>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if ( this->LA(1)== CommonTokenType::TOKEN_DOWN ) {
   this->matchToken(CommonTokenType::TOKEN_DOWN, NULL);
   <checkRuleBacktrackFailure()>
   <children:element()>
```

```
  this->matchToken(CommonTokenType::TOKEN_UP, NULL);
  <checkRuleBacktrackFailure()>
}
<else>
this->matchToken(CommonTokenType::TOKEN_DOWN, NULL);
<checkRuleBacktrackFailure()>
<children:element()>
this->matchToken(CommonTokenType::TOKEN_UP, NULL);
<checkRuleBacktrackFailure()>
<endif>
>>

/** Every predicate is used as a validating predicate (even when it is
*  also hoisted into a prediction expression).
*/
validateSemanticPredicate(pred,description) ::= <<
if
 ( !(<evalPredicate(...)>) )
{
  <ruleBacktrackFailure()>
  <newFPE(...)>
}
>>

newFPE() ::= <<
 ExceptionBaseType* ex = new ANTLR_Exception\< <name>ImplTraits, FAILED_PREDICATE_EXCEPTION, StreamType>( this->get_rec(), "<description>" );
  ex->set_ruleName( "<ruleName>" );
  <\n>
>>

// F i x e d  D F A  (if-then-else)

dfaState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<

{
  int LA<decisionNumber>_<stateNumber> = this->LA(<k>);
  <edges; separator="\nelse ">
  else
  {
<if(eotPredictsAlt)>
    alt<decisionNumber>=<eotPredictsAlt>;
<else>
    <ruleBacktrackFailure()>

    <newNVException()>
    goto rule<ruleDescriptor.name>Ex;
```

```
<endif>
   }
}
>>

newNVException() ::= <<
ExceptionBaseType* ex = new ANTLR_Exception\< <name>ImplTraits, NO_VIABLE_ALT_EXCEPTION,
StreamType>( this->get_rec(), "<description>" );
ex->set_decisionNum( <decisionNumber> );
ex->set_state( <stateNumber> );
<@noViableAltException()>
<\n>
>>

/** Same as a normal
 DFA state except that we don't examine lookahead
*  for the bypass alternative.  It delays error detection but this
*  is faster, smaller, and more what people expect.  For (X)? people
*  expect "if ( LA(1)==X ) match(X);" and that's it.
*/
dfaOptionalBlockState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
{
   int LA<decisionNumber>_<stateNumber> = this->LA(<k>);
   <edges; separator="\nelse ">
}
>>

/** A DFA state that is actually the loopback decision of a closure
*  loop.  If end-of-token (EOT) predicts any of the targets then it
*  should act like a default clause (i.e., no error can be generated).
*  This is used only in the lexer so that for ('a')* on the end of a rule
*  anything other than 'a' predicts exiting.
*/

dfaLoopbackStateDecls()::= <<
ANTLR_UINT32   LA<decisionNumber>_<stateNumber>;
>>
dfaLoopbackState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
{
  /* dfaLoopbackState(k,edges,eotPredictsAlt,description,stateNumber,semPredState)
    */
   int LA<decisionNumber>_<stateNumber> = this->LA(<k>);
   <edges; separator="\nelse "><\n>
   <if(eotPredictsAlt)>
   <if(!edges)>
 alt<decisionNumber>=<eotPredictsAlt>; <! if no edges, don't gen ELSE !>
 <else>
   else
```

```
  {
 alt<decisionNumber>=<eotPredictsAlt>;
  }<\n>
  <endif>
  <endif>
}
>>

/** An accept state indicates a unique alternative has been predicted */
dfaAcceptState(alt) ::= "alt<decisionNumber>=<alt>;"

/** A simple edge with an expression.  If the expression is satisfied,
*  enter to the target state.  To handle gated productions, we may
*  have to evaluate some predicates for this edge.
*/
dfaEdge(labelExpr, targetState, predicates) ::= <<
if ( (<labelExpr>)<if(predicates)> && (<predicates>)<endif>)
{
  <targetState>
}
>>

// F i x e d  D F A  (switch case)

/** A DFA state where a SWITCH may be generated.  The code generator
*  decides if this is possible: CodeGenerator.canGenerateSwitch().
*/
dfaStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState)
 ::= <<
switch ( this->LA(<k>) )
{
<edges; separator="\n">

default:
<if(eotPredictsAlt)>
  alt<decisionNumber>=<eotPredictsAlt>;
<else>
  <ruleBacktrackFailure()>
  <newNVException()>
  goto rule<ruleDescriptor.name>Ex;<\n>
<endif>
}<\n>
>>

dfaOptionalBlockStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch ( this->LA(<k>) )
{
  <edges; separator="\n">
```

```
}<\n>
>>

dfaLoopbackStateSwitch(k, edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch ( this->LA(<k>) )
{
<edges; separator="\n"><\n>
<if(eotPredictsAlt)>
default:
   alt<decisionNumber>=<eotPredictsAlt>;
   break;<\n>
<endif>
}<\n>
>>

dfaEdgeSwitch(labels, targetState) ::= <<
<labels:{it |case <it>:}; separator="\n">
 {
  <targetState>
 }
   break;
>>

// C y c l i c  D F A

/** The code to initiate execution of a cyclic DFA; this is used
*  in the rule to predict an alt just like the fixed DFA case.
*  The
 <name> attribute is inherited via the parser, lexer, ...
*/
dfaDecision(decisionNumber,description) ::= <<
alt<decisionNumber> = cdfa<decisionNumber>.predict(this, this->get_rec(), this->get_istream(),
cdfa<decisionNumber> );
<checkRuleBacktrackFailure()>
>>

/* Dump DFA tables as static initialized arrays of shorts(16 bits)/characters(8 bits)
* which are then used to statically initialize the dfa structure, which means that there
* is no runtime initialization whatsoever, other than anything the C compiler might
* need to generate. In general the C compiler will lay out memory such that there is no
* runtime code required.
*/
cyclicDFA(dfa) ::= <<
/** Static dfa state tables for Cyclic dfa:
*    <dfa.description>
*/
static const ANTLR_INT32 dfa<dfa.decisionNumber>_eot[<dfa.numberOfStates>] =
   {
```

```
 <dfa.eot; wrap="\n", separator=", ", null="-1">
   };
static const ANTLR_INT32 dfa<dfa.decisionNumber>_eof[<dfa.numberOfStates>] =
   {
 <dfa.eof; wrap="\n", separator=", ", null="-1">
    };
static const ANTLR_INT32 dfa<dfa.decisionNumber>_min[<dfa.numberOfStates>] =
   {
 <dfa.min; wrap="\n", separator=", ", null="-1">
   };
static const ANTLR_INT32 dfa<dfa.decisionNumber>_max[<dfa.numberOfStates>] =
   {
 <dfa.max; wrap="\n", separator=", ", null="-1">
   };
static const ANTLR_INT32 dfa<dfa.decisionNumber>_accept[<dfa.numberOfStates>] =
   {
 <dfa.accept; wrap="\n", separator=", ", null="-1">
   };
static const ANTLR_INT32 dfa<dfa.decisionNumber>_special[<dfa.numberOfStates>] =
   {
 <dfa.special; wrap="\n", separator=", ", null="-1">
   };

/** Used when there is no transition table entry for a particular state */
static const ANTLR_INT32* dfa<dfa.decisionNumber>_T_empty  =   NULL;

<dfa.edgeTransitionClassMap.keys:{ table |
static const ANTLR_INT32 dfa<dfa.decisionNumber>_T<i0>[] =
   {
 <table; separator=", ", wrap="\n", null="-1">
   \};<\n>}; null = "">

/* Transition tables are a table of sub tables, with some tables
* reused for efficiency.
 */
static const ANTLR_INT32 * const dfa<dfa.decisionNumber>_transitions[] =
{
   <dfa.transitionEdgeTables:{xref|dfa<dfa.decisionNumber>_T<xref>}; separator=", ", wrap="\n", null="NULL">
};

<@errorMethod()>

/* Declare tracking structure for Cyclic DFA <dfa.decisionNumber>
*/
class <name>CyclicDFA<dfa.decisionNumber> : public CyclicDFA\< <name>ImplTraits, <name> >, public
<name>Tokens
{
public:
```

```
 typedef CyclicDFA\< <name>ImplTraits, <name> >  BaseType;
 typedef BaseType::ContextType CtxType;

private:
<if(dfa.specialStateSTs)>
 //to maintain C-Target compatibility, we need to make some of ctx functions look like member funcs
 CtxType* m_ctx;
<endif>

public:
 <name>CyclicDFA<dfa.decisionNumber>( ANTLR_INT32 decisionNumber
     , const ANTLR_UCHAR* description
     , const ANTLR_INT32* const eot
     , const ANTLR_INT32* const eof
     , const ANTLR_INT32* const min
     , const ANTLR_INT32* const max
     , const ANTLR_INT32* const accept
     , const ANTLR_INT32* const special
     ,
 const ANTLR_INT32* const *const transition)
     :BaseType( decisionNumber, description, eot, eof, min, max, accept,
        special, transition )
 {
 <if(dfa.specialStateSTs)>
  m_ctx = NULL;
 <endif>
 }

   <if(dfa.specialStateSTs)>
   ANTLR_UINT32 LA(ANTLR_INT32 i)
   {
      return m_ctx->LA(i);
   }

   <if(PARSER)>
   const CtxType::CommonTokenType*  LT(ANTLR_INT32 k)
   {
      return m_ctx->LT(k);
   }
   <endif>
   <if(synpreds)>
   template\<typename PredType>
   bool msynpred( PredType pred )
   {
      return m_ctx->msynpred(pred);
   }
   <endif>
```

```
 ANTLR_INT32  specialStateTransition(CtxType * ctx, RecognizerType* recognizer, IntStreamType* is,
ANTLR_INT32 s)
 {
    ANTLR_INT32    _s;

    m_ctx = ctx;
    _s     = s;
    switch  (s)
    {
    <dfa.specialStateSTs:{state |
    case <i0>:

  <state>}; separator="\n">
    }
 <if(backtracking)>
    if ( ctx->get_backtracking() > 0)
    {
   ctx->set_failedflag( true );
  return -1;

   }
 <endif>
    ExceptionBaseType* ex = new ANTLR_Exception\< <name>ImplTraits, NO_VIABLE_ALT_EXCEPTION,
StreamType>( recognizer, "<dfa.description>" );
    ex->set_decisionNum( <dfa.decisionNumber> );
    ex->set_state(_s);
    <@noViableAltException()>
    return -1;
 }
 <endif>
};

static <name>CyclicDFA<dfa.decisionNumber>  cdfa<dfa.decisionNumber>(
    <dfa.decisionNumber>,      /* Decision number of this dfa     */
    /* Which decision this represents:   */
    (const ANTLR_UCHAR*)"<dfa.description>",
    dfa<dfa.decisionNumber>_eot,     /* EOT table       */
    dfa<dfa.decisionNumber>_eof,     /* EOF table       */
    dfa<dfa.decisionNumber>_min,     /* Minimum tokens for each state    */
    dfa<dfa.decisionNumber>_max,     /* Maximum tokens for each state    */
    dfa<dfa.decisionNumber>_accept, /* Accept table       */
    dfa<dfa.decisionNumber>_special, /* Special transition states     */
    dfa<dfa.decisionNumber>_transitions /* Table of transition
 tables     */

 );
```

```
/* End of Cyclic DFA <dfa.decisionNumber>
* ---------------------
*/
>>

/** A state in a cyclic DFA; it's a special state and part of a big switch on
*  state.
*/
cyclicDFAState(decisionNumber,stateNumber,edges,needErrorClause,semPredState) ::= <<
{
   ANTLR_UINT32 LA<decisionNumber>_<stateNumber>;<\n>
   ANTLR_MARKER index<decisionNumber>_<stateNumber>;<\n>

   LA<decisionNumber>_<stateNumber> = ctx->LA(1);<\n>
   <if(semPredState)> <! get next lookahead symbol to test edges, then rewind !>
   index<decisionNumber>_<stateNumber> = ctx->index();<\n>
   ctx->rewindLast();<\n>
   <endif>
   s = -1;
   <edges; separator="\nelse ">
 <if(semPredState)> <! return input cursor to state before we rewound !>
 ctx->seek(index<decisionNumber>_<stateNumber>);<\n>
 <endif>
   if ( s>=0 )
   {
 return s;
   }
}
break;
>>

/** Just like a fixed DFA edge, test the lookahead and indicate what
*  state to jump to next if successful.
*/
cyclicDFAEdge(labelExpr,
 targetStateNumber, edgeNumber, predicates) ::= <<
if ( (<labelExpr>) <if(predicates)>&& (<predicates>)<endif> )
{
   s = <targetStateNumber>;
}<\n>
>>

/** An edge pointing at end-of-token; essentially matches any char;
*  always jump to the target.
*/
eotDFAEdge(targetStateNumber,edgeNumber, predicates) ::= <<
s = <targetStateNumber>;<\n>
>>
```

```
// D F A  E X P R E S S I O N S

andPredicates(left,right) ::= "( (<left>) && (<right>) )"

orPredicates(operands) ::= "(<operands:{o|(<o>)}; separator=\"||\">)"

notPredicate(pred) ::= "!( <evalPredicate(pred,{})> )"

evalPredicate(pred,description) ::= "(<pred>)"

evalSynPredicate(pred,description) ::= "this->msynpred( antlr3::ClassForwarder\<<pred>>() )"

lookaheadTest(atom,k,atomAsInt) ::= "LA<decisionNumber>_<stateNumber> == <atom>"

/** Sometimes a lookahead test cannot assume that LA(k) is in a temp variable
*  somewhere.  Must ask for the lookahead directly.
*/
isolatedLookaheadTest(atom,k,atomAsInt) ::= "this->LA(<k>) == <atom>"

lookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt)
 ::= <%
((LA<decisionNumber>_<stateNumber> >= <lower>) && (LA<decisionNumber>_<stateNumber> \<= <upper>))
%>

isolatedLookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= "((this->LA(<k>) >=
<lower>) && (this->LA(<k>) \<= <upper>))"

setTest(ranges) ::= "<ranges; separator=\" || \">"

// A T T R I B U T E S

makeScopeSet() ::= <<
/* makeScopeSet()
*/
/** Definition of the <scope.name> scope variable tracking
*  structure. An instance of this structure is created by calling
*  <name>_<scope.name>Push().
*/
struct  <scopeStruct(sname=scope.name,...)>
{
   /* =============================================================================
    * Programmer defined variables...
    */
   <scope.attributes:{it |<it.decl>;}; separator="\n">

   /* End of programmer defined variables
```

```
  * ==============================================================================
  */
};

>>

globalAttributeScopeDecl(scope)
 ::= <<
<if(scope.attributes)>
/* globalAttributeScopeDecl(scope)
*/
<makeScopeSet(...)>
<endif>
>>

ruleAttributeScopeDecl(scope) ::= <<
<if(scope.attributes)>
/* ruleAttributeScopeDecl(scope)
*/
<makeScopeSet(...)>
<endif>
>>

globalAttributeScopeDef(scope) ::=
<<
/* globalAttributeScopeDef(scope)
*/
<if(scope.attributes)>

StackType\< <scopeStruct(sname=scope.name)> > <scopeStack(sname=scope.name)>;

<endif>
>>

ruleAttributeScopeDef(scope) ::= <<
<if(scope.attributes)>
/* ruleAttributeScopeDef(scope)
*/
StackType\< <scopeStruct(sname=scope.name)> >  <scopeStack(sname=scope.name,...)>;

<endif>
>>

scopeStruct(sname) ::= <<
<sname>Scope
>>

scopeStack(sname) ::= <<
```

```
m_<sname>_stack
>>

returnStructName(r) ::= "<r.name>_return"

returnType() ::= <%
<if(!ruleDescriptor.isSynPred)>
<if(ruleDescriptor.hasMultipleReturnValues)>
<ruleDescriptor.grammar.recognizerName>::<ruleDescriptor:returnStructName()>
<else>
<if(ruleDescriptor.hasSingleReturnValue)>
<ruleDescriptor.singleValueReturnType>
<else>
void
<endif>
<endif>
<else>
bool
<endif>
%>

/**
 Generate the C type associated with a single or multiple return
*  value(s).
*/
ruleLabelType(referencedRule) ::= <%
<if(referencedRule.hasMultipleReturnValues)>
<referencedRule.name>_return
<else>
<if(referencedRule.hasSingleReturnValue)>
<referencedRule.singleValueReturnType>
<else>
void
<endif>
<endif>
%>

delegateName(d) ::= <<
<if(d.label)><d.label><else>g<d.name><endif>
>>

/** Using a type to init value map, try to init a type; if not in table
*  must be an object, default value is "0".
*/
initValue(typeName) ::= <<
= <cTypeInitMap.(typeName)>
>>
```

```
/** Define a rule label  */
ruleLabelDef(label) ::= <<
<ruleLabelType(referencedRule=label.referencedRule)> <label.label.text>;
>>
/**  Rule label default value */
ruleLabelInitVal(label) ::= <<
>>

ASTLabelType() ::=
"<if(recognizer.ASTLabelType)><recognizer.ASTLabelType><else>ImplTraits::TreeType*<endif>"

/** Define a return struct for a rule if the
 code needs to access its
*  start/stop tokens, tree stuff, attributes, ...  Leave a hole for
*  subgroups to stick in members.
*/
returnScope(scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
<if(ruleDescriptor.hasMultipleReturnValues)>
<if(!TREE_PARSER)>
struct <ruleDescriptor:returnStructName()> : public <name>ImplTraits::RuleReturnValueType
{
public:
   typedef <name>ImplTraits::RuleReturnValueType BaseType;
   <ruleDescriptor:returnStructName()>()
       : BaseType()
       <if(scope)>, <scope.attributes:{it | <it.name>() }; separator=","><endif>
       { init(); }
   <ruleDescriptor:returnStructName()>( BaseParserType* parser )
       : BaseType(parser)
       <if(scope)>, <scope.attributes:{it | <it.name>() }; separator=","><endif>
       { init(); }
   <ruleDescriptor:returnStructName()>( const <ruleDescriptor:returnStructName()>& other )
       : BaseType(other)
   <if(scope)>, <scope.attributes:{it | <it.name>(other.<it.name>) }; separator=", "><endif>
   { copy(other);
 }
   ~<ruleDescriptor:returnStructName()>()
   {
       <@ruleReturnMembersDelete()>
   }

   <ruleDescriptor:returnStructName()>&
   operator=( const <ruleDescriptor:returnStructName()>& other )
   {
       BaseType::operator=( other );
       <if(scope)><scope.attributes:{it | <it.name> = other.<it.name>; }; separator="\n"><endif>
       copy(other);
```

```
    return *this;
   }
   <@ruleReturnMembers()>
   void init() { <@ruleReturnMembersInit()> }
   void copy( const <ruleDescriptor:returnStructName()>& other) { <@ruleReturnMembersCopy()> }
<else>
struct <ruleDescriptor:returnStructName()>
{
public:
   <name>ImplTraits::<recognizer.ASTLabelType>       start;
   <name>ImplTraits::<recognizer.ASTLabelType>       stop;
   <ruleDescriptor:returnStructName()>( const <ruleDescriptor:returnStructName()>& other )
   <if(scope.attributes)>
   <scope.attributes:{it | <it.name>(other.<it.name>) }; separator=",">
   <endif>
   {
     start = other.start;
     stop
  = other.stop;
   }

   <ruleDescriptor:returnStructName()>&
   operator=( const <ruleDescriptor:returnStructName()>& other )
   {
     start = other.start;
     stop  = other.stop;

    <scope.attributes:{it | <it.name> = other.<it.name>; }; separator="\n">
    return *this;
   }
<endif>
   <if(scope)><scope.attributes:{it |<it.type> <it.name>;}; separator="\n"><endif>
};

<endif>
<endif>
>>

parameterScope(scope) ::= <<
<scope.attributes:{it |<it.decl>}; separator=", ">
>>

parameterAttributeRef(attr) ::= "<attr.name>"
parameterSetAttributeRef(attr,expr) ::= "<attr.name>=<expr>;"

/** Note that the scopeAttributeRef does not have access to the
* grammar name directly
*/
```

```
scopeAttributeRef(scope,attr,index,negIndex) ::= <%
<if(negIndex)>
 m_<scope>_stack.at( m_<scope>_stack.size()-<negIndex>-1).<attr.name>
<else>
<if(index)>
 m_<scope>_stack.at(<index>).<attr.name>
<else>
 m_<scope>_stack.peek().<attr.name>
<endif>
<endif>
%>

scopeSetAttributeRef(scope,attr,expr,index,negIndex)
 ::= <%
<if(negIndex)>
 m_<scope>_stack.at( m_<scope>_stack.size()-<negIndex>-1).<attr.name> = <expr>;
<else>
<if(index)>
 m_<scope>_stack.at(<index>).<attr.name> = <expr>;
<else>
 m_<scope>_stack.peek().<attr.name> =<expr>;
<endif>
<endif>
%>

/** $x is either global scope or x is rule with dynamic scope; refers
*  to stack itself not top of stack.  This is useful for predicates
*  like {$function.size()>0 && $function::name.equals("foo")}?
*/
isolatedDynamicScopeRef(scope) ::= "<scope>_stack"

/** reference an attribute of rule; might only have single return value */
ruleLabelRef(referencedRule,scope,attr) ::= <<
<if(referencedRule.hasMultipleReturnValues)>
<scope>.<attr.name>
<else>
<scope>
<endif>
>>

returnAttributeRef(ruleDescriptor,attr) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name>
<else>
<attr.name>
<endif>
>>
```

```
returnSetAttributeRef(ruleDescriptor,attr,expr) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name>=<expr>;
<else>
<attr.name>=<expr>;
<endif>
>>

/**
 How to translate $tokenLabel */
tokenLabelRef(label) ::= "<label>"

/** ids+=ID {$ids} or e+=expr {$e} */
listLabelRef(label) ::= "list_<label>"



// not sure the next are the right approach
//
tokenLabelPropertyRef_text(scope,attr) ::= "(<scope>->getText())"
tokenLabelPropertyRef_type(scope,attr) ::= "(<scope>->get_type())"
tokenLabelPropertyRef_line(scope,attr) ::= "(<scope>->get_line())"
tokenLabelPropertyRef_pos(scope,attr) ::= "(<scope>->get_charPositionInLine())"
tokenLabelPropertyRef_channel(scope,attr) ::= "(<scope>->get_channel())"
tokenLabelPropertyRef_index(scope,attr) ::= "(<scope>->get_tokenIndex())"
tokenLabelPropertyRef_tree(scope,attr) ::= "(<scope>->get_tree())"
tokenLabelPropertyRef_int(scope,attr) ::= "(<name>ImplTraits::ConvertToInt32(<scope>->getText()))"

ruleLabelPropertyRef_start(scope,attr) ::= "(<scope>.start)"
ruleLabelPropertyRef_stop(scope,attr) ::= "(<scope>.stop)"
ruleLabelPropertyRef_tree(scope,attr) ::=
 "(<scope>.tree)"
ruleLabelPropertyRef_text(scope,attr) ::= <<
<if(TREE_PARSER)>
(this->get_strstream()->toStringSS(<scope>.start, <scope>.start))
<else>
(this->get_strstream()->toStringTT(<scope>.start, <scope>.stop))
<endif>
>>

ruleLabelPropertyRef_st(scope,attr) ::= "<scope>.st"

/** Isolated $RULE ref ok in lexer as it's a Token */
lexerRuleLabel(label) ::= "<label>"

lexerRuleLabelPropertyRef_type(scope,attr) ::= "(<scope>->get_type())"
lexerRuleLabelPropertyRef_line(scope,attr) ::= "(<scope>->get_line())"
lexerRuleLabelPropertyRef_pos(scope,attr) ::= "(<scope>->get_charPositionInLine())"
lexerRuleLabelPropertyRef_channel(scope,attr) ::= "(<scope>->get_channel())"
```

```
lexerRuleLabelPropertyRef_index(scope,attr) ::= "(<scope>->get_tokenIndex())"
lexerRuleLabelPropertyRef_text(scope,attr) ::= "(<scope>->getText())"

// Somebody may ref $template or $tree or $stop within a rule:
rulePropertyRef_start(scope,attr) ::= "retval.start"
rulePropertyRef_stop(scope,attr) ::= "retval.stop"
rulePropertyRef_tree(scope,attr)
 ::= "retval.tree"
rulePropertyRef_text(scope,attr) ::= <<
<if(TREE_PARSER)>
this->get_input()->toStringSS( this->get_adaptor()->getTokenStartIndex(retval.start), this->get_adaptor()-
>getTokenStopIndex(retval.start))
<else>
this->get_strstream()->toStringTT(retval.start, this->LT(-1))
<endif>
>>
rulePropertyRef_st(scope,attr) ::= "retval.st"

lexerRulePropertyRef_text(scope,attr) ::= "this->getText()"
lexerRulePropertyRef_type(scope,attr) ::= "_type"
lexerRulePropertyRef_line(scope,attr) ::= "this->get_state()->get_tokenStartLine()"
lexerRulePropertyRef_pos(scope,attr) ::= "this->get_state()->get_tokenStartCharPositionInLine()"
lexerRulePropertyRef_channel(scope,attr) ::= "this->get_state()->get_channel()"
lexerRulePropertyRef_start(scope,attr) ::= "this->get_state()->get_tokenStartCharIndex()"
lexerRulePropertyRef_stop(scope,attr) ::= "(this->getCharIndex()-1)"
lexerRulePropertyRef_index(scope,attr) ::= "-1" // undefined token index in lexer
lexerRulePropertyRef_int(scope,attr)
 ::= "(<name>ImplTraits::ConvertToInt32(<scope>->getText()))"


// setting $st and $tree is allowed in local rule. everything else is flagged as error
ruleSetPropertyRef_tree(scope,attr,expr) ::= "retval.tree=<expr>;"
ruleSetPropertyRef_st(scope,attr,expr) ::= "retval.st=<expr>;"


/** How to deal with an @after for C targets. Because we cannot rely on
*  any garbage collection, after code is executed even in backtracking
*  mode. Must be documented clearly.
*/
execAfter(action) ::= <<
{
   <action>
}
>>

/** How to execute an action (when not backtracking) */
execAction(action) ::= <<
<if(backtracking)>
```

```
<if(actions.(actionScope).synpredgate)>
if ( <actions.(actionScope).synpredgate> )
{
  <action>
}
<else>
if ( BACKTRACKING == 0 )
{
  <action>
}
<endif>
<else>
{
  <action>
}
<endif>
>>

// M I S C (properties, etc...)

bitsetDeclare(bitsetname, words64, traits) ::= <<

/** Bitset defining follow set for error recovery in rule state: <name>  */
static ANTLR_BITWORD
 <bitsetname>_bits[] = { <words64:{it |ANTLR_UINT64_LIT(<it>)}; separator=", "> };
static  <traits>::BitsetListType <bitsetname>( <bitsetname>_bits, <length(words64)> );
>>

codeFileExtension() ::= ".cpp"

true_value() ::= "true"
false_value() ::= "false"
```

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* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Cpp/Cpp.stg

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```
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*/

/** Template overrides to add debugging to AST stuff.  Dynamic inheritance
*  hierarchy is set up as ASTDbg : AST : Dbg : Java by code generator.
*/

parserMembers() ::= <<
 protected DebugTreeAdaptor adaptor;

 public ITreeAdaptor TreeAdaptor
 {
  get
  {
   return adaptor;
  }
  set
  {
<if(grammar.grammarIsRoot)>
   this.adaptor = new DebugTreeAdaptor(dbg,adaptor);
<else>
   this.adaptor
 = (DebugTreeAdaptor)adaptor; // delegator sends dbg adaptor
<endif><\n>
   <grammar.directDelegates:{g|<g:delegateName()>.TreeAdaptor = this.adaptor;}>
  }
 }<\n>
>>

parserCtorBody() ::= <<
<super.parserCtorBody()>
```

```
>>

createListenerAndHandshake() ::= <<
DebugEventSocketProxy proxy = new DebugEventSocketProxy( this, port,
<if(TREE_PARSER)>input.TreeAdaptor<else>adaptor<endif> );
DebugListener = proxy;
<inputStreamType> = new Debug<inputStreamType>( input, proxy );
try
{
 proxy.Handshake();
}
catch ( IOException ioe )
{
 ReportError( ioe );
}
>>

@ctorForRootGrammar.finally() ::= <<
ITreeAdaptor adap = new CommonTreeAdaptor();
TreeAdaptor = adap;
proxy.TreeAdaptor = adap;
>>

@ctorForProfilingRootGrammar.finally() ::=<<
ITreeAdaptor adap = new CommonTreeAdaptor();
TreeAdaptor = adap;
>>

@ctorForPredefinedListener.superClassRef() ::= ": base( input, dbg )"

@ctorForPredefinedListener.finally() ::=<<
<if(grammar.grammarIsRoot)><! don't create new
 adaptor for delegates !>
ITreeAdaptor adap = new CommonTreeAdaptor();
TreeAdaptor = adap;<\n>
<endif>
>>

//@rewriteElement.pregen() ::= "dbg.Location( <e.line>, <e.pos> );"
```

Found in path(s):

* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/CSharp2/ASTDbg.stg

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* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Python/Dbg.stg
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*/

/** How to generate rules derived from left-recursive rules.
*  These rely on recRuleDefArg(), recRuleAltPredicate(),
*  recRuleArg(), recRuleSetResultAction(), recRuleSetReturnAction()
*  templates in main language.stg
*/
group LeftRecursiveRules;

recRuleName(ruleName) ::= "<ruleName>_"
recPrimaryName(ruleName) ::= "<ruleName>_primary"

recRuleStart(ruleName, minPrec, userRetvals, userRetvalAssignments) ::= <<
<ruleName><if(userRetvals)> returns [<userRetvals>]<endif>
 : <recRuleName(...)>[<minPrec>]
    <if(userRetvals)>
   {
       <userRetvalAssignments; separator="\n">
   }
   <endif>
 ;
>>

recRule(ruleName, precArgDef, argName, alts, setResultAction, buildAST,
       userRetvals, userRetvalAssignments) ::= <<
<recRuleName(...)>[<precArgDef>]<if(userRetvals)> returns [<userRetvals>]<endif>
   :   <recPrimaryName(...)>
       <if(buildAST)>
       {
           <setResultAction>
       }
       <endif>
       <if(userRetvals)>
       {
           <userRetvalAssignments; separator="\n">
       }
       <endif>
       ( options {backtrack=false;}
       : ( options {backtrack=false;}
         : <alts; separator="\n          | ">
         )
       )*
   ;
>>

recPrimaryRule(ruleName, alts, userRetvals) ::= <<
<recPrimaryName(...)><if(userRetvals)> returns [<userRetvals>]<endif>
```

```
options {backtrack=true;}
   : <alts; separator="\n    | ">
   ;
>>

recRuleAlt(alt, pred) ::= "{<pred>}?=> <alt>"

recRuleRef(ruleName, arg) ::= "<recRuleName(...)>[<arg>]"
```

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* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/LeftRecursiveRules.stg
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*/

```
/** Templates for building ASTs during tree parsing.
*
*  Deal with many combinations.  Dimensions are:
*  Auto build or rewrite
```

```
*    no label, label, list label  (label/no-label handled together)
*    child, root
*    token, set, rule, wildcard
*
*  Each combination has its own template except that label/no label
*  is combined into tokenRef, ruleRef, ...
*/

/* addition memVars for returnscopes */
@returnScopeInterface.memVars() ::= <<
/* ASTTreeParser returnScopeInterface.memVars
 */
<recognizer.ASTLabelType; null="CommonTree"> *tree;
>>

/** the interface of returnScope methodsDecl */
@returnScopeInterface.methodsDecl() ::= <<
/* ASTTreeParser returnScopeInterface.methodsDecl */
- (<recognizer.ASTLabelType; null="CommonTree"> *)getTree;
- (void) setTree:(<recognizer.ASTLabelType; null="CommonTree"> *)aTree;<\n>
>>

/** the implementation of returnScope methods */
@returnScope.methods() ::= <<
/* ASTTreeParser returnScope.methods */
- (<ASTLabelType> *)getTree
{
   return tree;
}

- (void) setTree:(<ASTLabelType> *)aTree
{
   if (tree != aTree) {
       if (tree != nil) [tree release];
       if (aTree != nil) [aTree retain];
       tree = aTree;
   }
}

- (void) dealloc
{
   [self setTree:nil];
   [super dealloc];
}

@synthesize tree;
>>
```

```
@returnScopeProperties() ::= <<
@property (retain) <recognizer.ASTLabelType; null="CommonTree"> *tree;
>>

/** Add a variable to track last element matched */
ruleDeclarations() ::= <<
/* ASTTreeParser
 ruleDeclarations */
<super.ruleDeclarations()>
<ASTLabelType> *_first_0 = nil;
<ASTLabelType> *_last = nil;<\n>
>>

/** What to emit when there is no rewrite rule.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel, treeLevel) ::= <<
/* ASTTreeParser noRewrite */
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<if(rewriteMode)>
retval.tree = (<ASTLabelType> *)_first_0;
if ( [treeAdaptor getParent:retval.tree] != nil && [treeAdaptor isNil:[treeAdaptor getParent:retval.tree]] ) )
   retval.tree = (<ASTLabelType> *)[treeAdaptor getParent:retval.tree];
<endif>
<if(backtracking)>}<endif>
>>

/** match ^(root children) in tree parser; override here to
*  add tree construction actions.
*/
tree(root, actionsAfterRoot, children, nullableChildList,
    enclosingTreeLevel, treeLevel) ::= <<
/* ASTTreeParser tree */
_last = (<ASTLabelType> *)[input LT:1];
{
<ASTLabelType> *_save_last_<treeLevel> = _last;
<ASTLabelType> *_first_<treeLevel> = nil;
<if(!rewriteMode)>
<ASTLabelType>
 *root_<treeLevel> = [[[treeAdaptor class] newEmptyTree] retain];
<endif>
<root:element()>
<if(rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> )<endif>
<if(root.el.rule)>
if ( _first_<enclosingTreeLevel>==nil ) _first_<enclosingTreeLevel> = <root.el.label>.tree;
<else>
if ( _first_<enclosingTreeLevel>==nil ) _first_<enclosingTreeLevel> = <root.el.label>;
```

```
<endif>
<endif>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if ( [input LA:1] == TokenTypeDOWN ) {
   [self match:input TokenType:TokenTypeDOWN Follow:nil]; <checkRuleBacktrackFailure()>
   <children:element()>
   [self match:input TokenType:TokenTypeUP Follow:nil]; <checkRuleBacktrackFailure()>
}
<else>
[self match:input TokenType:TokenTypeDOWN Follow:nil]; <checkRuleBacktrackFailure()>
<children:element()>
[self match:input TokenType:TokenTypeUP Follow:nil]; <checkRuleBacktrackFailure()>
<endif>
<if(!rewriteMode)>
[treeAdaptor addChild:root_<treeLevel> toTree:root_<enclosingTreeLevel>];
<endif>
_last
 = _save_last_<treeLevel>;
}<\n>
>>

// TOKEN AST STUFF

/** ID! and output=AST (same as plain tokenRef) 'cept add
*  setting of _last
*/
tokenRefBang(token,label,elementIndex,terminalOptions) ::= <<
/* ASTTreeParser tokenRefBang */
_last = (<ASTLabelType> *)[input LT:1];
<super.tokenRef(...)>
>>

/** ID auto construct */
tokenRef(token,label,elementIndex,terminalOptions) ::= <<
/* ASTTreeParser tokenRef */
_last = (<ASTLabelType> *)[input LT:1];
<super.tokenRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<if(terminalOptions.node)>
   <label>_tree = [<terminalOptions.node> new<terminalOptions.node>:<label>];
<else>
   <label>_tree = (<ASTLabelType> *)[treeAdaptor dupNode:<label>];
<endif><\n>
   [treeAdaptor addChild:<label>_tree toTree:root_<treeLevel>];
<if(backtracking)>}<endif>
<else> <! rewrite mode !>
```

```
<if(backtracking)>if ( <actions.(actionScope).synpredgate> )<endif>
if ( _first_<treeLevel>==nil
 ) _first_<treeLevel> = <label>;
<endif>
>>

/** label+=TOKEN auto construct */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
/* ASTTreeParser tokenRefAndListLabel */
<tokenRef(...)>
<listLabel(elem=label,...)>
>>

/** ^(ID ...) auto construct */
tokenRefRuleRoot(token,label,elementIndex) ::= <<
/* ASTTreeParser tokenRefRuleRoot */
_last = (<ASTLabelType> *)[input LT:1];
<super.tokenRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<if(terminalOptions.node)>
<label>_tree = [<terminalOptions.node> new<terminalOptions.node>:<label>];
<else>
<label>_tree = (<ASTLabelType> *)[treeAdaptor dupNode:<label>];
<endif><\n>
root_<treeLevel> = (<ASTLabelType> *)[treeAdaptor becomeRoot:<label>_tree old:root_<treeLevel>];
<if(backtracking)>}<endif>
<endif>
>>

/** Match ^(label+=TOKEN ...) auto construct */
tokenRefRuleRootAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
/* ASTTreeParser tokenRefRuleRootAndListLabel
 */
<tokenRefRuleRoot(...)>
<listLabel(elem=label,...)>
>>

/** Match . wildcard and auto dup the node/subtree */
wildcard(token,label,elementIndex,terminalOptions) ::= <<
/* ASTTreeParser wildcard */
_last = (<ASTLabelType> *)[input LT:1];
<super.wildcard(...)>
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<label>_tree = (<ASTLabelType> *)[adaptor dupTree:<label>];
[adaptor addChild:<label>_tree toTree:root_<treeLevel>];
<if(backtracking)>}<endif>
```

```
<else> <! rewrite mode !>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> )<endif>
if ( _first_<treeLevel> == nil ) _first_<treeLevel> = <label>;
<endif>
>>

// SET AST

matchSet(s,label,terminalOptions,elementIndex,postmatchCode) ::= <<
/* ASTTreeParser matchSet */
_last = (<ASTLabelType> *)[input LT:1];
<super.matchSet(postmatchCode={
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<if(terminalOptions.node)>
<label>_tree = [<terminalOptions.node>
 new<terminalOptions.node>:<label>];
<else>
<label>_tree = (<ASTLabelType> *)[adaptor dupNode:<label>];
<endif><\n>
[adaptor addChild:<label>_tree toTree:root_<treeLevel>];
<if(backtracking)>\}<endif>
<endif>
}, ...
)>
>>

matchRuleBlockSet(s,label,terminalOptions,elementIndex,postmatchCode,treeLevel="0") ::= <<
/* ASTTreeParser matchRuleBlockSet */
<matchSet(...)>
<noRewrite(...)> <! set return tree !>
>>

matchSetBang(s,label,terminalOptions,elementIndex,postmatchCode) ::= <<
/* ASTTreeParser matchSetBang */
_last = (<ASTLabelType> *)[input LT:1];
<super.matchSet(...)>
>>

matchSetRuleRoot(s,label,terminalOptions,elementIndex,debug) ::= <<
/* ASTTreeParser matchSetRuleRoot */
<super.matchSet(postmatchCode={
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<if(terminalOptions.node)>
<label>_tree = [<terminalOptions.node> new<terminalOptions.node>:<label>];
<else>
<label>_tree = (<ASTLabelType> *)[adaptor dupNode:<label>];
```

```
<endif><\n>
root_<treeLevel>
 = (<ASTLabelType> *)[adaptor becomeRoot:<label>_tree old:root_<treeLevel>];
<if(backtracking)>\}<endif>
<endif>
}, ...
)>
>>

// RULE REF AST

/** rule auto construct */
ruleRef(rule,label,elementIndex,args,scope) ::= <<
/* ASTTreeParser ruleRef */
_last = (<ASTLabelType> *)[input LT:1];
<super.ruleRef(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>
<if(!rewriteMode)>
   [treeAdaptor addChild:<label>.tree toTree:root_<treeLevel>];
<else> <! rewrite mode !>
if ( _first_<treeLevel> == nil ) _first_<treeLevel> = <label>.tree;
<endif>
>>

/** x+=rule auto construct */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
/* ASTTreeParser ruleRefAndListLabel */
<ruleRef(...)>
<! <listLabel(elem = "["+label+" getTree]",...)> !>
<listLabel(elem = {[<label> getTree]},...)>
>>

/** ^(rule ...) auto construct */
ruleRefRuleRoot(rule,label,elementIndex,args,scope) ::= <<
/* ASTTreeParser ruleRefRuleRoot */
_last = (<ASTLabelType> *)[input LT:1];
<super.ruleRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if
 ( state.backtracking == 0 ) <endif>
root_<treeLevel> = (<ASTLabelType> *)[treeAdaptor becomeRoot:<label>.tree old:root_<treeLevel>];
<endif>
>>

/** ^(x+=rule ...) auto construct */
ruleRefRuleRootAndListLabel(rule,label,elementIndex,args,scope) ::= <<
/* ASTTreeParser ruleRefRuleRootAndListLabel */
<ruleRefRuleRoot(...)>
```

```
<listLabel(elem = {[<label> getTree]},...)>
>>

/** rule when output=AST and tracking for rewrite */
ruleRefTrack(rule,label,elementIndex,args,scope) ::= <<
/* ASTTreeParser ruleRefTrack */
_last = (<ASTLabelType> *)[input LT:1];
<super.ruleRefTrack(...)>
>>

/** x+=rule when output=AST and tracking for rewrite */
ruleRefTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
/* ASTTreeParser ruleRefTrackAndListLabel */
_last = (<ASTLabelType> *)[input LT:1];
<super.ruleRefTrackAndListLabel(...)>
>>

/** ^(rule ...) rewrite */
ruleRefRuleRootTrack(rule,label,elementIndex,args,scope) ::= <<
/* ASTTreeParser
 ruleRefRuleRootTrack */
_last = (<ASTLabelType> *)[input LT:1];
<super.ruleRefRootTrack(...)>
>>

/** ^(x+=rule ...) rewrite */
ruleRefRuleRootTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
/* ASTTreeParser ruleRefRuleRootTrackAndListLabel */
_last = (<ASTLabelType> *)[input LT:1];
<super.ruleRefRuleRootTrackAndListLabel(...)>
>>

/** Streams for token refs are tree nodes now; override to
*  change nextToken to nextNode.
*/
createRewriteNodeFromElement(token,terminalOptions,scope) ::= <<
/* ASTTreeParser createRewriteNodeFromElement */
<if(terminalOptions.node)>
<! new <terminalOptions.node>(stream_<token>.nextNode()) !>
[[[<terminalOptions.node>(stream_<token> alloc] init] nextNode];
<else>
<! stream_<token>.nextNode() !>
[stream_<token> nextNode]
<endif>
>>

ruleCleanUp() ::= <<
/* ASTTreeParser ruleCleanUp */
```

```
<super.ruleCleanUp()>
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<\n><endif>
retval.tree = (<ASTLabelType> *)[treeAdaptor
 rulePostProcessing:root_0];
<if(backtracking)>}<endif>
<endif>
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/ObjC/ASTTreeParser.stg
No license file was found, but licenses were detected in source scan.

```
/*
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* THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
*/
```

```
@outputFile.imports() ::= <<
<@super.imports()>
```

```
<if(!TREE_PARSER)>
<! tree parser would already have imported !>
using Antlr.Runtime.Tree;
using RewriteRuleITokenStream = Antlr.Runtime.Tree.RewriteRuleTokenStream;
<endif>
>>

@genericParser.members() ::= <<
<@super.members()>
<parserMembers()>
>>

parserCtorBody() ::=
 <%
<super.parserCtorBody()><\n>
TreeAdaptor =
<if(actions.(actionScope).treeAdaptorInitializer)>
 <actions.(actionScope).treeAdaptorInitializer>
<else>
 new <actions.(actionScope).treeAdaptorType; null="CommonTreeAdaptor">()
<end>
;
%>

/** Add an adaptor property that knows how to build trees */
parserMembers() ::= <<
private <treeAdaptorType()> adaptor;

public <treeAdaptorType()> TreeAdaptor
{
 get
 {
  return adaptor;
 }

 set
 {
  this.adaptor = value;
  <grammar.directDelegates:{g|<g:delegateName()>.TreeAdaptor = this.adaptor;}>
 }
}
>>

treeAdaptorType() ::= <<
<actions.(actionScope).treeAdaptorType; null="ITreeAdaptor">
>>
```

```
ruleReturnBaseType() ::= <%
Ast<if(TREE_PARSER)>Tree<else>Parser<endif>RuleReturnScope\<<ASTLabelType>, <labelType>>
%>

/** Add a variable to track rule's return AST */
ruleDeclarations() ::= <<
<super.ruleDeclarations()>
<ASTLabelType> root_0 = default(<ASTLabelType>);<\n>
>>

ruleLabelDefs() ::= <<
<super.ruleLabelDefs()>
<[ruleDescriptor.tokenLabels,ruleDescriptor.wildcardTreeLabels,ruleDescriptor.wildcardTreeListLabels]
 :{it|<ASTLabelType>
 <it.label.text>_tree = default(<ASTLabelType>);}; separator="\n">
<ruleDescriptor.tokenListLabels:{it|<ASTLabelType> <it.label.text>_tree = default(<ASTLabelType>);};
separator="\n">
<ruleDescriptor.allTokenRefsInAltsWithRewrites
 :{it|RewriteRule<rewriteElementType>Stream stream_<it>=new
RewriteRule<rewriteElementType>Stream(adaptor,"token <it>");}; separator="\n">
<ruleDescriptor.allRuleRefsInAltsWithRewrites
 :{it|RewriteRuleSubtreeStream stream_<it>=new RewriteRuleSubtreeStream(adaptor,"rule <it>");};
separator="\n">
>>

/** When doing auto AST construction, we must define some variables;
*  These should be turned off if doing rewrites.  This must be a "mode"
*  as a rule could have both rewrite and AST within the same alternative
*  block.
*/
@alt.declarations() ::= <<
<if(autoAST)>
<if(outerAlt)>
<if(!rewriteMode)>
root_0 = (<ASTLabelType>)adaptor.Nil();
<endif>
<endif>
<endif>
>>

// T
 r a c k i n g  R u l e  E l e m e n t s

/** ID and track it for use in a rewrite rule */
tokenRefTrack(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRefBang(...)> <! Track implies no auto AST construction!>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) <endif>stream_<token>.Add(<label>);<\n>
>>
```

```
/** ids+=ID and track it for use in a rewrite rule; adds to ids *and*
*  to the tracking list stream_ID for use in the rewrite.
*/
tokenRefTrackAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRefTrack(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

/** ^(ID ...) track for rewrite */
tokenRefRuleRootTrack(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRefBang(...)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) <endif>stream_<token>.Add(<label>);
>>

/** Match ^(label+=TOKEN ...) track for rewrite */
tokenRefRuleRootTrackAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRefRuleRootTrack(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

/**
 rule when output=AST and tracking for rewrite */
ruleRefTrack(rule,label,elementIndex,args,scope) ::= <<
<super.ruleRef(...)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) <endif>stream_<rule.name>.Add(<label>.Tree);
>>

/** x+=rule when output=AST and tracking for rewrite */
ruleRefTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefTrack(...)>
<listLabelElem(elem={<label>.Tree},elemType=ASTLabelType,...)>
>>

/** ^(rule ...) rewrite */
ruleRefRuleRootTrack(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRoot(...)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) <endif>stream_<rule>.Add(<label>.Tree);
>>

/** ^(x+=rule ...) rewrite */
ruleRefRuleRootTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRootTrack(...)>
<listLabelElem(elem={<label>.Tree},elemType=ASTLabelType,...)>
>>

// R e w r i t e
```

```
rewriteCode(
 alts, description,
 referencedElementsDeep,
 // ALL referenced elements to right of ->
 referencedTokenLabels,
 referencedTokenListLabels,
 referencedRuleLabels,
 referencedRuleListLabels,
 referencedWildcardLabels,
 referencedWildcardListLabels,
 rewriteBlockLevel, enclosingTreeLevel, treeLevel) ::= <<
<\n>{
// AST REWRITE
// elements: <referencedElementsDeep; separator=", ">
// token labels: <referencedTokenLabels; separator=", ">
// rule labels: <referencedRuleLabels; separator=", ">
// token list labels: <referencedTokenListLabels; separator=", ">
// rule list labels: <referencedRuleListLabels; separator=", ">
// wildcard labels: <[referencedWildcardLabels,referencedWildcardListLabels]; separator=", ">
<if(backtracking)>
if (<actions.(actionScope).synpredgate>) {
<endif>
<prevRuleRootRef()>.Tree = root_0;
<rewriteCodeLabels()>
root_0 = (<ASTLabelType>)adaptor.Nil();
<alts:rewriteAlt(); separator="else ">
<! if tree parser and rewrite=true !>
<if(TREE_PARSER&&rewriteMode)>
<prevRuleRootRef()>.Tree = (<ASTLabelType>)adaptor.RulePostProcessing(root_0);
if
 (<prevRuleRootRef()>.Tree != null)
 input.ReplaceChildren(adaptor.GetParent(retval.Start), adaptor.GetChildIndex(retval.Start),
adaptor.GetChildIndex(_last), retval.Tree);
<endif>
<! if parser or tree-parser && rewrite!=true, we need to set result !>
<if(!TREE_PARSER||!rewriteMode)>
<prevRuleRootRef()>.Tree = root_0;
<endif>
<if(backtracking)>
}
<endif>
}

>>

rewriteCodeLabels() ::= <<
<referencedTokenLabels
   :{it|RewriteRule<rewriteElementType>Stream stream_<it>=new
```

```
RewriteRule<rewriteElementType>Stream(adaptor,"token <it>",<it>);};
   separator="\n"
>
<referencedTokenListLabels
   :{it|RewriteRule<rewriteElementType>Stream stream_<it>=new
RewriteRule<rewriteElementType>Stream(adaptor,"token <it>", list_<it>);};
   separator="\n"
>
<referencedWildcardLabels
 :{it|RewriteRuleSubtreeStream stream_<it>=new RewriteRuleSubtreeStream(adaptor,"wildcard <it>",<it>);};
 separator="\n"
>
<referencedWildcardListLabels
 :{it|RewriteRuleSubtreeStream stream_<it>=new
 RewriteRuleSubtreeStream(adaptor,"wildcard <it>",list_<it>);};
 separator="\n"
>
<referencedRuleLabels
   :{it|RewriteRuleSubtreeStream stream_<it>=new RewriteRuleSubtreeStream(adaptor,"rule
<it>",<it>!=null?<it>.Tree:null);};
   separator="\n"
>
<referencedRuleListLabels
   :{it|RewriteRuleSubtreeStream stream_<it>=new RewriteRuleSubtreeStream(adaptor,"token <it>",list_<it>);};
   separator="\n"
>
>>

/** Generate code for an optional rewrite block; note it uses the deep ref'd element
 *  list rather shallow like other blocks.
 */
rewriteOptionalBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements, // elements in immediately block; no nested blocks
 description) ::=
<<
// <fileName>:<description>
if (<referencedElementsDeep:{el | stream_<el>.HasNext}; separator="||">)
{
 <alt>
}
<referencedElementsDeep:{el | stream_<el>.Reset();<\n>}>
>>

rewriteClosureBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
```

```
 referencedElements,
 // elements in immediately block; no nested blocks
 description) ::=
<<
// <fileName>:<description>
while ( <referencedElements:{el | stream_<el>.HasNext}; separator="||"> )
{
 <alt>
}
<referencedElements:{el | stream_<el>.Reset();<\n>}>
>>

rewritePositiveClosureBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements, // elements in immediately block; no nested blocks
 description) ::=
<<
if (!(<referencedElements:{el | stream_<el>.HasNext}; separator="||">))
{
 throw new RewriteEarlyExitException();
}
while ( <referencedElements:{el | stream_<el>.HasNext}; separator="||"> )
{
 <alt>
}
<referencedElements:{el | stream_<el>.Reset();<\n>}>
>>

rewriteAlt(a) ::= <<
// <a.description>
<if(a.pred)>
if (<a.pred>)
{
 <a.alt>
}
<else>
{
 <a.alt>
}
<endif>
>>

/** For empty rewrites: "r : ... -> ;" */
rewriteEmptyAlt() ::= "root_0 = null;"

rewriteTree(root,children,description,enclosingTreeLevel,treeLevel) ::= <<
// <fileName>:<description>
```

```
{
<ASTLabelType>
 root_<treeLevel> = (<ASTLabelType>)adaptor.Nil();
<root:rewriteElement()>
<children:rewriteElement()>
adaptor.AddChild(root_<enclosingTreeLevel>, root_<treeLevel>);
}<\n>
>>

rewriteElementList(elements) ::= "<elements:rewriteElement()>"

rewriteElement(e) ::= <%
<@pregen()>
DebugLocation(<e.line>, <e.pos>);<\n>
<e.el>
%>

/** Gen ID or ID[args] */
rewriteTokenRef(token,elementIndex,args,terminalOptions={}) ::= <<
adaptor.AddChild(root_<treeLevel>, <createRewriteNodeFromElement(...)>);<\n>
>>

/** Gen $label ... where defined via label=ID */
rewriteTokenLabelRef(label,elementIndex) ::= <<
adaptor.AddChild(root_<treeLevel>, stream_<label>.NextNode());<\n>
>>

/** Gen $label ... where defined via label+=ID */
rewriteTokenListLabelRef(label,elementIndex) ::= <<
adaptor.AddChild(root_<treeLevel>, stream_<label>.NextNode());<\n>
>>

/** Gen ^($label ...) */
rewriteTokenLabelRefRoot(label,elementIndex) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.BecomeRoot(stream_<label>.NextNode(),
 root_<treeLevel>);<\n>
>>

/** Gen ^($label ...) where label+=... */
rewriteTokenListLabelRefRoot ::= rewriteTokenLabelRefRoot

/** Gen ^(ID ...) or ^(ID[args] ...) */
rewriteTokenRefRoot(token,elementIndex,args,terminalOptions={}) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.BecomeRoot(<createRewriteNodeFromElement(...)>,
root_<treeLevel>);<\n>
>>

rewriteImaginaryTokenRef(args,token,elementIndex,terminalOptions={}) ::= <<
```

```
adaptor.AddChild(root_<treeLevel>, <createImaginaryNode(tokenType=token, ...)>);<\n>
>>

rewriteImaginaryTokenRefRoot(args,token,elementIndex,terminalOptions={}) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.BecomeRoot(<createImaginaryNode(tokenType=token, ...)>,
root_<treeLevel>);<\n>
>>

/** plain -> {foo} action */
rewriteAction(action) ::= <<
root_0 = <action>;<\n>
>>

/** What is the name of the previous value of this rule's root tree?  This
*  let's us refer to $rule to mean previous value.  I am reusing the
*  variable 'tree' sitting
 in retval struct to hold the value of root_0 right
*  before I set it during rewrites.  The assign will be to retval.tree.
*/
prevRuleRootRef() ::= "retval"

rewriteRuleRef(rule) ::= <<
adaptor.AddChild(root_<treeLevel>, stream_<rule>.NextTree());<\n>
>>

rewriteRuleRefRoot(rule) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.BecomeRoot(stream_<rule>.NextNode(), root_<treeLevel>);<\n>
>>

rewriteNodeAction(action) ::= <<
adaptor.AddChild(root_<treeLevel>, <action>);<\n>
>>

rewriteNodeActionRoot(action) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.BecomeRoot(<action>, root_<treeLevel>);<\n>
>>

/** Gen $ruleLabel ... where defined via ruleLabel=rule */
rewriteRuleLabelRef(label) ::= <<
adaptor.AddChild(root_<treeLevel>, stream_<label>.NextTree());<\n>
>>

/** Gen $ruleLabel ... where defined via ruleLabel+=rule */
rewriteRuleListLabelRef(label) ::= <<
adaptor.AddChild(root_<treeLevel>, stream_<label>.NextTree());<\n>
>>

/** Gen ^($ruleLabel ...) where ruleLabel=rule */
```

```
rewriteRuleLabelRefRoot(label)
 ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.BecomeRoot(stream_<label>.NextNode(), root_<treeLevel>);<\n>
>>

/** Gen ^($ruleLabel ...) where ruleLabel+=rule */
rewriteRuleListLabelRefRoot(label) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.BecomeRoot(stream_<label>.NextNode(), root_<treeLevel>);<\n>
>>

rewriteWildcardLabelRef(label) ::= <<
adaptor.AddChild(root_<treeLevel>, stream_<label>.NextTree());<\n>
>>

createImaginaryNode(tokenType,args,terminalOptions={}) ::= <%
<if(terminalOptions.node)>
<! new MethodNode(IDLabel, args) !>
new <terminalOptions.node>(<tokenType><if(args)>, <args; separator=", "><endif>)
<else>
(<ASTLabelType>)adaptor.Create(<tokenType>, <args; separator=", "><if(!args)>"<tokenType>"<endif>)
<endif>
%>

createRewriteNodeFromElement(token,args,terminalOptions={}) ::= <%
<if(terminalOptions.node)>
new <terminalOptions.node>(stream_<token>.NextToken()<if(args)>, <args; separator=", "><endif>)
<else>
<if(args)> <! must create
 new node from old !>
adaptor.Create(<token>, <args; separator=", ">)
<else>
stream_<token>.NextNode()
<endif>
<endif>
%>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/CSharp2/AST.stg
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*/

@outputFile.imports() ::= <<
<@super.imports()>

<if(!TREE_PARSER)>
<! tree parser would already have imported !>
using Antlr.Runtime.Tree;
using RewriteRuleITokenStream = Antlr.Runtime.Tree.RewriteRuleTokenStream;
<endif>
>>

@genericParser.members() ::= <<
<@super.members()>
<parserMembers()>
>>

parserCtorBody() ::= <<
<super.parserCtorBody()>
<treeAdaptorType()>
 treeAdaptor = default(<treeAdaptorType()>);
CreateTreeAdaptor(ref treeAdaptor);
TreeAdaptor = treeAdaptor<if(!actions.(actionScope).treeAdaptorType)> ?? new CommonTreeAdaptor()<endif>;
>>
```

```
/** Add an adaptor property that knows how to build trees */
parserMembers() ::= <<
// Implement this function in your helper file to use a custom tree adaptor
partial void CreateTreeAdaptor(ref <treeAdaptorType()> adaptor);

private <treeAdaptorType()> adaptor;

public <treeAdaptorType()> TreeAdaptor
{
 get
 {
  return adaptor;
 }

 set
 {
  this.adaptor = value;
  <grammar.directDelegates:{g|<g:delegateName()>.TreeAdaptor = this.adaptor;}>
 }
}
>>

treeAdaptorType() ::= <<
<actions.(actionScope).treeAdaptorType; null="ITreeAdaptor">
>>

ruleReturnBaseType() ::= <%
Ast<if(TREE_PARSER)>Tree<else>Parser<endif>RuleReturnScope\<<ASTLabelType>, <labelType>>
%>

/** Add a variable to track rule's return AST */
ruleDeclarations() ::= <<
<super.ruleDeclarations()>
<ASTLabelType>
 root_0 = default(<ASTLabelType>);<\n>
>>

ruleLabelDefs(ruleDescriptor, labelType, ASTLabelType, rewriteElementType) ::= <%
<super.ruleLabelDefs(...)>
<if(!ruleDescriptor.isSynPred)>
<[ruleDescriptor.tokenLabels,ruleDescriptor.wildcardTreeLabels,ruleDescriptor.wildcardTreeListLabels]
 :{it|<\n><ASTLabelType> <it.label.text>_tree = default(<ASTLabelType>);}>
<ruleDescriptor.tokenListLabels:{it|<\n><ASTLabelType> <it.label.text>_tree = default(<ASTLabelType>);}>
<ruleDescriptor.allTokenRefsInAltsWithRewrites
 :{it|<\n>RewriteRule<rewriteElementType>Stream stream_<it>=new
RewriteRule<rewriteElementType>Stream(adaptor,"token <it>");}>
<ruleDescriptor.allRuleRefsInAltsWithRewrites
```

```
 :{it|<\n>RewriteRuleSubtreeStream stream_<it>=new RewriteRuleSubtreeStream(adaptor,"rule <it>");}>
<endif>
%>

/** When doing auto AST construction, we must define some variables;
*  These should be turned off if doing rewrites.  This must be a "mode"
*  as a rule could have both rewrite and AST within the same
 alternative
*  block.
*/
@alt.declarations() ::= <<
<if(autoAST && outerAlt && !rewriteMode && !ruleDescriptor.isSynPred)>
root_0 = (<ASTLabelType>)adaptor.Nil();
<endif>
>>

// T r a c k i n g  R u l e  E l e m e n t s

/** ID and track it for use in a rewrite rule */
tokenRefTrack(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRefBang(...)> <! Track implies no auto AST construction!>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) <endif>stream_<token>.Add(<label>);<\n>
>>

/** ids+=ID and track it for use in a rewrite rule; adds to ids *and*
*  to the tracking list stream_ID for use in the rewrite.
*/
tokenRefTrackAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRefTrack(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

/** ^(ID ...) track for rewrite */
tokenRefRuleRootTrack(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRefBang(...)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) <endif>stream_<token>.Add(<label>);
>>

/**
 Match ^(label+=TOKEN ...) track for rewrite */
tokenRefRuleRootTrackAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRefRuleRootTrack(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

/** rule when output=AST and tracking for rewrite */
ruleRefTrack(rule,label,elementIndex,args,scope) ::= <<
<super.ruleRef(...)>
```

```
<if(backtracking)>if (<actions.(actionScope).synpredgate>) <endif>stream_<rule.name>.Add(<label>.Tree);
>>

/** x+=rule when output=AST and tracking for rewrite */
ruleRefTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefTrack(...)>
<listLabelElem(elem={<label>.Tree},elemType=ASTLabelType,...)>
>>

/** ^(rule ...) rewrite */
ruleRefRuleRootTrack(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRoot(...)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) <endif>stream_<rule>.Add(<label>.Tree);
>>

/** ^(x+=rule ...) rewrite */
ruleRefRuleRootTrackAndListLabel(rule,label,elementIndex,args,scope)
 ::= <<
<ruleRefRuleRootTrack(...)>
<listLabelElem(elem={<label>.Tree},elemType=ASTLabelType,...)>
>>

// R e w r i t e

rewriteCode(
 alts, description,
 referencedElementsDeep, // ALL referenced elements to right of ->
 referencedTokenLabels,
 referencedTokenListLabels,
 referencedRuleLabels,
 referencedRuleListLabels,
 referencedWildcardLabels,
 referencedWildcardListLabels,
 rewriteBlockLevel, enclosingTreeLevel, treeLevel) ::= <<
<\n>{
// AST REWRITE
// elements: <referencedElementsDeep; separator=", ">
// token labels: <referencedTokenLabels; separator=", ">
// rule labels: <referencedRuleLabels; separator=", ">
// token list labels: <referencedTokenListLabels; separator=", ">
// rule list labels: <referencedRuleListLabels; separator=", ">
// wildcard labels: <[referencedWildcardLabels,referencedWildcardListLabels]; separator=", ">
<if(backtracking)>
if (<actions.(actionScope).synpredgate>) {
<endif>
<prevRuleRootRef()>.Tree = root_0;
<rewriteCodeLabels()>
root_0 = (<ASTLabelType>)adaptor.Nil();
```

```
<alts:rewriteAlt();
 separator="else ">
<! if tree parser and rewrite=true !>
<if(TREE_PARSER&&rewriteMode)>
<prevRuleRootRef()>.Tree = (<ASTLabelType>)adaptor.RulePostProcessing(root_0);
if (<prevRuleRootRef()>.Tree != null)
 input.ReplaceChildren(adaptor.GetParent(retval.Start), adaptor.GetChildIndex(retval.Start),
adaptor.GetChildIndex(_last), retval.Tree);
<endif>
<! if parser or tree-parser && rewrite!=true, we need to set result !>
<if(!TREE_PARSER||!rewriteMode)>
<prevRuleRootRef()>.Tree = root_0;
<endif>
<if(backtracking)>
}
<endif>
}

>>

rewriteCodeLabels() ::= <<
<referencedTokenLabels
 :{it|RewriteRule<rewriteElementType>Stream stream_<it>=new
RewriteRule<rewriteElementType>Stream(adaptor,"token <it>",<it>);};
 separator="\n"
>
<referencedTokenListLabels
 :{it|RewriteRule<rewriteElementType>Stream stream_<it>=new
RewriteRule<rewriteElementType>Stream(adaptor,"token <it>", list_<it>);};
 separator="\n"
>
<referencedWildcardLabels
 :{it|RewriteRuleSubtreeStream
 stream_<it>=new RewriteRuleSubtreeStream(adaptor,"wildcard <it>",<it>);};
 separator="\n"
>
<referencedWildcardListLabels
 :{it|RewriteRuleSubtreeStream stream_<it>=new RewriteRuleSubtreeStream(adaptor,"wildcard <it>",list_<it>);};
 separator="\n"
>
<referencedRuleLabels
 :{it|RewriteRuleSubtreeStream stream_<it>=new RewriteRuleSubtreeStream(adaptor,"rule
<it>",<it>!=null?<it>.Tree:null);};
 separator="\n"
>
<referencedRuleListLabels
 :{it|RewriteRuleSubtreeStream stream_<it>=new RewriteRuleSubtreeStream(adaptor,"token <it>",list_<it>);};
 separator="\n"
```

```
>
>>

/** Generate code for an optional rewrite block; note it uses the deep ref'd element
 *  list rather shallow like other blocks.
 */
rewriteOptionalBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements, // elements in immediately block; no nested blocks
 description) ::=
<<
// <fileName>:<description>
if (<referencedElementsDeep:{el | stream_<el>.HasNext}; separator="||">)
{
 <alt>
}
<referencedElementsDeep:{el
 | stream_<el>.Reset();<\n>}>
>>

rewriteClosureBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements, // elements in immediately block; no nested blocks
 description) ::=
<<
// <fileName>:<description>
while ( <referencedElements:{el | stream_<el>.HasNext}; separator="||"> )
{
 <alt>
}
<referencedElements:{el | stream_<el>.Reset();<\n>}>
>>

rewritePositiveClosureBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements, // elements in immediately block; no nested blocks
 description) ::=
<<
if (!(<referencedElements:{el | stream_<el>.HasNext}; separator="||">))
{
 throw new RewriteEarlyExitException();
}
while ( <referencedElements:{el | stream_<el>.HasNext}; separator="||"> )
{
 <alt>
```

```
}
<referencedElements:{el | stream_<el>.Reset();<\n>}>
>>

rewriteAlt(a) ::= <<
// <a.description>
<if(a.pred)>
if (<a.pred>)
{
 <a.alt>
}
<else>
{
 <a.alt>
}
<endif>
>>

/** For empty rewrites:
 "r : ... -> ;" */
rewriteEmptyAlt() ::= "root_0 = null;"

rewriteTree(root,children,description,enclosingTreeLevel,treeLevel) ::= <<
// <fileName>:<description>
{
<ASTLabelType> root_<treeLevel> = (<ASTLabelType>)adaptor.Nil();
<root:rewriteElement()>
<children:rewriteElement()>
adaptor.AddChild(root_<enclosingTreeLevel>, root_<treeLevel>);
}<\n>
>>

rewriteElementList(elements) ::= "<elements:rewriteElement()>"

rewriteElement(e) ::= <%
<@pregen()>
DebugLocation(<e.line>, <e.pos>);<\n>
<e.el>
%>

/** Gen ID or ID[args] */
rewriteTokenRef(token,elementIndex,args,terminalOptions={}) ::= <<
adaptor.AddChild(root_<treeLevel>, <createRewriteNodeFromElement(...)>);<\n>
>>

/** Gen $label ... where defined via label=ID */
rewriteTokenLabelRef(label,elementIndex) ::= <<
adaptor.AddChild(root_<treeLevel>, stream_<label>.NextNode());<\n>
```

```
>>

/** Gen $label ... where defined via label+=ID */
rewriteTokenListLabelRef(label,elementIndex) ::= <<
adaptor.AddChild(root_<treeLevel>, stream_<label>.NextNode());<\n>
>>

/**
 Gen ^($label ...) */
rewriteTokenLabelRefRoot(label,elementIndex) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.BecomeRoot(stream_<label>.NextNode(), root_<treeLevel>);<\n>
>>

/** Gen ^($label ...) where label+=... */
rewriteTokenListLabelRefRoot ::= rewriteTokenLabelRefRoot

/** Gen ^(ID ...) or ^(ID[args] ...) */
rewriteTokenRefRoot(token,elementIndex,args,terminalOptions={}) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.BecomeRoot(<createRewriteNodeFromElement(...)>,
root_<treeLevel>);<\n>
>>

rewriteImaginaryTokenRef(args,token,elementIndex,terminalOptions={}) ::= <<
adaptor.AddChild(root_<treeLevel>, <createImaginaryNode(tokenType=token, ...)>);<\n>
>>

rewriteImaginaryTokenRefRoot(args,token,elementIndex,terminalOptions={}) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.BecomeRoot(<createImaginaryNode(tokenType=token, ...)>,
root_<treeLevel>);<\n>
>>

/** plain -> {foo} action */
rewriteAction(action) ::= <<
root_0 = <action>;<\n>
>>

/** What
 is the name of the previous value of this rule's root tree?  This
*  let's us refer to $rule to mean previous value.  I am reusing the
*  variable 'tree' sitting in retval struct to hold the value of root_0 right
*  before I set it during rewrites.  The assign will be to retval.tree.
*/
prevRuleRootRef() ::= "retval"

rewriteRuleRef(rule) ::= <<
adaptor.AddChild(root_<treeLevel>, stream_<rule>.NextTree());<\n>
>>
```

```
rewriteRuleRefRoot(rule) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.BecomeRoot(stream_<rule>.NextNode(), root_<treeLevel>);<\n>
>>

rewriteNodeAction(action) ::= <<
adaptor.AddChild(root_<treeLevel>, <action>);<\n>
>>

rewriteNodeActionRoot(action) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.BecomeRoot(<action>, root_<treeLevel>);<\n>
>>

/** Gen $ruleLabel ... where defined via ruleLabel=rule */
rewriteRuleLabelRef(label) ::= <<
adaptor.AddChild(root_<treeLevel>, stream_<label>.NextTree());<\n>
>>

/** Gen $ruleLabel ... where defined via ruleLabel+=rule */
rewriteRuleListLabelRef(label)
 ::= <<
adaptor.AddChild(root_<treeLevel>, stream_<label>.NextTree());<\n>
>>

/** Gen ^($ruleLabel ...) where ruleLabel=rule */
rewriteRuleLabelRefRoot(label) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.BecomeRoot(stream_<label>.NextNode(), root_<treeLevel>);<\n>
>>

/** Gen ^($ruleLabel ...) where ruleLabel+=rule */
rewriteRuleListLabelRefRoot(label) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.BecomeRoot(stream_<label>.NextNode(), root_<treeLevel>);<\n>
>>

rewriteWildcardLabelRef(label) ::= <<
adaptor.AddChild(root_<treeLevel>, stream_<label>.NextTree());<\n>
>>

createImaginaryNode(tokenType,args,terminalOptions={}) ::= <%
<if(terminalOptions.node)>
<! new MethodNode(IDLabel, args) !>
new <terminalOptions.node>(<tokenType><if(args)>, <args; separator=", "><endif>)
<else>
(<ASTLabelType>)adaptor.Create(<tokenType>, <args; separator=", "><if(!args)>"<tokenType>"<endif>)
<endif>
%>

createRewriteNodeFromElement(token,args,terminalOptions={})
```

```
 ::= <%
<if(terminalOptions.node)>
new <terminalOptions.node>(stream_<token>.NextToken()<if(args)>, <args; separator=", "><endif>)
<else>
<if(args)> <! must create new node from old !>
adaptor.Create(<token>, <args; separator=", ">)
<else>
stream_<token>.NextNode()
<endif>
<endif>
%>
```

Found in path(s):

* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/CSharp3/AST.stg

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```

```
*/

/** Template overrides to add debugging to AST stuff.  Dynamic inheritance
*  hierarchy is set up as ASTDbg : AST : Dbg : Java by code generator.
*/

parserMembers() ::= <<
 // Implement this function in your helper file to use a custom tree adaptor
 partial void InitializeTreeAdaptor();
 protected DebugTreeAdaptor adaptor;

 public
 ITreeAdaptor TreeAdaptor
 {
  get
  {
   return adaptor;
  }
  set
  {
<if(grammar.grammarIsRoot)>
   this.adaptor = new DebugTreeAdaptor(dbg,adaptor);
<else>
   this.adaptor = (DebugTreeAdaptor)adaptor; // delegator sends dbg adaptor
<endif><\n>
   <grammar.directDelegates:{g|<g:delegateName()>.TreeAdaptor = this.adaptor;}>
  }
 }<\n>
>>

parserCtorBody() ::= <<
<super.parserCtorBody()>
>>

createListenerAndHandshake() ::= <<
DebugEventSocketProxy proxy = new DebugEventSocketProxy( this, port,
<if(TREE_PARSER)>input.TreeAdaptor<else>adaptor<endif> );
DebugListener = proxy;
<inputStreamType> = new Debug<inputStreamType>( input, proxy );
try
{
 proxy.Handshake();
}
catch ( IOException ioe )
{
 ReportError( ioe );
}
>>
```

```
@ctorForRootGrammar.finally() ::= <<
ITreeAdaptor adap = new CommonTreeAdaptor();
TreeAdaptor = adap;
proxy.TreeAdaptor = adap;
>>

@ctorForProfilingRootGrammar.finally() ::=<<
ITreeAdaptor adap = new CommonTreeAdaptor();
TreeAdaptor = adap;
>>

@ctorForPredefinedListener.superClassRef()
 ::= ": base( input, dbg )"

@ctorForPredefinedListener.finally() ::=<<
<if(grammar.grammarIsRoot)><! don't create new adaptor for delegates !>
ITreeAdaptor adap = new CommonTreeAdaptor();
TreeAdaptor = adap;<\n>
<endif>
>>

//@rewriteElement.pregen() ::= "dbg.Location( <e.line>, <e.pos> );"
```

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```
*/

/** Templates for building ASTs during tree parsing.
*
*  Deal with many combinations.  Dimensions are:
*  Auto build or rewrite
*    no label, label, list label  (label/no-label handled together)
*    child, root
*    token, set, rule, wildcard
*
*  Each combination has its own template except that label/no label
*  is combined into tokenRef, ruleRef, ...
*/
/** Add a variable to track last
 element matched */
ruleDeclarations() ::= <<
<super.ruleDeclarations()>
<ASTLabelType> _last;<\n>
<ASTLabelType> _first_0;<\n>
>>

/** Add a variable to track last element matched */
ruleInitializations() ::= <<
<super.ruleInitializations()>
_last = NULL;<\n>
_first_0 = NULL;<\n>
>>

/** What to emit when there is no rewrite rule.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel, treeLevel) ::= <<
<if(backtracking)>if ( BACKTRACKING ==0 ) {<endif>
<if(rewriteMode)>
retval.tree = (<ASTLabelType>)_first_0;
if ( ADAPTOR->getParent(ADAPTOR, retval.tree) != NULL && ADAPTOR->isNilNode(ADAPTOR,
ADAPTOR->getParent(ADAPTOR, retval.tree) ) )
```

```
{
   retval.tree = (<ASTLabelType>)ADAPTOR->getParent(ADAPTOR, retval.tree);
}
<endif>
<if(backtracking)>}<endif>
>>

/** match ^(root children) in tree parser; override here to
*  add tree construction actions.
*/
tree(root, actionsAfterRoot, children, nullableChildList,
    enclosingTreeLevel, treeLevel) ::= <<
_last = (<ASTLabelType>)LT(1);
{
<ASTLabelType>
 _save_last_<treeLevel>;
<ASTLabelType> _first_<treeLevel>;
<if(!rewriteMode)>
<ASTLabelType> root_<treeLevel>;
<endif>
_save_last_<treeLevel> = _last;
_first_<treeLevel>     = NULL;
<if(!rewriteMode)>
root_<treeLevel> = (<ASTLabelType>)(ADAPTOR->nilNode(ADAPTOR));
<endif>
<root:element()>
<if(rewriteMode)>
<if(backtracking)>if ( BACKTRACKING ==0 ) {<endif>
<if(root.el.rule)>
if ( _first_<enclosingTreeLevel> == NULL ) _first_<enclosingTreeLevel> = <root.el.label>.tree;
<else>
if ( _first_<enclosingTreeLevel> == NULL ) _first_<enclosingTreeLevel> = <root.el.label>;
<endif>
<if(backtracking)>}<endif>
<endif>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if ( LA(1)==ANTLR3_TOKEN_DOWN ) {
   MATCHT(ANTLR3_TOKEN_DOWN, NULL);
   <children:element()>
   MATCHT(ANTLR3_TOKEN_UP, NULL);
}
<else>
MATCHT(ANTLR3_TOKEN_DOWN, NULL);
<children:element()>
MATCHT(ANTLR3_TOKEN_UP, NULL);
<endif>
<if(!rewriteMode)>
```

```
ADAPTOR->addChild(ADAPTOR, root_<enclosingTreeLevel>,
 root_<treeLevel>);
<endif>
_last = _save_last_<treeLevel>;
}<\n>
>>

// TOKEN AST STUFF

/** ID! and output=AST (same as plain tokenRef) 'cept add
*  setting of _last
*/
tokenRefBang(token,label,elementIndex,terminalOptions) ::= <<
_last = (<ASTLabelType>)LT(1);
<super.tokenRef(...)>
>>

/** ID auto construct */
tokenRef(token,label,elementIndex,terminalOptions) ::= <<
_last = (<ASTLabelType>)LT(1);
<super.tokenRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if ( BACKTRACKING ==0 ) {<endif>
<if(terminalOptions.node)>
<label>_tree = <terminalOptions.node>New(<label>);
<else>
<label>_tree = (<ASTLabelType>)ADAPTOR->dupNode(ADAPTOR, <label>);
<endif>
ADAPTOR->addChild(ADAPTOR, root_<treeLevel>, <label>_tree);
<if(backtracking)>}<endif>
<else>
<if(backtracking)>if ( BACKTRACKING ==0 ) {<endif>
if ( _first_<treeLevel> == NULL ) _first_<treeLevel> = <label>;
<if(backtracking)>}<endif>
<endif>
>>

/** label+=TOKEN auto construct */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions)
 ::= <<
<tokenRef(...)>
<listLabel(elem=label,...)>
>>

/** ^(ID ...) auto construct */
tokenRefRuleRoot(token,label,elementIndex,terminalOptions) ::= <<
_last = (<ASTLabelType>)LT(1);
<super.tokenRef(...)>
```

```
<if(!rewriteMode)>
<if(backtracking)>if ( BACKTRACKING == 0 ) {<endif>
<if(terminalOptions.node)>
<label>_tree = <terminalOptions.node>New(<label>);
<else>
<label>_tree = (<ASTLabelType>)ADAPTOR->dupNode(ADAPTOR, <label>);
<endif><\n>
root_<treeLevel> = (<ASTLabelType>)ADAPTOR->becomeRoot(ADAPTOR, <label>_tree, root_<treeLevel>);
<if(backtracking)>}<endif>
<endif>
>>

/** Match ^(label+=TOKEN ...) auto construct */
tokenRefRuleRootAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRefRuleRoot(...)>
<listLabel(elem=label,...)>
>>

/** Match . wildcard and auto dup the node/subtree */
wildcard(token,label,elementIndex,terminalOptions) ::= <<
_last = (<ASTLabelType>)LT(1);
<super.wildcard(...)>
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate>
 ) {<endif>
<label>_tree = (<ASTLabelType>)ADAPTOR->dupTree(ADAPTOR, <label>);
ADAPTOR->addChild(ADAPTOR, root_<treeLevel>, <label>_tree);
<if(backtracking)>}<endif>
<else> <! rewrite mode !>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> )<endif>
if ( _first_<treeLevel>==null ) _first_<treeLevel> = <label>;
<endif>
>>

// SET AST

matchSet(s,label,terminalOptions,elementIndex,postmatchCode) ::= <<
_last = (<ASTLabelType>)LT(1);
<super.matchSet(postmatchCode={
<if(!rewriteMode)>
<if(backtracking)>if ( BACKTRACKING == 0 ) {<endif>
<if(terminalOptions.node)>
<label>_tree = <terminalOptions.node>New(<label>);
<else>
<label>_tree = (<ASTLabelType>)ADAPTOR->dupNode(ADAPTOR, <label>);
<endif><\n>
ADAPTOR->addChild(ADAPTOR, root_<treeLevel>, <label>_tree);
<if(backtracking)>\}<endif>
```

```
<endif>
}
,...)>
>>

matchRuleBlockSet(s,label,terminalOptions,elementIndex,postmatchCode,treeLevel="0") ::= <<
<matchSet(...)>
<noRewrite()> <! set return tree !>
>>

matchSetBang(s,label,terminalOptions,elementIndex,postmatchCode)
 ::= <<
_last = (<ASTLabelType>)LT(1);
<super.matchSet(...)>
>>

matchSetRuleRoot(s,label,terminalOptions,elementIndex,debug) ::= <<
<super.matchSet(postmatchCode={
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ){<endif>
<if(terminalOptions.node)>
<label>_tree = <terminalOptions.node>New(<label>);
<else>
<label>_tree = (<ASTLabelType>)ADAPTOR->dupNode(ADAPTOR, <label>);
<endif>
root_<treeLevel> = (<ASTLabelType>)ADAPTOR->becomeRoot(ADAPTOR, <label>_tree, root_<treeLevel>);
<if(backtracking)>\}<endif>
<endif>
}, ...
)>
>>

// RULE REF AST

/** rule auto construct */
ruleRef(rule,label,elementIndex,args,scope) ::= <<
_last = (<ASTLabelType>)LT(1);
<super.ruleRef(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> )
{
<endif>
<if(!rewriteMode)>
 ADAPTOR->addChild(ADAPTOR, root_<treeLevel>, <label>.tree);
<else>
 if ( _first_<treeLevel> == NULL ) _first_<treeLevel> = <label>.tree;
<endif>
<if(backtracking)>}<endif>
>>
```

```
/**
 x+=rule auto construct */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<super.listLabelAST(elem=label,...)>
>>

/** ^(rule ...) auto construct */
ruleRefRuleRoot(rule,label,elementIndex,args,scope) ::= <<
_last = (<ASTLabelType>)LT(1);
<super.ruleRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if ( ( <actions.(actionScope).synpredgate> ) ) <endif>root_<treeLevel> =
(<ASTLabelType>)(ADAPTOR->becomeRoot(ADAPTOR, <label>.tree, root_<treeLevel>));
<endif>
>>

/** ^(x+=rule ...) auto construct */
ruleRefRuleRootAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRoot(...)>
<super.listLabelAST(elem=label,...)>
>>

/** rule when output=AST and tracking for rewrite */
ruleRefTrack(rule,label,elementIndex,args,scope) ::= <<
_last = (<ASTLabelType>)LT(1);
<super.ruleRefTrack(...)>
>>

/** x+=rule when output=AST and tracking for rewrite */
ruleRefTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
_last = (<ASTLabelType>)LT(1);
<super.ruleRefTrackAndListLabel(...)>
>>
/**
 ^(rule ...) rewrite */
ruleRefRuleRootTrack(rule,label,elementIndex,args,scope) ::= <<
_last = (<ASTLabelType>)LT(1);
<super.ruleRefRootTrack(...)>
>>

/** ^(x+=rule ...) rewrite */
ruleRefRuleRootTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
_last = (<ASTLabelType>)LT(1);
<super.ruleRefRuleRootTrackAndListLabel(...)>
>>
```

```
/** Streams for token refs are tree nodes now; override to
*  change nextToken to nextNode.
*/
createRewriteNodeFromElement(token,terminalOptions,scope) ::= <<
<if(terminalOptions.node)>
<terminalOptions.node>New(stream_<token>->nextNode(stream_<token>))
<else>
stream_<token>->nextNode(stream_<token>)
<endif>
>>

ruleCleanUp() ::= <<
<super.ruleCleanUp(...)>
<if(backtracking)>
if ( <actions.(actionScope).synpredgate> ) {<\n>
<endif>
<if(!ruleDescriptor.isSynPred)>
 retval.stop = LT(-1);<\n>
<endif>
 retval.tree = (<ASTLabelType>)ADAPTOR->rulePostProcessing(ADAPTOR, root_0);
<if(backtracking)>
}
<endif>
<ruleDescriptor.allTokenRefsInAltsWithRewrites
    :{if (stream_<it> != NULL) stream_<it>->free(stream_<it>);}; separator="\n">
<ruleDescriptor.allRuleRefsInAltsWithRewrites
   :{if (stream_<it> != NULL) stream_<it>->free(stream_<it>);}; separator="\n">
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/C/ASTTreeParser.stg
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*/

```
/** Templates for building ASTs during tree parsing.
*
*  Deal with many combinations.  Dimensions are:
*  Auto build or rewrite
*    no label, label, list label  (label/no-label handled together)
*    child, root
*    token, set, rule, wildcard
*
*  Each combination has its own template except that label/no label
*  is combined into tokenRef, ruleRef, ...
*/

finishedBacktracking(block) ::= <<
<if(backtracking)>
if <actions.(actionScope).synpredgate>:
   <block>
<else>
<block>
<endif>
>>

/**
 Add a variable to track last element matched */
ruleDeclarations() ::= <<
<super.ruleDeclarations()>
_first_0 = None
_last = None<\n>
>>

/** What to emit when there is no rewrite rule.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel, treeLevel) ::= <<
<finishedBacktracking({
<if(rewriteMode)>
retval.tree = _first_0
if self._adaptor.getParent(retval.tree) is not None and self._adaptor.isNil(self._adaptor.getParent(retval.tree)):
   retval.tree = self._adaptor.getParent(retval.tree)
<endif>
})>
>>

/** match ^(root children) in tree parser; override here to
*  add tree construction actions.
*/
tree(root, actionsAfterRoot, children, nullableChildList,
    enclosingTreeLevel, treeLevel) ::= <<
_last = self.input.LT(1)
```

```
_save_last_<treeLevel> = _last
_first_<treeLevel> = None
<if(!rewriteMode)>
root_<treeLevel> = self._adaptor.nil()<\n>
<endif>
<root:element()>
<if(rewriteMode)>
<finishedBacktracking({
<if(root.el.rule)>
if _first_<enclosingTreeLevel>
 is None:
   _first_<enclosingTreeLevel> = <root.el.label>.tree<\n>
<else>
if _first_<enclosingTreeLevel> is None:
   _first_<enclosingTreeLevel> = <root.el.label><\n>
<endif>
})>
<endif>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if self.input.LA(1) == DOWN:
   self.match(self.input, DOWN, None)
   <children:element()>
   self.match(self.input, UP, None)

<else>
self.match(self.input, DOWN, None)
<children:element()>
self.match(self.input, UP, None)<\n>
<endif>
<if(!rewriteMode)>
self._adaptor.addChild(root_<enclosingTreeLevel>, root_<treeLevel>)<\n>
<endif>
_last = _save_last_<treeLevel>

>>

// TOKEN AST STUFF

/** ID! and output=AST (same as plain tokenRef) 'cept add
*  setting of _last
*/
tokenRefBang(token,label,elementIndex,terminalOptions={}) ::= <<
_last = self.input.LT(1)
<super.tokenRef(...)>
>>

/** ID auto construct */
```

```
tokenRef(token,label,elementIndex,terminalOptions={}) ::= <<
_last = self.input.LT(1)
<super.tokenRef(...)>
<if(!rewriteMode)>
<finishedBacktracking({
<if(terminalOptions.node)>
<label>_tree
 = <terminalOptions.node>(<label>)
<else>
<label>_tree = self._adaptor.dupNode(<label>)
<endif><\n>
self._adaptor.addChild(root_<treeLevel>, <label>_tree)
})>
<else> <! rewrite mode !>
<finishedBacktracking({
if _first_<treeLevel> is None:
   _first_<treeLevel> = <label><\n>
})>
<endif>
>>

/** label+=TOKEN auto construct */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRef(...)>
<listLabel(elem=label,...)>
>>

/** ^(ID ...) auto construct */
tokenRefRuleRoot(token,label,elementIndex,terminalOptions={}) ::= <<
_last = self.input.LT(1)
<super.tokenRef(...)>
<if(!rewriteMode)>
<finishedBacktracking({
<if(terminalOptions.node)>
<label>_tree = <terminalOptions.node>(<label>)
<else>
<label>_tree = self._adaptor.dupNode(<label>)
<endif><\n>
root_<treeLevel> = self._adaptor.becomeRoot(<label>_tree, root_<treeLevel>)
})>
<endif>
>>

/** Match ^(label+=TOKEN ...) auto construct */
tokenRefRuleRootAndListLabel(token,label,elementIndex,terminalOptions={})
 ::= <<
<tokenRefRuleRoot(...)>
<listLabel(elem=label,...)>
```

```
>>

/** Match . wildcard and auto dup the node/subtree */
wildcard(token,label,elementIndex,terminalOptions={}) ::= <<
_last = self.input.LT(1)
<super.wildcard(...)>
<if(!rewriteMode)>
<finishedBacktracking({
<label>_tree = self._adaptor.dupTree(<label>)
self._adaptor.addChild(root_<treeLevel>, <label>_tree)
})>
<else> <! rewrite mode !>
<finishedBacktracking({
if _first_<treeLevel> is None:
   _first_<treeLevel> = <label>
})>
<endif>
>>

// SET AST
matchSet(s,label,elementIndex,postmatchCode,terminalOptions={}) ::= <<
_last = self.input.LT(1)
<super.matchSet(postmatchCode={
<if(!rewriteMode)>
<finishedBacktracking({
<if(terminalOptions.node)>
<label>_tree = <terminalOptions.node>(<label>)
<else>
<label>_tree = self._adaptor.dupNode(<label>)
<endif><\n>
self._adaptor.addChild(root_<treeLevel>, <label>_tree)
})>
<endif>
}, ...)>
>>

matchRuleBlockSet(s,label,elementIndex,postmatchCode,treeLevel="0",terminalOptions={})
 ::= <<
<matchSet(...)>
<noRewrite(...)> <! set return tree !>
>>

matchSetBang(s,label,elementIndex,postmatchCode,terminalOptions={}) ::= <<
_last = self.input.LT(1)
<super.matchSet(...)>
>>

matchSetRuleRoot(s,label,elementIndex,debug,terminalOptions={}) ::= <<
```

```
<super.matchSet(postmatchCode={
<if(!rewriteMode)>
<finishedBacktracking({
<if(terminalOptions.node)>
<label>_tree = <terminalOptions.node>(<label>)
<else>
<label>_tree = self._adaptor.dupNode(<label>)
<endif><\n>
root_<treeLevel> = self._adaptor.becomeRoot(<label>_tree, root_<treeLevel>)
})>
<endif>
}, ...)>
>>

// RULE REF AST

/** rule auto construct */
ruleRef(rule,label,elementIndex,args,scope) ::= <<
_last = self.input.LT(1)
<super.ruleRef(...)>
<finishedBacktracking({
<if(!rewriteMode)>
self._adaptor.addChild(root_<treeLevel>, <label>.tree)
<else> <! rewrite mode !>
if _first_<treeLevel> is None:
   _first_<treeLevel> = <label>.tree<\n>
<endif>
})>
>>

/** x+=rule auto construct
 */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabel(label, {<label>.tree})>
>>

/** ^(rule ...) auto construct */
ruleRefRuleRoot(rule,label,elementIndex,args,scope) ::= <<
_last = self.input.LT(1)
<super.ruleRef(...)>
<if(!rewriteMode)>
<finishedBacktracking({
root_<treeLevel> = self._adaptor.becomeRoot(<label>.tree, root_<treeLevel>)
})>
<endif>
>>
```

```
/** ^(x+=rule ...) auto construct */
ruleRefRuleRootAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRoot(...)>
<listLabel(label, {<label>.tree})>
>>

/** rule when output=AST and tracking for rewrite */
ruleRefTrack(rule,label,elementIndex,args,scope) ::= <<
_last = self.input.LT(1)
<super.ruleRefTrack(...)>
>>

/** x+=rule when output=AST and tracking for rewrite */
ruleRefTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
_last = self.input.LT(1)
<super.ruleRefTrackAndListLabel(...)>
>>

/** ^(rule ...) rewrite */
ruleRefRuleRootTrack(rule,label,elementIndex,args,scope)
 ::= <<
_last = self.input.LT(1)
<super.ruleRefRootTrack(...)>
>>

/** ^(x+=rule ...) rewrite */
ruleRefRuleRootTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
_last = self.input.LT(1)
<super.ruleRefRuleRootTrackAndListLabel(...)>
>>

/** Streams for token refs are tree nodes now; override to
*  change nextToken to nextNode.
*/
createRewriteNodeFromElement(token,scope,terminalOptions={}) ::= <<
<if(terminalOptions.node)>
<terminalOptions.node>(stream_<token>.nextNode())
<else>
stream_<token>.nextNode()
<endif>
>>

ruleCleanUp() ::= <<
<super.ruleCleanUp()>
<if(!rewriteMode)>
<finishedBacktracking({
retval.tree = self._adaptor.rulePostProcessing(root_0)
})>
```

```
<endif>
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Python/ASTTreeParser.stg
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THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
*/

```
/** Add an adaptor property that knows how to build trees */
@headerFile.members() ::= <<
/* @headerFile.members() */
pANTLR3_BASE_TREE_ADAPTOR adaptor;
pANTLR3_VECTOR_FACTORY  vectors;
/* End @headerFile.members() */
>>

/** Install the tree adaptor interface pointer and anything else that
```

```
*  tree parsers and producers require.
*/
@genericParser.apifuncs() ::= <<
<if(PARSER)>
ADAPTOR = ANTLR3_TREE_ADAPTORNew(instream->tstream->tokenSource->strFactory);<\n>
<endif>
ctx->vectors =
 antlr3VectorFactoryNew(0);
>>

@genericParser.cleanup() ::= <<
ctx->vectors->close(ctx->vectors);
<if(PARSER)>
/* We created the adaptor so we must free it
*/
ADAPTOR->free(ADAPTOR);
<endif>
>>

@returnScope.ruleReturnMembers() ::= <<

<super.ASTLabelType()> tree;

>>

/** Add a variable to track rule's return AST */
ruleDeclarations() ::= <<
<super.ruleDeclarations()>
<ASTLabelType> root_0;<\n>
>>

ruleInitializations() ::= <<
<super.ruleInitializations()>
root_0 = NULL;<\n>
>>

ruleLabelDefs() ::= <<
<super.ruleLabelDefs()>
<ruleDescriptor.tokenLabels:{it | <ASTLabelType> <it.label.text>_tree;}; separator="\n">
<ruleDescriptor.tokenListLabels:{it | <ASTLabelType> <it.label.text>_tree;}; separator="\n">
<ruleDescriptor.allTokenRefsInAltsWithRewrites
   :{it | pANTLR3_REWRITE_RULE_<rewriteElementType>_STREAM stream_<it>;}; separator="\n">
<ruleDescriptor.allRuleRefsInAltsWithRewrites
   :{it | pANTLR3_REWRITE_RULE_SUBTREE_STREAM
 stream_<it>;}; separator="\n">
>>

/* Note that we defer the actual creation of any rewrite streams we need here and just initialize
```

```
* them to NULL. This saves creating huge numbers of rewrite streams that cannot be used as only
* one alt will be taken in a rule, but we are declaring all the streams here. So we define
* a macro that conatins the create code, then use this macro later to check if the stream
* has been created yet. Checking for NULL is almost free in C.
*/
ruleLabelInitializations() ::= <<
<super.ruleLabelInitializations()>
<ruleDescriptor.tokenLabels:{it | <it.label.text>_tree   = NULL;}; separator="\n">
<ruleDescriptor.tokenListLabels:{it | <it.label.text>_tree   = NULL;}; separator="\n">

<ruleDescriptor.allTokenRefsInAltsWithRewrites
:{it | stream_<it>   = NULL;
#define CREATE_stream_<it>  if (stream_<it> == NULL) {stream_<it> =
antlr3RewriteRule<rewriteElementType>StreamNewAE(ADAPTOR, RECOGNIZER, (pANTLR3_UINT8)"token
<it>"); \} };
 separator="\n">
<ruleDescriptor.allRuleRefsInAltsWithRewrites
:{it | stream_<it>   = NULL;
#define CREATE_stream_<it>  if (stream_<it> == NULL) {stream_<it> =
antlr3RewriteRuleSubtreeStreamNewAE(ADAPTOR, RECOGNIZER, (pANTLR3_UINT8)"rule <it>"); \}};
separator="\n">

<if(ruleDescriptor.hasMultipleReturnValues)>
retval.tree  = NULL;
<endif>
>>



/**  a rule label including default value */
ruleLabelInitVal(label) ::= <<
<super.ruleLabelInitVal(...)>
<label.label.text>.tree = NULL;
>>

/** When doing auto AST construction, we must define some variables;
*  These should be turned off if doing rewrites.  This must be a "mode"
*  as a rule could have both rewrite and AST within the same alternative
*  block.
*/
@alt.declarations() ::= <<
<if(autoAST)>
<if(outerAlt)>
<endif>
<endif>
>>

@alt.initializations() ::= <<
<if(autoAST)>
```

```
<if(outerAlt)>
<if(!rewriteMode)>
root_0 = (<ASTLabelType>)(ADAPTOR->nilNode(ADAPTOR));<\n>
<endif>
<endif>
<endif>
>>


// Tracking Rule Elements
//
/** ID but track it for use in a rewrite rule */
tokenRefTrack(token,label,elementIndex,terminalOptions) ::= <<
<tokenRefBang(...)> <! Track implies no auto AST construction!>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) { <endif>CREATE_stream_<token>;
stream_<token>->add(stream_<token>, <label>, NULL);<if(backtracking)> }<endif><\n>
>>

/** ids+=ID and track it for use in a rewrite rule; adds to ids *and*
*  to the tracking list stream_ID for use in the rewrite.
*/
tokenRefTrackAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRefTrack(...)>
<listLabel(elem=label,...)>
>>

/** ^(ID ...) track for rewrite */
tokenRefRuleRootTrack(token,label,elementIndex,terminalOptions) ::= <<
<tokenRefBang(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>CREATE_stream_<token>; stream_<token>->add(stream_<token>, <label>, NULL);<if(backtracking)> }<endif><\n>
>>

wildcardTrack(label,elementIndex) ::= <<
<super.wildcard(...)>
>>

/**
 rule when output=AST and tracking for rewrite */
ruleRefTrack(rule,label,elementIndex,args,scope) ::= <<
<super.ruleRef(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) { <endif>CREATE_stream_<rule.name>;
stream_<rule.name>->add(stream_<rule.name>, <label>.tree, NULL);<if(backtracking)> }<endif>
>>

/** x+=rule when output=AST and tracking for rewrite */
ruleRefTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
```

```
<ruleRefTrack(...)>
<listLabelTrack(...)>
>>

/** ^(rule ...) rewrite */
ruleRefRuleRootTrack(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRoot(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) { <endif>CREATE_stream_<rule.name>;
stream_<rule.name>->add(stream_<rule.name>, <label>.tree, NULL);<if(backtracking)> }<endif>
>>

/** ^(x+=rule ...) rewrite */
ruleRefRuleRootTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRootTrack(...)>
<listLabelAST(...)>
>>


// RULE REF AST



/** Match ^(label+=TOKEN
 ...) track for rewrite */
tokenRefRuleRootTrackAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRefRuleRootTrack(...)>
<listLabel(elem=label,...)>
>>


/* How to accumulate lists when we are doing rewrite tracking...
*/
listLabelTrack(label) ::= <<
/* listLabelTrack(label)
*/
if (list_<label> == NULL)
{
   list_<label>=ctx->vectors->newVector(ctx->vectors);
}
list_<label>->add(list_<label>, <label>.tree, NULL);
>>

/* How to accumulate lists of rule outputs (only allowed with AST
* option but if the user is going to walk the tree, they will want
* all their custom elements from rule returns.
*
* Normally, we use inline structures (which the compiler lays down
* code to copy from heap allocations. However, here we want to accumulate copies
```

```
* of the returned structures because we are adding them to a list. This only makes sense if the
* grammar is not rewriting the tree as a tree rewrite only preserves the tree, not the object/structure
* returned from the
 rule. The rewrite will extract the tree pointer. However, if we are not going to
* do a tree re-write, then the user may wish to iterate the structures returned by the rule in
* action code and will expect the user defined returns[] elements to be available when they do this.
* Hence we cannot just preserve the tree that was returned. So, we must copy the local structure and provide
* a function that can free the allocated space. We cannot know how to free user allocated elements and
* presume that the user will know to do this using their own factories for the structures they allocate.
*/
listLabelAST(label) ::= <<
if (list_<label> == NULL)
{
   list_<label>=ctx->vectors->newVector(ctx->vectors);
}
{
   RETURN_TYPE_<label> * tcopy;

   tcopy = (RETURN_TYPE_<label> *)ANTLR3_MALLOC(sizeof(RETURN_TYPE_<label>)); /* Note no
memory allocation checks! */
   ANTLR3_MEMCPY((void *)(tcopy), (const void *)&<label>, sizeof(RETURN_TYPE_<label>));
   list_<label>->add(list_<label>, (void
 *)tcopy, freeScope);  /* Add whatever the return type is */<\n>
}
>>

// R e w r i t e

rewriteCode(
 alts,
 description,
 referencedElementsDeep, // ALL referenced elements to right of ->
 referencedTokenLabels,
 referencedTokenListLabels,
 referencedRuleLabels,
 referencedRuleListLabels,
   referencedWildcardLabels,
   referencedWildcardListLabels,
 rewriteBlockLevel,
 enclosingTreeLevel,
 treeLevel) ::=
<<

/* AST REWRITE
* elements          : <referencedElementsDeep; separator=", ">
* token labels      : <referencedTokenLabels; separator=", ">
* rule labels       : <referencedRuleLabels; separator=", ">
* token list labels : <referencedTokenListLabels; separator=", ">
```

```
* rule list labels  : <referencedRuleListLabels; separator=", ">
*/
<if(backtracking)>
if ( <actions.(actionScope).synpredgate> ) <\n>
<endif>
{
 <rewriteCodeLabelsDecl()>
 <rewriteCodeLabelsInit()>
 root_0       = (<ASTLabelType>)(ADAPTOR->nilNode(ADAPTOR));
 <prevRuleRootRef()>.tree    = root_0;
 <alts:rewriteAlt();
 separator="else ">
 <if(TREE_PARSER)>
 <if(rewriteMode)>
 <prevRuleRootRef()>.tree = (<ASTLabelType>)(ADAPTOR->rulePostProcessing(ADAPTOR, root_0));
 INPUT->replaceChildren(INPUT, ADAPTOR->getParent(ADAPTOR, retval.start),
                     ADAPTOR->getChildIndex(ADAPTOR, retval.start),
                     ADAPTOR->getChildIndex(ADAPTOR, _last),
                     retval.tree);
 <endif>
 <endif>
 <prevRuleRootRef()>.tree = root_0; // set result root
 <rewriteCodeLabelsFree()>

}
>>

rewriteCodeLabelsDecl() ::= <<
<referencedTokenLabels
   :{it | pANTLR3_REWRITE_RULE_<rewriteElementType>_STREAM stream_<it>;};
   separator="\n"
>
<referencedTokenListLabels
   :{it | pANTLR3_REWRITE_RULE_<rewriteElementType>_STREAM stream_<it>;};
   separator="\n"
>
<referencedRuleLabels
   :{it | pANTLR3_REWRITE_RULE_SUBTREE_STREAM stream_<it>;};
   separator="\n"
>
<referencedRuleListLabels
   :{it | pANTLR3_REWRITE_RULE_SUBTREE_STREAM stream_<it>;};
   separator="\n"
>
>>

rewriteCodeLabelsInit()
```

```
 ::= <<
<referencedTokenLabels
:{it | stream_<it>=antlr3RewriteRule<rewriteElementType>StreamNewAEE(ADAPTOR,  RECOGNIZER,
(pANTLR3_UINT8)"token <it>", <it>);};
separator="\n"
>
<referencedTokenListLabels
:{it | stream_<it>=antlr3RewriteRule<rewriteElementType>StreamNewAEV(ADAPTOR,  RECOGNIZER,
(pANTLR3_UINT8)"token <it>", list_<it>); };
separator="\n"
>
<referencedRuleLabels
:{it | stream_<it>=antlr3RewriteRuleSubtreeStreamNewAEE(ADAPTOR,  RECOGNIZER,
(pANTLR3_UINT8)"token <it>", <it>.tree != NULL ? <it>.tree : NULL);};
separator="\n"
>
<referencedRuleListLabels
:{it | stream_<it>=antlr3RewriteRuleSubtreeStreamNewAEV(ADAPTOR,  RECOGNIZER,
(pANTLR3_UINT8)"token <it>", list_<it>);};
separator="\n"
>
>>
rewriteCodeLabelsFree() ::= <<
<referencedTokenLabels
:{it | if (stream_<it> != NULL) stream_<it>->free(stream_<it>); };
separator="\n"
>
<referencedTokenListLabels
:{it | if (stream_<it> != NULL) stream_<it>->free(stream_<it>);};
separator="\n"
>
<referencedRuleLabels
:{it
 | if (stream_<it> != NULL) stream_<it>->free(stream_<it>);};
separator="\n"
>
<referencedRuleListLabels
:{it | if (stream_<it> != NULL) stream_<it>->free(stream_<it>);};
separator="\n"
>
>>

/** Generate code for an optional rewrite block; note it uses the deep ref'd element
 *  list rather shallow like other blocks.
 */
rewriteOptionalBlock(
 alt,
 rewriteBlockLevel,
```

```
 referencedElementsDeep, // all nested refs
 referencedElements,  // elements in immediately block; no nested blocks
 description) ::=
<<
// <fileName>:<description>
{
 if ( <referencedElementsDeep:{el | (stream_<el> != NULL && stream_<el>->hasNext(stream_<el>)) };
separator="|| "> )
 {
  <alt>
 }
 <referencedElementsDeep:{el | if ( stream_<el> != NULL) stream_<el>->reset(stream_<el>);<\n>}>
}<\n>
>>

rewriteClosureBlock(
 alt,
 rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements,  // elements in immediately block; no nested blocks
 description) ::=
<<
// <fileName>:<description>
{
 while
 ( <referencedElements:{el | (stream_<el> != NULL && stream_<el>->hasNext(stream_<el>)) }; separator="|| "> )
 {
  <alt>
 }
 <referencedElements:{el | if (stream_<el> != NULL) stream_<el>->reset(stream_<el>);<\n>}>
}<\n>
>>
RewriteEarlyExitException() ::=
<<
CONSTRUCTEX();
EXCEPTION->type         = ANTLR3_REWRITE_EARLY_EXCEPTION;
EXCEPTION->name         = (void *)ANTLR3_REWRITE_EARLY_EXCEPTION_NAME;
>>
rewritePositiveClosureBlock(
 alt,
 rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements,  // elements in immediately block; no nested blocks
 description) ::=
<<
if (<referencedElements:{el | (stream_<el> == NULL || !stream_<el>->hasNext(stream_<el>)) }; separator="|| "> )
{
   <RewriteEarlyExitException()>
```

```
}
else
{
 while ( <referencedElements:{el | (stream_<el>->hasNext(stream_<el>)) }; separator="|| "> ) {
  <alt>
 }
 <referencedElements:{el | stream_<el>->reset(stream_<el>);<\n>}>
}
>>

rewriteAlt(a) ::= <<
// <a.description>
<if(a.pred)>
if (<a.pred>)
{
    <a.alt>
}<\n>
<else>
{
   <a.alt>
}<\n>
<endif>
>>

/** For empty rewrites: "r : ... -> ;" */
rewriteEmptyAlt() ::= "root_0 = NULL; /* \<-- rewriteEmptyAlt()) */"

rewriteTree(root,children,description,enclosingTreeLevel,treeLevel) ::= <<
// <fileName>:<description>
{
   <ASTLabelType> root_<treeLevel> = (<ASTLabelType>)(ADAPTOR->nilNode(ADAPTOR));
   <root:rewriteElement()>
   <children:rewriteElement()>
   ADAPTOR->addChild(ADAPTOR, root_<enclosingTreeLevel>, root_<treeLevel>);
}<\n>
>>

rewriteElementList(elements) ::= "<elements:rewriteElement()>"

rewriteElement(e) ::= <<
<@pregen()>
<e.el>
>>

/** Gen ID or ID[args] */
rewriteTokenRef(token,elementIndex,terminalOptions,args) ::= <<
ADAPTOR->addChild(ADAPTOR, root_<treeLevel>, <createRewriteNodeFromElement(...)>);<\n>
>>
```

```
/** Gen $label ... where defined via label=ID */
rewriteTokenLabelRef(label,elementIndex) ::= <<
ADAPTOR->addChild(ADAPTOR, root_<treeLevel>, stream_<label> == NULL ? NULL : stream_<label>-
>nextNode(stream_<label>));<\n>
>>

/**
 Gen $label ... where defined via label+=ID */
rewriteTokenListLabelRef(label,elementIndex) ::= <<
ADAPTOR->addChild(ADAPTOR, root_<treeLevel>, stream_<label> == NULL ? NULL : stream_<label>-
>nextNode(stream_<label>));<\n>
>>

/** Gen ^($label ...) */
rewriteTokenLabelRefRoot(label,elementIndex) ::= <<
root_<treeLevel> = (<ASTLabelType>)(ADAPTOR->becomeRootToken(ADAPTOR, stream_<label> == NULL ?
NULL : stream_<label>->nextToken(stream_<label>), root_<treeLevel>));<\n>
>>

/** Gen ^($label ...) where label+=... */
rewriteTokenListLabelRefRoot ::= rewriteTokenLabelRefRoot

/** Gen ^(ID ...) or ^(ID[args] ...) */
rewriteTokenRefRoot(token,elementIndex,terminalOptions,args) ::= <<
root_<treeLevel> = (<ASTLabelType>)(ADAPTOR->becomeRoot(ADAPTOR,
<createRewriteNodeFromElement(...)>, root_<treeLevel>));<\n>
>>

rewriteImaginaryTokenRef(args,token,terminalOptions,elementIndex) ::= <<
ADAPTOR->addChild(ADAPTOR, root_<treeLevel>, <createImaginaryNode(tokenType=token,
 ...)>);<\n>
>>

rewriteImaginaryTokenRefRoot(args,token,terminalOptions,elementIndex) ::= <<
root_<treeLevel> = (<ASTLabelType>)(ADAPTOR->becomeRoot(ADAPTOR,
<createImaginaryNode(tokenType=token, ...)>, root_<treeLevel>));<\n>
>>

/** plain -> {foo} action */
rewriteAction(action) ::= <<
root_0 = <action>;<\n>
>>

/** What is the name of the previous value of this rule's root tree?  This
*  let's us refer to $rule to mean previous value.  I am reusing the
*  variable 'tree' sitting in retval struct to hold the value of root_0 right
*  before I set it during rewrites.  The assign will be to retval.tree.
```

```
*/
prevRuleRootRef() ::= "retval"

rewriteRuleRef(rule,dup) ::= <<
ADAPTOR->addChild(ADAPTOR, root_<treeLevel>, stream_<rule> == NULL ? NULL : stream_<rule>-
>nextTree(stream_<rule>));<\n>
>>

rewriteRuleRefRoot(rule,dup) ::= <<
root_<treeLevel> = (<ASTLabelType>)(ADAPTOR->becomeRoot(ADAPTOR, stream_<rule> == NULL ? NULL
: stream_<rule>->nextNode(stream_<rule>), root_<treeLevel>));<\n>
>>

rewriteNodeAction(action)
 ::= <<
ADAPTOR->addChild(ADAPTOR, root_<treeLevel>, <action>);<\n>
>>

rewriteNodeActionRoot(action) ::= <<
root_<treeLevel> = (<ASLabelType>)(ADAPTOR->becomeRoot(ADAPTOR, <action>, root_<treeLevel>));<\n>
>>

/** Gen $ruleLabel ... where defined via ruleLabel=rule */
rewriteRuleLabelRef(label) ::= <<
ADAPTOR->addChild(ADAPTOR, root_<treeLevel>, stream_<label> == NULL ? NULL : stream_<label>-
>nextTree(stream_<label>));<\n>
>>

/** Gen $ruleLabel ... where defined via ruleLabel+=rule */
rewriteRuleListLabelRef(label) ::= <<
ADAPTOR->addChild(ADAPTOR, root_<treeLevel>, stream_<label> == NULL ? NULL : stream_<label>-
>nextTree(stream_<label>));<\n>
>>

/** Gen ^($ruleLabel ...) where ruleLabel=rule */
rewriteRuleLabelRefRoot(label) ::= <<
root_<treeLevel> = (<ASTLabelType>)(ADAPTOR->becomeRoot(ADAPTOR, stream_<label> == NULL ? NULL
: stream_<label>->nextNode(stream_<label>), root_<treeLevel>));<\n>
>>

/** Gen ^($ruleLabel ...) where ruleLabel+=rule */
rewriteRuleListLabelRefRoot(label)
 ::= <<
root_<treeLevel> = (<ASTLabelType>)(ADAPTOR->becomeRoot((<ASTLabelType>)(stream_<label> == NULL
? NULL : stream_<label>->nextNode(stream_<label>), root_<treeLevel>));<\n>
>>

rewriteWildcardLabelRef(label) ::= <<
```

```
ADAPTOR->addChild(ADAPTOR, root_<treeLevel>, stream_<label> == NULL ? NULL : stream_<label>->nextTree(stream_<label>));<\n>
>>

createImaginaryNode(tokenType,terminalOptions,args) ::= <<
<if(terminalOptions.node)>
<! new MethodNode(IDLabel, args) !>
<terminalOptions.node>New(<tokenType><if(args)>, <args; separator=", "><endif>)
<else>
<if(args)>

#if <length(args)> == 2
 (<ASTLabelType>)ADAPTOR->createTypeTokenText(ADAPTOR, <tokenType>, TOKTEXT(<args; separator=", ">))
#else
 (<ASTLabelType>)ADAPTOR->createTypeText(ADAPTOR, <tokenType>, (pANTLR3_UINT8)<args; separator=", ">)
#endif

<else>
(<ASTLabelType>)ADAPTOR->createTypeText(ADAPTOR, <tokenType>, (pANTLR3_UINT8)"<tokenType>")
<endif>
<endif>
>>

createRewriteNodeFromElement(token,terminalOptions,args)
 ::= <<
<if(terminalOptions.node)>
<terminalOptions.node>New(stream_<token>->nextToken(stream_<token>)<if(args)>, <args; separator=", "><endif>)
<else>
<if(args)> <! must create new node from old !>

#if <length(args)> == 2
ADAPTOR->createTypeTokenText(ADAPTOR, <token>->getType(<token>, TOKTEXT(<token>, <args; separator=", ">)) /* JIMI */
#else
ADAPTOR->createTypeToken(ADAPTOR, <token>->getType(<token>, <token>, <args; separator=", ">)
#endif

<else>
stream_<token> == NULL ? NULL : stream_<token>->nextNode(stream_<token>)
<endif>
<endif>
>>
```

Found in path(s):

* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/C/AST.stg

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```
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*/
/** Template subgroup to add template rewrite output
*  If debugging, then you'll also get STDbg.stg loaded.
*/

@returnScopeInterface.memVars() ::= <<
<@super.memVars()>
/* ST returnInterface.memVars */
ST *st;
>>

@returnScopeInterface.properties() ::= <<
<@super.properties()>
/* ST returnScope.properties */
@property (retain, getter=getST, setter=setST:) ST *st;
>>

@returnScopeInterface.methodsDecl() ::= <<
<@super.methodsDecl()>
```

```
/* ST AST returnScopeInterface.methodsDecl */
-
 (id) getTemplate;
- (NSString *) toString;
- (NSString *) description;
>>

@returnScopeInterface() ::= <<
/* ST returnScopeInterface */
@interface <returnScopeInterface.name> : ReturnScope {
<returnScopeInterface.memVars()>
}
<returnScopeInterface.properties()>

<returnScopeInterface.methods()>
@end
>>

@returnScopeImplementation.synthesize() ::= <<
<@super.synthesize()>
/* ST returnScope.synthesize */
@synthesize st;
>>

@returnScopeImplementation.methods() ::= <<
<@super.methods()>
/* ST returnScope.methods */
- (id) getTemplate { return st; }
- (NSString *) toString { return st==nil?nil:[st toString]; }
- (NSString *) description { [self toString]; }
>>

@returnScopeImplementation() ::= <<
@implementation <returnScopeImplementation.name>
<returnScopeImplementation.synthesize()>

<returnScopeImplementation.methods()>
@end
>>

/** Add this to each rule's return value struct */
@returnScope.ruleReturnMembers() ::= <<
<@super.ruleReturnMembers()>
/* ST returnScope.ruleReturnMembers --
 empty */
>>

@genericParserHeaderFile.memVars() ::= <<
```

```
<@super.memVars()>
/* ST genericParserHeaderFile.memVars -- empty now */
STGroup *templateLib; /* ST -- really a part of STAttrMap */
>>

@genericParserHeaderFile.properties() ::= <<
<@super.properties()>
/* ST genericParser.properties */
@property (retain, getter=getTemplateLib, setter=setTemplateLib:) STGroup *templateLib;
>>

@genericParserHeaderFile.methodsDecl() ::= <<
<@super.methodsDecl()>
/* ST genericParser.methodsDecl */
- init;
- (STGroup *) getTemplateLib;
- (void) setTemplateLib:(STGroup *)aTemplateLib;
@end
>>

@genericParser.synthesize() ::= <<
<@super.synthesize()>
/* ST genericParserImplementation.synthesize */
@synthesize templateLib;
>>

@genericParser.methods() ::= <<
<@super.methods()>
/* ST genericParser.methods */

- (STGroup *)getTemplateLib
{
   return templateLib;
}

- (void) setTemplateLib:(STGroup *)aTemplateLib
{
   templateLib = aTemplateLib;
}

>>

@genericParser.members() ::= <<
<@super.members()>
STGroup
 *templateLib = [STGroup  newSTGroup:@"<name>Templates"];

- (STGroup *) getTemplateLib
```

```
{
 return templateLib;
}

- (void) setTemplateLib:(STGroup *) templateLib
{
 this.templateLib = templateLib;
}

/** allows convenient multi-value initialization:
*  "new STAttrMap().put(...).put(...)"
*/
/* REPLACE THIS STATIC CLASS
static class STAttrMap extends HashMap {
- (STAttrMap *) setObject:(id)aValue forKey:(NS*)String attrName
{
   [super setObject:value forKey:attrName];
   return self;
}
- (STAttrMap *) setObjectWithInt:(NSInteger)value forKey:(NSString *)attrName
{
   [super setObject:[NSNumber numberWithInteger:value] forKey:attrName];
   return self;
 }
}
*/
>>

@STAttrMap() ::= <<
/* -------- ST start STAttrMap ------------ */
<@STAttrMap.interface()>
<@STAttrMap.implementation()>
/* -------- ST end STAttrMap ------------ */
>>

@STAttrMap.interface() ::= <<
/* -------- ST start STAttrMap.interface ------------ */
@interface STAttrMap : HashMap {
/*    <@STAttrMap.memVars()>
 */
   STGroup *templateLib;
}

/*    <@STAttrMap.properties()> */
@property (retain, getter=getTemplateLib, setter=setTemplateLib:) STGroup *templateLib;
/* <@STAttrMap.methodsDecl()> */
- (id) init;
- (STAttrMap *) setObject:(id)value forKey:(NSString *)attrName;
```

```
- (STAttrMap *) setObjectWithInt:(NSInteger)value forKey:(NSString *)attrName;
- (void) setTemplateLib:(STGroup *)aTemplateLib;
- (STGroup *) getTemplateLib;
@end
/* -------- ST end STAttrMap.interface ------------ */
>>

@STAttrMap.implementation() ::= <<
/* -------- ST start STAttrMap.implementation ------------ */
/** allows convenient multi-value initialization:
*  "new STAttrMap().put(...).put(...)"
*/
@implementation STAttrMap
@synthesize templateLib;

<@STAttrMap.methods()>
@end
/* -------- ST end STAttrMap.implementation ------------ */
>>

@STAttrMap.memVars() ::= <<
/* -------- ST start STAttrMap.memVars ------------ */
   STGroup *templateLib;
/* -------- ST end STAttrMap.memVars ------------ */
>>

@STAttrMap.properties()
 ::= <<
/* -------- ST start STAttrMap.properties ------------ */
@property (retain, getter=getTemplateLib, setter=setTemplateLib:) STGroup *templateLib;
/* -------- ST end STAttrMap.properties ------------ */
>>

@STAttrMap.methodsDecl() ::= <<
/* -------- ST start STAttrMap.methodsDecl ------------ */
- (id) init;
- (STAttrMap *) setObject:(id)value forKey:(NSString *)attrName;
- (STAttrMap *) setObjectWithInt:(NSInteger)value forKey:(NSString *)attrName;
- (void) setTemplateLib:(STGroup *)aTemplateLib;
- (STGroup *) getTemplateLib;
/* -------- ST end STAttrMap.methodsDecl ------------ */
>>

@STAttrMap.methods() ::= <<
/* -------- ST start STAttrMap.methods ------------ */
- (id) init
{
   self = [super initWithLen:16];
```

```
  if ( self != nil ) {
      templateLib = [STGroup newSTGroup:"<name>Templates"];
  }
  return self;
}

- (STAttrMap *) setObject:(id)aValue forKey:(NSString *)aAttrName
{
  [super setObject:aValue forKey:aAttrName];
  return self;
}

-
 (STAttrMap *) setObjectWithInt:(NSInteger)aValue forKey:(NSString *)aAttrName
{
  [super setObject:[NSNumber numberWithInteger:aValue] forKey:aAttrName];
  return self;
}
- (void) setTemplateLib:(STGroup *)aTemplateLib
{
  templateLib = aTemplateLib;
}

- (STGroup *)getTemplateLib
{
  return templateLib;
}
/* -------- ST end STAttrMap.methods ------------ */
>>

/** x+=rule when output=template */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
/* ST ruleRefAndListLable */
<ruleRef(...)>
<listLabel(elem=[label getTemplate,...]>
>>

rewriteTemplate(alts) ::= <<
/* -------- ST start rewriteTemplate ------------ */
// TEMPLATE REWRITE
<if(backtracking)>
if ( <actions.(actionScope).synpredgate> ) {
  <alts:rewriteTemplateAlt(); separator="else ">
  <if(rewriteMode)><replaceTextInLine()><endif>
}
<else>
<alts:rewriteTemplateAlt(); separator="else ">
<if(rewriteMode)><replaceTextInLine()><endif>
```

```
<endif>
/* -------- ST end rewriteTemplate ------------ */
>>

replaceTextInLine()
 ::= <<
/* -------- ST start replaceTextInLine ------------ */
<if(TREE_PARSER)>
[[(TokenRewriteStream *)input getTokenStream]
   replaceFromIndex:[[input getTreeAdaptor] getTokenStartIndex:retval.start]
            ToIndex:[[input getTreeAdaptor] getTokenStopIndex:retval.start]
               Text:retval.st];
<else>
[(TokenRewriteStream *)input)
       replaceFromIndex:[((CommonToken *)retval.start) getTokenIndex]
                ToIndex:[[input LT:-1] getTokenIndex]
                   Text:retval.st];
<endif>
/* -------- ST end replaceTextInLine ------------ */
>>

rewriteTemplateAlt() ::= <<
/* -------- ST start rewriteTemplateAlt ------------ */
/* ST <it.description> */
<if(it.pred)>
if (<it.pred>) {
   retval.st = <it.alt>;
}<\n>
<else>
{
   retval.st = <it.alt>;
}<\n>
<endif>
/* -------- ST end rewriteTemplateAlt ------------ */
>>

rewriteEmptyTemplate(alts) ::= <<
nil;
>>

/** Invoke a template with a set of attribute name/value pairs.
*  Set the value
 of the rule's template *after* having set
*  the attributes because the rule's template might be used as
*  an attribute to build a bigger template; you get a self-embedded
*  template.
*/
rewriteExternalTemplate(name,args) ::= <<
```

```
/* -------- ST start rewriteExternalTemplate ------------ */
[templateLib getInstanceOf:@"<name>"
<if(args)>[[STAttrMap newSTAttrMap] <args:{a | setObject:<a.value> forKey:@"<a.name>"]}><endif>]
/* -------- ST end rewriteExternalTemplate ------------ */
>>

/** expr is a string expression that says what template to load */
rewriteIndirectTemplate(expr,args) ::= <<
/* -------- ST start rewriteIndirectTemplate ------------ */
[templateLib getInstanceOf:<expr>
<if(args)> [[STAttrMap newSTAttrMap]<args:{a | setObject:<a.value> forKey:@"<a.name>"]}>]
<else>]<endif>
/* -------- ST end rewriteIndirectTemplate ------------ */
>>

/** Invoke an inline template with a set of attribute name/value pairs */
rewriteInlineTemplate(args, template) ::= <<
/* -------- ST
 start rewriteInlineTemplate ------------ */
STGroup *templateLib;
templateLib.templates = [STAttrMap newSTAttrMap];
<if(args)> [templateLib.templates <args:{a | setObject:<a.value> forKey:@"<a.name>"];}><endif>
[ST newST:templateLib template:@"<template>"];
/* -------- ST end rewriteInlineTemplate ------------ */
>>

/** plain -> {foo} action */
rewriteAction(action) ::= <<
/* -------- ST start rewriteAction ------------ */
<action>
/* -------- ST end rewriteAction ------------ */
>>

/** An action has %st.attrName=expr; or %{st}.attrName=expr; */
actionSetAttribute(st,attrName,expr) ::= <<
/* -------- ST start actionSetAttribute ------------ */
[[ST attributes] setObject:<expr> forKey:@"<attrName>"];
<![<st> setAttribute:<expr> name:@"<attrName>"];!>
/* -------- ST end actionSetAttribute ------------ */
>>

/** Translate %{stringExpr} */
actionStringConstructor(stringExpr) ::= <<
/* -------- ST start actionStringConstructor ------------ */
[ST newSTWithTemplate:<stringExpr>]
/* --------
 ST end actionStringConstructor ------------ */
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/ObjC/ST.stg
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```
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*/

/** Template overrides to add debugging to AST stuff.  Dynamic inheritance
*  hierarchy is set up as ASTDbg : AST : Dbg : Java by code generator.
*/
parserMembers() ::= <<
DebugTreeAdaptor *adaptor = [DebugTreeAdaptor newTreeAdaptor:(id)dbg Adaptor:[CommonTreeAdaptor
newTreeAdaptor]];

// fix this
- (void) setTreeAdaptor:(id<TreeAdaptor>)anAdaptor
{
   adaptor = [DebugTreeAdaptor newTreeAdaptor:dbg Adaptor:anAdaptor];
<if(grammar.grammarIsRoot)>
   adaptor = [DebugTreeAdaptor
```

```
 newTreeAdaptor:adaptor withDBG:dbg];
<else>
   adaptor = (DebugTreeAdaptor *)adaptor; // delegator sends dbg adaptor
<endif><\n>
   <grammar.directDelegates:{g|[<g:delegateName()> setTreeAdaptor:adaptor];}>
}

- (id<TreeAdaptor>)getTreeAdaptor
{
   return adaptor;
}<\n>
>>

parserCtorBody() ::= <<
<super.parserCtorBody()>
>>

createListenerAndHandshake() ::= <<
DebugEventSocketProxy proxy =
   [DebugEventSocketProxy newDebugEventSocketProxy:self, port, <if(TREE_PARSER)>[input
getTreeAdaptor]<else>adaptor<endif>];
[self setDebugListener:proxy];
[self set<inputStreamType>:[Debug<inputStreamType> newDebug<inputStreamType>:input with:proxy]];
try {
   [proxy handshake];
}
@catch (IOException *ioe) {
   [self reportError:ioe];
}
>>

@ctorForRootGrammar.finally() ::= <<
CommonTreeAdaptor *adap = [CommonTreeAdaptor newTreeAdaptor];
[self setTreeAdaptor:adap];
[proxy setTreeAdaptor:adap];
>>

@ctorForProfilingRootGrammar.finally() ::=<<
CommonTreeAdaptor *adap = [CommonTreeAdaptor
 newTreeAdaptor];
[self setTreeAdaptor:adap];
[proxy setTreeAdaptor:adap];
>>

@ctorForPredefinedListener.superClassRef() ::= @"super(input, dbg);"

@ctorForPredefinedListener.finally() ::=<<
<if(grammar.grammarIsRoot)> <! don't create new adaptor for delegates !>
```

```
CommonTreeAdaptor *adap = [CommonTreeAdaptor newTreeAdaptor];
[self setTreeAdaptor:adap];<\n>
<endif>
>>

@treeParserHeaderFile.superClassName ::= "DebugTreeParser"

@rewriteElement.pregen() ::= "[debugListener locationLine:<e.line> column:<e.pos>];"
```

Found in path(s):

* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/ObjC/ASTDbg.stg

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*/

```
/** Templates for building ASTs during normal parsing.
*
*  Deal with many combinations.  Dimensions are:
*  Auto build or rewrite
*    no label, label, list label  (label/no-label handled together)
```

```
*    child, root
*    token, set, rule, wildcard
*
*  The situation is not too bad as rewrite (->) usage makes ^ and !
*  invalid. There is no huge explosion of combinations.
*/

finishedBacktracking(block) ::= <<
<if(!ruleDescriptor.isSynPred)>
<if(backtracking)>
if <actions.(actionScope).synpredgate>:
    <block>
<else>
<block>
<endif>
<endif>
>>

@ruleBody.setErrorReturnValue() ::= <<
retval.tree = self._adaptor.errorNode(self.input, retval.start, self.input.LT(-1), re)
>>

// TOKEN AST STUFF

/** ID and output=AST */
tokenRef(token,label,elementIndex,terminalOptions={}) ::= <<
<super.tokenRef(...)>
<finishedBacktracking({
<label>_tree = <createNodeFromToken(...)>
self._adaptor.addChild(root_0, <label>_tree)
})>
>>

/** ID! and output=AST (same as plain tokenRef) */
tokenRefBang(token,label,elementIndex,terminalOptions={}) ::= "<super.tokenRef(...)>"

/** ID^ and output=AST */
tokenRefRuleRoot(token,label,elementIndex,terminalOptions={}) ::= <<
<super.tokenRef(...)>
<finishedBacktracking({
<label>_tree = <createNodeFromToken(...)>
root_0 = self._adaptor.becomeRoot(<label>_tree, root_0)
})>
>>

/** ids+=ID! and output=AST */
tokenRefBangAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRefBang(...)>
```

```
<listLabel(elem=label,...)>
>>

/**
 label+=TOKEN when output=AST but not rewrite alt */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRef(...)>
<listLabel(elem=label,...)>
>>

/** Match label+=TOKEN^ when output=AST but not rewrite alt */
tokenRefRuleRootAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRefRuleRoot(...)>
<listLabel(elem=label,...)>
>>

// SET AST

// the match set stuff is interesting in that it uses an argument list
// to pass code to the default matchSet; another possible way to alter
// inherited code.  I don't use the region stuff because I need to pass
// different chunks depending on the operator.  I don't like making
// the template name have the operator as the number of templates gets
// large but this is the most flexible--this is as opposed to having
// the code generator call matchSet then add root code or ruleroot code
// plus list label plus ...  The combinations might require complicated
// rather than just added on code.  Investigate
 that refactoring when
// I have more time.

matchSet(s,label,elementIndex,postmatchCode,terminalOptions={}) ::= <%
<super.matchSet(postmatchCode={<finishedBacktracking({self._adaptor.addChild(root_0,
<createNodeFromToken(...)>)})>}, ...)>
%>

matchRuleBlockSet(s,label,elementIndex,postmatchCode,treeLevel="0",terminalOptions={}) ::= <<
<matchSet(...)>
>>

matchSetBang(s,label,elementIndex,postmatchCode,terminalOptions={}) ::= "<super.matchSet(...)>"

// note there is no matchSetTrack because -> rewrites force sets to be
// plain old blocks of alts: (A|B|...|C)

matchSetRuleRoot(s,label,elementIndex,debug,terminalOptions={}) ::= <<
<if(label)>
<label> = self.input.LT(1)<\n>
<endif>
```

```
<super.matchSet(postmatchCode={<finishedBacktracking({root_0 =
self._adaptor.becomeRoot(<createNodeFromToken(...)>, root_0)})>}, ...)>
>>

// RULE REF AST

/** rule when output=AST */
ruleRef(rule,label,elementIndex,args,scope) ::= <<
<super.ruleRef(...)>
<finishedBacktracking({self._adaptor.addChild(root_0,
 <label>.tree)})>
>>

/** rule! is same as normal rule ref */
ruleRefBang(rule,label,elementIndex,args,scope) ::= "<super.ruleRef(...)>"

/** rule^ */
ruleRefRuleRoot(rule,label,elementIndex,args,scope) ::= <<
<super.ruleRef(...)>
<finishedBacktracking({root_0 = self._adaptor.becomeRoot(<label>.tree, root_0)})>
>>

/** x+=rule when output=AST */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabel(label, {<label>.tree})>
>>

/** x+=rule! when output=AST is a rule ref with list addition */
ruleRefBangAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefBang(...)>
<listLabel(label, {<label>.tree})>
>>

/** x+=rule^ */
ruleRefRuleRootAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRoot(...)>
<listLabel(label, {<label>.tree})>
>>

// WILDCARD AST

wildcard(token,label,elementIndex,terminalOptions={}) ::= <<
<super.wildcard(...)>
<finishedBacktracking({
<label>_tree = self._adaptor.createWithPayload(<label>)
self._adaptor.addChild(root_0,
```

```
 <label>_tree)
})>
>>

wildcardBang(label,elementIndex) ::= "<super.wildcard(...)>"

wildcardRuleRoot(token,label,elementIndex,terminalOptions={}) ::= <<
<super.wildcard(...)>
<finishedBacktracking({
<label>_tree = self._adaptor.createWithPayload(<label>)
root_0 = self._adaptor.becomeRoot(<label>_tree, root_0)
})>
>>

createNodeFromToken(label,terminalOptions={}) ::= <%
<if(terminalOptions.node)>
<terminalOptions.node>(<label>) <! new MethodNode(IDLabel) !>
<else>
self._adaptor.createWithPayload(<label>)
<endif>
%>

ruleCleanUp() ::= <<
<super.ruleCleanUp()>
<finishedBacktracking({
retval.tree = self._adaptor.rulePostProcessing(root_0)
self._adaptor.setTokenBoundaries(retval.tree, retval.start, retval.stop)
})>
>>
```

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* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Python/ASTParser.stg
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```
*/

@outputFile.imports() ::= <<
<@super.imports()>
<if(!TREE_PARSER)><! tree parser would already have imported !>
import org.antlr.runtime.tree.*;<\n>
<endif>
>>

@genericParser.members() ::= <<
<@super.members()>
<parserMembers()>
>>

/** Add an adaptor property that knows how to build trees */
parserMembers() ::= <<
protected var adaptor:TreeAdaptor = new CommonTreeAdaptor();<\n>
override public function set treeAdaptor(adaptor:TreeAdaptor):void {
   this.adaptor = adaptor;

 <grammar.directDelegates:{g|<g:delegateName()>.treeAdaptor = this.adaptor;}>
}
override public function get treeAdaptor():TreeAdaptor {
   return adaptor;
}
>>

@returnScope.ruleReturnMembers() ::= <<
<ASTLabelType> tree;
public function get tree():Object { return tree; }
>>

/** Add a variable to track rule's return AST */
ruleDeclarations() ::= <<
```

```
<super.ruleDeclarations()>
var root_0:<ASTLabelType> = null;<\n>
>>

ruleLabelDefs() ::= <<
<super.ruleLabelDefs()>
<[ruleDescriptor.tokenLabels,ruleDescriptor.wildcardTreeLabels,
 ruleDescriptor.wildcardTreeListLabels]:{it |var <it.label.text>_tree:<ASTLabelType>=null;}; separator="\n">
<ruleDescriptor.tokenListLabels:{it |var <it.label.text>_tree:<ASTLabelType>=null;}; separator="\n">
<ruleDescriptor.allTokenRefsInAltsWithRewrites
   :{it |var stream_<it>:RewriteRule<rewriteElementType>Stream=new
RewriteRule<rewriteElementType>Stream(adaptor,"token <it>");}; separator="\n">
<ruleDescriptor.allRuleRefsInAltsWithRewrites
   :{it |var stream_<it>:RewriteRuleSubtreeStream=new
 RewriteRuleSubtreeStream(adaptor,"rule <it>");}; separator="\n">
>>

/** When doing auto AST construction, we must define some variables;
*  These should be turned off if doing rewrites.  This must be a "mode"
*  as a rule could have both rewrite and AST within the same alternative
*  block.
*/
@alt.declarations() ::= <<
<if(autoAST)>
<if(outerAlt)>
<if(!rewriteMode)>
root_0 = <ASTLabelType>(adaptor.nil());<\n>
<endif>
<endif>
<endif>
>>

// T r a c k i n g  R u l e  E l e m e n t s

/** ID and track it for use in a rewrite rule */
tokenRefTrack(token,label,elementIndex,terminalOptions) ::= <<
<tokenRefBang(...)> <! Track implies no auto AST construction!>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>stream_<token>.add(<label>);<\n>
>>

/** ids+=ID and track it for use in a rewrite rule; adds to ids *and*
*  to the tracking list stream_ID for use in the rewrite.
*/
tokenRefTrackAndListLabel(token,label,elementIndex,terminalOptions)
 ::= <<
<tokenRefTrack(...)>
<listLabel(elem=label,...)>
>>
```

```
/** ^(ID ...) track for rewrite */
tokenRefRuleRootTrack(token,label,elementIndex,terminalOptions) ::= <<
<tokenRefBang(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>stream_<token>.add(<label>);<\n>
>>

/** Match ^(label+=TOKEN ...) track for rewrite */
tokenRefRuleRootTrackAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRefRuleRootTrack(...)>
<listLabel(elem=label,...)>
>>

/** rule when output=AST and tracking for rewrite */
ruleRefTrack(rule,label,elementIndex,args,scope) ::= <<
<super.ruleRef(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>stream_<rule.name>.add(<label>.tree);
>>

/** x+=rule when output=AST and tracking for rewrite */
ruleRefTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefTrack(...)>
<listLabel(label, {<label>.tree})>
>>

/** ^(rule ...) rewrite */
ruleRefRuleRootTrack(rule,label,elementIndex,args,scope)
 ::= <<
<ruleRefRuleRoot(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>stream_<rule>.add(<label>.tree);
>>

/** ^(x+=rule ...) rewrite */
ruleRefRuleRootTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRootTrack(...)>
<listLabel(label, {<label>.tree})>
>>

// R e w r i t e

rewriteCode(
 alts, description,
 referencedElementsDeep, // ALL referenced elements to right of ->
 referencedTokenLabels,
 referencedTokenListLabels,
 referencedRuleLabels,
 referencedRuleListLabels,
   referencedWildcardLabels,
```

```
   referencedWildcardListLabels,
 rewriteBlockLevel, enclosingTreeLevel, treeLevel) ::=
<<

// AST REWRITE
// elements: <referencedElementsDeep; separator=", ">
// token labels: <referencedTokenLabels; separator=", ">
// rule labels: <referencedRuleLabels; separator=", ">
// token list labels: <referencedTokenListLabels; separator=", ">
// rule list labels: <referencedRuleListLabels; separator=", ">
// wildcard labels: <[referencedWildcardLabels,referencedWildcardListLabels];
 separator=", ">
<if(backtracking)>
if ( <actions.(actionScope).synpredgate> ) {<\n>
<endif>
<prevRuleRootRef()>.tree = root_0;
<rewriteCodeLabels()>
root_0 = <ASTLabelType>(adaptor.nil());
<alts:rewriteAlt(); separator="else ">
<! if tree parser and rewrite=true !>
<if(TREE_PARSER)>
<if(rewriteMode)>
<prevRuleRootRef()>.tree = <ASTLabelType>(adaptor.rulePostProcessing(root_0));
input.replaceChildren(adaptor.getParent(retval.start),
                    adaptor.getChildIndex(retval.start),
                    adaptor.getChildIndex(_last),
                    retval.tree);
<endif>
<endif>
<! if parser or tree-parser && rewrite!=true, we need to set result !>
<if(!TREE_PARSER)>
<prevRuleRootRef()>.tree = root_0;
<else>
<if(!rewriteMode)>
<prevRuleRootRef()>.tree = root_0;
<endif>
<endif>
<if(backtracking)>
}
<endif>
>>

rewriteCodeLabels() ::= <<
<referencedTokenLabels
   :{it |var stream_<it>:RewriteRule<rewriteElementType>Stream=new
RewriteRule<rewriteElementType>Stream(adaptor,"token
 <it>",<it>);};
   separator="\n"
```

```
>
<referencedTokenListLabels
   :{it |var stream_<it>:RewriteRule<rewriteElementType>Stream=new
RewriteRule<rewriteElementType>Stream(adaptor,"token <it>", list_<it>);};
   separator="\n"
>
<referencedWildcardLabels
   :{it |var  stream_<it>:RewriteRuleSubtreeStream=new RewriteRuleSubtreeStream(adaptor,"wildcard
<it>",<it>);};
   separator="\n"
>
<referencedWildcardListLabels
   :{it |var stream_<it>:RewriteRuleSubtreeStream=new RewriteRuleSubtreeStream(adaptor,"wildcard
<it>",list_<it>);};
   separator="\n"
>
<referencedRuleLabels
   :{it |var stream_<it>:RewriteRuleSubtreeStream=new RewriteRuleSubtreeStream(adaptor,"rule
<it>",<it>!=null?<it>.tree:null);};
   separator="\n"
>
<referencedRuleListLabels
   :{it |var stream_<it>:RewriteRuleSubtreeStream=new RewriteRuleSubtreeStream(adaptor,"token
<it>",list_<it>);};
   separator="\n"
>
>>

/** Generate code for an optional rewrite block; note
 it uses the deep ref'd element
 *  list rather shallow like other blocks.
 */
rewriteOptionalBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements, // elements in immediately block; no nested blocks
 description) ::=
<<
// <fileName>:<description>
if ( <referencedElementsDeep:{el | stream_<el>.hasNext}; separator="||"> ) {
   <alt>
}
<referencedElementsDeep:{el | stream_<el>.reset();<\n>}>
>>

rewriteClosureBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
```

```
 referencedElements, // elements in immediately block; no nested blocks
 description) ::=
<<
// <fileName>:<description>
while ( <referencedElements:{el | stream_<el>.hasNext}; separator="||"> ) {
   <alt>
}
<referencedElements:{el | stream_<el>.reset();<\n>}>
>>

rewritePositiveClosureBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements, // elements in immediately block; no nested blocks
 description) ::=
<<
if ( !(<referencedElements:{el
 | stream_<el>.hasNext}; separator="||">) ) {
   throw new RewriteEarlyExitException();
}
while ( <referencedElements:{el | stream_<el>.hasNext}; separator="||"> ) {
   <alt>
}
<referencedElements:{el | stream_<el>.reset();<\n>}>
>>

rewriteAlt(a) ::= <<
// <a.description>
<if(a.pred)>
if (<a.pred>) {
   <a.alt>
}<\n>
<else>
{
   <a.alt>
}<\n>
<endif>
>>

/** For empty rewrites: "r : ... -> ;" */
rewriteEmptyAlt() ::= "root_0 = null;"

rewriteTree(root,children,description,enclosingTreeLevel,treeLevel) ::= <<
// <fileName>:<description>
{
var root_<treeLevel>:<ASTLabelType> = <ASTLabelType>(adaptor.nil());
<root:rewriteElement()>
<children:rewriteElement()>
```

```
adaptor.addChild(root_<enclosingTreeLevel>, root_<treeLevel>);
}<\n>
>>

rewriteElementList(elements) ::= "<elements:rewriteElement()>"

rewriteElement(e) ::= <<
<@pregen()>
<e.el>
>>

/** Gen ID or ID[args] */
rewriteTokenRef(token,elementIndex,terminalOptions,args) ::= <<
adaptor.addChild(root_<treeLevel>, <createRewriteNodeFromElement(...)>);<\n>
>>

/**
 Gen $label ... where defined via label=ID */
rewriteTokenLabelRef(label,elementIndex) ::= <<
adaptor.addChild(root_<treeLevel>, stream_<label>.nextNode());<\n>
>>

/** Gen $label ... where defined via label+=ID */
rewriteTokenListLabelRef(label,elementIndex) ::= <<
adaptor.addChild(root_<treeLevel>, stream_<label>.nextNode());<\n>
>>

/** Gen ^($label ...) */
rewriteTokenLabelRefRoot(label,elementIndex) ::= <<
root_<treeLevel> = <ASTLabelType>(adaptor.becomeRoot(stream_<label>.nextNode(), root_<treeLevel>));<\n>
>>

/** Gen ^($label ...) where label+=... */
rewriteTokenListLabelRefRoot ::= rewriteTokenLabelRefRoot

/** Gen ^(ID ...) or ^(ID[args] ...) */
rewriteTokenRefRoot(token,elementIndex,terminalOptions,args) ::= <<
root_<treeLevel> = <ASTLabelType>(adaptor.becomeRoot(<createRewriteNodeFromElement(...)>,
root_<treeLevel>));<\n>
>>

rewriteImaginaryTokenRef(args,token,terminalOptions,elementIndex) ::= <<
adaptor.addChild(root_<treeLevel>,
 <createImaginaryNode(token,terminalOptions,args)>);<\n>
>>

rewriteImaginaryTokenRefRoot(args,token,terminalOptions,elementIndex) ::= <<
root_<treeLevel> = <ASTLabelType>(adaptor.becomeRoot(<createImaginaryNode(token,terminalOptions,args)>,
```

```
root_<treeLevel>));<\n>
>>

/** plain -> {foo} action */
rewriteAction(action) ::= <<
root_0 = <action>;<\n>
>>

/** What is the name of the previous value of this rule's root tree?  This
*  let's us refer to $rule to mean previous value.  I am reusing the
*  variable 'tree' sitting in retval struct to hold the value of root_0 right
*  before I set it during rewrites.  The assign will be to retval.tree.
*/
prevRuleRootRef() ::= "retval"

rewriteRuleRef(rule) ::= <<
adaptor.addChild(root_<treeLevel>, stream_<rule>.nextTree());<\n>
>>

rewriteRuleRefRoot(rule) ::= <<
root_<treeLevel> = <ASTLabelType>(adaptor.becomeRoot(stream_<rule>.nextNode(), root_<treeLevel>));<\n>
>>

rewriteNodeAction(action) ::= <<
adaptor.addChild(root_<treeLevel>, <action>);<\n>
>>

rewriteNodeActionRoot(action)
 ::= <<
root_<treeLevel> = <ASTLabelType>(adaptor.becomeRoot(<action>, root_<treeLevel>));<\n>
>>

/** Gen $ruleLabel ... where defined via ruleLabel=rule */
rewriteRuleLabelRef(label) ::= <<
adaptor.addChild(root_<treeLevel>, stream_<label>.nextTree());<\n>
>>

/** Gen $ruleLabel ... where defined via ruleLabel+=rule */
rewriteRuleListLabelRef(label) ::= <<
adaptor.addChild(root_<treeLevel>, stream_<label>.nextTree());<\n>
>>

/** Gen ^($ruleLabel ...) where ruleLabel=rule */
rewriteRuleLabelRefRoot(label) ::= <<
root_<treeLevel> = <ASTLabelType>(adaptor.becomeRoot(stream_<label>.nextNode(), root_<treeLevel>));<\n>
>>

/** Gen ^($ruleLabel ...) where ruleLabel+=rule */
```

```
rewriteRuleListLabelRefRoot(label) ::= <<
root_<treeLevel> = <ASTLabelType>(adaptor.becomeRoot(stream_<label>.nextNode(), root_<treeLevel>));<\n>
>>

rewriteWildcardLabelRef(label) ::= <<
adaptor.addChild(root_<treeLevel>, stream_<label>.nextTree());<\n>
>>


createImaginaryNode(tokenType,terminalOptions,args)
 ::= <<
<if(terminalOptions.node)>
<! new MethodNode(IDLabel, args) !>
new <terminalOptions.node>(<tokenType><if(args)>, <args; separator=", "><endif>)
<else>
<ASTLabelType>(adaptor.create(<tokenType>, <args; separator=", "><if(!args)>"<tokenType>"<endif>))
<endif>
>>

createRewriteNodeFromElement(token,terminalOptions,args) ::= <<
<if(terminalOptions.node)>
new <terminalOptions.node>(stream_<token>.nextToken()<if(args)>, <args; separator=", "><endif>)
<else>
<if(args)> <! must create new node from old !>
adaptor.create(<token>, <args; separator=", ">)
<else>
stream_<token>.nextNode()
<endif>
<endif>
>>
```

Found in path(s):

* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/ActionScript/AST.stg

No license file was found, but licenses were detected in source scan.

/*

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```
*/
@genericParserHeaderFile.memVars() ::= <<
/* AST parserHeaderFile.memVars */
NSInteger ruleLevel;
NSArray *ruleNames;
<@super.memVars()>  /* AST super.memVars */
<parserMemVars()>   /* AST parserMemVars */
>>

@genericParserHeaderFile.properties() ::= <<
/* AST parserHeaderFile.properties */
<@super.properties()>  /* AST super.properties */
<parserProperties()>   /* AST parserproperties */
>>

@genericParserHeaderFile.methodsDecl() ::= <<
/* AST parserHeaderFile.methodsDecl
 */
<@super.methodsDecl()>  /* AST super.methodsDecl */
<parserMethodsDecl()>   /* AST parsermethodsDecl */
>>

@genericParser.synthesize() ::= <<
/* AST genericParser.synthesize */
<@super.synthesize()>
<parserSynthesize()>
>>

@genericParser.methods() ::= <<
/* AST genericParser.methods */
<@super.methods()>
<parserMethods()>
>>
```

```
/* additional init code for tree support */
@genericParser.init() ::= <<
/* AST genericParser.init */
<@super.init()>
[self setTreeAdaptor:[[CommonTreeAdaptor newTreeAdaptor] retain]];
>>

@genericParser.dealloc() ::= <<
/* AST genericParser.dealloc */
[self setTreeAdaptor:nil];
<@super.dealloc()>
>>

/* Add an adaptor property that knows how to build trees */
parserMemVars() ::= <<
/* AST parserMemVars */
id\<TreeAdaptor> treeAdaptor;
>>

/* Add an adaptor property that knows how to build trees */
parserProperties() ::= <<
/* AST parserProperties */
@property (retain, getter=getTreeAdaptor, setter=setTreeAdaptor:) id\<TreeAdaptor> treeAdaptor;
>>

/**
 Declaration of additional tree support methods - go in interface of parserHeaderFile() */
parserMethodsDecl() ::= <<
/* AST parserMethodsDecl */
- (id\<TreeAdaptor>) getTreeAdaptor;
- (void) setTreeAdaptor:(id\<TreeAdaptor>)theTreeAdaptor;
>>

/* Add an adaptor property that knows how to build trees */
parserSynthesize() ::= <<
/* AST parserProperties */
@synthesize treeAdaptor;
>>

/** Definition of addition tree support methods - go in implementation of genericParser() */
parserMethods() ::= <<
/* AST parserMethods */
- (id\<TreeAdaptor>) getTreeAdaptor
{
 return treeAdaptor;
}
```

```
- (void) setTreeAdaptor:(id\<TreeAdaptor>)aTreeAdaptor
{
 if (aTreeAdaptor != treeAdaptor) {
  treeAdaptor = aTreeAdaptor;
 }
}
>>

/** addition memVars for returnscopes */
@returnScopeInterface.memVars() ::= <<
/* AST returnScopeInterface.memVars */
<recognizer.ASTLabelType; null="CommonTree"> *tree;
>>

/** the interface of returnScope properties */
@returnScopeInterface.properties() ::= <<
/* AST returnScopeInterface.properties
 */
@property (retain, getter=getTree, setter=setTree:) <recognizer.ASTLabelType; null="CommonTree"> *tree;
>>

/** the interface of returnScope methodsDecl */
@returnScopeInterface.methodsDecl() ::= <<
/* AST returnScopeInterface.methodsDecl */
- (<recognizer.ASTLabelType; null="CommonTree"> *)getTree;<\n>
- (void) setTree:(<recognizer.ASTLabelType; null="CommonTree"> *)aTree;<\n>
>>

/** the implementation of returnScope synthesize */
@returnScopeImplementation.synthesize() ::= <<
/* AST returnScope.synthesize */
@synthesize tree;
>>

/** the implementation of returnScope methods */
@returnScopeImplementation.methods() ::= <<
/* AST returnScope.methods */
- (<ASTLabelType> *)getTree
{
   return tree;
}

- (void) setTree:(<ASTLabelType> *)aTree
{
   if (tree != aTree) {
       if (tree != nil) [tree release];
       if (aTree != nil) [aTree retain];
       tree = aTree;
```

```
   }
}

- (void) dealloc
{
   self.tree = nil;
   [super dealloc];
}

>>

/** Add
 a variable to track rule's return AST */
ruleDeclarations() ::= <<
/* AST ruleDeclarations */
<super.ruleDeclarations()>
<ASTLabelType> *root_0 = nil;<\n>
>>

ruleLabelDefs() ::= <<
/* AST ruleLabelDefs */
<super.ruleLabelDefs()>
<[ruleDescriptor.tokenLabels,ruleDescriptor.wildcardTreeLabels,
 ruleDescriptor.wildcardTreeListLabels]:{it | <ASTLabelType> *<it.label.text>_tree=nil;}; separator="\n">
<ruleDescriptor.tokenListLabels:{it | <ASTLabelType> *<it.label.text>_tree = nil;}; separator="\n">
<ruleDescriptor.allTokenRefsInAltsWithRewrites:{it | RewriteRuleTokenStream *stream_<it> =
   [[RewriteRule<rewriteElementType>Stream newRewriteRule<rewriteElementType>Stream:treeAdaptor
                                                  description:@"token <it>"] retain];}; separator="\n">
<ruleDescriptor.allRuleRefsInAltsWithRewrites:{it | RewriteRuleSubtreeStream *stream_<it> =
   [[RewriteRuleSubtreeStream newRewriteRuleSubtreeStream:treeAdaptor

                description:@"rule <it>"] retain];}; separator="\n">
>>

ruleCleanUp() ::= <<
/* AST ruleCleanUp */
<super.ruleCleanUp()>
<[ruleDescriptor.allTokenRefsInAltsWithRewrites,ruleDescriptor.allRuleRefsInAltsWithRewrites]:{it |
[stream_<it> release];}; separator="\n">
<!
<if(ruleDescriptor.hasMultipleReturnValues)>
<if(backtracking)>if ( state.backtracking == 0 ) {<\n>
<endif>
   [<prevRuleRootRef()> setTree:(<ASTLabelType> *)[treeAdaptor rulePostProcessing:root_0]];<\n>
   [treeAdaptor setTokenBoundaries:[<prevRuleRootRef()> getTree]
                             From:[<prevRuleRootRef()> getStart]
                               To:[<prevRuleRootRef()> getStop]];<\n>
<if(backtracking)>}<\n>
```

```
<endif>
<endif>
[root_0 release];
!>
>>

rewriteCodeLabelsCleanUp() ::= <<
/* AST rewriteCodeLabelsCleanUp */
<referencedTokenLabels:{it | [stream_<it> release];}; separator="\n">
<referencedTokenListLabels:{it | [stream_<it> release];}; separator="\n">
<referencedRuleLabels:{it |
 [stream_<it> release];}; separator="\n">
<referencedRuleListLabels:{it | [stream_<it> release];}; separator="\n">
>>

/** When doing auto AST construction, we must define some variables;
*  These should be turned off if doing rewrites.  This must be a "mode"
*  as a rule could have both rewrite and AST within the same alternative
*  block.
*/
@alt.declarations() ::= <<
<if(autoAST)>
<if(outerAlt)>
<if(!rewriteMode)>
root_0 = (<ASTLabelType> *)[[[treeAdaptor class] newEmptyTree] retain];<\n>
<endif>
<endif>
<endif>
>>

// T r a c k i n g  R u l e  E l e m e n t s

/** ID and track it for use in a rewrite rule */
tokenRefTrack(token,label,elementIndex) ::= <<
<! <super.tokenRef(...)> !>
<tokenRefBang(...)> <! Track implies no auto AST construction!>
<if(backtracking)>
if ( <actions.(actionScope).synpredgate> ) <endif>
   [stream_<token> addElement:<label>];<\n>
>>

/** ids+=ID and track it for use in a rewrite rule; adds to ids *and*
*  to the tracking list stream_ID for use in the
 rewrite.
*/
tokenRefTrackAndListLabel(token,label,elementIndex) ::= <<
<tokenRefTrack(...)>
<listLabel(elem=label,...)>
```

```
>>

/** ^(ID ...) track for rewrite */
tokenRefRuleRootTrack(token,label,elementIndex) ::= <<
<! <super.tokenRef(...)> !>
<tokenRefBang(...)>
<if(backtracking)>
if ( !<actions.(actionScope).synpredgate> ) <endif>
   [stream_<token> addElement:<label>];<\n>
>>

/** Match ^(label+=TOKEN ...) track for rewrite */
tokenRefRuleRootTrackAndListLabel(token,label,elementIndex) ::= <<
<tokenRefRuleRootTrack(...)>
<listLabel(elem=label,...)>
>>

/** rule when output=AST and tracking for rewrite */
ruleRefTrack(rule,label,elementIndex,args,scope) ::= <<
<super.ruleRef(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>
[stream_<rule.name> addElement:[<label> getTree]];
>>

/** x+=rule when output=AST and tracking for rewrite */
ruleRefTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefTrack(...)>
<listLabel(elem={[<label> getTree]},...)>
>>

/**
 ^(rule ...) rewrite */
ruleRefRuleRootTrack(rule,label,elementIndex,args,scope) ::= <<
<! <super.ruleRefRuleRoot(...)> !>
<ruleRefRuleRoot(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>
   [stream_<rule.name> addElement:[<label> getTree]];<\n>
>>

/** ^(x+=rule ...) rewrite */
ruleRefRuleRootTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRootTrack(...)>
<listLabel(elem={[<label> getTree]},...)>
>>

// R e w r i t e

rewriteCode(
```

```
 alts, description,
 referencedElementsDeep, // ALL referenced elements to right of ->
 referencedTokenLabels,
 referencedTokenListLabels,
 referencedRuleLabels,
 referencedRuleListLabels,
 referencedWildcardLabels,
 referencedWildcardListLabels,
 rewriteBlockLevel, enclosingTreeLevel, treeLevel) ::=
<<

// AST REWRITE
// elements: <referencedElementsDeep; separator=", ">
// token labels: <referencedTokenLabels; separator=", ">
// rule labels: <referencedRuleLabels; separator=", ">
// token list
 labels: <referencedTokenListLabels; separator=", ">
// rule list labels: <referencedRuleListLabels; separator=", ">
// wildcard labels: <[referencedWildcardLabels,referencedWildcardListLabels]; separator=", ">
<if(backtracking)>
if ( <actions.(actionScope).synpredgate> ) {<\n>
<endif>
<prevRuleRootRef()>.tree = root_0;<\n>
<rewriteCodeLabels()>
root_0 = (<ASTLabelType> *)[[[treeAdaptor class] newEmptyTree] retain];<\n>
<alts:rewriteAlt(); separator="else ">
<! if tree parser and rewrite=true !>
<if(TREE_PARSER)>
<if(rewriteMode)>
<prevRuleRootRef()>.tree = (<ASTLabelType>)[treeAdaptor rulePostProcessing:root_0];
[input replaceChildren:[treeAdaptor getParent:retval.start]
          From:[treeAdaptor getChildIndex:retval.start]
            To:[treeAdaptor getChildIndex:_last]
          With:retval.tree];
<endif>
<endif>
<! if parser or tree-parser && rewrite!=true, we need to set result !>
<if(!TREE_PARSER)>
<prevRuleRootRef()>.tree = root_0;<\n>
<else>
<if(!rewriteMode)>
<prevRuleRootRef()>.tree
 = root_0;<\n>
<endif>
<endif>
<if(backtracking)>
}
<endif>
```

```
>>

rewriteCodeLabels() ::= <<
<referencedTokenLabels
   :{it | RewriteRule<rewriteElementType>Stream *stream_<it> =
   [[RewriteRule<rewriteElementType>Stream newRewriteRule<rewriteElementType>Stream:treeAdaptor
description:@"token <it>" element:<it>] retain];};
   separator="\n"
>
<referencedTokenListLabels:{it | RewriteRule<rewriteElementType>Stream *stream_<it> =
   [[RewriteRule<rewriteElementType>Stream newRewriteRule<rewriteElementType>Stream:treeAdaptor
       description:@"token <it>" elements:list_<it>] retain];};
   separator="\n"
>
<referencedWildcardLabels:{it | RewriteRuleSubtreeStream stream_<it> =
   [[RewriteRuleSubtreeStream newRewriteRuleSubtreeStream:treeAdaptor
       description:"wildcard <it>" element:<it>] retain];};
   separator="\n"
>
<referencedWildcardListLabels:{it | RewriteRuleSubtreeStream stream_<it> =
   [[RewriteRuleSubtreeStream newRewriteRuleSubtreeStream:treeAdaptor
        descriptor:"wildcard <it>" elements:list_<it>] retain];};
   separator="\n"
>
<referencedRuleLabels:{it | RewriteRuleSubtreeStream *stream_<it> =
   [[RewriteRuleSubtreeStream newRewriteRuleSubtreeStream:treeAdaptor
       description:@"token <it>" element:<it>!=nil?[<it> getTree]:nil] retain];};
   separator="\n"
>
<referencedRuleListLabels:{it | RewriteRuleSubtreeStream *stream_<it> =
   [[RewriteRuleSubtreeStream newRewriteRuleSubtreeStream:treeAdaptor
       description:@"token <it>" elements:list_<it>] retain];};
   separator="\n"
>
>>

/** Generate code for an optional rewrite block; note it uses the deep ref'd element
 *  list rather shallow like other blocks.
 */
rewriteOptionalBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements, // elements in immediately block; no nested blocks
 description) ::=
<<
// <fileName>:<description>
if ( <referencedElementsDeep:{el | [stream_<el> hasNext]}; separator="||">
```

```
 ) {
 <alt>
}
<referencedElementsDeep:{el | [stream_<el> reset];<\n>}>
>>

rewriteClosureBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements, // elements in immediately block; no nested blocks
 description) ::=
<<
// <fileName>:<description>
while ( <referencedElements:{el | [stream_<el> hasNext]}; separator="||"> ) {
   <alt>
}
<referencedElements:{el | [stream_<el> reset];<\n>}>
>>

rewritePositiveClosureBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements, // elements in immediately block; no nested blocks
 description) ::=
<<
// <fileName>:<description>
{
if ( !(<referencedElements:{el | [stream_<el> hasNext]}; separator=" || ">) ) {
   @throw [RewriteEarlyExitException newException];
}
while ( <referencedElements:{el | [stream_<el> hasNext]}; separator=" || "> ) {
   <alt>
}
<referencedElements:{el | [stream_<el> reset];<\n>}>
}
>>

rewriteAlt(a) ::= <<
// <a.description>
<if(a.pred)>
if (<a.pred>)
 {
   <a.alt>
}<\n>
<else>
{
   <a.alt>
}<\n>
```

```
<endif>
>>

/** For empty rewrites: "r : ... -> ;" */
rewriteEmptyAlt() ::= "root_0 = nil;"

rewriteTree(root,children,description,enclosingTreeLevel,treeLevel) ::= <<
// <fileName>:<description>
{
  <ASTLabelType> *root_<treeLevel> = (<ASTLabelType> *)[[[treeAdaptor class] newEmptyTree] retain];
  <root:rewriteElement()>
  <children:rewriteElement()>
  [treeAdaptor addChild:root_<treeLevel> toTree:root_<enclosingTreeLevel>];
}<\n>
>>

rewriteElementList(elements) ::= "<elements:rewriteElement()>"

rewriteElement(e) ::= <<
<@pregen()>
<e.el>
>>

/** Gen ID or ID[args] */
rewriteTokenRef(token,elementIndex,terminalOptions,args) ::= <<
// TODO: args: <args; separator=", ">
[treeAdaptor addChild:<createRewriteNodeFromElement(...)> toTree:root_<treeLevel>];<\n>
>>

/** Gen $label ... where defined via label=ID */
rewriteTokenLabelRef(label,elementIndex) ::= <<
[treeAdaptor addChild:[stream_<label> nextNode] toTree:root_<treeLevel>];<\n>
>>

/**
 Gen $label ... where defined via label+=ID */
rewriteTokenListLabelRef(label,elementIndex) ::= <<
[treeAdaptor addChild:[stream_<label> nextNode] toTree:root_<treeLevel>];<\n>
>>

/** Gen ^($label ...) */
rewriteTokenLabelRefRoot(label,elementIndex) ::= <<
root_<treeLevel> = (<ASTLabelType> *)[treeAdaptor becomeRoot:[stream_<label> nextNode]
old:root_<treeLevel>];<\n>
>>

/** Gen ^($label ...) where label+=... */
rewriteTokenListLabelRefRoot ::= rewriteTokenLabelRefRoot
```

```
/** Gen ^(ID ...) or ^(ID[args] ...) */
rewriteTokenRefRoot(token,elementIndex,terminalOptions,args) ::= <<
root_<treeLevel> = (<ASTLabelType> *)[treeAdaptor becomeRoot:<createRewriteNodeFromElement(...)>
old:root_<treeLevel>];<\n>
>>

rewriteImaginaryTokenRef(args,token,terminalOptions,elementIndex) ::= <<
[treeAdaptor addChild:<createImaginaryNode(tokenType=token, ...)> toTree:root_<treeLevel>];<\n>
>>

rewriteImaginaryTokenRefRoot(args,token,terminalOptions,elementIndex) ::= <<
root_<treeLevel> = (<ASTLabelType>
 *)[treeAdaptor becomeRoot:<createImaginaryNode(tokenType=token, ...)> old:root_<treeLevel>];<\n>
>>

/** plain -> {foo} action */
rewriteAction(action) ::= <<
root_0 = <action>;<\n>
>>

/** What is the name of the previous value of this rule's root tree?  This
*  let's us refer to $rule to mean previous value.  I am reusing the
*  variable 'tree' sitting in retval struct to hold the value of root_0 right
*  before I set it during rewrites.  The assign will be to retval.tree.
*/
prevRuleRootRef() ::= "retval"

rewriteRuleRef(rule) ::= <<
[treeAdaptor addChild:[stream_<rule> nextTree] toTree:root_<treeLevel>];<\n>
>>

rewriteRuleRefRoot(rule) ::= <<
root_<treeLevel> = (<ASTLabelType> *)[treeAdaptor becomeRoot:(id\<Tree>)[stream_<rule> nextNode]
old:root_<treeLevel>];<\n>
>>

rewriteNodeAction(action) ::= <<
[treeAdaptor addChild:<action> toTree:root_<treeLevel>];<\n>
>>

rewriteNodeActionRoot(action) ::= <<
root_<treeLevel> = (<ASTLabelType> *)[treeAdaptor becomeRoot:<action>
 old:root_<treeLevel>];<\n>
>>

/** Gen $ruleLabel ... where defined via ruleLabel=rule */
rewriteRuleLabelRef(label) ::= <<
```

```
[treeAdaptor addChild:[stream_<label> nextTree] toTree:root_<treeLevel>];<\n>
>>

/** Gen $ruleLabel ... where defined via ruleLabel+=rule */
rewriteRuleListLabelRef(label) ::= <<
[treeAdaptor addChild:[stream_<label> nextTree] toTree:root_<treeLevel>];<\n>
>>

/** Gen ^($ruleLabel ...) where ruleLabel=rule */
rewriteRuleLabelRefRoot(label) ::= <<
root_<treeLevel> = (<ASTLabelType> *)[treeAdaptor becomeRoot:[stream_<label> nextNode]
old:root_<treeLevel>];<\n>
>>

/** Gen ^($ruleLabel ...) where ruleLabel+=rule */
rewriteRuleListLabelRefRoot(label) ::= <<
root_<treeLevel> = (<ASTLabelType> *)[treeAdaptor becomeRoot:[stream_<label> nextNode]
old:root_<treeLevel>];<\n>
>>

rewriteWildcardLabelRef(label) ::= <<
[treeAdaptor addChild:[stream_<label> nextTree] toTree:root_<treeLevel>];<\n>
>>

createImaginaryNode(tokenType,terminalOptions,args) ::= <<
<if(terminalOptions.node)>
    [<terminalOptions.node> new<terminalOptions.node>:<tokenType> <if(args)>, <args; separator=", "><endif>]
<else>
   <if(args)>
      [[treeAdaptor createTree:<tokenType> <if(first(args))>FromToken:<first(args)><endif>
<if(first(rest(args)))>Text:<first(rest(args))><else>Text:@"<tokenType>"<endif>] retain]
   <else>
      [[treeAdaptor createTree:<tokenType> Text:@"<tokenType>"] retain]
   <endif>
<endif>
>>

createRewriteNodeFromElement(token,terminalOptions,args) ::= <<
<if(terminalOptions.node)>
   [<terminalOptions.node> new<terminalOptions.node>:[stream_<token> nextToken]<if(args)>, <args;
separator=", "><endif>]
<else>
   <if(args)> <! must create new node from old !>
      [[treeAdaptor createTree:<token> Text:<first(rest(args))> <args; separator=", ">] retain]
   <else>
      [stream_<token> nextNode]
   <endif>
<endif>
```

>>

Found in path(s):
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* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Java/ST.stg
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Java/Dbg.stg
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Python/AST.stg
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/ObjC/ST4ObjC.stg
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```
*/

/** Templates for building ASTs during tree parsing.
*
*  Deal with many combinations.  Dimensions are:
*  Auto build or rewrite
*    no label, label, list label  (label/no-label handled together)
*    child, root
*    token, set, rule, wildcard
*
*  Each combination has its own template except that label/no label
*  is combined into tokenRef, ruleRef, ...
*/

/** Add a variable to track last element matched */
ruleDeclarations() ::= <<
<super.ruleDeclarations()>
var _first_0:<ASTLabelType>
 = null;
var _last:<ASTLabelType> = null;<\n>
>>

/** What to emit when there is no rewrite rule.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel, treeLevel) ::= <<
```

```
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<if(rewriteMode)>
retval.tree = <ASTLabelType>(_first_0);
if ( adaptor.getParent(retval.tree)!=null && adaptor.isNil( adaptor.getParent(retval.tree) ) )
   retval.tree = <ASTLabelType>(adaptor.getParent(retval.tree));
<endif>
<if(backtracking)>}<endif>
>>

/** match ^(root children) in tree parser; override here to
*  add tree construction actions.
*/
tree(root, actionsAfterRoot, children, nullableChildList,
    enclosingTreeLevel, treeLevel) ::= <<
_last = <ASTLabelType>(input.LT(1));
{
var _save_last_<treeLevel>:<ASTLabelType> = _last;
var _first_<treeLevel>:<ASTLabelType> = null;
<if(!rewriteMode)>
var root_<treeLevel>:<ASTLabelType> = <ASTLabelType>(adaptor.nil());
<endif>
<root:element()>
<if(rewriteMode)>
<if(backtracking)>if
 ( <actions.(actionScope).synpredgate> )<endif>
<if(root.el.rule)>
if ( _first_<enclosingTreeLevel>==null ) _first_<enclosingTreeLevel> = <root.el.label>.tree;
<else>
if ( _first_<enclosingTreeLevel>==null ) _first_<enclosingTreeLevel> = <root.el.label>;
<endif>
<endif>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if ( input.LA(1)==TokenConstants.DOWN ) {
   matchStream(input, TokenConstants.DOWN, null); <checkRuleBacktrackFailure()>
   <children:element()>
   matchStream(input, TokenConstants.UP, null); <checkRuleBacktrackFailure()>
}
<else>
matchStream(input, TokenConstants.DOWN, null); <checkRuleBacktrackFailure()>
<children:element()>
matchStream(input, TokenConstants.UP, null); <checkRuleBacktrackFailure()>
<endif>
<if(!rewriteMode)>
adaptor.addChild(root_<enclosingTreeLevel>, root_<treeLevel>);
<endif>
_last = _save_last_<treeLevel>;
}<\n>
```

```
>>

// TOKEN AST STUFF

/** ID! and output=AST (same as plain tokenRef) 'cept add
*  setting of _last
*/
tokenRefBang(token,label,elementIndex,terminalOptions)
 ::= <<
_last = <ASTLabelType>(input.LT(1));
<super.tokenRef(...)>
>>

/** ID auto construct */
tokenRef(token,label,elementIndex,terminalOptions) ::= <<
_last = <ASTLabelType>(input.LT(1));
<super.tokenRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<if(terminalOptions.node)>
<label>_tree = new <terminalOptions.node>(<label>);
<else>
<label>_tree = <ASTLabelType>(adaptor.dupNode(<label>));
<endif><\n>
adaptor.addChild(root_<treeLevel>, <label>_tree);
<if(backtracking)>}<endif>
<else> <! rewrite mode !>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> )<endif>
if ( _first_<treeLevel>==null ) _first_<treeLevel> = <label>;
<endif>
>>

/** label+=TOKEN auto construct */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRef(...)>
<listLabel(elem=label,...)>
>>

/** ^(ID ...) auto construct */
tokenRefRuleRoot(token,label,elementIndex,terminalOptions)
 ::= <<
_last = <ASTLabelType>(input.LT(1));
<super.tokenRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<if(terminalOptions.node)>
<label>_tree = new <terminalOptions.node>(<label>);
<else>
```

```
<label>_tree = <ASTLabelType>(adaptor.dupNode(<label>));
<endif><\n>
root_<treeLevel> = <ASTLabelType>(adaptor.becomeRoot(<label>_tree, root_<treeLevel>));
<if(backtracking)>}<endif>
<endif>
>>

/** Match ^(label+=TOKEN ...) auto construct */
tokenRefRuleRootAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRefRuleRoot(...)>
<listLabel(elem=label,...)>
>>

/** Match . wildcard and auto dup the node/subtree */
wildcard(token,label,elementIndex,terminalOptions) ::= <<
_last = (<ASTLabelType>)input.LT(1);
<super.wildcard(...)>
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<label>_tree = (<ASTLabelType>)adaptor.dupTree(<label>);
adaptor.addChild(root_<treeLevel>, <label>_tree);
<if(backtracking)>}<endif>
<else>
 <! rewrite mode !>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> )<endif>
if ( _first_<treeLevel>==null ) _first_<treeLevel> = <label>;
<endif>
>>

// SET AST

matchSet(s,label,terminalOptions,elementIndex,postmatchCode) ::= <<
_last = <ASTLabelType>(input.LT(1));
<super.matchSet(postmatchCode={
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<if(terminalOptions.node)>
<label>_tree = new <terminalOptions.node>(<label>);
<else>
<label>_tree = <ASTLabelType>(adaptor.dupNode(<label>));
<endif><\n>
adaptor.addChild(root_<treeLevel>, <label>_tree);
<if(backtracking)>\}<endif>
<endif>
}, ...
)>
>>
```

```
matchRuleBlockSet(s,label,terminalOptions,elementIndex,postmatchCode,treeLevel="0") ::= <<
<matchSet(...)>
<noRewrite(...)> <! set return tree !>
>>

matchSetBang(s,label,terminalOptions,elementIndex,postmatchCode) ::= <<
_last = <ASTLabelType>(input.LT(1));
<super.matchSet(...)>
>>

matchSetRuleRoot(s,label,terminalOptions,elementIndex,debug)
 ::= <<
<super.matchSet(postmatchCode={
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<if(terminalOptions.node)>
<label>_tree = new <terminalOptions.node>(<label>);
<else>
<label>_tree = <ASTLabelType>(adaptor.dupNode(<label>));
<endif><\n>
root_<treeLevel> = <ASTLabelType>(adaptor.becomeRoot(<label>_tree, root_<treeLevel>));
<if(backtracking)>}<endif>
<endif>
}, ...
)>
>>

// RULE REF AST

/** rule auto construct */
ruleRef(rule,label,elementIndex,args,scope) ::= <<
_last = <ASTLabelType>(input.LT(1));
<super.ruleRef(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>
<if(!rewriteMode)>
adaptor.addChild(root_<treeLevel>, <label>.tree);
<else> <! rewrite mode !>
if ( _first_<treeLevel>==null ) _first_<treeLevel> = <label>.tree;
<endif>
>>

/** x+=rule auto construct */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabel(label, {<label>.tree})>
>>

/** ^(rule ...) auto
```

```
 construct */
ruleRefRuleRoot(rule,label,elementIndex,args,scope) ::= <<
_last = <ASTLabelType>(input.LT(1));
<super.ruleRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>root_<treeLevel> =
<ASTLabelType>(adaptor.becomeRoot(<label>.tree, root_<treeLevel>));
<endif>
>>

/** ^(x+=rule ...) auto construct */
ruleRefRuleRootAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRoot(...)>
<listLabel(label, {<label>.tree})>
>>

/** rule when output=AST and tracking for rewrite */
ruleRefTrack(rule,label,elementIndex,args,scope) ::= <<
_last = <ASTLabelType>(input.LT(1));
<super.ruleRefTrack(...)>
>>

/** x+=rule when output=AST and tracking for rewrite */
ruleRefTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
_last = <ASTLabelType>(input.LT(1));
<super.ruleRefTrackAndListLabel(...)>
>>

/** ^(rule ...) rewrite */
ruleRefRuleRootTrack(rule,label,elementIndex,args,scope) ::= <<
_last = <ASTLabelType>(input.LT(1));
<super.ruleRefRootTrack(...)>
>>

/**
 ^(x+=rule ...) rewrite */
ruleRefRuleRootTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
_last = <ASTLabelType>(input.LT(1));
<super.ruleRefRuleRootTrackAndListLabel(...)>
>>

/** Streams for token refs are tree nodes now; override to
*  change nextToken to nextNode.
*/
createRewriteNodeFromElement(token,terminalOptions,scope) ::= <<
<if(terminalOptions.node)>
new <terminalOptions.node>(stream_<token>.nextNode())
<else>
```

```
stream_<token>.nextNode()
<endif>
>>

ruleCleanUp() ::= <<
<super.ruleCleanUp()>
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<\n><endif>
retval.tree = <ASTLabelType>(adaptor.rulePostProcessing(root_0));
<if(backtracking)>}<endif>
<endif>
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/ActionScript/ASTTreeParser.stg
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```
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```
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*/
/** Template overrides to add debugging to normal Java output;
*  If ASTs are built, then you'll also get ASTDbg.stg loaded.
*/

@outputFile.imports() ::= <<
<@super.imports()>
using Antlr.Runtime.Debug;
using IOException = System.IO.IOException;
>>

@genericParser.members() ::= <<
<if(grammar.grammarIsRoot)>
public static readonly
 string[] ruleNames =
 new string[]
 {
  "invalidRule", <grammar.allImportedRules:{rST | "<rST.name>"}; wrap="\n ", separator=", ">
 };<\n>
<endif>
<if(grammar.grammarIsRoot)><! grammar imports other grammar(s) !>
int ruleLevel = 0;
public virtual int RuleLevel { get { return ruleLevel; } }
public virtual void IncRuleLevel() { ruleLevel++; }
public virtual void DecRuleLevel() { ruleLevel--; }
<if(profile)>
<ctorForProfilingRootGrammar()>
<else>
<ctorForRootGrammar()>
<endif>
<ctorForPredefinedListener()>
<else><! imported grammar !>
public int RuleLevel { get { return <grammar.delegators:{g| <g:delegateName()>}>.RuleLevel; } }
public void IncRuleLevel() { <grammar.delegators:{g| <g:delegateName()>}>.IncRuleLevel(); }
public void DecRuleLevel() { <grammar.delegators:{g| <g:delegateName()>}>.DecRuleLevel(); }
<ctorForDelegateGrammar()>
<endif>
<if(profile)>
public override bool AlreadyParsedRule( IIntStream input, int ruleIndex )
{
 int stopIndex = GetRuleMemoization(ruleIndex, input.Index);
 ((Profiler)dbg).ExamineRuleMemoization(input,
 ruleIndex, stopIndex, <grammar.composite.rootGrammar.recognizerName>.ruleNames[ruleIndex]);
 return base.AlreadyParsedRule(input, ruleIndex);
}<\n>
public override void Memoize( IIntStream input, int ruleIndex, int ruleStartIndex )
{
```

```
 ((Profiler)dbg).Memoize(input, ruleIndex, ruleStartIndex,
<grammar.composite.rootGrammar.recognizerName>.ruleNames[ruleIndex]);
 base.Memoize(input, ruleIndex, ruleStartIndex);
}<\n>
<endif>
protected virtual bool EvalPredicate( bool result, string predicate )
{
 dbg.SemanticPredicate( result, predicate );
 return result;
}<\n>
>>

ctorForRootGrammar() ::= <<
<! bug: can't use <@super.members()> cut-n-paste instead !>
<! Same except we add port number and profile stuff if root grammar !>
<actions.(actionScope).ctorModifier; null="public"> <name>( <inputStreamType> input )
 : this( input, DebugEventSocketProxy.DefaultDebuggerPort, new RecognizerSharedState() )
{
}
<actions.(actionScope).ctorModifier;
 null="public"> <name>( <inputStreamType> input, int port, RecognizerSharedState state )
 : base( input, state )
{
 <createListenerAndHandshake()>
 <grammar.directDelegates:{g|<g:delegateName()> = new <g.recognizerName>( input, dbg, this.state,
this<grammar.delegators:{g|, <g:delegateName()>}> );}; separator="\n">
 <parserCtorBody()>
 <@finally()>
}<\n>
>>

ctorForProfilingRootGrammar() ::= <<
<! bug: can't use <@super.members()> cut-n-paste instead !>
<actions.(actionScope).ctorModifier; null="public"> <name>( <inputStreamType> input )
 : this( input, new Profiler(null), new RecognizerSharedState() )
{
}
<actions.(actionScope).ctorModifier; null="public"> <name>( <inputStreamType> input, IDebugEventListener dbg,
RecognizerSharedState state )
 : base( input, dbg, state )
{
 Profiler p = (Profiler)dbg;
 p.setParser(this);
 <grammar.directDelegates:
  {g|<g:delegateName()> = new <g.recognizerName>( input, dbg, this.state, this<grammar.delegators:{g|,
<g:delegateName()>}> );}; separator="\n">
 <parserCtorBody()>
 <@finally()>
```

```
}
<\n>
>>

/**
 Basically we don't want to set any dbg listeners are root will have it. */
ctorForDelegateGrammar() ::= <<
<actions.(actionScope).ctorModifier; null="public"> <name>( <inputStreamType> input, IDebugEventListener dbg,
RecognizerSharedState state<grammar.delegators:{g|, <g.recognizerName> <g:delegateName()>}> )
 : base( input, dbg, state )
{
 <grammar.directDelegates:
  {g|<g:delegateName()> = new <g.recognizerName>( input, this, this.state<grammar.delegators:{g|,
<g:delegateName()>}> );}; separator="\n">
 <parserCtorBody()>
}<\n>
>>

ctorForPredefinedListener() ::= <<
<actions.(actionScope).ctorModifier; null="public"> <name>( <inputStreamType> input, IDebugEventListener dbg
)
 <@superClassRef>: base( input, dbg, new RecognizerSharedState() )<@end>
{
<if(profile)>
 Profiler p = (Profiler)dbg;
 p.setParser(this);
<endif>
 <grammar.directDelegates:{g|<g:delegateName()> = new <g.recognizerName>(input, dbg, this.state,
this<grammar.delegators:{g|,
 <g:delegateName()>}>);}; separator="\n">
 <parserCtorBody()>
 <@finally()>
}<\n>
>>

createListenerAndHandshake() ::= <<
<if(TREE_PARSER)>
DebugEventSocketProxy proxy = new DebugEventSocketProxy( this, port, input.TreeAdaptor );<\n>
<else>
DebugEventSocketProxy proxy = new DebugEventSocketProxy( this, port, null );<\n>
<endif>
DebugListener = proxy;
try
{
 proxy.Handshake();
}
catch ( IOException ioe )
{
```

```
 ReportError( ioe );
}
>>

@genericParser.superClassName() ::= "Debug<@super.superClassName()>"

/*
* Much of the following rules were merged into CSharp3.stg.
*/

@rule.preamble() ::= <<
if (RuleLevel == 0)
 DebugListener.Commence();
IncRuleLevel();
>>
//@rule.preamble() ::= <<
//try
//{
// dbg.EnterRule( GrammarFileName, "<ruleName>" );
// if ( RuleLevel == 0 )
// {
//  dbg.Commence();
// }
// IncRuleLevel();
// dbg.Location( <ruleDescriptor.tree.line>, <ruleDescriptor.tree.charPositionInLine> );<\n>
//>>

@rule.postamble() ::= <<
DecRuleLevel();
if (RuleLevel == 0)
 DebugListener.Terminate();
>>
//@rule.postamble()
 ::= <<
//dbg.Location(<ruleDescriptor.EORNode.line>, <ruleDescriptor.EORNode.charPositionInLine>);<\n>
//}
//finally
//{
// dbg.ExitRule( GrammarFileName, "<ruleName>" );
// DecRuleLevel();
// if ( RuleLevel == 0 )
// {
//  dbg.Terminate();
// }
//}<\n>
//>>

//@insertSynpreds.start() ::= "dbg.BeginBacktrack( state.backtracking );"
```

```
//@insertSynpreds.stop() ::= "dbg.EndBacktrack( state.backtracking, success );"

// Common debug event triggers used by region overrides below

//enterSubRule() ::= <<
//try
//{
// dbg.EnterSubRule( <decisionNumber> );<\n>
//>>

//exitSubRule() ::= <<
//}
//finally
//{
// dbg.ExitSubRule( <decisionNumber> );
//}<\n>
//>>

//enterDecision() ::= <<
//try
//{
// dbg.EnterDecision( <decisionNumber> );<\n>
//>>

//exitDecision() ::= <<
//}
//finally
//{
// dbg.ExitDecision( <decisionNumber> );
//}<\n>
//>>

//enterAlt(n) ::= "dbg.EnterAlt( <n> );<\n>"

// Region overrides that tell various constructs to add debugging
 triggers

//@block.predecision() ::= "<enterSubRule()><enterDecision()>"

//@block.postdecision() ::= "<exitDecision()>"

//@block.postbranch() ::= "<exitSubRule()>"

//@ruleBlock.predecision() ::= "<enterDecision()>"

//@ruleBlock.postdecision() ::= "<exitDecision()>"

//@ruleBlockSingleAlt.prealt() ::= "<enterAlt(n=\"1\")>"
```

```
//@blockSingleAlt.prealt() ::= "<enterAlt(n=\"1\")>"

//@positiveClosureBlock.preloop() ::= "<enterSubRule()>"

//@positiveClosureBlock.postloop() ::= "<exitSubRule()>"

//@positiveClosureBlock.predecision() ::= "<enterDecision()>"

//@positiveClosureBlock.postdecision() ::= "<exitDecision()>"

//@positiveClosureBlock.earlyExitException() ::=
// "dbg.RecognitionException( eee<decisionNumber> );<\n>"

//@closureBlock.preloop() ::= "<enterSubRule()>"

//@closureBlock.postloop() ::= "<exitSubRule()>"

//@closureBlock.predecision() ::= "<enterDecision()>"

//@closureBlock.postdecision() ::= "<exitDecision()>"

//@altSwitchCase.prealt() ::= "<enterAlt(n=i)>"

//@element.prematch()
 ::=
// "dbg.Location( <it.line>, <it.pos> );"

//@matchSet.mismatchedSetException() ::=
// "dbg.RecognitionException( mse );"

//@dfaState.noViableAltException() ::= "dbg.RecognitionException( nvae );"

//@dfaStateSwitch.noViableAltException() ::= "dbg.RecognitionException( nvae );"

//dfaDecision(decisionNumber,description) ::= <<
//try
//{
// isCyclicDecision = true;
// <super.dfaDecision(...)>
//}
//catch ( NoViableAltException nvae )
//{
// dbg.RecognitionException( nvae );
// throw nvae;
//}
//>>
```

```
//@cyclicDFA.errorMethod() ::= <<
//public override void Error( NoViableAltException nvae )
//{
// ((DebugParser)recognizer).dbg.RecognitionException( nvae );
//}
//>>

/** Force predicate validation to trigger an event */
evalPredicate(pred,description) ::= <<
EvalPredicate(<pred>, "<description>")
>>
```

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* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/CSharp3/Dbg.stg
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*/

```
group AST;

@outputFile.imports() ::= <<
```

```
<@super.imports()>
>>

@genericParser.members() ::= <<
<@super.members()>
<parserMembers()>
>>

/** Add an adaptor property that knows how to build trees */
parserMembers() ::= <<
<!protected TreeAdaptor adaptor = new CommonTreeAdaptor();<\n>!>
setTreeAdaptor: function(adaptor) {
   this.adaptor = adaptor;
   <grammar.directDelegates:{g|<g:delegateName()>.setTreeAdaptor(this.adaptor);}>
},
getTreeAdaptor: function() {
   return this.adaptor;
},
>>

@returnScope.ruleReturnMembers()
 ::= <<
getTree: function() { return this.tree; }
>>

/** Add a variable to track rule's return AST */
ruleDeclarations() ::= <<
<super.ruleDeclarations()>
var root_0 = null;<\n>
>>

ruleLabelDefs() ::= <<
<super.ruleLabelDefs()>
<ruleDescriptor.tokenLabels:{var <it.label.text>_tree=null;}; separator="\n">
<ruleDescriptor.tokenListLabels:{var <it.label.text>_tree=null;}; separator="\n">
<ruleDescriptor.allTokenRefsInAltsWithRewrites
   :{var stream_<it>=new org.antlr.runtime.tree.RewriteRuleTokenStream(this.adaptor,"token <it>");};
separator="\n">
<ruleDescriptor.allRuleRefsInAltsWithRewrites
   :{var stream_<it>=new org.antlr.runtime.tree.RewriteRuleSubtreeStream(this.adaptor,"rule <it>");};
separator="\n">
>>

/** When doing auto AST construction, we must define some variables;
*  These should be turned off if doing rewrites.  This must be a "mode"
*  as a rule could have both rewrite and AST within the same alternative
*  block.
*/
```

```
@alt.declarations()
 ::= <<
<if(autoAST)>
<if(outerAlt)>
<if(!rewriteMode)>
root_0 = this.adaptor.nil();<\n>
<endif>
<endif>
<endif>
>>

// T r a c k i n g  R u l e  E l e m e n t s

/** ID and track it for use in a rewrite rule */
tokenRefTrack(token,label,elementIndex,terminalOptions) ::= <<
<tokenRefBang(...)> <! Track implies no auto AST construction!>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>stream_<token>.add(<label>);<\n>
>>

/** ids+=ID and track it for use in a rewrite rule; adds to ids *and*
*  to the tracking list stream_ID for use in the rewrite.
*/
tokenRefTrackAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRefTrack(...)>
<listLabel(elem=label,...)>
>>

/** ^(ID ...) track for rewrite */
tokenRefRuleRootTrack(token,label,elementIndex,terminalOptions) ::= <<
<tokenRefBang(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>stream_<token>.add(<label>);<\n>
>>

/** Match ^(label+=TOKEN ...) track for rewrite
 */
tokenRefRuleRootTrackAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRefRuleRootTrack(...)>
<listLabel(elem=label,...)>
>>

wildcardTrack(label,elementIndex) ::= <<
<super.wildcard(...)>
>>

/** rule when output=AST and tracking for rewrite */
ruleRefTrack(rule,label,elementIndex,args,scope) ::= <<
<super.ruleRef(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>stream_<rule.name>.add(<label>.getTree());
```

```
>>

/** x+=rule when output=AST and tracking for rewrite */
ruleRefTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefTrack(...)>
<listLabel(elem=label+".getTree()",...)>
>>

/** ^(rule ...) rewrite */
ruleRefRuleRootTrack(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRoot(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>stream_<rule>.add(<label>.getTree());
>>

/** ^(x+=rule ...) rewrite */
ruleRefRuleRootTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRootTrack(...)>
<listLabel(elem=label+".getTree()",...)>
>>

//
 R e w r i t e

rewriteCode(
 alts, description,
 referencedElementsDeep, // ALL referenced elements to right of ->
 referencedTokenLabels,
 referencedTokenListLabels,
 referencedRuleLabels,
 referencedRuleListLabels,
   referencedWildcardLabels,
   referencedWildcardListLabels,
 rewriteBlockLevel, enclosingTreeLevel, treeLevel) ::=
<<

// AST REWRITE
// elements: <referencedElementsDeep; separator=", ">
// token labels: <referencedTokenLabels; separator=", ">
// rule labels: <referencedRuleLabels; separator=", ">
// token list labels: <referencedTokenListLabels; separator=", ">
// rule list labels: <referencedRuleListLabels; separator=", ">
<if(backtracking)>
if ( <actions.(actionScope).synpredgate> ) {<\n>
<endif>
<prevRuleRootRef()>.tree = root_0;
<rewriteCodeLabels()>
root_0 = this.adaptor.nil();
<alts:rewriteAlt(); separator="else ">
```

```
<! if tree parser and rewrite=true !>
<if(TREE_PARSER)>
<if(rewriteMode)>
<prevRuleRootRef()>.tree
 = this.adaptor.rulePostProcessing(root_0);
this.input.replaceChildren(this.adaptor.getParent(retval.start),
                    this.adaptor.getChildIndex(retval.start),
                    this.adaptor.getChildIndex(_last),
                    retval.tree);
<endif>
<endif>
<! if parser or tree-parser && rewrite!=true, we need to set result !>
<if(!TREE_PARSER)>
<prevRuleRootRef()>.tree = root_0;
<else>
<if(!rewriteMode)>
<prevRuleRootRef()>.tree = root_0;
<endif>
<endif>
<if(backtracking)>
}
<endif>
>>

rewriteCodeLabels() ::= <<
<referencedTokenLabels
  :{var stream_<it>=new org.antlr.runtime.tree.RewriteRule<rewriteElementType>Stream(this.adaptor,"token
<it>",<it>);};
  separator="\n"
>
<referencedTokenListLabels
  :{var stream_<it>=new org.antlr.runtime.tree.RewriteRule<rewriteElementType>Stream(this.adaptor,"token
<it>", list_<it>);};
  separator="\n"
>
<referencedWildcardLabels
  :{var stream_<it>=new org.antlr.runtime.tree.RewriteRuleSubtreeStream(this.adaptor,"wildcard
 <it>",<it>);};
  separator="\n"
>
<referencedWildcardListLabels
  :{var stream_<it>=new org.antlr.runtime.tree.RewriteRuleSubtreeStream(this.adaptor,"wildcard <it>",list_<it>);};
  separator="\n"
>
<referencedRuleLabels
  :{var stream_<it>=new org.antlr.runtime.tree.RewriteRuleSubtreeStream(this.adaptor,"token
<it>",<it>!=null?<it>.tree:null);};
  separator="\n"
```

```
>
<referencedRuleListLabels
   :{var stream_<it>=new org.antlr.runtime.tree.RewriteRuleSubtreeStream(this.adaptor,"token <it>",list_<it>);};
   separator="\n"
>
>>

/** Generate code for an optional rewrite block; note it uses the deep ref'd element
 *  list rather shallow like other blocks.
 */
rewriteOptionalBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements, // elements in immediately block; no nested blocks
 description) ::=
<<
// <fileName>:<description>
if ( <referencedElementsDeep:{el | stream_<el>.hasNext()}; separator="||"> ) {
   <alt>
}
<referencedElementsDeep:{el
 | stream_<el>.reset();<\n>}>
>>

rewriteClosureBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements, // elements in immediately block; no nested blocks
 description) ::=
<<
// <fileName>:<description>
while ( <referencedElements:{el | stream_<el>.hasNext()}; separator="||"> ) {
   <alt>
}
<referencedElements:{el | stream_<el>.reset();<\n>}>
>>

rewritePositiveClosureBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements, // elements in immediately block; no nested blocks
 description) ::=
<<
if ( !(<referencedElements:{el | stream_<el>.hasNext()}; separator="||">) ) {
   throw new org.antlr.runtime.tree.RewriteEarlyExitException();
}
while ( <referencedElements:{el | stream_<el>.hasNext()}; separator="||"> ) {
   <alt>
```

```
}
<referencedElements:{el | stream_<el>.reset();<\n>}>
>>

rewriteAlt(a) ::= <<
// <a.description>
<if(a.pred)>
if (<a.pred>) {
   <a.alt>
}<\n>
<else>
{
   <a.alt>
}<\n>
<endif>
>>

/**
 For empty rewrites: "r : ... -> ;" */
rewriteEmptyAlt() ::= "root_0 = null;"

rewriteTree(root,children,description,enclosingTreeLevel,treeLevel) ::= <<
// <fileName>:<description>
{
var root_<treeLevel> = this.adaptor.nil();
<root:rewriteElement()>
<children:rewriteElement()>
this.adaptor.addChild(root_<enclosingTreeLevel>, root_<treeLevel>);
}<\n>
>>

rewriteElementList(elements) ::= "<elements:rewriteElement()>"

rewriteElement(e) ::= <<
<@pregen()>
<e.el>
>>

/** Gen ID or ID[args] */
rewriteTokenRef(token,elementIndex,terminalOptions,args) ::= <<
this.adaptor.addChild(root_<treeLevel>, <createRewriteNodeFromElement(...)>);<\n>
>>

/** Gen $label ... where defined via label=ID */
rewriteTokenLabelRef(label,elementIndex) ::= <<
this.adaptor.addChild(root_<treeLevel>, stream_<label>.nextNode());<\n>
>>
```

```
/** Gen $label ... where defined via label+=ID */
rewriteTokenListLabelRef(label,elementIndex) ::= <<
this.adaptor.addChild(root_<treeLevel>, stream_<label>.nextNode());<\n>
>>

/**
 Gen ^($label ...) */
rewriteTokenLabelRefRoot(label,elementIndex) ::= <<
root_<treeLevel> = this.adaptor.becomeRoot(stream_<label>.nextNode(), root_<treeLevel>);<\n>
>>

/** Gen ^($label ...) where label+=... */
rewriteTokenListLabelRefRoot ::= rewriteTokenLabelRefRoot

/** Gen ^(ID ...) or ^(ID[args] ...) */
rewriteTokenRefRoot(token,elementIndex,terminalOptions,args) ::= <<
root_<treeLevel> = this.adaptor.becomeRoot(<createRewriteNodeFromElement(...)>, root_<treeLevel>);<\n>
>>

rewriteImaginaryTokenRef(args,token,terminalOptions,elementIndex) ::= <<
this.adaptor.addChild(root_<treeLevel>, <createImaginaryNode(tokenType=token, ...)>);<\n>
>>

rewriteImaginaryTokenRefRoot(args,token,terminalOptions,elementIndex) ::= <<
root_<treeLevel> = this.adaptor.becomeRoot(<createImaginaryNode(tokenType=token, ...)>,
root_<treeLevel>);<\n>
>>

/** plain -> {foo} action */
rewriteAction(action) ::= <<
root_0 = <action>;<\n>
>>

/** What is the name of the previous value of this
 rule's root tree?  This
*  let's us refer to $rule to mean previous value.  I am reusing the
*  variable 'tree' sitting in retval struct to hold the value of root_0 right
*  before I set it during rewrites.  The assign will be to retval.tree.
*/
prevRuleRootRef() ::= "retval"

rewriteRuleRef(rule) ::= <<
this.adaptor.addChild(root_<treeLevel>, stream_<rule>.nextTree());<\n>
>>

rewriteRuleRefRoot(rule) ::= <<
root_<treeLevel> = this.adaptor.becomeRoot(stream_<rule>.nextNode(), root_<treeLevel>);<\n>
>>
```

```
rewriteNodeAction(action) ::= <<
this.adaptor.addChild(root_<treeLevel>, <action>);<\n>
>>

rewriteNodeActionRoot(action) ::= <<
root_<treeLevel> = this.adaptor.becomeRoot(<action>, root_<treeLevel>);<\n>
>>

/** Gen $ruleLabel ... where defined via ruleLabel=rule */
rewriteRuleLabelRef(label) ::= <<
this.adaptor.addChild(root_<treeLevel>, stream_<label>.nextTree());<\n>
>>

/** Gen $ruleLabel ... where defined via ruleLabel+=rule */
rewriteRuleListLabelRef(label) ::= <<
this.adaptor.addChild(root_<treeLevel>,
 stream_<label>.nextTree());<\n>
>>

/** Gen ^($ruleLabel ...) where ruleLabel=rule */
rewriteRuleLabelRefRoot(label) ::= <<
root_<treeLevel> = this.adaptor.becomeRoot(stream_<label>.nextNode(), root_<treeLevel>);<\n>
>>

/** Gen ^($ruleLabel ...) where ruleLabel+=rule */
rewriteRuleListLabelRefRoot(label) ::= <<
root_<treeLevel> = this.adaptor.becomeRoot(stream_<label>.nextNode(), root_<treeLevel>);<\n>
>>

rewriteWildcardLabelRef(label) ::= <<
this.adaptor.addChild(root_<treeLevel>, stream_<label>.nextTree());<\n>
>>

createImaginaryNode(tokenType,terminalOptions,args) ::= <<
<if(terminalOptions.node)>
<! new MethodNode(IDLabel, args) !>
new <terminalOptions.node>(<tokenType><if(args)>, <args; separator=", "><endif>)
<else>
this.adaptor.create(<tokenType>, <args; separator=", "><if(!args)>"<tokenType>"<endif>)
<endif>
>>

createRewriteNodeFromElement(token,terminalOptions,args) ::= <<
<if(terminalOptions.node)>
new <terminalOptions.node>(stream_<token>.nextToken()<if(args)>,
 <args; separator=", "><endif>)
<else>
```

```
<if(args)> <! must create new node from old !>
this.adaptor.create(<token>, <args; separator=", ">)
<else>
stream_<token>.nextNode()
<endif>
<endif>
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/JavaScript/AST.stg
No license file was found, but licenses were detected in source scan.

```
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*/

/** Templates for building ASTs during tree parsing.
*
```

```
*  Deal with many combinations.  Dimensions are:
*  Auto build or rewrite
*    no label, label, list label  (label/no-label handled together)
*    child, root
*    token, set, rule, wildcard
*
*  Each combination has its own template except that label/no label
*  is combined
 into tokenRef, ruleRef, ...
*/

/** Add a variable to track last element matched */
ruleDeclarations() ::= <<
<super.ruleDeclarations()>
<if(!ruleDescriptor.isSynPred)>
<ASTLabelType> _first_0 = default(<ASTLabelType>);
<ASTLabelType> _last = default(<ASTLabelType>);
<endif>
>>

/** What to emit when there is no rewrite rule.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel=false, treeLevel=false) ::= <<
<if(!ruleDescriptor.isSynPred)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
<if(rewriteMode)>
retval.Tree = (<ASTLabelType>)_first_0;
if (adaptor.GetParent(retval.Tree)!=null && adaptor.IsNil(adaptor.GetParent(retval.Tree)))
 retval.Tree = (<ASTLabelType>)adaptor.GetParent(retval.Tree);
<endif>
<if(backtracking)>}<endif>
<endif>
>>

/** match ^(root children) in tree parser; override here to
*  add tree construction actions.
*/
tree(root, actionsAfterRoot, children, nullableChildList,
    enclosingTreeLevel, treeLevel) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last
 = (<ASTLabelType>)input.LT(1);
{
<ASTLabelType> _save_last_<treeLevel> = _last;
<ASTLabelType> _first_<treeLevel> = default(<ASTLabelType>);
<if(!rewriteMode)>
<ASTLabelType> root_<treeLevel> = (<ASTLabelType>)adaptor.Nil();
```

```
<endif>
<root:element()>
<if(rewriteMode)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>)<endif>
<if(root.el.rule)>
if (_first_<enclosingTreeLevel> == null) _first_<enclosingTreeLevel> = <root.el.label>.Tree;
<else>
if (_first_<enclosingTreeLevel> == null) _first_<enclosingTreeLevel> = <root.el.label>;
<endif>
<endif>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if (input.LA(1) == TokenTypes.Down) {
 Match(input, TokenTypes.Down, null); <checkRuleBacktrackFailure()>
 <children:element()>
 Match(input, TokenTypes.Up, null); <checkRuleBacktrackFailure()>
}
<else>
Match(input, TokenTypes.Down, null); <checkRuleBacktrackFailure()>
<children:element()>
Match(input, TokenTypes.Up, null); <checkRuleBacktrackFailure()>
<endif>
<if(!rewriteMode)>
adaptor.AddChild(root_<enclosingTreeLevel>,
 root_<treeLevel>);
<endif>
_last = _save_last_<treeLevel>;
}
<else>
<super.tree(...)>
<endif>
>>

// TOKEN AST STUFF

/** ID! and output=AST (same as plain tokenRef) 'cept add
*  setting of _last
*/
tokenRefBang(token,label,elementIndex,terminalOptions) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.tokenRef(...)>
<else>
<super.tokenRefBang(...)>
<endif>
>>

/** ID auto construct */
```

```
tokenRef(token,label,elementIndex,terminalOptions) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.tokenRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
<if(terminalOptions.node)>
<label>_tree = new
<terminalOptions.node>(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text; format="string"><endif>);
<else>
<label>_tree =
(<ASTLabelType>)adaptor.DupNode(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text;
 format="string"><endif>);
<endif><\n>
adaptor.AddChild(root_<treeLevel>, <label>_tree);
<if(backtracking)>}<endif>
<else> <! rewrite mode !>
<if(backtracking)>if (<actions.(actionScope).synpredgate>)<endif>
if (_first_<treeLevel> == null) _first_<treeLevel> = <label>;
<endif>
<else>
<super.tokenRef(...)>
<endif>
>>

/** label+=TOKEN auto construct */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<if(!ruleDescriptor.isSynPred)>
<tokenRef(...)>
<listLabelElem(elem=label,...)>
<else>
<super.tokenRefAndListLabel(...)>
<endif>
>>

/** ^(ID ...) auto construct */
tokenRefRuleRoot(token,label,elementIndex,terminalOptions) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.tokenRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
<if(terminalOptions.node)>
<label>_tree = new
<terminalOptions.node>(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text;
```

```
 format="string"><endif>);
<else>
<label>_tree =
(<ASTLabelType>)adaptor.DupNode(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text; format="string"><endif>);
<endif><\n>
root_<treeLevel> = (<ASTLabelType>)adaptor.BecomeRoot(<label>_tree, root_<treeLevel>);
<if(backtracking)>}<endif>
<endif>
<else>
<super.tokenRefRuleRoot(...)>
<endif>
>>

/** Match ^(label+=TOKEN ...) auto construct */
tokenRefRuleRootAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<if(!ruleDescriptor.isSynPred)>
<tokenRefRuleRoot(...)>
<listLabelElem(elem=label,...)>
<else>
<super.tokenRefRuleRootAndListLabel(...)>
<endif>
>>

/** Match . wildcard and auto dup the node/subtree */
wildcard(token,label,elementIndex,terminalOptions) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.wildcard(...)>
<if(!rewriteMode)>
<if(backtracking)>if
 (<actions.(actionScope).synpredgate>) {<endif>
<label>_tree = (<ASTLabelType>)adaptor.DupTree(<label>);
adaptor.AddChild(root_<treeLevel>, <label>_tree);
<if(backtracking)>}<endif>
<else> <! rewrite mode !>
<if(backtracking)>if (<actions.(actionScope).synpredgate>)<endif>
if (_first_<treeLevel> == null) _first_<treeLevel> = <label>;
<endif>
<else>
<super.wildcard(...)>
<endif>
>>

// SET AST

matchSet(s,label,terminalOptions,elementIndex,postmatchCode) ::= <<
<if(!ruleDescriptor.isSynPred)>
```

```
_last = (<ASTLabelType>)input.LT(1);
<super.matchSet(postmatchCode={
<if(!rewriteMode)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
<if(terminalOptions.node)>
<label>_tree = new
<terminalOptions.node>(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text; format="string"><endif>);
<else>
<label>_tree =
(<ASTLabelType>)adaptor.DupNode(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text;
 format="string"><endif>);
<endif><\n>
adaptor.AddChild(root_<treeLevel>, <label>_tree);
<if(backtracking)>\}<endif>
<endif>
}, ...
)>
<else>
<super.matchSet(...)>
<endif>
>>

matchRuleBlockSet(s,label,terminalOptions,elementIndex,postmatchCode,treeLevel="0") ::= <<
<if(!ruleDescriptor.isSynPred)>
<matchSet(...)>
<noRewrite(...)> <! set return tree !>
<else>
<super.matchRuleBlockSet(...)>
<endif>
>>

matchSetBang(s,label,terminalOptions,elementIndex,postmatchCode) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.matchSet(...)>
<else>
<super.matchSetBang(...)>
<endif>
>>

matchSetRuleRoot(s,label,terminalOptions,elementIndex,debug) ::= <<
<if(!ruleDescriptor.isSynPred)>
<super.matchSet(postmatchCode={
<if(!rewriteMode)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
<if(terminalOptions.node)>
```

```
<label>_tree = new
<terminalOptions.node>(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text;
 format="string"><endif>);
<else>
<label>_tree =
(<ASTLabelType>)adaptor.DupNode(<if(terminalOptions.type)><terminalOptions.type>,<endif><label><if(terminalOptions.text)>,<terminalOptions.text; format="string"><endif>);
<endif><\n>
root_<treeLevel> = (<ASTLabelType>)adaptor.BecomeRoot(<label>_tree, root_<treeLevel>);
<if(backtracking)>\}<endif>
<endif>
}, ...
)>
<else>
<super.matchSetRuleRoot(...)>
<endif>
>>

// RULE REF AST

/** rule auto construct */
ruleRef(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRef(...)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>)<endif>
<if(!rewriteMode)>
adaptor.AddChild(root_<treeLevel>, <label>.Tree);
<else> <! rewrite mode !>
if (_first_<treeLevel> == null) _first_<treeLevel> = <label>.Tree;
<endif>
<else>
<super.ruleRef(...)>
<endif>
>>

/** x+=rule auto construct */
ruleRefAndListLabel(rule,label,elementIndex,args,scope)
 ::= <<
<if(!ruleDescriptor.isSynPred)>
<ruleRef(...)>
<listLabelElem(elem={<label>.Tree},...)>
<else>
<super.ruleRefAndListLabel(...)>
<endif>
>>
```

```
/** ^(rule ...) auto construct */
ruleRefRuleRoot(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) <endif>root_<treeLevel> =
(<ASTLabelType>)adaptor.BecomeRoot(<label>.Tree, root_<treeLevel>);
<endif>
<else>
<super.ruleRefRuleRoot(...)>
<endif>
>>

/** ^(x+=rule ...) auto construct */
ruleRefRuleRootAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
<ruleRefRuleRoot(...)>
<listLabelElem(elem={<label>.Tree},...)>
<else>
<super.ruleRefRuleRootAndListLabel(...)>
<endif>
>>

/** rule when output=AST and tracking for rewrite */
ruleRefTrack(rule,label,elementIndex,args,scope) ::= <<
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRefTrack(...)>
>>

/**
 x+=rule when output=AST and tracking for rewrite */
ruleRefTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRefTrackAndListLabel(...)>
<else>
<super.ruleRefTrackAndListLabel(...)>
<endif>
>>

/** ^(rule ...) rewrite */
ruleRefRuleRootTrack(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRefRootTrack(...)>
<else>
<super.ruleRefRuleRootTrack(...)>
```

```
<endif>
>>

/** ^(x+=rule ...) rewrite */
ruleRefRuleRootTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRefRuleRootTrackAndListLabel(...)>
<else>
<super.ruleRefRuleRootTrackAndListLabel(...)>
<endif>
>>

/** Streams for token refs are tree nodes now; override to
*  change NextToken to NextNode.
*/
createRewriteNodeFromElement(token,terminalOptions,args)
 ::= <%
<if(terminalOptions.node)>
new
<terminalOptions.node>(<if(terminalOptions.type)><terminalOptions.type>,<endif>stream_<token>.NextNode())
<else>
stream_<token>.NextNode()
<endif>
%>

ruleCleanUp() ::= <<
<super.ruleCleanUp()>
<if(!ruleDescriptor.isSynPred)>
<if(!rewriteMode)>
<if(backtracking)>if (<actions.(actionScope).synpredgate>) {<endif>
retval.Tree = (<ASTLabelType>)adaptor.RulePostProcessing(root_0);
<if(backtracking)>}<endif>
<endif>
<endif>
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/CSharp3/ASTTreeParser.stg
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*/

```
/*
New style messages. This file contains the actual layout of the messages emitted by ANTLR.
The text itself is coming out of the languages/*stg files, according to the chosen locale.
This file contains the default format ANTLR uses.
*/

group antlr;

location(file, line, column) ::= "<file>:<line>:<column>:"

message(id, text) ::= "(<id>) <text>"

report(location, message, type) ::= "<type>(<message.id>): <location> <message.text>"

wantsSingleLineMessage() ::= "false"
```

Found in path(s):
*
 /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/tool/templates/messages/formats/antlr.stg
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*/

```
/** Templates for building ASTs during tree parsing.
*
*  Deal with many combinations.  Dimensions are:
*  Auto build or rewrite
*    no label, label, list label  (label/no-label handled together)
*    child, root
*    token, set, rule, wildcard
*
*  Each combination has its own template except that label/no label
*  is combined into tokenRef, ruleRef, ...
 */
group ASTTreeParser;

/** Add a variable to track last element matched */
ruleDeclarations() ::= <<
<super.ruleDeclarations()>
_First[0] := nil;
_Last := nil;<\n>
>>

ruleDeclarationVars() ::= <<
```

```
<super.ruleDeclarationVars()>
_First, _Save_Last: array [0..63] of I<ASTLabelType>;
_Last: I<ASTLabelType>;
>>

/** What to emit when there is no rewrite rule.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel, treeLevel) ::= <<
<if(backtracking)>if (State.Backtracking = 0) then
begin<endif>
<if(rewriteMode)>
RetVal.Tree := _First[0] as I<ASTLabelType>;
if (Adaptor.GetParent(RetVal.Tree) \<\> nil) and (Adaptor.IsNil(Adaptor.GetParent(RetVal.Tree))) then
 RetVal.Tree := Adaptor.GetParent(RetVal.Tree) as I<ASTLabelType>;
<endif>
<if(backtracking)>end;<endif>
>>

/** match ^(root children) in tree parser; override here to
*  add tree construction actions.
*/
tree(root, actionsAfterRoot, children, nullableChildList,
    enclosingTreeLevel, treeLevel) ::= <<
_Last := Input.LT(1)
 as I<ASTLabelType>;
begin
 _Save_Last[<treeLevel>] := _Last;
 _First[<treeLevel>] := nil;
<if(!rewriteMode)>
 Root[<treeLevel>] := Adaptor.GetNilNode as I<ASTLabelType>;<\n>
<endif>
 <root:element()>
<if(rewriteMode)>
<if(backtracking)>if (State.Backtracking = 0) then <endif>
<if(root.el.rule)>
 if (_First[<enclosingTreeLevel>] = nil) then _First[<enclosingTreeLevel>] := <root.el.label>.Tree;
<else>
 if (_First[<enclosingTreeLevel>] = nil) then _First[<enclosingTreeLevel>] := <root.el.label>;
<endif>
<endif>
 <actionsAfterRoot:element()>
<if(nullableChildList)>
 if (Input.LA(1) = TToken.DOWN) then
 begin
   Match(Input, TToken.DOWN, nil); <checkRuleBacktrackFailure()>
   <children:element()>
   Match(Input, TToken.UP, nil); <checkRuleBacktrackFailure()>
```

```
 end;
<else>
 Match(Input, TToken.DOWN, nil); <checkRuleBacktrackFailure()>
 <children:element()>
 Match(Input, TToken.UP, nil); <checkRuleBacktrackFailure()>
<endif>
<if(!rewriteMode)>
 Adaptor.AddChild(Root[<enclosingTreeLevel>],
 Root[<treeLevel>]);
<endif>
 _Last := _Save_Last[<treeLevel>];
end;<\n>
>>

// TOKEN AST STUFF

/** ID! and output=AST (same as plain tokenRef) 'cept add
*  setting of _last
*/
tokenRefBang(token,label,elementIndex) ::= <<
_Last := Input.LT(1) as I<ASTLabelType>;
<super.tokenRef(...)>
>>

/** ID auto construct */
tokenRef(token,label,elementIndex,terminalOptions) ::= <<
_Last := Input.LT(1) as I<ASTLabelType>;
<super.tokenRef(...)>
<if(!rewriteMode)>
<if(backtracking)>
if (State.Backtracking = 0) then
begin<\n>
<endif>
<if(terminalOptions.node)>
<label>_tree := T<terminalOptions.node>.Create(<label>);
<else>
 <label>_tree := Adaptor.DupNode(<label>) as I<ASTLabelType>;
<endif><\n>
 Adaptor.AddChild(Root[<treeLevel>], <label>_tree);
<if(backtracking)>
end;
<endif>
<else> <! rewrite mode !>
<if(backtracking)>if (State.Backtracking = 0) then <endif>
if (_First[<treeLevel>] = nil) then _First[<treeLevel>] := <label>;
<endif>
>>
```

```
/** label+=TOKEN auto construct */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions)
 ::= <<
<tokenRef(...)>
<listLabel(elem=label,...)>
>>

/** ^(ID ...) auto construct */
tokenRefRuleRoot(token,label,elementIndex,terminalOptions) ::= <<
_Last := Input.LT(1) as I<ASTLabelType>;
<super.tokenRef(...)>
<if(!rewriteMode)>
<if(backtracking)>
if (State.Backtracking = 0) then
begin
<endif>
<if(terminalOptions.node)>
<label>_tree := T<terminalOptions.node>.Create(<label>);
<else>
 <label>_tree := Adaptor.DupNode(<label>) as I<ASTLabelType>;
<endif><\n>
 Root[<treeLevel>] := Adaptor.BecomeRoot(<label>_tree, Root[<treeLevel>]) as I<ASTLabelType>;
<if(backtracking)>
end;
<endif>
<endif>
>>

/** Match ^(label+=TOKEN ...) auto construct */
tokenRefRuleRootAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRefRuleRoot(...)>
<listLabel(elem=label,...)>
>>

// SET AST

matchSet(s,label,terminalOptions,elementIndex,postmatchCode) ::= <<
_Llast := Input.LT(1) as I<ASTLabelType>;
<super.matchSet(..., postmatchCode={
<if(!rewriteMode)>
<if(backtracking)>if
 (State.Backtracking = 0) then begin <endif>
<if(terminalOptions.node)>
<label>_tree := T<terminalOptions.node>.Create(<label>);
<else>
<label>_tree := Adaptor.DupNode(<label>) as I<ASTLabelType>;
<endif><\n>
Adaptor.AddChild(Root[<treeLevel>], <label>_tree);
```

```
<if(backtracking)>end;<endif>
<endif>
}
)>
>>

matchRuleBlockSet(s,label,terminalOptions,elementIndex,postmatchCode,treeLevel="0") ::= <<
<matchSet(...)>
<noRewrite()> <! set return tree !>
>>

matchSetBang(s,label,elementIndex,postmatchCode) ::= <<
_Last := Input.LT(1) as I<ASTLabelType>;
<super.matchSet(...)>
>>

matchSetRuleRoot(s,label,terminalOptions,elementIndex,debug) ::= <<
<super.matchSet(..., postmatchCode={
<if(!rewriteMode)>
<if(backtracking)>if (State.Backtracking = 0) then begin <endif>
<if(terminalOptions.node)>
<label>_tree := T<terminalOptions.node>.Create(<label>);
<else>
<label>_tree := Adaptor.DupNode(<label>) as I<ASTLabelType>;
<endif><\n>
Root[<treeLevel>] := Adaptor.BecomeRoot(<label>_tree,
 Root[<treeLevel>]) as I<ASTLabelType>;
<if(backtracking)>end;<endif>
<endif>
}
)>
>>

// RULE REF AST

/** rule auto construct */
ruleRef(rule,label,elementIndex,args,scope) ::= <<
_Last := Input.LT(1) as I<ASTLabelType>;
<super.ruleRef(...)>
<if(backtracking)>if (State.Backtracking = 0) then <endif>
<if(!rewriteMode)>
Adaptor.AddChild(Root[<treeLevel>], <label>.Tree);
<else> <! rewrite mode !>
if (_First[<treeLevel>] = nil) then _First[<treeLevel>] := <label>.Tree;
<endif>
>>

/** x+=rule auto construct */
```

```
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabel(elem=label+".Tree",...)>
>>

/** ^(rule ...) auto construct */
ruleRefRuleRoot(rule,label,elementIndex,args,scope) ::= <<
_Last := Input.LT(1) as I<ASTLabelType>;
<super.ruleRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if (State.Backtracking = 0) then <endif>Root[<treeLevel>] :=
Adaptor.BecomeRoot(<label>.Tree, Root[<treeLevel>]) as I<ASTLabelType>;
<endif>
>>

/**
 ^(x+=rule ...) auto construct */
ruleRefRuleRootAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRoot(...)>
<listLabel(elem=label+".Tree",...)>
>>

/** rule when output=AST and tracking for rewrite */
ruleRefTrack(rule,label,elementIndex,args,scope) ::= <<
_Last := Input.LT(1) as I<ASTLabelType>;
<super.ruleRefTrack(...)>
>>

/** x+=rule when output=AST and tracking for rewrite */
ruleRefTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
_Last := Input.LT(1) as I<ASTLabelType>;
<super.ruleRefTrackAndListLabel(...)>
>>

/** ^(rule ...) rewrite */
ruleRefRuleRootTrack(rule,label,elementIndex,args,scope) ::= <<
_Last := Input.LT(1) as I<ASTLabelType>;
<super.ruleRefRootTrack(...)>
>>

/** ^(x+=rule ...) rewrite */
ruleRefRuleRootTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
_Last := Input.LT(1) as I<ASTLabelType>;
<super.ruleRefRuleRootTrackAndListLabel(...)>
>>

/** Streams for token refs are tree nodes now; override to
*  change nextToken
```

```
 to nextNode.
*/
createRewriteNodeFromElement(token,terminalOptions,scope) ::= <<
<if(terminalOptions.node)>
T<terminalOptions.node>.Create((Locals['Stream_<token>'] as IRewriteRuleElementStream).NextNode)
<else>
(Locals['Stream_<token>'] as IRewriteRuleElementStream).NextNode
<endif>
>>

ruleCleanUp() ::= <<
<super.ruleCleanUp()>
<if(!rewriteMode)>
<if(backtracking)>
if (State.Backtracking = 0) then
begin<\n>
<endif>
RetVal.Tree := Adaptor.RulePostProcessing(Root[0]) as I<ASTLabelType>;
<if(backtracking)>
end;
<endif>
<endif>
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Delphi/ASTTreeParser.stg
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*/

/** Templates for building ASTs during tree parsing.
*
*  Deal with many combinations.  Dimensions are:
*  Auto build or rewrite
*    no label, label, list label  (label/no-label handled together)
*    child, root
*    token, set, rule, wildcard
*
*  Each combination has its own template except that label/no label
*  is combined into tokenRef, ruleRef, ...
*/
group ASTTreeParser;

/** Add a variable to track last element matched */
ruleDeclarations()
 ::= <<
<super.ruleDeclarations()>
<ASTLabelType> _first_0 = null;
<ASTLabelType> _last = null;<\n>
>>

/** What to emit when there is no rewrite rule.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel, treeLevel) ::= <<
<if(backtracking)>if ( state.backtracking==0 ) {<endif>
<if(rewriteMode)>
retval.tree = (<ASTLabelType>)_first_0;
if ( adaptor.getParent(retval.tree)!=null && adaptor.isNil( adaptor.getParent(retval.tree) ) )
   retval.tree = (<ASTLabelType>)adaptor.getParent(retval.tree);
<endif>
<if(backtracking)>}<endif>
>>

/** match ^(root children) in tree parser; override here to
*  add tree construction actions.
*/
```

```
tree(root, actionsAfterRoot, children, nullableChildList,
    enclosingTreeLevel, treeLevel) ::= <<
_last = (<ASTLabelType>)input.LT(1);
{
<ASTLabelType> _save_last_<treeLevel> = _last;
<ASTLabelType> _first_<treeLevel> = null;
<if(!rewriteMode)>
<ASTLabelType> root_<treeLevel> = (<ASTLabelType>)adaptor.nil();
<endif>
<root:element()>
<if(rewriteMode)>
<if(backtracking)>if
 ( state.backtracking==0 )<endif>
<if(root.el.rule)>
if ( _first_<enclosingTreeLevel>==null ) _first_<enclosingTreeLevel> = <root.el.label>.tree;
<else>
if ( _first_<enclosingTreeLevel>==null ) _first_<enclosingTreeLevel> = <root.el.label>;
<endif>
<endif>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if ( input.LA(1)==Token.DOWN ) {
   match(input, Token.DOWN, null); <checkRuleBacktrackFailure()>
   <children:element()>
   match(input, Token.UP, null); <checkRuleBacktrackFailure()>
}
<else>
match(input, Token.DOWN, null); <checkRuleBacktrackFailure()>
<children:element()>
match(input, Token.UP, null); <checkRuleBacktrackFailure()>
<endif>
<if(!rewriteMode)>
adaptor.addChild(root_<enclosingTreeLevel>, root_<treeLevel>);
<endif>
_last = _save_last_<treeLevel>;
}<\n>
>>

// TOKEN AST STUFF

/** ID! and output=AST (same as plain tokenRef) 'cept add
*  setting of _last
*/
tokenRefBang(token,label,elementIndex) ::= <<
_last = (<ASTLabelType>)input.LT(1);
<super.tokenRef(...)>
>>
```

```
/**
 ID auto construct */
tokenRef(token,label,elementIndex,terminalOptions) ::= <<
_last = (<ASTLabelType>)input.LT(1);
<super.tokenRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if ( state.backtracking==0 ) {<endif>
<if(terminalOptions.node)>
<label>_tree = new <terminalOptions.node>(<label>);
<else>
<label>_tree = (<ASTLabelType>)adaptor.dupNode(<label>);
<endif><\n>
adaptor.addChild(root_<treeLevel>, <label>_tree);
<if(backtracking)>}<endif>
<else> <! rewrite mode !>
<if(backtracking)>if ( state.backtracking==0 )<endif>
if ( _first_<treeLevel>==null ) _first_<treeLevel> = <label>;
<endif>
>>

/** label+=TOKEN auto construct */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRef(...)>
<listLabel(elem=label,...)>
>>

/** ^(ID ...) auto construct */
tokenRefRuleRoot(token,label,elementIndex,terminalOptions) ::= <<
_last = (<ASTLabelType>)input.LT(1);
<super.tokenRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if
 ( state.backtracking==0 ) {<endif>
<if(terminalOptions.node)>
<label>_tree = new <terminalOptions.node>(<label>);
<else>
<label>_tree = (<ASTLabelType>)adaptor.dupNode(<label>);
<endif><\n>
root_<treeLevel> = (<ASTLabelType>)adaptor.becomeRoot(<label>_tree, root_<treeLevel>);
<if(backtracking)>}<endif>
<endif>
>>

/** Match ^(label+=TOKEN ...) auto construct */
tokenRefRuleRootAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRefRuleRoot(...)>
<listLabel(elem=label,...)>
>>
```

```
// SET AST

matchSet(s,label,terminalOptions,elementIndex,postmatchCode) ::= <<
_last = (<ASTLabelType>)input.LT(1);
<super.matchSet(..., postmatchCode={
<if(!rewriteMode)>
<if(backtracking)>if ( state.backtracking==0 ) {<endif>
<if(terminalOptions.node)>
<label>_tree = new <terminalOptions.node>(<label>);
<else>
<label>_tree = (<ASTLabelType>)adaptor.dupNode(<label>);
<endif><\n>
adaptor.addChild(root_<treeLevel>, <label>_tree);
<if(backtracking)>}<endif>
<endif>
}
)>
>>

matchRuleBlockSet(s,label,terminalOptions,elementIndex,postmatchCode,treeLevel="0")
 ::= <<
<matchSet(...)>
<noRewrite()> <! set return tree !>
>>

matchSetBang(s,label,elementIndex,postmatchCode) ::= <<
_last = (<ASTLabelType>)input.LT(1);
<super.matchSet(...)>
>>

matchSetRuleRoot(s,label,terminalOptions,elementIndex,debug) ::= <<
<super.matchSet(..., postmatchCode={
<if(!rewriteMode)>
<if(backtracking)>if ( state.backtracking==0 ) {<endif>
<if(terminalOptions.node)>
<label>_tree = new <terminalOptions.node>(<label>);
<else>
<label>_tree = (<ASTLabelType>)adaptor.dupNode(<label>);
<endif><\n>
root_<treeLevel> = (<ASTLabelType>)adaptor.becomeRoot(<label>_tree, root_<treeLevel>);
<if(backtracking)>}<endif>
<endif>
}
)>
>>

// RULE REF AST
```

```
/** rule auto construct */
ruleRef(rule,label,elementIndex,args,scope) ::= <<
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRef(...)>
<if(backtracking)>if ( state.backtracking==0 ) <endif>
<if(!rewriteMode)>
adaptor.addChild(root_<treeLevel>, <label>.getTree());
<else>
 <! rewrite mode !>
if ( _first_<treeLevel>==null ) _first_<treeLevel> = <label>.tree;
<endif>
>>

/** x+=rule auto construct */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabel(elem=label+".getTree()",...)>
>>

/** ^(rule ...) auto construct */
ruleRefRuleRoot(rule,label,elementIndex,args,scope) ::= <<
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if ( state.backtracking==0 ) <endif>root_<treeLevel> =
(<ASTLabelType>)adaptor.becomeRoot(<label>.getTree(), root_<treeLevel>);
<endif>
>>

/** ^(x+=rule ...) auto construct */
ruleRefRuleRootAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRoot(...)>
<listLabel(elem=label+".getTree()",...)>
>>

/** Streams for token refs are tree nodes now; override to
*  change nextToken to nextNode.
*/
createRewriteNodeFromElement(token,terminalOptions,scope) ::= <<
<if(terminalOptions.node)>
new <terminalOptions.node>(stream_<token>.nextNode())
<else>
stream_<token>.nextNode()
<endif>
>>

ruleCleanUp()
```

```
 ::= <<
<super.ruleCleanUp()>
<if(!rewriteMode)>
<if(backtracking)>if ( state.backtracking==0 ) {<\n><endif>
retval.tree = (<ASTLabelType>)adaptor.rulePostProcessing(root_0);
<if(backtracking)>}<endif>
<endif>
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Perl5/ASTTreeParser.stg
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*/

/*
* This code generating template and the associated C runtime was produced by:

```
* Jim Idle jimi|hereisanat|idle|dotgoeshere|ws.
* If it causes the destruction of the Universe, it will be pretty cool so long as
* I am in a different one at the time.
*/
cTypeInitMap ::= [
 "int"      : "0",              // Integers     start out being 0
 "long"      : "0",              // Longs        start out
 being 0
 "float"      : "0.0",           // Floats       start out being 0
 "double"     : "0.0",           // Doubles      start out being 0
 "ANTLR3_BOOLEAN"    : "ANTLR3_FALSE",   // Booleans     start out being Antlr C for false
 "byte"      : "0",              // Bytes        start out being 0
 "short"      : "0",              // Shorts       start out being 0
 "char"      : "0"              // Chars        start out being 0
]

leadIn(type) ::=
<<
/** \file
*  This <type> file was generated by $ANTLR version <ANTLRVersion>
*
*     -  From the grammar source file : <fileName>
*     -                            On : <generatedTimestamp>
<if(LEXER)>
*     -                 for the lexer : <name>Lexer
<endif>
<if(PARSER)>
*     -                for the parser : <name>Parser
<endif>
<if(TREE_PARSER)>
*     -           for the tree parser : <name>TreeParser
<endif>
*
* Editing it, at least manually, is not wise.
*
* C language generator and runtime by Jim Idle, jimi|hereisanat|idle|dotgoeshere|ws.
 *
*
>>

/** The overall file structure of a recognizer; stores methods for rules
*  and cyclic DFAs plus support code.
*/
outputFile( LEXER,
            PARSER,
            TREE_PARSER,
            actionScope,
            actions,
```

```
        docComment,
        recognizer,
        name,
        tokens,
        tokenNames,
        rules,
        cyclicDFAs,
        bitsets,
        buildTemplate,
        buildAST,
        rewriteMode,
        profile,
        backtracking,
        synpreds,
        memoize,
        numRules,
        fileName,
        ANTLRVersion,
        generatedTimestamp,
        trace,
        scopes,
        superClass,
        literals
        ) ::=
<<
<leadIn("C source")>
*/
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// http://www.linkedin.com/in/jimidle
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<if(actions.(actionScope).header)>

/* ==============================================================================
* This is what the grammar programmer asked us to put at the top of every file.
*/
<actions.(actionScope).header>
/* End of Header action.
* ==============================================================================
*/
<endif>

/* -----------------------------------------
* Include the ANTLR3 generated header file.
*/
#include    "<name>.h"
<actions.(actionScope).postinclude>
/* ----------------------------------------- */

<docComment>

<if(literals)>
/** String
 literals used by <name> that we must do things like MATCHS() with.
*  C will normally just lay down 8 bit characters, and you can use L"xxx" to
*  get wchar_t, but wchar_t is 16 bits on Windows, which is not UTF32 and so
*  we perform this little trick of defining the literals as arrays of UINT32
*  and passing in the address of these.
*/
<literals:{it | static ANTLR3_UCHAR lit_<i>[]  = <it>;}; separator="\n">

<endif>




/* MACROS that hide the C interface implementations from the
* generated code, which makes it a little more understandable to the human eye.
* I am very much against using C pre-processor macros for function calls and bits
```

```
* of code as you cannot see what is happening when single stepping in debuggers
* and so on. The exception (in my book at least) is for generated code, where you are
* not maintaining it, but may wish to read and understand it. If you single step it, you know that input()
* hides some indirect calls, but is always referring to the input
 stream. This is
* probably more readable than ctx->input->istream->input(snarfle0->blarg) and allows me to rejig
* the runtime interfaces without changing the generated code too often, without
* confusing the reader of the generated output, who may not wish to know the gory
* details of the interface inheritance.
*/

#define  CTX ctx

/* Aids in accessing scopes for grammar programmers
*/
#undef SCOPE_TYPE
#undef SCOPE_STACK
#undef SCOPE_TOP
#define SCOPE_TYPE(scope)   p<name>_##scope##_SCOPE
#define SCOPE_STACK(scope)  p<name>_##scope##Stack
#define SCOPE_TOP(scope)    ctx->p<name>_##scope##Top
#define SCOPE_SIZE(scope)  ctx->p<name>_##scope##Stack_limit
#define SCOPE_INSTANCE(scope, i) (ctx->SCOPE_STACK(scope)->get(ctx->SCOPE_STACK(scope),i))

<if(LEXER)>

/* Macros for accessing things in a lexer
*/
#undef    LEXER
#undef    RECOGNIZER
#undef    RULEMEMO
#undef    GETCHARINDEX
#undef    GETLINE
#undef    GETCHARPOSITIONINLINE
#undef    EMIT
#undef    EMITNEW
#undef
   MATCHC
#undef    MATCHS
#undef    MATCHRANGE
#undef    LTOKEN
#undef    HASFAILED
#undef    FAILEDFLAG
#undef    INPUT
#undef    STRSTREAM
#undef    LA
#undef    HASEXCEPTION
#undef    EXCEPTION
```

```
#undef    CONSTRUCTEX
#undef    CONSUME
#undef    LRECOVER
#undef    MARK
#undef    REWIND
#undef    REWINDLAST
#undef    BACKTRACKING
#undef  MATCHANY
#undef  MEMOIZE
#undef  HAVEPARSEDRULE
#undef  GETTEXT
#undef  INDEX
#undef  SEEK
#undef  PUSHSTREAM
#undef  POPSTREAM
#undef  SETTEXT
#undef  SETTEXT8

#define    LEXER     ctx->pLexer
#define    RECOGNIZER       LEXER->rec
#define  LEXSTATE    RECOGNIZER->state
#define  TOKSOURCE    LEXSTATE->tokSource
#define    GETCHARINDEX()   LEXER->getCharIndex(LEXER)
#define    GETLINE()    LEXER->getLine(LEXER)
#define    GETTEXT()    LEXER->getText(LEXER)
#define    GETCHARPOSITIONINLINE() LEXER->getCharPositionInLine(LEXER)
#define    EMIT()     LEXSTATE->type = _type; LEXER->emit(LEXER)
#define    EMITNEW(t)    LEXER->emitNew(LEXER,
 t)
#define    MATCHC(c)    LEXER->matchc(LEXER, c)
#define    MATCHS(s)    LEXER->matchs(LEXER, s)
#define    MATCHRANGE(c1,c2)     LEXER->matchRange(LEXER, c1, c2)
#define    MATCHANY()    LEXER->matchAny(LEXER)
#define    LTOKEN      LEXSTATE->token
#define    HASFAILED()    (LEXSTATE->failed == ANTLR3_TRUE)
#define    BACKTRACKING   LEXSTATE->backtracking
#define    FAILEDFLAG    LEXSTATE->failed
#define    INPUT     LEXER->input
#define    STRSTREAM    INPUT
#define  ISTREAM     INPUT->istream
#define  INDEX()     ISTREAM->index(ISTREAM)
#define  SEEK(n)     ISTREAM->seek(ISTREAM, n)
#define    EOF_TOKEN    &(LEXSTATE->tokSource->eofToken)
#define    HASEXCEPTION()   (LEXSTATE->error == ANTLR3_TRUE)
#define    EXCEPTION    LEXSTATE->exception
#define    CONSTRUCTEX()   RECOGNIZER->exConstruct(RECOGNIZER)
#define    LRECOVER()    LEXER->recover(LEXER)
#define    MARK()     ISTREAM->mark(ISTREAM)
```

```
#define     REWIND(m)    ISTREAM->rewind(ISTREAM, m)
#define
    REWINDLAST()   ISTREAM->rewindLast(ISTREAM)
#define  MEMOIZE(ri,si)   RECOGNIZER->memoize(RECOGNIZER, ri, si)
#define  HAVEPARSEDRULE(r)  RECOGNIZER->alreadyParsedRule(RECOGNIZER, r)
#define  PUSHSTREAM(str)   LEXER->pushCharStream(LEXER, str)
#define  POPSTREAM()    LEXER->popCharStream(LEXER)
#define  SETTEXT(str)   LEXSTATE->text = str
#define  SKIP()     LEXSTATE->token = &(TOKSOURCE->skipToken)
#define  USER1     LEXSTATE->user1
#define  USER2     LEXSTATE->user2
#define  USER3     LEXSTATE->user3
#define  CUSTOM     LEXSTATE->custom
#define  RULEMEMO    LEXSTATE->ruleMemo
#define  DBG      RECOGNIZER->debugger

/* If we have been told we can rely on the standard 8 bit or UTF16 input
* stream, then we can define our macros to use the direct pointers
* in the input object, which is much faster than indirect calls. This
* is really only significant to lexers with a lot of fragment rules (which
* do not place LA(1) in a temporary at the moment) and even then
* only if there is
 a lot of input (order of say 1M or so).
*/
#if defined(ANTLR3_INLINE_INPUT_8BIT) || defined(ANTLR3_INLINE_INPUT_UTF16)

# ifdef ANTLR3_INLINE_INPUT_8BIT

/* 8 bit character set */

#  define     NEXTCHAR ((pANTLR3_UINT8)(INPUT->nextChar))
#  define     DATAP ((pANTLR3_UINT8)(INPUT->data))

# else

#  define     NEXTCHAR ((pANTLR3_UINT16)(INPUT->nextChar))
#  define     DATAP ((pANTLR3_UINT16)(INPUT->data))

# endif

# define     LA(n) ((NEXTCHAR + n) > (DATAP + INPUT->sizeBuf) ? ANTLR3_CHARSTREAM_EOF :
(ANTLR3_UCHAR)(*(NEXTCHAR + n - 1)))
# define            CONSUME()                                   \\
{                                                               \\
   if        (NEXTCHAR \< (DATAP + INPUT->sizeBuf))                   \\
   {                                                          \\
       INPUT->charPositionInLine++;                               \\
       if  ((ANTLR3_UCHAR)(*NEXTCHAR) == INPUT->newlineChar)           \\
```

```
        {                                                   \\
          INPUT->line++;                                    \\
          INPUT->charPositionInLine       = 0;              \\
          INPUT->currentLine              = (void *)(NEXTCHAR + 1); \\
        }                                                   \\
        INPUT->nextChar = (void *)(NEXTCHAR + 1);           \\
    }                                                       \\
}

#else

// Pick up the input character by calling the input stream implementation.
//
#define    CONSUME()   INPUT->istream->consume(INPUT->istream)
#define    LA(n)       INPUT->istream->_LA(INPUT->istream, n)

#endif
<endif>

<if(PARSER)>
/* Macros for accessing things in the parser
*/

#undef    PARSER
#undef    RECOGNIZER
#undef    HAVEPARSEDRULE
#undef  MEMOIZE
#undef    INPUT
#undef    STRSTREAM
#undef    HASEXCEPTION
#undef    EXCEPTION
#undef    MATCHT
#undef
   MATCHANYT
#undef    FOLLOWSTACK
#undef    FOLLOWPUSH
#undef    FOLLOWPOP
#undef    PRECOVER
#undef    PREPORTERROR
#undef    LA
#undef    LT
#undef    CONSTRUCTEX
#undef    CONSUME
#undef    MARK
#undef    REWIND
#undef    REWINDLAST
#undef    PERRORRECOVERY
#undef    HASFAILED
```

```
#undef    FAILEDFLAG
#undef    RECOVERFROMMISMATCHEDSET
#undef    RECOVERFROMMISMATCHEDELEMENT
#undef  INDEX
#undef     ADAPTOR
#undef  SEEK
#undef    RULEMEMO
#undef  DBG

#define    PARSER    ctx->pParser
#define    RECOGNIZER    PARSER->rec
#define    PSRSTATE    RECOGNIZER->state
#define    HAVEPARSEDRULE(r)   RECOGNIZER->alreadyParsedRule(RECOGNIZER, r)
#define    MEMOIZE(ri,si)   RECOGNIZER->memoize(RECOGNIZER, ri, si)
#define    INPUT    PARSER->tstream
#define    STRSTREAM    INPUT
#define    ISTREAM    INPUT->istream
#define    INDEX()    ISTREAM->index(INPUT->istream)
#define    HASEXCEPTION()   (PSRSTATE->error == ANTLR3_TRUE)
#define    EXCEPTION    PSRSTATE->exception
#define
   MATCHT(t, fs)   RECOGNIZER->match(RECOGNIZER, t, fs)
#define    MATCHANYT()    RECOGNIZER->matchAny(RECOGNIZER)
#define    FOLLOWSTACK    PSRSTATE->following
#ifdef  SKIP_FOLLOW_SETS
#define    FOLLOWPUSH(x)
#define    FOLLOWPOP()
#else
#define    FOLLOWPUSH(x)   FOLLOWSTACK->push(FOLLOWSTACK, ((void *)(&(x))), NULL)
#define    FOLLOWPOP()    FOLLOWSTACK->pop(FOLLOWSTACK)
#endif
#define    PRECOVER()    RECOGNIZER->recover(RECOGNIZER)
#define    PREPORTERROR()   RECOGNIZER->reportError(RECOGNIZER)
#define    LA(n)    INPUT->istream->_LA(ISTREAM, n)
#define    LT(n)    INPUT->_LT(INPUT, n)
#define    CONSTRUCTEX()   RECOGNIZER->exConstruct(RECOGNIZER)
#define    CONSUME()    ISTREAM->consume(ISTREAM)
#define    MARK()    ISTREAM->mark(ISTREAM)
#define    REWIND(m)    ISTREAM->rewind(ISTREAM, m)
#define    REWINDLAST()   ISTREAM->rewindLast(ISTREAM)
#define    SEEK(n)    ISTREAM->seek(ISTREAM, n)
#define    PERRORRECOVERY   PSRSTATE->errorRecovery
#define
   FAILEDFLAG    PSRSTATE->failed
#define    HASFAILED()    (FAILEDFLAG == ANTLR3_TRUE)
#define    BACKTRACKING   PSRSTATE->backtracking
#define    RECOVERFROMMISMATCHEDSET(s)  RECOGNIZER->recoverFromMismatchedSet(RECOGNIZER,
s)
```

```
#define     RECOVERFROMMISMATCHEDELEMENT(e) RECOGNIZER-
>recoverFromMismatchedElement(RECOGNIZER, s)
#define     ADAPTOR                         ctx->adaptor
#define  RULEMEMO      PSRSTATE->ruleMemo
#define  DBG        RECOGNIZER->debugger

<endif>

<if(TREE_PARSER)>
/* Macros for accessing things in the parser
*/

#undef     PARSER
#undef     RECOGNIZER
#undef     HAVEPARSEDRULE
#undef     INPUT
#undef     STRSTREAM
#undef     HASEXCEPTION
#undef     EXCEPTION
#undef     MATCHT
#undef     MATCHANYT
#undef     FOLLOWSTACK
#undef     FOLLOWPUSH
#undef     FOLLOWPOP
#undef     PRECOVER
#undef     PREPORTERROR
#undef     LA
#undef     LT
#undef     CONSTRUCTEX
#undef     CONSUME
#undef     MARK
#undef     REWIND
#undef     REWINDLAST
#undef     PERRORRECOVERY
#undef
   HASFAILED
#undef     FAILEDFLAG
#undef     RECOVERFROMMISMATCHEDSET
#undef     RECOVERFROMMISMATCHEDELEMENT
#undef     BACKTRACKING
#undef      ADAPTOR
#undef     RULEMEMO
#undef  SEEK
#undef  INDEX
#undef  DBG

#define     PARSER       ctx->pTreeParser
#define     RECOGNIZER      PARSER->rec
```

```
#define  PSRSTATE      RECOGNIZER->state
#define     HAVEPARSEDRULE(r)    RECOGNIZER->alreadyParsedRule(RECOGNIZER, r)
#define     INPUT       PARSER->ctnstream
#define  ISTREAM       INPUT->tnstream->istream
#define     STRSTREAM      INPUT->tnstream
#define     HASEXCEPTION()     (PSRSTATE->error == ANTLR3_TRUE)
#define     EXCEPTION      PSRSTATE->exception
#define     MATCHT(t, fs)     RECOGNIZER->match(RECOGNIZER, t, fs)
#define     MATCHANYT()      RECOGNIZER->matchAny(RECOGNIZER)
#define     FOLLOWSTACK        PSRSTATE->following
#define     FOLLOWPUSH(x)     FOLLOWSTACK->push(FOLLOWSTACK, ((void *)(&(x))), NULL)
#define     FOLLOWPOP()      FOLLOWSTACK->pop(FOLLOWSTACK)
#define
    PRECOVER()      RECOGNIZER->recover(RECOGNIZER)
#define     PREPORTERROR()     RECOGNIZER->reportError(RECOGNIZER)
#define     LA(n)       ISTREAM->_LA(ISTREAM, n)
#define     LT(n)       INPUT->tnstream->_LT(INPUT->tnstream, n)
#define     CONSTRUCTEX()     RECOGNIZER->exConstruct(RECOGNIZER)
#define     CONSUME()      ISTREAM->consume(ISTREAM)
#define     MARK()       ISTREAM->mark(ISTREAM)
#define     REWIND(m)      ISTREAM->rewind(ISTREAM, m)
#define     REWINDLAST()     ISTREAM->rewindLast(ISTREAM)
#define     PERRORRECOVERY     PSRSTATE->errorRecovery
#define     FAILEDFLAG      PSRSTATE->failed
#define     HASFAILED()      (FAILEDFLAG == ANTLR3_TRUE)
#define     BACKTRACKING     PSRSTATE->backtracking
#define     RECOVERFROMMISMATCHEDSET(s)  RECOGNIZER->recoverFromMismatchedSet(RECOGNIZER,
s)
#define     RECOVERFROMMISMATCHEDELEMENT(e) RECOGNIZER-
>recoverFromMismatchedElement(RECOGNIZER, s)
#define     ADAPTOR                      INPUT->adaptor
#define  RULEMEMO      PSRSTATE->ruleMemo
#define  SEEK(n)       ISTREAM->seek(ISTREAM,
 n)
#define  INDEX()       ISTREAM->index(ISTREAM)
#define  DBG        RECOGNIZER->debugger



<endif>

#define  TOKTEXT(tok, txt)    tok, (pANTLR3_UINT8)txt

/* The 4 tokens defined below may well clash with your own #defines or token types. If so
* then for the present you must use different names for your defines as these are hard coded
* in the code generator. It would be better not to use such names internally, and maybe
* we can change this in a forthcoming release. I deliberately do not #undef these
* here as this will at least give you a redefined error somewhere if they clash.
*/
```

```
#define	UP	ANTLR3_TOKEN_UP
#define	DOWN	ANTLR3_TOKEN_DOWN
#define	EOR	ANTLR3_TOKEN_EOR
#define	INVALID	ANTLR3_TOKEN_INVALID


/* ==============================================================================
* Functions to create and destroy scopes. First come the rule scopes, followed
* by the global
 declared scopes.
*/

<rules: {r |<if(r.ruleDescriptor.ruleScope)>
<ruleAttributeScopeFuncDecl(scope=r.ruleDescriptor.ruleScope)>
<ruleAttributeScopeFuncs(scope=r.ruleDescriptor.ruleScope)>
<endif>}>

<recognizer.scopes:{it | <if(it.isDynamicGlobalScope)>
<globalAttributeScopeFuncDecl(it)>
<globalAttributeScopeFuncs(it)>
<endif>}>

/* ============================================================================== */

/* ==============================================================================
* Start of recognizer
*/

<recognizer>

/* End of code
* ==============================================================================
*/

>>
headerFileExtension() ::= ".h"

headerFile( LEXER,
	PARSER,
	TREE_PARSER,
	actionScope,
	actions,
	docComment,
	recognizer,
	name,
	tokens,
	tokenNames,
	rules,
```

```
        cyclicDFAs,
        bitsets,
        buildTemplate,

    buildAST,
        rewriteMode,
        profile,
        backtracking,
        synpreds,
        memoize,
        numRules,
        fileName,
        ANTLRVersion,
        generatedTimestamp,
        trace,
        scopes,
  superClass,
        literals
     ) ::=
<<
<leadIn("C header")>
<if(PARSER)>
* The parser <mainName()>
<endif>
<if(LEXER)>
* The lexer <mainName()>
<endif>
<if(TREE_PARSER)>
* The tree parser <mainName()>
<endif>
has the callable functions (rules) shown below,
* which will invoke the code for the associated rule in the source grammar
* assuming that the input stream is pointing to a token/text stream that could begin
* this rule.
*
* For instance if you call the first (topmost) rule in a parser grammar, you will
* get the results of a full parse, but calling a rule half way through the grammar will
* allow you to pass part of a full token stream to the parser, such as for syntax checking
* in editors
 and so on.
*
* The parser entry points are called indirectly (by function pointer to function) via
* a parser context typedef p<name>, which is returned from a call to <name>New().
*
<if(LEXER)>
* As this is a generated lexer, it is unlikely you will call it 'manually'. However
* the methods are provided anyway.
*
```

```
<endif>
* The methods in p<name> are  as follows:
*
* <rules:{r | <if(!r.ruleDescriptor.isSynPred)> - <headerReturnType(ruleDescriptor=r.ruleDescriptor,...)>
p<name>-><r.ruleDescriptor.name>(p<name>)<endif>}; separator="\n * ">
*
* The return type for any particular rule is of course determined by the source
* grammar file.
*/
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// http://www.linkedin.com/in/jimidle
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// THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

#ifndef _<name>_H
#define _<name>_H
<actions.(actionScope).preincludes>
/* =============================================================================
* Standard antlr3 C runtime definitions
*/
#include    \<antlr3.h>
```

```
/* End of standard antlr 3 runtime definitions
* ============================================================================
*/
<actions.(actionScope).includes>

#ifdef __cplusplus
extern "C" {
#endif

// Forward declare the context typedef so that we can use it before it is
// properly defined. Delegators and delegates (from import statements) are
// interdependent and their context structures contain pointers to each other
// C only allows such things to be declared if you pre-declare the typedef.
//
typedef struct <name>_Ctx_struct
 <name>, * p<name>;

<if(recognizer.grammar.delegates)>
// Include delegate definition header files
//
<recognizer.grammar.delegates: {g|#include \<<g.recognizerName>.h>}; separator="\n">

<endif>


<actions.(actionScope).header>

#ifdef ANTLR3_WINDOWS
// Disable: Unreferenced parameter,       - Rules with parameters that are not used
//          constant conditional,       - ANTLR realizes that a prediction is always true (synpred usually)
//          initialized but unused variable     - tree rewrite variables declared but not needed
//          Unreferenced local variable      - lexer rule declares but does not always use _type
//          potentially unitialized variable used   - retval always returned from a rule
//   unreferenced local function has been removed - susually getTokenNames or freeScope, they can go without
warnigns
//
// These are only really displayed at warning level /W4 but that is the code ideal I am aiming at
// and the codegen must generate some of these
 warnings by necessity, apart from 4100, which is
// usually generated when a parser rule is given a parameter that it does not use. Mostly though
// this is a matter of orthogonality hence I disable that one.
//
#pragma warning( disable : 4100 )
#pragma warning( disable : 4101 )
#pragma warning( disable : 4127 )
#pragma warning( disable : 4189 )
#pragma warning( disable : 4505 )
#pragma warning( disable : 4701 )
```

```
#endif
<if(backtracking)>

/* ========================
* BACKTRACKING IS ENABLED
* ========================
*/
<endif>

<rules:{r |<headerReturnScope(ruleDescriptor=r.ruleDescriptor,...)>}>

<scopes:{it | <if(it.isDynamicGlobalScope)><globalAttributeScopeDecl(it)><endif>}>
<rules:{r |<ruleAttributeScopeDecl(scope=r.ruleDescriptor.ruleScope)>}>
<if(recognizer.grammar.delegators)>
// Include delegator definition header files
//
<recognizer.grammar.delegators: {g|#include \<<g.recognizerName>.h>}; separator="\n">

<endif>

/** Context tracking structure for <mainName()>
*/
struct
 <name>_Ctx_struct
{
   /** Built in ANTLR3 context tracker contains all the generic elements
    *  required for context tracking.
    */
<if(PARSER)>
   pANTLR3_PARSER   pParser;
<endif>
<if(LEXER)>
   pANTLR3_LEXER    pLexer;
<endif>
<if(TREE_PARSER)>
   pANTLR3_TREE_PARSER     pTreeParser;
<endif>

<if(recognizer.grammar.delegates)>
 <recognizer.grammar.delegates:
        {g|p<g.recognizerName> <g:delegateName()>;}; separator="\n">
<endif>
<if(recognizer.grammar.delegators)>
 <recognizer.grammar.delegators:
        {g|p<g.recognizerName> <g:delegateName()>;}; separator="\n">
<endif>
<scopes:{it | <if(it.isDynamicGlobalScope)>
   <globalAttributeScopeDef(it)>
```

```
<endif>}; separator="\n\n">
<rules: {r |<if(r.ruleDescriptor.ruleScope)>
   <ruleAttributeScopeDef(scope=r.ruleDescriptor.ruleScope)>
<endif>}>

<if(LEXER)>
   <rules:{r | <if(!r.ruleDescriptor.isSynPred)><headerReturnType(ruleDescriptor=r.ruleDescriptor)>
(*m<r.ruleDescriptor.name>) (struct <name>_Ctx_struct
 * ctx<if(r.ruleDescriptor.parameterScope)>,
<endif><r.ruleDescriptor.parameterScope:parameterScope()>);<endif>}; separator="\n">
<endif>
<if(!LEXER)>
   <rules:{r | <headerReturnType(ruleDescriptor=r.ruleDescriptor)> (*<r.ruleDescriptor.name>) (struct
<name>_Ctx_struct * ctx<if(r.ruleDescriptor.parameterScope)>,
<endif><r.ruleDescriptor.parameterScope:parameterScope()>);}; separator="\n">
<! generate rule/method definitions for imported rules so they
  appear to be defined in this recognizer. !>
   // Delegated rules
<recognizer.grammar.delegatedRules:{ruleDescriptor|
   <headerReturnType(ruleDescriptor)> (*<ruleDescriptor.name>)(struct <name>_Ctx_struct *
ctx<if(ruleDescriptor.parameterScope)>, <endif><ruleDescriptor.parameterScope:parameterScope()>);};
separator="\n">
<endif>

   const char * (*getGrammarFileName)();
   void	    (*reset)  (struct <name>_Ctx_struct * ctx);
   void     (*free)   (struct <name>_Ctx_struct * ctx);
   <@members>
   <@end>
   <actions.(actionScope).context>
};

//
 Function protoypes for the constructor functions that external translation units
// such as delegators and delegates may wish to call.
//
ANTLR3_API p<name> <name>New         (<inputType()> instream<recognizer.grammar.delegators:{g|,
p<g.recognizerName> <g:delegateName()>}>);
ANTLR3_API p<name> <name>NewSSD      (<inputType()> instream,
pANTLR3_RECOGNIZER_SHARED_STATE state<recognizer.grammar.delegators:{g|, p<g.recognizerName>
<g:delegateName()>}>);
<if(!recognizer.grammar.grammarIsRoot)>
extern pANTLR3_UINT8   <recognizer.grammar.composite.rootGrammar.recognizerName>TokenNames[];
<endif>


/** Symbolic definitions of all the tokens that the <grammarType()> will work with.
* \{
```

```
*
* Antlr will define EOF, but we can't use that as it it is too common in
* in C header files and that would be confusing. There is no way to filter this out at the moment
* so we just undef it here for now. That isn't the value we get back from C recognizers
* anyway. We are looking
 for ANTLR3_TOKEN_EOF.
*/
#ifdef EOF
#undef EOF
#endif
#ifdef Tokens
#undef Tokens
#endif
<tokens:{it | #define <it.name>      <it.type>}; separator="\n">
#ifdef EOF
#undef EOF
#define EOF ANTLR3_TOKEN_EOF
#endif

#ifndef TOKENSOURCE
#define TOKENSOURCE(lxr) lxr->pLexer->rec->state->tokSource
#endif

/* End of token definitions for <name>
* =============================================================================
*/
/** \} */

#ifdef __cplusplus
}
#endif

#endif

/* END - Note:Keep extra line feed to satisfy UNIX systems */

>>

inputType() ::=<<
<if(LEXER)>
pANTLR3_INPUT_STREAM
<endif>
<if(PARSER)>
pANTLR3_COMMON_TOKEN_STREAM
<endif>
<if(TREE_PARSER)>
pANTLR3_COMMON_TREE_NODE_STREAM
<endif>
```

```
>>

grammarType() ::= <<
<if(PARSER)>
parser
<endif>
<if(LEXER)>
lexer
<endif>
<if(TREE_PARSER)>
tree parser
<endif>
>>

mainName() ::= <<
<if(PARSER)>
<name>
<endif>
<if(LEXER)>
<name>
<endif>
<if(TREE_PARSER)>
<name>
<endif>
>>

headerReturnScope(ruleDescriptor) ::= "<returnScope(...)>"

headerReturnType(ruleDescriptor)
 ::= <<
<if(LEXER)>
<if(!ruleDescriptor.isSynPred)>
void
<else>
<returnType()>
<endif>
<else>
<returnType()>
<endif>
>>

// Produce the lexer output
//
lexer(  grammar,
  name,
      tokens,
      scopes,
      rules,
```

```
      numRules,
      filterMode,
      superClass,
      labelType="pANTLR3_COMMON_TOKEN") ::= <<

<if(filterMode)>
/* Forward declare implementation function for ANTLR3_TOKEN_SOURCE interface when
* this is a filter mode lexer.
*/
static pANTLR3_COMMON_TOKEN <name>NextToken   (pANTLR3_TOKEN_SOURCE toksource);

/* Override the normal MEMOIZE and HAVEALREADYPARSED macros as this is a filtering
* lexer. In filter mode, the memoizing and backtracking are gated at BACKTRACKING > 1 rather
* than just BACKTRACKING. In some cases this might generate code akin to:
*   if (BACKTRACKING) if (BACKTRACKING > 1) memoize.
* However, I assume that the C compilers/optimizers are smart enough to work this one out
* these days -
 Jim
*/
#undef  MEMOIZE
#define  MEMOIZE(ri,si)   if (BACKTRACKING>1) { RECOGNIZER->memoize(RECOGNIZER, ri, si) }
#undef  HAVEPARSEDRULE
#define  HAVEPARSEDRULE(r)  if (BACKTRACKING>1) { RECOGNIZER->alreadyParsedRule(RECOGNIZER,
r) }
<endif>

/* Forward declare the locally static matching functions we have generated and any predicate functions.
*/
<rules:{r | static ANTLR3_INLINE <headerReturnType(ruleDescriptor=r.ruleDescriptor)>
<if(!r.ruleDescriptor.isSynPred)>m<endif><r.ruleDescriptor.name>    (p<name>
ctx<if(r.ruleDescriptor.parameterScope)>, <endif><r.ruleDescriptor.parameterScope:parameterScope()>);};
separator="\n">
static void <name>Free(p<name> ctx);

/* =========================================================================
* Lexer matching rules end.
* =========================================================================
*/

<scopes:{it |<if(it.isDynamicGlobalScope)><globalAttributeScope(it)><endif>}>

<actions.lexer.members>

static void
<name>Free  (p<name> ctx)
{
<if(memoize)>
 if (RULEMEMO
```

```
 != NULL)
 {
  RULEMEMO->free(RULEMEMO);
  RULEMEMO = NULL;
 }
<endif>
<if(grammar.directDelegates)>
 // Free the lexers that we delegated to
 // functions to. NULL the state so we only free it once.
 //
 <grammar.directDelegates:
       {g|ctx-><g:delegateName()>->pLexer->rec->state = NULL;
       ctx-><g:delegateName()>->free(ctx-><g:delegateName()>);}; separator="\n">
<endif>
   LEXER->free(LEXER);

   ANTLR3_FREE(ctx);
}

static void
<name>Reset (p<name> ctx)
{
   RECOGNIZER->reset(RECOGNIZER);
}

/** \brief Name of the grammar file that generated this code
*/
static const char fileName[] = "<fileName>";

/** \brief Return the name of the grammar file that generated this code.
*/
static const char * getGrammarFileName()
{
 return fileName;
}

<if(filterMode)>
   <filteringNextToken()>
<endif>

/** \brief Create a new lexer called <name>
*
* \param[in]    instream Pointer to an initialized input stream
* \return
*     - Success p<name> initialized
 for the lex start
*     - Fail NULL
*/
```

```
ANTLR3_API p<name> <name>New
(<inputType()> instream<grammar.delegators:{g|, p<g.recognizerName> <g:delegateName()>}>)
{
 // See if we can create a new lexer with the standard constructor
 //
 return <name>NewSSD(instream, NULL<grammar.delegators:{g|, <g:delegateName()>}>);
}

/** \brief Create a new lexer called <name>
*
* \param[in]    instream Pointer to an initialized input stream
* \param[state] state Previously created shared recognizer stat
* \return
*     - Success p<name> initialized for the lex start
*     - Fail NULL
*/
ANTLR3_API p<name> <name>NewSSD
(pANTLR3_INPUT_STREAM instream, pANTLR3_RECOGNIZER_SHARED_STATE
state<grammar.delegators:{g|, p<g.recognizerName> <g:delegateName()>}>)
{
   p<name> ctx; // Context structure we will build and return

   ctx = (p<name>) ANTLR3_CALLOC(1, sizeof(<name>));

   if  (ctx == NULL)
   {
      // Failed to allocate memory for lexer context
      return  NULL;
   }

   /*
 -------------------------------------------------------------------
    * Memory for basic structure is allocated, now to fill in
    * in base ANTLR3 structures. We initialize the function pointers
    * for the standard ANTLR3 lexer function set, but upon return
    * from here, the programmer may set the pointers to provide custom
    * implementations of each function.
    *
    * We don't use the macros defined in <name>.h here so you can get a sense
    * of what goes where.
    */

   /* Create a base lexer, using the supplied input stream
    */
   ctx->pLexer = antlr3LexerNewStream(ANTLR3_SIZE_HINT, instream, state);

   /* Check that we allocated the memory correctly
    */
```

```
   if (ctx->pLexer == NULL)
   {
  ANTLR3_FREE(ctx);
  return  NULL;
   }
<if(memoize)>
<if(grammar.grammarIsRoot)>
   // Create a LIST for recording rule memos.
   //
   ctx->pLexer->rec->ruleMemo    = antlr3IntTrieNew(15); /* 16 bit depth is enough for 32768 rules! */
<endif>
<endif>

    /* Install the implementation of our <name> interface
    */
   <rules:{r | <if(!r.ruleDescriptor.isSynPred)>ctx->m<r.ruleDescriptor.name> =
m<r.ruleDescriptor.name>;<endif>}; separator="\n">

   /** When the nextToken() call is made to this lexer's pANTLR3_TOKEN_SOURCE
    *  it will call mTokens() in this generated code, and will pass it the ctx
    * pointer of this lexer, not the context of the base lexer, so store that now.
    */
   ctx->pLexer->ctx     = ctx;

   /**Install the token matching function
    */
   ctx->pLexer->mTokens = (void (*) (void *))(mTokens);

   ctx->getGrammarFileName = getGrammarFileName;
   ctx->free  = <name>Free;
   ctx->reset          = <name>Reset;

<if(grammar.directDelegates)>
 // Initialize the lexers that we are going to delegate some
 // functions to.
 //
 <grammar.directDelegates:
       {g|ctx-><g:delegateName()> = <g.recognizerName>NewSSD(instream, ctx->pLexer->rec->state,
ctx<grammar.delegators:{g|, <g:delegateName()>}>);};
 separator="\n">
<endif>
<if(grammar.delegators)>
 // Install the pointers back to lexers that will delegate us to perform certain functions
 // for them.
 //
 <grammar.delegators:
       {g|ctx-><g:delegateName()>   = <g:delegateName()>;}; separator="\n">
<endif>
```

```
<if(filterMode)>
   /* We have filter mode turned on, so install the filtering nextToken function
    */
   ctx->pLexer->rec->state->tokSource->nextToken = <name>NextToken;
<endif>
  <actions.lexer.apifuncs>

   /* Return the newly built lexer to the caller
    */
   return  ctx;
}
<if(cyclicDFAs)>

/* =============================================================================
* DFA tables for the lexer
*/
<cyclicDFAs:cyclicDFA()> <! dump tables for all DFA !>
/* =============================================================================
* End of DFA tables for the lexer
*/
<endif>

/* =============================================================================
* Functions to match the lexer grammar defined tokens from
 the input stream
*/

<rules; separator="\n\n">

/* =============================================================================
* Lexer matching rules end.
* =============================================================================
*/
<if(synpreds)>

/* =============================================================================
* Lexer syntactic predicates
*/
<synpreds:{p | <lexerSynpred(predname=p)>}>
/* =============================================================================
* Lexer syntactic predicates end.
* =============================================================================
*/
<endif>

/* End of Lexer code
* ==================================================
* ==================================================
```

```
*/

>>


filteringNextToken() ::= <<
/** An override of the lexer's nextToken() method that backtracks over mTokens() looking
*  for matches in lexer filterMode.  No error can be generated upon error; just rewind, consume
*  a token and then try again.  BACKTRACKING
 needs to be set as well.
*  Make rule memoization happen only at levels above 1 as we start mTokens
*  at BACKTRACKING==1.
*/
static pANTLR3_COMMON_TOKEN
<name>NextToken(pANTLR3_TOKEN_SOURCE toksource)
{
   pANTLR3_LEXER   lexer;
 pANTLR3_RECOGNIZER_SHARED_STATE state;

   lexer   = (pANTLR3_LEXER)(toksource->super);
   state = lexer->rec->state;

   /* Get rid of any previous token (token factory takes care of
    * any deallocation when this token is finally used up.
    */
   state  ->token     = NULL;
   state  ->error     = ANTLR3_FALSE;     /* Start out without an exception */
   state  ->failed    = ANTLR3_FALSE;

   /* Record the start of the token in our input stream.
    */
   state->tokenStartCharIndex   = lexer->input->istream->index(lexer->input->istream);
   state->tokenStartCharPositionInLine = lexer->input->getCharPositionInLine(lexer->input);
   state->tokenStartLine    = lexer->input->getLine(lexer->input);
   state->text       = NULL;

   /*
 Now call the matching rules and see if we can generate a new token
    */
   for (;;)
   {
  if  (lexer->input->istream->_LA(lexer->input->istream, 1) == ANTLR3_CHARSTREAM_EOF)
  {
   /* Reached the end of the stream, nothing more to do.
    */
   pANTLR3_COMMON_TOKEN    teof = &(toksource->eofToken);

   teof->setStartIndex (teof, lexer->getCharIndex(lexer));
```

```
   teof->setStopIndex  (teof, lexer->getCharIndex(lexer));
   teof->setLine  (teof, lexer->getLine(lexer));
   return  teof;
  }

  state->token  = NULL;
  state->error  = ANTLR3_FALSE;     /* Start out without an exception */

  {
   ANTLR3_MARKER   m;

   m      = lexer->input->istream->mark(lexer->input->istream);
   state->backtracking  = 1;    /* No exceptions */
   state->failed   = ANTLR3_FALSE;

   /* Call the generated lexer, see if it can get a new token together.
    */
   lexer->mTokens(lexer->ctx);
     state->backtracking = 0;

     <! mTokens backtracks with synpred at BACKTRACKING==2
    and we set the synpredgate
 to allow actions at level 1. !>

   if (state->failed == ANTLR3_TRUE)
   {
    lexer->input->istream->rewind(lexer->input->istream, m);
    lexer->input->istream->consume(lexer->input->istream); <! advance one char and try again !>
   }
   else
   {
    lexer->emit(lexer);     /* Assemble the token and emit it to the stream */
    return state->token;
   }
  }
   }
}
>>

actionGate() ::= "BACKTRACKING==0"

filteringActionGate() ::= "BACKTRACKING==1"

/** How to generate a parser */
genericParser(  grammar,
    name,
              scopes,
              tokens,
```

```
            tokenNames,
            rules,
            numRules,
            bitsets,
            inputStreamType,
            superClass,
            labelType,
    members,
    rewriteElementType, filterMode,
            ASTLabelType="pANTLR3_BASE_TREE"
           ) ::= <<


<if(grammar.grammarIsRoot)>
/** \brief Table of all token names in symbolic order, mainly used for
*
   error reporting.
*/
pANTLR3_UINT8   <name>TokenNames[<length(tokenNames)>+4]
    = {
       (pANTLR3_UINT8) "\<invalid>",       /* String to print to indicate an invalid token */
       (pANTLR3_UINT8) "\<EOR>",
       (pANTLR3_UINT8) "\<DOWN>",
       (pANTLR3_UINT8) "\<UP>",
       <tokenNames:{it |(pANTLR3_UINT8) <it>}; separator=",\n">
      };
<endif>

   <@members>

   <@end>
<rules:{r |<ruleAttributeScopeFuncMacro(scope=r.ruleDescriptor.ruleScope)>}>
<scopes:{it |<if(it.isDynamicGlobalScope)><globalAttributeScopeFuncMacro(it)><endif>}>

// Forward declare the locally static matching functions we have generated.
//
<rules:{r | static <headerReturnType(ruleDescriptor=r.ruleDescriptor)> <r.ruleDescriptor.name>    (p<name>
ctx<if(r.ruleDescriptor.parameterScope)>, <endif><r.ruleDescriptor.parameterScope:parameterScope()>);};
separator="\n">
static void <name>Free(p<name> ctx);
static void     <name>Reset (p<name> ctx);

<if(!LEXER)>
<! generate rule/method definitions for
 imported rules so they
  appear to be defined in this recognizer. !>
<if(recognizer.grammar.delegatedRules)>
// Delegated rules
```

```
//
<recognizer.grammar.delegatedRules:{ruleDescriptor|static <headerReturnType(ruleDescriptor)>
<ruleDescriptor.name>(p<name> ctx<if(ruleDescriptor.parameterScope)>,
<endif><ruleDescriptor.parameterScope:parameterScope()>);}; separator="\n">

<endif>
<endif>

/* For use in tree output where we are accumulating rule labels via label += ruleRef
* we need a function that knows how to free a return scope when the list is destroyed.
* We cannot just use ANTLR3_FREE because in debug tracking mode, this is a macro.
*/
static void ANTLR3_CDECL freeScope(void * scope)
{
   ANTLR3_FREE(scope);
}

/** \brief Name of the grammar file that generated this code
*/
static const char fileName[] = "<fileName>";

/** \brief Return the name of the grammar file that generated this code.
*/
static const char * getGrammarFileName()
{
 return fileName;
}
/** \brief Create a
 new <name> parser and return a context for it.
*
* \param[in] instream Pointer to an input stream interface.
*
* \return Pointer to new parser context upon success.
*/
ANTLR3_API p<name>
<name>New   (<inputStreamType> instream<grammar.delegators:{g|, p<g.recognizerName>
<g:delegateName()>}>)
{
 // See if we can create a new parser with the standard constructor
 //
 return <name>NewSSD(instream, NULL<grammar.delegators:{g|, <g:delegateName()>}>);
}

/** \brief Create a new <name> parser and return a context for it.
*
* \param[in] instream Pointer to an input stream interface.
*
* \return Pointer to new parser context upon success.
```

```
*/
ANTLR3_API p<name>
<name>NewSSD   (<inputStreamType> instream, pANTLR3_RECOGNIZER_SHARED_STATE
state<grammar.delegators:{g|, p<g.recognizerName> <g:delegateName()>}>)
{
   p<name> ctx;     /* Context structure we will build and return   */

   ctx = (p<name>) ANTLR3_CALLOC(1, sizeof(<name>));

   if (ctx == NULL)
   {
  // Failed to allocate memory
 for parser context
  //
       return  NULL;
   }

   /* -------------------------------------------------------------------
    * Memory for basic structure is allocated, now to fill in
    * the base ANTLR3 structures. We initialize the function pointers
    * for the standard ANTLR3 parser function set, but upon return
    * from here, the programmer may set the pointers to provide custom
    * implementations of each function.
    *
    * We don't use the macros defined in <name>.h here, in order that you can get a sense
    * of what goes where.
    */

<if(PARSER)>
   /* Create a base parser/recognizer, using the supplied token stream
    */
   ctx->pParser     = antlr3ParserNewStream(ANTLR3_SIZE_HINT, instream->tstream, state);
<endif>
<if(TREE_PARSER)>
   /* Create a base Tree parser/recognizer, using the supplied tree node stream
    */
   ctx->pTreeParser  = antlr3TreeParserNewStream(ANTLR3_SIZE_HINT, instream, state);
<endif>

   /* Install the implementation
 of our <name> interface
    */
   <rules:{r | ctx-><r.ruleDescriptor.name> = <r.ruleDescriptor.name>;}; separator="\n">
<if(grammar.delegatedRules)>
 // Install the delegated methods so that they appear to be a part of this
 // parser
 //
   <grammar.delegatedRules:{ruleDescriptor | ctx-><ruleDescriptor.name> = <ruleDescriptor.name>;};
```

```
separator="\n">
<endif>

   ctx->free   = <name>Free;
   ctx->reset   = <name>Reset;
   ctx->getGrammarFileName = getGrammarFileName;

   /* Install the scope pushing methods.
    */
   <rules: {r |<if(r.ruleDescriptor.ruleScope)>
<ruleAttributeScope(scope=r.ruleDescriptor.ruleScope)><\n>
<endif>}>
   <recognizer.scopes:{it |<if(it.isDynamicGlobalScope)>
<globalAttributeScope(it)><\n>
<endif>}>
   <@apifuncs>

   <@end>
<if(grammar.directDelegates)>
 // Initialize the parsers that we are going to delegate some
 // functions to.
 //
 <grammar.directDelegates:
        {g|ctx-><g:delegateName()> = <g.recognizerName>NewSSD(instream, PSRSTATE,
 ctx<grammar.delegators:{g|, <g:delegateName()>}>);}; separator="\n">
<endif>
<if(grammar.delegators)>
 // Install the pointers back to parsers that will delegate us to perform certain functions
 // for them.
 //
 <grammar.delegators:
        {g|ctx-><g:delegateName()>   = <g:delegateName()>;}; separator="\n">
<endif>
   <actions.parser.apifuncs>
   <actions.treeparser.apifuncs>
<if(memoize)>
<if(grammar.grammarIsRoot)>
   /* Create a LIST for recording rule memos.
    */
    RULEMEMO    = antlr3IntTrieNew(15); /* 16 bit depth is enough for 32768 rules! */<\n>
<endif>
<endif>
   /* Install the token table
    */
   PSRSTATE->tokenNames   = <grammar.composite.rootGrammar.recognizerName>TokenNames;

   <@debugStuff()>
```

```
    /* Return the newly built parser to the caller
     */
    return  ctx;
}

static void
<name>Reset (p<name> ctx)
{
    RECOGNIZER->reset(RECOGNIZER);
}

/** Free the parser resources
*/
static void
<name>Free(p<name> ctx)
{
    /* Free any scope memory
      */
    <rules: {r
|<if(r.ruleDescriptor.ruleScope)><ruleAttributeScopeFree(scope=r.ruleDescriptor.ruleScope)><\n><endif>}>
    <recognizer.scopes:{it |<if(it.isDynamicGlobalScope)><globalAttributeScopeFree(it)><\n><endif>}>

    <@cleanup>
    <@end>
<if(grammar.directDelegates)>
 // Free the parsers that we delegated to
 // functions to.NULL the state so we only free it once.
 //
 <grammar.directDelegates:
        {g| ctx-><g:delegateName()>-><if(TREE_PARSER)>pTreeParser<else>pParser<endif>->rec->state = NULL;
        ctx-><g:delegateName()>->free(ctx-><g:delegateName()>);}; separator="\n">
<endif>
<if(memoize)>
<if(grammar.grammarIsRoot)>
 if (RULEMEMO != NULL)
 {
  RULEMEMO->free(RULEMEMO);
  RULEMEMO = NULL;
 }
<endif>
<endif>
 // Free this parser
 //
<if(TREE_PARSER)>
    ctx->pTreeParser->free(ctx->pTreeParser);<\n>
<else>
    ctx->pParser->free(ctx->pParser);<\n>
<endif>
```

```
  ANTLR3_FREE(ctx);

  /* Everything is released, so we can return
   */
  return;
}

/**
 Return token names used by this <grammarType()>
*
* The returned pointer is used as an index into the token names table (using the token
* number as the index).
*
* \return Pointer to first char * in the table.
*/
static pANTLR3_UINT8    *getTokenNames()
{
    return <grammar.composite.rootGrammar.recognizerName>TokenNames;
}

  <members>

/* Declare the bitsets
*/
<bitsets:{it | <bitsetDeclare(name={FOLLOW_<it.name>_in_<it.inName><it.tokenIndex>},
             words64=it.bits)>}>


<if(cyclicDFAs)>

/* ================================================================================
* DFA tables for the parser
*/
<cyclicDFAs:cyclicDFA()> <! dump tables for all DFA !>
/* ================================================================================
* End of DFA tables for the parser
*/
<endif>

/* ==================================================
* Parsing rules
*/
<rules; separator="\n\n">
<if(grammar.delegatedRules)>
 // Delegated methods that appear to be a part of this
 //
```

```
 parser
 //
<grammar.delegatedRules:{ruleDescriptor|
   <returnType()> <ruleDescriptor.name>(p<name> ctx<if(ruleDescriptor.parameterScope.attributes)>,
<endif><ruleDescriptor.parameterScope:parameterScope()>)
   \{
       <if(ruleDescriptor.hasReturnValue)>return <endif>ctx-><ruleDescriptor.grammar:delegateName()>-
><ruleDescriptor.name>(ctx-
><ruleDescriptor.grammar:delegateName()><if(ruleDescriptor.parameterScope.attributes)>,
<endif><ruleDescriptor.parameterScope.attributes:{a|<a.name>}; separator=", ">);
 \}}; separator="\n">

<endif>
/* End of parsing rules
* ==============================================
*/

/* ==============================================
* Syntactic predicates
*/
<synpreds:{p | <synpred(predname=p)>}>
/* End of syntactic predicates
* ==============================================
*/





>>

parser( grammar,
  name,
  scopes,
  tokens,
  tokenNames,
  rules,
  numRules,
  bitsets,
  ASTLabelType,
  superClass="Parser",
  labelType="pANTLR3_COMMON_TOKEN",
  members={<actions.parser.members>}
  )
 ::= <<
<genericParser(inputStreamType="pANTLR3_COMMON_TOKEN_STREAM", rewriteElementType="TOKEN",
...)>
>>
```

```
/** How to generate a tree parser; same as parser except the input
*  stream is a different type.
*/
treeParser( grammar,
   name,
   scopes,
   tokens,
   tokenNames,
   globalAction,
   rules,
   numRules,
   bitsets,
   filterMode,
   labelType={<ASTLabelType>},
   ASTLabelType="pANTLR3_BASE_TREE",
   superClass="TreeParser",
   members={<actions.treeparser.members>}
   ) ::= <<
<genericParser(inputStreamType="pANTLR3_COMMON_TREE_NODE_STREAM",
rewriteElementType="NODE", ...)>
>>

/** A simpler version of a rule template that is specific to the imaginary
*  rules created for syntactic predicates.  As they never have return values
*  nor parameters etc..., just give simplest possible method.  Don't do
*  any of the normal memoization stuff in here either; it's a waste.
*  As predicates cannot be inlined into the invoking rule,
 they need to
*  be in a rule by themselves.
*/
synpredRule(ruleName, ruleDescriptor, block, description, nakedBlock) ::=
<<
// $ANTLR start <ruleName>
static void <ruleName>_fragment(p<name> ctx <ruleDescriptor.parameterScope:parameterScope()>)
{
 <ruleLabelDefs()>
 <ruleLabelInitializations()>
<if(trace)>
   ANTLR3_PRINTF("enter <ruleName> %d failed = %d, backtracking = %d\\n",LT(1),failed,BACKTRACKING);
   <block>
   ANTLR3_PRINTF("exit <ruleName> %d, failed = %d, backtracking = %d\\n",LT(1),failed,BACKTRACKING);

<else>
   <block>
<endif>
<ruleCleanUp()>
}
```

```
// $ANTLR end <ruleName>
>>

synpred(predname) ::= <<
static ANTLR3_BOOLEAN <predname>(p<name> ctx)
{
   ANTLR3_MARKER   start;
   ANTLR3_BOOLEAN  success;

   BACKTRACKING++;
   <@start()>
   start = MARK();
   <predname>_fragment(ctx);     // can never throw exception
   success = !(FAILEDFLAG);
   REWIND(start);
   <@stop()>
   BACKTRACKING--;
   FAILEDFLAG = ANTLR3_FALSE;
   return success;
}<\n>
>>

lexerSynpred(predname)
 ::= <<
<synpred(predname)>
>>

ruleMemoization(rname) ::= <<
<if(memoize)>
if ( (BACKTRACKING>0) && (HAVEPARSEDRULE(<ruleDescriptor.index>)) )
{
<if(ruleDescriptor.hasMultipleReturnValues)>
<if(!ruleDescriptor.isSynPred)>
 retval.start = 0;<\n>
<endif>
<endif>
   <(ruleDescriptor.actions.after):execAfter()>
   <finalCode(finalBlock=finally)>
<if(!ruleDescriptor.isSynPred)>
   <scopeClean()><\n>
<endif>
   return <ruleReturnValue()>;
}
<endif>
>>

/** How to test for failure and return from rule */
checkRuleBacktrackFailure() ::= <<
```

```
if  (HASEXCEPTION())
{
   goto rule<ruleDescriptor.name>Ex;
}
<if(backtracking)>
if (HASFAILED())
{
   <scopeClean()>
   <@debugClean()>
   return <ruleReturnValue()>;
}
<endif>
>>

/** This rule has failed, exit indicating failure during backtrack */
ruleBacktrackFailure() ::= <<
<if(backtracking)>
if (BACKTRACKING>0)
{
   FAILEDFLAG = <true_value()>;
   <scopeClean()>
   return <ruleReturnValue()>;
}
<endif>
>>

/** How to generate
 code for a rule.  This includes any return type
*  data aggregates required for multiple return values.
*/
rule(ruleName,ruleDescriptor,block,emptyRule,description,exceptions,finally,memoize) ::= <<
/**
* $ANTLR start <ruleName>
* <fileName>:<description>
*/
static <returnType()>
<ruleName>(p<name> ctx<if(ruleDescriptor.parameterScope)>,
<endif><ruleDescriptor.parameterScope:parameterScope()>)
{
   <if(trace)>ANTLR3_PRINTF("enter <ruleName> %s failed=%d, backtracking=%d\n", LT(1),
BACKTRACKING);<endif>
   <ruleDeclarations()>
   <ruleDescriptor.actions.declarations>
   <ruleLabelDefs()>
   <ruleInitializations()>
   <ruleDescriptor.actions.init>
   <ruleMemoization(rname=ruleName)>
   <ruleLabelInitializations()>
```

```
  <@preamble()>
  {
    <block>
  }

  <ruleCleanUp()>
<if(exceptions)>
  if (HASEXCEPTION())
  {
 <exceptions:{e|<catch(decl=e.decl,action=e.action)><\n>}>
  }
  else
  {
 <(ruleDescriptor.actions.after):execAfter()>
  }
<else>
  <if(!emptyRule)>
     <if(actions.(actionScope).rulecatch)>
      <actions.(actionScope).rulecatch>
    <else>
      if (HASEXCEPTION())
      {
        PREPORTERROR();
        PRECOVER();
        <@setErrorReturnValue()>
      }
      <if(ruleDescriptor.actions.after)>
      else
      {
        <(ruleDescriptor.actions.after):execAfter()>
      }<\n>
      <endif>
    <endif>
  <endif>
<endif>

  <if(trace)>ANTLR3_PRINTF("exit <ruleName> %d failed=%s backtracking=%s\n", LT(1), failed, BACKTRACKING);<endif>
  <memoize()>
<if(finally)>
  <finalCode(finalBlock=finally)>
<endif>
  <scopeClean()>
  <@postamble()>
  return <ruleReturnValue()>;
}
/* $ANTLR end <ruleName> */
>>
```

```
finalCode(finalBlock) ::= <<
{
   <finalBlock>
}

>>

catch(decl,action) ::= <<
/* catch(decl,action)
*/
{
   <e.action>
}

>>

ruleDeclarations() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
<returnType()>
 retval;<\n>
<else>
<ruleDescriptor.returnScope.attributes:{ a |
<a.type> <a.name>;
}>
<endif>
<if(memoize)>
ANTLR3_MARKER <ruleDescriptor.name>_StartIndex;
<endif>
>>

ruleInitializations() ::= <<
/* Initialize rule variables
*/
<if(ruleDescriptor.hasMultipleReturnValues)>
<ruleDescriptor.returnScope.attributes:{ a |
<if(a.initValue)>retval.<a.name> = <a.initValue>;<endif>
}>
<else>
<ruleDescriptor.returnScope.attributes:{ a |
<if(a.initValue)><a.name> = <a.initValue>;<endif>
}>
<endif>
<if(memoize)>
<ruleDescriptor.name>_StartIndex = INDEX();<\n>
<endif>
<ruleDescriptor.useScopes:{it |<scopeTop(it)> = <scopePush(it)>;}; separator="\n">
<ruleDescriptor.ruleScope:{it |<scopeTop(it.name)> = <scopePush(it.name)>;}; separator="\n">
```

```
>>

ruleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,ruleDescriptor.tokenListLabels]
   :{it |<labelType>    <it.label.text>;}; separator="\n"
>
<[ruleDescriptor.tokenListLabels,ruleDescriptor.ruleListLabels]
   :{it |pANTLR3_VECTOR    list_<it.label.text>;};
 separator="\n"
>
<[ruleDescriptor.ruleLabels,ruleDescriptor.ruleListLabels]
   :ruleLabelDef(); separator="\n"
>
>>

ruleLabelInitializations() ::= <<
<[ruleDescriptor.tokenLabels,ruleDescriptor.tokenListLabels]
   :{it |<it.label.text>       = NULL;}; separator="\n"
>
<[ruleDescriptor.tokenListLabels,ruleDescriptor.ruleListLabels]
   :{it |list_<it.label.text>     = NULL;}; separator="\n"
>
<[ruleDescriptor.ruleLabels,ruleDescriptor.ruleListLabels]
   :ruleLabelInitVal(); separator="\n"
>
<if(ruleDescriptor.hasMultipleReturnValues)>
<if(!ruleDescriptor.isSynPred)>
retval.start = LT(1); retval.stop = retval.start;<\n>
<endif>
<endif>
>>

lexerRuleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,
 ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleLabels]
   :{it |<labelType> <it.label.text>;}; separator="\n"
>
<ruleDescriptor.charLabels:{it |ANTLR3_UINT32 <it.label.text>;}; separator="\n">
<[ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleListLabels,
 ruleDescriptor.ruleListLabels]
    :{it |pANTLR3_INT_TRIE list_<it.label.text>;}; separator="\n"
>
>>

lexerRuleLabelInit() ::= <<
<[ruleDescriptor.tokenLabels,
```

```
 ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleLabels]
   :{it |<it.label.text> = NULL;}; separator="\n"
>
<[ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleListLabels,
 ruleDescriptor.ruleListLabels]
   :{it |list_<it.label.text> = antlr3IntTrieNew(31);}; separator="\n"
>
>>

lexerRuleLabelFree() ::= <<
<[ruleDescriptor.tokenLabels,
 ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleLabels]
   :{it |<it.label.text> = NULL;}; separator="\n"
>
<[ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleListLabels,
 ruleDescriptor.ruleListLabels]
   :{it |list_<it.label.text>->free(list_<it.label.text>);}; separator="\n"
>
>>

ruleReturnValue() ::= <%
<if(!ruleDescriptor.isSynPred)>
<if(ruleDescriptor.hasReturnValue)>
<if(ruleDescriptor.hasSingleReturnValue)>
<ruleDescriptor.singleValueReturnName>
<else>
retval
<endif>
<endif>
<endif>
%>

memoize()
 ::= <<
<if(memoize)>
<if(backtracking)>
if ( BACKTRACKING>0 ) { MEMOIZE(<ruleDescriptor.index>, <ruleDescriptor.name>_StartIndex); }
<endif>
<endif>
>>

ruleCleanUp() ::= <<

// This is where rules clean up and exit
```

```
//
goto rule<ruleDescriptor.name>Ex; /* Prevent compiler warnings */
rule<ruleDescriptor.name>Ex: ;
<if(ruleDescriptor.hasMultipleReturnValues)>
<if(!TREE_PARSER)>
<if(!ruleDescriptor.isSynPred)>
retval.stop = LT(-1);<\n>
<endif>
<endif>
<endif>
>>

scopeClean() ::= <<
<ruleDescriptor.useScopes:{it |<scopePop(it)>}; separator="\n">
<ruleDescriptor.ruleScope:{it |<scopePop(it.name)>}; separator="\n">

>>
/** How to generate a rule in the lexer; naked blocks are used for
*  fragment rules, which do not produce tokens.
*/
lexerRule(ruleName,nakedBlock,ruleDescriptor,block,memoize) ::= <<
//   Comes from: <block.description>
/** \brief Lexer rule generated by ANTLR3
*
* $ANTLR start <ruleName>
*
* Looks to match the characters the constitute the
 token <ruleName>
* from the attached input stream.
*
*
* \remark
*  - lexer->error == ANTLR3_TRUE if an exception was thrown.
*/
static ANTLR3_INLINE
void m<ruleName>(p<name> ctx<if(ruleDescriptor.parameterScope)>,
<endif><ruleDescriptor.parameterScope:parameterScope()>)
{
 ANTLR3_UINT32 _type;
   <ruleDeclarations()>
   <ruleDescriptor.actions.declarations>
   <lexerRuleLabelDefs()>
   <if(trace)>System.out.println("enter <ruleName> '"+(char)LA(1)+"'
line="+GETLINE()+":"+GETCHARPOSITIONINLINE()+" failed="+failed+"
backtracking="+BACKTRACKING);<endif>

<if(nakedBlock)>
   <ruleMemoization(rname=ruleName)>
```

```
   <lexerRuleLabelInit()>
   <ruleDescriptor.actions.init>

   <block><\n>
<else>
   <ruleMemoization(rname=ruleName)>
   <lexerRuleLabelInit()>
   _type     = <ruleName>;

   <ruleDescriptor.actions.init>

   <block>
 LEXSTATE->type = _type;
<endif>
   <if(trace)> ANTLR3_FPRINTF(stderr, "exit <ruleName> '%c' line=%d:%d failed = %d, backtracking
=%d\n",LA(1),GETLINE(),GETCHARPOSITIONINLINE(),failed,BACKTRACKING);<endif>
    <ruleCleanUp()>
   <lexerRuleLabelFree()>
   <(ruleDescriptor.actions.after):execAfter()>
   <memoize>
}
// $ANTLR end <ruleName>
>>

/** How to generate code for the implicitly-defined lexer grammar rule
*  that chooses between lexer rules.
*/
tokensRule(ruleName,nakedBlock,args,block,ruleDescriptor) ::= <<
/** This is the entry point in to the lexer from an object that
*  wants to generate the next token, such as a pCOMMON_TOKEN_STREAM
*/
static void
mTokens(p<name> ctx)
{
   <block><\n>

   goto ruleTokensEx; /* Prevent compiler warnings */
ruleTokensEx: ;
}
>>

// S U B R U L E S

/** A (...) subrule with multiple alternatives */
block(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<

// <fileName>:<description>
{
```

```
   int alt<decisionNumber>=<maxAlt>;
   <decls>
   <@predecision()>
   <decision>
   <@postdecision()>
   <@prebranch()>
   switch (alt<decisionNumber>)
    {
 <alts:{a | <altSwitchCase(i,a)>}>
   }
   <@postbranch()>
}
>>

/** A rule block with multiple alternatives */
ruleBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
{
   //  <fileName>:<description>

   ANTLR3_UINT32 alt<decisionNumber>;

   alt<decisionNumber>=<maxAlt>;

   <decls>
   <@predecision()>
   <decision>
   <@postdecision()>
   switch (alt<decisionNumber>)
   {
 <alts:{a | <altSwitchCase(i,a)>}>
   }
}
>>

ruleBlockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
// <fileName>:<description>
<decls>
<@prealt()>
<alts>
<@postalt()>
>>

/** A special case of a (...) subrule with a single alternative */
blockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
// <fileName>:<description>
<decls>
<@prealt()>
<alts>
```

```
<@postalt()>
>>

/** A (..)+ block with 1 or more alternatives */
positiveClosureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,descriptio
n)
 ::= <<
// <fileName>:<description>
{
   int cnt<decisionNumber>=0;
   <decls>
   <@preloop()>

   for (;;)
   {
       int alt<decisionNumber>=<maxAlt>;
 <@predecision()>
 <decision>
 <@postdecision()>
 switch (alt<decisionNumber>)
 {
     <alts:{a | <altSwitchCase(i,a)>}>
     default:

  if ( cnt<decisionNumber> >= 1 )
  {
      goto loop<decisionNumber>;
  }
  <ruleBacktrackFailure()>
  <earlyExitEx()>
  <@earlyExitException()>
  goto rule<ruleDescriptor.name>Ex;
 }
 cnt<decisionNumber>++;
   }
   loop<decisionNumber>: ; /* Jump to here if this rule does not match */
   <@postloop()>
}
>>

earlyExitEx() ::= <<
/* mismatchedSetEx()
*/
CONSTRUCTEX();
EXCEPTION->type = ANTLR3_EARLY_EXIT_EXCEPTION;
EXCEPTION->name = (void *)ANTLR3_EARLY_EXIT_NAME;
<\n>
>>
```

```
positiveClosureBlockSingleAlt ::= positiveClosureBlock

/** A (..)* block with 1 or more alternatives */
closureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description)
 ::= <<

// <fileName>:<description>
<decls>

<@preloop()>
for (;;)
{
   int alt<decisionNumber>=<maxAlt>;
   <@predecision()>
   <decision>
   <@postdecision()>
   switch (alt<decisionNumber>)
   {
 <alts:{a | <altSwitchCase(i,a)>}>
 default:
     goto loop<decisionNumber>; /* break out of the loop */
     break;
   }
}
loop<decisionNumber>: ; /* Jump out to here if this rule does not match */
<@postloop()>
>>

closureBlockSingleAlt ::= closureBlock

/** Optional blocks (x)? are translated to (x|) by antlr before code generation
*  so we can just use the normal block template
*/
optionalBlock ::= block

optionalBlockSingleAlt ::= block

/** A case in a switch that jumps to an alternative given the alternative
*  number.  A DFA predicts the alternative and then a simple switch
*  does the jump to the code that actually matches that alternative.
*/
altSwitchCase(altNum,alt) ::= <<
case <altNum>:
   <@prealt()>
    <alt>
   break;<\n>
>>
```

```
/** An alternative is just a list of elements; at outermost level */
alt(elements,altNum,description,autoAST,outerAlt,treeLevel,rew) ::= <<
// <fileName>:<description>
{
   <@declarations()>
   <@initializations()>
   <elements:element()>
   <rew>
   <@cleanup()>
}
>>

// E L E M E N T S
/** What to emit when there is no rewrite.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel, treeLevel) ::= ""

/** Dump the elements one per line */
element(e) ::= <<
<@prematch()>
<e.el><\n>
>>

/** match a token optionally with a label in front */
tokenRef(token,label,elementIndex,terminalOptions) ::= <<
<if(label)><label> = (<labelType>)<endif> MATCHT(<token>,
&FOLLOW_<token>_in_<ruleName><elementIndex>);
<checkRuleBacktrackFailure()>
>>

/** ids+=ID */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRef(...)>
<listLabel(elem=label,...)>
>>

listLabel(label,elem) ::= <<
if (list_<label> == NULL)
{
   list_<label>=ctx->vectors->newVector(ctx->vectors);
}
list_<label>->add(list_<label>,
 <elem>, NULL);
>>


/** match a character */
```

```
charRef(char,label) ::= <<
<if(label)>
<label> = LA(1);<\n>
<endif>
MATCHC(<char>);
<checkRuleBacktrackFailure()>
>>

/** match a character range */
charRangeRef(a,b,label) ::= <<
<if(label)>
<label> = LA(1);<\n>
<endif>
MATCHRANGE(<a>, <b>);
<checkRuleBacktrackFailure()>
>>

/** For now, sets are interval tests and must be tested inline */
matchSet(s,label,elementIndex,terminalOptions,postmatchCode="") ::= <<
<if(label)>
<if(LEXER)>
<label>= LA(1);<\n>
<else>
<label>=(<labelType>)LT(1);<\n>
<endif>
<endif>
if ( <s> )
{
  CONSUME();
  <postmatchCode>
<if(!LEXER)>
  PERRORRECOVERY=ANTLR3_FALSE;
<endif>
  <if(backtracking)>FAILEDFLAG=ANTLR3_FALSE;<\n><endif>
}
else
{
  <ruleBacktrackFailure()>
  <mismatchedSetEx()>
  <@mismatchedSetException()>
<if(LEXER)>
  LRECOVER();
<else>
  RECOVERFROMMISMATCHEDSET(&FOLLOW_set_in_<ruleName><elementIndex>);
<endif>

  goto rule<ruleDescriptor.name>Ex;
}<\n>
```

```
>>

mismatchedSetEx() ::= <<
CONSTRUCTEX();
EXCEPTION->type         = ANTLR3_MISMATCHED_SET_EXCEPTION;
EXCEPTION->name         = (void *)ANTLR3_MISMATCHED_SET_NAME;
<if(PARSER)>
EXCEPTION->expectingSet = &FOLLOW_set_in_<ruleName><elementIndex>;
<endif>
>>

matchRuleBlockSet ::= matchSet

matchSetAndListLabel(s,label,elementIndex,postmatchCode) ::= <<
<matchSet(...)>
<listLabel(elem=label,...)>
>>

/** Match a string literal */
lexerStringRef(string,label,elementIndex) ::= <<
<if(label)>
<label>Start = GETCHARINDEX();
MATCHS(<string>);
<checkRuleBacktrackFailure()>
<label> = LEXSTATE->tokFactory->newToken(LEXSTATE->tokFactory);
<label>->setType(<label>, ANTLR3_TOKEN_INVALID);
<label>->setStartIndex(<label>, <label>Start);
<label>->setStopIndex(<label>, GETCHARINDEX()-1);
<label>->input = INPUT->tnstream->istream;
<else>
MATCHS(<string>);
<checkRuleBacktrackFailure()><\n>
<endif>
>>

wildcard(token,label,elementIndex,terminalOptions) ::= <<
<if(label)>
<label>=(<labelType>)LT(1);<\n>
<endif>
MATCHANYT();
<checkRuleBacktrackFailure()>
>>

wildcardAndListLabel(token,label,elementIndex,terminalOptions)
 ::= <<
<wildcard(...)>
<listLabel(elem=label,...)>
>>
```

```
/** Match . wildcard in lexer */
wildcardChar(label, elementIndex) ::= <<
<if(label)>
<label> = LA(1);<\n>
<endif>
MATCHANY();
<checkRuleBacktrackFailure()>
>>

wildcardCharListLabel(label, elementIndex) ::= <<
<wildcardChar(...)>
<listLabel(elem=label,...)>
>>

/** Match a rule reference by invoking it possibly with arguments
*  and a return value or values. The 'rule' argument was the
*  target rule name, but now is type Rule, whose toString is
*  same: the rule name.  Now though you can access full rule
*  descriptor stuff.
*/
ruleRef(rule,label,elementIndex,args,scope) ::= <<
FOLLOWPUSH(FOLLOW_<rule.name>_in_<ruleName><elementIndex>);
<if(label)><label>=<endif><if(scope)>ctx-><scope:delegateName()>-><endif><rule.name>(ctx<if(scope)>-
><scope:delegateName()><endif><if(args)>,
 <args; separator=", "><endif>);<\n>
FOLLOWPOP();
<checkRuleBacktrackFailure()>
>>

/** ids+=r */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabel(elem=label,...)>
>>

/** A lexer rule reference
*  The 'rule' argument was the target rule name, but now
*  is type Rule, whose toString is same: the rule name.
*  Now though you can access full rule descriptor stuff.
*/
lexerRuleRef(rule,label,args,elementIndex,scope) ::= <<
/* <description> */
<if(label)>
{
   ANTLR3_MARKER <label>Start<elementIndex> = GETCHARINDEX();
   <if(scope)>ctx-><scope:delegateName()>-><endif>m<rule.name>(ctx<if(scope)>-
><scope:delegateName()><endif> <if(args)>, <endif><args; separator=", ">);
```

```
   <checkRuleBacktrackFailure()>
   <label> = LEXSTATE->tokFactory->newToken(LEXSTATE->tokFactory);
   <label>->setType(<label>, ANTLR3_TOKEN_INVALID);
   <label>->setStartIndex(<label>, <label>Start<elementIndex>);
   <label>->setStopIndex(<label>, GETCHARINDEX()-1);

   <label>->input = INPUT;
}
<else>
<if(scope)>ctx-><scope:delegateName()>-><endif>m<rule.name>(ctx<if(scope)>-
><scope:delegateName()><endif> <if(args)>, <endif><args; separator=", ">);
<checkRuleBacktrackFailure()>
<endif>
>>

/** i+=INT in lexer */
lexerRuleRefAndListLabel(rule,label,args,elementIndex,scope) ::= <<
<lexerRuleRef(...)>
<listLabel(elem=label,...)>
>>

/** EOF in the lexer */
lexerMatchEOF(label,elementIndex) ::= <<
<if(label)>
{
   ANTLR3_UINT32 <label>Start<elementIndex>;
   <labelType> <label>;
   <label>Start<elementIndex> = GETCHARINDEX();
   MATCHC(ANTLR3_CHARSTREAM_EOF);
   <checkRuleBacktrackFailure()>
   <label> = LEXSTATE->tokFactory->newToken(LEXSTATE->tokFactory);
   <label>->setType(<label>, ANTLR3_TOKEN_EOF);
   <label>->setStartIndex(<label>, <label>Start<elementIndex>);
   <label>->setStopIndex(<label>, GETCHARINDEX()-1);
   <label>->input = INPUT->tnstream->istream;
}
<else>
   MATCHC(ANTLR3_CHARSTREAM_EOF);
   <checkRuleBacktrackFailure()>
    <endif>
>>

// used for left-recursive rules
recRuleDefArg()                       ::= "int <recRuleArg()>"
recRuleArg()                          ::= "_p"
recRuleAltPredicate(ruleName,opPrec)  ::= "<recRuleArg()> \<= <opPrec>"
recRuleSetResultAction()              ::= "root_0=$<ruleName>_primary.tree;"
recRuleSetReturnAction(src,name)      ::= "$<name>=$<src>.<name>;"
```

```
/** match ^(root children) in tree parser */
tree(root, actionsAfterRoot, children, nullableChildList, enclosingTreeLevel, treeLevel) ::= <<
<root:element()>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if ( LA(1)==ANTLR3_TOKEN_DOWN ) {
   MATCHT(ANTLR3_TOKEN_DOWN, NULL);
   <checkRuleBacktrackFailure()>
   <children:element()>
   MATCHT(ANTLR3_TOKEN_UP, NULL);
   <checkRuleBacktrackFailure()>
}
<else>
MATCHT(ANTLR3_TOKEN_DOWN, NULL);
<checkRuleBacktrackFailure()>
<children:element()>
MATCHT(ANTLR3_TOKEN_UP, NULL);
<checkRuleBacktrackFailure()>
<endif>
>>

/** Every predicate is used as a validating predicate
 (even when it is
*  also hoisted into a prediction expression).
*/
validateSemanticPredicate(pred,description) ::= <<
if ( !(<evalPredicate(...)>) )
{
   <ruleBacktrackFailure()>
   <newFPE(...)>
}
>>

newFPE() ::= <<
   CONSTRUCTEX();
   EXCEPTION->type         = ANTLR3_FAILED_PREDICATE_EXCEPTION;
   EXCEPTION->message      = (void *)"<description>";
   EXCEPTION->ruleName  = (void *)"<ruleName>";
   <\n>
>>

// F i x e d  D F A  (if-then-else)

dfaState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<

{
   int LA<decisionNumber>_<stateNumber> = LA(<k>);
```

```
   <edges; separator="\nelse ">
   else
   {
<if(eotPredictsAlt)>
       alt<decisionNumber>=<eotPredictsAlt>;
<else>
       <ruleBacktrackFailure()>

       <newNVException()>
       goto rule<ruleDescriptor.name>Ex;

<endif>
   }
}
>>

newNVException() ::= <<
CONSTRUCTEX();
EXCEPTION->type         = ANTLR3_NO_VIABLE_ALT_EXCEPTION;
EXCEPTION->message      = (void *)"<description>";
EXCEPTION->decisionNum
  = <decisionNumber>;
EXCEPTION->state        = <stateNumber>;
<@noViableAltException()>
<\n>
>>

/** Same as a normal DFA state except that we don't examine lookahead
*  for the bypass alternative.  It delays error detection but this
*  is faster, smaller, and more what people expect.  For (X)? people
*  expect "if ( LA(1)==X ) match(X);" and that's it.
*/
dfaOptionalBlockState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
{
   int LA<decisionNumber>_<stateNumber> = LA(<k>);
   <edges; separator="\nelse ">
}
>>

/** A DFA state that is actually the loopback decision of a closure
*  loop.  If end-of-token (EOT) predicts any of the targets then it
*  should act like a default clause (i.e., no error can be generated).
*  This is used only in the lexer so that for ('a')* on the end of a rule
*  anything other than 'a' predicts exiting.
*/

dfaLoopbackStateDecls()::= <<
ANTLR3_UINT32   LA<decisionNumber>_<stateNumber>;
```

```
>>
dfaLoopbackState(k,edges,eotPredictsAlt,description,stateNumber,semPredState)
 ::= <<
{
  /* dfaLoopbackState(k,edges,eotPredictsAlt,description,stateNumber,semPredState)
   */
   int LA<decisionNumber>_<stateNumber> = LA(<k>);
   <edges; separator="\nelse "><\n>
   <if(eotPredictsAlt)>
   <if(!edges)>
 alt<decisionNumber>=<eotPredictsAlt>; <! if no edges, don't gen ELSE !>
 <else>
   else
   {
 alt<decisionNumber>=<eotPredictsAlt>;
   }<\n>
   <endif>
   <endif>
}
>>

/** An accept state indicates a unique alternative has been predicted */
dfaAcceptState(alt) ::= "alt<decisionNumber>=<alt>;"

/** A simple edge with an expression.  If the expression is satisfied,
*  enter to the target state.  To handle gated productions, we may
*  have to evaluate some predicates for this edge.
*/
dfaEdge(labelExpr, targetState, predicates) ::= <<
if ( <if(predicates)>(<predicates>) && <endif>(<labelExpr>))
{
   <targetState>
}
>>

// F i x e d  D F A  (switch case)

/** A DFA state where a SWITCH may be generated.
  The code generator
*  decides if this is possible: CodeGenerator.canGenerateSwitch().
*/
dfaStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch ( LA(<k>) )
{
<edges; separator="\n">

default:
<if(eotPredictsAlt)>
```

```
   alt<decisionNumber>=<eotPredictsAlt>;
<else>
   <ruleBacktrackFailure()>
   <newNVException()>
   goto rule<ruleDescriptor.name>Ex;<\n>
<endif>
}<\n>
>>

dfaOptionalBlockStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch ( LA(<k>) )
{
   <edges; separator="\n">
}<\n>
>>

dfaLoopbackStateSwitch(k, edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch ( LA(<k>) )
{
<edges; separator="\n"><\n>
<if(eotPredictsAlt)>
default:
   alt<decisionNumber>=<eotPredictsAlt>;
   break;<\n>
<endif>
}<\n>
>>

dfaEdgeSwitch(labels, targetState) ::= <<
<labels:{it |case <it>:}; separator="\n">
 {
  <targetState>
 }
   break;
>>

// C y c l i c  D F A

/** The code to initiate execution of
 a cyclic DFA; this is used
*  in the rule to predict an alt just like the fixed DFA case.
*  The <name> attribute is inherited via the parser, lexer, ...
*/
dfaDecision(decisionNumber,description) ::= <<
alt<decisionNumber> = cdfa<decisionNumber>.predict(ctx, RECOGNIZER, ISTREAM,
&cdfa<decisionNumber>);
<checkRuleBacktrackFailure()>
>>
```

```
/* Dump DFA tables as static initialized arrays of shorts(16 bits)/characters(8 bits)
* which are then used to statically initialize the dfa structure, which means that there
* is no runtime initialization whatsoever, other than anything the C compiler might
* need to generate. In general the C compiler will lay out memory such that there is no
* runtime code required.
*/
cyclicDFA(dfa) ::= <<
/** Static dfa state tables for Cyclic dfa:
*    <dfa.description>
*/
static const ANTLR3_INT32 dfa<dfa.decisionNumber>_eot[<dfa.numberOfStates>] =
  {
 <dfa.eot; wrap="\n", separator=", ", null="-1">
  };
static const ANTLR3_INT32 dfa<dfa.decisionNumber>_eof[<dfa.numberOfStates>]
 =
  {
 <dfa.eof; wrap="\n", separator=", ", null="-1">
  };
static const ANTLR3_INT32 dfa<dfa.decisionNumber>_min[<dfa.numberOfStates>] =
  {
 <dfa.min; wrap="\n", separator=", ", null="-1">
  };
static const ANTLR3_INT32 dfa<dfa.decisionNumber>_max[<dfa.numberOfStates>] =
  {
 <dfa.max; wrap="\n", separator=", ", null="-1">
  };
static const ANTLR3_INT32 dfa<dfa.decisionNumber>_accept[<dfa.numberOfStates>] =
  {
 <dfa.accept; wrap="\n", separator=", ", null="-1">
  };
static const ANTLR3_INT32 dfa<dfa.decisionNumber>_special[<dfa.numberOfStates>] =
  {
 <dfa.special; wrap="\n", separator=", ", null="-1">
  };

/** Used when there is no transition table entry for a particular state */
#define dfa<dfa.decisionNumber>_T_empty     NULL

<dfa.edgeTransitionClassMap.keys:{ table |
static const ANTLR3_INT32 dfa<dfa.decisionNumber>_T<i0>[] =
  {
 <table; separator=", ", wrap="\n", null="-1">
  \};}; null = "">

/* Transition tables are
```

```
 a table of sub tables, with some tables
* reused for efficiency.
*/
static const ANTLR3_INT32 * const dfa<dfa.decisionNumber>_transitions[] =
{
   <dfa.transitionEdgeTables:{xref|dfa<dfa.decisionNumber>_T<xref>}; separator=", ", wrap="\n", null="_empty">
};

<if(dfa.specialStateSTs)>
static ANTLR3_INT32 dfa<dfa.decisionNumber>_sst(p<name> ctx, pANTLR3_BASE_RECOGNIZER recognizer,
pANTLR3_INT_STREAM is, pANTLR3_CYCLIC_DFA dfa, ANTLR3_INT32 s)
{
   ANTLR3_INT32    _s;

   _s     = s;
   switch  (s)
   {
   <dfa.specialStateSTs:{state |
   case <i0>:

 <state>}; separator="\n">
   }
<if(backtracking)>
   if (BACKTRACKING > 0)
   {
 FAILEDFLAG = ANTLR3_TRUE;
 return -1;
   }
<endif>

   CONSTRUCTEX();
   EXCEPTION->type         = ANTLR3_NO_VIABLE_ALT_EXCEPTION;
   EXCEPTION->message      = (void *)"<dfa.description>";
   EXCEPTION->decisionNum  = <dfa.decisionNumber>;
   EXCEPTION->state        = _s;
   <@noViableAltException()>
   return -1;
}
<endif>

<@errorMethod()>

/*
 Declare tracking structure for Cyclic DFA <dfa.decisionNumber>
*/
static
ANTLR3_CYCLIC_DFA cdfa<dfa.decisionNumber>
   = {
```

```
    <dfa.decisionNumber>,      /* Decision number of this dfa     */
    /* Which decision this represents:   */
    (const pANTLR3_UCHAR)"<dfa.description>",
<if(dfa.specialStateSTs)>
    (CDFA_SPECIAL_FUNC) dfa<dfa.decisionNumber>_sst,
<else>
    (CDFA_SPECIAL_FUNC) antlr3dfaspecialStateTransition, /* Default special state transition function */
<endif>

    antlr3dfaspecialTransition,  /* DFA specialTransition is currently just a default function in the runtime */
    antlr3dfapredict,   /* DFA simulator function is in the runtime */
    dfa<dfa.decisionNumber>_eot,     /* EOT table       */
    dfa<dfa.decisionNumber>_eof,     /* EOF table       */
    dfa<dfa.decisionNumber>_min,     /* Minimum tokens for each state    */
    dfa<dfa.decisionNumber>_max,     /* Maximum tokens for each state    */
    dfa<dfa.decisionNumber>_accept, /* Accept
 table       */
    dfa<dfa.decisionNumber>_special, /* Special transition states     */
    dfa<dfa.decisionNumber>_transitions /* Table of transition tables     */

 };
/* End of Cyclic DFA <dfa.decisionNumber>
* ---------------------
*/
>>

/** A state in a cyclic DFA; it's a special state and part of a big switch on
*  state.
*/
cyclicDFAState(decisionNumber,stateNumber,edges,needErrorClause,semPredState) ::= <<
{
  ANTLR3_UINT32 LA<decisionNumber>_<stateNumber>;<\n>
  ANTLR3_MARKER index<decisionNumber>_<stateNumber>;<\n>

 LA<decisionNumber>_<stateNumber> = LA(1);<\n>
  <if(semPredState)> <! get next lookahead symbol to test edges, then rewind !>
  index<decisionNumber>_<stateNumber> = INDEX();<\n>
  REWINDLAST();<\n>
  <endif>
  s = -1;
  <edges; separator="\nelse ">
 <if(semPredState)> <! return input cursor to state before we rewound !>
 SEEK(index<decisionNumber>_<stateNumber>);<\n>
 <endif>
  if ( s>=0 )
  {
 return s;
  }
```

```
}
break;
>>

/** Just like
 a fixed DFA edge, test the lookahead and indicate what
*  state to jump to next if successful.
*/
cyclicDFAEdge(labelExpr, targetStateNumber, edgeNumber, predicates) ::= <<
if ( <if(predicates)>(<predicates>) && <endif>(<labelExpr>) )
{
   s = <targetStateNumber>;
}<\n>
>>

/** An edge pointing at end-of-token; essentially matches any char;
*  always jump to the target.
*/
eotDFAEdge(targetStateNumber,edgeNumber, predicates) ::= <<
s = <targetStateNumber>;<\n>
>>


// D F A  E X P R E S S I O N S

andPredicates(left,right) ::= "( (<left>) && (<right>) )"

orPredicates(operands) ::= "(<operands:{o|(<o>)}; separator=\"||\">)"

notPredicate(pred) ::= "!( <evalPredicate(pred,{})> )"

evalPredicate(pred,description) ::= "(<pred>)"

evalSynPredicate(pred,description) ::= "<pred>(ctx)"

lookaheadTest(atom,k,atomAsInt) ::= "LA<decisionNumber>_<stateNumber> == <atom>"

/** Sometimes a lookahead test cannot assume that LA(k) is in a temp variable
*  somewhere.  Must ask for the lookahead
 directly.
*/
isolatedLookaheadTest(atom,k,atomAsInt) ::= "LA(<k>) == <atom>"

lookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= <%
((LA<decisionNumber>_<stateNumber> >= <lower>) && (LA<decisionNumber>_<stateNumber> \<= <upper>))
%>

isolatedLookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= "((LA(<k>) >= <lower>) &&
```

```
(LA(<k>) \<= <upper>))"

setTest(ranges) ::= "<ranges; separator=\" || \">"

// A T T R I B U T E S

makeScopeSet() ::= <<
/* makeScopeSet()
*/
/** Definition of the <scope.name> scope variable tracking
*  structure. An instance of this structure is created by calling
*  <name>_<scope.name>Push().
*/
typedef struct  <scopeStruct(sname=scope.name,...)>_struct
{
   /** Function that the user may provide to be called when the
    *  scope is destroyed (so you can free pANTLR3_HASH_TABLES and so on)
    *
    * \param POinter to an instance of this typedef/struct
    */
   void    (ANTLR3_CDECL *free) (struct <scopeStruct(sname=scope.name,...)>_struct
 * frame);

   /* =============================================================================
    * Programmer defined variables...
    */
   <scope.attributes:{it |<it.decl>;}; separator="\n">

   /* End of programmer defined variables
    * =============================================================================
    */
}
   <scopeStruct(sname=scope.name,...)>, * <scopeType(sname=scope.name,...)>;

>>

globalAttributeScopeDecl(scope) ::= <<
<if(scope.attributes)>
/* globalAttributeScopeDecl(scope)
*/
<makeScopeSet(...)>
<endif>
>>

ruleAttributeScopeDecl(scope) ::= <<
<if(scope.attributes)>
/* ruleAttributeScopeDecl(scope)
*/
```

```
<makeScopeSet(...)>
<endif>
>>

globalAttributeScopeFuncDecl(scope) ::=
<<
/* globalAttributeScopeFuncDecl(scope)
*/
<if(scope.attributes)>
/* -----------------------------------------------------------------------------
* Function declaration for creating a <name>_<scope.name> scope set
*/
static <scopeType(sname=scope.name,...)>
   <scopePushName(sname=scope.name,...)>(p<name> ctx);
static void ANTLR3_CDECL <scope.name>Free(<scopeType(sname=scope.name)> scope);
/* ----------------------------------------------------------------------------- */

<endif>
>>

globalAttributeScopeFuncMacro(scope) ::= <<
<if(scope.attributes)>
/* globalAttributeScopeFuncMacro(scope)
*/
/** Function  for popping the top value from a <scopeStack(sname=scope.name)>
*/
void
<scopePopName(sname=scope.name,...)>(p<name> ctx)
{
   // First see if the user defined a function they want to be called when a
   // scope is popped/freed.
   //
 // If the user supplied the scope entries with a free function,then call it first
 //
   if (SCOPE_TOP(<scope.name>)->free != NULL)
 {
       SCOPE_TOP(<scope.name>)->free(SCOPE_TOP(<scope.name>));
 }

   // Now we decrement the scope's upper limit bound. We do not actually pop the scope as
   // we want to reuse scope entries if we do continuous push and pops. Most scopes don't
    // next too far so we don't want to keep freeing and allocating them
   //
   ctx-><scopeStack(sname=scope.name,...)>_limit--;
   SCOPE_TOP(<scope.name>) = (<scopeType(sname=scope.name)>)(ctx-><scopeStack(sname=scope.name,...)>-
>get(ctx-><scopeStack(sname=scope.name,...)>, ctx-><scopeStack(sname=scope.name,...)>_limit - 1));
}
<endif>
```

```
>>

ruleAttributeScopeFuncDecl(scope) ::= <<
<if(scope.attributes)>
/* ruleAttributeScopeFuncDecl(scope)
*/
/* -----------------------------------------------------------------------------
* Function declarations for creating a <name>_<scope.name> scope set
*/
static <scopeType(sname=scope.name,...)>   <scopePushName(sname=scope.name,...)>(p<name> ctx);
static void ANTLR3_CDECL <scope.name>Free(<scopeType(sname=scope.name)> scope);
/* ----------------------------------------------------------------------------- */

<endif>
>>

ruleAttributeScopeFuncMacro(scope) ::= <<
<if(scope.attributes)>
/* ruleAttributeScopeFuncMacro(scope)
*/
/** Function
 for popping the top value from a <scopeStack(sname=scope.name,...)>
*/
void
<scopePopName(sname=scope.name,...)>(p<name> ctx)
{
    // First see if the user defined a function they want to be called when a
    // scope is popped/freed.
    //
  // If the user supplied the scope entries with a free function,then call it first
  //
    if (SCOPE_TOP(<scope.name>)->free != NULL)
  {
        SCOPE_TOP(<scope.name>)->free(SCOPE_TOP(<scope.name>));
  }

    // Now we decrement the scope's upper limit bound. We do not actually pop the scope as
    // we want to reuse scope entries if we do continuous push and pops. Most scopes don't
    // next too far so we don't want to keep freeing and allocating them
    //
    ctx-><scopeStack(sname=scope.name,...)>_limit--;
    SCOPE_TOP(<scope.name>) = (<scopeType(sname=scope.name)>)(ctx-><scopeStack(sname=scope.name,...)>->get(ctx-><scopeStack(sname=scope.name,...)>, ctx-><scopeStack(sname=scope.name,...)>_limit - 1));
}

<endif>
>>
```

```
globalAttributeScopeDef(scope)
 ::=
<<
/* globalAttributeScopeDef(scope)
*/
<if(scope.attributes)>
/** Pointer to the  <scope.name> stack for use by <scopePushName(sname=scope.name)>()
*  and <scopePopName(sname=scope.name,...)>()
*/
pANTLR3_STACK <scopeStack(sname=scope.name)>;
ANTLR3_UINT32 <scopeStack(sname=scope.name)>_limit;
/** Pointer to the top of the stack for the global scope <scopeStack(sname=scope.name)>
*/
<scopeType(sname=scope.name,...)>    (*<scopePushName(sname=scope.name,...)>)(struct <name>_Ctx_struct *
ctx);
<scopeType(sname=scope.name,...)>    <scopeTopDecl(sname=scope.name,...)>;

<endif>
>>

ruleAttributeScopeDef(scope) ::= <<
<if(scope.attributes)>
/* ruleAttributeScopeDef(scope)
*/
/** Pointer to the  <scope.name> stack for use by <scopePushName(sname=scope.name)>()
*  and <scopePopName(sname=scope.name,...)>()
*/
pANTLR3_STACK <scopeStack(sname=scope.name,...)>;
ANTLR3_UINT32 <scopeStack(sname=scope.name,...)>_limit;
<scopeType(sname=scope.name,...)>   (*<scopePushName(sname=scope.name,...)>)(struct
 <name>_Ctx_struct * ctx);
<scopeType(sname=scope.name,...)>   <scopeTopDecl(sname=scope.name,...)>;

<endif>
>>

globalAttributeScopeFuncs(scope) ::= <<
<if(scope.attributes)>
/* globalAttributeScopeFuncs(scope)
*/
<attributeFuncs(scope)>
<endif>
>>

ruleAttributeScopeFuncs(scope) ::= <<
<if(scope.attributes)>
/* ruleAttributeScopeFuncs(scope)
*/
```

```
<attributeFuncs(scope)>
<endif>
>>

globalAttributeScope(scope) ::= <<
<if(scope.attributes)>
/* globalAttributeScope(scope)
*/
ctx-><scopePushName(sname=scope.name,...)>     = <scopePushName(sname=scope.name,...)>;
ctx-><scopeStack(sname=scope.name,...)>    = antlr3StackNew(0);
ctx-><scopeStack(sname=scope.name,...)>_limit    = 0;
<scopeTop(sname=scope.name,...)>      = NULL;
<endif>
>>

ruleAttributeScope(scope) ::=
<<
<if(scope.attributes)>
/* ruleAttributeScope(scope)
*/
ctx-><scopePushName(sname=scope.name,...)>     = <scopePushName(sname=scope.name,...)>;
ctx-><scopeStack(sname=scope.name,...)>    = antlr3StackNew(0);
ctx-><scopeStack(sname=scope.name,...)>_limit
    = 0;
<scopeTop(sname=scope.name,...)>      = NULL;
<endif>
>>
globalAttributeScopeFree(scope) ::= <<
<if(scope.attributes)>
/* globalAttributeScope(scope)
*/
ctx-><scopeStack(sname=scope.name,...)>->free(ctx-><scopeStack(sname=scope.name,...)>);
<endif>
>>

ruleAttributeScopeFree(scope) ::=
<<
<if(scope.attributes)>
/* ruleAttributeScope(scope)
*/
ctx-><scopeStack(sname=scope.name,...)>->free(ctx-><scopeStack(sname=scope.name,...)>);
<endif>
>>

scopeTopDecl(sname) ::= <<
p<name>_<sname>Top
>>
```

```
scopeTop(sname) ::= <<
ctx-><scopeTopDecl(sname=sname,...)>
>>

scopePop(sname) ::= <<
<scopePopName(sname=sname,...)>(ctx);
>>

scopePush(sname) ::= <<
p<name>_<sname>Push(ctx)
>>

scopePopName(sname) ::= <<
p<name>_<sname>Pop
>>

scopePushName(sname) ::= <<
p<name>_<sname>Push
>>

scopeType(sname) ::= <<
p<name>_<sname>_SCOPE
>>

scopeStruct(sname) ::= <<
<name>_<sname>_SCOPE
>>

scopeStack(sname) ::= <<
p<name>_<sname>Stack
>>

attributeFuncs(scope)
 ::= <<
<if(scope.attributes)>
/* attributeFuncs(scope)
*/

static void ANTLR3_CDECL <scope.name>Free(<scopeType(sname=scope.name)> scope)
{
   ANTLR3_FREE(scope);
}

/** \brief Allocate initial memory for a <name> <scope.name> scope variable stack entry and
*         add it to the top of the stack.
*
* \remark
* By default the structure is freed with ANTLR_FREE(), but you can use the
```

```
* the \@init action to install a pointer to a custom free() routine by
* adding the code:
* \code
*   <scopeTop(sname=scope.name)>->free = myroutine;
* \endcode
*
* With lots of comments of course! The routine should be declared in
* \@members { } as:
* \code
*   void ANTLR3_CDECL myfunc( <scopeType(sname=scope.name)> ptr).
* \endcode
*
* It should perform any custom freeing stuff that you need (call ANTLR_FREE3, not free()
* NB: It should not free the pointer it is given, which is the scope stack entry itself
* and will be freed by the function that calls your custom
 free routine.
*
*/
static <scopeType(sname=scope.name)>
<scopePushName(sname=scope.name)>(p<name> ctx)
{
   /* Pointer used to create a new set of attributes
    */
   <scopeType(sname=scope.name)>      newAttributes;

   /* Allocate the memory for a new structure if we need one.
    */
   if (ctx-><scopeStack(sname=scope.name)>->size(ctx-><scopeStack(sname=scope.name)>) > ctx-
><scopeStack(sname=scope.name)>_limit)
   {
       // The current limit value was less than the number of scopes available on the stack so
       // we can just reuse one. Our limit tracks the stack count, so the index of the entry we want
       // is one less than that, or conveniently, the current value of limit.
       //
       newAttributes = (<scopeType(sname=scope.name)>)ctx-><scopeStack(sname=scope.name)>->get(ctx-
><scopeStack(sname=scope.name)>, ctx-><scopeStack(sname=scope.name)>_limit);
   }
   else
   {
       // Need a new allocation
       //
       newAttributes = (<scopeType(sname=scope.name)>)
 ANTLR3_MALLOC(sizeof(<scopeStruct(sname=scope.name)>));
       if  (newAttributes != NULL)
       {
           /* Standard ANTLR3 library implementation
            */
           ctx-><scopeStack(sname=scope.name)>->push(ctx-><scopeStack(sname=scope.name)>, newAttributes,
```

```
(void (*)(void *))<scope.name>Free);
       }
   }

   // Blank out any previous free pointer, the user might or might install a new one.
   //
   newAttributes->free = NULL;

   // Indicate the position in the available stack that the current level is at
   //
   ctx-><scopeStack(sname=scope.name)>_limit++;

 /* Return value is the pointer to the new entry, which may be used locally
  * without de-referencing via the context.
    */
   return  newAttributes;
}<\n>

<endif>
>>
returnStructName(r) ::= "<r.name>_return"

returnType() ::= <%
<if(!ruleDescriptor.isSynPred)>
<if(ruleDescriptor.hasMultipleReturnValues)>
<ruleDescriptor.grammar.recognizerName>_<ruleDescriptor:returnStructName()>
<else>
<if(ruleDescriptor.hasSingleReturnValue)>
<ruleDescriptor.singleValueReturnType>
<else>
void
<endif>
<endif>
<else>
ANTLR3_BOOLEAN
<endif>
%>

/**
 Generate the C type associated with a single or multiple return
*  value(s).
*/
ruleLabelType(referencedRule) ::= <%
<if(referencedRule.hasMultipleReturnValues)>
<referencedRule.grammar.recognizerName>_<referencedRule.name>_return
<else>
<if(referencedRule.hasSingleReturnValue)>
<referencedRule.singleValueReturnType>
```

```
<else>
void
<endif>
<endif>
%>

delegateName(d) ::= <<
<if(d.label)><d.label><else>g<it.name><endif>
>>

/** Using a type to init value map, try to init a type; if not in table
*  must be an object, default value is "0".
*/
initValue(typeName) ::= <<
= <cTypeInitMap.(typeName)>
>>

/** Define a rule label  */
ruleLabelDef(label) ::= <<
<ruleLabelType(referencedRule=label.referencedRule)> <label.label.text>;
#undef RETURN_TYPE_<label.label.text>
#define RETURN_TYPE_<label.label.text> <ruleLabelType(referencedRule=label.referencedRule)><\n>
>>
/**
  Rule label default value */
ruleLabelInitVal(label) ::= <<
>>

ASTLabelType() ::=
"<if(recognizer.ASTLabelType)><recognizer.ASTLabelType><else>pANTLR3_BASE_TREE<endif>"

/** Define a return struct for a rule if the code needs to access its
*  start/stop tokens, tree stuff, attributes, ...  Leave a hole for
*  subgroups to stick in members.
*/
returnScope(scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
<if(ruleDescriptor.hasMultipleReturnValues)>
typedef struct <ruleDescriptor.grammar.recognizerName>_<ruleDescriptor:returnStructName()>_struct
{
<if(!TREE_PARSER)>
   /** Generic return elements for ANTLR3 rules that are not in tree parsers or returning trees
    */
   pANTLR3_COMMON_TOKEN    start;
   pANTLR3_COMMON_TOKEN    stop;
<else>
   <recognizer.ASTLabelType>       start;
   <recognizer.ASTLabelType>       stop;
```

```
<endif>
   <@ruleReturnMembers()>
   <ruleDescriptor.returnScope.attributes:{it |<it.type> <it.name>;}; separator="\n">
}
    <ruleDescriptor.grammar.recognizerName>_<ruleDescriptor:returnStructName()>;<\n><\n>
<endif>
<endif>
>>

parameterScope(scope) ::= <<
<scope.attributes:{it |<it.decl>}; separator=", ">
>>

parameterAttributeRef(attr) ::= "<attr.name>"
parameterSetAttributeRef(attr,expr) ::= "<attr.name>=<expr>;"

/** Note that the scopeAttributeRef does not have access to the
* grammar name directly
*/
scopeAttributeRef(scope,attr,index,negIndex) ::= <%
<if(negIndex)>
 ((SCOPE_TYPE(<scope>))(ctx->SCOPE_STACK(<scope>)->get( ctx->SCOPE_STACK(<scope>), ctx-
>SCOPE_STACK(<scope>)->size(ctx->SCOPE_STACK(<scope>)) - <negIndex> - 1) ))-><attr.name>
<else>
<if(index)>
 ((SCOPE_TYPE(<scope>))(ctx->SCOPE_STACK(<scope>)->get(ctx->SCOPE_STACK(<scope>),
(ANTLR3_UINT32)<index> ) ))-><attr.name>
<else>
 (SCOPE_TOP(<scope>))-><attr.name>
<endif>
<endif>
%>

scopeSetAttributeRef(scope,attr,expr,index,negIndex) ::= <%
<if(negIndex)>
 ((SCOPE_TYPE(<scope>))(ctx->SCOPE_STACK(<scope>)->get( ctx->SCOPE_STACK(<scope>),
 ctx->SCOPE_STACK(<scope>)->size(ctx->SCOPE_STACK(<scope>)) - <negIndex> - 1) ))-><attr.name> =
<expr>;
<else>
<if(index)>
 ((SCOPE_TYPE(<scope>))(ctx->SCOPE_STACK(<scope>)->get(ctx->SCOPE_STACK(<scope>),
(ANTLR3_UINT32)<index> ) ))-><attr.name> = <expr>;
<else>
 (SCOPE_TOP(<scope>))-><attr.name>=<expr>;
<endif>
<endif>
%>
```

```
/** $x is either global scope or x is rule with dynamic scope; refers
*  to stack itself not top of stack.  This is useful for predicates
*  like {$function.size()>0 && $function::name.equals("foo")}?
*/
isolatedDynamicScopeRef(scope) ::= "ctx->SCOPE_STACK(<scope>)"

/** reference an attribute of rule; might only have single return value */
ruleLabelRef(referencedRule,scope,attr) ::= <<
<if(referencedRule.hasMultipleReturnValues)>
<scope>.<attr.name>
<else>
<scope>
<endif>
>>

returnAttributeRef(ruleDescriptor,attr) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name>
<else>
<attr.name>
<endif>
>>

returnSetAttributeRef(ruleDescriptor,attr,expr)
 ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name>=<expr>;
<else>
<attr.name>=<expr>;
<endif>
>>

/** How to translate $tokenLabel */
tokenLabelRef(label) ::= "<label>"

/** ids+=ID {$ids} or e+=expr {$e} */
listLabelRef(label) ::= "list_<label>"



// not sure the next are the right approach
//
tokenLabelPropertyRef_text(scope,attr) ::= "(<scope>->getText(<scope>))"
tokenLabelPropertyRef_type(scope,attr) ::= "(<scope>->getType(<scope>))"
tokenLabelPropertyRef_line(scope,attr) ::= "(<scope>->getLine(<scope>))"
tokenLabelPropertyRef_pos(scope,attr) ::= "(<scope>->getCharPositionInLine(<scope>))"
tokenLabelPropertyRef_channel(scope,attr) ::= "(<scope>->getChannel(<scope>))"
tokenLabelPropertyRef_index(scope,attr) ::= "(<scope>->getTokenIndex(<scope>))"
tokenLabelPropertyRef_tree(scope,attr) ::= "(<scope>->tree)"
```

```
tokenLabelPropertyRef_int(scope,attr) ::= "(<scope>->getText(<scope>)->toInt32(<scope>->getText(<scope>)))"

ruleLabelPropertyRef_start(scope,attr) ::= "(<scope>.start)"
ruleLabelPropertyRef_stop(scope,attr)
 ::= "(<scope>.stop)"
ruleLabelPropertyRef_tree(scope,attr) ::= "(<scope>.tree)"
ruleLabelPropertyRef_text(scope,attr) ::= <<
<if(TREE_PARSER)>
(STRSTREAM->toStringSS(STRSTREAM, <scope>.start, <scope>.start))
<else>
(STRSTREAM->toStringTT(STRSTREAM, <scope>.start, <scope>.stop))
<endif>
>>

ruleLabelPropertyRef_st(scope,attr) ::= "<scope>.st"

/** Isolated $RULE ref ok in lexer as it's a Token */
lexerRuleLabel(label) ::= "<label>"

lexerRuleLabelPropertyRef_type(scope,attr) ::= "(<scope>->getType(<scope>))"
lexerRuleLabelPropertyRef_line(scope,attr) ::= "(<scope>->getLine(<scope>))"
lexerRuleLabelPropertyRef_pos(scope,attr) ::= "(<scope>->getCharPositionInLine(<scope>))"
lexerRuleLabelPropertyRef_channel(scope,attr) ::= "(<scope>->getChannel(<scope>))"
lexerRuleLabelPropertyRef_index(scope,attr) ::= "(<scope>->getTokenIndex(<scope>))"
lexerRuleLabelPropertyRef_text(scope,attr) ::= "(<scope>->getText(<scope>))"

// Somebody may ref $template
 or $tree or $stop within a rule:
rulePropertyRef_start(scope,attr) ::= "retval.start"
rulePropertyRef_stop(scope,attr) ::= "retval.stop"
rulePropertyRef_tree(scope,attr) ::= "retval.tree"
rulePropertyRef_text(scope,attr) ::= <<
<if(TREE_PARSER)>
INPUT->toStringSS(INPUT, ADAPTOR->getTokenStartIndex(ADAPTOR, retval.start), ADAPTOR-
>getTokenStopIndex(ADAPTOR, retval.start))
<else>
STRSTREAM->toStringTT(STRSTREAM, retval.start, LT(-1))
<endif>
>>
rulePropertyRef_st(scope,attr) ::= "retval.st"

lexerRulePropertyRef_text(scope,attr) ::= "LEXER->getText(LEXER)"
lexerRulePropertyRef_type(scope,attr) ::= "_type"
lexerRulePropertyRef_line(scope,attr) ::= "LEXSTATE->tokenStartLine"
lexerRulePropertyRef_pos(scope,attr) ::= "LEXSTATE->tokenStartCharPositionInLine"
lexerRulePropertyRef_channel(scope,attr) ::= "LEXSTATE->channel"
lexerRulePropertyRef_start(scope,attr) ::= "LEXSTATE->tokenStartCharIndex"
lexerRulePropertyRef_stop(scope,attr) ::= "(LEXER->getCharIndex(LEXER)-1)"
```

```
lexerRulePropertyRef_index(scope,attr)
 ::= "-1" // undefined token index in lexer
lexerRulePropertyRef_int(scope,attr) ::= "LEXER->getText(LEXER)->toInt32(LEXER->getText(LEXER))"


// setting $st and $tree is allowed in local rule. everything else is flagged as error
ruleSetPropertyRef_tree(scope,attr,expr) ::= "retval.tree=<expr>;"
ruleSetPropertyRef_st(scope,attr,expr) ::= "retval.st=<expr>;"


/** How to deal with an @after for C targets. Because we cannot rely on
*  any garbage collection, after code is executed even in backtracking
*  mode. Must be documented clearly.
*/
execAfter(action) ::= <<
{
   <action>
}
>>

/** How to execute an action (when not backtracking) */
execAction(action) ::= <<
<if(backtracking)>
<if(actions.(actionScope).synpredgate)>
if ( <actions.(actionScope).synpredgate> )
{
   <action>
}
<else>
if ( BACKTRACKING == 0 )
{
   <action>
}
<endif>
<else>
{
   <action>
}
<endif>
>>

// M I S C (properties, etc...)

bitsetDeclare(name, words64) ::= <<

/** Bitset defining follow
 set for error recovery in rule state: <name>  */
static ANTLR3_BITWORD <name>_bits[] = { <words64:{it |ANTLR3_UINT64_LIT(<it>)}; separator=", "> };
```

```
static  ANTLR3_BITSET_LIST <name> = { <name>_bits, <length(words64)> };
>>

bitset(name, words64) ::= <<
antlr3BitsetSetAPI(&<name>);<\n>
>>

codeFileExtension() ::= ".c"

true_value() ::= "ANTLR3_TRUE"
false_value() ::= "ANTLR3_FALSE"
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/C/C.stg
No license file was found, but licenses were detected in source scan.

```
/*
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*
* Conversion to C#:
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* THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
*/
```

```
dfa(decisionRanks,states,edges,rankdir,startState,useBox) ::= <<
digraph NFA {
<if(rankdir)>rankdir=<rankdir>;<endif>
<decisionRanks; separator="\n">
<states; separator="\n">
<edges; separator="\n">
}
>>

nfa(decisionRanks,states,edges,rankdir,startState) ::= <<
digraph NFA {
rankdir=LR;
<decisionRanks; separator="\n">
<states;
 separator="\n">
<edges; separator="\n">
}
>>

decision-rank(states) ::= <<
{rank=same; rankdir=TB; <states; separator="; ">}
>>

edge(src,target,label,arrowhead) ::= <<
<src> -> <target> [fontsize=11, fontname="Courier", arrowsize=.7, label = "<label>"<if(arrowhead)>, arrowhead =
<arrowhead><endif>];
>>

action-edge(src,target,label,arrowhead) ::= <<
<src> -> <target> [fontsize=11, fontname="Courier", arrowsize=.7, label = "<label>"<if(arrowhead)>, arrowhead =
<arrowhead><endif>];
>>

epsilon-edge(src,target,label,arrowhead) ::= <<
<src> -> <target> [fontname="Times-Italic", label = "e"];
>>

state(name,useBox) ::= <<
node [fontsize=11, shape = <if(useBox)>box<else>circle, fixedsize=true, width=.4<endif>]; <name>
>>

stopstate(name,useBox) ::= <<
node [fontsize=11, shape = <if(useBox)>polygon,sides=4,peripheries=2<else>doublecircle, fixedsize=true,
width=.6<endif>]; <name>
>>
```

Found in path(s):

* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/tool/templates/dot/dot.stg
No license file was found, but licenses were detected in source scan.

```
/*
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THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
(INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF
THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
*/

@outputFile.imports() ::= <<
<@super.imports()>
<if(!TREE_PARSER)><! tree parser would already have imported !>
import org.antlr.runtime.tree.*;<\n>
<endif>
>>

@genericParser.members() ::= <<
<@super.members()>
 <parserMembers()>
>>

/** Add an adaptor property that knows how to build trees */
parserMembers() ::= <<
protected TreeAdaptor adaptor = new CommonTreeAdaptor();
```

```
public void setTreeAdaptor(TreeAdaptor adaptor) {
 this.adaptor = adaptor;
 <grammar.directDelegates:{g|<g:delegateName()>.setTreeAdaptor(this.adaptor);}>
}
public
 TreeAdaptor getTreeAdaptor() {
 return adaptor;
}
>>

@returnScope.ruleReturnMembers() ::= <<
<ASTLabelType> tree;
@Override
public <ASTLabelType> getTree() { return tree; }
>>

/** Add a variable to track rule's return AST */
ruleDeclarations() ::= <<
<super.ruleDeclarations()>
<ASTLabelType> root_0 = null;<\n>
>>

ruleLabelDefs() ::= <<
<super.ruleLabelDefs()>
<if(!ruleDescriptor.isSynPred)>
<[ruleDescriptor.tokenLabels,ruleDescriptor.wildcardTreeLabels,
 ruleDescriptor.wildcardTreeListLabels]:{it | <ASTLabelType> <it.label.text>_tree=null;}; separator="\n">
<ruleDescriptor.tokenListLabels:{it | <ASTLabelType> <it.label.text>_tree=null;}; separator="\n">
<if(ruleDescriptor.supportsLabelOptimization)>
<ruleDescriptor.allTokenRefsInRewrites
 :{it | RewriteRule<rewriteElementType>Stream stream_<it>=new
RewriteRule<rewriteElementType>Stream(adaptor,"token <it>");}; separator="\n">
<ruleDescriptor.allRuleRefsInRewrites
 :{it | RewriteRuleSubtreeStream
 stream_<it>=new RewriteRuleSubtreeStream(adaptor,"rule <it>");}; separator="\n">
<else>
<ruleDescriptor.allTokenRefsInAltsWithRewrites
 :{it | RewriteRule<rewriteElementType>Stream stream_<it>=new
RewriteRule<rewriteElementType>Stream(adaptor,"token <it>");}; separator="\n">
<ruleDescriptor.allRuleRefsInAltsWithRewrites
 :{it | RewriteRuleSubtreeStream stream_<it>=new RewriteRuleSubtreeStream(adaptor,"rule <it>");};
separator="\n">
<endif>
<endif>
>>

/** When doing auto AST construction, we must define some variables;
*  These should be turned off if doing rewrites.  This must be a "mode"
```

```
*  as a rule could have both rewrite and AST within the same alternative
*  block.
*/
@alt.declarations() ::= <<
<if(autoAST)>
<if(outerAlt)>
<if(!rewriteMode && !ruleDescriptor.isSynPred)>
root_0 = (<ASTLabelType>)adaptor.nil();<\n>
<endif>
<endif>
<endif>
>>

// T r a c k i n g  R u l e  E l e m e n t s

/** ID and track it for use in a rewrite rule */
tokenRefTrack(token,label,elementIndex,terminalOptions={})
 ::= <<
<tokenRefBang(...)> <! Track implies no auto AST construction!>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>stream_<token>.add(<label>);<\n>
>>

/** ids+=ID and track it for use in a rewrite rule; adds to ids *and*
*  to the tracking list stream_ID for use in the rewrite.
*/
tokenRefTrackAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRefTrack(...)>
<listLabel(elem=label, ...)>
>>

/** ^(ID ...) track for rewrite */
tokenRefRuleRootTrack(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRefBang(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>stream_<token>.add(<label>);<\n>
>>

/** Match ^(label+=TOKEN ...) track for rewrite */
tokenRefRuleRootTrackAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRefRuleRootTrack(...)>
<listLabel(elem=label, ...)>
>>

/** rule when output=AST and tracking for rewrite */
ruleRefTrack(rule,label,elementIndex,args,scope)
 ::= <<
<super.ruleRef(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>stream_<rule.name>.add(<label>.getTree());
>>
```

```
/** x+=rule when output=AST and tracking for rewrite */
ruleRefTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefTrack(...)>
<listLabel(label, {<label>.getTree()})>
>>

/** ^(rule ...) rewrite */
ruleRefRuleRootTrack(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRoot(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>stream_<rule>.add(<label>.getTree());
>>

/** ^(x+=rule ...) rewrite */
ruleRefRuleRootTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefRuleRootTrack(...)>
<listLabel(label, {<label>.getTree()})>
>>

// R e w r i t e

rewriteCode(
 alts, description,
 referencedElementsDeep, // ALL referenced elements to right of ->
 referencedTokenLabels,
 referencedTokenListLabels,
 referencedRuleLabels,
 referencedRuleListLabels,
 referencedWildcardLabels,
 referencedWildcardListLabels,
 rewriteBlockLevel,
 enclosingTreeLevel, treeLevel) ::=
<<

// AST REWRITE
// elements: <referencedElementsDeep; separator=", ">
// token labels: <referencedTokenLabels; separator=", ">
// rule labels: <referencedRuleLabels; separator=", ">
// token list labels: <referencedTokenListLabels; separator=", ">
// rule list labels: <referencedRuleListLabels; separator=", ">
// wildcard labels: <[referencedWildcardLabels,referencedWildcardListLabels]; separator=", ">
<if(backtracking)>
if ( <actions.(actionScope).synpredgate> ) {
<endif>
<prevRuleRootRef()>.tree = root_0;
<rewriteCodeLabels()>
root_0 = (<ASTLabelType>)adaptor.nil();
<alts:rewriteAlt(); separator="else ">
```

```
<! if tree parser and rewrite=true !>
<if(TREE_PARSER)>
<if(rewriteMode)>
<prevRuleRootRef()>.tree = (<ASTLabelType>)adaptor.rulePostProcessing(root_0);
input.replaceChildren(adaptor.getParent(retval.start),
        adaptor.getChildIndex(retval.start),
        adaptor.getChildIndex(_last),
        retval.tree);
<endif>
<endif>
<!
 if parser or tree-parser && rewrite!=true, we need to set result !>
<if(!TREE_PARSER)>
<prevRuleRootRef()>.tree = root_0;
<else>
<if(!rewriteMode)>
<prevRuleRootRef()>.tree = root_0;
<endif>
<endif>
<if(backtracking)>
}
<endif>
>>

rewriteCodeLabels() ::= <<
<referencedTokenLabels
 :{it | RewriteRule<rewriteElementType>Stream stream_<it>=new
RewriteRule<rewriteElementType>Stream(adaptor,"token <it>",<it>);};
 separator="\n"
>
<referencedTokenListLabels
 :{it | RewriteRule<rewriteElementType>Stream stream_<it>=new
RewriteRule<rewriteElementType>Stream(adaptor,"token <it>", list_<it>);};
 separator="\n"
>
<referencedWildcardLabels
 :{it | RewriteRuleSubtreeStream stream_<it>=new RewriteRuleSubtreeStream(adaptor,"wildcard <it>",<it>);};
 separator="\n"
>
<referencedWildcardListLabels
 :{it | RewriteRuleSubtreeStream stream_<it>=new RewriteRuleSubtreeStream(adaptor,"wildcard <it>",list_<it>);};
 separator="\n"
>
<referencedRuleLabels
 :{it | RewriteRuleSubtreeStream
 stream_<it>=new RewriteRuleSubtreeStream(adaptor,"rule <it>",<it>!=null?<it>.getTree():null);};
 separator="\n"
>
```

```
<referencedRuleListLabels
 :{it | RewriteRuleSubtreeStream stream_<it>=new RewriteRuleSubtreeStream(adaptor,"token <it>",list_<it>);};
 separator="\n"
>
>>

/** Generate code for an optional rewrite block; note it uses the deep ref'd element
 *  list rather shallow like other blocks.
 */
rewriteOptionalBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements, // elements in immediately block; no nested blocks
 description) ::=
<<
// <fileName>:<description>
if ( <referencedElementsDeep:{el | stream_<el>.hasNext()}; separator="||"> ) {
 <alt>
}
<referencedElementsDeep:{el | stream_<el>.reset();<\n>}>
>>

rewriteClosureBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements, // elements in immediately block; no nested blocks
 description) ::=
<<
// <fileName>:<description>
while ( <referencedElements:{el
 | stream_<el>.hasNext()}; separator="||"> ) {
 <alt>
}
<referencedElements:{el | stream_<el>.reset();<\n>}>
>>

rewritePositiveClosureBlock(
 alt,rewriteBlockLevel,
 referencedElementsDeep, // all nested refs
 referencedElements, // elements in immediately block; no nested blocks
 description) ::=
<<
if ( !(<referencedElements:{el | stream_<el>.hasNext()}; separator="||">) ) {
 throw new RewriteEarlyExitException();
}
while ( <referencedElements:{el | stream_<el>.hasNext()}; separator="||"> ) {
 <alt>
}
```

```
<referencedElements:{el | stream_<el>.reset();<\n>}>
>>

rewriteAlt(a) ::= <<
// <a.description>
<if(a.pred)>
if (<a.pred>) {
 <a.alt>
}<\n>
<else>
{
 <a.alt>
}<\n>
<endif>
>>

/** For empty rewrites: "r : ... -> ;" */
rewriteEmptyAlt() ::= "root_0 = null;"

rewriteTree(root,children,description,enclosingTreeLevel,treeLevel) ::= <<
// <fileName>:<description>
{
<ASTLabelType> root_<treeLevel> = (<ASTLabelType>)adaptor.nil();
<root:rewriteElement()>
<children:rewriteElement()>
adaptor.addChild(root_<enclosingTreeLevel>,
 root_<treeLevel>);
}<\n>
>>

rewriteElementList(elements) ::= "<elements:rewriteElement()>"

rewriteElement(e) ::= <<
<@pregen()>
<e.el>
>>

/** Gen ID or ID[args] */
rewriteTokenRef(token,elementIndex,args,terminalOptions={}) ::= <<
adaptor.addChild(root_<treeLevel>, <createRewriteNodeFromElement(...)>);
>>

/** Gen $label ... where defined via label=ID */
rewriteTokenLabelRef(label,elementIndex) ::= <<
adaptor.addChild(root_<treeLevel>, stream_<label>.nextNode());
>>

/** Gen $label ... where defined via label+=ID */
```

```
rewriteTokenListLabelRef(label,elementIndex) ::= <<
adaptor.addChild(root_<treeLevel>, stream_<label>.nextNode());
>>

/** Gen ^($label ...) */
rewriteTokenLabelRefRoot(label,elementIndex) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.becomeRoot(stream_<label>.nextNode(), root_<treeLevel>);
>>

/** Gen ^($label ...) where label+=... */
rewriteTokenListLabelRefRoot ::= rewriteTokenLabelRefRoot

/** Gen ^(ID ...) or ^(ID[args]
 ...) */
rewriteTokenRefRoot(token,elementIndex,args,terminalOptions={}) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.becomeRoot(<createRewriteNodeFromElement(...)>,
root_<treeLevel>);
>>

rewriteImaginaryTokenRef(args,token,elementIndex,terminalOptions={}) ::= <<
adaptor.addChild(root_<treeLevel>, <createImaginaryNode(token,args,terminalOptions)>);
>>

rewriteImaginaryTokenRefRoot(args,token,elementIndex,terminalOptions={}) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.becomeRoot(<createImaginaryNode(token,args,terminalOptions)>,
root_<treeLevel>);
>>

/** plain -> {foo} action */
rewriteAction(action) ::= <<
root_0 = <action>;
>>

/** What is the name of the previous value of this rule's root tree?  This
*  let's us refer to $rule to mean previous value.  I am reusing the
*  variable 'tree' sitting in retval struct to hold the value of root_0 right
*  before I set it during rewrites.  The assign will be to retval.tree.
*/
prevRuleRootRef() ::= "retval"

rewriteRuleRef(rule)
 ::= <<
adaptor.addChild(root_<treeLevel>, stream_<rule>.nextTree());
>>

rewriteRuleRefRoot(rule) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.becomeRoot(stream_<rule>.nextNode(), root_<treeLevel>);
>>
```

```
rewriteNodeAction(action) ::= <<
adaptor.addChild(root_<treeLevel>, <action>);
>>

rewriteNodeActionRoot(action) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.becomeRoot(<action>, root_<treeLevel>);
>>

/** Gen $ruleLabel ... where defined via ruleLabel=rule */
rewriteRuleLabelRef(label) ::= <<
adaptor.addChild(root_<treeLevel>, stream_<label>.nextTree());
>>

/** Gen $ruleLabel ... where defined via ruleLabel+=rule */
rewriteRuleListLabelRef(label) ::= <<
adaptor.addChild(root_<treeLevel>, stream_<label>.nextTree());
>>

/** Gen ^($ruleLabel ...) where ruleLabel=rule */
rewriteRuleLabelRefRoot(label) ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.becomeRoot(stream_<label>.nextNode(), root_<treeLevel>);
>>

/** Gen ^($ruleLabel ...) where ruleLabel+=rule */
rewriteRuleListLabelRefRoot(label)
 ::= <<
root_<treeLevel> = (<ASTLabelType>)adaptor.becomeRoot(stream_<label>.nextNode(), root_<treeLevel>);
>>

rewriteWildcardLabelRef(label) ::= <<
adaptor.addChild(root_<treeLevel>, stream_<label>.nextTree());
>>



createImaginaryNode(tokenType,args,terminalOptions={}) ::= <%
<if(terminalOptions.node)>
<! new MethodNode(IDLabel, args) !>
new <terminalOptions.node>(<tokenType><if(args)>, <args; separator=", "><endif>)
<else>
(<ASTLabelType>)adaptor.create(<tokenType>, <args; separator=", "><if(!args)>"<tokenType>"<endif>)
<endif>
%>

createRewriteNodeFromElement(token,args,terminalOptions={}) ::= <%
<if(terminalOptions.node)>
new <terminalOptions.node>(stream_<token>.nextToken()<if(args)>, <args; separator=", "><endif>)
<else>
```

```
<if(args)> <! must create new node from old !>
adaptor.create(<token>, <args; separator=", ">)
<else>
stream_<token>.nextNode()
<endif>
<endif>
%>
```

Found in path(s):

* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Java/AST.stg

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*/

```
/** Template overrides to add debugging to AST stuff.  Dynamic inheritance
*  hierarchy is set up as ASTDbg : AST : Dbg : Java by code generator.
*/
parserMembers() ::= <<
```

```
protected DebugTreeAdaptor adaptor =
   new DebugTreeAdaptor(null,new CommonTreeAdaptor());
public void setTreeAdaptor(TreeAdaptor adaptor) {
   this.adaptor = new DebugTreeAdaptor(dbg,adaptor);
}
public TreeAdaptor getTreeAdaptor()
 {
   return adaptor;
}<\n>
>>

parserCtorBody() ::= <<
>>

createListenerAndHandshake() ::= <<
<super.createListenerAndHandshake()>
>>

ctorForPredefinedListener() ::= <<
>>

@rewriteElement.pregen() ::= ""
```

Found in path(s):

* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/C/ASTDbg.stg

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```
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*/
group Delphi;

csharpTypeInitMap ::= [
 "int":"0",
 "uint":"0",
 "long":"0",
 "ulong":"0",
 "float":"0.0",
 "double":"0.0",
 "bool":"False",
 "byte":"0",
 "sbyte":"0",
 "short":"0",
 "ushort":"0",
 "char":"#0",
 "string":"''",
 "String":"''",
 default:"nil" // anything other than an atomic type
]

/** The overall file structure of a recognizer; stores methods
 for rules
*  and cyclic DFAs plus support code.
*  LEXER (Boolean): should we generate lexer code?
*  PARSER (Boolean): should we generate parser code?
*  TREE_PARSER (Boolean): should we generate tree parser code?
*  actionScope (String): 'lexer', 'parser', 'tree_parser' or custom scope
*  actions (HashMap):
*  docComment (String): document comment
*  recognizer (Object): recognizer class generator
*  name (String): name of grammar
*  tokens (HashMap<name: String, type: Integer>):
*  tokenNames:
*  rules:
*  cyclicDFAs:
*  bitsets:
*  buildTemplate (Boolean): should we generate a string template?
*  buildAST (Boolean): should we generate an AST?
```

```
*  rewriteMode (Boolean): are we rewriteing nodes?
*  profile (Boolean):
*  backtracking (Boolean): backtracking mode?
*  synpreds (): syntactic predicates
*  memoize (Boolean): should we memoize?
*  numRules (Integer): number of rules
*  fileName (String): fully qualified name of original .g file
*  ANTLRVersion
 (String): ANTLR version in Major.Minor.Build format
*  generatedTimestamp (String): date/time when the file is generated
*  trace (Boolean): should we trace input/output?
*  scopes:
*  superClass (String): name of base class, or empty string
*  literals:
*/
outputFile(LEXER,PARSER,TREE_PARSER, actionScope, actions,
          docComment, recognizer,
          name, tokens, tokenNames, rules, cyclicDFAs,
    bitsets, buildTemplate, buildAST, rewriteMode, profile,
    backtracking, synpreds, memoize, numRules,
    fileName, ANTLRVersion, generatedTimestamp, trace,
    scopes, superClass, literals) ::=
<<
unit <name>;

{$HINTS OFF}

// $ANTLR <ANTLRVersion> <fileName> <generatedTimestamp>

<actions.(actionScope).header>

interface

<@imports>
uses<\n>
<@end>
 <actions.(actionScope).usesInterface>
<if(TREE_PARSER)>
 Antlr.Runtime.Tree,<\n>
<endif>
 Antlr.Runtime,
 Antlr.Runtime.Collections,
 Antlr.Runtime.Tools;

<docComment>
<recognizer>
>>
```

```
/** Generates source code for the
 lexer class
* grammar (Grammar object)
*/
lexer(grammar, name, tokens, scopes, rules, numRules, labelType="Token",
    filterMode, superClass="Lexer") ::= <<
type
 I<grammar.recognizerName> = interface(I<@superClassName><superClass><@end>)
 end;

 T<grammar.recognizerName> = class(T<@superClassName><superClass><@end>,
I<grammar.recognizerName>)
 strict private
   FCnt: array [0..<grammar.numberOfDecisions>] of Byte;
   FLA: array [0..<grammar.numberOfDecisions>, 0..255] of Integer;
   FException: ERecognitionException;
   procedure InitializeCyclicDFAs;
 <cyclicDFAs:cyclicDFADeclaration()>
 public
   const
     <tokens:{<it.name> = <it.type>;}; separator="\n">
   <scopes:{<if(it.isDynamicGlobalScope)><globalAttributeScope(scope=it)><endif>}>
 strict private
   <actions.(actionScope).memberDeclarations>
 public
   // delegates
   <grammar.delegates: {g|<g:delegateName()>: I<superClass>; {<g.recognizerName>}}; separator="\n">
 public
   // delegators
   <grammar.delegators:
 {g|<g:delegateName()>: Pointer; {<g.recognizerName>}}; separator="\n">
   <last(grammar.delegators):{g|gParent: Pointer; {<g.recognizerName>}}>
 protected
   { IBaseRecognizer }
   function GetGrammarFileName: String; override;
<if(filterMode)>
   function AlreadyParsedRule(const Input: IIntStream;
     const RuleIndex: Integer): Boolean; override;
   procedure Memoize(const Input: IIntStream; const RuleIndex,
     RuleStartIndex: Integer); override;
 protected
   { ILexer }
   function NextToken: IToken; override;<\n>
<endif>
 protected
   { ILexer }
   procedure DoTokens; override;
 public
```

```
   constructor Create; overload;
   constructor Create(const AInput: ICharStream<grammar.delegators:{g|; const A<g:delegateName()>: IBaseRecognizer{<g.recognizerName>}}>); overload;
   constructor Create(const AInput: ICharStream; const AState: IRecognizerSharedState<grammar.delegators:{g|; const A<g:delegateName()>: IBaseRecognizer{<g.recognizerName>}}>); overload;

    <rules: {r | <if(!r.ruleDescriptor.isSynPred)><lexerRuleDeclaration(r)><endif>}>
   <synpreds:{p | <lexerSynpredDeclaration(p)>}; separator="\n">
 end;

implementation

uses
 <grammar.delegates: {g|<g.recognizerName>,}; separator="\n">
 <grammar.delegators: {g|<g.recognizerName>,}; separator="\n">
 <actions.(actionScope).usesImplementation>
 SysUtils,
 StrUtils,
 Math;

{ T<grammar.recognizerName> }

constructor T<grammar.recognizerName>.Create;
begin
 InitializeCyclicDFAs;
end;

constructor T<grammar.recognizerName>.Create(const AInput: ICharStream<grammar.delegators:{g|; const A<g:delegateName()>: IBaseRecognizer{<g.recognizerName>}}>);
begin
 Create(AInput, nil<grammar.delegators:{g|, A<g:delegateName()>}>);
end;

constructor T<grammar.recognizerName>.Create(const AInput: ICharStream; const AState: IRecognizerSharedState<grammar.delegators:{g|; const A<g:delegateName()>: IBaseRecognizer{<g.recognizerName>}}>);
begin
 inherited Create(AInput, AState);
 InitializeCyclicDFAs;
 { TODO: Necessary in Delphi??? Not removed yet. }
 <if(memoize)>
 <if(grammar.grammarIsRoot)>
 State.RuleMemoCount := <numRules>+1;<\n> <! index from 1..n !>
 <endif>
 <endif>
 <grammar.directDelegates:
  {g|<g:delegateName()> := T<g.recognizerName>.Create(AInput, State<trunc(g.delegators):{p|, <p:delegateName()>}>, Self);}; separator="\n">
```

```
 <grammar.delegators:
  {g|<g:delegateName()> := Pointer(A<g:delegateName()>);}; separator="\n">
 <last(grammar.delegators):{g|gParent := Pointer(A<g:delegateName()>);}>
 <actions.(actionScope).memberInitializations>
end;
<actions.(actionScope).memberImplementations>
function T<grammar.recognizerName>.GetGrammarFileName: String;
begin
 Result := '<fileName>';
end;

<if(filterMode)>
<filteringNextToken()>
<endif>

<rules; separator="\n\n">
<synpreds:{p | <lexerSynpred(p)>}>

procedure T<grammar.recognizerName>.InitializeCyclicDFAs;
begin
 <cyclicDFAs:{dfa | FDFA<dfa.decisionNumber> :=
TDFA<dfa.decisionNumber>.Create(Self<@debugAddition()>);};
 separator="\n">
 <cyclicDFAs:{dfa | <if(dfa.specialStateSTs)>FDFA<dfa.decisionNumber>.SpecialStateTransitionHandler :=
DFA<dfa.decisionNumber>_SpecialStateTransition;<endif>}; separator="\n">
end;

<cyclicDFAs:cyclicDFA()> <! dump tables for all DFA !>
end.>>

lexerRuleDeclaration(rule) ::= <<
procedure m<rule.ruleName>(<rule.ruleDescriptor.parameterScope:parameterScope(scope=rule)>);<\n>
>>

/** A override of Lexer.nextToken() that backtracks over mTokens() looking
*  for matches.  No error can be generated upon error; just rewind, consume
*  a token and then try again.  backtracking needs to be set as well.
*
*  Make rule memoization happen only at levels above 1 as we start mTokens
*  at backtracking==1.
*/
filteringNextToken() ::= <<
function T<grammar.recognizerName>.NextToken: IToken;
var
 M: Integer;
begin
 while (True) do
 begin
```

```
   if (Input.LA(1) = Integer(cscEOF)) then
     Exit(TToken.EOF_TOKEN);

   State.Token := nil;
   State.Channel := TToken.DEFAULT_CHANNEL;
    State.TokenStartCharIndex := Input.Index;
   State.TokenStartCharPositionInLine := Input.CharPositionInLine;
   State.TokenStartLine := Input.Line;
   State.Text := '';
   try
     M := Input.Mark();
     State.Backtracking := 1; <! means we won't throw slow exception !>
     State.Failed := False;
     mTokens();
     State.Backtracking := 0;
<!
     mTokens backtracks with synpred at backtracking==2
           and we set the synpredgate to allow actions at level 1.
!>
     if (State.Failed) then
     begin
       Input.Rewind(M);
       Input.Consume; <! // advance one char and try again !>
     end
     else
     begin
       Emit;
       Exit(State.Token);
     end;
   except
     on RE: ERecognitionException do
     begin
       // shouldn't happen in backtracking mode, but...
       ReportError(RE);
       Recover(RE);
     end;
   end;
 end;
end;

function T<grammar.recognizerName>.AlreadyParsedRule(const Input: IIntStream;
 const
 RuleIndex: Integer): Boolean;
begin
 if (State.Backtracking > 1) then
   Result := inherited AlreadyParsedRule(Input, RuleIndex)
 else
   Result := False;
```

```
end;

procedure T<grammar.recognizerName>.Memoize(const Input: IIntStream; const RuleIndex,
 RuleStartIndex: Integer);
begin
 if (State.Backtracking > 1) then
   inherited Memoize(Input, RuleIndex, RuleStartIndex);
end;

>>

filteringActionGate() ::= "(State.Backtracking = 1)"

/** How to generate a parser */
genericParser(grammar, name, scopes, tokens, tokenNames, rules, numRules,
              bitsets, inputStreamType, superClass, filterMode,
              ASTLabelType="ANTLRInterface", labelType, members, rewriteElementType) ::= <<
type
 <rules: {r | <genericParserRuleReturnType(rule=r, ruleDescriptor=r.ruleDescriptor)>}>
 I<grammar.recognizerName> = interface(I<@superClassName><superClass><@end>)
   <rules: {r | <genericParserRuleInterface(rule=r, ruleDescriptor=r.ruleDescriptor)>}>
 end;

 T<grammar.recognizerName>
 = class(T<@superClassName><superClass><@end>, I<grammar.recognizerName>)
<if(grammar.grammarIsRoot)>
 public
   const
     TOKEN_NAMES: array [0..<length(tokenNames)>+3] of String = (
       '\<invalid>',
       '\<EOR>',
       '\<DOWN>',
       '\<UP>',
       <tokenNames; separator=",\n">);<\n>
<endif>
 public
   const
     <tokens:{<it.name> = <it.type>;}; separator="\n">
 public
   // delegates
   <grammar.delegates: {g|<g:delegateName()>: I<superClass>; {<g.recognizerName>}}; separator="\n">
 public
   // delegators
   <grammar.delegators: {g|<g:delegateName()>: Pointer; {<g.recognizerName>}}; separator="\n">
   <last(grammar.delegators):{g|gParent: Pointer; {<g.recognizerName>}}>

   <scopes:{<if(it.isDynamicGlobalScope)><globalAttributeScopeDeclaration(scope=it)><endif>}>
<@members>
```

```
   <! WARNING. bug in ST: this is cut-n-paste into Dbg.stg !>
 public
   constructor Create(const AInput: <inputStreamType><grammar.delegators:{g|; const A<g:delegateName()>:
 IBaseRecognizer{<g.recognizerName>}}>); overload;
   constructor Create(const AInput: <inputStreamType>; const AState:
IRecognizerSharedState<grammar.delegators:{g|; const A<g:delegateName()>:
IBaseRecognizer{<g.recognizerName>}}>); overload;
<@end>
 protected
   { IBaseRecognizer }
   function GetTokenNames: TStringArray; override;
   function GetGrammarFileName: String; override;
 strict private
   <actions.(actionScope).memberDeclarations>
 <rules: {r | <genericParserRuleDeclaration(rule=r, ruleDescriptor=r.ruleDescriptor)>}>

<! generate rule/method definitions for imported rules so they
  appear to be defined in this recognizer. !>
   // Delegated rules
   <grammar.delegatedRules:{ruleDescriptor| <delegatedRuleDeclaration(ruleDescriptor)>}>

   <synpreds:{p | <synpredDeclaration(p)>}; separator="\n">
 <cyclicDFAs:cyclicDFADeclaration()>
 strict private
   FException: ERecognitionException;
   FLA: array [0..<grammar.numberOfDecisions>, 0..255] of Integer;
   FCnt:
 array [0..<grammar.numberOfDecisions>] of Byte;
   procedure InitializeCyclicDFAs;
<if(bitsets)>
 public
   class var
     <bitsets:bitsetDecl(name={FOLLOW_<it.name>_in_<it.inName><it.tokenIndex>})>
 public
   class procedure InitializeBitsets; static;<\n>
<endif>
 end;

implementation

uses
 <grammar.delegates: {g|<g.recognizerName>,}; separator="\n">
 <grammar.delegators: {g|<g.recognizerName>,}; separator="\n">
 <actions.(actionScope).usesImplementation>
 SysUtils,
 StrUtils,
 Math;
```

```
{ T<grammar.recognizerName> }

constructor T<grammar.recognizerName>.Create(const AInput: <inputStreamType><grammar.delegators:{g|; const
A<g:delegateName()>: IBaseRecognizer{<g.recognizerName>}}>);
begin
 Create(AInput, TRecognizerSharedState.Create<grammar.delegators:{g|, A<g:delegateName()>}>);
end;

constructor T<grammar.recognizerName>.Create(const AInput: <inputStreamType>;
 const AState: IRecognizerSharedState<grammar.delegators:{g|; const A<g:delegateName()>:
IBaseRecognizer{<g.recognizerName>}}>);
begin
  inherited Create(AInput, AState);
 <@membersConstructor>
 <@end>
 <parserCtorBody()>
 <grammar.directDelegates:{g|<g:delegateName()> := T<g.recognizerName>.Create(Input,
State<trunc(g.delegators):{p|, <p:delegateName()>}>, Self);}; separator="\n">
 <grammar.indirectDelegates:{g | <g:delegateName()> := <g.delegator:delegateName()>.<g:delegateName()>;};
separator="\n">
 <last(grammar.delegators):{g|gParent := Pointer(A<g:delegateName()>);}>
 <rules: {r | <ruleAttributeScopeInit(scope=r.ruleDescriptor.ruleScope)>}>
 <scopes:{<if(it.isDynamicGlobalScope)><globalAttributeScope(scope=it)><endif>}>
 <actions.(actionScope).memberInitializations>
end;
<actions.(actionScope).memberImplementations>

<grammar.delegatedRules:{ruleDescriptor| <delegatedRuleImplementation(ruleDescriptor)>}; separator="\n">
procedure T<grammar.recognizerName>.InitializeCyclicDFAs;
begin
 <cyclicDFAs:{dfa | FDFA<dfa.decisionNumber> := TDFA<dfa.decisionNumber>.Create(Self);}; separator="\n">
  <cyclicDFAs:{dfa | <if(dfa.specialStateSTs)>FDFA<dfa.decisionNumber>.SpecialStateTransitionHandler :=
DFA<dfa.decisionNumber>_SpecialStateTransition;<endif>}; separator="\n">
end;

<if(bitsets)>
class procedure T<grammar.recognizerName>.InitializeBitsets;
begin
 <bitsets:bitset(name={FOLLOW_<it.name>_in_<it.inName><it.tokenIndex>}, words64=it.bits)>
end;
<endif>

<@membersImplementation>
<@end>

function T<grammar.recognizerName>.GetTokenNames: TStringArray;
var
 I: Integer;
```

```
begin
 SetLength(Result,Length(T<grammar.composite.rootGrammar.recognizerName>.TOKEN_NAMES));
 for I := 0 to Length(T<grammar.composite.rootGrammar.recognizerName>.TOKEN_NAMES) - 1 do
   Result[I] := T<grammar.composite.rootGrammar.recognizerName>.TOKEN_NAMES[I];
end;

function T<grammar.recognizerName>.GetGrammarFileName: String;
begin
 Result := '<fileName>';
end;

<rules; separator="\n\n">
<synpreds:{p | <synpred(p)>}>

<cyclicDFAs:cyclicDFA()> <! dump tables for all DFA !>
<if(bitsets)>
initialization
  T<grammar.recognizerName>.InitializeBitsets;<\n>
<endif>
end.>>

delegatedRuleDeclaration(ruleDescriptor) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
function <ruleDescriptor.name>(<ruleDescriptor.parameterScope:parameterScope(scope=it)>):
I<returnType()>;<\n>
<else>
<if(ruleDescriptor.hasSingleReturnValue)>
function <ruleDescriptor.name>(<ruleDescriptor.parameterScope:parameterScope(scope=it)>):
<returnType()>;<\n>
<else>
procedure <ruleDescriptor.name>(<ruleDescriptor.parameterScope:parameterScope(scope=it)>);<\n>
<endif>
<endif>
>>

delegatedRuleImplementation(ruleDescriptor) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
function
T<grammar.recognizerName>.<ruleDescriptor.name>(<ruleDescriptor.parameterScope:parameterScope(scope=it)>
): I<returnType()>;<\n>
<else>
<if(ruleDescriptor.hasSingleReturnValue)>
function
T<grammar.recognizerName>.<ruleDescriptor.name>(<ruleDescriptor.parameterScope:parameterScope(scope=it)>
): <returnType()>;<\n>
<else>
procedure
```

```
T<grammar.recognizerName>.<ruleDescriptor.name>(<ruleDescriptor.parameterScope:parameterScope(scope=it)>
);<\n>
<endif>
<endif>
begin
 <if(ruleDescriptor.hasReturnValue)>Result :=<endif>
T<ruleDescriptor.grammar.recognizerName>(<ruleDescriptor.grammar:delegateName()>.Implementor).<ruleDescriptor.name>(<ruleDescriptor.parameterScope.attributes:{a|<a.name>}; separator=", ">);
end;

>>

parserCtorBody() ::= <<
InitializeCyclicDFAs;
<if(memoize)>
<if(grammar.grammarIsRoot)>
State.RuleMemoCount := <length(grammar.allImportedRules)>+1;<\n> <! index from 1..n !>
<endif>
<endif>
<grammar.delegators: {g|<g:delegateName()> := Pointer(A<g:delegateName()>);}; separator="\n">
>>

parser(grammar, name, scopes, tokens, tokenNames, rules, numRules, bitsets, ASTLabelType, superClass="Parser",
labelType="Token", members={<actions.parser.members>}) ::= <<
<genericParser(inputStreamType="ITokenStream", rewriteElementType="Token", ...)>
>>

/** How to generate a tree parser; same as parser except the input
 *  stream is a different type.
*/
treeParser(grammar, name, scopes, tokens, tokenNames, globalAction, rules, numRules, bitsets,
labelType={<ASTLabelType>}, ASTLabelType="object", superClass="TreeParser",
members={<actions.treeparser.members>}, filterMode) ::= <<
<genericParser(inputStreamType="ITreeNodeStream", rewriteElementType="Node", ...)>
>>

/** A simpler version of a rule template that is specific to the imaginary
*  rules created for syntactic predicates.  As they never have return values
*  nor parameters etc..., just give simplest possible method.  Don't do
*  any of the normal memoization stuff in here either; it's a waste.
*  As predicates cannot be inlined into the invoking rule, they need to
*  be in a rule by themselves.
*/
synpredRule(ruleName, ruleDescriptor, block, description, nakedBlock) ::=
<<
// $ANTLR start "<ruleName>"
procedure
T<grammar.recognizerName>.<ruleName>_fragment(<ruleDescriptor.parameterScope:parameterScope(scope=it)>)
```

```
;
var
 Alt: array [0..<grammar.numberOfDecisions>]
 of Integer;
 <ruleLabelDefVars()>
begin
 <ruleLabelDefs()>
<if(trace)>
 TraceIn('<ruleName>_fragment', <ruleDescriptor.index>);
 try
   <block>
 finally
   TraceOut('<ruleName>_fragment', <ruleDescriptor.index>);
 end;
<else>
 <block>
<endif>
end;
// $ANTLR end "<ruleName>"
>>

synpredDecls(name) ::= <<
SynPredPointer <name>;<\n>
>>

synpred(name) ::= <<

function T<grammar.recognizerName>.<name>: Boolean;
var
 Start: Integer;
 Success: Boolean;
begin
 State.Backtracking := State.Backtracking + 1;
 <@start()>
 Start := Input.Mark;
 try
   <name>_fragment(); // can never throw exception
 except
   on RE: ERecognitionException do
     WriteLn('Impossible: ' + RE.ToString);
 end;
 Success := not State.Failed;
 Input.Rewind(Start);
 <@stop()>
 State.Backtracking := State.Backtracking - 1;
 State.Failed := False;
 Result := Success;
end;<\n>
```

```
>>

lexerSynpred(name) ::= <<
<synpred(name)>
>>

lexerSynpredDeclaration(name) ::= <<
function
 <name>: Boolean;
procedure <name>_fragment;
>>

synpredDeclaration(name) ::= <<
function <name>: Boolean;
procedure <name>_fragment;
>>

ruleMemoization(name) ::= <<
<if(memoize)>
if ((State.Backtracking > 0) and AlreadyParsedRule(Input, <ruleDescriptor.index>)) then
 Exit(<ruleReturnValue()>);
<endif>
>>

/** How to test for failure and return from rule */
checkRuleBacktrackFailure() ::= <<
<if(backtracking)><\n>if (State.Failed) then Exit(<ruleReturnValue()>);<\n><endif>
>>

/** This rule has failed, exit indicating failure during backtrack */
ruleBacktrackFailure() ::= <<
<if(backtracking)>if (State.Backtracking > 0) then
begin
 State.Failed := True;
 Exit(<ruleReturnValue()>);
end;<endif>
>>

genericParserRuleDeclaration(rule, ruleDescriptor) ::= <<
<if(ruleDescriptor.isSynPred)>
<else>
<ruleAttributeScopeDeclaration(scope=ruleDescriptor.ruleScope)>
<returnScopeDeclaration(scope=ruleDescriptor.returnScope)>
public
<if(ruleDescriptor.hasMultipleReturnValues)>
 function <rule.ruleName>:
 I<returnType()>;<\n>
<else>
```

```
<if(ruleDescriptor.hasSingleReturnValue)>
 function <rule.ruleName>: <returnType()>;<\n>
<else>
 procedure <rule.ruleName>;<\n>
<endif>
<endif>
<endif>
>>

genericParserRuleInterface(rule, ruleDescriptor) ::= <<
<if(ruleDescriptor.isSynPred)>
<else>
<if(ruleDescriptor.hasMultipleReturnValues)>
function <rule.ruleName>: I<returnType()>;<\n>
<else>
<if(ruleDescriptor.hasSingleReturnValue)>
function <rule.ruleName>: <returnType()>;<\n>
<else>
procedure <rule.ruleName>;<\n>
<endif>
<endif>
<endif>
>>

genericParserRuleReturnType(rule, ruleDescriptor) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
<if(ruleDescriptor.isSynPred)>
<else>
I<returnType()> = interface(I<if(TREE_PARSER)>Tree<else>Parser<endif>RuleReturnScope)
end;<\n>
<endif>
<endif>
>>

/** How to generate code for a rule.  This includes any return type
*  data aggregates required for multiple return values.
*/
rule(ruleName,ruleDescriptor,block,emptyRule,description,exceptions,finally,memoize)
 ::= <<
<ruleAttributeScope(scope=ruleDescriptor.ruleScope)>
<returnScope(scope=ruleDescriptor.returnScope)>

// $ANTLR start "<ruleName>"
(* <fileName>:<description> *)
<if(ruleDescriptor.hasMultipleReturnValues)>
function T<grammar.recognizerName>.<ruleName>(<ruleDescriptor.parameterScope:parameterScope(scope=it)>):
I<returnType()>;
<else>
```

```
<if(ruleDescriptor.hasSingleReturnValue)>
function T<grammar.recognizerName>.<ruleName>(<ruleDescriptor.parameterScope:parameterScope(scope=it)>): <returnType()>;
<else>
procedure T<grammar.recognizerName>.<ruleName>(<ruleDescriptor.parameterScope:parameterScope(scope=it)>);
<endif>
<endif>

var
<ruleDescriptor.actions.vars>
 Locals: TLocalStorage;
<if(ruleDescriptor.hasMultipleReturnValues)>
 RetVal: I<returnType()>;<\n>
<else>
<if(ruleDescriptor.hasSingleReturnValue)>
 RetVal: <returnType()>;<\n>
<else>
<endif>
<endif>
 Alt: array [0..<grammar.numberOfDecisions>] of Integer;
 <ruleDeclarationVars()>
 <ruleLabelDefVars()>
begin
 Locals.Initialize;
  try
   <if(trace)>TraceIn('<ruleName>', <ruleDescriptor.index>);<endif>
   <ruleScopeSetUp()>
   <ruleDeclarations()>
   <ruleLabelDefs()>
   <ruleDescriptor.actions.init>
   <@preamble()>
   try
     try
       <ruleMemoization(name=ruleName)>
       <block>
       <ruleCleanUp()>
       <(ruleDescriptor.actions.after):execAction()>
<if(exceptions)>
       <exceptions:{e|<catch(decl=e.decl,action=e.action)><\n>}>
<else>
<if(!emptyRule)>
<if(actions.(actionScope).rulecatch)>
       <actions.(actionScope).rulecatch>
<else>
     except
       on RE: ERecognitionException do
       begin
```

```
        ReportError(RE);
        Recover(Input,RE);
        <@setErrorReturnValue()>
      end;<\n>
<endif>
<endif>
<endif>
    end;
  finally
    <if(trace)>TraceOut("<ruleName>", <ruleDescriptor.index>);<endif>
    <memoize()>
    <ruleScopeCleanUp()>
    <finally>
  end;
  <@postamble()>
 finally
  Locals.Finalize;
 end;
 Exit(<ruleReturnValue()>);
end;
//
 $ANTLR end "<ruleName>"
>>

catch(decl,action) ::= <<
catch (<e.decl>)
{
  <e.action>
}
>>

ruleDeclarations() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
RetVal := T<returnType()>.Create;
RetVal.Start := Input.LT(1);<\n>
<else>
<ruleDescriptor.returnScope.attributes:{ a |
<a.name> := <if(a.initValue)><a.initValue><else><initValue(a.type)><endif>;
}>
<endif>
<if(memoize)>
<ruleDescriptor.name>_StartIndex := Input.Index();
<endif>
>>

ruleDeclarationVars() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
<else>
```

```
<ruleDescriptor.returnScope.attributes:{ a |
<a.name>: <a.type>;
}>
<endif>
<if(memoize)>
<ruleDescriptor.name>_StartIndex: Integer;
<endif>
>>

ruleScopeSetUp() ::= <<
<ruleDescriptor.useScopes:{<it>Stack.Push(T<it>Scope.Create);}; separator="\n">
<ruleDescriptor.ruleScope:{<it.name>Stack.Push(T<it.name>Scope.Create);}; separator="\n">
>>

ruleScopeCleanUp() ::= <<
<ruleDescriptor.useScopes:{<it>Stack.Pop();}; separator="\n">
<ruleDescriptor.ruleScope:{<it.name>Stack.Pop;};
 separator="\n">
>>

ruleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,ruleDescriptor.tokenListLabels]:{<it.label.text> := nil;}; separator="\n">
<[ruleDescriptor.tokenListLabels,ruleDescriptor.ruleListLabels]:{list_<it.label.text> := nil;}; separator="\n">
<ruleDescriptor.ruleLabels:ruleLabelDef(label=it); separator="\n">
<ruleDescriptor.ruleListLabels:{ll|<ll.label.text> := nil;}; separator="\n">
>>

ruleLabelDefVars() ::= <<
<[ruleDescriptor.tokenLabels,ruleDescriptor.tokenListLabels]:{<it.label.text>: I<labelType>;}; separator="\n">
<[ruleDescriptor.tokenListLabels,ruleDescriptor.ruleListLabels]:{list_<it.label.text>: IList\<IANTLRInterface\>;};
separator="\n">
<ruleDescriptor.ruleLabels:ruleLabelDefVar(label=it); separator="\n">
<ruleDescriptor.ruleListLabels:{ll|<ll.label.text>: <ruleLabelType(referencedRule=ll.referencedRule)>;};
separator="\n">
>>

lexerRuleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,
 ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleLabels]
    :{<it.label.text> := nil;}; separator="\n"
>
<ruleDescriptor.charLabels:{int <it.label.text>;}; separator="\n">
<[ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleListLabels,
 ruleDescriptor.ruleListLabels]
   :{List_<it.label.text> := nil;}; separator="\n"
>
```

```
>>

lexerRuleLabelDefDeclarations() ::= <<
<[ruleDescriptor.tokenLabels,
 ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleLabels]
   :{<it.label.text>: I<labelType>;}; separator="\n"
>
<ruleDescriptor.charLabels:{int <it.label.text>;}; separator="\n">
<[ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleListLabels,
 ruleDescriptor.ruleListLabels]
   :{List_<it.label.text>: IList;}; separator="\n"
>
>>

ruleReturnValue() ::= <<
<if(!ruleDescriptor.isSynPred)>
<if(ruleDescriptor.hasReturnValue)>
<if(ruleDescriptor.hasSingleReturnValue)>
<ruleDescriptor.singleValueReturnName>
<else>
RetVal
<endif>
<else>
<! nil !>
<endif>
<endif>
>>

ruleCleanUp() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
<if(!TREE_PARSER)>
RetVal.Stop
 := Input.LT(-1);
<endif>
<endif>
>>

memoize() ::= <<
<if(memoize)>
<if(backtracking)>
if (State.Backtracking > 0) then
 Memoize(Input, <ruleDescriptor.index>, <ruleDescriptor.name>_StartIndex);
<endif>
<endif>
>>
```

```
/** How to generate a rule in the lexer; naked blocks are used for
*  fragment rules.
*/
lexerRule(ruleName,nakedBlock,ruleDescriptor,block,memoize) ::= <<
// $ANTLR start "<ruleName>"
<ruleDescriptor.parameterScope>
procedure
T<grammar.recognizerName>.m<ruleName>(<ruleDescriptor.parameterScope:parameterScope(scope=it)>);
var
 <ruleDescriptor.actions.vars>
 Locals: TLocalStorage;
 TokenType, Channel: Integer;
 Alt: array [0..<grammar.numberOfDecisions>] of Integer;
 <lexerRuleLabelDefDeclarations()>
begin
 Locals.Initialize;
 try
   <ruleAttributeScope(scope=ruleDescriptor.ruleScope)>
   <if(trace)>TraceIn("<ruleName>", <ruleDescriptor.index>);<endif>
   <ruleScopeSetUp()>
   <ruleDeclarations()>
   try
<if(nakedBlock)>

   <ruleMemoization(name=ruleName)>
     <lexerRuleLabelDefs()>
     <ruleDescriptor.actions.init>
     <block><\n>
<else>
     TokenType := <ruleName>;
     Channel := DEFAULT_TOKEN_CHANNEL;
     <ruleMemoization(name=ruleName)>
     <lexerRuleLabelDefs()>
     <ruleDescriptor.actions.init>
     <block>
     <ruleCleanUp()>
     State.TokenType := TokenType;
     State.Channel := Channel;
     <(ruleDescriptor.actions.after):execAction()>
<endif>
   finally
     <if(trace)>TraceOut("<ruleName>", <ruleDescriptor.index>);<endif>
     <ruleScopeCleanUp()>
     <memoize()>
   end;
 finally
   Locals.Finalize;
 end;
```

```
end;
// $ANTLR end "<ruleName>"
>>

/** How to generate code for the implicitly-defined lexer grammar rule
*  that chooses between lexer rules.
*/
tokensRule(ruleName,nakedBlock,args,block,ruleDescriptor) ::= <<
procedure T<grammar.recognizerName>.mTokens;
var
 Alt: array [0..<grammar.numberOfDecisions>] of Integer;
begin
 <block>
end;

procedure T<grammar.recognizerName>.DoTokens;
begin
  mTokens;
end;
>>

// S U B R U L E S

/** A (...) subrule with multiple alternatives */
block(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
(* <fileName>:<description> *)
Alt[<decisionNumber>] := <maxAlt>;
<decls>
<@predecision()>
<decision>
<@postdecision()>
<@prebranch()>
case Alt[<decisionNumber>] of
 <alts:altSwitchCase()>
end;
<@postbranch()>
>>

/** A rule block with multiple alternatives */
ruleBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
(* <fileName>:<description> *)
Alt[<decisionNumber>] := <maxAlt>;
<decls>
<@predecision()>
<decision>
<@postdecision()>
case Alt[<decisionNumber>] of
 <alts:altSwitchCase()>
```

```
end;
>>

ruleBlockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
(* <fileName>:<description> *)
<decls>
<@prealt()>
<alts>
<@postalt()>
>>

/** A special case of a (...) subrule
 with a single alternative */
blockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
(* <fileName>:<description> *)
<decls>
<@prealt()>
<alts>
<@postalt()>
>>

/** A (..)+ block with 1 or more alternatives */
positiveClosureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
(* <fileName>:<description> *)
FCnt[<decisionNumber>] := 0;
<decls>
<@preloop()>
while (True) do
begin
 Alt[<decisionNumber>] := <maxAlt>;
 <@predecision()>
 <decision>
 <@postdecision()>
 case Alt[<decisionNumber>] of
   <alts:altSwitchCase()>
 else
   begin
     if (FCnt[<decisionNumber>] >= 1) then
       Break;
     <ruleBacktrackFailure()>
     raise EEarlyExitException.Create(<decisionNumber>, Input);
     <@earlyExitException()>
   end;
 end;
 Inc(FCnt[<decisionNumber>]);
end;
<@postloop()>
```

```
>>

positiveClosureBlockSingleAlt ::= positiveClosureBlock

/** A (..)* block with 1 or more alternatives */
closureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description)
 ::= <<
(* <fileName>:<description> *)
<decls>
<@preloop()>
while (True) do
begin
 Alt[<decisionNumber>] := <maxAlt>;
 <@predecision()>
 <decision>
 <@postdecision()>
 case Alt[<decisionNumber>] of
   <alts:altSwitchCase()>
 else
   Break;
 end;
end;
<@postloop()>
>>

closureBlockSingleAlt ::= closureBlock

/** Optional blocks (x)? are translated to (x|) by before code generation
*  so we can just use the normal block template
*/
optionalBlock ::= block

optionalBlockSingleAlt ::= block

/** A case in a switch that jumps to an alternative given the alternative
*  number.  A DFA predicts the alternative and then a simple switch
*  does the jump to the code that actually matches that alternative.
*/
altSwitchCase() ::= <<
<i>:
 <@prealt()>
 <it><\n>
>>

/** An alternative is just a list of elements; at outermost level */
alt(elements,altNum,description,autoAST,outerAlt,treeLevel,rew)
 ::= <<
(* <fileName>:<description> *)
```

```
begin
 <@declarations()>
 <elements:element()>
 <rew>
 <@cleanup()>
end;
>>

/** What to emit when there is no rewrite.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel, treeLevel) ::= ""

// E L E M E N T S

/** Dump the elements one per line */
element() ::= <<
<@prematch()>
<it.el>
>>

/** match a token optionally with a label in front */
tokenRef(token,label,elementIndex,terminalOptions) ::= <<
<if(label)><label> := <endif>Match(Input, <token>,
FOLLOW_<token>_in_<ruleName><elementIndex>)<if(label)> as
I<labelType><endif>;<\n><checkRuleBacktrackFailure()>
>>

/** ids+=ID */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRef(...)>
<listLabel(elem=label,...)>
>>

listLabel(label,elem) ::= <<
if (list_<label> = nil) then list_<label> := TList\<IANTLRInterface\>.Create;
list_<label>.Add(<elem>);<\n>
>>

/** match a character */
charRef(char,label) ::= <<
<if(label)>
<label> := Input.LA(1);<\n>
<endif>
Match(<char>);
 <checkRuleBacktrackFailure()>
>>
```

```
/** match a character range */
charRangeRef(a,b,label) ::= <<
<if(label)>
<label> := Input.LA(1);<\n>
<endif>
MatchRange(<a>, <b>); <checkRuleBacktrackFailure()>
>>

/** For now, sets are interval tests and must be tested inline */
matchSet(s,label,elementIndex,postmatchCode="") ::= <<
<if(label)>
<if(LEXER)>
<label> := Input.LA(1);<\n>
<else>
<label> := Input.LT(1) as I<labelType>;<\n>
<endif>
<endif>
if (<s>) then
begin
 Input.Consume;
 <postmatchCode>
 <if(!LEXER)>
 State.ErrorRecovery := False;<endif>
 <if(backtracking)>State.Failed := False;<endif>
end
else
begin
 <ruleBacktrackFailure()>
 FException := EMismatchedSetException.Create(nil, Input);
 <@mismatchedSetException()>
<if(LEXER)>
 Recover(FException);
 raise FException;<\n>
<else>
 raise FException;
 <! use following code to make it recover inline; remove throw mse;
 RecoverFromMismatchedSet(input,mse,FOLLOW_set_in_<ruleName><elementIndex>);
  !>
<endif>
end;<\n>
>>

matchRuleBlockSet ::= matchSet

matchSetAndListLabel(s,label,elementIndex,postmatchCode) ::= <<
<matchSet(...)>
<listLabel(elem=label,...)>
>>
```

```
/** Match a string literal */
lexerStringRef(string,label,elementIndex) ::= <<
<if(label)>
Locals.AsInteger['<label>Start'] := CharIndex;
Match(<string>); <checkRuleBacktrackFailure()>
<label> := TCommonToken.Create(Input, TToken.INVALID_TOKEN_TYPE, TToken.DEFAULT_CHANNEL,
Locals.AsInteger['<label>Start'], CharIndex-1);
<else>
Match(<string>); <checkRuleBacktrackFailure()>
<endif>
>>

wildcard(label,elementIndex) ::= <<
<if(label)>
<label> := Input.LT(1) as I<labelType>;<\n>
<endif>
MatchAny(input); <checkRuleBacktrackFailure()>
>>

wildcardAndListLabel(label,elementIndex) ::= <<
<wildcard(...)>
<listLabel(elem=label,...)>
>>

/** Match . wildcard in lexer */
wildcardChar(label, elementIndex) ::= <<
<if(label)>
<label> := Input.LA(1);<\n>
<endif>
MatchAny(); <checkRuleBacktrackFailure()>
>>

wildcardCharListLabel(label,
 elementIndex) ::= <<
<wildcardChar(...)>
<listLabel(elem=label,...)>
>>

/** Match a rule reference by invoking it possibly with arguments
*  and a return value or values.  The 'rule' argument was the
*  target rule name, but now is type Rule, whose toString is
*  same: the rule name.  Now though you can access full rule
*  descriptor stuff.
*/
ruleRef(rule,label,elementIndex,args,scope) ::= <<
PushFollow(FOLLOW_<rule.name>_in_<ruleName><elementIndex>);
<if(label)>
```

```
<label> := <if(scope)><scope:delegateName()>.<endif><rule.name>(<args; separator=", ">);<\n>
<else>
<if(scope)>T<scope.recognizerName>(IANTLRObject(<scope:delegateName()>).Implementor).<endif><rule.name
>(<args; separator=", ">);<\n>
<endif>
State.FollowingStackPointer := State.FollowingStackPointer - 1;
<checkRuleBacktrackFailure()>
>>

/** ids+=r */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabel(elem=label,...)>
>>

/** A lexer rule reference.
*
*  The 'rule' argument was
 the target rule name, but now
*  is type Rule, whose toString is same: the rule name.
*  Now though you can access full rule descriptor stuff.
*/
lexerRuleRef(rule,label,args,elementIndex,scope) ::= <<
<if(label)>
Locals.AsInteger['<label>Start<elementIndex>'] := CharIndex;
<if(scope)><scope:delegateName()>.<endif>m<rule.name>(<args; separator=", ">);
<checkRuleBacktrackFailure()>
<label> := TCommonToken.Create(Input, TToken.INVALID_TOKEN_TYPE, TToken.DEFAULT_CHANNEL,
 Locals.AsInteger['<label>Start<elementIndex>'], CharIndex - 1);
<else>
<if(scope)>(<scope:delegateName()>.Implementor as T<scope.recognizerName>).<endif>m<rule.name>(<args;
separator=", ">); <checkRuleBacktrackFailure()>
<endif>
>>

/** i+=INT in lexer */
lexerRuleRefAndListLabel(rule,label,args,elementIndex,scope) ::= <<
<lexerRuleRef(...)>
<listLabel(elem=label,...)>
>>

/** EOF in the lexer */
lexerMatchEOF(label,elementIndex) ::= <<
<if(label)>
Locals.AsInteger['<label>Start<elementIndex>'] := CharIndex;
Match(EOF);
 <checkRuleBacktrackFailure()>
Locals['<label>'] := TCommonToken.Create(Input, EOF, TToken.DEFAULT_CHANNEL,
```

```
Locals.AsInteger['<label>Start<elementIndex>'], CharIndex-1);
<else>
Match(EOF); <checkRuleBacktrackFailure()>
<endif>
>>

/** match ^(root children) in tree parser */
tree(root, actionsAfterRoot, children, nullableChildList,
    enclosingTreeLevel, treeLevel) ::= <<
<root:element()>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if (Input.LA(1) = TToken.DOWN) then
begin
 Match(Input, TToken.DOWN, nil); <checkRuleBacktrackFailure()>
 <children:element()>
 Match(Input, TToken.UP, nil); <checkRuleBacktrackFailure()>
end;
<else>
Match(Input, TToken.DOWN, nil); <checkRuleBacktrackFailure()>
<children:element()>
Match(Input, TToken.UP, nil);<\n><checkRuleBacktrackFailure()>
<endif>
>>

/** Every predicate is used as a validating predicate (even when it is
*  also hoisted into a prediction expression).
*/
validateSemanticPredicate(pred,description) ::= <<
if (not (<evalPredicate(...)>))
 then
begin
 <ruleBacktrackFailure()>
 raise EFailedPredicateException.Create(Input, '<ruleName>', '<description>');
end;<\n>
>>

// F i x e d  D F A  (if-then-else)

dfaState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
FLA[<decisionNumber>,<stateNumber>] := Input.LA(<k>);<\n>
<edges; separator="\nelse ">
else
begin
<if(eotPredictsAlt)>
 Alt[<decisionNumber>] := <eotPredictsAlt>;<\n>
<else>
 <ruleBacktrackFailure()>
```

```
 raise ENoViableAltException.Create('<description>', <decisionNumber>, <stateNumber>, Input);<\n>
<endif>
end;
>>

/** Same as a normal DFA state except that we don't examine lookahead
*  for the bypass alternative.  It delays error detection but this
*  is faster, smaller, and more what people expect.  For (X)? people
*  expect "if ( LA(1)==X ) match(X);" and that's it.
*/
dfaOptionalBlockState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
FLA[<decisionNumber>,<stateNumber>] := Input.LA(<k>);<\n>
<edges;
 separator="\nelse ">;
>>

/** A DFA state that is actually the loopback decision of a closure
*  loop.  If end-of-token (EOT) predicts any of the targets then it
*  should act like a default clause (i.e., no error can be generated).
*  This is used only in the lexer so that for ('a')* on the end of a rule
*  anything other than 'a' predicts exiting.
*/
dfaLoopbackState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
FLA[<decisionNumber>,<stateNumber>] := Input.LA(<k>);
<edges; separator="\nelse ">;<\n>
<if(eotPredictsAlt)>
<if(!edges)>
Alt[<decisionNumber>] := <eotPredictsAlt>; <! if no edges, don't gen ELSE !>
<else>
else
begin
 Alt[<decisionNumber>] := <eotPredictsAlt>;
end;<\n>
<endif>
<endif>
>>

/** An accept state indicates a unique alternative has been predicted */
dfaAcceptState(alt) ::= "Alt[<decisionNumber>] := <alt>;"

/** A simple edge with an expression.  If the expression is satisfied,
*  enter to the target state.  To handle gated productions,
 we may
*  have to evaluate some predicates for this edge.
*/
dfaEdge(labelExpr, targetState, predicates) ::= <<
if ((<labelExpr>)<if(predicates)> and (<predicates>)<endif>) then
begin
```

```
 <targetState>
end <! no ; here !>
>>

// F i x e d  D F A  (switch case)

/** A DFA state where a SWITCH may be generated.  The code generator
*  decides if this is possible: CodeGenerator.canGenerateSwitch().
*/
dfaStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
case Input.LA(<k>) of
 <edges; separator="\n">
else
 begin
<if(eotPredictsAlt)>
   Alt[<decisionNumber>] := <eotPredictsAlt>;
<else>
   <ruleBacktrackFailure()>
   <@noViableAltException()>
   raise ENoViableAltException.Create('<description>', <decisionNumber>, <stateNumber>, Input);<\n>
<endif>
 end;
end;<\n>
>>

dfaOptionalBlockStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
case Input.LA(<k>) of
 <edges; separator="\n">
end;<\n>
>>

dfaLoopbackStateSwitch(k, edges,eotPredictsAlt,description,stateNumber,semPredState)
 ::= <<
case Input.LA(<k>) of
 <edges; separator="\n"><\n>
<if(eotPredictsAlt)>
else
 Alt[<decisionNumber>] := <eotPredictsAlt>;<\n>
<endif>
end;<\n>
>>

dfaEdgeSwitch(labels, targetState) ::= <<
<labels:{<it>}; separator=",\n">:
 begin
   <targetState>
 end;
>>
```

```
// C y c l i c  D F A

/** The code to initiate execution of a cyclic DFA; this is used
*  in the rule to predict an alt just like the fixed DFA case.
*  The <name> attribute is inherited via the parser, lexer, ...
*/
dfaDecision(decisionNumber,description) ::= <<
Alt[<decisionNumber>] := FDFA<decisionNumber>.Predict(Input);
>>

/* Dump DFA tables.
*/
cyclicDFADeclaration(dfa) ::= <<
strict protected
 type
   TDFA<dfa.decisionNumber> = class(TDFA)
   protected
     { IDFA }
     function Description: String; override;
   public
     constructor Create(const ARecognizer: IBaseRecognizer);
   end;
 var
   FDFA<dfa.decisionNumber>: IDFA;
<if(dfa.specialStateSTs)>
strict
 protected
 function DFA<dfa.decisionNumber>_SpecialStateTransition(const DFA: IDFA; S: Integer;
   const AInput: IIntStream): Integer;<endif>
>>

cyclicDFA(dfa) ::= <<
{ T<grammar.recognizerName>.TDFA<dfa.decisionNumber> }

constructor T<grammar.recognizerName>.TDFA<dfa.decisionNumber>.Create(const ARecognizer:
IBaseRecognizer);
const
 DFA<dfa.decisionNumber>_EOT = '<dfa.javaCompressedEOT; wrap="'+\n    '">';
 DFA<dfa.decisionNumber>_EOF = '<dfa.javaCompressedEOF; wrap="'+\n    '">';
 DFA<dfa.decisionNumber>_MIN = '<dfa.javaCompressedMin; wrap="'+\n    '">';
 DFA<dfa.decisionNumber>_MAX = '<dfa.javaCompressedMax; wrap="'+\n    '">';
 DFA<dfa.decisionNumber>_ACCEPT = '<dfa.javaCompressedAccept; wrap="'+\n    '">';
 DFA<dfa.decisionNumber>_SPECIAL = '<dfa.javaCompressedSpecial; wrap="'+\n    '">';
 DFA<dfa.decisionNumber>_TRANSITION: array [0..<length(dfa.javaCompressedTransition)>-1] of String = (
   <dfa.javaCompressedTransition:{s|'<s; wrap="'+\n'">'}; separator=",\n">);
begin
```

```
  inherited Create;
 Recognizer := ARecognizer;
 DecisionNumber := <dfa.decisionNumber>;
 EOT := TDFA.UnpackEncodedString(DFA<dfa.decisionNumber>_EOT);
 EOF := TDFA.UnpackEncodedString(DFA<dfa.decisionNumber>_EOF);
 Min := TDFA.UnpackEncodedStringToUnsignedChars(DFA<dfa.decisionNumber>_MIN);
 Max := TDFA.UnpackEncodedStringToUnsignedChars(DFA<dfa.decisionNumber>_MAX);
 Accept := TDFA.UnpackEncodedString(DFA<dfa.decisionNumber>_ACCEPT);
 Special := TDFA.UnpackEncodedString(DFA<dfa.decisionNumber>_SPECIAL);
 Transition := TDFA.UnpackEncodedStringArray(DFA<dfa.decisionNumber>_TRANSITION);
end;

function T<grammar.recognizerName>.TDFA<dfa.decisionNumber>.Description: String;
begin
 Result := '<dfa.description>';
end;<\n>
<if(dfa.specialStateSTs)>
function T<grammar.recognizerName>.DFA<dfa.decisionNumber>_SpecialStateTransition(const DFA: IDFA; S: Integer;
 const AInput: IIntStream): Integer;
var
 Locals: TLocalStorage;
 <if(LEXER)>
 Input: IIntStream;
 <endif>
  <if(PARSER)>
 Input: ITokenStream;
 <endif>
 <if(TREE_PARSER)>
 Input: ITreeNodeStream;
 <endif>
 _S: Integer;
 NVAE: ENoViableAltException;
begin
 Result := -1;
 Locals.Initialize;
 try
   <if(LEXER)>
   Input := AInput;
   <endif>
   <if(PARSER)>
   Input := AInput as ITokenStream;
   <endif>
   <if(TREE_PARSER)>
   Input := AInput as ITreeNodeStream;
   <endif>
   _S := S;
   case S of
```

```
    <dfa.specialStateSTs:{state | <i0>: begin<! compressed special state numbers 0..n-1 !>
   <state> <\n>   end;}; separator="\n">
  end;
<if(backtracking)>
  if (State.Backtracking > 0) then
  begin
    State.Failed := True;
    Exit(-1);
  end;<\n>
<endif>
  NVAE := ENoViableAltException.Create(DFA.Description, <dfa.decisionNumber>, _S, Input);
  DFA.Error(NVAE);
  raise NVAE;
 finally
  Locals.Finalize;
 end;
end;<\n>
<endif>
>>

/** A state in a cyclic DFA; it's a special state and part of a big switch on
*  state.
*/
cyclicDFAState(decisionNumber,stateNumber,edges,needErrorClause,semPredState)
 ::= <<
FLA[<decisionNumber>,<stateNumber>] := Input.LA(1);<\n>
<if(semPredState)> <! get next lookahead symbol to test edges, then rewind !>
Locals.AsInteger['index<decisionNumber>_<stateNumber>'] := Input.Index;
Input.Rewind;<\n>
<endif>
S := -1;
<edges; separator="\nelse ">;
<if(semPredState)> <! return input cursor to state before we rewound !>
Input.Seek(Locals.AsInteger['index<decisionNumber>_<stateNumber>']);<\n>
<endif>
if (S >= 0) then
 Exit(S);
>>

/** Just like a fixed DFA edge, test the lookahead and indicate what
*  state to jump to next if successful.
*/
cyclicDFAEdge(labelExpr, targetStateNumber, edgeNumber, predicates) ::= <<
if ((<labelExpr>)<if(predicates)> and (<predicates>)<endif>) then
 S := <targetStateNumber>
>>

/** An edge pointing at end-of-token; essentially matches any char;
```

```
*  always jump to the target.
*/
eotDFAEdge(targetStateNumber,edgeNumber, predicates) ::= <<
S := <targetStateNumber>;<\n>
>>



//
 D F A  E X P R E S S I O N S

andPredicates(left,right) ::= "((<left>) and (<right>))"

orPredicates(operands) ::= "(<operands:{o|(<o>)}; separator=\" or \">)"

notPredicate(pred) ::= "!(<evalPredicate(...)>)"

evalPredicate(pred,description) ::= "(<pred>)"

evalSynPredicate(pred,description) ::= "<pred>()"

lookaheadTest(atom,k,atomAsInt) ::= "FLA[<decisionNumber>,<stateNumber>] = <atomAsInt>"

/** Sometimes a lookahead test cannot assume that LA(k) is in a temp variable
*  somewhere.  Must ask for the lookahead directly.
*/
isolatedLookaheadTest(atom,k,atomAsInt) ::= "Input.LA(<k>) = <atomAsInt>"

lookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= <<
((FLA[<decisionNumber>,<stateNumber>] \>= <lowerAsInt>) and (FLA[<decisionNumber>,<stateNumber>] \<=
<upperAsInt>))
>>

isolatedLookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= "(Input.LA(<k>) \>=
<lowerAsInt>) and (Input.LA(<k>) \<= <upperAsInt>)"

setTest(ranges) ::= "<ranges; separator=\")
 or (\">"

// A T T R I B U T E S

globalAttributeScope(scope) ::= <<
<scope.name>Stack := TStackList\<I<scope.name>Scope\>.Create;<\n>
<endif>
>>

globalAttributeScopeDeclaration(scope) ::= <<
<if(scope.attributes)>
strict protected
```

```
 type
   I<scope.name>Scope = interface(IANTLRObject)
   end;
   T<scope.name>Scope = class(TANTLRObject, I<scope.name>Scope)
   protected
     <scope.attributes:{<it.name>: <it.type>;}; separator="\n">
   end;
strict protected
 <scope.name>Stack: IStackList\<I<scope.name>Scope\>;
<endif>
>>

ruleAttributeScopeDeclaration(scope) ::= <<
<if(scope.attributes)>
strict protected
 type
   I<scope.name>Scope = interface(IANTLRObject)
   end;
   T<scope.name>Scope = class(TANTLRObject, I<scope.name>Scope)
   protected
     <scope.attributes:{<it.name>: <it.type>;}; separator="\n">
   end;
strict protected
 <scope.name>Stack: IStackList\<I<scope.name>Scope\>;
<endif>
>>

ruleAttributeScope(scope) ::= <<
<! protected Stack <scope.name>Stack = new
 Stack();<\n> !>
>>

ruleAttributeScopeInit(scope) ::= <<
<if(scope)>
<scope.name>Stack := TStackList\<I<scope.name>Scope\>.Create;<\n>
<endif>
>>

returnStructName() ::= "<it.name>_return"

returnType() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
<ruleDescriptor:returnStructName()>
<! I<if(TREE_PARSER)>Tree<else>Parser<endif>RuleReturnScope !>
<else>
<if(ruleDescriptor.hasSingleReturnValue)>
<ruleDescriptor.singleValueReturnType>
<else>
```

```
<! Pointer/void !>
<endif>
<endif>
>>

/** Generate the C# type associated with a single or multiple return
*  values.
*/
ruleLabelType(referencedRule) ::= <<
<if(referencedRule.hasMultipleReturnValues)>
I<referencedRule.name>_return
<else>
<if(referencedRule.hasSingleReturnValue)>
<referencedRule.singleValueReturnType>
<else>
void
<endif>
<endif>
>>

delegateName() ::= <<
<if(it.label)><it.label><else>g<it.name><endif>
>>

/** Using a type to init value map, try to init a type; if not in table
*  must be an object, default value is "null".
 */
initValue(typeName) ::= <<
<csharpTypeInitMap.(typeName)>
>>

/** Define a rule label including default value */
ruleLabelDef(label) ::= <<
<label.label.text> := <initValue(typeName=ruleLabelType(referencedRule=label.referencedRule))>;<\n>
>>

ruleLabelDefVar(label) ::= <<
<label.label.text>: <ruleLabelType(referencedRule=label.referencedRule)>;
>>

/** Define a return struct for a rule if the code needs to access its
*  start/stop tokens, tree stuff, attributes, ...  Leave a hole for
*  subgroups to stick in members.
*/
returnScope(scope) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
{ T<ruleDescriptor:returnStructName()> }
```

```
<scope.attributes:{public <it.decl>;}; separator="\n">
<@ruleReturnMembers()>
<endif>
>>

returnScopeDeclaration(scope) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
public
 type
   T<ruleDescriptor:returnStructName()> =
class(T<if(TREE_PARSER)>Tree<else>Parser<endif>RuleReturnScope, I<ruleDescriptor:returnStructName()>)
   <scope.attributes:{public
 <it.decl>;}; separator="\n">
   <@ruleReturnMembers()>
   end;
<endif>
>>

parameterScope(scope) ::= <<
<scope.attributes:{<it.decl>}; separator=", ">
>>

parameterAttributeRef(attr) ::= "<attr.name>"
parameterSetAttributeRef(attr,expr) ::= "<attr.name> := <expr>;"

scopeAttributeRef(scope,attr,index,negIndex) ::= <<
<if(negIndex)>
(<scope>Stack[<scope>Stack.Count-<negIndex>-1] as T<scope>Scope).<attr.name>
<else>
<if(index)>
(<scope>Stack[<index>] as T<scope>Scope).<attr.name>
((<scope>_scope)<scope>_stack[<index>]).<attr.name>
<else>
(<scope>Stack.Peek.Implementor as T<scope>Scope).<attr.name>
<endif>
<endif>
>>

scopeSetAttributeRef(scope,attr,expr,index,negIndex) ::= <<
<if(negIndex)>
(<scope>Stack[<scope>Stack.Count-<negIndex>-1] as T<scope>Scope).<attr.name> := <expr>;<\n>
<else>
<if(index)>
(<scope>Stack[<index>] as T<scope>Scope).<attr.name> := <expr>;<\n>
<else>
(<scope>Stack.Peek.Implementor as T<scope>Scope).<attr.name> := <expr>;<\n>
<endif>
<endif>
```

```
>>

/** $x is
 either global scope or x is rule with dynamic scope; refers
*  to stack itself not top of stack.  This is useful for predicates
*  like {$function.size()>0 && $function::name.equals("foo")}?
*/
isolatedDynamicScopeRef(scope) ::= "<scope>Stack"

/** reference an attribute of rule; might only have single return value */
ruleLabelRef(referencedRule,scope,attr) ::= <<
<if(referencedRule.hasMultipleReturnValues)>
(IfThen(Assigned(<scope>),Def(<scope>).<attr.name>,<initValue(attr.type)>))
<else>
<scope>
<endif>
>>

returnAttributeRef(ruleDescriptor,attr) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
RetVal.<attr.name>
<else>
<attr.name>
<endif>
>>

returnSetAttributeRef(ruleDescriptor,attr,expr) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
RetVal.<attr.name> := <expr>;
<else>
<attr.name> := <expr>;
<endif>
>>

/** How to translate $tokenLabel */
tokenLabelRef(label) ::= "<label>"

/** ids+=ID {$ids} or e+=expr {$e} */
listLabelRef(label) ::= "list_<label>"



// not sure the next
 are the right approach

tokenLabelPropertyRef_text(scope,attr) ::= "(Def(<scope>).Text)"
tokenLabelPropertyRef_type(scope,attr) ::= "(Def(<scope>).TokenType)"
tokenLabelPropertyRef_line(scope,attr) ::= "(Def(<scope>).Line)"
tokenLabelPropertyRef_pos(scope,attr) ::= "(Def(<scope>).CharPositionInLine)"
```

```
tokenLabelPropertyRef_channel(scope,attr) ::= "(Def(<scope>).Channel)"
tokenLabelPropertyRef_index(scope,attr) ::= "(Def(<scope>).TokenIndex)"
tokenLabelPropertyRef_tree(scope,attr) ::= "<scope>_tree"
tokenLabelPropertyRef_int(scope,attr) ::= "(StrToIntDef(Def(<scope>).Text,0))"

ruleLabelPropertyRef_start(scope,attr) ::= "(IfThen(Assigned(<scope>), Def(<scope>).Start, nil) as I<labelType>)"
ruleLabelPropertyRef_stop(scope,attr) ::= "(Def(<scope>).Stop as I<labelType>)"
ruleLabelPropertyRef_tree(scope,attr) ::= "(Def(Def(<scope>).Tree as I<ASTLabelType>))"
ruleLabelPropertyRef_text(scope,attr) ::= <<
<if(TREE_PARSER)>
IfThen(Assigned(<scope>), Input.TokenStream.ToString(
 Input.TreeAdaptor.GetTokenStartIndex(Def(<scope>).Start),
  Input.TreeAdaptor.GetTokenStopIndex(Def(<scope>).Start)), '')
<else>
IfThen(Assigned(<scope>), Input.ToString(
 (Def(<scope>).Start) as IToken,(Def(<scope>).Stop) as IToken), '')
<endif>
>>
ruleLabelPropertyRef_st(scope,attr) ::= "((<scope> != null) ? <scope>.ST : null)"

/** Isolated $RULE ref ok in lexer as it's a Token */
lexerRuleLabel(label) ::= "<label>"

lexerRuleLabelPropertyRef_type(scope,attr) ::= "(Def(<scope>).TokenType)"
lexerRuleLabelPropertyRef_line(scope,attr) ::= "(Def(<scope>).Line)"
lexerRuleLabelPropertyRef_pos(scope,attr) ::= "(IfThen(Assigned(<scope>),Def(<scope>).CharPositionInLine,-1))"
lexerRuleLabelPropertyRef_channel(scope,attr) ::= "(Def(<scope>).Channel)"
lexerRuleLabelPropertyRef_index(scope,attr) ::= "(Def(<scope>).TokenIndex)"
lexerRuleLabelPropertyRef_text(scope,attr) ::= "(Def(<scope>).Text)"
lexerRuleLabelPropertyRef_int(scope,attr) ::= "(StrToIntDef(Def(<scope>).Text,0))"

// Somebody may ref $template
 or $tree or $stop within a rule:
rulePropertyRef_start(scope,attr) ::= "(RetVal.Start as I<labelType>)"
rulePropertyRef_stop(scope,attr) ::= "(RetVal.Stop as I<labelType>)"
rulePropertyRef_tree(scope,attr) ::= "(RetVal.Tree as I<ASTLabelType>)"
rulePropertyRef_text(scope,attr) ::= <<
<if(TREE_PARSER)>
Input.TokenStream.ToString(
 Input.TreeAdaptor.GetTokenStartIndex(RetVal.Start),
 Input.TreeAdaptor.GetTokenStopIndex(RetVal.Start))
<else>
Input.ToString(RetVal.Start as IToken,Input.LT(-1))
<endif>
>>
rulePropertyRef_st(scope,attr) ::= "RetVal.ST"

lexerRulePropertyRef_text(scope,attr) ::= "Text"
```

```
lexerRulePropertyRef_type(scope,attr) ::= "TokenType"
lexerRulePropertyRef_line(scope,attr) ::= "State.TokenStartLine"
lexerRulePropertyRef_pos(scope,attr) ::= "State.TokenStartCharPositionInLine"
lexerRulePropertyRef_index(scope,attr) ::= "-1" // undefined token index in lexer
lexerRulePropertyRef_channel(scope,attr) ::= "Channel"
lexerRulePropertyRef_start(scope,attr) ::= "State.TokenStartCharIndex"
lexerRulePropertyRef_stop(scope,attr)
 ::= "(CharIndex-1)"
lexerRulePropertyRef_int(scope,attr) ::= "StrToInt(<scope>.Text)"

// setting $st and $tree is allowed in local rule. everything else
// is flagged as error
ruleSetPropertyRef_tree(scope,attr,expr) ::= "RetVal.Tree := <expr>;"
ruleSetPropertyRef_st(scope,attr,expr) ::= "RetVal.ST := <expr>;"


/** How to execute an action (only when not backtracking) */
execAction(action) ::= <<
<if(backtracking)>
<if(actions.(actionScope).synpredgate)>
if (<actions.(actionScope).synpredgate>) then
begin
 <action>
end;
<else>
if (State.Backtracking = 0) then
begin
 <action>
end;<\n>
<endif>
<else>
<action>
<endif>
>>


/** How to always execute an action even when backtracking */
execForcedAction(action) ::= "<action>"

// M I S C (properties, etc...)

bitset(name, words64) ::= <<
<name> := TBitSet.Create([<words64:{<it>};separator=",">]);<\n>
>>

bitsetDecl(name) ::= <<
<name>: IBitSet;<\n>
>>
```

codeFileExtension() ::= ".pas"

true()
 ::= "True"
false() ::= "False"

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Delphi/Delphi.stg
No license file was found, but licenses were detected in source scan.

/*
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*/

/*
* Template group file for the Objective C code generator.
* Heavily based on Java.stg
*
* Written by Kay Roepke <kroepke(at)classdump.org>
* Modified by Alan Condit <acondit(at)ipns.com>
*

```
*  This file is part of ANTLR and subject to the same license as ANTLR itself.
*/

objcTypeInitMap ::= [
   "int"          : "0",            // Integers     start out being 0
   "long"         : "0",            // Longs        start out being 0
   "float"
         : "0.0",           // Floats       start out being 0
   "double"       : "0.0",          // Doubles      start out being 0
   "BOOL"         : "NO",           // Booleans     start out being Antlr ObjC for false
   "byte"         : "0",            // Bytes        start out being 0
   "short"        : "0",            // Shorts       start out being 0
   "char"         : "0",            // Chars        start out being 0
   "id"           : "nil",          // ids          start out being nil
   default        : "nil"           // anything other than an atomic type
]

// System.Boolean.ToString() returns "True" and "False", but the proper C# literals are "true" and "false"
// The Java version of Boolean returns "true" and "false", so they map to themselves here.
booleanLiteral ::= [
 "True":"true",
 "False":"false",
 "true":"YES",
 "false":"NO",
 default:"NO"
]


className() ::= "<name><!<if(LEXER)>Lexer<else><if(TREE_PARSER)>Tree<endif>Parser<endif>!>"
leadIn(type)
 ::=
<<
/** \file
*  This <type> file was generated by $ANTLR version <ANTLRVersion>
*
*     -  From the grammar source file : <fileName>
*     -                            On : <generatedTimestamp>
<if(LEXER)>
*     -                 for the lexer : <name>Lexer
<endif>
<if(PARSER)>
*     -                for the parser : <name>Parser
<endif>
<if(TREE_PARSER)>
*     -           for the tree parser : <name>TreeParser
<endif>
*
* Editing it, at least manually, is not wise.
```

```
*
* ObjC language generator and runtime by Alan Condit, acondit|hereisanat|ipns|dotgoeshere|com.
*
*
>>

/** The overall file structure of a recognizer; stores methods for rules
*  and cyclic DFAs plus support code.
*/
outputFile( LEXER,
        PARSER,
        TREE_PARSER,
        actionScope,
        actions,
        docComment,
        recognizer,
        name,
        tokens,
        tokenNames,
        rules,
        cyclicDFAs,
        bitsets,
         buildTemplate,
        buildAST,
        rewriteMode,
        profile,
        backtracking,
        synpreds,
        memoize,
        numRules,
        fileName,
        ANTLRVersion,
        generatedTimestamp,
        trace,
        scopes,
        superClass,
        literals
        ) ::=
<<
<leadIn("OBJC source")>
*/
// $ANTLR <ANTLRVersion> <fileName> <generatedTimestamp>

<! <if(actions.(actionScope).header)>
/* =============================================================================
* This is what the grammar programmer asked us to put at the top of every file.
*/
<actions.(actionScope).header>
```

```
/* End of Header action.
* ==============================================================================
*/
<endif> !>

/* ----------------------------------------
* Include the ANTLR3 generated header file.
*/
#import "<name><!<if(LEXER)>Lexer<else><if(TREE_PARSER)>Tree<endif>Parser<endif>!>.h"
<actions.(actionScope).postinclude>
/*
 ----------------------------------------- */

<docComment>

<if(literals)>
/** String literals used by <name> that we must do things like MATCHS() with.
*  C will normally just lay down 8 bit characters, and you can use L"xxx" to
*  get wchar_t, but wchar_t is 16 bits on Windows, which is not UTF32 and so
*  we perform this little trick of defining the literals as arrays of UINT32
*  and passing in the address of these.
*/
<literals:{it | static ANTLR3_UCHAR  lit_<i>[]  = <it>;}; separator="\n">

<endif>

/* ============================================================================= */
/* =============================================================================
* Start of recognizer
*/
<recognizer>
>>
headerFileExtension() ::= ".h"

headerFile( LEXER,
            PARSER,
            TREE_PARSER,
            actionScope,
            actions,
            docComment,
            recognizer,
            name,
            tokens,

        tokenNames,
            rules,
            cyclicDFAs,
            bitsets,
```

```
          buildTemplate,
          buildAST,
          rewriteMode,
          profile,
          backtracking,
          synpreds,
          memoize,
          numRules,
          fileName,
          ANTLRVersion,
          generatedTimestamp,
          trace,
          scopes,
          superClass,
          literals
        ) ::=
<<
// $ANTLR <ANTLRVersion> <fileName> <generatedTimestamp>

<@imports>
<actions.(actionScope).preincludes>
/* ===========================================================================
* Standard antlr OBJC runtime definitions
*/
#import \<Cocoa/Cocoa.h>
#import \<ANTLR/ANTLR.h>
/* End of standard antlr3 runtime definitions
* ===========================================================================
*/
<actions.(actionScope).includes>
<@end>

<if(LEXER)>
<lexerHeaderFile(...)>
<endif>
<if(PARSER)>
<parserHeaderFile(...)>
<endif>
<if(TREE_PARSER)>
<treeParserHeaderFile(...)>
<endif>
<docComment>
>>

lexerHeaderFile(
 LEXER,
          PARSER,
          TREE_PARSER,
```

```
          actionScope,
          actions,
          docComment,
          recognizer,
          name,
          tokens,
          tokenNames,
          rules,
          cyclicDFAs,
          bitsets,
          buildTemplate,
          profile,
          backtracking,
          synpreds,
          memoize,
          numRules,
          fileName,
          ANTLRVersion,
          generatedTimestamp,
          trace,
          scopes,
          superClass="Lexer"
          ) ::=
<<

<if(actions.(actionScope).header)>
/* ==============================================================================
* This is what the grammar programmer asked us to put at the top of every file.
*/
<actions.(actionScope).header>
/* End of Header action.
* ==============================================================================
 */
<endif>

/* Start cyclicDFAInterface */
<cyclicDFAs:cyclicDFAInterface()>

#pragma mark Rule return scopes Interface start
<rules:{rule |
<rule.ruleDescriptor:{ruleDescriptor | <returnScopeInterface(scope=ruleDescriptor.returnScope)>}>}>
#pragma mark Rule return scopes Interface end
#pragma mark Tokens
#ifndef TOKENLISTAlreadyDefined
#define TOKENLISTAlreadyDefined 1
#ifdef EOF
#undef EOF
#endif
```

```
<tokens:{it | #define <it.name> <it.type>}; separator="\n">
#endif
/* interface lexer class */
@interface <className()> <@superClassName>: <superClass><@end> { // line 283
<cyclicDFAs:{dfa | DFA<dfa.decisionNumber> *dfa<dfa.decisionNumber>;}; separator="\n">
<synpreds:{pred | SEL <pred>Selector;}; separator="\n">
/* ObjC start of actions.lexer.memVars */
<actions.lexer.memVars>
/* ObjC end of actions.lexer.memVars */
}
+ (void) initialize;
+ (<className()> *)new<className()>WithCharStream:(id\<CharStream>)anInput;
/* ObjC start actions.lexer.methodsDecl */
<actions.lexer.methodsDecl>
/* ObjC
 end actions.lexer.methodsDecl */
<rules:{rule |
- (<rule.ruleDescriptor:{ruleDescriptor|<returnType()>}>)
<if(!rule.ruleDescriptor.isSynPred)>m<rule.ruleName><else><rule.ruleName>_fragment<endif>
<if(rule.ruleDescriptor.parameterScope)><rule.ruleDescriptor.parameterScope:parameterScope()><endif>; };
separator="\n"><\n>
@end /* end of <className()> interface */<\n>
>>

headerReturnScope(ruleDescriptor) ::= "<returnScopeInterface(...)>"
headerReturnType(ruleDescriptor) ::= <<
<if(LEXER)>
<if(!r.ruleDescriptor.isSynPred)>
void
<else>
<ruleDescriptor:returnType()>
<endif>
<else>
<ruleDescriptor:returnType()>
<endif>
>>
// Produce the lexer output
lexer(  grammar,
      name,
      tokens,
      scopes,
      rules,
      numRules,
      filterMode,
      labelType="CommonToken",
      superClass="Lexer"
      ) ::= <<
<cyclicDFAs:cyclicDFA()>
```

```
/** As per Terence: No returns for lexer rules! */
<!
#pragma mark Rule return scopes start
<rules:{rule | <rule.ruleDescriptor:{ruleDescriptor
 |
<returnScopeImplementation(scope=ruleDescriptor.returnScope)>}>
}>
#pragma mark Rule return scopes end
!>
@implementation <grammar.recognizerName> // line 330

+ (void) initialize
{
   [BaseRecognizer setGrammarFileName:@"<fileName>"];
}

+ (NSString *) tokenNameForType:(NSInteger)aTokenType
{
   return [[self getTokenNames] objectAtIndex:aTokenType];
}

+ (<grammar.recognizerName> *)new<grammar.recognizerName>WithCharStream:(id\<CharStream>)anInput
{
   return [[<grammar.recognizerName> alloc] initWithCharStream:anInput];
}

- (id) initWithCharStream:(id\<CharStream>)anInput
{
   self = [super initWithCharStream:anInput State:[RecognizerSharedState
newRecognizerSharedStateWithRuleLen:<numRules>+1]];
   if ( self != nil ) {
<if(memoize)>
       if ( state.ruleMemo == nil ) {
           state.ruleMemo = [[RuleStack newRuleStackWithSize:<numRules>+1] retain];
       }
       if ( [state.ruleMemo count] == 0 ) {
           // initialize the memoization cache
 - the indices are 1-based in the runtime code!
           <! [state.ruleMemo addObject:[NSNull null]];     /* dummy entry to ensure 1-basedness. */ !>
           for (NSInteger i = 0; i \< <numRules>; i++) {
               [state.ruleMemo addObject:[HashRule newHashRuleWithLen:17]];
           }
       }
<endif>
       <synpreds:{pred | <lexerSynpred(name=pred)>};separator="\n">
       <cyclicDFAs:{dfa | dfa<dfa.decisionNumber> = [DFA<dfa.decisionNumber>
newDFA<dfa.decisionNumber>WithRecognizer:self];}; separator="\n">
```

```
        <actions.lexer.init>
    }
    return self;
}

- (void) dealloc
{
    <cyclicDFAs:{dfa | [dfa<dfa.decisionNumber> release];}; separator="\n">
<actions.lexer.dealloc>
    [super dealloc];
}

/* ObjC Start of actions.lexer.methods */
<actions.lexer.methods>
/* ObjC end of actions.lexer.methods */
/* ObjC start methods() */
<@methods()>
/* ObjC end methods() */

<if(actions.lexer.reset)>
- (void) reset
{
    <actions.lexer.reset>
    [super reset];
}
<endif>

<if(filterMode)>
<filteringNextToken()>
<endif>
/*
 Start of Rules */
<rules; separator="\n">

@end /* end of <grammar.recognizerName> implementation line 397 */
>>

/** A override of Lexer.nextToken() that backtracks over mTokens() looking
*  for matches.  No error can be generated upon error; just rewind, consume
*  a token and then try again.  backtracking needs to be set as well.
*  Make rule memoization happen only at levels above 1 as we start mTokens
*  at backtracking==1.
*/
filteringNextToken() ::= <<
- (id\<Token>) nextToken
{
    while (YES) {
        if ( [input LA:1] == CharStreamEOF ) {
```

```
      return [<labelType> eofToken];
    }
    state.token = nil;
    state.channel = TokenChannelDefault;
    state.tokenStartCharIndex = input.index;
    state.tokenStartCharPositionInLine = input.charPositionInLine;
    state.tokenStartLine = input.line;
    state.text = nil;
    @try {
      NSInteger m = [input mark];
      state.backtracking
 = 1; /* means we won't throw slow exception */
      state.failed = NO;
      [self mTokens];
      state.backtracking = 0;
      /* mTokens backtracks with synpred at backtracking==2
         and we set the synpredgate to allow actions at level 1. */
      if ( state.failed ) {
        [input rewind:m];
        [input consume]; /* advance one char and try again */
      } else {
        [self emit];
        return state.token;
      }
    }
    @catch (RecognitionException *re) {
      // shouldn't happen in backtracking mode, but...
      [self reportError:re];
      [self recover:re];
    }
  }
}

- (void)memoize:(id\<IntStream\>)anInput
   RuleIndex:(NSInteger)ruleIndex
  StartIndex:(NSInteger)ruleStartIndex
{
  if ( state.backtracking > 1 ) [super memoize:anInput RuleIndex:ruleIndex StartIndex:ruleStartIndex];
}

- (BOOL)alreadyParsedRule:(id\<IntStream\>)anInput
 RuleIndex:(NSInteger)ruleIndex
{
  if ( state.backtracking > 1 ) return [super alreadyParsedRule:anInput RuleIndex:ruleIndex];
  return NO;
}
>>
```

```
actionGate() ::= "state.backtracking == 0"

filteringActionGate() ::= "state.backtracking == 1"

parserHeaderFile( LEXER,
          PARSER,
          TREE_PARSER,
          actionScope,
          actions,
          docComment,
          recognizer,
          name,
          tokens,
          tokenNames,
          rules,
          cyclicDFAs,
          bitsets,
          buildTemplate,
          profile,
          backtracking,
          synpreds,
          memoize,
          numRules,
          fileName,
          ANTLRVersion,
          generatedTimestamp,
          trace,
          scopes,
          literals,
          superClass="Parser"
          ) ::= <<
/* parserHeaderFile */
<genericParserHeaderFile(inputStreamType="id\<TokenStream>",...)>
>>

treeParserHeaderFile(
 LEXER,
          PARSER,
          TREE_PARSER,
          actionScope,
          actions,
          docComment,
          recognizer,
          name,
          tokens,
          tokenNames,
          rules,
          cyclicDFAs,
```

```
        bitsets,
        buildTemplate,
        profile,
        backtracking,
        synpreds,
        memoize,
        numRules,
        fileName,
        ANTLRVersion,
        generatedTimestamp,
        trace,
        scopes,
        literals,
        superClass="TreeParser"
        ) ::= <<
/* treeParserHeaderFile */
<genericParserHeaderFile(inputStreamType="id\<TreeNodeStream>",...)>
>>

genericParserHeaderFile( LEXER,
        PARSER,
        TREE_PARSER,
        actionScope,
        actions,
        docComment,
        recognizer,
        name,
        tokens,
        tokenNames,
        rules,
        cyclicDFAs,
        bitsets,
         buildTemplate,
        profile,
        backtracking,
        synpreds,
        memoize,
        numRules,
        fileName,
        ANTLRVersion,
        generatedTimestamp,
        trace,
        scopes,
        superClass,
        literals,
        inputStreamType
        ) ::=
<<
```

```
<if(actions.(actionScope).header)>
/* =============================================================================
* This is what the grammar programmer asked us to put at the top of every file.
*/
<actions.(actionScope).header>
/* End of Header action.
* =============================================================================
*/
<endif>

#ifndef ANTLR3TokenTypeAlreadyDefined
#define ANTLR3TokenTypeAlreadyDefined
typedef enum {
   ANTLR_EOF = -1,
   INVALID,
   EOR,
   DOWN,
   UP,
   MIN
} ANTLR3TokenType;
#endif

<cyclicDFAs:cyclicDFAInterface()>
#pragma mark Tokens
#ifndef TOKENLISTAlreadyDefined
#define TOKENLISTAlreadyDefined
 1
#ifdef EOF
#undef EOF
#endif
<tokens:{it | #define <it.name> <it.type>}; separator="\n">
#endif
#pragma mark Dynamic Global Scopes globalAttributeScopeInterface
<scopes:{it | <if(it.isDynamicGlobalScope)><globalAttributeScopeInterface(scope=it)><endif>}>
#pragma mark Dynamic Rule Scopes ruleAttributeScopeInterface
<rules:{rule |
<rule.ruleDescriptor:{ ruleDescriptor | <ruleAttributeScopeInterface(scope=ruleDescriptor.ruleScope)>}>}>
#pragma mark Rule Return Scopes returnScopeInterface
<rules:{rule |<rule.ruleDescriptor:{ ruleDescriptor |
<returnScopeInterface(scope=ruleDescriptor.returnScope)>}>}>

/* Interface grammar class */
@interface <className()> <@superClassName> : <superClass><@end> { /* line 572 */
#pragma mark Dynamic Rule Scopes ruleAttributeScopeDecl
<rules:{rule | <rule.ruleDescriptor.ruleScope:ruleAttributeScopeDecl(scope=rule.ruleDescriptor.ruleScope)>}>
#pragma mark Dynamic Global Rule Scopes globalAttributeScopeMemVar
<scopes:{it | <if(it.isDynamicGlobalScope)><globalAttributeScopeMemVar(scope=it)><endif>}><\n>
/*
```

```
 ObjC start of actions.(actionScope).memVars */
<actions.(actionScope).memVars>
/* ObjC end of actions.(actionScope).memVars */
/* ObjC start of memVars */
<@memVars()>
/* ObjC end of memVars */

<cyclicDFAs:{dfa | DFA<dfa.decisionNumber> *dfa<dfa.decisionNumber>;}; separator="\n">
<synpreds:{pred | SEL <pred>Selector;}; separator="\n">
}

/* ObjC start of actions.(actionScope).properties */
<actions.(actionScope).properties>
/* ObjC end of actions.(actionScope).properties */
/* ObjC start of properties */
<@properties()>
/* ObjC end of properties */

+ (void) initialize;
+ (<className()> *) new<className()>:(<inputStreamType>)aStream;
/* ObjC start of actions.(actionScope).methodsDecl */
<actions.(actionScope).methodsDecl>
/* ObjC end of actions.(actionScope).methodsDecl */

/* ObjC start of methodsDecl */
<@methodsDecl()>
/* ObjC end of methodsDecl */

<rules:{rule |
-
(<rule.ruleDescriptor:{ruleDescriptor|<returnType()>}>)<if(!rule.ruleDescriptor.isSynPred)><rule.ruleName><else
><rule.ruleName>_fragment<endif><if(rule.ruleDescriptor.parameterScope)><rule.ruleDescriptor.parameterScope:
parameterScope()><endif>;
 }; separator="\n"><\n>

@end /* end of <className()> interface */<\n>
>>

parser( grammar,
      name,
      scopes,
      tokens,
      tokenNames,
      rules,
      numRules,
      bitsets,
      ASTLabelType="CommonTree",
      superClass="Parser",
```

```
    labelType="CommonToken",
    members={<actions.parser.members>}
    ) ::= <<
<genericParser(inputStreamType="id\<TokenStream>", rewriteElementType="Token", ...)>
>>

/** How to generate a tree parser; same as parser except the input
*  stream is a different type.
*/
treeParser( grammar,
    name,
    scopes,
    tokens,
    tokenNames,
    globalAction,
    rules,
    numRules,
    bitsets,
    filterMode,
    labelType={<ASTLabelType>},
    ASTLabelType="CommonTree",
     superClass={<if(filterMode)><if(buildAST)>TreeRewriter<else>TreeFilter<endif><else>TreeParser<endif>},
    members={<actions.treeparser.members>}
    ) ::= <<
<genericParser(inputStreamType="id\<TreeNodeStream>", rewriteElementType="Node", ...)>
>>

/** How to generate a parser */
genericParser(  grammar,
    name,
    scopes,
    tokens,
    tokenNames,
    rules,
    numRules,
    cyclicDFAs,         // parser init -- initializes the DFAs
    bitsets,
    labelType,
    ASTLabelType,
    superClass,
    members,
    filterMode,
    rewriteElementType,
    inputStreamType
    ) ::= <<
<cyclicDFAs:cyclicDFA()>

#pragma mark Bitsets
```

```
<bitsets:{it | <bitset(name={FOLLOW_<it.name>_in_<it.inName><it.tokenIndex>}, words64=it.bits)>}>

#pragma mark Dynamic Global globalAttributeScopeImplementation
<scopes:{it | <if(it.isDynamicGlobalScope)><globalAttributeScopeImplementation(scope=it)><endif>}>

#pragma mark Dynamic
 Rule Scopes ruleAttributeScopeImplementation
<rules:{rule |
<rule.ruleDescriptor:{ ruleDescriptor | <ruleAttributeScopeImplementation(scope=ruleDescriptor.ruleScope)>}>}>

#pragma mark Rule Return Scopes returnScopeImplementation
<rules:{rule | <rule.ruleDescriptor:{ ruleDescriptor |
<returnScopeImplementation(scope=ruleDescriptor.returnScope)>}>}>

@implementation <grammar.recognizerName>  // line 637

/* ObjC start of ruleAttributeScope */
#pragma mark Dynamic Rule Scopes ruleAttributeScope
<rules:{rule | <rule.ruleDescriptor.ruleScope:ruleAttributeScope()>}>
/* ObjC end of ruleAttributeScope */
#pragma mark global Attribute Scopes globalAttributeScope
/* ObjC start globalAttributeScope */
<scopes:{it | <if(it.isDynamicGlobalScope)><globalAttributeScope()><endif>}>
/* ObjC end globalAttributeScope */
/* ObjC start actions.(actionScope).synthesize */
<actions.(actionScope).synthesize>
/* ObjC start synthesize() */
<@synthesize()>

+ (void) initialize
{
  #pragma mark Bitsets

 <bitsets:{it | <bitsetInit(name={FOLLOW_<it.name>_in_<it.inName><it.tokenIndex>}, words64=it.bits)>}>
  [BaseRecognizer setTokenNames:[[AMutableArray arrayWithObjects:@"\<invalid>", @"\<EOR>",
@"\<DOWN>", @"\<UP>", <tokenNames:{it | @<it>}; separator=", ", wrap="\n ">, nil] retain]];
  [BaseRecognizer setGrammarFileName:@"<fileName>"];
  <synpreds:{pred | <synpred(pred)>}>
}

+ (<grammar.recognizerName> *)new<grammar.recognizerName>:(<inputStreamType>)aStream
{
<if(PARSER)>
  return [[<grammar.recognizerName> alloc] initWithTokenStream:aStream];
<else><! TREE_PARSER !>
  return [[<grammar.recognizerName> alloc] initWithStream:aStream];
<endif>
}
```

```
<if(PARSER)>
- (id) initWithTokenStream:(<inputStreamType>)aStream
{
   self = [super initWithTokenStream:aStream State:[[RecognizerSharedState
newRecognizerSharedStateWithRuleLen:<numRules>+1] retain]];
   if ( self != nil ) {
<else><! TREE_PARSER !>
- (id) initWithStream:(<inputStreamType>)aStream
{
   self = [super initWithStream:aStream
 State:[[RecognizerSharedState newRecognizerSharedStateWithRuleLen:<numRules>+1] retain]];
   if ( self != nil ) {
<endif>
       <! <parserCtorBody()> !>
       <cyclicDFAs:{dfa | dfa<dfa.decisionNumber> = [DFA<dfa.decisionNumber>
newDFA<dfa.decisionNumber>WithRecognizer:self];}; separator="\n">
       <scopes:{it | <if(it.isDynamicGlobalScope)><globalAttributeScopeInit(scope=it)><endif>}>
       <rules:{rule | <rule.ruleDescriptor.ruleScope:ruleAttributeScopeInit()>}>
       /* start of actions-actionScope-init */
       <actions.(actionScope).init>
       /* start of init */
       <@init()>
   }
   return self;
}

- (void) dealloc
{
   <cyclicDFAs:{dfa | [dfa<dfa.decisionNumber> release];}; separator="\n">
   <scopes:{it | <if(it.isDynamicGlobalScope)><globalAttributeScopeDealloc(scope=it)><endif>}>
   <actions.(actionScope).dealloc>
   <@dealloc()>
   [super dealloc];
}

/* ObjC start actions.(actionScope).methods */
<actions.(actionScope).methods>
/* ObjC
 end actions.(actionScope).methods */
/* ObjC start methods() */
<@methods()>
/* ObjC end methods() */
/* ObjC start rules */
<rules; separator="\n">
/* ObjC end rules */

@end /* end of <grammar.recognizerName> implementation line 692 */<\n>
```

```
>>

parserCtorBody() ::= <<
<if(memoize)> /* parserCtorBody */
<if(grammar.grammarIsRoot)>
state.ruleMemo = [[RuleStack newRuleStack:<numRules>+1] retain];<\n> <! index from 1..n !>
<endif>
<endif>
<grammar.delegators:
{g|this.<g:delegateName()> = <g:delegateName()>;}; separator="\n">
>>

/** A simpler version of a rule template that is specific to the imaginary
*  rules created for syntactic predicates.  As they never have return values
*  nor parameters etc..., just give simplest possible method.  Don't do
*  any of the normal memoization stuff in here either; it's a waste.
*  As predicates cannot be inlined into the invoking rule, they need to
*  be in a rule by themselves.
*/
synpredRule(ruleName, ruleDescriptor, block, description, nakedBlock)
 ::=
<<
// $ANTLR start <ruleName>_fragment
- (void) <ruleName>_fragment
{
   <ruleLabelDefs()>
   <if(trace)>
      [self traceIn:\@"<ruleName>_fragment" Index:<ruleDescriptor.index>];
   @try {
      <block>
   }
   @finally {
      [self traceOut:\@"<ruleName>_fragment" Index:<ruleDescriptor.index>];
   }
<else>
   <block>
<endif>
} // $ANTLR end <ruleName>_fragment
>>

synpred(name) ::= <<
SEL <name>Selector = @selector(<name>_fragment);
<! // $ANTLR start <name>
- (BOOL) <name>
{
   state.backtracking++;
   <@start()>
   NSInteger start = [input mark];
```

```
  @try {
     [self <name>_fragment]; // can never throw exception
  }
  @catch (RecognitionException *re) {
     NSLog(@"impossible: %@\n", re.name);
  }
  BOOL success = (state.failed == NO);
  [input rewind:start];
  <@stop()>
  state.backtracking--;
  state.failed=NO;
  return success;
} // $ANTLR end <name> <\n> !>
>>

lexerSynpred(name) ::= <<
<synpred(name)>
>>

ruleMemoization(name)
 ::= <<
<if(memoize)>
if ( state.backtracking > 0 && [self alreadyParsedRule:input RuleIndex:<ruleDescriptor.index>] ) { return
<ruleReturnValue()>; }
<endif>
>>

/** How to test for failure and return from rule */
checkRuleBacktrackFailure() ::= <<
<if (backtracking)>if ( state.failed ) return <ruleReturnValue()>;<endif>
>>

/** This rule has failed, exit indicating failure during backtrack */
ruleBacktrackFailure() ::= <<
<if(backtracking)>if ( state.backtracking > 0 ) { state.failed = YES; return <ruleReturnValue()>; }<\n><endif>
>>

/** How to generate code for a rule.
*  The return type aggregates are declared in the header file (headerFile template)
*/
rule(ruleName,ruleDescriptor,block,emptyRule,description,exceptions,finally,memoize) ::= <<

/*
* $ANTLR start <ruleName>
* <fileName>:<description>
*/
- (<returnType()>) <ruleName><ruleDescriptor.parameterScope:parameterScope()>
{
```

```
    <if(trace)>[self traceIn:\@"<ruleName>" Index:<ruleDescriptor.index>];<endif>
    <if(trace)>NSLog(@"enter
 <ruleName> %@ failed=%@ backtracking=%d", [input LT:1], (state.failed==YES)?@"YES":@"NO", 
state.backtracking);<endif>
    <ruleScopeSetUp()>
    <ruleDeclarations()>
    <ruleDescriptor.actions.init>
    <@preamble()>
    @try {
        <ruleMemoization(name=ruleName)>
        <ruleLabelDefs()>
        <block>
        <ruleCleanUp()>
        <(ruleDescriptor.actions.after):execAction()>
    }
<if(exceptions)>
    <exceptions:{e|<catch(decl=e.decl,action=e.action)><\n>}>
<else><if(!emptyRule)><if(actions.(actionScope).rulecatch)>
    <actions.(actionScope).rulecatch>
<else>
    @catch (RecognitionException *re) {
        [self reportError:re];
        [self recover:input Exception:re];
        <@setErrorReturnValue()>
    }<\n>
<endif><endif><endif>
    @finally {
        <if(trace)>[self traceOut:@"<ruleName>" Index:<ruleDescriptor.index>];<endif>
        <memoize()>
        <ruleScopeCleanUp()>
        <finally>
    }
    <@postamble()>
    return <ruleReturnValue()>;
}
/*
 $ANTLR end <ruleName> */
>>

finalCode(finalBlock) ::= <<
{
    <finalBlock>
}
>>

catch(decl,action) ::= <<
@catch (<e.decl>) {
    <e.action>
```

```
}
>>

ruleDeclarations() ::= <<
/* ruleDeclarations */
<if(ruleDescriptor.hasMultipleReturnValues)>
<returnType()> retval = [<ruleDescriptor:returnStructName()> new<ruleDescriptor:returnStructName()>];
[retval setStart:[input LT:1]];<\n>
<else>
<ruleDescriptor.returnScope.attributes:{ a |
<a.type> <a.name> = <if(a.initValue)><a.initValue><else><initValue(a.type)><endif>;
}>
<endif>
<if(memoize)>
NSInteger <ruleDescriptor.name>_StartIndex = input.index;
<endif>
>>

ruleScopeSetUp() ::= <<
/* ruleScopeSetUp */
<ruleDescriptor.useScopes:{it | [<it>_stack push:[<it>_Scope new<it>_Scope]];}>
<ruleDescriptor.ruleScope:{it | [<it.name>_stack push:[<it.name>_Scope new<it.name>_Scope]];}>
>>

ruleScopeCleanUp() ::= <<
/* ruleScopeCleanUp */
<ruleDescriptor.useScopes:{it | [<it>_stack pop];}; separator="\n">
<ruleDescriptor.ruleScope:{it | [<it.name>_stack
 pop];}; separator="\n">
>>

ruleLabelDefs() ::= <%
/* ruleLabelDefs entry */<"\n">
<[ruleDescriptor.tokenLabels, ruleDescriptor.tokenListLabels,
 ruleDescriptor.wildcardTreeLabels,ruleDescriptor.wildcardTreeListLabels]
   :{it |<labelType> *<it.label.text> = nil;}; separator="\n"><"\n">
<[ruleDescriptor.tokenListLabels,ruleDescriptor.ruleListLabels,ruleDescriptor.wildcardTreeListLabels]
   :{it | AMutableArray *list_<it.label.text> = nil;}; separator="\n"><"\n">
<ruleDescriptor.ruleLabels:ruleLabelDef(); separator="\n"><"\n">
<ruleDescriptor.ruleListLabels:{ll|ParserRuleReturnScope *<ll.label.text> = nil;}; separator="\n"><"\n">
%>

lexerRuleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,
 ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleLabels]
   :{it |<labelType> *<it.label.text>=nil;}; separator="\n"
>
```

```
<ruleDescriptor.charLabels:{it |NSInteger <it.label.text>;}; separator="\n">
<[ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleListLabels]:{it |AMutableArray
 *list_<it.label.text>=nil; }; separator="\n">
>>

ruleReturnValue() ::= <%
<if(!ruleDescriptor.isSynPred)>
<if(ruleDescriptor.hasReturnValue)>
<if(ruleDescriptor.hasSingleReturnValue)>
<ruleDescriptor.singleValueReturnName>
<else>
retval
<endif>
<endif>
<endif>
%>

ruleCleanUp() ::= <<
/* token+rule list labels */
<[ruleDescriptor.tokenListLabels,ruleDescriptor.ruleListLabels]:{it |[list_<it.label.text> release];}; separator="\n">
<if(ruleDescriptor.hasMultipleReturnValues)>
<if(!TREE_PARSER)>
[retval setStop:[input LT:-1]];<\n>
<endif><endif>
>>

memoize() ::= <<
<if(memoize)>
<if(backtracking)>
if (state.backtracking > 0) [self memoize:input RuleIndex:<ruleDescriptor.index>
StartIndex:<ruleDescriptor.name>_StartIndex];
<endif><endif>
>>

/** How to generate a rule in the lexer; naked blocks are used for
*  fragment rules.
*/
lexerRule(ruleName, nakedBlock, ruleDescriptor, block, memoize) ::= <<
// $ANTLR start "<ruleName>"
- (void)
m<ruleName><if(ruleDescriptor.parameterScope)><ruleDescriptor.parameterScope:parameterScope(scope=it)><en
dif>
{
    //<if(trace)>[self traceIn:\@"<ruleName>" Index:<ruleDescriptor.index>];<endif>
   <if(trace)>NSLog(@"enter <ruleName> %C line=%d:%d failed=%@ backtracking=%d",
       [input LA:1],
       self.line,
```

```
        self.charPositionInLine,
        (state.failed==YES) ? @"YES" : @"NO",
        state.backtracking);
    <endif>
    <ruleScopeSetUp()>
    <ruleDeclarations()>
    @try {
<if(nakedBlock)>
        <ruleMemoization(name=ruleName)>
        <lexerRuleLabelDefs()>
        <ruleDescriptor.actions.init>
        <block><\n>
<else>
        NSInteger _type = <ruleName>;
        NSInteger _channel = TokenChannelDefault;
        <ruleMemoization(name=ruleName)>
        <lexerRuleLabelDefs()>
        <ruleDescriptor.actions.init>
        <block>
        <ruleCleanUp()>
        state.type = _type;
        state.channel = _channel;
        <(ruleDescriptor.actions.after):execAction()>
<endif>
    }
    @finally {

 //<if(trace)>[self traceOut:[NSString stringWithFormat:@"<ruleName> %d\n", <ruleDescriptor.index>]];<endif>
        <if(trace)>NSLog(@"exit <ruleName> %C line=%d:%d failed=%@ backtracking=%d",
                [input LA:1], self.line, self.charPositionInLine,
                (state.failed==YES) ? @"YES" : @"NO", state.backtracking);<endif>
        <ruleScopeCleanUp()>
        <memoize()>
    }
    return;
}
/* $ANTLR end "<ruleName>" */
>>

/** How to generate code for the implicitly-defined lexer grammar rule
*  that chooses between lexer rules.
*/
tokensRule(ruleName,nakedBlock,args,block,ruleDescriptor) ::= <<
- (void) mTokens
{
    <block><\n>
}
>>
```

```
// S U B R U L E S

/** A (...) subrule with multiple alternatives */
block(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
// <fileName>:<description> // block
NSInteger alt<decisionNumber>=<maxAlt>;
<decls>
<@predecision()>
<decision>
<@postdecision()>
<@prebranch()>
switch (alt<decisionNumber>)
 {
   <alts:{a | <altSwitchCase(i, a)>}>
}
<@postbranch()>
>>

/** A rule block with multiple alternatives */
ruleBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
// <fileName>:<description> //ruleblock
NSInteger alt<decisionNumber>=<maxAlt>;
<decls>
<@predecision()>
<decision>
<@postdecision()>
switch (alt<decisionNumber>) {
   <alts:{a | <altSwitchCase(i, a)>}>
}
>>

ruleBlockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
// <fileName>:<description> // ruleBlockSingleAlt
<decls>
<@prealt()>
<alts>
<@postalt()>
>>

/** A special case of a (...) subrule with a single alternative */
blockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
// <fileName>:<description> // blockSingleAlt
<decls>
<@prealt()>
<alts>
<@postalt()>
>>
```

```
/** A (..)+ block with 1 or more alternatives */
positiveClosureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description)
 ::= <<
// <fileName>:<description> // positiveClosureBlock
NSInteger cnt<decisionNumber> = 0;
<decls>
<@preloop()>
do {
   NSInteger alt<decisionNumber> = <maxAlt>;
   <@predecision()>
   <decision>
   <@postdecision()>
   switch (alt<decisionNumber>) {
       <alts:{a | <altSwitchCase(i, a)>}>
       default :
           if ( cnt<decisionNumber> >= 1 )
               goto loop<decisionNumber>;
           <ruleBacktrackFailure()>
           EarlyExitException *eee =
               [EarlyExitException newException:input decisionNumber:<decisionNumber>];
           <@earlyExitException()>
           @throw eee;
   }
   cnt<decisionNumber>++;
} while (YES);
loop<decisionNumber>: ;
<@postloop()>
>>

positiveClosureBlockSingleAlt ::= positiveClosureBlock

/** A (..)* block with 0 or more alternatives */
closureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::=
 <<
<decls>
<@preloop()>
do {
   NSInteger alt<decisionNumber>=<maxAlt>;
   <@predecision()>
   <decision>
   <@postdecision()>
   switch (alt<decisionNumber>) {
       <alts:{a | <altSwitchCase(i, a)>}>
       default :
           goto loop<decisionNumber>;
   }
```

```
} while (YES);
loop<decisionNumber>: ;
<@postloop()>
>>

closureBlockSingleAlt ::= closureBlock

/** Optional blocks (x)? are translated to (x|) by before code generation
*  so we can just use the normal block template
*/
optionalBlock ::= block

optionalBlockSingleAlt ::= block

/** A case in a switch that jumps to an alternative given the alternative
*  number.  A DFA predicts the alternative and then a simple switch
*  does the jump to the code that actually matches that alternative.
*/
altSwitchCase(altNum, alt) ::= <<
case <altNum> : ;
  <@prealt()>
  <alt>
  break;<\n>
>>

/** An alternative is just a list of elements; at outermost level */
alt(elements,altNum,description,autoAST,outerAlt,treeLevel,rew)
 ::= <<
// <fileName>:<description> // alt
{
<@declarations()>
<elements:element()>
<rew>
<@cleanup()>
}
>>

/** What to emit when there is no rewrite.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel, treeLevel) ::= ""

// E L E M E N T S

/** Dump the elements one per line */
element(e) ::= << <@prematch()><\n><e.el><\n> >>

/** match a token optionally with a label in front */
```

```
tokenRef(token,label,elementIndex,terminalOptions) ::= <<
<if(label)><label>=(<labelType> *)<endif>[self match:input TokenType:<token>
Follow:FOLLOW_<token>_in_<ruleName><elementIndex>]; <checkRuleBacktrackFailure()>
>>

/** ids+=ID */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRef(...)>
<listLabel(elem=label,...)>
>>

listLabel(label,elem) ::= <<
if (list_<label> == nil) list_<label> = [[AMutableArray arrayWithCapacity:5] retain];
[list_<label> addObject:<elem>];<\n>
>>

/** match a character */
charRef(char,label) ::= <<
<if(label)>NSInteger <label> =
 [input LA:1];<\n><endif>
[self matchChar:<char>]; <checkRuleBacktrackFailure()><\n>
>>

/** match a character range */
charRangeRef(a,b,label) ::= <<
<if(label)><label> = [input LA:1];<\n><endif>
[self matchRangeFromChar:<a> to:<b>]; <checkRuleBacktrackFailure()>
>>

/** For now, sets are interval tests and must be tested inline */
matchSet(s,label,elementIndex,terminalOptions,postmatchCode="") ::= <<
<if(label)>
<if(LEXER)>
<label> = [input LA:1];<\n>
<else>
<label> = (<labelType> *)[input LT:1]; /* matchSet */<\n>
<endif><endif>
if (<s>) {
   [input consume];
   <postmatchCode>
<if(!LEXER)>
   [state setIsErrorRecovery:NO];
<endif>
   <if(backtracking)>state.failed = NO;<\n><endif>
} else {
   <ruleBacktrackFailure()>
   MismatchedSetException *mse = [MismatchedSetException newException:nil stream:input];
   <@mismatchedSetException()>
```

```
<if(LEXER)>
<if(label)>
  mse.c = <label>;
<endif>
  [self recover:mse];
  @throw mse;
<else>
  @throw mse;
  <! use following code to
 make it recover inline; remove throw mse;
  [self recoverFromMismatchedSet:input exception:mse follow:FOLLOW_set_in_<ruleName><elementIndex>]; !>
<endif>
}<\n>
>>

matchRuleBlockSet ::= matchSet

matchSetAndListLabel(s,label,elementIndex,postmatchCode) ::= <<
<matchSet(...)>
<listLabel(elem=label,...)>
>>

/** Match a string literal */
lexerStringRef(string,label,elementIndex="0") ::= <<
<if(label)>
NSInteger <label>Start = input.index;
[self matchString:<string>]; <checkRuleBacktrackFailure()>
NSInteger StartLine<elementIndex> = self.line;
NSInteger <label>StartCharPos<elementIndex> = self.charPositionInLine;
<label> = [[<labelType> newToken:input Type:TokenTypeInvalid Channel:TokenChannelDefault
Start:<label>Start Stop:input.index] retain];
[self setLine:<label>StartLine<elementIndex>];
[self setCharPositionInLine:<label>StartCharPos<elementIndex>];
<else>
[self matchString:<string>]; <checkRuleBacktrackFailure()><\n>
<endif>
>>

wildcard(token,label,elementIndex,terminalOptions)
 ::= <<
<if(label)>
<label> = (<labelType> *)[input LT:1];<\n>
<endif>
[self matchAny:input]; <checkRuleBacktrackFailure()>
>>

wildcardAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<wildcard(...)>
```

```
<listLabel(elem=label,...)>
>>

/** Match . wildcard in lexer */
wildcardChar(label, elementIndex) ::= <<
<if(label)>
NSInteger <label> = [input LA:1];<\n>
<endif>
[self matchAny]; <checkRuleBacktrackFailure()><\n>
>>

wildcardCharListLabel(label, elementIndex) ::= <<
<wildcardChar(...)>
<listLabel(elem=label,...)>
>>

/** Match a rule reference by invoking it possibly with arguments
*  and a return value or values.  The 'rule' argument was the
*  target rule name, but now is type Rule, whose toString is
*  same: the rule name.  Now though you can access full rule
*  descriptor stuff.
*/
ruleRef(rule,label,elementIndex,args,scope) ::= <<
/* ruleRef */
[self pushFollow:FOLLOW_<rule.name>_in_<ruleName><elementIndex>];
<if(label)><label> = <endif>[self <if(scope)><scope:delegateName()>.<endif><rule.name><if(args)>:<first(args)>
 <rest(args):{ a | arg<i>:<rest(args)>}; separator=" "><endif>];<\n>
[self popFollow];
<checkRuleBacktrackFailure()><\n>
>>

/** ids+=r */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabel(elem=label,...)>
>>

/** A lexer rule reference.
*
*  The 'rule' argument was the target rule name, but now
*  is type Rule, whose toString is same: the rule name.
*  Now though you can access full rule descriptor stuff.
*/
lexerRuleRef(rule,label,args,elementIndex,scope) ::= <<
<if(label)>
NSInteger <label>Start<elementIndex> = input.index;
[self m<rule.name><if(args)>:<args; separator=" :"><endif>]; <checkRuleBacktrackFailure()><\n>
<label> = [[<labelType> newToken:input Type:TokenTypeInvalid Channel:TokenChannelDefault
```

```
Start:<label>Start<elementIndex> Stop:input.index-1] retain];
<label>.line = self.line;
<else>
[self <if(scope)><scope:delegateName()>.<endif>m<rule.name><if(args)>:<args; separator="
 :"><endif>]; <checkRuleBacktrackFailure()><\n>
<endif>
>>

/** i+=INT in lexer */
lexerRuleRefAndListLabel(rule,label,args,elementIndex,scope) ::= <<
<lexerRuleRef(...)>
<listLabel(elem=label,...)>
>>

/** EOF in the lexer */
lexerMatchEOF(label,elementIndex) ::= <<
<if(label)>
NSInteger <label>Start<elementIndex> = input.index;
[self matchChar:CharStreamEOF]; <checkRuleBacktrackFailure()><\n>
<labelType> <label> = [[<labelType> newToken:input Type:TokenTypeEOF Channel:TokenChannelDefault
Start:<label>Start<elementIndex> Stop:input.index-1] retain];
<label>.line = self.line;
<else>
[self matchChar:CharStreamEOF]; <checkRuleBacktrackFailure()><\n>
<endif>
>>

// used for left-recursive rules
recRuleDefArg()                       ::= "int <recRuleArg()>"
recRuleArg()                          ::= "_p"
recRuleAltPredicate(ruleName,opPrec)  ::= "<recRuleArg()> \<= <opPrec>"
recRuleSetResultAction()              ::= "root_0=$<ruleName>_primary.tree;"
recRuleSetReturnAction(src,name)      ::=
 "$<name>=$<src>.<name>;"

/** match ^(root children) in tree parser */
tree(root, actionsAfterRoot, children, nullableChildList, enclosingTreeLevel, treeLevel) ::= <<
<root:element()>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if ( [input LA:1] == DOWN ) {
   [self match:input TokenType:DOWN Follow:nil]; <checkRuleBacktrackFailure()>
   <children:element()>
   [self match:input TokenType:UP Follow:nil]; <checkRuleBacktrackFailure()>
}
<else>
   [self match:input TokenType:DOWN Follow:nil]; <checkRuleBacktrackFailure()>
   <children:element()>
```

```
  [self match:input TokenType:UP Follow:nil]; <checkRuleBacktrackFailure()>
<endif>
>>

/** Every predicate is used as a validating predicate (even when it is
*  also hoisted into a prediction expression).
*/
validateSemanticPredicate(pred,description) ::= <<
if ( !(<evalPredicate(...)>) ) {
  <ruleBacktrackFailure()>
  @throw [FailedPredicateException newException:@"<ruleName>" predicate:@"<description>" stream:input];
}
>>

//
 F i x e d  D F A  (if-then-else)

dfaState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
NSInteger LA<decisionNumber>_<stateNumber> = [input LA:<k>];<\n>
<edges; separator="\nelse ">
else {
<if(eotPredictsAlt)>
  alt<decisionNumber> = <eotPredictsAlt>;
<else>
  <ruleBacktrackFailure()>
  NoViableAltException *nvae = [NoViableAltException newException:<decisionNumber> state:<stateNumber> stream:input];
  nvae.c = LA<decisionNumber>_<stateNumber>;
  <@noViableAltException()>
  @throw nvae;<\n>
<endif>
}
>>

/** Same as a normal DFA state except that we don't examine lookahead
*  for the bypass alternative.  It delays error detection but this
*  is faster, smaller, and more what people expect.  For (X)? people
*  expect "if ( LA(1)==X ) match(X);" and that's it.
*/
dfaOptionalBlockState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
NSInteger LA<decisionNumber>_<stateNumber> = [input LA:<k>];<\n>
<edges; separator="\nelse ">
>>

/**
 A DFA state that is actually the loopback decision of a closure
*  loop.  If end-of-token (EOT) predicts any of the targets then it
*  should act like a default clause (i.e., no error can be generated).
```

```
*  This is used only in the lexer so that for ('a')* on the end of a rule
*  anything other than 'a' predicts exiting.
*/
dfaLoopbackState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
NSInteger LA<decisionNumber>_<stateNumber> = [input LA:<k>];
<edges; separator="\nelse "><\n>
<if(eotPredictsAlt)>
<if(!edges)>
alt<decisionNumber>=<eotPredictsAlt>; <! if no edges, don't gen ELSE !>
<else>
else {
  alt<decisionNumber> = <eotPredictsAlt>;
}<\n>
<endif><endif>
>>

/** An accept state indicates a unique alternative has been predicted */
dfaAcceptState(alt) ::= "alt<decisionNumber>=<alt>;"

/** A simple edge with an expression.  If the expression is satisfied,
*  enter to the target state.  To handle gated productions, we may
*  have to evaluate some predicates
 for this edge.
*/
dfaEdge(labelExpr, targetState, predicates) ::= <<
if ( (<labelExpr>) <if(predicates)>&& (<predicates>)<endif>) {
  <targetState>
}
>>

// F i x e d  D F A  (switch case)

/** A DFA state where a SWITCH may be generated.  The code generator
*  decides if this is possible: CodeGenerator.canGenerateSwitch().
*/
dfaStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
unichar charLA<decisionNumber> = [input LA:<k>];
switch (charLA<decisionNumber>) {
  <edges; separator="\n"><\n>
default: ;
<if(eotPredictsAlt)>
  alt<decisionNumber> = <eotPredictsAlt>;
<else>
  <ruleBacktrackFailure()>
  NoViableAltException *nvae = [NoViableAltException newException:<decisionNumber> state:<stateNumber> stream:input];
  nvae.c = charLA<decisionNumber>;
  <@noViableAltException()>
```

```
  @throw nvae;<\n>
<endif>
}<\n>
>>

dfaOptionalBlockStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch ([input LA:<k>])
 { // dfaOptionalBlockStateSwitch
  <edges; separator="\n"><\n>
}<\n>
>>

dfaLoopbackStateSwitch(k, edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch ([input LA:<k>]) { // dfaLoopbackStateSwitch
  <edges; separator="\n"><\n>
<if(eotPredictsAlt)>
default:
  alt<decisionNumber> = <eotPredictsAlt>;
  break;<\n>
<endif>
}<\n>
>>

dfaEdgeSwitch(labels, targetState) ::= <<
<labels:{it | case <it>: ;}; separator="\n">
  {
  <targetState>
  }
  break;
>>

// C y c l i c  D F A

/** The code to initiate execution of a cyclic DFA; this is used
*  in the rule to predict an alt just like the fixed DFA case.
*  The <name> attribute is inherited via the parser, lexer, ...
*/
dfaDecision(decisionNumber,description) ::= <<
alt<decisionNumber> = [dfa<decisionNumber> predict:input];
>>

/** Used in headerFile */
cyclicDFAInterface(dfa) ::= <<
#pragma mark Cyclic DFA interface start DFA<dfa.decisionNumber>
@interface DFA<dfa.decisionNumber> : DFA {
}
+ (DFA<dfa.decisionNumber>
```

```
 *) newDFA<dfa.decisionNumber>WithRecognizer:(BaseRecognizer *)theRecognizer;
- initWithRecognizer:(BaseRecognizer *)recognizer;
@end /* end of DFA<dfa.decisionNumber> interface  */<\n>
#pragma mark Cyclic DFA interface end DFA<dfa.decisionNumber><\n>
>>

/** Used in lexer/parser implementation files */
/* Dump DFA tables as run-length-encoded Strings of octal values.
* Can't use hex as compiler translates them before compilation.
* These strings are split into multiple, concatenated strings.
* Java puts them back together at compile time thankfully.
* Java cannot handle large static arrays, so we're stuck with this
* encode/decode approach.  See analysis and runtime DFA for
* the encoding methods.
*/
cyclicDFA(dfa) ::= <<
#pragma mark Cyclic DFA implementation start DFA<dfa.decisionNumber>

@implementation DFA<dfa.decisionNumber>
const static NSInteger dfa<dfa.decisionNumber>_eot[<dfa.numberOfStates>] =
   {<dfa.eot; wrap="\n     ", separator=",", null="-1">};
const
 static NSInteger dfa<dfa.decisionNumber>_eof[<dfa.numberOfStates>] =
   {<dfa.eof; wrap="\n     ", separator=",", null="-1">};
const static unichar dfa<dfa.decisionNumber>_min[<dfa.numberOfStates>] =
   {<dfa.min; wrap="\n     ", separator=",", null="-1">};
const static unichar dfa<dfa.decisionNumber>_max[<dfa.numberOfStates>] =
   {<dfa.max; wrap="\n     ", separator=",", null="-1">};
const static NSInteger dfa<dfa.decisionNumber>_accept[<dfa.numberOfStates>] =
   {<dfa.accept; wrap="\n     ", separator=",", null="-1">};
const static NSInteger dfa<dfa.decisionNumber>_special[<dfa.numberOfStates>] =
   {<dfa.special; wrap="\n     ", separator=",", null="-1">};

/** Used when there is no transition table entry for a particular state */
#define dfa<dfa.decisionNumber>_T_empty     nil

<dfa.edgeTransitionClassMap.keys:{ table |
const static NSInteger dfa<dfa.decisionNumber>_T<i0>[] =
{
    <table; separator=", ", wrap="\n ", null="-1">
\};
}; null="">

const static NSInteger *dfa<dfa.decisionNumber>_transition[]
 =
{
   <dfa.transitionEdgeTables:{whichTable|dfa<dfa.decisionNumber>_T<whichTable>}; separator=", ", wrap="\n",
null="nil">
```

```
};

+ (DFA<dfa.decisionNumber> *) newDFA<dfa.decisionNumber>WithRecognizer:(BaseRecognizer *)aRecognizer
{
   return [[[DFA<dfa.decisionNumber> alloc] initWithRecognizer:aRecognizer] retain];
}

- (id) initWithRecognizer:(BaseRecognizer *) theRecognizer
{
   self = [super initWithRecognizer:theRecognizer];
   if ( self != nil ) {
       decisionNumber = <dfa.decisionNumber>;
       eot = dfa<dfa.decisionNumber>_eot;
       eof = dfa<dfa.decisionNumber>_eof;
       min = dfa<dfa.decisionNumber>_min;
       max = dfa<dfa.decisionNumber>_max;
       accept = dfa<dfa.decisionNumber>_accept;
       special = dfa<dfa.decisionNumber>_special;
       transition = dfa<dfa.decisionNumber>_transition;
   }
   return self;
}

<if(dfa.specialStateSTs)>
/* start dfa.specialStateSTs */
- (NSInteger) specialStateTransition:(NSInteger)s
 Stream:(id\<IntStream\>)anInput
{
<if(LEXER)>
   id\<IntStream\> input = anInput;<\n>
<endif>
<if(PARSER)>
   id\<TokenStream\> input = (id\<TokenStream\>)anInput;<\n>
<endif>
<if(TREE_PARSER)>
   id\<TreeNodeStream\> input = (id\<TreeNodeStream\>)anInput;<\n>
<endif>
   switch (s) {
       <dfa.specialStateSTs:{state |
       case <i0> : ;<! compressed special state numbers 0..n-1 !>
           <state>}; separator="\n">
   }
<if(backtracking)>
   if ( [recognizer getBacktrackingLevel] > 0 ) { [recognizer setFailed:YES]; return -1; }<\n>
<endif>
   NoViableAltException *nvae = [NoViableAltException newException:<dfa.decisionNumber> state:s
stream:recognizer.input];
   // nvae.c = s;
```

```
   /* [self error:nvae]; */ <! for debugger - do later !>
   @throw nvae;
}<\n>
/* end dfa.specialStateSTs */
<endif>

- (void) dealloc
{
   //free(transition);
   [super dealloc];
}

- (NSString *) description
{
   return @"<dfa.description>";
}

<@errorMethod()>

@end /* end DFA<dfa.decisionNumber>
 implementation */<\n>
#pragma mark Cyclic DFA implementation end DFA<dfa.decisionNumber>
<\n>
>>
/** A state in a cyclic DFA; it's a special state and part of a big switch on
*  state.
*/
cyclicDFAState(decisionNumber, stateNumber, edges, needErrorClause, semPredState) ::= <<
/* cyclicDFAState */
NSInteger LA<decisionNumber>_<stateNumber> = [input LA:1];<\n>
<if(semPredState)> <! get next lookahead symbol to test edges, then rewind !>
NSInteger index<decisionNumber>_<stateNumber> = input.index;
[input rewind];<\n>
<endif>
s = -1;
<edges; separator="\nelse ">
<if(semPredState)> <! return input cursor to state before we rewound !>
[input seek:index<decisionNumber>_<stateNumber>];<\n>
<endif>
if ( s >= 0 )
   return s;
break;
>>

/** Just like a fixed DFA edge, test the lookahead and indicate what
*  state to jump to next if successful.
*/
cyclicDFAEdge(labelExpr, targetStateNumber, edgeNumber, predicates) ::= <<
```

```
/* cyclicDFAEdge */
if (<labelExpr><if(predicates)> && (<predicates>)<endif>)
 { s = <targetStateNumber>;}<\n>
>>

/** An edge pointing at end-of-token; essentially matches any char;
*  always jump to the target.
*/
eotDFAEdge(targetStateNumber,edgeNumber, predicates) ::= <<
s = <targetStateNumber>;<\n> /* eotDFAEdge */
>>

// D F A  E X P R E S S I O N S

andPredicates(left,right) ::= "(<left>&&<right>)"

orPredicates(operands) ::= "(<operands; separator=\"||\">)"

notPredicate(pred) ::= "!(<evalPredicate(pred, {})>)"

evalPredicate(pred,description) ::= "(<pred>)"

/*
* evalSynPredicate(pred,description) ::= "<pred>()"
*
* synpreds are broken in cyclic DFA special states
*  Damn! For now, work around with using the selectors directly, and by providing a trampoline evalSynPred
method in
*  DFA
*/
/* evalSynPredicate(pred,description) ::= "[self evaluateSyntacticPredicate:<pred>Selector stream:input]" */
evalSynPredicate(pred,description) ::= "[self evaluateSyntacticPredicate:@selector(<pred>_fragment)]"
/* evalSynPredicate(pred,description)
 ::= "[recognizer <pred>]" */

lookaheadTest(atom,k,atomAsInt) ::= "LA<decisionNumber>_<stateNumber>==<atom>"

/** Sometimes a lookahead test cannot assume that LA(k) is in a temp variable
*  somewhere.  Must ask for the lookahead directly.
*/
isolatedLookaheadTest(atom,k,atomAsInt) ::= "[input LA:<k>] == <atom>"

lookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= <%
(LA<decisionNumber>_<stateNumber> >= <lower> && LA<decisionNumber>_<stateNumber> \<= <upper>)
%>

isolatedLookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= "(([input LA:<k>] >=
<lower>) && ([input LA:<k>] \<= <upper>))"
```

```
setTest(ranges) ::= <%
<ranges; separator="||">
%>

// A T T R I B U T E S

memVars(scope) ::= <% <scope.attributes:{a|<a.type> <a.name>;<\n>}; separator="\n"> %>

properties(scope) ::= <%
<scope.attributes:{a|@property (assign, getter=get<a.name>, setter=set<a.name>:) <a.type> <a.name>;<\n>};
separator="\n">
%>

methodsDecl(scope) ::= <%
<scope.attributes:{a|-
 (<a.type>)get<a.name>;<\n>- (void)set<a.name>:(<a.type>)aVal;<\n>}; separator="\n">
%>

synthesize(scope) ::= <% <scope.attributes:{a|@synthesize <a.name>;}; separator="\n"> %>

methods(scope) ::= <%
<scope.attributes:{a|
- (<a.type>)get<a.name> { return( <a.name> ); \}<\n>
- (void)set<a.name>:(<a.type>)aVal { <a.name> = aVal; \}<\n>}; separator="\n">
%>

globalAttributeScopeInterface(scope) ::= <%
/* globalAttributeScopeInterface */<\n>
@interface <scope.name>_Scope : SymbolsScope {<\n>
<if(scope.attributes)>
<memVars(scope)>
<endif>
}<\n>
<if(scope.attributes)>
/* start of globalAttributeScopeInterface properties */<\n>
<properties(scope)>
/* end globalAttributeScopeInterface properties */<\n>
<endif>

+ (<scope.name>_Scope *)new<scope.name>_Scope;<\n>
- (id) init;<\n>
<if(scope.attributes)>
/* start of globalAttributeScopeInterface methodsDecl */<\n>
<methodsDecl(scope)>
/* End of globalAttributeScopeInterface methodsDecl */<\n>
<endif>
@end /* end of <scope.name>_Scope interface
```

```
 */<\n>
%>

globalAttributeScopeMemVar(scope) ::= <%
/* globalAttributeScopeMemVar */<\n>
SymbolStack *<scope.name>_stack;<\n>
<scope.name>_Scope *<scope.name>_scope;<\n>
%>

globalAttributeScopeImplementation(scope) ::= <%
@implementation <scope.name>_Scope  /* globalAttributeScopeImplementation */<\n>
<if(scope.attributes)>
/* start of synthesize -- OBJC-Line 1750 */<\n>
<synthesize(scope)><\n>
<endif>
<\n>
+ (<scope.name>_Scope *)new<scope.name>_Scope<\n>
{<\n>
   return [[<scope.name>_Scope alloc] init];<\n>
}<\n>
<\n>
- (id) init<\n>
{<\n>
   self = [super init];<\n>
   return self;<\n>
}<\n>
<\n>
<if(scope.attributes)>
/* start of iterate get and set functions */<\n>
<methods(scope)><\n>
/* End of iterate get and set functions */<\n>
<endif>
@end /* end of <scope.name>_Scope implementation */<\n><\n>
%>

globalAttributeScopeInit(scope) ::= <<
/* globalAttributeScopeInit */<\n>
<scope.name>_scope = [<scope.name>_Scope new<scope.name>_Scope];<\n>
<scope.name>_stack = [SymbolStack
 newSymbolStackWithLen:30];<\n>
>>

globalAttributeScopeDealloc(scope) ::= <% [<scope.name>_stack release];<\n> %>

globalAttributeScope(scope) ::= <%
<if(scope.name)>
static <scope.name>_stack;<\n>
<endif>
```

```
%>

ruleAttributeScopeMemVar(scope) ::= <%
/* ObjC ruleAttributeScopeMemVar */<\n>
<if(scope.attributes)>
<scope.name>_Scope *<scope.name>_scope; /* ObjC ruleAttributeScopeMemVar */<\n>
<endif>
%>

ruleAttributeScopeInterface(scope) ::= <%
<if(scope.attributes)>
/* start of ruleAttributeScopeInterface */<\n>
@interface <scope.name>_Scope : SymbolsScope {<\n>
   <memVars(scope)><\n>
}<\n>
<\n>
/* start property declarations */<\n>
<properties(scope)><\n>
/* start method declarations */<\n>
+ (<scope.name>_Scope *)new<scope.name>_Scope;<\n>
- (id) init;<\n>
<methodsDecl(scope)><\n>
@end /* end of ruleAttributeScopeInterface */<\n><\n>
<endif>
%>

ruleAttributeScopeImplementation(scope) ::= <%
<if(scope.attributes)>
@implementation <scope.name>_Scope  /* start of ruleAttributeScopeImplementation
 */<\n>
<synthesize(scope)><\n>
<\n>
+ (<scope.name>_Scope *)new<scope.name>_Scope<\n>
{<\n>
   return [[<scope.name>_Scope alloc] init];<\n>
}<\n>
<\n>
- (id) init<\n>
{<\n>
   self = [super init];<\n>
   return self;<\n>
}<\n>
<\n>
/* start of <scope.name>_Scope get and set functions */<\n>
<methods(scope)><\n>
/* End of <scope.name>_Scope get and set functions */<\n>
@end /* end of ruleAttributeScopeImplementation */<\n><\n>
<endif>
```

```
%>

ruleAttributeScopeInit(scope) ::= <%
/* ruleAttributeScopeInit */<\n>
<scope.name>_scope = [<scope.name>_Scope new<scope.name>_Scope];<\n>
<scope.name>_stack = [SymbolStack newSymbolStackWithLen:30];<\n>
%>

ruleAttributeScopeDealloc(scope) ::= <% [<scope.name>_Scope release];<\n> %>

ruleAttributeScope(scope) ::= <%
<if(scope.attributes)>
/* ruleAttributeScope */<\n>
static SymbolStack *<scope.name>_stack;<\n>
static <scope.name>_Scope *<scope.name>_scope;
<endif>
%>

ruleAttributeScopeDecl(scope) ::= <%
/* ruleAttributeScopeDecl
 */<\n>
<if(scope.attributes)>
<scope.name>_Scope *<scope.name>_scope;<\n>
<endif>
%>

returnStructName(r) ::= "<className()>_<r.name>_return"

returnType() ::= <%
<if(!ruleDescriptor.isSynPred)>
<if(ruleDescriptor.hasMultipleReturnValues)>
<ruleDescriptor:returnStructName()> *
<else>
<if(ruleDescriptor.hasSingleReturnValue)>
<ruleDescriptor.singleValueReturnType>
<else>
void
<endif>
<endif>
<else>
void
<endif>
%>

/** Generate the Objective-C type associated with a single or multiple return
*  values.
*/
ruleLabelType(referencedRule) ::= <%
```

```
<if(referencedRule.hasMultipleReturnValues)>
<className()>_<referencedRule.name>_return *<else>
<if(referencedRule.hasSingleReturnValue)><referencedRule.singleValueReturnType><else>
void<endif>
<endif>
%>

delegateName(d) ::= <% <if(d.label)><d.label><else>g<d.name><endif> %>

/** Using a type to init value map, try to init a type; if not in table
*  must be an object, default value is "null".
*/
initValue(typeName) ::= <% <objcTypeInitMap.(typeName)>
 %>

/** Define a rule label including default value */
ruleLabelDef(label) ::= <%
<ruleLabelType(referencedRule=label.referencedRule)> <label.label.text> =
<initValue(typeName=ruleLabelType(referencedRule=label.referencedRule))>;<\n>
%>

/** Define a return struct for a rule if the code needs to access its
*  start/stop tokens, tree stuff, attributes, ...  Leave a hole for
*  subgroups to stick in members.
*/
returnScopeInterface(scope) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
/* returnScopeInterface <ruleDescriptor:returnStructName()> */
@interface <ruleDescriptor:returnStructName()> :
<if(TREE_PARSER)>Tree<else>Parser<endif>RuleReturnScope { /* returnScopeInterface line 1838 */
<@memVars()> /* ObjC start of memVars() */<\n>
<if(scope.attributes)>
<memVars(scope)><\n>
<endif>
}
/* start property declarations */
<@properties()><\n>
<if(scope.attributes)>
<properties(scope)><\n>
<endif>
/* start of method declarations */<\n>
+ (<ruleDescriptor:returnStructName()> *)new<ruleDescriptor:returnStructName()>;
/*
 this is start of set and get methods */
<@methodsDecl()>  /* methodsDecl */<\n>
<if(scope.attributes)>
/* start of iterated get and set functions */<\n>
<methodsDecl(scope)><\n>
```

```
<endif>
@end /* end of returnScopeInterface interface */<\n>
<endif>
>>

returnScopeImplementation(scope) ::= <%
<if(ruleDescriptor.hasMultipleReturnValues)>
@implementation <ruleDescriptor:returnStructName()> /* returnScopeImplementation */<\n>
<@synthesize()> /* start of synthesize -- OBJC-Line 1837 */<\n>
<if(scope.attributes)>
   <synthesize(scope)><\n>
<endif>
+ (<ruleDescriptor:returnStructName()> *)new<ruleDescriptor:returnStructName()><\n>
{<\n>
   return [[[<ruleDescriptor:returnStructName()> alloc] init] retain];<\n>
}<\n>
<\n>
- (id) init<\n>
{<\n>
   self = [super init];<\n>
   return self;<\n>
}<\n>
<\n>
<@methods()><\n>
<if(scope.attributes)>
/* start of iterate get and set functions */<\n>
<methods(scope)><\n>
/* End of iterate get and set functions
 */<\n>
<endif>
<actions.(actionScope).ruleReturnMethods>
<@ruleReturnMembers()><\n>
@end /* end of returnScope implementation */<\n><\n>
<endif>
%>

parameterScope(scope) ::= <<
<! <scope.attributes:{it | :(<it.type>)<it.name>}; separator=" "> !>
<first(scope.attributes):{ a | :(<a.type>)<a.name>}> <rest(scope.attributes):{ a | arg<i>:(<a.type>)<a.name> };
separator=" ">
>>

parameterAttributeRef(attr) ::= "<attr.name>"
parameterSetAttributeRef(attr,expr) ::= "<attr.name> = <expr>;"

/** Note that the scopeAttributeRef does not have access to the
* grammar name directly
*/
```

```
scopeAttributeRef(scope,attr,index,negIndex) ::= <%
<if(negIndex)>
([((<scope>_Scope *)[<scope>_stack objectAtIndex:[<scope>_stack size]-<negIndex>-1)]).<attr.name>
<else>
<if(index)>
((<scope>_Scope *)[<scope>_stack objectAtIndex:<index>]).<attr.name>
<else>
((<scope>_Scope *)[<scope>_stack peek]).<attr.name>
<endif>
<endif>
%>

scopeSetAttributeRef(scope,attr,expr,index,negIndex) ::= <%
/* scopeSetAttributeRef */
<if(negIndex)>
((<scope>_Scope
 *)[<scope>_stack objectAtIndex:([<scope>_stack size]-<negIndex>-1)]).<attr.name> = <expr>;
<else>
<if(index)>
((<scope>_Scope *)[<scope>_stack objectAtIndex:<index>]).<attr.name> = <expr>;
<else>
((<scope>_Scope *)[<scope>_stack peek]).<attr.name> = <expr>;
<endif>
<endif>
%>

scopeAttributeRefStack() ::= <<
/* scopeAttributeRefStack */
<if(negIndex)>
((<scope>_Scope *)[<scope>_stack objectAtIndex:[<scope>_stack count]-<negIndex>-1]).<attr.name> = <expr>;
<else>
<if(index)>
((<scope>_Scope *)[<scope>_stack objectAtIndex:<index>]).<attr.name> = <expr>;
<else>
((<scope>_Scope *)[<scope>_stack peek]).<attr.name> = <expr>;
<endif>
<endif>
>>

/** $x is either global scope or x is rule with dynamic scope; refers
*  to stack itself not top of stack.  This is useful for predicates
*  like {$function.size()>0 && $function::name.equals("foo")}?
*/
isolatedDynamicScopeRef(scope) ::= "<scope>_stack"

/** reference an attribute of rule; might only have single return
 value */
ruleLabelRef(referencedRule,scope,attr) ::= <<
```

```
<if(referencedRule.hasMultipleReturnValues)>
(<scope>!=nil?<scope>.<attr.name>:<initValue(attr.type)>)
<else>
<scope>
<endif>
>>

returnAttributeRef(ruleDescriptor,attr) ::= <%
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name>  /* added to returnAttributeRef */<\n>
<else>
<attr.name><\n>
<endif>
%>

returnSetAttributeRef(ruleDescriptor,attr,expr) ::= <%
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name> =<expr>; /* added to returnSetAttributeRef */<\n>
<else>
<attr.name> = <expr>;<\n>
<endif>
%>

/** How to translate $tokenLabel */
tokenLabelRef(label) ::= "<label>"

/** ids+=ID {$ids} or e+=expr {$e} */
listLabelRef(label) ::= "list_<label>"



/* not sure the next are the right approach; and they are evaluated early; */
/* they cannot see TREE_PARSER or PARSER attributes for example. :( */

tokenLabelPropertyRef_text(scope,attr) ::= "(<scope>!=nil?<scope>.text:nil)"
tokenLabelPropertyRef_type(scope,attr)
 ::= "(<scope>!=nil?<scope>.type:0)"
tokenLabelPropertyRef_line(scope,attr) ::= "(<scope>!=nil?<scope>.line:0)"
tokenLabelPropertyRef_pos(scope,attr) ::= "(<scope>!=nil?<scope>.charPositionInLine:0)"
tokenLabelPropertyRef_channel(scope,attr) ::= "(<scope>!=nil?<scope>.channel:0)"
tokenLabelPropertyRef_index(scope,attr) ::= "(<scope>!=nil?[<scope> getTokenIndex]:0)"
tokenLabelPropertyRef_tree(scope,attr) ::= "<scope>_tree"
tokenLabelPropertyRef_int(scope,attr) ::= "(<scope>!=nil?[<scope>.text integerValue]:0)"

ruleLabelPropertyRef_start(scope,attr) ::= "(<scope>!=nil?((<labelType> *)<scope>.start):nil)"
ruleLabelPropertyRef_stop(scope,attr) ::= "(<scope>!=nil?((<labelType> *)<scope>.stopToken):nil)"
ruleLabelPropertyRef_tree(scope,attr) ::= "(<scope>!=nil?((<ASTLabelType> *)<scope>.tree):nil)"
ruleLabelPropertyRef_text(scope,attr) ::= <%
<if(TREE_PARSER)>
```

```
(<scope>!=nil?[[input getTokenStream] toStringFromStart:[[input getTreeAdaptor] getTokenStartIndex:[<scope>
getStart]]

   ToEnd:[[input getTreeAdaptor] getTokenStopIndex:[<scope> getStart]]]:0)
<else>
(<scope>!=nil?([input toStringFromToken:[<scope> getStart] ToToken:[<scope> getStop]]:0)
<endif>
%>
ruleLabelPropertyRef_st(scope,attr) ::= "(<scope>!=nil?[<scope> st]:nil)"

/** Isolated $RULE ref ok in lexer as it's a Token */
lexerRuleLabel(label) ::= "<label>"

lexerRuleLabelPropertyRef_type(scope,attr) ::= "(<scope>!=nil?<scope>.type:0)"
lexerRuleLabelPropertyRef_line(scope,attr) ::= "(<scope>!=nil?<scope>.line:0)"
lexerRuleLabelPropertyRef_pos(scope,attr) ::= "(<scope>!=nil?<scope>.charPositionInLine:-1)"
lexerRuleLabelPropertyRef_channel(scope,attr) ::= "(<scope>!=nil?<scope>.channel:0)"
lexerRuleLabelPropertyRef_index(scope,attr) ::= "(<scope>!=nil?[<scope> getTokenIndex]:0)"
lexerRuleLabelPropertyRef_text(scope,attr) ::= "(<scope>!=nil?<scope>.text:nil)"
lexerRuleLabelPropertyRef_int(scope,attr) ::="(<scope>!=nil?[<scope>.text integerValue]:0)"

// Somebody may ref $template or $tree or $stop within
 a rule:
rulePropertyRef_start(scope,attr) ::= "((<labelType> *)retval.start)"
rulePropertyRef_stop(scope,attr) ::= "((<labelType> *)retval.stopToken)"
rulePropertyRef_tree(scope,attr) ::= "((<ASTLabelType> *)retval.tree)"
rulePropertyRef_text(scope,attr) ::= <<
<if(TREE_PARSER)>
[[input getTokenStream] toStringFromStart:[[input getTreeAdaptor]
getTokenStartIndex:retval.start.token.startIndex]
                                 ToEnd:[[input getTreeAdaptor] getTokenStopIndex:retval.start.token.stopIndex]]
<else>
[input toStringFromToken:retval.start ToToken:[input LT:-1]]
<endif>
>>
rulePropertyRef_st(scope,attr) ::= "retval.st"

/* hideous: find a way to cut down on the number of templates to support read/write access */
/* TODO: also, which ones are valid to write to? ask Ter */
lexerRuleSetPropertyRef_text(scope,attr,expr) ::= "state.text = <expr>;"
lexerRuleSetPropertyRef_type(scope,attr,expr) ::= "_type"
lexerRuleSetPropertyRef_line(scope,attr,expr) ::= "state.tokenStartLine"
lexerRuleSetPropertyRef_pos(scope,attr,expr)
 ::= "state.tokenStartCharPositionInLine"
lexerRuleSetPropertyRef_index(scope,attr,expr) ::= "-1" /* undefined token index in lexer */
lexerRuleSetPropertyRef_channel(scope,attr,expr) ::= "state.channel=<expr>;"
lexerRuleSetPropertyRef_start(scope,attr,expr) ::= "state.tokenStartCharIndex"
lexerRuleSetPropertyRef_stop(scope,attr,expr) ::= "(input.index-1)"
```

```
lexerRulePropertyRef_text(scope,attr) ::= "self.text"
lexerRulePropertyRef_type(scope,attr) ::= "state.type"
lexerRulePropertyRef_line(scope,attr) ::= "state.tokenStartLine"
lexerRulePropertyRef_pos(scope,attr) ::= "state.tokenStartCharPositionInLine"
lexerRulePropertyRef_index(scope,attr) ::= "-1" // undefined token index in lexer
lexerRulePropertyRef_channel(scope,attr) ::= "_channel"
lexerRulePropertyRef_start(scope,attr) ::= "state.tokenStartCharIndex"
lexerRulePropertyRef_stop(scope,attr) ::= "(input.index-1)"
lexerRulePropertyRef_int(scope,attr) ::= "[<scope>.text integerValue]"

//
 setting $st and $tree is allowed in local rule. everything else
// is flagged as error
ruleSetPropertyRef_tree(scope,attr,expr) ::= "retval.start =<expr>;"
ruleSetPropertyRef_st(scope,attr,expr) ::= "retval.st =<expr>;" /* "<\n>#error StringTemplates are
unsupported<\n>" */



/** How to execute an action */
execAction(action) ::= <<
<if(backtracking)>
if ( <actions.(actionScope).synpredgate> ) {
   <action>
}
<else>
<action>
<endif>
>>

/** How to always execute an action even when backtracking */
execForcedAction(action) ::= "<action>"

// M I S C (properties, etc...)

bitset(name, words64) ::= <<
static ANTLRBitSet *<name>;
static const unsigned long long <name>_data[] = { <words64:{it | <it>LL};separator=", ">};<\n>
>>

bitsetInit(name, words64) ::= <<
<name> = [[ANTLRBitSet newBitSetWithBits:(const unsigned long long *)<name>_data
Count:(NSUInteger)<length(words64)>] retain];<\n>
>>

codeFileExtension() ::= ".m"
```

true_value() ::= "YES"
false_value() ::= "NO"

Found in path(s):
*
/opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/ObjC/ObjC.stg
No license file was found, but licenses were detected in source scan.

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* THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
*/

csharpVisibilityMap ::= [
"private":"private",
"protected":"protected",
"public":"public",
"fragment":"private",
default:"private"
]

```
/** The overall file structure of a recognizer; stores methods for rules
*  and cyclic DFAs plus support code.
*/
outputFile( LEXER,PARSER,TREE_PARSER, actionScope, actions,
   docComment,
 recognizer,
   name, tokens, tokenNames, rules, cyclicDFAs,
   bitsets, buildTemplate, buildAST, rewriteMode, profile,
   backtracking, synpreds, memoize, numRules,
   fileName, ANTLRVersion, generatedTimestamp, trace,
   scopes, superClass, literals) ::=
<<
//------------------------------------------------------------------------------
// \<auto-generated>
//     This code was generated by a tool.
//     ANTLR Version: <ANTLRVersion>
//
//     Changes to this file may cause incorrect behavior and will be lost if
//     the code is regenerated.
// \</auto-generated>
//------------------------------------------------------------------------------

// $ANTLR <ANTLRVersion> <fileName> <generatedTimestamp>

<if(trace)>
#define ANTLR_TRACE
<endif>
<@debugPreprocessor()>
// The variable 'variable' is assigned but its value is never used.
#pragma warning disable 168, 219
// Unreachable code detected.
#pragma warning disable 162
// Missing XML comment for publicly visible type or member
 'Type_or_Member'
#pragma warning disable 1591

<actions.(actionScope).header>

<@imports>
using System.Collections.Generic;
using Antlr.Runtime;
using Antlr.Runtime.Misc;
<if(TREE_PARSER)>
using Antlr.Runtime.Tree;
using RewriteRuleITokenStream = Antlr.Runtime.Tree.RewriteRuleTokenStream;
<endif>
using ConditionalAttribute = System.Diagnostics.ConditionalAttribute;
<@end>
```

```
<if(actions.(actionScope).namespace)>
namespace <actions.(actionScope).namespace>
{
<endif>
<docComment>
<recognizer>
<if(actions.(actionScope).namespace)>

} // namespace <actions.(actionScope).namespace>
<endif>
>>

lexerInputStreamType() ::= <<
<actions.(actionScope).inputStreamType; null="ICharStream">
>>

lexer(grammar, name, tokens, scopes, rules, numRules, filterMode, labelType="CommonToken",
superClass={<if(actions.(actionScope).superClass)><actions.(actionScope).superClass><else>Antlr.Runtime.Lexer
<endif>}) ::= <<
[System.CodeDom.Compiler.GeneratedCode("ANTLR", "<ANTLRVersion>")]
[System.CLSCompliant(false)]
<parserModifier(grammar=grammar,
 actions=actions)> partial class <grammar.recognizerName> : <@superClassName><superClass><@end>
{
 <tokens:{it|public const int <it.name; format="id">=<it.type>;}; separator="\n">
 <scopes:{it|<if(it.isDynamicGlobalScope)><globalAttributeScope(scope=it)><endif>}>
 <actions.lexer.members>

   // delegates
   <grammar.delegates:
        {g|private <g.recognizerName> <g:delegateName()>;}; separator="\n">
   // delegators
   <grammar.delegators:
        {g|private <g.recognizerName> <g:delegateName()>;}; separator="\n">
   <last(grammar.delegators):{g|private <g.recognizerName> gParent;}>

 <actions.(actionScope).ctorModifier; null="public"> <grammar.recognizerName>()<! needed by subclasses !>
 {
  OnCreated();
 }

 <actions.(actionScope).ctorModifier; null="public"> <grammar.recognizerName>(<lexerInputStreamType()>
input<grammar.delegators:{g|, <g.recognizerName> <g:delegateName()>}> )
  : this(input, new RecognizerSharedState()<grammar.delegators:{g|,
 <g:delegateName()>}>)
 {
 }
```

```
 <actions.(actionScope).ctorModifier; null="public"> <grammar.recognizerName>(<lexerInputStreamType()> input,
RecognizerSharedState state<grammar.delegators:{g|, <g.recognizerName> <g:delegateName()>}>)
  : base(input, state)
 {
<if(memoize)>
<if(grammar.grammarIsRoot)>
  state.ruleMemo = new System.Collections.Generic.Dictionary\<int, int>[<numRules>+1];<\n><! index from 1..n !>
<endif>
<endif>
  <grammar.directDelegates:
   {g|<g:delegateName()> = new <g.recognizerName>(input, this.state<trunc(g.delegators):{p|,
<p:delegateName()>}>, this);}; separator="\n">
  <grammar.delegators:
   {g|this.<g:delegateName()> = <g:delegateName()>;}; separator="\n">
  <last(grammar.delegators):{g|gParent = <g:delegateName()>;}>

  OnCreated();
 }
 public override string GrammarFileName { get { return "<fileName>"; } }

 private static readonly bool[] decisionCanBacktrack = new bool[0];

<if(grammar.hasDelegates)>
 public override <lexerInputStreamType()> CharStream
 {
  get
  {
   return
 base.CharStream;
  }
  set
  {
   base.CharStream = value;
   <grammar.directDelegates:
    {g|<g:delegateName()> = new <g.recognizerName>(input, state<trunc(g.delegators):{p|, <p:delegateName()>}>,
this);}; separator="\n">
   <grammar.delegators:
    {g|this.<g:delegateName()> = <g:delegateName()>;}; separator="\n">
   <last(grammar.delegators):{g|gParent = <g:delegateName()>;}>
  }
 }

<if(grammar.delegates)>
 public override void SetState(RecognizerSharedState state)
 {
  base.SetState(state);
  <grammar.delegates:{g|<g:delegateName()>.SetState(state);}; separator="\n">
 }
```

```
<endif>

<endif>
<if(filterMode)>
 <filteringNextToken()>
<endif>

 [Conditional("ANTLR_TRACE")]
 protected virtual void OnCreated() {}
 [Conditional("ANTLR_TRACE")]
 protected virtual void EnterRule(string ruleName, int ruleIndex) {}
 [Conditional("ANTLR_TRACE")]
 protected virtual void LeaveRule(string ruleName, int ruleIndex) {}

   <rules; separator="\n">

 <insertLexerSynpreds(synpreds)>

 #region
 DFA
 <cyclicDFAs:{dfa | DFA<dfa.decisionNumber> dfa<dfa.decisionNumber>;}; separator="\n">

 protected override void InitDFAs()
 {
  base.InitDFAs();
  <cyclicDFAs:{dfa | dfa<dfa.decisionNumber> = new DFA<dfa.decisionNumber>(this<if(dfa.specialStateSTs)>, SpecialStateTransition<dfa.decisionNumber><endif>);}; separator="\n">
 }

 <cyclicDFAs:cyclicDFA()> <! dump tables for all DFA !>
 #endregion

}
>>

/** A override of Lexer.nextToken() that backtracks over mTokens() looking
*  for matches.  No error can be generated upon error; just rewind, consume
*  a token and then try again.  backtracking needs to be set as well.
*  Make rule memoization happen only at levels above 1 as we start mTokens
*  at backtracking==1.
*/
filteringNextToken() ::= <<
public override IToken NextToken()
{
 while (true)
 {
  if (input.LA(1) == CharStreamConstants.EndOfFile)
  {
```

```
   IToken eof = new CommonToken((ICharStream)input, CharStreamConstants.EndOfFile, TokenChannels.Default,
input.Index,
 input.Index);
   eof.Line = Line;
   eof.CharPositionInLine = CharPositionInLine;
   return eof;
  }
  state.token = null;
  state.channel = TokenChannels.Default;
  state.tokenStartCharIndex = input.Index;
  state.tokenStartCharPositionInLine = input.CharPositionInLine;
  state.tokenStartLine = input.Line;
  state.text = null;
  try
  {
   int m = input.Mark();
   state.backtracking=1;<! means we won't throw slow exception !>
   state.failed=false;
   mTokens();
   state.backtracking=0;
   <! mTokens backtracks with synpred at backtracking==2
      and we set the synpredgate to allow actions at level 1. !>
   if (state.failed)
   {
    input.Rewind(m);
    input.Consume();<! advance one char and try again !>
   }
   else
   {
    Emit();
    return state.token;
   }
  }
  catch (RecognitionException re)
  {
   // shouldn't happen in backtracking mode, but...
   ReportError(re);
   Recover(re);
  }
 }
}

public override void Memoize(IIntStream input, int ruleIndex, int ruleStartIndex)
{
 if
 (state.backtracking > 1)
  base.Memoize(input, ruleIndex, ruleStartIndex);
}
```

```
public override bool AlreadyParsedRule(IIntStream input, int ruleIndex)
{
 if (state.backtracking > 1)
  return base.AlreadyParsedRule(input, ruleIndex);

 return false;
}
>>

actionGate() ::= "state.backtracking == 0"

filteringActionGate() ::= "state.backtracking == 1"

/** How to generate a parser */
genericParser(grammar, name, scopes, tokens, tokenNames, rules, numRules,
             bitsets, inputStreamType, superClass,
             labelType, members, rewriteElementType,
             filterMode, ASTLabelType="object") ::= <<
[System.CodeDom.Compiler.GeneratedCode("ANTLR", "<ANTLRVersion>")]
[System.CLSCompliant(false)]
<parserModifier(grammar=grammar, actions=actions)> partial class <grammar.recognizerName> :
<@superClassName><superClass><@end>
{
<if(grammar.grammarIsRoot)>
 internal static readonly string[] tokenNames = new string[] {
  "\<invalid>", "\<EOR>", "\<DOWN>", "\<UP>", <tokenNames;
 separator=", ">
 };
<endif>
 <tokens:{it|public const int <it.name; format="id">=<it.type>;}; separator="\n">

<if(grammar.delegates)>
 // delegates
 <grammar.delegates:
   {g|private <g.recognizerName> <g:delegateName()>;}; separator="\n">
<endif>
<if(grammar.delegators)>
 // delegators
 <grammar.delegators:
   {g|private <g.recognizerName> <g:delegateName()>;}; separator="\n">
 <last(grammar.delegators):{g|private <g.recognizerName> gParent;}>
<endif>

<if(grammar.delegates)>
 public override void SetState(RecognizerSharedState state)
 {
  base.SetState(state);
```

```
  <grammar.delegates:{g|<g:delegateName()>.SetState(state);}; separator="\n">
 }

<if(TREE_PARSER)>
 public override void SetTreeNodeStream(ITreeNodeStream input)
 {
  base.SetTreeNodeStream(input);
  <grammar.delegates:{g|<g:delegateName()>.SetTreeNodeStream(input);}; separator="\n">
 }
<endif>
<endif>

 <scopes:{it|<if(it.isDynamicGlobalScope)><globalAttributeScope(scope=it)><endif>}>
 <@members()>

 public override
 string[] TokenNames { get { return <grammar.composite.rootGrammar.recognizerName>.tokenNames; } }
 public override string GrammarFileName { get { return "<fileName>"; } }

 <members>

 [Conditional("ANTLR_TRACE")]
 protected virtual void OnCreated() {}
 [Conditional("ANTLR_TRACE")]
 protected virtual void EnterRule(string ruleName, int ruleIndex) {}
 [Conditional("ANTLR_TRACE")]
 protected virtual void LeaveRule(string ruleName, int ruleIndex) {}

 #region Rules
 <rules; separator="\n">
 #endregion Rules

<if(grammar.delegatedRules)>
<! generate rule/method definitions for imported rules so they
  appear to be defined in this recognizer. !>
 #region Delegated rules
<grammar.delegatedRules:{ruleDescriptor|
 <ruleModifier(grammar=grammar,ruleDescriptor=ruleDescriptor)> <returnType(ruleDescriptor)>
<ruleDescriptor.name; format="id">(<ruleDescriptor.parameterScope:parameterScope()>) <!throws
RecognitionException !>{ <if(ruleDescriptor.hasReturnValue)>return
<endif><ruleDescriptor.grammar:delegateName()>.<ruleDescriptor.name;
 format="id">(<if(ruleDescriptor.parameterScope)><ruleDescriptor.parameterScope.attributes:{a|<a.name;
format="id">}; separator=", "><endif>); \}}; separator="\n">
 #endregion Delegated rules
<endif>

 <insertSynpreds(synpreds)>
```

```
<if(cyclicDFAs)>
 #region DFA
 <cyclicDFAs:{dfa | private DFA<dfa.decisionNumber> dfa<dfa.decisionNumber>;}; separator="\n">

 protected override void InitDFAs()
 {
  base.InitDFAs();
  <cyclicDFAs:{dfa | dfa<dfa.decisionNumber> = new DFA<dfa.decisionNumber>( this<if(dfa.specialStateSTs)>,
SpecialStateTransition<dfa.decisionNumber><endif> );}; separator="\n">
 }

 <cyclicDFAs:cyclicDFA()><! dump tables for all DFA !>
 #endregion DFA
<endif>

<if(bitsets)>
 #region Follow sets
 private static class Follow
 {
  <bitsets:{it|<bitset(name={_<it.name>_in_<it.inName><it.tokenIndex>}, words64=it.bits)>}; separator="\n">
 }
 #endregion Follow sets
<endif>
}
>>

@genericParser.members() ::= <<
#if ANTLR_DEBUG
private static readonly
 bool[] decisionCanBacktrack =
 new bool[]
 {
  false, // invalid decision
  <grammar.decisions:{d | <d.dfa.hasSynPred>}; wrap="\n", separator=", ">
 };
#else
private static readonly bool[] decisionCanBacktrack = new bool[0];
#endif
<! WARNING. bug in ST: this is cut-n-paste into Dbg.stg !>
<actions.(actionScope).ctorModifier; null="public"> <grammar.recognizerName>(<inputStreamType>
input<grammar.delegators:{g|, <g.recognizerName> <g:delegateName()>}>)
 : this(input, new RecognizerSharedState()<grammar.delegators:{g|, <g:delegateName()>}>)
{
}
<actions.(actionScope).ctorModifier; null="public"> <grammar.recognizerName>(<inputStreamType> input,
RecognizerSharedState state<grammar.delegators:{g|, <g.recognizerName> <g:delegateName()>}>)
 : base(input, state)
{
```

```
<if(grammar.directDelegates)>
 <grammar.directDelegates:
  {g|<g:delegateName()> = new <g.recognizerName>(input, state<trunc(g.delegators):{p|, <p:delegateName()>}>,
this);}; separator="\n">
<endif>
<if(grammar.indirectDelegates)>
 <grammar.indirectDelegates:{g
 | <g:delegateName()> = <g.delegator:delegateName()>.<g:delegateName()>;}; separator="\n">
<endif>
<if(grammar.delegators)>
 <last(grammar.delegators):{g|gParent = <g:delegateName()>;}>
<endif>
 <parserCtorBody()>
 OnCreated();
}
>>

// imported grammars are 'public' (can't be internal because their return scope classes must be accessible)
parserModifier(grammar, actions) ::= <<
<if(grammar.grammarIsRoot)><actions.(actionScope).modifier; null="public"><else>public<endif>
>>

parserCtorBody() ::= <<
<if(memoize)>
<if(grammar.grammarIsRoot)>
this.state.ruleMemo = new System.Collections.Generic.Dictionary\<int,
int>[<length(grammar.allImportedRules)>+1];<\n><! index from 1..n !>
<endif>
<endif>
<grammar.delegators:
{g|this.<g:delegateName()> = <g:delegateName()>;}; separator="\n">
>>

parser(grammar, name, scopes, tokens, tokenNames, rules, numRules, bitsets,
      ASTLabelType="object",
superClass={<if(actions.(actionScope).superClass)><actions.(actionScope).superClass><else>Antlr.Runtime.Parser
<endif>},
 labelType="IToken",
      members={<actions.parser.members>}) ::= <<
<genericParser(inputStreamType="ITokenStream", rewriteElementType="IToken", ...)>
>>

/** How to generate a tree parser; same as parser except the input
*  stream is a different type.
*/
treeParser(grammar, name, scopes, tokens, tokenNames, globalAction, rules,
          numRules, bitsets, filterMode, labelType={<ASTLabelType>}, ASTLabelType="object",
superClass={<if(actions.(actionScope).superClass)><actions.(actionScope).superClass><else>Antlr.Runtime.Tree.<
```

```
if(filterMode)><if(buildAST)>TreeRewriter<else>TreeFilter<endif><else>TreeParser<endif><endif>},
         members={<actions.treeparser.members>}) ::= <<
<genericParser(inputStreamType="ITreeNodeStream", rewriteElementType="Node", ...)>
>>

/** A simpler version of a rule template that is specific to the imaginary
*  rules created for syntactic predicates.  As they never have return values
*
 nor parameters etc..., just give simplest possible method.  Don't do
*  any of the normal memoization stuff in here either; it's a waste.
*  As predicates cannot be inlined into the invoking rule, they need to
*  be in a rule by themselves.
*/
synpredRule(ruleName, ruleDescriptor, block, description, nakedBlock) ::=
<<
[Conditional("ANTLR_TRACE")]
protected virtual void EnterRule_<ruleName>_fragment() {}
[Conditional("ANTLR_TRACE")]
protected virtual void LeaveRule_<ruleName>_fragment() {}

// $ANTLR start <ruleName>
<ruleModifier(grammar,ruleDescriptor)> void
<ruleName>_fragment(<ruleDescriptor.parameterScope:parameterScope()>)
{
 <ruleLabelDefs()>
 EnterRule_<ruleName>_fragment();
 EnterRule("<ruleName>_fragment", <ruleDescriptor.index>);
 TraceIn("<ruleName>_fragment", <ruleDescriptor.index>);
 try
 {
  <block>
 }
 finally
 {
  TraceOut("<ruleName>_fragment", <ruleDescriptor.index>);
  LeaveRule("<ruleName>_fragment", <ruleDescriptor.index>);
  LeaveRule_<ruleName>_fragment();
 }
}
//
 $ANTLR end <ruleName>
>>

insertLexerSynpreds(synpreds) ::= <<
<insertSynpreds(synpreds)>
>>

insertSynpreds(synpreds) ::= <<
```

```
<if(synpreds)>
#region Synpreds
private bool EvaluatePredicate(System.Action fragment)
{
 bool success = false;
 state.backtracking++;
 <@start()>
 try { DebugBeginBacktrack(state.backtracking);
 int start = input.Mark();
 try
 {
  fragment();
 }
 catch ( RecognitionException re )
 {
  System.Console.Error.WriteLine("impossible: "+re);
 }
 success = !state.failed;
 input.Rewind(start);
 } finally { DebugEndBacktrack(state.backtracking, success); }
 <@stop()>
 state.backtracking--;
 state.failed=false;
 return success;
}
#endregion Synpreds
<endif>
>>

ruleMemoization(name) ::= <<
<if(memoize)>
if (state.backtracking > 0 && AlreadyParsedRule(input, <ruleDescriptor.index>)) { <returnFromRule()> }
<endif>
>>

/** How to test for failure and return from rule */
checkRuleBacktrackFailure() ::= <<
<if(backtracking)>if (state.failed) <returnFromRule()><endif>
>>

/**
 This rule has failed, exit indicating failure during backtrack */
ruleBacktrackFailure() ::= <<
<if(backtracking)>if (state.backtracking>0) {state.failed=true; <returnFromRule()>}<endif>
>>

ruleWrapperMap ::= [
 "bottomup":{<ruleWrapperBottomup()>},
```

```
 "topdown":{<ruleWrapperTopdown()>},
 default:""
]

ruleWrapperBottomup() ::= <<
<if(TREE_PARSER && filterMode)>
protected override <if(buildAST)>IAstRuleReturnScope<else>void<endif> Bottomup() { return bottomup(); }
<endif>
>>

ruleWrapperTopdown() ::= <<
<if(TREE_PARSER && filterMode)>
protected override <if(buildAST)>IAstRuleReturnScope<else>void<endif> Topdown() { return topdown(); }
<endif>
>>

/** How to generate code for a rule.  This includes any return type
*  data aggregates required for multiple return values.
*/
rule(ruleName,ruleDescriptor,block,emptyRule,description,exceptions,finally,memoize) ::= <<
<ruleAttributeScope(scope=ruleDescriptor.ruleScope)>
<returnScope(ruleDescriptor.returnScope)>

[Conditional("ANTLR_TRACE")]
protected
 virtual void EnterRule_<ruleName>() {}
[Conditional("ANTLR_TRACE")]
protected virtual void LeaveRule_<ruleName>() {}
<ruleWrapperMap.(ruleName)>
// $ANTLR start "<ruleName>"
// <fileName>:<description>
[GrammarRule("<ruleName>")]
<ruleModifier(grammar=grammar,ruleDescriptor=ruleDescriptor)> <returnType(ruleDescriptor)> <ruleName;
format="id">(<ruleDescriptor.parameterScope:parameterScope()>)
{
 EnterRule_<ruleName>();
 EnterRule("<ruleName>", <ruleDescriptor.index>);
 TraceIn("<ruleName>", <ruleDescriptor.index>);
   <ruleScopeSetUp()>
   <ruleDeclarations()>
   <ruleLabelDefs()>
   <ruleDescriptor.actions.init>
 try { DebugEnterRule(GrammarFileName, "<ruleName>");
 DebugLocation(<ruleDescriptor.tree.line>, <ruleDescriptor.EORNode.charPositionInLine>);
 <@preamble()>
 try
 {
  <ruleMemoization(name=ruleName)>
```

```
  <block>
  <ruleCleanUp()>
  <(ruleDescriptor.actions.after):execAction()>
 }
<if(exceptions)>
 <exceptions:{e|<catch(decl=e.decl,action=e.action)><\n>}>
<else>
<if(!emptyRule)>
<if(actions.(actionScope).rulecatch)>
 <actions.(actionScope).rulecatch>
<else>
 catch
 (RecognitionException re)
 {
  ReportError(re);
  Recover(input,re);
 <@setErrorReturnValue()>
 }
<endif>
<endif>
<endif>
 finally
 {
  TraceOut("<ruleName>", <ruleDescriptor.index>);
  LeaveRule("<ruleName>", <ruleDescriptor.index>);
  LeaveRule_<ruleName>();
      <memoize()>
      <ruleScopeCleanUp()>
      <finally>
   }
 DebugLocation(<ruleDescriptor.EORNode.line>, <ruleDescriptor.EORNode.charPositionInLine>);
 } finally { DebugExitRule(GrammarFileName, "<ruleName>"); }
 <@postamble()>
 <returnFromRule()><\n>
}
// $ANTLR end "<ruleName>"
>>

// imported grammars need to have internal rules
ruleModifier(grammar,ruleDescriptor) ::= <<
<if(grammar.grammarIsRoot)><csharpVisibilityMap.(ruleDescriptor.modifier);
null="private"><else>internal<endif>
>>

// imported grammars need to have public return scopes
returnScopeModifier(grammar,ruleDescriptor) ::= <<
<if(grammar.grammarIsRoot)><csharpVisibilityMap.(ruleDescriptor.modifier);
```

```
 null="private"><else>public<endif>
>>

catch(decl,action) ::= <<
catch (<e.decl>)
{
 <e.action>
}
>>

ruleDeclarations() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
<returnType(ruleDescriptor)> retval = new <returnType(ruleDescriptor)>();
retval.Start = (<labelType>)input.LT(1);
<elseif(ruleDescriptor.returnScope)>
<ruleDescriptor.returnScope.attributes:{ a |
<a.type> <a.name; format="id"> = <if(a.initValue)><a.initValue><else><initValue(a.type)><endif>;
}>
<endif>
<if(memoize)>
int <ruleDescriptor.name>_StartIndex = input.Index;
<endif>
>>

ruleScopeSetUp() ::= <<
<ruleDescriptor.useScopes:{it|<it>_stack.Push(new <it>_scope());<it>_scopeInit(<it>_stack.Peek());};
separator="\n">
<ruleDescriptor.ruleScope:{it|<it.name>_stack.Push(new
<it.name>_scope());<it.name>_scopeInit(<it.name>_stack.Peek());}; separator="\n">
>>

ruleScopeCleanUp() ::= <<
<ruleDescriptor.useScopes:{it|<it>_scopeAfter(<it>_stack.Peek());<it>_stack.Pop();};
 separator="\n">
<ruleDescriptor.ruleScope:{it|<it.name>_scopeAfter(<it.name>_stack.Peek());<it.name>_stack.Pop();};
separator="\n">
>>

ruleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,ruleDescriptor.tokenListLabels,ruleDescriptor.wildcardTreeLabels,ruleDescriptor.wil
dcardTreeListLabels]
   :{it|<labelType> <it.label.text> = default(<labelType>);}; separator="\n"
>
<ruleDescriptor.tokenListLabels
   :{it|List\<<labelType>\> list_<it.label.text> = null;}; separator="\n"
>
<[ruleDescriptor.ruleListLabels,ruleDescriptor.wildcardTreeListLabels]
   :{it|List\<<ASTLabelType>\> list_<it.label.text> = null;}; separator="\n"
```

```
>
<ruleDescriptor.ruleLabels:ruleLabelDef(); separator="\n">
<ruleDescriptor.ruleListLabels:ruleLabelDef(); separator="\n">
>>

lexerRuleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,
 ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleLabels]
   :{it|<labelType> <it.label.text> = default(<labelType>);}; separator="\n"
>
<[ruleDescriptor.charListLabels,
  ruleDescriptor.charLabels]
 :{it|int <it.label.text> = 0;}; separator="\n"
>
<[ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleListLabels]
   :{it|List\<<labelType>\> list_<it.label.text> = null;}; separator="\n"
>
<ruleDescriptor.charListLabels:{it|List\<int> list_<it.label.text> = null;}; separator="\n"
>
>>

returnFromRule() ::= <%
return
<if(!ruleDescriptor.isSynPred)>
<if(ruleDescriptor.hasReturnValue)>
<if(ruleDescriptor.hasSingleReturnValue)>
<! This comment is a hack to make sure the following
  single space appears in the output. !> <ruleDescriptor.singleValueReturnName>
<else>
<!!> retval
<endif>
<endif>
<endif>
;
%>

ruleCleanUp() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
<if(!TREE_PARSER)>
retval.Stop = (<labelType>)input.LT(-1);
<endif>
<endif>
>>

memoize() ::= <<
<if(memoize)>
```

```
<if(backtracking)>
if (state.backtracking > 0) { Memoize(input, <ruleDescriptor.index>, <ruleDescriptor.name>_StartIndex); }
<endif>
<endif>
>>

/** How to generate a rule in the
 lexer; naked blocks are used for
*  fragment rules.
*/
lexerRule(ruleName,nakedBlock,ruleDescriptor,block,memoize) ::= <<

[Conditional("ANTLR_TRACE")]
protected virtual void EnterRule_<ruleName>() {}
[Conditional("ANTLR_TRACE")]
protected virtual void LeaveRule_<ruleName>() {}

// $ANTLR start "<ruleName>"
[GrammarRule("<ruleName>")]
<ruleModifier(grammar=grammar,ruleDescriptor=ruleDescriptor)> void
m<ruleName>(<ruleDescriptor.parameterScope:parameterScope()>)
{
 EnterRule_<ruleName>();
 EnterRule("<ruleName>", <ruleDescriptor.index>);
 TraceIn("<ruleName>", <ruleDescriptor.index>);
   <ruleScopeSetUp()>
   <ruleDeclarations()>
  try
  {
<if(nakedBlock)>
  <ruleMemoization(name=ruleName)>
  <lexerRuleLabelDefs()>
  <ruleDescriptor.actions.init>
  <block>
<else>
  int _type = <ruleName>;
  int _channel = DefaultTokenChannel;
  <ruleMemoization(name=ruleName)>
  <lexerRuleLabelDefs()>
  <ruleDescriptor.actions.init>
  <block>
  <ruleCleanUp()>
  state.type = _type;
  state.channel =
 _channel;
  <(ruleDescriptor.actions.after):execAction()>
<endif>
 }
```

```
 finally
 {
  TraceOut("<ruleName>", <ruleDescriptor.index>);
  LeaveRule("<ruleName>", <ruleDescriptor.index>);
  LeaveRule_<ruleName>();
       <ruleScopeCleanUp()>
       <memoize()>
   }
}
// $ANTLR end "<ruleName>"
>>

/** How to generate code for the implicitly-defined lexer grammar rule
*  that chooses between lexer rules.
*/
tokensRule(ruleName,nakedBlock,args,block,ruleDescriptor) ::= <<

public override void mTokens()
{
 <block><\n>
}
>>

// S U B R U L E S

/** A (...) subrule with multiple alternatives */
block(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
// <fileName>:<description>
int alt<decisionNumber>=<maxAlt>;
<decls>
<@predecision()>
try { DebugEnterSubRule(<decisionNumber>);
try { DebugEnterDecision(<decisionNumber>, decisionCanBacktrack[<decisionNumber>]);
<decision>
} finally { DebugExitDecision(<decisionNumber>); }
<@postdecision()>
<@prebranch()>
switch
 (alt<decisionNumber>)
{
<alts:{a|<altSwitchCase(i,a)>}>
}
} finally { DebugExitSubRule(<decisionNumber>); }
<@postbranch()>
>>

/** A rule block with multiple alternatives */
ruleBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
```

```
// <fileName>:<description>
int alt<decisionNumber>=<maxAlt>;
<decls>
<@predecision()>
try { DebugEnterDecision(<decisionNumber>, decisionCanBacktrack[<decisionNumber>]);
<decision>
} finally { DebugExitDecision(<decisionNumber>); }
<@postdecision()>
switch (alt<decisionNumber>)
{
<alts:{a|<altSwitchCase(i,a)>}>
}
>>

ruleBlockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
// <fileName>:<description>
<decls>
<@prealt()>
DebugEnterAlt(1);
<alts>
<@postalt()>
>>

/** A special case of a (...) subrule with a single alternative */
blockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
// <fileName>:<description>
<decls>
<@prealt()>
DebugEnterAlt(1);
<alts>
<@postalt()>
>>

/**
 A (..)+ block with 1 or more alternatives */
positiveClosureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
// <fileName>:<description>
int cnt<decisionNumber>=0;
<decls>
<@preloop()>
try { DebugEnterSubRule(<decisionNumber>);
while (true)
{
 int alt<decisionNumber>=<maxAlt>;
 <@predecision()>
 try { DebugEnterDecision(<decisionNumber>, decisionCanBacktrack[<decisionNumber>]);
 <decision>
```

```
 } finally { DebugExitDecision(<decisionNumber>); }
 <@postdecision()>
 switch (alt<decisionNumber>)
 {
 <alts:{a|<altSwitchCase(i,a)>}>
 default:
  if (cnt<decisionNumber> >= 1)
   goto loop<decisionNumber>;

  <ruleBacktrackFailure()>
  EarlyExitException eee<decisionNumber> = new EarlyExitException( <decisionNumber>, input );
  DebugRecognitionException(eee<decisionNumber>);
  <@earlyExitException()>
  throw eee<decisionNumber>;
 }
 cnt<decisionNumber>++;
}
loop<decisionNumber>:
 ;

}
 finally { DebugExitSubRule(<decisionNumber>); }
<@postloop()>
>>

positiveClosureBlockSingleAlt ::= positiveClosureBlock

/** A (..)* block with 1 or more alternatives */
closureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::=
<<
// <fileName>:<description>
<decls>
<@preloop()>
try { DebugEnterSubRule(<decisionNumber>);
while (true)
{
 int alt<decisionNumber>=<maxAlt>;
 <@predecision()>
 try { DebugEnterDecision(<decisionNumber>, decisionCanBacktrack[<decisionNumber>]);
 <decision>
 } finally { DebugExitDecision(<decisionNumber>); }
 <@postdecision()>
 switch ( alt<decisionNumber> )
 {
 <alts:{a|<altSwitchCase(i,a)>}>
 default:
  goto loop<decisionNumber>;
 }
```

```
}

loop<decisionNumber>:
 ;

} finally { DebugExitSubRule(<decisionNumber>); }
<@postloop()>
>>

closureBlockSingleAlt ::= closureBlock

/** Optional blocks (x)? are translated to (x|) by before code generation
*  so we can just use the normal block template
 */
optionalBlock ::= block

optionalBlockSingleAlt ::= block

/** A case in a switch that jumps to an alternative given the alternative
*  number.  A DFA predicts the alternative and then a simple switch
*  does the jump to the code that actually matches that alternative.
*/
altSwitchCase(altNum,alt) ::= <<
case <altNum>:
 <@prealt()>
 DebugEnterAlt(<altNum>);
 <alt>
 break;<\n>
>>

/** An alternative is just a list of elements; at outermost level */
alt(elements,altNum,description,autoAST,outerAlt,treeLevel,rew) ::= <<
// <fileName>:<description>
{
<@declarations()>
<elements:element()>
<rew>
<@cleanup()>
}
>>

/** What to emit when there is no rewrite.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel, treeLevel) ::= ""

// E L E M E N T S
```

```
/** Dump the elements one per line */
element(it) ::= <%
<@prematch()>
DebugLocation(<it.line>, <it.pos>);<\n>
<it.el><\n>
%>

/** match a token optionally with a label in front */
tokenRef(token,label,elementIndex,terminalOptions={})
 ::= <<
<if(label)><label>=(<labelType>)<endif>Match(input,<token>,Follow._<token>_in_<ruleName><elementIndex>);
<checkRuleBacktrackFailure()>
>>

/** ids+=ID */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRef(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

listLabelElem(label,elem,elemType) ::= <<
if (list_<label>==null) list_<label>=new List\<<elemType; null={<labelType>}>\>();
list_<label>.Add(<elem>);<\n>
>>

/** match a character */
charRef(char,label) ::= <<
<if(label)>
<label> = input.LA(1);<\n>
<endif>
Match(<char>); <checkRuleBacktrackFailure()>
>>

/** match a character range */
charRangeRef(a,b,label) ::= <<
<if(label)>
<label> = input.LA(1);<\n>
<endif>
MatchRange(<a>,<b>); <checkRuleBacktrackFailure()>
>>

/** For now, sets are interval tests and must be tested inline */
matchSet(s,label,elementIndex,postmatchCode="",terminalOptions={}) ::= <<
<if(label)>
<matchSetLabel()>
<endif>
if (<s>)
{
```

```
 input.Consume();
 <postmatchCode>
 <if(!LEXER)>state.errorRecovery=false;<endif><if(backtracking)>state.failed=false;<endif>
}
else
{
 <ruleBacktrackFailure()>
 MismatchedSetException
 mse = new MismatchedSetException(null,input);
 DebugRecognitionException(mse);
 <@mismatchedSetException()>
<if(LEXER)>
 Recover(mse);
 throw mse;
<else>
 throw mse;
 <! use following code to make it recover inline; remove throw mse;
 recoverFromMismatchedSet(input,mse,Follow._set_in_<ruleName><elementIndex>);
 !>
<endif>
}<\n>
>>

matchSetUnchecked(s,label,elementIndex,postmatchCode=false) ::= <%
<if(label)>
<matchSetLabel()><\n>
<endif>
input.Consume();<\n>
<if(postmatchCode)>
<postmatchCode><\n>
<endif>
<if(!LEXER)>state.errorRecovery=false;<endif><if(backtracking)>state.failed=false;<endif>
%>

matchSetLabel() ::= <%
<if(LEXER)>
<label>= input.LA(1);
<else>
<label>=(<labelType>)input.LT(1);
<endif>
%>

matchRuleBlockSet ::= matchSet

matchSetAndListLabel(s,label,elementIndex,postmatchCode) ::= <<
<matchSet(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>
```

```
/**
 Match a string literal */
lexerStringRef(string,label,elementIndex) ::= <%
<if(label)>
int <label>Start = CharIndex;<\n>
Match(<string>); <checkRuleBacktrackFailure()><\n>
int <label>StartLine<elementIndex> = Line;<\n>
int <label>StartCharPos<elementIndex> = CharPositionInLine;<\n>
<label> = new <labelType>(input, TokenTypes.Invalid, TokenChannels.Default, <label>Start, CharIndex-1);<\n>
<label>.Line = <label>StartLine<elementIndex>;<\n>
<label>.CharPositionInLine = <label>StartCharPos<elementIndex>;
<else>
Match(<string>); <checkRuleBacktrackFailure()><\n>
<endif>
%>

wildcard(token,label,elementIndex,terminalOptions={}) ::= <<
<if(label)>
<label>=(<labelType>)input.LT(1);<\n>
<endif>
MatchAny(input); <checkRuleBacktrackFailure()>
>>

wildcardAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<wildcard(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

/** Match . wildcard in lexer */
wildcardChar(label, elementIndex)
 ::= <<
<if(label)>
<label> = input.LA(1);<\n>
<endif>
MatchAny(); <checkRuleBacktrackFailure()>
>>

wildcardCharListLabel(label, elementIndex) ::= <<
<wildcardChar(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

/** Match a rule reference by invoking it possibly with arguments
*  and a return value or values.  The 'rule' argument was the
*  target rule name, but now is type Rule, whose toString is
*  same: the rule name.  Now though you can access full rule
*  descriptor stuff.
```

```
*/
ruleRef(rule,label,elementIndex,args,scope) ::= <<
PushFollow(Follow._<rule.name>_in_<ruleName><elementIndex>);
<if(label)><label>=<endif><if(scope)><scope:delegateName()>.<endif><rule.name; format="id">(<args;
separator=", ">);
PopFollow();
<checkRuleBacktrackFailure()>
>>

/** ids+=r */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabelElem(elem=label,elemType={<ASTLabelType>},...)>
>>

/** A lexer rule reference.
*
*  The 'rule' argument was
 the target rule name, but now
*  is type Rule, whose toString is same: the rule name.
*  Now though you can access full rule descriptor stuff.
*/
lexerRuleRef(rule,label,args,elementIndex,scope) ::= <%
<if(label)>
int <label>Start<elementIndex> = CharIndex;<\n>
int <label>StartLine<elementIndex> = Line;<\n>
int <label>StartCharPos<elementIndex> = CharPositionInLine;<\n>
<if(scope)><scope:delegateName()>.<endif>m<rule.name>(<args; separator=", ">);
<checkRuleBacktrackFailure()><\n>
<label> = new <labelType>(input, TokenTypes.Invalid, TokenChannels.Default, <label>Start<elementIndex>,
CharIndex-1);<\n>
<label>.Line = <label>StartLine<elementIndex>;<\n>
<label>.CharPositionInLine = <label>StartCharPos<elementIndex>;
<else>
<if(scope)><scope:delegateName()>.<endif>m<rule.name>(<args; separator=", ">);
<checkRuleBacktrackFailure()>
<endif>
%>

/** i+=INT in lexer */
lexerRuleRefAndListLabel(rule,label,args,elementIndex,scope) ::= <<
<lexerRuleRef(...)>
<listLabelElem(elem=label,elemType=labelType,...)>
>>

/**
 EOF in the lexer */
lexerMatchEOF(label,elementIndex) ::= <%
```

```
<if(label)>
int <label>Start<elementIndex> = CharIndex;<\n>
int <label>StartLine<elementIndex> = Line;<\n>
int <label>StartCharPos<elementIndex> = CharPositionInLine;<\n>
Match(EOF); <checkRuleBacktrackFailure()><\n>
<labelType> <label> = new <labelType>(input, EOF, TokenChannels.Default, <label>Start<elementIndex>,
CharIndex-1);<\n>
<label>.Line = <label>StartLine<elementIndex>;<\n>
<label>.CharPositionInLine = <label>StartCharPos<elementIndex>;
<else>
Match(EOF); <checkRuleBacktrackFailure()>
<endif>
%>

// used for left-recursive rules
recRuleDefArg()                       ::= "int <recRuleArg()>"
recRuleArg()                          ::= "_p"
recRuleAltPredicate(ruleName,opPrec)  ::= "<recRuleArg()> \<= <opPrec>"
recRuleSetResultAction()              ::= "root_0=$<ruleName>_primary.tree;"
recRuleSetReturnAction(src,name)      ::= "$<name>=$<src>.<name>;"

/** match ^(root children) in tree parser */
tree(root,
 actionsAfterRoot, children, nullableChildList,
   enclosingTreeLevel, treeLevel) ::= <<
<root:element()>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if (input.LA(1) == TokenTypes.Down)
{
 Match(input, TokenTypes.Down, null); <checkRuleBacktrackFailure()>
 <children:element()>
 Match(input, TokenTypes.Up, null); <checkRuleBacktrackFailure()>
}
<else>
Match(input, TokenTypes.Down, null); <checkRuleBacktrackFailure()>
<children:element()>
Match(input, TokenTypes.Up, null); <checkRuleBacktrackFailure()>
<endif>
>>

/** Every predicate is used as a validating predicate (even when it is
*  also hoisted into a prediction expression).
*/
validateSemanticPredicate(pred,description) ::= <<
if (!(<evalPredicate(...)>))
{
 <ruleBacktrackFailure()>
```

```
 throw new FailedPredicateException(input, "<ruleName>", "<description>");
}
>>

// F i x e d  D F A  (if-then-else)

dfaState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
int LA<decisionNumber>_<k> = input.LA(<k>);<\n>
<edges;
 separator="\nelse ">
<if((!isTrue.(last(edges).labelExpr)) && (!last(edges).predicates))>
else
{
<if(eotPredictsAlt)>
 alt<decisionNumber> = <eotPredictsAlt>;
<else>
 <ruleBacktrackFailure()>
 NoViableAltException nvae = new NoViableAltException("<description>", <decisionNumber>, <stateNumber>,
input, <k>);
 DebugRecognitionException(nvae);
 <@noViableAltException()>
 throw nvae;
<endif>
}
<endif>
>>

/** Same as a normal DFA state except that we don't examine lookahead
*  for the bypass alternative.  It delays error detection but this
*  is faster, smaller, and more what people expect.  For (X)? people
*  expect "if ( LA(1)==X ) match(X);" and that's it.
*/
dfaOptionalBlockState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
int LA<decisionNumber>_<k> = input.LA(<k>);<\n>
<edges; separator="\nelse ">
>>

/** A DFA state that is actually the loopback decision of a closure
*  loop.  If end-of-token (EOT) predicts any of the targets then it
 *  should act like a default clause (i.e., no error can be generated).
*  This is used only in the lexer so that for ('a')* on the end of a rule
*  anything other than 'a' predicts exiting.
*/
dfaLoopbackState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
int LA<decisionNumber>_<k> = input.LA(<k>);<\n>
<edges; separator="\nelse "><\n>
<if(eotPredictsAlt)>
<if(!edges)>
```

```
alt<decisionNumber> = <eotPredictsAlt>;<! if no edges, don't gen ELSE !>
<else>
else
{
 alt<decisionNumber> = <eotPredictsAlt>;
}<\n>
<endif>
<endif>
>>

/** An accept state indicates a unique alternative has been predicted */
dfaAcceptState(alt) ::= "alt<decisionNumber> = <alt>;"

/** A simple edge with an expression.  If the expression is satisfied,
*  enter to the target state.  To handle gated productions, we may
*  have to evaluate some predicates for this edge.
*/
dfaEdge(labelExpr, targetState, predicates) ::= <<
if ((<labelExpr>)<if(predicates)> && (<predicates>)<endif>)
{
 <targetState>
}
>>

//
 F i x e d  D F A  (switch case)

/** A DFA state where a SWITCH may be generated.  The code generator
*  decides if this is possible: CodeGenerator.canGenerateSwitch().
*/
dfaStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch (input.LA(<k>))
{
<edges; separator="\n">
default:
<if(eotPredictsAlt)>
 alt<decisionNumber>=<eotPredictsAlt>;
 break;<\n>
<else>
 {
  <ruleBacktrackFailure()>
  NoViableAltException nvae = new NoViableAltException("<description>", <decisionNumber>, <stateNumber>, input, <k>);
  DebugRecognitionException(nvae);
  <@noViableAltException()>
  throw nvae;
 }
<endif>
```

```
}<\n>
>>

dfaOptionalBlockStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch (input.LA(<k>))
{
<edges; separator="\n">
}<\n>
>>

dfaLoopbackStateSwitch(k, edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch (input.LA(<k>))
{
<edges; separator="\n">
<if(eotPredictsAlt)>
default:
 alt<decisionNumber>=<eotPredictsAlt>;
 break;<\n>
<endif>
}<\n>
>>

dfaEdgeSwitch(labels,
 targetState) ::= <<
<labels:{it|case <it>:}; separator="\n">
 {
 <targetState>
 }
 break;
>>

// C y c l i c  D F A

/** The code to initiate execution of a cyclic DFA; this is used
*  in the rule to predict an alt just like the fixed DFA case.
*  The <name> attribute is inherited via the parser, lexer, ...
*/
dfaDecision(decisionNumber,description) ::= <<
try
{
 alt<decisionNumber> = dfa<decisionNumber>.Predict(input);
}
catch (NoViableAltException nvae)
{
 DebugRecognitionException(nvae);
 throw;
}
>>
```

```
/* Dump DFA tables as run-length-encoded Strings of octal values.
* Can't use hex as compiler translates them before compilation.
* These strings are split into multiple, concatenated strings.
* Java puts them back together at compile time thankfully.
* Java cannot handle large static arrays, so we're stuck with this
* encode/decode approach.  See analysis and runtime DFA for
* the encoding methods.
*/
cyclicDFA(dfa)
 ::= <<
private class DFA<dfa.decisionNumber> : DFA
{
 private const string DFA<dfa.decisionNumber>_eotS =
  "<dfa.javaCompressedEOT; wrap="\"+\n\t\t\"">";
 private const string DFA<dfa.decisionNumber>_eofS =
  "<dfa.javaCompressedEOF; wrap="\"+\n\t\t\"">";
 private const string DFA<dfa.decisionNumber>_minS =
  "<dfa.javaCompressedMin; wrap="\"+\n\t\t\"">";
 private const string DFA<dfa.decisionNumber>_maxS =
  "<dfa.javaCompressedMax; wrap="\"+\n\t\t\"">";
 private const string DFA<dfa.decisionNumber>_acceptS =
  "<dfa.javaCompressedAccept; wrap="\"+\n\t\t\"">";
 private const string DFA<dfa.decisionNumber>_specialS =
  "<dfa.javaCompressedSpecial; wrap="\"+\n\t\t\"">}>";
 private static readonly string[] DFA<dfa.decisionNumber>_transitionS =
  {
   <dfa.javaCompressedTransition:{s|"<s; wrap="\"+\n\"">"}; separator=",\n">
  };

 private static readonly short[] DFA<dfa.decisionNumber>_eot =
DFA.UnpackEncodedString(DFA<dfa.decisionNumber>_eotS);
 private static readonly short[]
 DFA<dfa.decisionNumber>_eof = DFA.UnpackEncodedString(DFA<dfa.decisionNumber>_eofS);
 private static readonly char[] DFA<dfa.decisionNumber>_min =
DFA.UnpackEncodedStringToUnsignedChars(DFA<dfa.decisionNumber>_minS);
 private static readonly char[] DFA<dfa.decisionNumber>_max =
DFA.UnpackEncodedStringToUnsignedChars(DFA<dfa.decisionNumber>_maxS);
 private static readonly short[] DFA<dfa.decisionNumber>_accept =
DFA.UnpackEncodedString(DFA<dfa.decisionNumber>_acceptS);
 private static readonly short[] DFA<dfa.decisionNumber>_special =
DFA.UnpackEncodedString(DFA<dfa.decisionNumber>_specialS);
 private static readonly short[][] DFA<dfa.decisionNumber>_transition;

 static DFA<dfa.decisionNumber>()
 {
  int numStates = DFA<dfa.decisionNumber>_transitionS.Length;
  DFA<dfa.decisionNumber>_transition = new short[numStates][];
```

```
  for ( int i=0; i \< numStates; i++ )
  {
   DFA<dfa.decisionNumber>_transition[i] =
DFA.UnpackEncodedString(DFA<dfa.decisionNumber>_transitionS[i]);
  }
 }

 public
 DFA<dfa.decisionNumber>( BaseRecognizer recognizer<if(dfa.specialStateSTs)>, SpecialStateTransitionHandler
specialStateTransition<endif> )
<if(dfa.specialStateSTs)>
  : base(specialStateTransition)
<endif>
 {
  this.recognizer = recognizer;
  this.decisionNumber = <dfa.decisionNumber>;
  this.eot = DFA<dfa.decisionNumber>_eot;
  this.eof = DFA<dfa.decisionNumber>_eof;
  this.min = DFA<dfa.decisionNumber>_min;
  this.max = DFA<dfa.decisionNumber>_max;
  this.accept = DFA<dfa.decisionNumber>_accept;
  this.special = DFA<dfa.decisionNumber>_special;
  this.transition = DFA<dfa.decisionNumber>_transition;
 }

 public override string Description { get { return "<dfa.description>"; } }

 public override void Error(NoViableAltException nvae)
 {
  DebugRecognitionException(nvae);
 }
}<\n>
<if(dfa.specialStateSTs)>
private int SpecialStateTransition<dfa.decisionNumber>(DFA dfa, int s, IIntStream _input)<! throws
NoViableAltException!>
{
 <if(LEXER)>
 IIntStream input = _input;
 <endif>
 <if(PARSER)>
 ITokenStream
 input = (ITokenStream)_input;
 <endif>
 <if(TREE_PARSER)>
 ITreeNodeStream input = (ITreeNodeStream)_input;
 <endif>
 int _s = s;
 s = -1;
```

```
 <! pull these outside the switch cases to save space on locals !>
 int LA<dfa.decisionNumber>_1 = input.LA(1);
 int index<dfa.decisionNumber>_1 = input.Index;
 switch (_s)
 {
 <dfa.specialStateSTs:{state |case <i0>:<! compressed special state numbers 0..n-1 !>
 <state>}; separator="\n">

 default:
  break;
 }

 if (s >= 0)
  return s;

<if(backtracking)>
 if (state.backtracking > 0) {state.failed=true; return -1;}
<endif>
 NoViableAltException nvae = new NoViableAltException(dfa.Description, <dfa.decisionNumber>, _s, input);
 dfa.Error(nvae);
 throw nvae;
}
<endif>
>>

/** A state in a cyclic DFA; it's a special state and part of a big switch on
*  state.
*/
cyclicDFAState(decisionNumber,stateNumber,edges,needErrorClause,semPredState) ::= <<
{
<if(semPredState)>
 <! get next lookahead symbol to test edges, then rewind !>
 input.Rewind();
<endif>
 <edges;
 separator="\nelse ">
<if(semPredState)>
 <! return input cursor to state before we rewound !>
 input.Seek(index<decisionNumber>_1);
<endif>
 break;
}
>>

/** Just like a fixed DFA edge, test the lookahead and indicate what
*  state to jump to next if successful.
*/
cyclicDFAEdge(labelExpr, targetStateNumber, edgeNumber, predicates) ::= <<
```

```
if ((<labelExpr>)<if(predicates)> && (<predicates>)<endif>) {s = <targetStateNumber>;}<\n>
>>

/** An edge pointing at end-of-token; essentially matches any char;
*  always jump to the target.
*/
eotDFAEdge(targetStateNumber,edgeNumber, predicates) ::= <<
s = <targetStateNumber>;<\n>
>>


// D F A  E X P R E S S I O N S

andPredicates(left,right) ::= "(<left>&&<right>)"

orPredicates(operands) ::= "(<operands; separator=\"||\">)"

notPredicate(pred) ::= "!(<evalPredicate(...)>)"

evalPredicate(pred,description) ::= "(<pred>)"

evalSynPredicate(pred,description) ::= "EvaluatePredicate(<pred>_fragment)"

lookaheadTest(atom,k,atomAsInt)
 ::= "LA<decisionNumber>_<k>==<atom>"

/** Sometimes a lookahead test cannot assume that LA(k) is in a temp variable
*  somewhere.  Must ask for the lookahead directly.
*/
isolatedLookaheadTest(atom,k,atomAsInt) ::= "input.LA(<k>)==<atom>"

lookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= <%
(LA<decisionNumber>_<k><ge()><lower> && LA<decisionNumber>_<k><le()><upper>)
%>

isolatedLookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::=
"(input.LA(<k>)<ge()><lower> && input.LA(<k>)<le()><upper>)"

le() ::= "\<="
ge() ::= ">="

setTest(ranges) ::= <<
<ranges; separator="||">
>>

// A T T R I B U T E S

attributeScope(scope) ::= <<
```

```
<if(scope)>
<if(scope.attributes)>
protected sealed partial class <scope.name>_scope
{
 <scope.attributes:{it|public <it.decl>;}; separator="\n">
}
<if(scope.actions.scopeinit)>
protected void <scope.name>_scopeInit( <scope.name>_scope scope )
{
 <scope.actions.scopeinit>
}
<else>
protected virtual void <scope.name>_scopeInit(
 <scope.name>_scope scope ) {}
<endif>
<if(scope.actions.scopeafter)>
protected void <scope.name>_scopeAfter( <scope.name>_scope scope )
{
 <scope.actions.scopeafter>
}
<else>
protected virtual void <scope.name>_scopeAfter( <scope.name>_scope scope ) {}
<endif>
protected readonly ListStack\<<scope.name>_scope> <scope.name>_stack = new
ListStack\<<scope.name>_scope>();
<endif>
<endif>
>>

globalAttributeScope(scope) ::= <<
<attributeScope(...)>
>>

ruleAttributeScope(scope) ::= <<
<attributeScope(...)>
>>

returnStructName(it) ::= "<it.name>_return"

returnType(ruleDescriptor) ::= <%
<if(ruleDescriptor.returnScope.attributes && ruleDescriptor.hasMultipleReturnValues)>
 <ruleDescriptor.grammar.recognizerName>.<ruleDescriptor:returnStructName()>
<elseif(ruleDescriptor.hasMultipleReturnValues)>
 <ruleReturnBaseType()>
<elseif(ruleDescriptor.hasSingleReturnValue)>
 <ruleDescriptor.singleValueReturnType>
<else>
 void
```

```
<endif>
%>

/** Generate the C# type associated with
 a single or multiple return
*  values.
*/
ruleLabelType(referencedRule) ::= <%
<if(referencedRule.hasMultipleReturnValues)>
 <ruleReturnBaseType()>
<elseif(referencedRule.hasSingleReturnValue)>
 <referencedRule.singleValueReturnType>
<else>
 void
<endif>
%>

delegateName(it) ::= <<
<if(it.label)><it.label><else>g<it.name><endif>
>>

/** Using a type to init value map, try to init a type; if not in table
*  must be an object, default value is "null".
*/
initValue(typeName) ::= <<
default(<typeName>)
>>

/** Define a rule label including default value */
ruleLabelDef(label) ::= <%
<ruleLabelType(referencedRule=label.referencedRule)> <label.label.text> =
<initValue(typeName=ruleLabelType(referencedRule=label.referencedRule))>;
%>

/** Define a return struct for a rule if the code needs to access its
*  start/stop tokens, tree stuff, attributes, ...  Leave a hole for
*  subgroups to stick in members.
*/
returnScope(scope) ::= <<
<if(scope.attributes && ruleDescriptor.hasMultipleReturnValues)>
<returnScopeModifier(grammar=grammar,ruleDescriptor=ruleDescriptor)>
 sealed partial class <ruleDescriptor:returnStructName()> : <ruleReturnBaseType()><@ruleReturnInterfaces()>
{
 <scope.attributes:{it|public <it.decl>;}; separator="\n">
 <@ruleReturnMembers()>
}
<endif>
>>
```

```
ruleReturnBaseType() ::= <%
<if(TREE_PARSER)>Tree<else>Parser<endif>RuleReturnScope\<<labelType>>
%>

@returnScope.ruleReturnMembers() ::= <<
>>

parameterScope(scope) ::= <<
<scope.attributes:{it|<it.decl>}; separator=", ">
>>

parameterAttributeRef(attr) ::= <<
<attr.name; format="id">
>>

parameterSetAttributeRef(attr,expr) ::= <<
<attr.name; format="id"> =<expr>;
>>

scopeAttributeRef(scope,attr,index,negIndex) ::= <%
<if(negIndex)>
<scope>_stack[<scope>_stack.Count - <negIndex> - 1].<attr.name; format="id">
<else>
<if(index)>
<scope>_stack[<index>].<attr.name; format="id">
<else>
<scope>_stack.Peek().<attr.name; format="id">
<endif>
<endif>
%>

scopeSetAttributeRef(scope,attr,expr,index,negIndex) ::=
 <%
<if(negIndex)>
<scope>_stack[<scope>_stack.Count - <negIndex> - 1].<attr.name; format="id"> = <expr>;
<else>
<if(index)>
<scope>_stack[<index>].<attr.name; format="id"> = <expr>;
<else>
<scope>_stack.Peek().<attr.name; format="id"> = <expr>;
<endif>
<endif>
%>

/** $x is either global scope or x is rule with dynamic scope; refers
*  to stack itself not top of stack.  This is useful for predicates
*  like {$function.Count>0 && $function::name.Equals("foo")}?
```

```
*/
isolatedDynamicScopeRef(scope) ::= "<scope>_stack"

/** reference an attribute of rule; might only have single return value */
ruleLabelRef(referencedRule,scope,attr) ::= <%
<if(referencedRule.hasMultipleReturnValues)>
(<scope>!=null?((<returnType(referencedRule)>)<scope>).<attr.name; format="id">:<initValue(attr.type)>)
<else>
<scope>
<endif>
%>

returnAttributeRef(ruleDescriptor,attr) ::= <%
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name; format="id">
<else>
<attr.name; format="id">
<endif>
%>

returnSetAttributeRef(ruleDescriptor,attr,expr)
 ::= <%
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name; format="id"> =<expr>;
<else>
<attr.name; format="id"> =<expr>;
<endif>
%>

/** How to translate $tokenLabel */
tokenLabelRef(label) ::= "<label>"

/** ids+=ID {$ids} or e+=expr {$e} */
listLabelRef(label) ::= "list_<label>"



// not sure the next are the right approach

tokenLabelPropertyRef_text(scope,attr) ::= "(<scope>!=null?<scope>.Text:default(string))"
tokenLabelPropertyRef_type(scope,attr) ::= "(<scope>!=null?<scope>.Type:0)"
tokenLabelPropertyRef_line(scope,attr) ::= "(<scope>!=null?<scope>.Line:0)"
tokenLabelPropertyRef_pos(scope,attr) ::= "(<scope>!=null?<scope>.CharPositionInLine:0)"
tokenLabelPropertyRef_channel(scope,attr) ::= "(<scope>!=null?<scope>.Channel:0)"
tokenLabelPropertyRef_index(scope,attr) ::= "(<scope>!=null?<scope>.TokenIndex:0)"
tokenLabelPropertyRef_tree(scope,attr) ::= "<scope>_tree"
tokenLabelPropertyRef_int(scope,attr) ::= "(<scope>!=null?int.Parse(<scope>.Text):0)"

ruleLabelPropertyRef_start(scope,attr)
```

```
 ::= "(<scope>!=null?((<labelType>)<scope>.Start):default(<labelType>))"
ruleLabelPropertyRef_stop(scope,attr) ::= "(<scope>!=null?((<labelType>)<scope>.Stop):default(<labelType>))"
ruleLabelPropertyRef_tree(scope,attr) ::=
"(<scope>!=null?((<ASTLabelType>)<scope>.Tree):default(<ASTLabelType>))"
ruleLabelPropertyRef_text(scope,attr) ::= <%
<if(TREE_PARSER)>
(<scope>!=null?(input.TokenStream.ToString(
 input.TreeAdaptor.GetTokenStartIndex(<scope>.Start),
 input.TreeAdaptor.GetTokenStopIndex(<scope>.Start))):default(string))
<else>
(<scope>!=null?input.ToString(<scope>.Start,<scope>.Stop):default(string))
<endif>
%>

ruleLabelPropertyRef_st(scope,attr) ::= "(<scope>!=null?<scope>.Template:null)"

/** Isolated $RULE ref ok in lexer as it's a Token */
lexerRuleLabel(label) ::= "<label>"

lexerRuleLabelPropertyRef_type(scope,attr) ::=
   "(<scope>!=null?<scope>.Type:0)"

lexerRuleLabelPropertyRef_line(scope,attr) ::=
   "(<scope>!=null?<scope>.Line:0)"

lexerRuleLabelPropertyRef_pos(scope,attr)
 ::=
   "(<scope>!=null?<scope>.CharPositionInLine:-1)"

lexerRuleLabelPropertyRef_channel(scope,attr) ::=
   "(<scope>!=null?<scope>.Channel:0)"

lexerRuleLabelPropertyRef_index(scope,attr) ::=
   "(<scope>!=null?<scope>.TokenIndex:0)"

lexerRuleLabelPropertyRef_text(scope,attr) ::=
   "(<scope>!=null?<scope>.Text:default(string))"

lexerRuleLabelPropertyRef_int(scope,attr) ::=
   "(<scope>!=null?int.Parse(<scope>.Text):0)"

// Somebody may ref $template or $tree or $stop within a rule:
rulePropertyRef_start(scope,attr) ::= "retval.Start"
rulePropertyRef_stop(scope,attr) ::= "retval.Stop"
rulePropertyRef_tree(scope,attr) ::= "retval.Tree"
rulePropertyRef_text(scope,attr) ::= <%
<if(TREE_PARSER)>
input.TokenStream.ToString(
```

```
 input.TreeAdaptor.GetTokenStartIndex(retval.Start),
 input.TreeAdaptor.GetTokenStopIndex(retval.Start))
<else>
input.ToString(retval.Start,input.LT(-1))
<endif>
%>
rulePropertyRef_st(scope,attr)
 ::= "retval.Template"

lexerRulePropertyRef_text(scope,attr) ::= "Text"
lexerRulePropertyRef_type(scope,attr) ::= "_type"
lexerRulePropertyRef_line(scope,attr) ::= "state.tokenStartLine"
lexerRulePropertyRef_pos(scope,attr) ::= "state.tokenStartCharPositionInLine"
lexerRulePropertyRef_index(scope,attr) ::= "-1" // undefined token index in lexer
lexerRulePropertyRef_channel(scope,attr) ::= "_channel"
lexerRulePropertyRef_start(scope,attr) ::= "state.tokenStartCharIndex"
lexerRulePropertyRef_stop(scope,attr) ::= "(CharIndex-1)"
lexerRulePropertyRef_int(scope,attr) ::= "int.Parse(<scope>.Text)"

// setting $st and $tree is allowed in local rule. everything else
// is flagged as error
ruleSetPropertyRef_tree(scope,attr,expr) ::= "retval.Tree = <expr>;"
ruleSetPropertyRef_st(scope,attr,expr) ::= "retval.Template =<expr>;"

/** How to execute an action (only when not backtracking) */
execAction(action) ::= <%
<if(backtracking)>
if (<actions.(actionScope).synpredgate>)<\n>
{<\n>
<@indentedAction()><\n>
}
<else>
<action>
<endif>
%>

@execAction.indentedAction()
 ::= <<
 <action>
>>

/** How to always execute an action even when backtracking */
execForcedAction(action) ::= "<action>"

// M I S C (properties, etc...)

bitset(name, words64) ::= <<
public static readonly BitSet <name> = new BitSet(new ulong[]{<words64:{it|<it>UL};separator=",">});
```

```
>>

codeFileExtension() ::= ".cs"

true_value() ::= "true"
false_value() ::= "false"

isTrue ::= [
 "true" : true,
 default : false
]
```

Found in path(s):

* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/CSharp2/CSharp2.stg

No license file was found, but licenses were detected in source scan.

```
/*
[The "BSD license"]
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THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
(INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF
THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
*/

/** The API version of the runtime that recognizers generated by this runtime
*  need.
```

```
*/
apiVersion() ::= "1"

// System.Boolean.ToString() returns "True" and "False", but the proper C# literals are "true" and "false"
// The Java version of Boolean returns "true" and "false", so they map to themselves here.
booleanLiteral ::= [
	"True":"true",
	"False":"false",
	"true":"true",
	"false":"false",
	default:"false"
]

/** The overall file structure
 of a recognizer; stores methods for rules
*  and cyclic DFAs plus support code.
*/
outputFile(LEXER,PARSER,TREE_PARSER, actionScope, actions,
          docComment, recognizer,
          name, tokens, tokenNames, rules, cyclicDFAs,
          bitsets, buildTemplate, buildAST, rewriteMode, profile,
          backtracking, synpreds, memoize, numRules,
          fileName, ANTLRVersion, generatedTimestamp, trace,
          scopes, superClass, literals) ::=
<<
# $ANTLR <ANTLRVersion> <fileName> <generatedTimestamp>

<@imports>
import sys
from antlr3 import *
<if(TREE_PARSER)>
from antlr3.tree import *<\n>
<endif>
from antlr3.compat import set, frozenset
<@end>

<actions.(actionScope).header>

<! <docComment> !>

# for convenience in actions
HIDDEN = BaseRecognizer.HIDDEN

# token types
<tokens:{it | <it.name>=<it.type>}; separator="\n">

<recognizer>
```

```
<if(actions.(actionScope).main)>
<actions.(actionScope).main>
<else>
def main(argv, stdin=sys.stdin, stdout=sys.stdout, stderr=sys.stderr):
<if(LEXER)>
     from antlr3.main import LexerMain
    main = LexerMain(<recognizer.name>)<\n>
<endif>
<if(PARSER)>
    from antlr3.main import ParserMain
    main = ParserMain("<recognizer.grammar.name>Lexer", <recognizer.name>)<\n>
<endif>
<if(TREE_PARSER)>
    from antlr3.main import WalkerMain
    main = WalkerMain(<recognizer.name>)<\n>
<endif>
    main.stdin = stdin
    main.stdout = stdout
    main.stderr = stderr
    main.execute(argv)<\n>
<endif>

<actions.(actionScope).footer>

if __name__ == '__main__':
    main(sys.argv)

>>

lexer(grammar, name, tokens, scopes, rules, numRules, filterMode,
      labelType="CommonToken", superClass="Lexer") ::= <<
<grammar.directDelegates:
{g|from <g.recognizerName> import <g.recognizerName>}; separator="\n">

class <grammar.recognizerName>(<@superClassName><superClass><@end>):
    <scopes:{it|<if(it.isDynamicGlobalScope)><globalAttributeScope(scope=it)><endif>}>

    grammarFileName = "<fileName>"
    api_version = <apiVersion()>

     def __init__(self<grammar.delegators:{g|, <g:delegateName()>}>, input=None, state=None):
        if state is None:
            state = RecognizerSharedState()
        super(<grammar.recognizerName>, self).__init__(input, state)

<if(memoize)>
<if(grammar.grammarIsRoot)>
        self._state.ruleMemo = {}
```

```
<endif>
<endif>

    <grammar.directDelegates:
     {g|self.<g:delegateName()> = <g.recognizerName>(<trunc(g.delegators):{p|<p:delegateName()>, }>self, input,
state)}; separator="\n">
    <grammar.directDelegates:
     {g|<g.delegates:{h|self.<h:delegateName()> = self.<g:delegateName()>.<h:delegateName()>};
separator="\n">}; separator="\n">
    <grammar.delegators:
     {g|self.<g:delegateName()> = <g:delegateName()>}; separator="\n">
    <last(grammar.delegators):
   {g|self.gParent = <g:delegateName()>}; separator="\n">
    self.delegates = [<grammar.delegates: {g|self.<g:delegateName()>}; separator = ", ">]

    <cyclicDFAs:{dfa | <cyclicDFAInit(dfa)>};
 separator="\n">

    <actions.lexer.init>



  <actions.lexer.members>



<if(filterMode)>
  <filteringNextToken()>
<endif>
  <rules; separator="\n\n">

  <synpreds:{p | <lexerSynpred(p)>}>

  <cyclicDFAs:cyclicDFA()> <! dump tables for all DFA !>



>>

/** A override of Lexer.nextToken() that backtracks over mTokens() looking
*  for matches.  No error can be generated upon error; just rewind, consume
*  a token and then try again.  backtracking needs to be set as well.
*  Make rule memoization happen only at levels above 1 as we start mTokens
*  at backtracking==1.
*/
filteringNextToken() ::= <<
def nextToken(self):
  while True:
    if self.input.LA(1) == EOF:
      return self.makeEOFToken()
```

```
    self._state.token = None
    self._state.channel = DEFAULT_CHANNEL
    self._state.tokenStartCharIndex = self.input.index()
    self._state.tokenStartCharPositionInLine = self.input.charPositionInLine
    self._state.tokenStartLine
 = self.input.line
    self._state._text = None
    try:
      m = self.input.mark()
      try:
        # means we won't throw slow exception
        self._state.backtracking = 1
        try:
          self.mTokens()
        finally:
          self._state.backtracking = 0

      except BacktrackingFailed:
        # mTokens backtracks with synpred at backtracking==2
        # and we set the synpredgate to allow actions at level 1.
        self.input.rewind(m)
        self.input.consume() # advance one char and try again

      else:
        self.emit()
        return self._state.token

    except RecognitionException, re:
      # shouldn't happen in backtracking mode, but...
      self.reportError(re)
      self.recover(re)


def memoize(self, input, ruleIndex, ruleStartIndex, success):
  if self._state.backtracking > 1:
    #
 is Lexer always superclass?
    super(<grammar.recognizerName>, self).memoize(input, ruleIndex, ruleStartIndex, success)


def alreadyParsedRule(self, input, ruleIndex):
  if self._state.backtracking > 1:
    return super(<grammar.recognizerName>, self).alreadyParsedRule(input, ruleIndex)
  return False


>>
```

```
actionGate() ::= "self._state.backtracking == 0"

filteringActionGate() ::= "self._state.backtracking == 1"

/** How to generate a parser */

genericParser(grammar, name, scopes, tokens, tokenNames, rules, numRules,
        bitsets, inputStreamType, superClass, labelType, members,
    rewriteElementType, filterMode, init, ASTLabelType="Object") ::= <<
<if(grammar.grammarIsRoot)>
# token names
tokenNames = [
  "\<invalid>", "\<EOR>", "\<DOWN>", "\<UP>",
  <tokenNames; wrap, separator=", ">
]<\n>
<else>
from <grammar.composite.rootGrammar.recognizerName> import tokenNames<\n>
<endif>
<scopes:{it|<if(it.isDynamicGlobalScope)><globalAttributeScopeClass(scope=it)><endif>}>

<grammar.directDelegates:
 {g|from <g.recognizerName> import <g.recognizerName>}; separator="\n">

<rules:{it|<ruleAttributeScopeClass(scope=it.ruleDescriptor.ruleScope)>}>

class <grammar.recognizerName>(<@superClassName><superClass><@end>):
  grammarFileName = "<fileName>"
  api_version = <apiVersion()>
  tokenNames = tokenNames

  def __init__(self<grammar.delegators:{g|, <g:delegateName()>}>, input, state=None, *args, **kwargs):
    if state is None:
      state = RecognizerSharedState()

    <@args()>
    super(<grammar.recognizerName>, self).__init__(input, state, *args, **kwargs)

<if(memoize)>
<if(grammar.grammarIsRoot)>
    self._state.ruleMemo = {}
<endif>
<endif>

    <cyclicDFAs:{dfa | <cyclicDFAInit(dfa)>}; separator="\n">

    <scopes:{it | <if(it.isDynamicGlobalScope)><globalAttributeScopeStack(scope=it)><endif>}>
 <rules:{it | <ruleAttributeScopeStack(scope=it.ruleDescriptor.ruleScope)>}>
```

```
        <init>

        <grammar.delegators:
          {g|self.<g:delegateName()> = <g:delegateName()>}; separator="\n">
        <grammar.directDelegates:
         {g|self.<g:delegateName()> = <g.recognizerName>(<trunc(g.delegators):{p|<p:delegateName()>, }>self, input,
state)}; separator="\n">
        <grammar.directDelegates:
         {g|<g.delegates:{h|self.<h:delegateName()> = self.<g:delegateName()>.<h:delegateName()>};
separator="\n">}; separator="\n">
        <last(grammar.delegators):
      {g|self.gParent = self.<g:delegateName()>}; separator="\n">
        self.delegates = [<grammar.delegates: {g|self.<g:delegateName()>}; separator = ", ">]

 <@init><@end>



    <@members><@end>

    <members>

    <rules; separator="\n\n">

    <! generate rule/method definitions for imported rules so they
       appear to be defined in this recognizer. !>
    <grammar.delegatedRules:{ruleDescriptor| <delegateRule(ruleDescriptor)> }; separator="\n">

    <synpreds:{p | <synpred(p)>}>

    <cyclicDFAs:cyclicDFA()> <! dump
 tables for all DFA !>

    <bitsets:{it | FOLLOW_<it.name>_in_<it.inName><it.tokenIndex> = frozenset([<it.tokenTypes:{it |
<it>};separator=", ">])<\n>}>

>>

delegateRule(ruleDescriptor) ::= <<
def <ruleDescriptor.name>(self, <ruleDescriptor.parameterScope:parameterScope()>):
<\ >   <if(ruleDescriptor.hasReturnValue)>return
<endif>self.<ruleDescriptor.grammar:delegateName()>.<ruleDescriptor.name>(<if(ruleDescriptor.parameterScope)
><ruleDescriptor.parameterScope.attributes:{a|<a.name>}; separator=", "><endif>)



>>

parser(grammar, name, scopes, tokens, tokenNames, rules, numRules, bitsets,
       ASTLabelType="Object", superClass="Parser", labelType="Token",
```

```
      members={<actions.parser.members>},
      init={<actions.parser.init>}
      ) ::= <<
<genericParser(grammar, name, scopes, tokens, tokenNames, rules, numRules,
            bitsets, "TokenStream", superClass,
            labelType, members, "Token",
            false, init, ASTLabelType)>
>>

/** How to generate a tree
 parser; same as parser except the input
*  stream is a different type.
*/
treeParser(grammar, name, scopes, tokens, tokenNames, globalAction, rules,
         numRules, bitsets, filterMode, labelType={<ASTLabelType>}, ASTLabelType="Object",
superClass={<if(filterMode)><if(buildAST)>TreeRewriter<else>TreeFilter<endif><else>TreeParser<endif>},
 members={<actions.treeparser.members>},
    init={<actions.treeparser.init>}
         ) ::= <<
<genericParser(grammar, name, scopes, tokens, tokenNames, rules, numRules,
            bitsets, "TreeNodeStream", superClass,
            labelType, members, "Node",
            filterMode, init, ASTLabelType)>
>>

/** A simpler version of a rule template that is specific to the imaginary
*  rules created for syntactic predicates.  As they never have return values
*  nor parameters etc..., just give simplest possible method.  Don't do
*  any of the normal memoization stuff in here either; it's a waste.
*  As predicates
 cannot be inlined into the invoking rule, they need to
*  be in a rule by themselves.
*/
synpredRule(ruleName, ruleDescriptor, block, description, nakedBlock) ::=
<<
# $ANTLR start "<ruleName>"
def <ruleName>_fragment(self, <ruleDescriptor.parameterScope:parameterScope()>):
   <ruleLabelDefs()>
<if(trace)>
   self.traceIn("<ruleName>_fragment", <ruleDescriptor.index>)
   try:
       <block>

   finally:
       self.traceOut("<ruleName>_fragment", <ruleDescriptor.index>)

<else>
   <block>
```

```
<endif>
# $ANTLR end "<ruleName>"



>>

synpred(name) ::= <<
def <name>(self):
   self._state.backtracking += 1
   <@start()>
   start = self.input.mark()
   try:
       self.<name>_fragment()
   except BacktrackingFailed:
       success = False
   else:
       success = True
   self.input.rewind(start)
   <@stop()>
   self._state.backtracking -= 1
   return success



>>

lexerSynpred(name) ::= <<
<synpred(name)>
>>

ruleMemoization(name) ::= <<
<if(memoize)>
if self._state.backtracking
 > 0 and self.alreadyParsedRule(self.input, <ruleDescriptor.index>):
   # for cached failed rules, alreadyParsedRule will raise an exception
   success = True
   return <ruleReturnValue()>

<endif>
>>

/** This rule has failed, exit indicating failure during backtrack */
ruleBacktrackFailure() ::= <<
<if(backtracking)>
if self._state.backtracking > 0:
   raise BacktrackingFailed

<endif>
>>
```

```
/** How to generate code for a rule.  This includes any return type
*  data aggregates required for multiple return values.
*/
rule(ruleName,ruleDescriptor,block,emptyRule,description,exceptions,finally,memoize) ::= <<
<returnScope(scope=ruleDescriptor.returnScope)>

# $ANTLR start "<ruleName>"
# <fileName>:<description>
<ruleDescriptor.actions.decorate>
def <ruleName>(self, <ruleDescriptor.parameterScope:parameterScope()>):
<if(trace)>
   self.traceIn("<ruleName>", <ruleDescriptor.index>)<\n>
<endif>
   <ruleScopeSetUp()>
   <ruleDeclarations()>
   <ruleLabelDefs()>
   <ruleDescriptor.actions.init>
    <@preamble()>
   <@body><ruleBody()><@end>
   <@postamble()>
   return <ruleReturnValue()>

# $ANTLR end "<ruleName>"
>>

ruleBody() ::= <<
<if(memoize)>
<if(backtracking)>
success = False<\n>
<endif>
<endif>
try:
   try:
       <ruleMemoization(name=ruleName)>
       <block>
       <ruleCleanUp()>
       <(ruleDescriptor.actions.after):execAction()>

<if(memoize)>
<if(backtracking)>
       success = True<\n>
<endif>
<endif>
<if(exceptions)>
   <exceptions:{e|<catch(decl=e.decl,action=e.action)><\n>}>
<else>
<if(!emptyRule)>
```

```
<if(actions.(actionScope).rulecatch)>
   <actions.(actionScope).rulecatch>
<else>
   except RecognitionException, re:
       self.reportError(re)
       self.recover(self.input, re)
       <@setErrorReturnValue()>

<endif>
<else>
   finally:
       pass

<endif>
<endif>
finally:
<if(trace)>
   self.traceOut("<ruleName>", <ruleDescriptor.index>)<\n>
<endif>
   <memoize()>
   <ruleScopeCleanUp()>
   <finally>
   pass
>>

catch(decl,action)
 ::= <<
except <e.decl>:
   <e.action>

>>

ruleDeclarations() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
retval = self.<ruleDescriptor.name>_return()
retval.start = self.input.LT(1)<\n>
<elseif(ruleDescriptor.returnScope)>
<ruleDescriptor.returnScope.attributes:{ a |
<a.name> = <if(a.initValue)><a.initValue><else>None<endif>
}>
<endif>
<if(memoize)>
<ruleDescriptor.name>_StartIndex = self.input.index()
<endif>
>>

ruleScopeSetUp() ::= <<
<ruleDescriptor.useScopes:{it | self.<it>_stack.append(<it>_scope())}; separator="\n">
```

```
<ruleDescriptor.ruleScope:{it | self.<it.name>_stack.append(<it.name>_scope())}; separator="\n">
>>

ruleScopeCleanUp() ::= <<
<ruleDescriptor.useScopes:{it | self.<it>_stack.pop()}; separator="\n">
<ruleDescriptor.ruleScope:{it | self.<it.name>_stack.pop()}; separator="\n">
>>

ruleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,ruleDescriptor.tokenListLabels,
 ruleDescriptor.wildcardTreeLabels,ruleDescriptor.wildcardTreeListLabels]
    :{it | <it.label.text> = None}; separator="\n"
>
<[ruleDescriptor.tokenListLabels,ruleDescriptor.ruleListLabels,
 ruleDescriptor.wildcardTreeListLabels]
   :{it | list_<it.label.text> = None}; separator="\n"
>
<ruleDescriptor.ruleLabels:ruleLabelDef(); separator="\n">
<ruleDescriptor.ruleListLabels:{it | <it.label.text> = None}; separator="\n">
>>

lexerRuleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,
 ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleLabels]
   :{it | <it.label.text> = None}; separator="\n"
>
<ruleDescriptor.charLabels:{it | <it.label.text> = None}; separator="\n">
<[ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleListLabels]
   :{it | list_<it.label.text> = None}; separator="\n"
>
>>

ruleReturnValue() ::= <%
<if(!ruleDescriptor.isSynPred)>
<if(ruleDescriptor.hasReturnValue)>
<if(ruleDescriptor.hasSingleReturnValue)>
<ruleDescriptor.singleValueReturnName>
<else>
retval
<endif>
<endif>
<endif>
%>

ruleCleanUp() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
```

```
<if(!TREE_PARSER)>
retval.stop
 = self.input.LT(-1)<\n>
<endif>
<endif>
>>

memoize() ::= <<
<if(memoize)>
<if(backtracking)>
if self._state.backtracking > 0:
   self.memoize(self.input, <ruleDescriptor.index>, <ruleDescriptor.name>_StartIndex, success)

<endif>
<endif>
>>

/** How to generate a rule in the lexer; naked blocks are used for
*  fragment rules.
*/
lexerRule(ruleName,nakedBlock,ruleDescriptor,block,memoize) ::= <<
# $ANTLR start "<ruleName>"
def m<ruleName>(self, <ruleDescriptor.parameterScope:parameterScope()>):
<if(trace)>
   self.traceIn("<ruleName>", <ruleDescriptor.index>)<\n>
<endif>
   <ruleScopeSetUp()>
   <ruleDeclarations()>
<if(memoize)>
<if(backtracking)>
   success = False<\n>
<endif>
<endif>
   try:
<if(nakedBlock)>
       <ruleMemoization(name=ruleName)>
       <lexerRuleLabelDefs()>
       <ruleDescriptor.actions.init>
       <block><\n>
<else>
       _type = <ruleName>
       _channel = DEFAULT_CHANNEL

       <ruleMemoization(name=ruleName)>
        <lexerRuleLabelDefs()>
       <ruleDescriptor.actions.init>
       <block>
       <ruleCleanUp()>
```

```
      self._state.type = _type
      self._state.channel = _channel
      <(ruleDescriptor.actions.after):execAction()>
<endif>
<if(memoize)>
<if(backtracking)>
      success = True<\n>
<endif>
<endif>

   finally:
<if(trace)>
      self.traceOut("<ruleName>", <ruleDescriptor.index>)<\n>
<endif>
 <ruleScopeCleanUp()>
      <memoize()>
      pass

# $ANTLR end "<ruleName>"


>>

/** How to generate code for the implicitly-defined lexer grammar rule
*  that chooses between lexer rules.
*/
tokensRule(ruleName,nakedBlock,args,block,ruleDescriptor) ::= <<
def mTokens(self):
   <block><\n>



>>

// S U B R U L E S

/** A (...) subrule with multiple alternatives */
block(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
# <fileName>:<description>
alt<decisionNumber> = <maxAlt>
<decls>
<@body><blockBody()><@end>
>>

blockBody()
 ::= <<
<@predecision()>
<@decision><decision><@end>
<@postdecision()>
```

```
<@prebranch()>
<alts:{a | <altSwitchCase(i, a)>}; separator="\nel">
<@postbranch()>
>>

/** A rule block with multiple alternatives */
ruleBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
# <fileName>:<description>
alt<decisionNumber> = <maxAlt>
<decls>
<@predecision()>
<@decision><decision><@end>
<@postdecision()>
<alts:{a | <altSwitchCase(i, a)>}; separator="\nel">
>>

ruleBlockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
# <fileName>:<description>
<decls>
<@prealt()>
<alts>
<@postalt()>
>>

/** A special case of a (...) subrule with a single alternative */
blockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
# <fileName>:<description>
<decls>
<@prealt()>
<alts>
<@postalt()>
>>

/** A (..)+ block with 1 or more alternatives */
positiveClosureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description)
 ::= <<
# <fileName>:<description>
cnt<decisionNumber> = 0
<decls>
<@preloop()>
<@loopBody>
<positiveClosureBlockLoop()>
<@end>
<@postloop()>
>>

positiveClosureBlockLoop() ::= <<
```

```
while True: #loop<decisionNumber>
   alt<decisionNumber> = <maxAlt>
   <@predecision()>
   <@decisionBody><decision><@end>
   <@postdecision()>
   <alts:{a | <altSwitchCase(i, a)>}; separator="\nel">
   else:
       if cnt<decisionNumber> >= 1:
           break #loop<decisionNumber>

       <ruleBacktrackFailure()>
       eee = EarlyExitException(<decisionNumber>, self.input)
       <@earlyExitException()>
       raise eee

   cnt<decisionNumber> += 1
>>

positiveClosureBlockSingleAlt ::= positiveClosureBlock

/** A (..)* block with 1 or more alternatives */
closureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::=
<<
# <fileName>:<description>
<decls>
<@preloop()>
<@loopBody>
<closureBlockLoop()>
<@end>
<@postloop()>
>>

closureBlockLoop()
 ::= <<
while True: #loop<decisionNumber>
   alt<decisionNumber> = <maxAlt>
   <@predecision()>
   <@decisionBody><decision><@end>
   <@postdecision()>
   <alts:{a | <altSwitchCase(i, a)>}; separator="\nel">
   else:
       break #loop<decisionNumber>
>>

closureBlockSingleAlt ::= closureBlock

/** Optional blocks (x)? are translated to (x|) by before code generation
*  so we can just use the normal block template
```

```
*/
optionalBlock ::= block

optionalBlockSingleAlt ::= block

/** A case in a switch that jumps to an alternative given the alternative
*  number.  A DFA predicts the alternative and then a simple switch
*  does the jump to the code that actually matches that alternative.
*/
altSwitchCase(altNum,alt) ::= <<
if alt<decisionNumber> == <altNum>:
   <@prealt()>
   <alt>
>>

/** An alternative is just a list of elements; at outermost level */
alt(elements,altNum,description,autoAST,outerAlt,
 treeLevel,rew) ::= <<
# <fileName>:<description>
pass <! so empty alternatives are a valid block !>
<@declarations()>
<elements:element()>
<rew>
<@cleanup()>
>>

/** What to emit when there is no rewrite.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel, treeLevel) ::= ""

// E L E M E N T S

/** Dump the elements one per line */
element(e) ::= <<
<@prematch()>
<e.el><\n>
>>

/** match a token optionally with a label in front */
tokenRef(token,label,elementIndex,terminalOptions={}) ::= <<
<if(label)><label> = <endif>self.match(self.input, <token>,
self.FOLLOW_<token>_in_<ruleName><elementIndex>)
>>

/** ids+=ID */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRef(token,label,elementIndex,terminalOptions)>
```

```
<listLabel(label, label)>
>>

listLabel(label, elem) ::= <<
if list_<label> is None:
   list_<label> = []
list_<label>.append(<elem>)<\n>
>>

/** match a character */
charRef(char,label) ::= <<
<if(label)>
<label>
 = self.input.LA(1)<\n>
<endif>
self.match(<char>)
>>

/** match a character range */
charRangeRef(a,b,label) ::= <<
<if(label)>
<label> = self.input.LA(1)<\n>
<endif>
self.matchRange(<a>, <b>)
>>

/** For now, sets are interval tests and must be tested inline */
matchSet(s,label,elementIndex,postmatchCode="",terminalOptions={}) ::= <<
<if(label)>
<label> = self.input.LT(1)<\n>
<endif>
if <s>:
   self.input.consume()
   <postmatchCode>
<if(!LEXER)>
   self._state.errorRecovery = False<\n>
<endif>

else:
   <ruleBacktrackFailure()>
   mse = MismatchedSetException(None, self.input)
   <@mismatchedSetException()>
<if(LEXER)>
   self.recover(mse)
   raise mse
<else>
   raise mse
   <! use following code to make it recover inline; remove throw mse;
```

```
  self.recoverFromMismatchedSet(
    self.input, mse, self.FOLLOW_set_in_<ruleName><elementIndex>
    )
  !>
<endif>
<\n>
>>

matchRuleBlockSet ::= matchSet

matchSetAndListLabel(s,label,elementIndex,postmatchCode) ::= <<
<matchSet(...)>
<listLabel(label,
 label)>
>>

/** Match a string literal */
lexerStringRef(string,label,elementIndex="0") ::= <<
<if(label)>
<label>Start = self.getCharIndex()
self.match(<string>)
<label>StartLine<elementIndex> = self.getLine()
<label>StartCharPos<elementIndex> = self.getCharPositionInLine()
<label> = <labelType>(input=self.input, type=INVALID_TOKEN_TYPE, channel=DEFAULT_CHANNEL,
start=<label>Start, stop=self.getCharIndex()-1)
<label>.setLine(<label>StartLine<elementIndex>)
<label>.setCharPositionInLine(<label>StartCharPos<elementIndex>)
<else>
self.match(<string>)
<endif>
>>

wildcard(token,label,elementIndex,terminalOptions={}) ::= <<
<if(label)>
<label> = self.input.LT(1)<\n>
<endif>
self.matchAny(self.input)
>>

wildcardAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<wildcard(...)>
<listLabel(label,label)>
>>

/** Match . wildcard in lexer */
wildcardChar(label, elementIndex) ::= <<
<if(label)>
<label> = self.input.LA(1)<\n>
```

```
<endif>
self.matchAny()
>>

wildcardCharListLabel(label,
 elementIndex) ::= <<
<wildcardChar(label, elementIndex)>
<listLabel(label, label)>
>>

/** Match a rule reference by invoking it possibly with arguments
*  and a return value or values. The 'rule' argument was the
*  target rule name, but now is type Rule, whose toString is
*  same: the rule name.  Now though you can access full rule
*  descriptor stuff.
*/
ruleRef(rule,label,elementIndex,args,scope) ::= <<
self._state.following.append(self.FOLLOW_<rule.name>_in_<ruleName><elementIndex>)
<if(label)><label> = <endif>self.<if(scope)><scope:delegateName()>.<endif><rule.name>(<args; separator=",
">)<\n>
self._state.following.pop()
>>

/** ids+=rule */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(rule,label,elementIndex,args,scope)>
<listLabel(label, label)>
>>

/** A lexer rule reference
*  The 'rule' argument was the target rule name, but now
*  is type Rule, whose toString is same: the rule name.
*  Now though you can access
 full rule descriptor stuff.
*/
lexerRuleRef(rule,label,args,elementIndex,scope) ::= <<
<if(label)>
<label>Start<elementIndex> = self.getCharIndex()
self.<if(scope)><scope:delegateName()>.<endif>m<rule.name>(<args; separator=", ">)
<label>StartLine<elementIndex> = self.getLine()
<label>StartCharPos<elementIndex> = self.getCharPositionInLine()
<label> = <labelType>(
   input=self.input,
   type=INVALID_TOKEN_TYPE,
   channel=DEFAULT_CHANNEL,
   start=<label>Start<elementIndex>,
   stop=self.getCharIndex()-1)
<label>.setLine(<label>StartLine<elementIndex>)
```

```
<label>.setCharPositionInLine(<label>StartCharPos<elementIndex>)
<else>
self.<if(scope)><scope:delegateName()>.<endif>m<rule.name>(<args; separator=", ">)
<endif>
>>

/** i+=INT in lexer */
lexerRuleRefAndListLabel(rule,label,args,elementIndex,scope) ::= <<
<lexerRuleRef(rule,label,args,elementIndex,scope)>
<listLabel(label, label)>
>>

/** EOF in the lexer */
lexerMatchEOF(label,elementIndex) ::= <<
<if(label)>
<label>Start<elementIndex>
 = self.getCharIndex()
<label>StartLine<elementIndex> = self.getLine()
<label>StartCharPos<elementIndex> = self.getCharPositionInLine()
self.match(EOF)
<label> = <labelType>(input=self.input, type=EOF, channel=DEFAULT_CHANNEL,
start=<label>Start<elementIndex>, stop=self.getCharIndex()-1)
<label>.setLine(<label>StartLine<elementIndex>)
<label>.setCharPositionInLine(<label>StartCharPos<elementIndex>)
<else>
self.match(EOF)
<endif>
>>

// used for left-recursive rules
recRuleDefArg()                       ::= "<recRuleArg()>"
recRuleArg()                          ::= "_p"
recRuleAltPredicate(ruleName, opPrec) ::= "<recRuleArg()> \<= <opPrec>"
recRuleSetResultAction()              ::= "root_0 = $<ruleName>_primary.tree"
recRuleSetReturnAction(src, name)     ::= "$<name> = $<src>.<name>"

/** match ^(root children) in tree parser */
tree(root, actionsAfterRoot, children, nullableChildList,
    enclosingTreeLevel, treeLevel) ::= <<
<root:element()>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if
 self.input.LA(1) == DOWN:
   self.match(self.input, DOWN, None)
   <children:element()>
   self.match(self.input, UP, None)
```

```
<else>
self.match(self.input, DOWN, None)
<children:element()>
self.match(self.input, UP, None)
<endif>
>>

/** Every predicate is used as a validating predicate (even when it is
*  also hoisted into a prediction expression).
*/
validateSemanticPredicate(pred,description) ::= <<
if not (<evalPredicate(pred, description)>):
   <ruleBacktrackFailure()>
   raise FailedPredicateException(self.input, "<ruleName>", "<description>")

>>

// F i x e d  D F A  (if-then-else)

dfaState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
LA<decisionNumber>_<stateNumber> = self.input.LA(<k>)<\n>
<edges; separator="\nel">
else:
<if(eotPredictsAlt)>
   alt<decisionNumber> = <eotPredictsAlt>
<else>
   <ruleBacktrackFailure()>
   nvae = NoViableAltException("<description>", <decisionNumber>, <stateNumber>, self.input)<\n>

  <@noViableAltException()>
   raise nvae<\n>
<endif>
>>

/** Same as a normal DFA state except that we don't examine lookahead
*  for the bypass alternative.  It delays error detection but this
*  is faster, smaller, and more what people expect.  For (X)? people
*  expect "if ( LA(1)==X ) match(X);" and that's it.
*/
dfaOptionalBlockState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
LA<decisionNumber>_<stateNumber> = self.input.LA(<k>)<\n>
<edges; separator="\nel">
>>

/** A DFA state that is actually the loopback decision of a closure
*  loop.  If end-of-token (EOT) predicts any of the targets then it
*  should act like a default clause (i.e., no error can be generated).
*  This is used only in the lexer so that for ('a')* on the end of a rule
```

```
*  anything other than 'a' predicts exiting.
*/
dfaLoopbackState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
LA<decisionNumber>_<stateNumber> = self.input.LA(<k>)<\n>
<edges; separator="\nel"><\n>
<if(eotPredictsAlt)>
<if(!edges)>
alt<decisionNumber>
 = <eotPredictsAlt> <! if no edges, don't gen ELSE !>
<else>
else:
   alt<decisionNumber> = <eotPredictsAlt>
<\n>
<endif>
<endif>
>>

/** An accept state indicates a unique alternative has been predicted */
dfaAcceptState(alt) ::= "alt<decisionNumber> = <alt>"

/** A simple edge with an expression.  If the expression is satisfied,
*  enter to the target state.  To handle gated productions, we may
*  have to evaluate some predicates for this edge.
*/
dfaEdge(labelExpr, targetState, predicates) ::= <<
if (<labelExpr>) <if(predicates)>and (<predicates>)<endif>:
   <targetState>
>>

// F i x e d  D F A  (switch case)

/** A DFA state where a SWITCH may be generated.  The code generator
*  decides if this is possible: CodeGenerator.canGenerateSwitch().
*/
dfaStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
<!
 FIXME: this is one of the few occasion, where I miss a switch statement
 in Python.
 ATM this is implemented as a list of if .. elif ..
 This may be replaced by faster a dictionary lookup, when I find a solution
 for the cases when an edge is not a plain dfaAcceptState.
!>
LA<decisionNumber> = self.input.LA(<k>)
<edges; separator="\nel">
else:
<if(eotPredictsAlt)>
   alt<decisionNumber> = <eotPredictsAlt>
<else>
```

```
  <ruleBacktrackFailure()>
  nvae = NoViableAltException("<description>", <decisionNumber>, <stateNumber>, self.input)<\n>
  <@noViableAltException()>
  raise nvae<\n>
<endif>

>>

dfaOptionalBlockStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
LA<decisionNumber> = self.input.LA(<k>)
<edges; separator="\nel">
>>

dfaLoopbackStateSwitch(k, edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
LA<decisionNumber> = self.input.LA(<k>)
<edges; separator="\nel">
<if(eotPredictsAlt)>
else:
  alt<decisionNumber> = <eotPredictsAlt>
<endif>
>>

dfaEdgeSwitch(labels, targetState) ::= <<
if <labels:{it | LA<decisionNumber>
 == <it>}; separator=" or ">:
  <targetState>
>>

// C y c l i c  D F A

/** The code to initiate execution of a cyclic DFA; this is used
*  in the rule to predict an alt just like the fixed DFA case.
*  The <name> attribute is inherited via the parser, lexer, ...
*/
dfaDecision(decisionNumber,description) ::= <<
alt<decisionNumber> = self.dfa<decisionNumber>.predict(self.input)
>>

/* Dump DFA tables as run-length-encoded Strings of octal values.
* Can't use hex as compiler translates them before compilation.
* These strings are split into multiple, concatenated strings.
* Java puts them back together at compile time thankfully.
* Java cannot handle large static arrays, so we're stuck with this
* encode/decode approach.  See analysis and runtime DFA for
* the encoding methods.
*/
cyclicDFA(dfa) ::= <<
# lookup tables for DFA #<dfa.decisionNumber>
```

```
DFA<dfa.decisionNumber>_eot = DFA.unpack(
   u"<dfa.javaCompressedEOT; wrap="\"\n    u\"">"
   )

DFA<dfa.decisionNumber>_eof
 = DFA.unpack(
   u"<dfa.javaCompressedEOF; wrap="\"\n    u\"">"
   )

DFA<dfa.decisionNumber>_min = DFA.unpack(
   u"<dfa.javaCompressedMin; wrap="\"\n    u\"">"
   )

DFA<dfa.decisionNumber>_max = DFA.unpack(
   u"<dfa.javaCompressedMax; wrap="\"\n    u\"">"
   )

DFA<dfa.decisionNumber>_accept = DFA.unpack(
   u"<dfa.javaCompressedAccept; wrap="\"\n    u\"">"
   )

DFA<dfa.decisionNumber>_special = DFA.unpack(
   u"<dfa.javaCompressedSpecial; wrap="\"\n    u\"">"
   )


DFA<dfa.decisionNumber>_transition = [
   <dfa.javaCompressedTransition:{s|DFA.unpack(u"<s; wrap="\"\nu\"">")}; separator=",\n">
]

# class definition for DFA #<dfa.decisionNumber>

class DFA<dfa.decisionNumber>(DFA):
   pass

   <@errorMethod()>

<if(dfa.specialStateSTs)>
   def specialStateTransition(self_, s, input):
       # convince pylint that my self_ magic is ok ;)
       # pylint: disable-msg=E0213

       # pretend we are a member of the recognizer
       # thus semantic predicates
 can be evaluated
       self = self_.recognizer
```

```
    _s = s

    <dfa.specialStateSTs:{state | if s == <i0>: <! compressed special state numbers 0..n-1 !>
  <state>}; separator="\nel">

<if(backtracking)>
    if self._state.backtracking > 0:
      raise BacktrackingFailed

<endif>
    nvae = NoViableAltException(self_.getDescription(), <dfa.decisionNumber>, _s, input)
    self_.error(nvae)
    raise nvae<\n>
<endif>

>>

cyclicDFAInit(dfa) ::= <<
self.dfa<dfa.decisionNumber> = self.DFA<dfa.decisionNumber>(
  self, <dfa.decisionNumber>,
  eot = self.DFA<dfa.decisionNumber>_eot,
  eof = self.DFA<dfa.decisionNumber>_eof,
  min = self.DFA<dfa.decisionNumber>_min,
  max = self.DFA<dfa.decisionNumber>_max,
  accept = self.DFA<dfa.decisionNumber>_accept,
  special = self.DFA<dfa.decisionNumber>_special,
  transition = self.DFA<dfa.decisionNumber>_transition
  )<\n>
>>

/** A state in a cyclic DFA; it's a special state and part of a big switch
 on
*  state.
*/
cyclicDFAState(decisionNumber,stateNumber,edges,needErrorClause,semPredState) ::= <<
LA<decisionNumber>_<stateNumber> = input.LA(1)<\n>
<if(semPredState)> <! get next lookahead symbol to test edges, then rewind !>
index<decisionNumber>_<stateNumber> = input.index()
input.rewind()<\n>
<endif>
s = -1
<edges; separator="\nel">
<if(semPredState)> <! return input cursor to state before we rewound !>
input.seek(index<decisionNumber>_<stateNumber>)<\n>
<endif>
if s >= 0:
  return s
>>
```

```
/** Just like a fixed DFA edge, test the lookahead and indicate what
*  state to jump to next if successful.
*/
cyclicDFAEdge(labelExpr, targetStateNumber, edgeNumber, predicates) ::= <<
if (<labelExpr>)<if(predicates)> and (<predicates>)<endif>:
   s = <targetStateNumber><\n>
>>

/** An edge pointing at end-of-token; essentially matches any char;
*  always jump to the target.
*/
eotDFAEdge(targetStateNumber,edgeNumber, predicates) ::= <<
se:
   s = <targetStateNumber><\n>
>>



// D
 F A  E X P R E S S I O N S

andPredicates(left,right) ::= "((<left>) and (<right>))"

orPredicates(operands) ::= "(<operands; separator=\" or \">)"

notPredicate(pred) ::= "not (<evalPredicate(pred, {})>)"

evalPredicate(pred,description) ::= "(<pred>)"

evalSynPredicate(pred,description) ::= "self.<pred>()"

lookaheadTest(atom,k,atomAsInt) ::= "LA<decisionNumber>_<stateNumber> == <atom>"

/** Sometimes a lookahead test cannot assume that LA(k) is in a temp variable
*  somewhere.  Must ask for the lookahead directly.
*/
isolatedLookaheadTest(atom,k,atomAsInt) ::= "self.input.LA(<k>) == <atom>"

lookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= <%
(<lower> \<= LA<decisionNumber>_<stateNumber> \<= <upper>)
%>

isolatedLookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= "(<lower> \<=
self.input.LA(<k>) \<= <upper>)"

setTest(ranges) ::= "<ranges; separator=\" or \">"

// A T T R I B U T E S
```

```
globalAttributeScopeClass(scope) ::= <<
<if(scope)>
<if(scope.attributes)>
class
 <scope.name>_scope(object):
   def __init__(self):
        <scope.attributes:{it | self.<it.decl> = None}; separator="\n">

<endif>
<endif>
>>

globalAttributeScopeStack(scope) ::= <<
<if(scope)>
<if(scope.attributes)>
self.<scope.name>_stack = []<\n>
<endif>
<endif>
>>

ruleAttributeScopeClass(scope) ::= <<
<if(scope)>
<if(scope.attributes)>
class <scope.name>_scope(object):
   def __init__(self):
        <scope.attributes:{it | self.<it.decl> = None}; separator="\n">

<endif>
<endif>
>>

ruleAttributeScopeStack(scope) ::= <<
<if(scope)>
<if(scope.attributes)>
self.<scope.name>_stack = []<\n>
<endif>
<endif>
>>

delegateName(d) ::= <<
<if(d.label)><d.label><else>g<d.name><endif>
>>

/** Define a rule label including default value */
ruleLabelDef(label) ::= <<
<label.label.text> = None
>>
```

```
returnStructName(r) ::= "<r.name>_return"

/** Define a return struct for a rule if the code needs to access its
*  start/stop tokens, tree stuff, attributes, ...  Leave
 a hole for
*  subgroups to stick in members.
*/
returnScope(scope) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
class <ruleDescriptor:returnStructName()>(<if(TREE_PARSER)>Tree<else>Parser<endif>RuleReturnScope):
   def __init__(self):
       super(<grammar.recognizerName>.<ruleDescriptor:returnStructName()>, self).__init__()

       <if(scope)><scope.attributes:{it | self.<it.decl> = None}; separator="\n"><endif>
       <@ruleReturnInit()>



   <@ruleReturnMembers()>

<endif>
>>

parameterScope(scope) ::= <<
<if(scope)><scope.attributes:{it | <it.decl>}; separator=", "><endif>
>>

parameterAttributeRef(attr) ::= "<attr.name>"
parameterSetAttributeRef(attr,expr) ::= "<attr.name> = <expr>"

scopeAttributeRef(scope,attr,index,negIndex) ::= <%
<if(negIndex)>
self.<scope>_stack[-<negIndex>].<attr.name>
<else>
<if(index)>
self.<scope>_stack[<index>].<attr.name>
<else>
self.<scope>_stack[-1].<attr.name>
<endif>
<endif>
%>

/* not applying patch because of bug in action parser!

<if(negIndex)>
((len(self.<scope>_stack)
 - <negIndex> - 1) >= 0 and [self.<scope>_stack[-<negIndex>].<attr.name>] or [None])[0]
<else>
```

```
<if(index)>
((<index> \< len(self.<scope>_stack)) and [self.<scope>_stack[<index>].<attr.name>] or [None])[0]
<else>
((len(self.<scope>_stack) > 0) and [self.<scope>_stack[-1].<attr.name>] or [None])[0]
<endif>
<endif>

*/

scopeSetAttributeRef(scope,attr,expr,index,negIndex) ::= <%
<if(negIndex)>
<!FIXME: this seems not to be used by ActionTranslator...!>
self.<scope>_stack[-<negIndex>].<attr.name> = <expr>
<else>
<if(index)>
<!FIXME: this seems not to be used by ActionTranslator...!>
self.<scope>_stack[<index>].<attr.name> = <expr>
<else>
self.<scope>_stack[-1].<attr.name> = <expr>
<endif>
<endif>
%>

/** $x is either global scope or x is rule with dynamic scope; refers
*  to stack itself not top of stack.  This is useful for predicates
*  like {$function.size()>0 && $function::name.equals("foo")}?
*/
isolatedDynamicScopeRef(scope) ::= "self.<scope>_stack"

/**
 reference an attribute of rule; might only have single return value */
ruleLabelRef(referencedRule,scope,attr) ::= <%
<if(referencedRule.hasMultipleReturnValues)>
((<scope> is not None) and [<scope>.<attr.name>] or [None])[0]
<else>
<scope>
<endif>
%>

returnAttributeRef(ruleDescriptor,attr) ::= <%
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name>
<else>
<attr.name>
<endif>
%>

returnSetAttributeRef(ruleDescriptor,attr,expr) ::= <%
```

```
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name> = <expr>
<else>
<attr.name> = <expr>
<endif>
%>

/** How to translate $tokenLabel */
tokenLabelRef(label) ::= "<label>"

/** ids+=ID {$ids} or e+=expr {$e} */
listLabelRef(label) ::= "list_<label>"



// not sure the next are the right approach; and they are evaluated early;
// they cannot see TREE_PARSER or PARSER attributes for example. :(

tokenLabelPropertyRef_text(scope,attr) ::= "<scope>.text"
tokenLabelPropertyRef_type(scope,attr) ::= "<scope>.type"
tokenLabelPropertyRef_line(scope,attr)
 ::= "<scope>.line"
tokenLabelPropertyRef_pos(scope,attr) ::= "<scope>.charPositionInLine"
tokenLabelPropertyRef_channel(scope,attr) ::= "<scope>.channel"
tokenLabelPropertyRef_index(scope,attr) ::= "<scope>.index"
tokenLabelPropertyRef_tree(scope,attr) ::= "<scope>_tree"

ruleLabelPropertyRef_start(scope,attr) ::= "<scope>.start"
ruleLabelPropertyRef_stop(scope,attr) ::= "<scope>.stop"
ruleLabelPropertyRef_tree(scope,attr) ::= "<scope>.tree"
ruleLabelPropertyRef_text(scope,attr) ::= <%
<if(TREE_PARSER)>
((<scope> is not None) and [self.input.getTokenStream().toString(
   self.input.getTreeAdaptor().getTokenStartIndex(<scope>.start),
   self.input.getTreeAdaptor().getTokenStopIndex(<scope>.start)
   )] or [None])[0]
<else>
((<scope> is not None) and [self.input.toString(<scope>.start,<scope>.stop)] or [None])[0]
<endif>
%>
ruleLabelPropertyRef_st(scope,attr) ::= "((<scope> is not None) and [<scope>.st] or [None])[0]"

/** Isolated $RULE ref ok in lexer as
 it's a Token */
lexerRuleLabel(label) ::= "<label>"

lexerRuleLabelPropertyRef_type(scope,attr) ::= "((<scope> is not None) and [<scope>.type] or [0])[0]"
lexerRuleLabelPropertyRef_line(scope,attr) ::= "((<scope> is not None) and [<scope>.line] or [0])[0]"
lexerRuleLabelPropertyRef_pos(scope,attr) ::= "((<scope> is not None) and [<scope>.charPositionInLine] or
```

```
[0])[0]"
lexerRuleLabelPropertyRef_channel(scope,attr) ::= "((<scope> is not None) and [<scope>.channel] or [0])[0]"
lexerRuleLabelPropertyRef_index(scope,attr) ::= "((<scope> is not None) and [<scope>.index] or [0])[0]"
lexerRuleLabelPropertyRef_text(scope,attr) ::= "((<scope> is not None) and [<scope>.text] or [None])[0]"
lexerRuleLabelPropertyRef_int(scope,attr) ::= "((<scope> is not None) and [int(<scope>.text)] or [0])[0]"

// Somebody may ref $template or $tree or $stop within a rule:
rulePropertyRef_start(scope,attr) ::= "retval.start"
rulePropertyRef_stop(scope,attr) ::= "retval.stop" //mmm... or input.LT(-1)??
rulePropertyRef_tree(scope,attr)
 ::= "retval.tree"
rulePropertyRef_text(scope,attr) ::= "self.input.toString(retval.start, self.input.LT(-1))"
rulePropertyRef_st(scope,attr) ::= "retval.st"

lexerRulePropertyRef_text(scope,attr) ::= "self.text"
lexerRulePropertyRef_type(scope,attr) ::= "_type"
lexerRulePropertyRef_line(scope,attr) ::= "self._state.tokenStartLine"
lexerRulePropertyRef_pos(scope,attr) ::= "self._state.tokenStartCharPositionInLine"
lexerRulePropertyRef_index(scope,attr) ::= "-1" // undefined token index in lexer
lexerRulePropertyRef_channel(scope,attr) ::= "_channel"
lexerRulePropertyRef_start(scope,attr) ::= "self._state.tokenStartCharIndex"
lexerRulePropertyRef_stop(scope,attr) ::= "(self.getCharIndex()-1)"
lexerRulePropertyRef_int(scope,attr) ::= "int(<scope>.text)"

// setting $st and $tree is allowed in local rule. everything else
// is flagged as error
ruleSetPropertyRef_tree(scope,attr,expr) ::= "retval.tree =<expr>"
ruleSetPropertyRef_st(scope,attr,expr) ::= "retval.st =<expr>"


/**
 How to execute an action (only when not backtracking) */
execAction(action) ::= <<
<if(backtracking)>
<if(actions.(actionScope).synpredgate)>
if <actions.(actionScope).synpredgate>:
   pass
   <action>

<else>
if <actions.(actionScope).synpredgate>:
   pass
   <action>

<endif>
<else>
#action start
<action>
```

```
#action end
<endif>
>>

/** How to always execute an action even when backtracking */
execForcedAction(action) ::= "<action>"


// M I S C (properties, etc...)

codeFileExtension() ::= ".py"

true_value() ::= "True"
false_value() ::= "False"
```

Found in path(s):

* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Python/Python.stg

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* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Python3/AST.stg
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THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
*/
/*
New style messages. This file contains the actual layout of the messages emitted by ANTLR.
The text itself is coming out of the languages/*stg files, according to the chosen locale.
This file contains the default format ANTLR uses.
*/

group antlr;

location(file, line, column) ::= "<file>(<line>,<column>)"

message(id, text) ::= "error <id> : <text>"

report(location, message, type) ::= "<location> : <type> <message.id> : <message.text>"

wantsSingleLineMessage() ::= "true"

Found
in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/tool/templates/messages/formats/vs2005.stg
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*/

```
javaTypeInitMap ::= [
 "int":"0",
 "long":"0",
 "float":"0.0f",
 "double":"0.0",
 "boolean":"false",
 "byte":"0",
 "short":"0",
 "char":"0",
 default:"null" // anything other than an atomic type
]

// System.Boolean.ToString() returns "True" and "False", but the proper C# literals are "true" and "false"
```

```
// The Java version of Boolean returns "true" and "false", so they map to themselves here.
booleanLiteral ::= [
 "True":"true",
 "False":"false",
 "true":"true",
 "false":"false",
 default:"false"
]

/**
 The overall file structure of a recognizer; stores methods for rules
*  and cyclic DFAs plus support code.
*/
outputFile(LEXER,PARSER,TREE_PARSER, actionScope, actions,
          docComment, recognizer,
          name, tokens, tokenNames, rules, cyclicDFAs,
    bitsets, buildTemplate, buildAST, rewriteMode, profile,
    backtracking, synpreds, memoize, numRules,
    fileName, ANTLRVersion, generatedTimestamp, trace,
    scopes, superClass, literals) ::=
<<
// $ANTLR <ANTLRVersion> <fileName> <generatedTimestamp>
<actions.(actionScope).header>

<@imports>
import org.antlr.runtime.*;
<if(TREE_PARSER)>
import org.antlr.runtime.tree.*;
<endif>
import java.util.Stack;
import java.util.List;
import java.util.ArrayList;
<if(backtracking)>
import java.util.Map;
import java.util.HashMap;
<endif>
<@end>

<docComment>
@SuppressWarnings("all")
<recognizer>

>>

lexer(grammar, name, tokens, scopes, rules, numRules, filterMode, labelType="CommonToken",
     superClass="Lexer")
 ::= <<
public class <grammar.recognizerName> extends <@superClassName><superClass><@end> {
```

```
 <tokens:{it | public static final int <it.name>=<it.type>;}; separator="\n">
 <scopes:{it |<if(it.isDynamicGlobalScope)><globalAttributeScope(it)><endif>}>
 <actions.lexer.members>

 // delegates
 <grammar.delegates:
  {g|public <g.recognizerName> <g:delegateName()>;}; separator="\n">
 // delegators
 <grammar.delegators:
  {g|public <g.recognizerName> <g:delegateName()>;}; separator="\n">
 <last(grammar.delegators):{g|public <g.recognizerName> gParent;}>
 public <superClass>[] getDelegates() {
  return new <superClass>[] {<grammar.delegates: {g|<g:delegateName()>}; separator = ", ">};
 }

 public <grammar.recognizerName>() {} <! needed by subclasses !>
 public <grammar.recognizerName>(CharStream input<grammar.delegators:{g|, <g.recognizerName>
<g:delegateName()>}>) {
  this(input, new RecognizerSharedState()<grammar.delegators:{g|, <g:delegateName()>}>);
 }
 public <grammar.recognizerName>(CharStream
 input, RecognizerSharedState state<grammar.delegators:{g|, <g.recognizerName> <g:delegateName()>}>) {
  super(input,state);
<if(memoize)>
<if(grammar.grammarIsRoot)>
  state.ruleMemo = new HashMap[<numRules>+1];<\n><! index from 1..n !>
<endif>
<endif>
  <grammar.directDelegates:
   {g|<g:delegateName()> = new <g.recognizerName>(input, state<trunc(g.delegators):{p|, <p:delegateName()>}>,
this);}; separator="\n">
  <grammar.delegators:
   {g|this.<g:delegateName()> = <g:delegateName()>;}; separator="\n">
  <last(grammar.delegators):{g|gParent = <g:delegateName()>;}>
 }
 @Override public String getGrammarFileName() { return "<fileName>"; }

<if(filterMode)>
 <filteringNextToken()>
<endif>
 <rules; separator="\n\n">

 <synpreds:{p | <lexerSynpred(p)>}>

 <cyclicDFAs:{dfa | protected DFA<dfa.decisionNumber> dfa<dfa.decisionNumber> = new
DFA<dfa.decisionNumber>(this);}; separator="\n">
 <cyclicDFAs:cyclicDFA(); separator="\n\n"><! dump tables for all DFA !>
```

```
}
>>

/** A override of
 Lexer.nextToken() that backtracks over mTokens() looking
*  for matches.  No error can be generated upon error; just rewind, consume
*  a token and then try again.  backtracking needs to be set as well.
*  Make rule memoization happen only at levels above 1 as we start mTokens
*  at backtracking==1.
*/
filteringNextToken() ::= <<
@Override
public Token nextToken() {
 while (true) {
  if ( input.LA(1)==CharStream.EOF ) {
   Token eof = new CommonToken(input,Token.EOF,
          Token.DEFAULT_CHANNEL,
          input.index(),input.index());
   eof.setLine(getLine());
   eof.setCharPositionInLine(getCharPositionInLine());
   return eof;
  }
  state.token = null;
 state.channel = Token.DEFAULT_CHANNEL;
  state.tokenStartCharIndex = input.index();
  state.tokenStartCharPositionInLine = input.getCharPositionInLine();
  state.tokenStartLine = input.getLine();
 state.text = null;
  try {
   int m = input.mark();
   state.backtracking=1; <! means we won't throw slow exception !>
   state.failed=false;
   mTokens();
   state.backtracking=0;
   <!
 mTokens backtracks with synpred at backtracking==2
    and we set the synpredgate to allow actions at level 1. !>
   if ( state.failed ) {
    input.rewind(m);
    input.consume(); <! advance one char and try again !>
   }
   else {
    emit();
    return state.token;
   }
  }
  catch (RecognitionException re) {
   // shouldn't happen in backtracking mode, but...
```

```
   reportError(re);
   recover(re);
  }
 }
}

@Override
public void memoize(IntStream input,
  int ruleIndex,
  int ruleStartIndex)
{
if ( state.backtracking>1 ) super.memoize(input, ruleIndex, ruleStartIndex);
}

@Override
public boolean alreadyParsedRule(IntStream input, int ruleIndex) {
if ( state.backtracking>1 ) return super.alreadyParsedRule(input, ruleIndex);
return false;
}
>>

actionGate() ::= "state.backtracking==0"

filteringActionGate() ::= "state.backtracking==1"

/** How to generate a parser */
genericParser(grammar, name, scopes, tokens, tokenNames, rules,
 numRules,
             bitsets, inputStreamType, superClass,
             labelType, members, rewriteElementType,
             filterMode, ASTLabelType="Object") ::= <<
public class <grammar.recognizerName> extends <@superClassName><superClass><@end> {
<if(grammar.grammarIsRoot)>
 public static final String[] tokenNames = new String[] {
  "\<invalid>", "\<EOR>", "\<DOWN>", "\<UP>", <tokenNames; separator=", ", wrap="\n\t\t">
 };
<endif>
 <tokens:{it |public static final int <it.name>=<it.type>;}; separator="\n">

 // delegates
 <grammar.delegates: {g|public <g.recognizerName> <g:delegateName()>;}; separator="\n">
 public <superClass>[] getDelegates() {
  return new <superClass>[] {<grammar.delegates: {g|<g:delegateName()>}; separator = ", ">};
 }

 // delegators
 <grammar.delegators:
  {g|public <g.recognizerName> <g:delegateName()>;}; separator="\n">
```

```
 <last(grammar.delegators):{g|public <g.recognizerName> gParent;}>

 <scopes:{it |<if(it.isDynamicGlobalScope)><globalAttributeScope(it)><endif>}>

<@members>
 <!
 WARNING. bug in ST: this is cut-n-paste into Dbg.stg !>
 public <grammar.recognizerName>(<inputStreamType> input<grammar.delegators:{g|, <g.recognizerName>
<g:delegateName()>}>) {
  this(input, new RecognizerSharedState()<grammar.delegators:{g|, <g:delegateName()>}>);
 }
 public <grammar.recognizerName>(<inputStreamType> input, RecognizerSharedState
state<grammar.delegators:{g|, <g.recognizerName> <g:delegateName()>}>) {
  super(input, state);
  <parserCtorBody()>
  <grammar.directDelegates:
   {g|<g:delegateName()> = new <g.recognizerName>(input, state<trunc(g.delegators):{p|, <p:delegateName()>}>,
this);}; separator="\n">
  <grammar.indirectDelegates:{g | <g:delegateName()> = <g.delegator:delegateName()>.<g:delegateName()>;};
separator="\n">
  <last(grammar.delegators):{g|gParent = <g:delegateName()>;}>
 }
<@end>

 @Override public String[] getTokenNames() { return
<grammar.composite.rootGrammar.recognizerName>.tokenNames; }
 @Override public String getGrammarFileName()
 { return "<fileName>"; }

 <members>

 <rules; separator="\n\n">

<! generate rule/method definitions for imported rules so they
  appear to be defined in this recognizer. !>
 // Delegated rules
<grammar.delegatedRules:{ruleDescriptor|
 public <returnType(ruleDescriptor)> <ruleDescriptor.name>(<ruleDescriptor.parameterScope:parameterScope()>)
throws <ruleDescriptor.throwsSpec; separator=", "> { <if(ruleDescriptor.hasReturnValue)>return
<endif><ruleDescriptor.grammar:delegateName()>.<ruleDescriptor.name>(<if(ruleDescriptor.parameterScope)><ru
leDescriptor.parameterScope.attributes:{a|<a.name>}; separator=", "><endif>); \}}; separator="\n">

 <synpreds:{p | <synpred(p)>}>

 <cyclicDFAs:{dfa | protected DFA<dfa.decisionNumber> dfa<dfa.decisionNumber> = new
DFA<dfa.decisionNumber>(this);}; separator="\n">
 <cyclicDFAs:cyclicDFA(); separator="\n\n"><! dump tables for all DFA !>
```

```
 <bitsets:{it | <bitset(name={FOLLOW_<it.name>_in_<it.inName><it.tokenIndex>},
      words64=it.bits)>};
 separator="\n">
}
>>

parserCtorBody() ::= <<
<if(memoize)>
<if(grammar.grammarIsRoot)>
this.state.ruleMemo = new HashMap[<length(grammar.allImportedRules)>+1];<\n><! index from 1..n !>
<endif>
<endif>
<grammar.delegators:
 {g|this.<g:delegateName()> = <g:delegateName()>;}; separator="\n">
>>

parser(grammar, name, scopes, tokens, tokenNames, rules, numRules, bitsets,
     ASTLabelType="Object", superClass="Parser", labelType="Token",
     members={<actions.parser.members>}) ::= <<
<genericParser(grammar, name, scopes, tokens, tokenNames, rules, numRules,
           bitsets, "TokenStream", superClass,
           labelType, members, "Token",
           false, ASTLabelType)>
>>

/** How to generate a tree parser; same as parser except the input
*  stream is a different type.
*/
treeParser(grammar, name, scopes, tokens, tokenNames, globalAction, rules,
         numRules, bitsets, filterMode, labelType={<ASTLabelType>}, ASTLabelType="Object",
superClass={<if(filterMode)><if(buildAST)>TreeRewriter<else>TreeFilter<endif><else>TreeParser<endif>},
          members={<actions.treeparser.members>}
         ) ::= <<
<genericParser(grammar, name, scopes, tokens, tokenNames, rules, numRules,
           bitsets, "TreeNodeStream", superClass,
           labelType, members, "Node",
           filterMode, ASTLabelType)>
>>

/** A simpler version of a rule template that is specific to the imaginary
*  rules created for syntactic predicates.  As they never have return values
*  nor parameters etc..., just give simplest possible method.  Don't do
*  any of the normal memoization stuff in here either; it's a waste.
*  As predicates cannot be inlined into the invoking rule, they need to
*  be in a rule by themselves.
*/
synpredRule(ruleName, ruleDescriptor, block, description, nakedBlock) ::=
<<
```

```
// $ANTLR start <ruleName>
public final void <ruleName>_fragment(<ruleDescriptor.parameterScope:parameterScope()>) throws
<ruleDescriptor.throwsSpec:{x|<x>};
 separator=", "> {
 <ruleLabelDefs()>
<if(trace)>
 traceIn("<ruleName>_fragment", <ruleDescriptor.index>);
 try {
  <block>
 }
 finally {
  traceOut("<ruleName>_fragment", <ruleDescriptor.index>);
 }
<else>
 <block>
<endif>
}
// $ANTLR end <ruleName>
>>

synpred(name) ::= <<
public final boolean <name>() {
 state.backtracking++;
 <@start()>
 int start = input.mark();
 try {
  <name>_fragment(); // can never throw exception
 } catch (RecognitionException re) {
  System.err.println("impossible: "+re);
 }
 boolean success = !state.failed;
 input.rewind(start);
 <@stop()>
 state.backtracking--;
 state.failed=false;
 return success;
}<\n>
>>

lexerSynpred(name) ::= <<
<synpred(name)>
>>

ruleMemoization(name) ::= <<
<if(memoize)>
if ( state.backtracking>0 && alreadyParsedRule(input, <ruleDescriptor.index>) ) {
<returnStatement(({<ruleReturnValue()>}))> }
<endif>
```

```
>>

/** How to test for failure and return from rule */
checkRuleBacktrackFailure() ::= <<
<if(backtracking)>if
 (state.failed) <returnStatement(({<ruleReturnValue()>}))><endif>
>>

/** This rule has failed, exit indicating failure during backtrack */
ruleBacktrackFailure() ::= <<
<if(backtracking)>if (state.backtracking>0) {state.failed=true;
<returnStatement(({<ruleReturnValue()>}))>}<endif>
>>

/** How to generate code for a rule.  This includes any return type
*  data aggregates required for multiple return values.
*/
rule(ruleName,ruleDescriptor,block,emptyRule,description,exceptions,finally,memoize) ::= <<
<ruleAttributeScope(scope=ruleDescriptor.ruleScope)>
<returnScope(scope=ruleDescriptor.returnScope)>

// $ANTLR start "<ruleName>"
// <fileName>:<description>
<if(isPredefinedRewriteRule.(ruleName) && filterMode && buildAST)>
@Override
<endif>
public final <returnType(ruleDescriptor)> <ruleName>(<ruleDescriptor.parameterScope:parameterScope()>) throws
<ruleDescriptor.throwsSpec:{x|<x>}; separator=", "> {
 <if(trace)>traceIn("<ruleName>", <ruleDescriptor.index>);<endif>
 <ruleScopeSetUp()>
 <ruleDeclarations()>
 <ruleLabelDefs()>
 <ruleDescriptor.actions.init>
 <@preamble()>
 try
 {
  <ruleMemoization(name=ruleName)>
  <block>
  <ruleCleanUp()>
  <(ruleDescriptor.actions.after):execAction()>
 }
<if(exceptions)>
 <exceptions:{e|<catch(decl=e.decl,action=e.action)><\n>}>
<else>
<if(!emptyRule)>
<if(actions.(actionScope).rulecatch)>
 <actions.(actionScope).rulecatch>
<else>
```

```
 catch (RecognitionException re) {
  reportError(re);
  recover(input,re);
  <@setErrorReturnValue()>
 }
<endif>
<endif>
<endif>
 finally {
  // do for sure before leaving
  <if(trace)>traceOut("<ruleName>", <ruleDescriptor.index>);<endif>
  <memoize()>
  <ruleScopeCleanUp()>
  <finally>
 }
 <@postamble()>
 <returnStatement(({<ruleReturnValue()>}), false)>
}
// $ANTLR end "<ruleName>"
>>

returnStatement(returnValue, force=true) ::= <%
<if(!isEmptyString.(returnValue))>
 return <returnValue>;
<elseif(force)>
 return;
<endif>
%>

catch(decl,action) ::= <<
catch (<e.decl>) {
 <e.action>
}
>>

ruleDeclarations()
 ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
<returnType(ruleDescriptor)> retval = new <returnType(ruleDescriptor)>();
retval.start = input.LT(1);
<elseif(ruleDescriptor.returnScope)>
<ruleDescriptor.returnScope.attributes:{ a |
<a.type> <a.name> = <if(a.initValue)><a.initValue><else><initValue(a.type)><endif>;
}>
<endif>
<if(memoize)>
int <ruleDescriptor.name>_StartIndex = input.index();
<endif>
```

```
>>

ruleScopeSetUp() ::= <<
<ruleDescriptor.useScopes:{it |<it>_stack.push(new <it>_scope());}; separator="\n">
<ruleDescriptor.ruleScope:{it |<it.name>_stack.push(new <it.name>_scope());}; separator="\n">
>>

ruleScopeCleanUp() ::= <<
<ruleDescriptor.useScopes:{it |<it>_stack.pop();}; separator="\n">
<ruleDescriptor.ruleScope:{it |<it.name>_stack.pop();}; separator="\n">
>>



ruleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,ruleDescriptor.tokenListLabels,
 ruleDescriptor.wildcardTreeLabels,ruleDescriptor.wildcardTreeListLabels]
 :{it |<labelType> <it.label.text>=null;};
 separator="\n"
>
<[ruleDescriptor.tokenListLabels,ruleDescriptor.ruleListLabels,ruleDescriptor.wildcardTreeListLabels]
 :{it |List\<Object> list_<it.label.text>=null;}; separator="\n"
>
<ruleDescriptor.ruleLabels:ruleLabelDef(); separator="\n">
<ruleDescriptor.ruleListLabels:{ll|RuleReturnScope <ll.label.text> = null;}; separator="\n">
>>

lexerRuleLabelDefs() ::= <<
<[ruleDescriptor.tokenLabels,
 ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleLabels]
 :{it |<labelType> <it.label.text>=null;}; separator="\n"
>
<ruleDescriptor.charLabels:{it |int <it.label.text>;}; separator="\n">
<[ruleDescriptor.tokenListLabels,
 ruleDescriptor.ruleListLabels]
 :{it |List\<Object> list_<it.label.text>=null;}; separator="\n"
>
>>

ruleReturnValue() ::= <%
<if(!ruleDescriptor.isSynPred)>
<if(ruleDescriptor.hasReturnValue)>
<if(ruleDescriptor.hasSingleReturnValue)>
<ruleDescriptor.singleValueReturnName>
<else>
retval
<endif>
<endif>
```

```
<endif>
%>

ruleCleanUp() ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
<if(!TREE_PARSER)>
retval.stop
 = input.LT(-1);
<endif>
<endif>
>>

memoize() ::= <<
<if(memoize)>
<if(backtracking)>
if ( state.backtracking>0 ) { memoize(input, <ruleDescriptor.index>, <ruleDescriptor.name>_StartIndex); }
<endif>
<endif>
>>

/** How to generate a rule in the lexer; naked blocks are used for
*  fragment rules.
*/
lexerRule(ruleName,nakedBlock,ruleDescriptor,block,memoize) ::= <<
// $ANTLR start "<ruleName>"
public final void m<ruleName>(<ruleDescriptor.parameterScope:parameterScope()>) throws RecognitionException
{
 <if(trace)>traceIn("<ruleName>", <ruleDescriptor.index>);<endif>
 <ruleScopeSetUp()>
 <ruleDeclarations()>
 try {
<if(nakedBlock)>
  <ruleMemoization(name=ruleName)>
  <lexerRuleLabelDefs()>
  <ruleDescriptor.actions.init>
  <block>
<else>
  int _type = <ruleName>;
  int _channel = DEFAULT_TOKEN_CHANNEL;
  <ruleMemoization(name=ruleName)>
  <lexerRuleLabelDefs()>
  <ruleDescriptor.actions.init>
  <block>
  <ruleCleanUp()>
  state.type = _type;
  state.channel
 = _channel;
  <(ruleDescriptor.actions.after):execAction()>
```

```
<endif>
 }
 finally {
  // do for sure before leaving
  <if(trace)>traceOut("<ruleName>", <ruleDescriptor.index>);<endif>
  <ruleScopeCleanUp()>
  <memoize()>
 }
}
// $ANTLR end "<ruleName>"
>>

/** How to generate code for the implicitly-defined lexer grammar rule
*  that chooses between lexer rules.
*/
tokensRule(ruleName,nakedBlock,args,block,ruleDescriptor) ::= <<
@Override
public void mTokens() throws RecognitionException {
 <block>
}
>>

// S U B R U L E S

/** A (...) subrule with multiple alternatives */
block(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::= <<
// <fileName>:<description>
int alt<decisionNumber>=<maxAlt>;
<decls>
<@predecision()>
<decision>
<@postdecision()>
<@prebranch()>
switch (alt<decisionNumber>) {
 <alts:{a | <altSwitchCase(i,a)>}>
}
<@postbranch()>
>>

/** A rule block with multiple alternatives */
ruleBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description)
 ::= <<
// <fileName>:<description>
int alt<decisionNumber>=<maxAlt>;
<decls>
<@predecision()>
<decision>
<@postdecision()>
```

```
switch (alt<decisionNumber>) {
 <alts:{a | <altSwitchCase(i,a)>}>
}
>>

ruleBlockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
// <fileName>:<description>
<decls>
<@prealt()>
<alts>
<@postalt()>
>>

/** A special case of a (...) subrule with a single alternative */
blockSingleAlt(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,description) ::= <<
// <fileName>:<description>
<decls>
<@prealt()>
<alts>
<@postalt()>
>>

/** A (..)+ block with 1 or more alternatives */
positiveClosureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,descriptio
n) ::= <<
// <fileName>:<description>
int cnt<decisionNumber>=0;
<decls>
<@preloop()>
loop<decisionNumber>:
while (true) {
 int alt<decisionNumber>=<maxAlt>;
 <@predecision()>
 <decision>
 <@postdecision()>
 switch
 (alt<decisionNumber>) {
 <alts:{a | <altSwitchCase(i,a)>}>
 default :
  if ( cnt<decisionNumber> >= 1 ) break loop<decisionNumber>;
  <ruleBacktrackFailure()>
  EarlyExitException eee = new EarlyExitException(<decisionNumber>, input);
  <@earlyExitException()>
  throw eee;
 }
 cnt<decisionNumber>++;
}
<@postloop()>
```

```
>>

positiveClosureBlockSingleAlt ::= positiveClosureBlock

/** A (..)* block with 1 or more alternatives */
closureBlock(alts,decls,decision,enclosingBlockLevel,blockLevel,decisionNumber,maxK,maxAlt,description) ::=
<<
// <fileName>:<description>
<decls>
<@preloop()>
loop<decisionNumber>:
while (true) {
 int alt<decisionNumber>=<maxAlt>;
 <@predecision()>
 <decision>
 <@postdecision()>
 switch (alt<decisionNumber>) {
 <alts:{a | <altSwitchCase(i,a)>}>
 default :
  break loop<decisionNumber>;
 }
}
<@postloop()>
>>

closureBlockSingleAlt ::= closureBlock

/** Optional blocks (x)? are translated to (x|) by before code generation
 *  so we can just use the normal block template
*/
optionalBlock ::= block

optionalBlockSingleAlt ::= block

/** A case in a switch that jumps to an alternative given the alternative
*  number.  A DFA predicts the alternative and then a simple switch
*  does the jump to the code that actually matches that alternative.
*/
altSwitchCase(altNum,alt) ::= <<
case <altNum> :
 <@prealt()>
 <alt>
 break;<\n>
>>

/** An alternative is just a list of elements; at outermost level */
alt(elements,altNum,description,autoAST,outerAlt,treeLevel,rew) ::= <<
// <fileName>:<description>
```

```
{
<@declarations()>
<elements:element()>
<rew>
<@cleanup()>
}
>>

/** What to emit when there is no rewrite.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel, treeLevel) ::= ""

// E L E M E N T S

/** Dump the elements one per line */
element(e) ::= <<
<@prematch()>
<e.el>
>>

/** match a token optionally with a label in front */
tokenRef(token,label,elementIndex,terminalOptions={}) ::=
 <<
<if(label)><label>=(<labelType>)<endif>match(input,<token>,FOLLOW_<token>_in_<ruleName><elementIndex
>); <checkRuleBacktrackFailure()>
>>

/** ids+=ID */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<tokenRef(token,label,elementIndex,terminalOptions)>
<listLabel(label, label)>
>>

listLabel(label,elem) ::= <<
if (list_<label>==null) list_<label>=new ArrayList\<Object>();
list_<label>.add(<elem>);
>>

/** match a character */
charRef(char,label) ::= <<
<if(label)>
<label> = input.LA(1);
<endif>
match(<char>); <checkRuleBacktrackFailure()>
>>

/** match a character range */
```

```
charRangeRef(a,b,label) ::= <<
<if(label)>
<label> = input.LA(1);
<endif>
matchRange(<a>,<b>); <checkRuleBacktrackFailure()>
>>

/** For now, sets are interval tests and must be tested inline */
matchSet(s,label,elementIndex,postmatchCode="",terminalOptions={}) ::= <<
<if(label)>
<if(LEXER)>
<label>= input.LA(1);
<else>
<label>=<castToLabelType("input.LT(1)")>;
<endif>
<endif>
if ( <s>
 ) {
 input.consume();
 <postmatchCode>
<if(!LEXER)>
 state.errorRecovery=false;
<endif>
 <if(backtracking)>state.failed=false;<endif>
}
else {
 <ruleBacktrackFailure()>
 MismatchedSetException mse = new MismatchedSetException(null,input);
 <@mismatchedSetException()>
<if(LEXER)>
 recover(mse);
 throw mse;
<else>
 throw mse;
 <! use following code to make it recover inline; remove throw mse;
 recoverFromMismatchedSet(input,mse,FOLLOW_set_in_<ruleName><elementIndex>);
 !>
<endif>
}
>>

matchRuleBlockSet ::= matchSet

matchSetAndListLabel(s,label,elementIndex,postmatchCode) ::= <<
<matchSet(...)>
<listLabel(label, label)>
>>
```

```
/** Match a string literal */
lexerStringRef(string,label,elementIndex="0") ::= <<
<if(label)>
int <label>Start = getCharIndex();
match(<string>); <checkRuleBacktrackFailure()>
int <label>StartLine<elementIndex> = getLine();
int <label>StartCharPos<elementIndex> = getCharPositionInLine();
<label> = new <labelType>(input, Token.INVALID_TOKEN_TYPE, Token.DEFAULT_CHANNEL,
 <label>Start, getCharIndex()-1);
<label>.setLine(<label>StartLine<elementIndex>);
<label>.setCharPositionInLine(<label>StartCharPos<elementIndex>);
<else>
match(<string>); <checkRuleBacktrackFailure()>
<endif>
>>

wildcard(token,label,elementIndex,terminalOptions={}) ::= <<
<if(label)>
<label>=<castToLabelType("input.LT(1)")>;
<endif>
matchAny(input); <checkRuleBacktrackFailure()>
>>

wildcardAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<wildcard(...)>
<listLabel(label, label)>
>>

/** Match . wildcard in lexer */
wildcardChar(label, elementIndex) ::= <<
<if(label)>
<label> = input.LA(1);
<endif>
matchAny(); <checkRuleBacktrackFailure()>
>>

wildcardCharListLabel(label, elementIndex) ::= <<
<wildcardChar(label, elementIndex)>
<listLabel(label, label)>
>>

/** Match a rule reference by invoking it possibly with arguments
*  and a return value or values.  The 'rule' argument was the
*  target rule name, but now is type Rule, whose toString is
*  same: the rule
 name.  Now though you can access full rule
*  descriptor stuff.
*/
```

```
ruleRef(rule,label,elementIndex,args,scope) ::= <<
pushFollow(FOLLOW_<rule.name>_in_<ruleName><elementIndex>);
<if(label)><label>=<endif><if(scope)><scope:delegateName()>.<endif><rule.name>(<args; separator=", ">);
state._fsp--;
<checkRuleBacktrackFailure()>
>>

/** ids+=r */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(rule,label,elementIndex,args,scope)>
<listLabel(label, label)>
>>

/** A lexer rule reference.
*
*  The 'rule' argument was the target rule name, but now
*  is type Rule, whose toString is same: the rule name.
*  Now though you can access full rule descriptor stuff.
*/
lexerRuleRef(rule,label,args,elementIndex,scope) ::= <<
<if(label)>
int <label>Start<elementIndex> = getCharIndex();
int <label>StartLine<elementIndex> = getLine();
int <label>StartCharPos<elementIndex> = getCharPositionInLine();
<if(scope)><scope:delegateName()>.<endif>m<rule.name>(<args; separator=", ">);
 <checkRuleBacktrackFailure()>
<label> = new <labelType>(input, Token.INVALID_TOKEN_TYPE, Token.DEFAULT_CHANNEL,
<label>Start<elementIndex>, getCharIndex()-1);
<label>.setLine(<label>StartLine<elementIndex>);
<label>.setCharPositionInLine(<label>StartCharPos<elementIndex>);
<else>
<if(scope)><scope:delegateName()>.<endif>m<rule.name>(<args; separator=", ">);
<checkRuleBacktrackFailure()>
<endif>
>>

/** i+=INT in lexer */
lexerRuleRefAndListLabel(rule,label,args,elementIndex,scope) ::= <<
<lexerRuleRef(rule,label,args,elementIndex,scope)>
<listLabel(label, label)>
>>

/** EOF in the lexer */
lexerMatchEOF(label,elementIndex) ::= <<
<if(label)>
int <label>Start<elementIndex> = getCharIndex();
int <label>StartLine<elementIndex> = getLine();
int <label>StartCharPos<elementIndex> = getCharPositionInLine();
```

```
match(EOF); <checkRuleBacktrackFailure()>
<labelType> <label> = new <labelType>(input, EOF, Token.DEFAULT_CHANNEL, <label>Start<elementIndex>,
getCharIndex()-1);
<label>.setLine(<label>StartLine<elementIndex>);
<label>.setCharPositionInLine(<label>StartCharPos<elementIndex>);
<else>
match(EOF);
 <checkRuleBacktrackFailure()>
<endif>
>>

// used for left-recursive rules
recRuleDefArg()                       ::= "int <recRuleArg()>"
recRuleArg()                          ::= "_p"
recRuleAltPredicate(ruleName,opPrec)  ::= "<recRuleArg()> \<= <opPrec>"
recRuleSetResultAction()              ::= "root_0=$<ruleName>_primary.tree;"
recRuleSetReturnAction(src,name)      ::= "$<name>=$<src>.<name>;"

/** match ^(root children) in tree parser */
tree(root, actionsAfterRoot, children, nullableChildList,
    enclosingTreeLevel, treeLevel) ::= <<
<root:element()>
<actionsAfterRoot:element()>
<if(nullableChildList)>
if ( input.LA(1)==Token.DOWN ) {
 match(input, Token.DOWN, null); <checkRuleBacktrackFailure()>
 <children:element()>
 match(input, Token.UP, null); <checkRuleBacktrackFailure()>
}
<else>
match(input, Token.DOWN, null); <checkRuleBacktrackFailure()>
<children:element()>
match(input,
 Token.UP, null); <checkRuleBacktrackFailure()>
<endif>
>>

/** Every predicate is used as a validating predicate (even when it is
*  also hoisted into a prediction expression).
*/
validateSemanticPredicate(pred,description) ::= <<
if ( !(<evalPredicate(pred,description)>) ) {
 <ruleBacktrackFailure()>
 throw new FailedPredicateException(input, "<ruleName>", "<description>");
}
>>

// F i x e d  D F A  (if-then-else)
```

```
dfaState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
int LA<decisionNumber>_<stateNumber> = input.LA(<k>);
<edges; separator="\nelse ">
<if((!isTrue.(last(edges).labelExpr)) && (!last(edges).predicates))>
else {
<if(eotPredictsAlt)>
 alt<decisionNumber>=<eotPredictsAlt>;
<else>
 <ruleBacktrackFailure()>
 <(nvaExceptionWrapperMap.(k))({NoViableAltException nvae =
 new NoViableAltException("<description>", <decisionNumber>, <stateNumber>, input);
<@noViableAltException()>
throw nvae;})>
<endif>
}
<endif>
>>

nvaExceptionWrapperMap ::= [
 "1":"wrapNvaExceptionForK1",
 "2":"wrapNvaExceptionForK2",
 default:"wrapNvaExceptionForKN"
]

wrapNvaExceptionForK1(exceptionCode)
 ::= <<
<exceptionCode>
>>

wrapNvaExceptionForK2(exceptionCode) ::= <<
int nvaeMark = input.mark();
try {
 input.consume();
 <exceptionCode>
} finally {
 input.rewind(nvaeMark);
}
>>

wrapNvaExceptionForKN(exceptionCode) ::= <<
int nvaeMark = input.mark();
try {
 for (int nvaeConsume = 0; nvaeConsume \< <k> - 1; nvaeConsume++) {
  input.consume();
 }
 <exceptionCode>
} finally {
```

```
 input.rewind(nvaeMark);
}
>>

/** Same as a normal DFA state except that we don't examine lookahead
*  for the bypass alternative.  It delays error detection but this
*  is faster, smaller, and more what people expect.  For (X)? people
*  expect "if ( LA(1)==X ) match(X);" and that's it.
*/
dfaOptionalBlockState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
int LA<decisionNumber>_<stateNumber> = input.LA(<k>);
<edges; separator="\nelse ">
>>

/** A DFA
 state that is actually the loopback decision of a closure
*  loop.  If end-of-token (EOT) predicts any of the targets then it
*  should act like a default clause (i.e., no error can be generated).
*  This is used only in the lexer so that for ('a')* on the end of a rule
*  anything other than 'a' predicts exiting.
*/
dfaLoopbackState(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
int LA<decisionNumber>_<stateNumber> = input.LA(<k>);
<edges; separator="\nelse ">
<if(eotPredictsAlt)>
<if(!edges)>
alt<decisionNumber>=<eotPredictsAlt>; <! if no edges, don't gen ELSE !>
<else>
else {
 alt<decisionNumber>=<eotPredictsAlt>;
}
<endif>
<endif>
>>

/** An accept state indicates a unique alternative has been predicted */
dfaAcceptState(alt) ::= "alt<decisionNumber>=<alt>;"

/** A simple edge with an expression.  If the expression is satisfied,
*  enter to the target state.  To handle gated productions, we may
*  have to evaluate some predicates for this edge.
*/
dfaEdge(labelExpr,
 targetState, predicates) ::= <<
if ( (<labelExpr>) <if(predicates)>&& (<predicates>)<endif>) {
 <targetState>
}
>>
```

```
// F i x e d  D F A  (switch case)

/** A DFA state where a SWITCH may be generated.  The code generator
*  decides if this is possible: CodeGenerator.canGenerateSwitch().
*/
dfaStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch ( input.LA(<k>) ) {
<edges; separator="\n">
default:
<if(eotPredictsAlt)>
 alt<decisionNumber>=<eotPredictsAlt>;
<else>
 <ruleBacktrackFailure()>
 <(nvaExceptionWrapperMap.(k))({NoViableAltException nvae =
 new NoViableAltException("<description>", <decisionNumber>, <stateNumber>, input);
<@noViableAltException()>
throw nvae;})>
<endif>
}
>>

dfaOptionalBlockStateSwitch(k,edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch ( input.LA(<k>) ) {
 <edges; separator="\n">
}
>>

dfaLoopbackStateSwitch(k, edges,eotPredictsAlt,description,stateNumber,semPredState) ::= <<
switch ( input.LA(<k>)
 ) {
<edges; separator="\n">
<if(eotPredictsAlt)>
default:
 alt<decisionNumber>=<eotPredictsAlt>;
 break;
<endif>
}
>>

dfaEdgeSwitch(labels, targetState) ::= <<
<labels:{it |case <it>:}; separator="\n">
 {
 <targetState>
 }
 break;
>>
```

```
// C y c l i c  D F A

/** The code to initiate execution of a cyclic DFA; this is used
*  in the rule to predict an alt just like the fixed DFA case.
*  The <name> attribute is inherited via the parser, lexer, ...
*/
dfaDecision(decisionNumber,description) ::= <<
alt<decisionNumber> = dfa<decisionNumber>.predict(input);
>>

/* Dump DFA tables as run-length-encoded Strings of octal values.
* Can't use hex as compiler translates them before compilation.
* These strings are split into multiple, concatenated strings.
* Java puts them back together at compile time thankfully.
* Java cannot handle large static arrays, so we're stuck with this
* encode/decode approach.  See analysis and runtime DFA for
* the encoding methods.
*/
cyclicDFA(dfa)
 ::= <<
static final String DFA<dfa.decisionNumber>_eotS =
 "<dfa.javaCompressedEOT; wrap="\"+\n\t\"">";
static final String DFA<dfa.decisionNumber>_eofS =
 "<dfa.javaCompressedEOF; wrap="\"+\n\t\"">";
static final String DFA<dfa.decisionNumber>_minS =
 "<dfa.javaCompressedMin; wrap="\"+\n\t\"">";
static final String DFA<dfa.decisionNumber>_maxS =
 "<dfa.javaCompressedMax; wrap="\"+\n\t\"">";
static final String DFA<dfa.decisionNumber>_acceptS =
 "<dfa.javaCompressedAccept; wrap="\"+\n\t\"">";
static final String DFA<dfa.decisionNumber>_specialS =
 "<dfa.javaCompressedSpecial; wrap="\"+\n\t\"">}>";
static final String[] DFA<dfa.decisionNumber>_transitionS = {
  <dfa.javaCompressedTransition:{s|"<s; wrap="\"+\n\"">"}; separator=",\n">
};

static final short[] DFA<dfa.decisionNumber>_eot =
DFA.unpackEncodedString(DFA<dfa.decisionNumber>_eotS);
static final short[] DFA<dfa.decisionNumber>_eof =
DFA.unpackEncodedString(DFA<dfa.decisionNumber>_eofS);
static final char[] DFA<dfa.decisionNumber>_min
 = DFA.unpackEncodedStringToUnsignedChars(DFA<dfa.decisionNumber>_minS);
static final char[] DFA<dfa.decisionNumber>_max =
DFA.unpackEncodedStringToUnsignedChars(DFA<dfa.decisionNumber>_maxS);
static final short[] DFA<dfa.decisionNumber>_accept =
DFA.unpackEncodedString(DFA<dfa.decisionNumber>_acceptS);
static final short[] DFA<dfa.decisionNumber>_special =
DFA.unpackEncodedString(DFA<dfa.decisionNumber>_specialS);
```

```
static final short[][] DFA<dfa.decisionNumber>_transition;

static {
 int numStates = DFA<dfa.decisionNumber>_transitionS.length;
 DFA<dfa.decisionNumber>_transition = new short[numStates][];
 for (int i=0; i\<numStates; i++) {
  DFA<dfa.decisionNumber>_transition[i] = DFA.unpackEncodedString(DFA<dfa.decisionNumber>_transitionS[i]);
 }
}

protected class DFA<dfa.decisionNumber> extends DFA {

 public DFA<dfa.decisionNumber>(BaseRecognizer recognizer) {
  this.recognizer = recognizer;
  this.decisionNumber = <dfa.decisionNumber>;
  this.eot = DFA<dfa.decisionNumber>_eot;
  this.eof
 = DFA<dfa.decisionNumber>_eof;
  this.min = DFA<dfa.decisionNumber>_min;
  this.max = DFA<dfa.decisionNumber>_max;
  this.accept = DFA<dfa.decisionNumber>_accept;
  this.special = DFA<dfa.decisionNumber>_special;
  this.transition = DFA<dfa.decisionNumber>_transition;
 }
 @Override
 public String getDescription() {
  return "<dfa.description>";
 }
 <@errorMethod()>
<if(dfa.specialStateSTs)>
 @Override
 public int specialStateTransition(int s, IntStream _input) throws NoViableAltException {
  <if(LEXER)>
  IntStream input = _input;
  <endif>
  <if(PARSER)>
  TokenStream input = (TokenStream)_input;
  <endif>
  <if(TREE_PARSER)>
  TreeNodeStream input = (TreeNodeStream)_input;
  <endif>
  int _s = s;
  switch ( s ) {
  <dfa.specialStateSTs:{state |
  case <i0> : <! compressed special state numbers 0..n-1 !>
   <state>}; separator="\n">
  }
<if(backtracking)>
```

```
  if (state.backtracking>0) {state.failed=true; return -1;}
<endif>
  NoViableAltException nvae =
   new NoViableAltException(getDescription(),
 <dfa.decisionNumber>, _s, input);
  error(nvae);
  throw nvae;
 }
<endif>
}
>>

/** A state in a cyclic DFA; it's a special state and part of a big switch on
*  state.
*/
cyclicDFAState(decisionNumber,stateNumber,edges,needErrorClause,semPredState) ::= <<
int LA<decisionNumber>_<stateNumber> = input.LA(1);
<if(semPredState)> <! get next lookahead symbol to test edges, then rewind !>
int index<decisionNumber>_<stateNumber> = input.index();
input.rewind();
<endif>
s = -1;
<edges; separator="\nelse ">
<if(semPredState)> <! return input cursor to state before we rewound !>
input.seek(index<decisionNumber>_<stateNumber>);
<endif>
if ( s>=0 ) return s;
break;
>>

/** Just like a fixed DFA edge, test the lookahead and indicate what
*  state to jump to next if successful.
*/
cyclicDFAEdge(labelExpr, targetStateNumber, edgeNumber, predicates) ::= <<
if ( (<labelExpr>) <if(predicates)>&& (<predicates>)<endif>) {s = <targetStateNumber>;}
>>

/** An edge pointing
 at end-of-token; essentially matches any char;
*  always jump to the target.
*/
eotDFAEdge(targetStateNumber,edgeNumber, predicates) ::= <<
s = <targetStateNumber>;
>>


// D F A  E X P R E S S I O N S
```

```
andPredicates(left,right) ::= "(<left>&&<right>)"

orPredicates(operands) ::= "(<operands; separator=\"||\">)"

notPredicate(pred) ::= "!(<evalPredicate(pred,{})>)"

evalPredicate(pred,description) ::= "(<pred>)"

evalSynPredicate(pred,description) ::= "<pred>()"

lookaheadTest(atom,k,atomAsInt) ::= "LA<decisionNumber>_<stateNumber>==<atom>"

/** Sometimes a lookahead test cannot assume that LA(k) is in a temp variable
*  somewhere.  Must ask for the lookahead directly.
*/
isolatedLookaheadTest(atom,k,atomAsInt) ::= "input.LA(<k>)==<atom>"

lookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt) ::= <%
(LA<decisionNumber>_<stateNumber> >= <lower> && LA<decisionNumber>_<stateNumber> \<= <upper>)
%>

isolatedLookaheadRangeTest(lower,upper,k,rangeNumber,lowerAsInt,upperAsInt)
 ::= "(input.LA(<k>) >= <lower> && input.LA(<k>) \<= <upper>)"

setTest(ranges) ::= <<
<ranges; separator="||">
>>

// A T T R I B U T E S

globalAttributeScope(scope) ::= <<
<if(scope.attributes)>
protected static class <scope.name>_scope {
 <scope.attributes:{it |<it.decl>;}; separator="\n">
}
protected Stack\<<scope.name>_scope> <scope.name>_stack = new Stack\<<scope.name>_scope>();
<endif>
>>

ruleAttributeScope(scope) ::= <<
<if(scope)>
<if(scope.attributes)>
protected static class <scope.name>_scope {
 <scope.attributes:{it |<it.decl>;}; separator="\n">
}
protected Stack\<<scope.name>_scope> <scope.name>_stack = new Stack\<<scope.name>_scope>();
<endif>
<endif>
```

```
>>

returnStructName(r) ::= "<r.name>_return"

returnType(ruleDescriptor) ::= <%
<if(ruleDescriptor.hasMultipleReturnValues)>
<ruleDescriptor.grammar.recognizerName>.<ruleDescriptor:returnStructName()>
<elseif(ruleDescriptor.hasSingleReturnValue)>
<ruleDescriptor.singleValueReturnType>
<else>
void
<endif>
%>

/** Generate
 the Java type associated with a single or multiple return
*  values.
*/
ruleLabelType(referencedRule) ::= <%
<if(referencedRule.hasMultipleReturnValues)>
<returnScopeBaseType()>
<elseif(referencedRule.hasSingleReturnValue)>
<referencedRule.singleValueReturnType>
<else>
void
<endif>
%>

delegateName(d) ::= <<
<if(d.label)><d.label><else>g<d.name><endif>
>>

/** Using a type to init value map, try to init a type; if not in table
*  must be an object, default value is "null".
*/
initValue(typeName) ::= <<
<javaTypeInitMap.(typeName)>
>>

/** Define a rule label including default value */
ruleLabelDef(label) ::= <%
<ruleLabelType(referencedRule=label.referencedRule)> <label.label.text> =
<initValue(typeName=ruleLabelType(referencedRule=label.referencedRule))>;
%>

/** Define a return struct for a rule if the code needs to access its
*  start/stop tokens, tree stuff, attributes, ...  Leave a hole for
*  subgroups to stick in members.
```

```
*/
returnScope(scope) ::= <<
<if(ruleDescriptor.hasMultipleReturnValues)>
public
 static class <ruleDescriptor:returnStructName()> extends <returnScopeBaseType()> {
 <if(scope)><scope.attributes:{it |public <it.decl>;}; separator="\n"><endif>
 <@ruleReturnMembers()>
};
<endif>
>>

returnScopeBaseType() ::= <%
<if(TREE_PARSER)>Tree<else>Parser<endif>RuleReturnScope
%>

parameterScope(scope) ::= <<
<scope.attributes:{it |<it.decl>}; separator=", ">
>>

parameterAttributeRef(attr) ::= "<attr.name>"
parameterSetAttributeRef(attr,expr) ::= "<attr.name> =<expr>;"

scopeAttributeRef(scope,attr,index,negIndex) ::= <%
<if(negIndex)>
<scope>_stack.elementAt(<scope>_stack.size()-<negIndex>-1).<attr.name>
<else>
<if(index)>
<scope>_stack.elementAt(<index>).<attr.name>
<else>
<scope>_stack.peek().<attr.name>
<endif>
<endif>
%>

scopeSetAttributeRef(scope,attr,expr,index,negIndex) ::= <%
<if(negIndex)>
<scope>_stack.elementAt(<scope>_stack.size()-<negIndex>-1).<attr.name> =<expr>;
<else>
<if(index)>
<scope>_stack.elementAt(<index>).<attr.name> =<expr>;
<else>
<scope>_stack.peek().<attr.name>
 =<expr>;
<endif>
<endif>
%>

/** $x is either global scope or x is rule with dynamic scope; refers
```

```
*  to stack itself not top of stack.  This is useful for predicates
*  like {$function.size()>0 && $function::name.equals("foo")}?
*/
isolatedDynamicScopeRef(scope) ::= "<scope>_stack"

/** reference an attribute of rule; might only have single return value */
ruleLabelRef(referencedRule,scope,attr) ::= <%
<if(referencedRule.hasMultipleReturnValues)>
(<scope>!=null?((<returnType(referencedRule)>)<scope>).<attr.name>:<initValue(attr.type)>)
<else>
<scope>
<endif>
%>

returnAttributeRef(ruleDescriptor,attr) ::= <%
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name>
<else>
<attr.name>
<endif>
%>

returnSetAttributeRef(ruleDescriptor,attr,expr) ::= <%
<if(ruleDescriptor.hasMultipleReturnValues)>
retval.<attr.name> =<expr>;
<else>
<attr.name> =<expr>;
<endif>
%>

/** How to translate $tokenLabel */
tokenLabelRef(label) ::= "<label>"

/**
 ids+=ID {$ids} or e+=expr {$e} */
listLabelRef(label) ::= "list_<label>"


// not sure the next are the right approach

tokenLabelPropertyRef_text(scope,attr) ::= "(<scope>!=null?<scope>.getText():null)"
tokenLabelPropertyRef_type(scope,attr) ::= "(<scope>!=null?<scope>.getType():0)"
tokenLabelPropertyRef_line(scope,attr) ::= "(<scope>!=null?<scope>.getLine():0)"
tokenLabelPropertyRef_pos(scope,attr) ::= "(<scope>!=null?<scope>.getCharPositionInLine():0)"
tokenLabelPropertyRef_channel(scope,attr) ::= "(<scope>!=null?<scope>.getChannel():0)"
tokenLabelPropertyRef_index(scope,attr) ::= "(<scope>!=null?<scope>.getTokenIndex():0)"
tokenLabelPropertyRef_tree(scope,attr) ::= "<scope>_tree"
tokenLabelPropertyRef_int(scope,attr) ::= "(<scope>!=null?Integer.valueOf(<scope>.getText()):0)"
```

```
ruleLabelPropertyRef_start(scope,attr) ::= "(<scope>!=null?(<castToLabelType({<scope>.start})>):null)"
ruleLabelPropertyRef_stop(scope,attr) ::= "(<scope>!=null?(<castToLabelType({<scope>.stop})>):null)"
ruleLabelPropertyRef_tree(scope,attr)
 ::= "(<scope>!=null?((<ASTLabelType>)<scope>.getTree()):null)"
ruleLabelPropertyRef_text(scope,attr) ::= <%
<if(TREE_PARSER)>
(<scope>!=null?(input.getTokenStream().toString(
 input.getTreeAdaptor().getTokenStartIndex(<scope>.start),
 input.getTreeAdaptor().getTokenStopIndex(<scope>.start))):null)
<else>
(<scope>!=null?input.toString(<scope>.start,<scope>.stop):null)
<endif>
%>

ruleLabelPropertyRef_st(scope,attr) ::= "(<scope>!=null?((StringTemplate)<scope>.getTemplate()):null)"

/** Isolated $RULE ref ok in lexer as it's a Token */
lexerRuleLabel(label) ::= "<label>"

lexerRuleLabelPropertyRef_type(scope,attr) ::=
 "(<scope>!=null?<scope>.getType():0)"
lexerRuleLabelPropertyRef_line(scope,attr) ::=
 "(<scope>!=null?<scope>.getLine():0)"
lexerRuleLabelPropertyRef_pos(scope,attr) ::=
 "(<scope>!=null?<scope>.getCharPositionInLine():-1)"
lexerRuleLabelPropertyRef_channel(scope,attr) ::=
 "(<scope>!=null?<scope>.getChannel():0)"
lexerRuleLabelPropertyRef_index(scope,attr)
 ::=
 "(<scope>!=null?<scope>.getTokenIndex():0)"
lexerRuleLabelPropertyRef_text(scope,attr) ::=
 "(<scope>!=null?<scope>.getText():null)"
lexerRuleLabelPropertyRef_int(scope,attr) ::=
 "(<scope>!=null?Integer.valueOf(<scope>.getText()):0)"

// Somebody may ref $template or $tree or $stop within a rule:
rulePropertyRef_start(scope,attr) ::= "(<castToLabelType(\"retval.start\")>)"
rulePropertyRef_stop(scope,attr) ::= "(<castToLabelType(\"retval.stop\")>)"
rulePropertyRef_tree(scope,attr) ::= "retval.tree"
rulePropertyRef_text(scope,attr) ::= <%
<if(TREE_PARSER)>
input.getTokenStream().toString(
 input.getTreeAdaptor().getTokenStartIndex(retval.start),
 input.getTreeAdaptor().getTokenStopIndex(retval.start))
<else>
input.toString(retval.start,input.LT(-1))
<endif>
```

```
%>
rulePropertyRef_st(scope,attr) ::= "retval.st"

lexerRulePropertyRef_text(scope,attr) ::= "getText()"
lexerRulePropertyRef_type(scope,attr) ::= "_type"
lexerRulePropertyRef_line(scope,attr) ::= "state.tokenStartLine"
lexerRulePropertyRef_pos(scope,attr)
 ::= "state.tokenStartCharPositionInLine"
lexerRulePropertyRef_index(scope,attr) ::= "-1" // undefined token index in lexer
lexerRulePropertyRef_channel(scope,attr) ::= "_channel"
lexerRulePropertyRef_start(scope,attr) ::= "state.tokenStartCharIndex"
lexerRulePropertyRef_stop(scope,attr) ::= "(getCharIndex()-1)"
lexerRulePropertyRef_int(scope,attr) ::= "Integer.valueOf(<scope>.getText())"

// setting $st and $tree is allowed in local rule. everything else
// is flagged as error
ruleSetPropertyRef_tree(scope,attr,expr) ::= "retval.tree =<expr>;"
ruleSetPropertyRef_st(scope,attr,expr) ::= "retval.st =<expr>;"

/** How to execute an action (only when not backtracking) */
execAction(action) ::= <%
<if(backtracking)>
if ( <actions.(actionScope).synpredgate> ) {
 <action>
}
<else>
<action>
<endif>
%>

/** How to always execute an action even when backtracking */
execForcedAction(action) ::= "<action>"

// M I S C (properties, etc...)

bitset(name,
 words64) ::= <<
public static final BitSet <name> = new BitSet(new long[]{<words64:{it |<it>L};separator=",">});
>>

codeFileExtension() ::= ".java"

true_value() ::= "true"
false_value() ::= "false"

isEmptyString ::= [
 "" : true,
 default : false
```

```
]

isTrue ::= [
 "true" : true,
 default : false
]

isDefaultLabelType ::= [
 "Token" : true,
 default : false
]

isPredefinedRewriteRule ::= [
 "topdown" : true,
 "bottomup" : true,
 default : false
]

castToLabelType(value) ::= <%
<if(!isDefaultLabelType.(labelType))>
(<labelType>)
<endif>
<value>
%>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Java/Java.stg
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*/

/** Templates for building ASTs during normal parsing.
*
*  Deal with many combinations.  Dimensions are:
*  Auto build or rewrite
*    no label, label, list label  (label/no-label handled together)
*    child, root
*    token, set, rule, wildcard
*
*  The situation is not too bad as rewrite (->) usage makes ^ and !
*  invalid. There is no huge explosion of combinations.
*/
@rule.setErrorReturnValue() ::= <<
/* ASTParser rule.setErrorReturnValue */
retval.tree
 = (<ASTLabelType> *)[treeAdaptor errorNode:input From:retval.start To:[input LT:-1] Exception:re];
<! System.out.println("<ruleName> returns "+((CommonTree)retval.tree).toStringTree()); !>
>>

// TOKEN AST STUFF

/** ID and output=AST */
tokenRef(token, label, elementIndex, terminalOptions) ::= <<
/* ASTParser tokenRef */
<super.tokenRef(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<label>_tree = <createNodeFromToken(...)>;
[treeAdaptor addChild:<label>_tree  toTree:root_0];
<if(backtracking)>}<endif>
>>

/* ID! and output=AST (same as plain tokenRef) */
/* ASTParser tokenRefBang */
tokenRefBang(token,label,elementIndex,terminalOptions) ::= "<super.tokenRef(...)>"

/** ID^ and output=AST */
tokenRefRuleRoot(token,label,elementIndex,terminalOptions) ::= <<
<super.tokenRef(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
```

```
<label>_tree = <createNodeFromToken(...)>;
root_0 = (<ASTLabelType> *)[treeAdaptor becomeRoot:<label>_tree old:root_0];
<if(backtracking)>}<endif>
>>

/**
 ids+=ID! and output=AST */
tokenRefBangAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
/* ASTParser tokenRefBangAndListLabel */
<tokenRefBang(...)>
<listLabel(elem=label,...)>
>>

/** label+=TOKEN when output=AST but not rewrite alt */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
/* ASTParser tokenRefAndListLabel */
<tokenRef(...)>
<listLabel(elem=label,...)>
>>

/** Match label+=TOKEN^ when output=AST but not rewrite alt */
tokenRefRuleRootAndListLabel(token,label,terminalOptions,elementIndex) ::= <<
/* ASTParser tokenRefRuleRootAndListLabel */
<tokenRefRuleRoot(...)>
<listLabel(elem=label,...)>
>>

// SET AST

// the match set stuff is interesting in that it uses an argument list
// to pass code to the default matchSet; another possible way to alter
// inherited code.  I don't use the region stuff because I need to pass
// different chunks depending on the operator.  I don't like making
// the template
 name have the operator as the number of templates gets
// large but this is the most flexible--this is as opposed to having
// the code generator call matchSet then add root code or ruleroot code
// plus list label plus ...  The combinations might require complicated
// rather than just added on code.  Investigate that refactoring when
// I have more time.

matchSet(s,label,terminalOptions,elementIndex,postmatchCode) ::= <%
/* ASTParser matchSet */
<super.matchSet(postmatchCode={<if(backtracking)>if ( <actions.(actionScope).synpredgate> )<endif>
   [treeAdaptor addChild:<createNodeFromToken(...)> toTree:root_0 ];}, ...)>
%>

matchRuleBlockSet(s,label,terminalOptions,elementIndex,postmatchCode,treeLevel="0") ::= <<
```

```
/* ASTParser matchRuleBlockSet */
<matchSet(...)>
>>

matchSetBang(s,label,elementIndex,terminalOptions, postmatchCode) ::= "<super.matchSet(...)>"

// note there is no matchSetTrack because -> rewrites force sets to be
// plain old blocks of alts: (A|B|...|C)

matchSetRuleRoot(s,label,terminalOptions,elementIndex,debug)
 ::= <<
/* ASTParser matchSetRuleRoot */
<if(label)>
<label>=(<labelType> *)[input LT:1]; /* matchSetRuleRoot */<\n>
<endif>
<super.matchSet(postmatchCode={<if(backtracking)>if ( <actions.(actionScope).synpredgate> )<endif>
root_0 = (<ASTLabelType> *)[treeAdaptor becomeRoot:<createNodeFromToken(...)> old:root_0];}, ...)>
>>

// RULE REF AST

/** rule when output=AST */
ruleRef(rule,label,elementIndex,args,scope) ::= <<
/* ASTParser ruleRef */
<super.ruleRef(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> )<endif>
[treeAdaptor addChild:[<label> getTree] toTree:root_0];
>>

/** rule! is same as normal rule ref */
ruleRefBang(rule,label,elementIndex,args,scope) ::= "<super.ruleRef(...)>"

/** rule^ */
ruleRefRuleRoot(rule,label,elementIndex,args,scope) ::= <<
/* ASTParser ruleRefRuleRoot */
<super.ruleRef(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> )<endif>
root_0 = (<ASTLabelType> *)[treeAdaptor becomeRoot:[<label>
 getTree] old:root_0];
>>

/** x+=rule when output=AST */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
/* ASTParser ruleRefAndListLabel */
<ruleRef(...)>
<listLabel(elem = {[<label> getTree]},...)>
>>
```

```
/** x+=rule! when output=AST is a rule ref with list addition */
ruleRefBangAndListLabel(rule,label,elementIndex,args,scope) ::= <<
/* ASTParser ruleRefBangAndListLabel */
<ruleRefBang(...)>
<listLabel(elem = {[<label> getTree]},...)>
>>

/** x+=rule^ */
ruleRefRuleRootAndListLabel(rule,label,elementIndex,args,scope) ::= <<
/* ASTParser ruleRefRuleRootAndListLabel */
<ruleRefRuleRoot(...)>
<listLabel(elem = {[<label> getTree]},...)>
>>

// WILDCARD AST

wildcard(token,label,elementIndex,terminalOptions) ::= <<
/* ASTParser wildcard */
<super.wildcard(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
   [treeAdaptor addChild:[[treeAdaptor create:<label>] retain] toTree:root_0];
<if(backtracking)>}<endif>
>>

wildcardBang(token,label,elementIndex,terminalOptions)
 ::= "<super.wildcard(...)>"

wildcardRuleRoot(token,label,elementIndex,terminalOptions) ::= <<
/* ASTParser wildcardRuleRoot */
<super.wildcard(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
   <label>_tree = [[treeAdaptor create:<label>] retain]
   root_0 = (<ASTLabelType> *)[treeAdaptor becomeRoot:<label>_tree old:root_0];
<if(backtracking)>}<endif>
>>

createNodeFromToken(label,terminalOptions) ::= <<
/* ASTParser createNodeFromToken */
<if(terminalOptions.node)>
[<terminalOptions.node> new<terminalOptions.node>:<label>] <! new MethodNode(IDLabel) !>
<else>
(<ASTLabelType> *)[[treeAdaptor create:<label>] retain]
<endif>
>>

// straight from java cleanup ///
ruleCleanUp() ::= <<
/* ASTParser ruleCleanUp */
```

```
<super.ruleCleanUp()>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<\n><endif>
   retval.tree = (<ASTLabelType> *)[treeAdaptor rulePostProcessing:root_0];
   [treeAdaptor setTokenBoundaries:retval.tree
 From:retval.start To:retval.stopToken];
<if(backtracking)>}<endif>
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/ObjC/ASTParser.stg
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*/

/** Templates for building ASTs during normal parsing.
*
* Deal with many combinations. Dimensions are:

```
*  Auto build or rewrite
*    no label, label, list label  (label/no-label handled together)
*    child, root
*    token, set, rule, wildcard
*
*  The situation is not too bad as rewrite (->) usage makes ^ and !
*  invalid. There is no huge explosion of combinations.
*/

@rule.setErrorReturnValue()
 ::= <<
retval.tree = (<ASTLabelType>)(ADAPTOR->errorNode(ADAPTOR, INPUT, retval.start, LT(-1), EXCEPTION));
>>

// TOKEN AST STUFF

/** ID and output=AST */
tokenRef(token,label,elementIndex,terminalOptions) ::= <<
<super.tokenRef(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<label>_tree = (<ASTLabelType>)(ADAPTOR->create(ADAPTOR, <label>));
ADAPTOR->addChild(ADAPTOR, root_0, <label>_tree);
<if(backtracking)>}<endif>
>>

/** ID! and output=AST (same as plain tokenRef) */
tokenRefBang(token,label,elementIndex,terminalOptions) ::= "<super.tokenRef(...)>"

/** ID^ and output=AST */
tokenRefRuleRoot(token,label,elementIndex,terminalOptions) ::= <<
<super.tokenRef(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<label>_tree = <createNodeFromToken(...)>;
root_0 = (<ASTLabelType>)(ADAPTOR->becomeRoot(ADAPTOR, <label>_tree, root_0));
<if(backtracking)>}<endif>
>>

/** ids+=ID! and output=AST */
tokenRefBangAndListLabel(token,label,elementIndex,terminalOptions)
 ::= <<
<tokenRefBang(...)>
<listLabel(elem=label,...)>
>>



/** label+=TOKEN when output=AST but not rewrite alt */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions) ::= <<
<tokenRef(...)>
```

```
<listLabel(elem=label,...)>
>>


/** Match label+=TOKEN^ when output=AST but not rewrite alt */
tokenRefRuleRootAndListLabel(token,label,terminalOptions,elementIndex) ::= <<
<tokenRefRuleRoot(...)>
<listLabel(elem=label,...)>
>>

// SET AST

// the match set stuff is interesting in that it uses an argument list
// to pass code to the default matchSet; another possible way to alter
// inherited code.  I don't use the region stuff because I need to pass
// different chunks depending on the operator.  I don't like making
// the template name have the operator as the number of templates gets
// large but this is the most flexible--this is as opposed to having
// the code generator call matchSet then add root code or ruleroot code
// plus list label plus
 ...  The combinations might require complicated
// rather than just added on code.  Investigate that refactoring when
// I have more time.

matchSet(s,label,terminalOptions,elementIndex,postmatchCode) ::= <<
<super.matchSet(postmatchCode={<if(backtracking)>if ( <actions.(actionScope).synpredgate> )
<endif>ADAPTOR->addChild(ADAPTOR, root_0, <createNodeFromToken(...)>);},...)>
>>

matchRuleBlockSet(s,label,terminalOptions,elementIndex,postmatchCode,treeLevel="0") ::= <<
<matchSet(...)>
>>

matchSetBang(s,label,elementIndex,terminalOptions,postmatchCode) ::= "<super.matchSet(...)>"

// note there is no matchSetTrack because -> rewrites force sets to be
// plain old blocks of alts: (A|B|...|C)

matchSetRuleRoot(s,label,terminalOptions,elementIndex,debug) ::= <<
<if(label)>
<label>=(<labelType>)LT(1);<\n>
<endif>
<super.matchSet(postmatchCode={<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>root_0 =
(<ASTLabelType>)(ADAPTOR->becomeRoot(ADAPTOR, <createNodeFromToken(...)>,
 root_0));},...)>
>>

// RULE REF AST
```

```
/** rule when output=AST */
ruleRef(rule,label,elementIndex,args,scope) ::= <<
<super.ruleRef(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>ADAPTOR->addChild(ADAPTOR, root_0,
<label>.tree);
>>

/** rule! is same as normal rule ref */
ruleRefBang(rule,label,elementIndex,args,scope) ::= "<super.ruleRef(...)>"

/** rule^ */
ruleRefRuleRoot(rule,label,elementIndex,args,scope) ::= <<
<super.ruleRef(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>root_0 = (<ASTLabelType>)(ADAPTOR-
>becomeRoot(ADAPTOR, <label>.tree, root_0));
>>

/** x+=rule when output=AST */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRef(...)>
<listLabelAST(...)>
>>

/** x+=rule! when output=AST is a rule ref with list addition */
ruleRefBangAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<ruleRefBang(...)>
<listLabelAST(...)>
>>

/** x+=rule^ */
ruleRefRuleRootAndListLabel(rule,label,elementIndex,args,scope)
 ::= <<
<ruleRefRuleRoot(...)>
<listLabelAST(...)>
>>

// WILDCARD AST

wildcard(token,label,elementIndex,terminalOptions) ::= <<
<super.wildcard(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<label>_tree = (<ASTLabelType>)(ADAPTOR->create(ADAPTOR, <label>));
ADAPTOR->addChild(ADAPTOR, root_0, <label>_tree);
<if(backtracking)>}<endif>
>>

wildcardBang(token,label,elementIndex,terminalOptions) ::= "<super.wildcard(...)>"
```

```
wildcardRuleRoot(label,elementIndex) ::= <<
<super.wildcard(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<label>_tree = (<ASTLabelType>)(ADAPTOR->create(ADAPTOR, <label>));
root_0 = (<ASTLabelType>)(ADAPTOR->becomeRoot(ADAPTOR, <label>_tree, root_0));
<if(backtracking)>}<endif>
>>

createNodeFromToken(label,terminalOptions) ::= <<
<if(terminalOptions.node)>
<terminalOptions.node>New(<label>) <! new MethodNode(IDLabel) !>
<else>
(<ASTLabelType>)(ADAPTOR->create(ADAPTOR, <label>))
<endif>
>>

ruleCleanUp()
 ::= <<
<super.ruleCleanUp()>
<if(backtracking)>
if ( <actions.(actionScope).synpredgate> )
{<\n>
<endif>
<if(!ruleDescriptor.isSynPred)>
 retval.stop = LT(-1);<\n>
<endif>
 retval.tree = (<ASTLabelType>)(ADAPTOR->rulePostProcessing(ADAPTOR, root_0));
 ADAPTOR->setTokenBoundaries(ADAPTOR, retval.tree, retval.start, retval.stop);
   <ruleDescriptor.allTokenRefsInAltsWithRewrites
   :{it | if (stream_<it> != NULL) stream_<it>->free(stream_<it>);}; separator="\n">
   <ruleDescriptor.allRuleRefsInAltsWithRewrites
   :{it | if (stream_<it> != NULL) stream_<it>->free(stream_<it>);}; separator="\n">
<if(backtracking)>
}<\n>
<endif>
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/C/ASTParser.stg
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group Dbg;

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```
*/

@parserBody.mixins() ::= <<
include ANTLR3::<if(profile)>Profile<else>Debug<endif>::ParserEvents
>>



@parserBody.additionalMembers() ::= <<
<if(grammar.grammarIsRoot)>
RULE_NAMES = [
 :invalid_rule, <grammar.allImportedRules:{rST|:<rST.name>}; wrap="\n  ", separator=", ">
].freeze
<endif>
>>



@rule.body() ::= <<
in_rule(grammar_file_name, "<ruleName>") do
 @debug_listener.location(<ruleDescriptor.tree.line>, <ruleDescriptor.tree.column>)

 <@super.body()>

 @debug_listener.location(<ruleDescriptor.EORNode.line>,
```

```
 <ruleDescriptor.EORNode.column>)
end
>>


// Common debug event triggers used by region overrides below
enterSubRule() ::= <<
in_subrule(<decisionNumber>) do<\n>
>>


exitSubRule() ::= <<
end<\n>
>>


enterDecision() ::= <<
in_decision(<decisionNumber>) do<\n>
>>


exitDecision() ::= <<
end<\n>
>>


enterAlt(n) ::= <<
in_alternative(<n>)<\n>
>>


// Region overrides that tell various constructs to add debugging triggers
@block.body() ::= <<
in_subrule(<decisionNumber>) do
 <@super.body()>
end
>>


// @blockBody.predecision() ::= "<enterSubRule()>"
// @blockBody.postdecision() ::= "<exitDecision()>"
// @blockBody.postbranch() ::= "<exitSubRule()>"
@blockBody.decision() ::= <<
in_decision(<decisionNumber>) do
 <@super.decision()>
end
>>
```

```
@ruleBlock.decision() ::= <<
in_decision(<decisionNumber>) do
 <@super.decision()>
end<\n>
>>


@ruleBlockSingleAlt.prealt() ::= "<enterAlt(n={1})>"


@blockSingleAlt.prealt() ::= "<enterAlt(n={1})>"


@positiveClosureBlock.loopBody()
 ::= <<
in_subrule(<decisionNumber>) do
 <@super.loopBody()>
end
>>


@positiveClosureBlockLoop.decisionBody() ::= <<
in_decision(<decisionNumber>) do
 <@super.decisionBody()>
end
>>


@positiveClosureBlockLoop.earlyExitException() ::= <<
@debug_listener.recognition_exception(eee)
>>


@closureBlock.loopBody() ::= <<
in_subrule(<decisionNumber>) do
 <@super.loopBody()>
end
>>


@closureBlockLoop.decisionBody() ::= <<
in_decision(<decisionNumber>) do
 <@super.decisionBody()>
end
>>
```

```
@altSwitchCase.prealt() ::= "<enterAlt(altNum)>"  // altNum is arg of altSwitchCase


element(e) ::= <<
@debug_listener.location(<e.line>, <e.pos>) // e is arg of element
<super.element(e)>
>>


@matchSet.mismatchedSetException() ::= "@debug_listener.recognition_exception(mse)"


@dfaState.noViableAltException() ::= <<
nvae = NoViableAlternative( "<description>", <decisionNumber>, <stateNumber> )
@debug_listener.recognition_exception( nvae )
raise( nvae )<\n>
>>

@dfaStateSwitch.noViableAltException()
 ::= <<
nvae = NoViableAlternative( "<description>", <decisionNumber>, <stateNumber> )
@debug_listener.recognition_exception( nvae )
raise( nvae )<\n>
>>

dfaDecision(decisionNumber,description) ::= <<
begin
 @state.cyclic_decision = true
 <super.dfaDecision(...)>
rescue ANTLR3::Error::NoViableAlternative => nvae
 @debug_listener.recognition_exception(nvae)
 raise
end
>>


@cyclicDFA.errorMethod() ::= <<
def error(nvae)
 @recognizer.debug_listener.recognition_exception(nvae)
 super
end
>>
/** Force predicate validation to trigger an event */
evalPredicate(pred,description) ::= <<
predicate?("<description>") { <pred> }
>>
```

Found in path(s):

* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Ruby/Dbg.stg
No license file was found, but licenses were detected in source scan.

```
/*
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* THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
*/
/** Template overrides to add debugging to normal Java output;
*  If ASTs are built, then you'll also get ASTDbg.stg loaded.
*/

@outputFile.debugPreprocessor() ::= "#define ANTLR_DEBUG"

@outputFile.imports() ::= <<
<@super.imports()>
using Antlr.Runtime.Debug;
using IOException = System.IO.IOException;
>>

@genericParser.members()
```

```
 ::= <<
<if(grammar.grammarIsRoot)>
public static readonly string[] ruleNames =
 new string[]
 {
  "invalidRule", <grammar.allImportedRules:{rST | "<rST.name>"}; wrap="\n ", separator=", ">
 };<\n>
<endif>
<if(grammar.grammarIsRoot)><! grammar imports other grammar(s) !>
int ruleLevel = 0;
public virtual int RuleLevel { get { return ruleLevel; } }
public virtual void IncRuleLevel() { ruleLevel++; }
public virtual void DecRuleLevel() { ruleLevel--; }
<if(profile)>
<ctorForProfilingRootGrammar()>
<else>
<ctorForRootGrammar()>
<endif>
<ctorForPredefinedListener()>
<else><! imported grammar !>
public int RuleLevel { get { return <grammar.delegators:{g| <g:delegateName()>}>.RuleLevel; } }
public void IncRuleLevel() { <grammar.delegators:{g| <g:delegateName()>}>.IncRuleLevel(); }
public void DecRuleLevel() { <grammar.delegators:{g| <g:delegateName()>}>.DecRuleLevel(); }
<ctorForDelegateGrammar()>
<endif>
<if(profile)>
public override bool AlreadyParsedRule( IIntStream input, int
 ruleIndex )
{
 int stopIndex = GetRuleMemoization(ruleIndex, input.Index);
 ((Profiler)dbg).ExamineRuleMemoization(input, ruleIndex, stopIndex,
<grammar.composite.rootGrammar.recognizerName>.ruleNames[ruleIndex]);
 return base.AlreadyParsedRule(input, ruleIndex);
}<\n>
public override void Memoize( IIntStream input, int ruleIndex, int ruleStartIndex )
{
 ((Profiler)dbg).Memoize(input, ruleIndex, ruleStartIndex,
<grammar.composite.rootGrammar.recognizerName>.ruleNames[ruleIndex]);
 base.Memoize(input, ruleIndex, ruleStartIndex);
}<\n>
<endif>
protected virtual bool EvalPredicate( bool result, string predicate )
{
 dbg.SemanticPredicate( result, predicate );
 return result;
}<\n>
>>
```

```
ctorForRootGrammar() ::= <<
<! bug: can't use <@super.members()> cut-n-paste instead !>
<! Same except we add port number and profile stuff if root grammar !>
<actions.(actionScope).ctorModifier; null="public"> <name>( <inputStreamType> input )
 : this( input, DebugEventSocketProxy.DefaultDebuggerPort, new
 RecognizerSharedState() )
{
}
<actions.(actionScope).ctorModifier; null="public"> <name>( <inputStreamType> input, int port,
RecognizerSharedState state )
 : base( input, state )
{
 <createListenerAndHandshake()>
 <grammar.directDelegates:{g|<g:delegateName()> = new <g.recognizerName>( input, dbg, this.state,
this<grammar.delegators:{g|, <g:delegateName()>}> );}; separator="\n">
 <parserCtorBody()>
 <@finally()>
}<\n>
>>

ctorForProfilingRootGrammar() ::= <<
<! bug: can't use <@super.members()> cut-n-paste instead !>
<actions.(actionScope).ctorModifier; null="public"> <name>( <inputStreamType> input )
 : this( input, new Profiler(null), new RecognizerSharedState() )
{
}
<actions.(actionScope).ctorModifier; null="public"> <name>( <inputStreamType> input, IDebugEventListener dbg,
RecognizerSharedState state )
 : base( input, dbg, state )
{
 Profiler p = (Profiler)dbg;
 p.setParser(this);
 <grammar.directDelegates:
  {g|<g:delegateName()> = new <g.recognizerName>( input, dbg, this.state,
 this<grammar.delegators:{g|, <g:delegateName()>}> );}; separator="\n">
 <parserCtorBody()>
 <@finally()>
}
<\n>
>>

/** Basically we don't want to set any dbg listeners are root will have it. */
ctorForDelegateGrammar() ::= <<
<actions.(actionScope).ctorModifier; null="public"> <name>( <inputStreamType> input, IDebugEventListener dbg,
RecognizerSharedState state<grammar.delegators:{g|, <g.recognizerName> <g:delegateName()>}> )
 : base( input, dbg, state )
{
 <grammar.directDelegates:
```

```
  {g|<g:delegateName()> = new <g.recognizerName>( input, this, this.state<grammar.delegators:{g|,
<g:delegateName()>}> );}; separator="\n">
 <parserCtorBody()>
}<\n>
>>

ctorForPredefinedListener() ::= <<
<actions.(actionScope).ctorModifier; null="public"> <name>( <inputStreamType> input, IDebugEventListener dbg
)
 <@superClassRef>: base( input, dbg, new RecognizerSharedState() )<@end>
{
<if(profile)>
 Profiler p = (Profiler)dbg;
 p.setParser(this);
<endif>
 <grammar.directDelegates:{g|<g:delegateName()>
 = new <g.recognizerName>(input, dbg, this.state, this<grammar.delegators:{g|, <g:delegateName()>}>);};
separator="\n">
 <parserCtorBody()>
 <@finally()>
}<\n>
>>

createListenerAndHandshake() ::= <<
<if(TREE_PARSER)>
DebugEventSocketProxy proxy = new DebugEventSocketProxy( this, port, input.TreeAdaptor );<\n>
<else>
DebugEventSocketProxy proxy = new DebugEventSocketProxy( this, port, null );<\n>
<endif>
DebugListener = proxy;
try
{
 proxy.Handshake();
}
catch ( IOException ioe )
{
 ReportError( ioe );
}
>>

@genericParser.superClassName() ::= "Debug<@super.superClassName()>"

/*
* Many of the following rules were merged into CSharp2.stg.
*/

@rule.preamble() ::= <<
if (RuleLevel == 0)
```

```
 DebugListener.Commence();
IncRuleLevel();
>>
//@rule.preamble() ::= <<
//try
//{
// dbg.EnterRule( GrammarFileName, "<ruleName>" );
// if ( RuleLevel == 0 )
// {
//  dbg.Commence();
// }
// IncRuleLevel();
// dbg.Location( <ruleDescriptor.tree.line>, <ruleDescriptor.tree.charPositionInLine> );<\n>
//>>

@rule.postamble()
 ::= <<
DecRuleLevel();
if (RuleLevel == 0)
 DebugListener.Terminate();
>>
//@rule.postamble() ::= <<
//dbg.Location(<ruleDescriptor.EORNode.line>, <ruleDescriptor.EORNode.charPositionInLine>);<\n>
//}
//finally
//{
// dbg.ExitRule( GrammarFileName, "<ruleName>" );
// DecRuleLevel();
// if ( RuleLevel == 0 )
// {
//  dbg.Terminate();
// }
//}<\n>
//>>

//@insertSynpreds.start() ::= "dbg.BeginBacktrack( state.backtracking );"
//@insertSynpreds.stop() ::= "dbg.EndBacktrack( state.backtracking, success );"

// Common debug event triggers used by region overrides below

//enterSubRule() ::= <<
//try
//{
// dbg.EnterSubRule( <decisionNumber> );<\n>
//>>

//exitSubRule() ::= <<
//}
```

```
//finally
//{
// dbg.ExitSubRule( <decisionNumber> );
//}<\n>
//>>

//enterDecision() ::= <<
//try
//{
// dbg.EnterDecision( <decisionNumber> );<\n>
//>>

//exitDecision() ::= <<
//}
//finally
//{
// dbg.ExitDecision( <decisionNumber> );
//}<\n>
//>>

//enterAlt(n) ::= "dbg.EnterAlt( <n> );<\n>"

//
 Region overrides that tell various constructs to add debugging triggers

//@block.predecision() ::= "<enterSubRule()><enterDecision()>"

//@block.postdecision() ::= "<exitDecision()>"

//@block.postbranch() ::= "<exitSubRule()>"

//@ruleBlock.predecision() ::= "<enterDecision()>"

//@ruleBlock.postdecision() ::= "<exitDecision()>"

//@ruleBlockSingleAlt.prealt() ::= "<enterAlt(n=\"1\")>"

//@blockSingleAlt.prealt() ::= "<enterAlt(n=\"1\")>"

//@positiveClosureBlock.preloop() ::= "<enterSubRule()>"

//@positiveClosureBlock.postloop() ::= "<exitSubRule()>"

//@positiveClosureBlock.predecision() ::= "<enterDecision()>"

//@positiveClosureBlock.postdecision() ::= "<exitDecision()>"

//@positiveClosureBlock.earlyExitException() ::=
```

```
// "dbg.RecognitionException( eee<decisionNumber> );<\n>"

//@closureBlock.preloop() ::= "<enterSubRule()>"

//@closureBlock.postloop() ::= "<exitSubRule()>"

//@closureBlock.predecision() ::= "<enterDecision()>"

//@closureBlock.postdecision() ::= "<exitDecision()>"

//@altSwitchCase.prealt()
 ::= "<enterAlt(n=i)>"

//@element.prematch() ::=
// "dbg.Location( <it.line>, <it.pos> );"

//@matchSet.mismatchedSetException() ::=
// "dbg.RecognitionException( mse );"

//@dfaState.noViableAltException() ::= "dbg.RecognitionException( nvae );"

//@dfaStateSwitch.noViableAltException() ::= "dbg.RecognitionException( nvae );"

//dfaDecision(decisionNumber,description) ::= <<
//try
//{
// isCyclicDecision = true;
// <super.dfaDecision(...)>
//}
//catch ( NoViableAltException nvae )
//{
// dbg.RecognitionException( nvae );
// throw nvae;
//}
//>>

//@cyclicDFA.errorMethod() ::= <<
//public override void Error( NoViableAltException nvae )
//{
// ((DebugParser)recognizer).dbg.RecognitionException( nvae );
//}
//>>

/** Force predicate validation to trigger an event */
evalPredicate(pred,description) ::= <<
EvalPredicate(<pred>, "<description>")
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/CSharp2/Dbg.stg
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```
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*/

/** Templates for building ASTs during tree parsing.
 *
 *  Deal with many combinations.  Dimensions are:
 *  Auto build or rewrite
 *    no label, label, list label  (label/no-label handled together)
 *    child, root
 *    token, set, rule, wildcard
 *
 *  Each combination has its own template except that label/no label
 *  is combined into tokenRef, ruleRef, ...
 */

/** Add a variable to track last element matched */
ruleDeclarations() ::= <<
```

```
<super.ruleDeclarations()>
<if(!ruleDescriptor.isSynPred)>
<ASTLabelType>
 _first_0 = null;
<ASTLabelType> _last = null;<\n>
<endif>
>>

/** What to emit when there is no rewrite rule.  For auto build
*  mode, does nothing.
*/
noRewrite(rewriteBlockLevel=false, treeLevel=false) ::= <<
<if(!ruleDescriptor.isSynPred)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<if(rewriteMode)>
retval.tree = _first_0;
if ( adaptor.getParent(retval.tree)!=null && adaptor.isNil( adaptor.getParent(retval.tree) ) )
 retval.tree = (<ASTLabelType>)adaptor.getParent(retval.tree);
<endif>
<if(backtracking)>}<endif>
<endif>
>>

/** match ^(root children) in tree parser; override here to
*  add tree construction actions.
*/
tree(root, actionsAfterRoot, children, nullableChildList,
  enclosingTreeLevel, treeLevel) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
{
<ASTLabelType> _save_last_<treeLevel> = _last;
<ASTLabelType> _first_<treeLevel> = null;
<if(!rewriteMode)>
<ASTLabelType> root_<treeLevel>
 = (<ASTLabelType>)adaptor.nil();
<endif>
<root:element()>
<if(rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> )<endif>
<if(root.el.rule)>
if ( _first_<enclosingTreeLevel>==null ) _first_<enclosingTreeLevel> =
(<ASTLabelType>)<root.el.label>.getTree();
<elseif(root.el.label)>
if ( _first_<enclosingTreeLevel>==null ) _first_<enclosingTreeLevel> = <root.el.label>;
<endif>
<endif>
<actionsAfterRoot:element()>
```

```
<if(nullableChildList)>
if ( input.LA(1)==Token.DOWN ) {
 match(input, Token.DOWN, null); <checkRuleBacktrackFailure()>
 <children:element()>
 match(input, Token.UP, null); <checkRuleBacktrackFailure()>
}
<else>
match(input, Token.DOWN, null); <checkRuleBacktrackFailure()>
<children:element()>
match(input, Token.UP, null); <checkRuleBacktrackFailure()>
<endif>
<if(!rewriteMode)>
adaptor.addChild(root_<enclosingTreeLevel>, root_<treeLevel>);
<endif>
_last = _save_last_<treeLevel>;
}<\n>
<else>
<super.tree(...)>
<endif>
>>

// TOKEN AST STUFF

/** ID!
 and output=AST (same as plain tokenRef) 'cept add
*  setting of _last
*/
tokenRefBang(token,label,elementIndex,terminalOptions={}) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.tokenRef(...)>
<else>
<super.tokenRefBang(...)>
<endif>
>>

/** ID auto construct */
tokenRef(token,label,elementIndex,terminalOptions={}) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.tokenRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<if(terminalOptions.node)>
<label>_tree = new <terminalOptions.node>(<label>);
<else>
<label>_tree = (<ASTLabelType>)adaptor.dupNode(<label>);
<endif><\n>
```

```
adaptor.addChild(root_<treeLevel>, <label>_tree);
<if(backtracking)>}<endif>
<else> <! rewrite mode !>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> )<endif>
if ( _first_<treeLevel>==null ) _first_<treeLevel> = <label>;
<endif>
<else>
<super.tokenRef(...)>
<endif>
>>

/** label+=TOKEN auto
 construct */
tokenRefAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<if(!ruleDescriptor.isSynPred)>
<tokenRef(...)>
<listLabel(elem=label,...)>
<else>
<super.tokenRefAndListLabel(...)>
<endif>
>>

/** ^(ID ...) auto construct */
tokenRefRuleRoot(token,label,elementIndex,terminalOptions={}) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.tokenRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<if(terminalOptions.node)>
<label>_tree = new <terminalOptions.node>(<label>);
<else>
<label>_tree = (<ASTLabelType>)adaptor.dupNode(<label>);
<endif><\n>
root_<treeLevel> = (<ASTLabelType>)adaptor.becomeRoot(<label>_tree, root_<treeLevel>);
<if(backtracking)>}<endif>
<endif>
<else>
<super.tokenRefRuleRoot(...)>
<endif>
>>

/** Match ^(label+=TOKEN ...) auto construct */
tokenRefRuleRootAndListLabel(token,label,elementIndex,terminalOptions={}) ::= <<
<if(!ruleDescriptor.isSynPred)>
<tokenRefRuleRoot(...)>
<listLabel(elem=label,...)>
<else>
```

```
<super.tokenRefRuleRootAndListLabel(...)>
<endif>
>>

/**
 Match . wildcard and auto dup the node/subtree */
wildcard(token,label,elementIndex,terminalOptions={}) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.wildcard(...)>
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<label>_tree = (<ASTLabelType>)adaptor.dupTree(<label>);
adaptor.addChild(root_<treeLevel>, <label>_tree);
<if(backtracking)>}<endif>
<else> <! rewrite mode !>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> )<endif>
if ( _first_<treeLevel>==null ) _first_<treeLevel> = <label>;
<endif>
<else>
<super.wildcard(...)>
<endif>
>>

// SET AST

matchSet(s,label,elementIndex,postmatchCode,terminalOptions={}) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.matchSet(postmatchCode={
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<if(terminalOptions.node)>
<label>_tree
 = new <terminalOptions.node>(<label>);
<else>
<label>_tree = (<ASTLabelType>)adaptor.dupNode(<label>);
<endif><\n>
adaptor.addChild(root_<treeLevel>, <label>_tree);
<if(backtracking)>\}<endif>
<endif>
}, ...
)>
<else>
<super.matchSet(...)>
<endif>
>>
```

```
matchRuleBlockSet(s,label,elementIndex,postmatchCode,treeLevel="0",terminalOptions={}) ::= <<
<if(!ruleDescriptor.isSynPred)>
<matchSet(...)>
<noRewrite(...)> <! set return tree !>
<else>
<super.matchRuleBlockSet(...)>
<endif>
>>

matchSetBang(s,label,elementIndex,postmatchCode,terminalOptions={}) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.matchSet(...)>
<else>
<super.matchSetBang(...)>
<endif>
>>

matchSetRuleRoot(s,label,elementIndex,debug,terminalOptions={}) ::= <<
<if(!ruleDescriptor.isSynPred)>
<super.matchSet(postmatchCode={
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<endif>
<if(terminalOptions.node)>
<label>_tree
 = new <terminalOptions.node>(<label>);
<else>
<label>_tree = (<ASTLabelType>)adaptor.dupNode(<label>);
<endif><\n>
root_<treeLevel> = (<ASTLabelType>)adaptor.becomeRoot(<label>_tree, root_<treeLevel>);
<if(backtracking)>\}<endif>
<endif>
}, ...
)>
<else>
<super.matchSetRuleRoot(...)>
<endif>
>>

// RULE REF AST

/** rule auto construct */
ruleRef(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRef(...)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>
<if(!rewriteMode)>
```

```
adaptor.addChild(root_<treeLevel>, <label>.getTree());
<else> <! rewrite mode !>
if ( _first_<treeLevel>==null ) _first_<treeLevel> = (<ASTLabelType>)<label>.getTree();
<endif>
<else>
<super.ruleRef(...)>
<endif>
>>

/** x+=rule auto construct */
ruleRefAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
<ruleRef(...)>
<listLabel(label, {<label>.getTree()})>
<else>
<super.ruleRefAndListLabel(...)>
<endif>
>>

/**
 ^(rule ...) auto construct */
ruleRefRuleRoot(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRef(...)>
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) <endif>root_<treeLevel> =
(<ASTLabelType>)adaptor.becomeRoot(<label>.getTree(), root_<treeLevel>);
<endif>
<else>
<super.ruleRefRuleRoot(...)>
<endif>
>>

/** ^(x+=rule ...) auto construct */
ruleRefRuleRootAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
<ruleRefRuleRoot(...)>
<listLabel(label, {<label>.getTree()})>
<else>
<super.ruleRefRuleRootAndListLabel(...)>
<endif>
>>

/** rule when output=AST and tracking for rewrite */
ruleRefTrack(rule,label,elementIndex,args,scope) ::= <<
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRefTrack(...)>
```

```
>>

/** x+=rule when output=AST and tracking for rewrite */
ruleRefTrackAndListLabel(rule,label,elementIndex,args,scope) ::=
 <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRefTrackAndListLabel(...)>
<else>
<super.ruleRefTrackAndListLabel(...)>
<endif>
>>

/** ^(rule ...) rewrite */
ruleRefRuleRootTrack(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRefRootTrack(...)>
<else>
<super.ruleRefRootTrack(...)>
<endif>
>>

/** ^(x+=rule ...) rewrite */
ruleRefRuleRootTrackAndListLabel(rule,label,elementIndex,args,scope) ::= <<
<if(!ruleDescriptor.isSynPred)>
_last = (<ASTLabelType>)input.LT(1);
<super.ruleRefRuleRootTrackAndListLabel(...)>
<else>
<super.ruleRefRuleRootTrackAndListLabel(...)>
<endif>
>>

/** Streams for token refs are tree nodes now; override to
*  change nextToken to nextNode.
*/
createRewriteNodeFromElement(token,args,terminalOptions={}) ::= <<
<if(terminalOptions.node)>
new <terminalOptions.node>(stream_<token>.nextNode())
<else>
stream_<token>.nextNode()
<endif>
>>

ruleCleanUp() ::=
 <<
<super.ruleCleanUp()>
<if(!ruleDescriptor.isSynPred)>
```

```
<if(!rewriteMode)>
<if(backtracking)>if ( <actions.(actionScope).synpredgate> ) {<\n><endif>
retval.tree = (<ASTLabelType>)adaptor.rulePostProcessing(root_0);
<if(backtracking)>}<endif>
<endif>
<endif>
>>
```

Found in path(s):
* /opt/cola/permits/1347859860_1655734093.589936/0/antlr-3-5-3-jar/org/antlr/codegen/templates/Java/ASTTreeParser.stg

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Version 3, 29 June 2007

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*/
/**
    * Returns an array containing all of the elements in this deque, in
    * proper sequence (from first to last element).

   *
    * <p>The returned array will be "safe" in that no references to it are
    * maintained by this deque.  (In other words, this method must allocate
    * a new array).  The caller is thus free to modify the returned array.
    *
    * <p>This method acts as bridge between array-based and collection-based
    * APIs.
    *
    * @return an array containing all of the elements in this deque
    */
```

Found in path(s):
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/ConcurrentLinkedDeque.java
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* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/TransactionOptions.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/operation/WriteConcernHelper.java
*

/opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/ServerApiVersion.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/lang/NonNull.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/lang/Nullable.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/ReadConcernAwareNoOpSessionContext.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/operation/ServerVersionHelper.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/ReadPreferenceHedgeOptions.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/ReadConcernHelper.java
*
/opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/async/client/AsyncClientSession.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/lang/package-info.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/lang/NonNullApi.java
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* https://github.com/marianobarrios/tls-channel
*/

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* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/WouldBlockException.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/impl/TlsChannelImpl.java
*

/opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/async/ExtendedAsynchronousByteChannel.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/async/package-info.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/TrackingAllocator.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/NeedsReadException.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/TlsChannelFlowControlException.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/BufferAllocator.java
*
/opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/DirectBufferAllocator.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/spi/dns/package-info.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/ServerTlsChannel.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/HeapBufferAllocator.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/TlsChannelBuilder.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/TlsChannelCallbackException.java
*
/opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/util/Util.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/async/AsynchronousTlsChannelGroup.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/async/AsynchronousTlsChannel.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/TlsChannel.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/impl/ByteBufferUtil.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/SniSslContextFactory.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/NeedsTaskException.java
*
/opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/ClientTlsChannel.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/package-info.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/impl/TlsExplorer.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-

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* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/NeedsWriteException.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/tlschannel/util/DirectBufferDeallocator.java
*
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* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-

jar/com/mongodb/annotations/NotThreadSafe.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/annotations/ThreadSafe.java
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* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/client/model/CollationStrength.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/operation/AbortTransactionOperation.java
*
/opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/ByteBufferBsonOutput.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/connection/ServerVersion.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/operation/AsyncExplainableReadOperation.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/operation/AggregateToCollectionOperation.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/client/model/BucketOptions.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/Compressor.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/client/gridfs/codecs/package-info.java
*
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* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/operation/OperationReadConcernHelper.java

* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/ClusterDescriptionHelper.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/inject/SameObjectProvider.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/client/model/UpdateManyModel.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/async/AsyncBatchCursor.java
*
 /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/client/model/changestream/ChangeStreamDocument.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/ReplyHeader.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/connection/AsyncCompletionHandler.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/ClusterableServer.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/client/model/changestream/TruncatedArray.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/event/ServerListenerMulticaster.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/operation/AggregateOperationImpl.java
*
 /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/ReadConcern.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/Pool.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/ReplyMessage.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/MongoNodeIsRecoveringException.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/WriteProtocol.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/MongoServerException.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/SdamServerDescriptionManager.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/client/model/CollationMaxVariable.java
*
 /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/connection/netty/NettyByteBuf.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/async/function/RetryState.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/InternalStreamConnection.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-

jar/com/mongodb/internal/operation/BsonDocumentWrapperHelper.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/async/function/AsyncCallbackFunction.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/AuthenticationMechanism.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/client/model/TimeSeriesOptions.java
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* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/async/client/package-info.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/event/EventListenerHelper.java
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* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/binding/ReadBinding.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/DefaultConnectionFactory.java
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* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/client/model/geojson/codecs/MultiPointCodec.java
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* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/connection/ConnectionFactory.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/client/model/FindOneAndReplaceOptions.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/event/ConnectionPoolListener.java
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* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/client/model/changestream/OperationTypeCodec.java
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* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/client/model/geojson/GeometryCollection.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/binding/AbstractReferenceCounted.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/operation/MapReduceAsyncBatchCursor.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/operation/DropCollectionOperation.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/event/ServerClosedEvent.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/MongoGridFSException.java
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* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/client/model/InsertOneModel.java
* /opt/cola/permits/1356793684_1656997111.625937/0/mongodb-driver-core-4-6-1-sources-jar/com/mongodb/internal/validator/ReplacingDocumentFieldNameValidator.java
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1.300 bson-record-codec 4.6.1

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* /opt/cola/permits/1356793478_1656997105.287569/0/bson-record-codec-4-6-1-sources-jar/org/bson/codecs/record/annotations/BsonId.java
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1.301 jcommander 1.82

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* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/UnixStyleUsageFormatter.java
*
 /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/IUsageFormatter.java
* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/DefaultUsageFormatter.java
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* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/converters/DoubleConverter.java
* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/converters/StringConverter.java
* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/internal/Lists.java
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* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/ParameterDescription.java
* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/converters/FloatConverter.java
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* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/IDefaultProvider.java
* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/IStringConverter.java
* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/internal/Maps.java
* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/Parameter.java
* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/IStringConverterFactory.java
* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/Parameters.java
* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/defaultprovider/PropertyFileDefaultProvider.java

* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/converters/BooleanConverter.java
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 /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/ParameterException.java
* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/converters/NoConverter.java
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* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/converters/FileConverter.java
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* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/converters/BaseConverter.java
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* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/converters/LongConverter.java
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 /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/converters/URIConverter.java
* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/converters/CharArrayConverter.java
* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/internal/DefaultConverterFactory.java
* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/converters/InetAddressConverter.java
* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/internal/Sets.java
* /opt/cola/permits/1362173022_1657688436.1357603/0/jcommander-1-82-sources-jar/com/beust/jcommander/ParametersDelegate.java

1.302 classgraph 4.8.149

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/*
* This file is part of ClassGraph.
*
* Author: Harith Elrufaie
*
* Hosted at: https://github.com/classgraph/classgraph
*
* --
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*
* Author: Luke Hutchison
*
* Hosted at: https://github.com/classgraph/classgraph
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* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/fileslice/ArraySlice.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/fileslice/reader/RandomAccessArrayReader.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/fileslice/PathSlice.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/fileslice/Slice.java
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* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/fileslice/reader/SequentialReader.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/fileslice/reader/ClassfileReader.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/fileslice/FileSlice.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/fileslice/reader/RandomAccessFileChannelReader.java
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* This file is part of ClassGraph.
*
* Author: Michael J. Simons
*
* Hosted at: https://github.com/classgraph/classgraph
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* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/fastzipfilereader/PhysicalZipFile.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/ClassGraph.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/reflection/ReflectionUtils.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/Scanner.java
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/opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/BaseTypeSignature.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/concurrency/SingletonMap.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/json/JSONObject.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/classloaderhandler/OSGiDefaultClassLoaderHandler.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/json/JSONUtils.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/AnnotationInfoList.java
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* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/classloaderhandler/FallbackClassLoaderHandler.java
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/opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/json/JSONArray.java
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* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/ClassGraphClassLoader.java

* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/utils/URLPathEncoder.java
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* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/classpath/ClassLoaderOrder.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/MappableInfoList.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/PackageInfoList.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/ClasspathElementModule.java
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* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/classpath/ModuleFinder.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/MethodInfo.java
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* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/utils/JarUtils.java
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 /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/TypeParameter.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/types/TypeUtils.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/utils/LogNode.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/ReferenceTypeSignature.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/ModulePathInfo.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/AnnotationInfo.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/ArrayClassInfo.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/json/Id.java
*
 /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/ClasspathElementDir.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/fastzipfilereader/LogicalZipFile.java
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* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/PotentiallyUnmodifiableList.java
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 /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/classloaderhandler/WeblogicClassLoaderHandler.java
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* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/json/JSONParser.java
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* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/classloaderhandler/URLClassLoaderHandler.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/ClassGraphException.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/ModuleRef.java
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/opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/ObjectTypedValueWrapper.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/recycler/Recycler.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/ClassRefTypeSignature.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/ClassRefOrTypeVariableSignature.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/classloaderhandler/ClassGraphClassLoaderHandler.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/classloaderhandler/EquinoxClassLoaderHandler.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/scanspec/AcceptReject.java
*
/opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/classloaderhandler/ClassLoaderHandler.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/AnnotationClassRef.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/recycler/Resettable.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/classpath/ClasspathFinder.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/json/ClassFieldCache.java

* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/json/JSONReference.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/AnnotationEnumValue.java
*
/opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/AnnotationParameterValue.java
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* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/io/github/classgraph/HierarchicalTypeSignature.java
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* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/concurrency/AutoCloseableExecutorService.java
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*
* Author: R. Kempees
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*
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* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/reflection/ReflectionDriver.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/reflection/StandardReflectionDriver.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/classloaderhandler/CxfContainerClassLoaderHandler.java
* /opt/cola/permits/1366065696_1658113689.7612143/0/classgraph-4-8-149-sources-jar/nonapi/io/github/classgraph/reflection/JVMDriverReflectionDriver.java
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*
* Author: Sergey Bespalov
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* Hosted at: https://github.com/classgraph/classgraph
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1.303 agent-api 4.5.13.27526

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* /opt/cola/permits/1366801991_1658170427.268079/0/agent-api-4-5-13-27526-sources-jar/com/appdynamics/agent/api/ExitTypes.java
* /opt/cola/permits/1366801991_1658170427.268079/0/agent-api-4-5-13-27526-sources-jar/com/appdynamics/agent/api/bootstrap/NoOpTransactionDelegate.java
* /opt/cola/permits/1366801991_1658170427.268079/0/agent-api-4-5-13-27526-sources-jar/com/appdynamics/agent/api/bootstrap/IApiTransactionDelegate.java
* /opt/cola/permits/1366801991_1658170427.268079/0/agent-api-4-5-13-27526-sources-jar/com/appdynamics/agent/api/EntryTypes.java

1.304 rxjava-server 0.9.0

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/* zlib.h -- interface of the 'zlib' general purpose compression library
version 1.2.11, January 15th, 2017

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Jean-loup Gailly   Mark Adler
jloup@gzip.org   madler@alumni.caltech.edu

The data format used by the zlib library is described by RFCs (Request for
Comments) 1950 to 1952 in the files http://tools.ietf.org/html/rfc1950
(zlib format), rfc1951 (deflate format) and rfc1952 (gzip format).
*/

1.307 logback-throttling-appender 1.1.9

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Found in path(s):
* /opt/cola/permits/1368298591_1658301187.6939363/0/logback-throttling-appender-1-1-9-1-jar/META-INF/maven/io.dropwizard.logback/logback-throttling-appender/pom.xml

1.308 netty-tcnative-classes 2.0.54.Final

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* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/SSLSessionCache.java

* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/SSLSession.java

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* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/CertificateCompressionAlgo.java

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* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/SniHostNameMatcher.java
* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/NativeStaticallyReferencedJniMethods.java
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* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/ResultCallback.java
* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/AsyncSSLPrivateKeyMethodAdapter.java
*
 /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/AsyncTask.java
* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/AsyncSSLPrivateKeyMethod.java

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* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/CertificateRequestedCallback.java
* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/SessionTicketKey.java
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* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/CertificateVerifier.java
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* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/CertificateCallback.java
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* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/CertificateCallbackTask.java
* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/SSLPrivateKeyMethodSignTask.java
*
/opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/SSLPrivateKeyMethod.java
* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/SSLPrivateKeyMethodTask.java
* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/SSLPrivateKeyMethodDecryptTask.java
* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-

jar/io/netty/internal/tcnative/SSLTask.java
* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/CertificateVerifierTask.java
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* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/Library.java
* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/Buffer.java
* /opt/cola/permits/1374994699_1659088854.447558/0/netty-tcnative-classes-2-0-54-final-sources-jar/io/netty/internal/tcnative/SSLContext.java

1.309 glibc-common 2.17-326.el7_9

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@item
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in the event an application does not supply such function or
table, the facility still operates, and performs whatever part of
its purpose remains meaningful.

(For example, a function in a library to compute square roots has
a purpose that is entirely well-defined independent of the
application. Therefore, Subsection 2d requires that any

application-supplied function or table used by this function must
be optional: if the application does not supply it, the square
root function must still compute square roots.)
@end enumerate

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2 above provided that you accompany
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@item
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contains portions of the Library), rather than a ``work that uses the
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Section 6 states terms for distribution of such executables.

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If such an object file uses only numerical parameters, data
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functions (ten lines or less in length), then the use of the object
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Otherwise,
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Any executables containing that work also fall under Section 6,
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@item
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@item
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@end enumerate

@subheading END OF TERMS AND CONDITIONS

@page
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@var{signature of Ty Coon}, 1 April 1990
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1.313 postgresql-jdbc 42.4.1

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1.314 libnsl 2.17

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1.317 python-gobject-base 3.22.0-1.el7_4.1

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if

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1.318 python-urlgrabber 3.10

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

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in the event an application does not supply such function or
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its purpose remains meaningful.

(For example, a function in a library to compute square roots has
a purpose that is entirely well-defined independent of the
application. Therefore, Subsection 2d requires that any
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Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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1.320 wsgiref 0.1.2

1.320.1 Available under license :

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* /opt/cola/permits/1403963770_1661913703.6112542/0/wsgiref-0-1-2-2-zip/wsgiref-0.1.2/wsgiref/validate.py
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Metadata-Version: 1.0
Name: wsgiref
Version: 0.1.2
Summary: WSGI (PEP 333) Reference Library
Home-page: http://cheeseshop.python.org/pypi/wsgiref
Author: Phillip J. Eby
Author-email: web-sig@python.org
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Description: This is a standalone release of the ``wsgiref`` library to be included in
    Python 2.5. For the standalone version's documentation, see:

    HTML
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Platform: UNKNOWN

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* /opt/cola/permits/1403963770_1661913703.6112542/0/wsgiref-0-1-2-2-zip/wsgiref-0.1.2/wsgiref.egg-info/PKG-INFO
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1.321 rpm-python 4.11.3-48.el7_9

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The source code for a work means the preferred
form of the work for
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code means all the source code for all modules it contains, plus any
associated interface definition files, plus the scripts used to
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1.322 pygobject 3.22.0

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General Public License therefore permits such linking only if the
entire combination
fits its criteria of freedom. The Lesser General
Public License permits more lax criteria for linking other code with
the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

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in the event an application does not supply such function or
table, the facility still operates, and performs whatever part of
its purpose remains meaningful.

(For example, a function in a library to compute square roots has
a purpose that is entirely well-defined independent of the
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1.323 pyliblzma 0.5.3

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1.324 systemd 219-78.el7_9.7

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1.325 systemd-libs 219-78.el7_9.7

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* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/tools/reflect/Reflection.java
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* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/util/proxy/DefinePackageHelper.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/Descriptor.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/util/proxy/RuntimeSupport.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/NestMembersAttribute.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/compiler/ast/CondExpr.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/compiler/ast/Visitor.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/util/proxy/FactoryHelper.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/tools/reflect/Metaobject.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/util/HotSwapper.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/tools/rmi/StubGenerator.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/scopedpool/ScopedClassPoolRepositoryImpl.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/expr/FieldAccess.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/compiler/MemberResolver.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/expr/Expr.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/expr/Handler.java

* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/tools/reflect/Metalevel.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/expr/NewArray.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/ByteStream.java
*
 /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/stackmap/BasicBlock.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/compiler/ast/ArrayInit.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/CtNewWrappedMethod.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/compiler/TypeChecker.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/tools/reflect/Loader.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/compiler/JvstTypeChecker.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/compiler/ProceedHandler.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/ClassPath.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/ClassFile.java
*
 /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/compiler/ast/ASTree.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/util/proxy/Proxy.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/tools/rmi/RemoteException.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/tools/rmi/AppletServer.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/CtClass.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/ClassMap.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/Mnemonic.java

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* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/annotation/EnumMemberValue.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/annotation/CharMemberValue.java
*
 /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/annotation/ByteMemberValue.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/annotation/FloatMemberValue.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/annotation/Annotation.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/annotation/IntegerMemberValue.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/annotation/MemberValueVisitor.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/annotation/LongMemberValue.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/annotation/BooleanMemberValue.java
*
 /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/annotation/ArrayMemberValue.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/annotation/ClassMemberValue.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/annotation/ShortMemberValue.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/annotation/AnnotationMemberValue.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/annotation/DoubleMemberValue.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/annotation/StringMemberValue.java
* /opt/cola/permits/1417024694_1663223145.316145/0/javassist-3-29-1-ga-sources-jar/javassist/bytecode/annotation/MemberValue.java

1.327 swagger-annotations 2.2.2

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* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/internal/Streams.java
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* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/JsonStreamParser.java
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/opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/JsonParser.java
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* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/stream/MalformedJsonException.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/stream/JsonToken.java
*
 /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/stream/JsonScope.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/stream/JsonWriter.java
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* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/JsonPrimitive.java
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 /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/JsonSerializationContext.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/internal/ObjectConstructor.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/JsonSerializer.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/internal/bind/DefaultDateTypeAdapter.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/JsonDeserializer.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/annotations/Until.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/GsonBuilder.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/JsonIOException.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/InstanceCreator.java
*
 /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/internal/Primitives.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/internal/$Gson$Preconditions.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/annotations/Expose.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/JsonObject.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/JsonParseException.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/JsonNull.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/FieldNamingStrategy.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/JsonArray.java
*
 /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/annotations/Since.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-

jar/com/google/gson/FieldNamingPolicy.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/annotations/SerializedName.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/JsonElement.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/JsonDeserializationContext.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/internal/Excluder.java
* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/reflect/TypeToken.java
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* /opt/cola/permits/1425006102_1663939377.0609317/0/gson-2-9-1-sources-1-jar/com/google/gson/annotations/JsonAdapter.java

1.339 hibernate-validator 6.2.4.Final

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////

ca-legacy(8)
============
:doctype: manpage
:man source: ca-legacy

NAME
----
ca-legacy - Manage the system configuration for legacy CA certificates

SYNOPSIS
----
ca-legacy ['COMMAND']

DESCRIPTION
----
ca-legacy(8) is used to include or exclude a set of legacy Certificate Authority (CA)
certificates in the system's list of trusted CA certificates.

The list of CA certificates and trust flags
included in the ca-certificates package
are based on the decisions made by Mozilla.org according to the Mozilla CA policy.

Occasionally, removal or distrust decisions made by Mozilla.org might be incompatible with the requirements
or limitations of some applications that also use the CA certificates list in the Linux environment.

The ca-certificates package might keep some CA certificates included and trusted by default,
as long as it is seen necessary by the maintainers, despite the fact that they have
been removed by Mozilla. These certificates are called legacy CA certificates.

The general requirements to keep legacy CA certificates included and trusted might change over time,
for example if functional limitations of software packages have been resolved.
Future versions of the ca-certificates package might reduce the set of legacy CA certificates
that are included and trusted by default.

The ca-legacy(8) command can be used to override the default behaviour.

The mechanisms
to individually trust or distrust CA certificates as described in update-ca-trust(8) still apply.

COMMANDS

----
check::
The current configuration will be shown.

default::
Configure the system to use the default configuration, as recommended
by the package maintainers.

disable::
Configure the system to explicitly disable legacy CA certificates.
Using this configuration, the system will use the set of
included and trusted CA certificates as released by Mozilla.

install::
The configuration file will be read and the system configuration
will be set accordingly. This command is executed automatically during
upgrades of the ca-certificates package.

FILES

/etc/pki/ca-trust/ca-legacy.conf::
A configuration file that will be used and modified by the ca-legacy command.
The contents of the configuration file will be read on package upgrades.

AUTHOR

Written by Kai Engert.

Found in path(s):
* /opt/cola/permits/1425443200_1664017022.0583818/0/ca-certificates-2022.2.54-74.el7_9.src.rpm-cosi-expand-archive-GCjLhYzR/ca-legacy.8.txt
No license file was found, but licenses were detected in source scan.

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* /opt/cola/permits/1425443200_1664017022.0583818/0/ca-certificates-2022.2.54-74.el7_9.src.rpm-cosi-expand-archive-GCjLhYzR/certdata2pem.py

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////

update-ca-trust(8)
==================
:doctype: manpage
:man source: update-ca-trust

NAME
----
update-ca-trust - manage consolidated and dynamic configuration of CA
certificates and associated trust

SYNOPSIS
----
update-ca-trust ['COMMAND']

DESCRIPTION
----
update-ca-trust(8) is used to manage a consolidated and dynamic configuration
feature of Certificate Authority (CA) certificates and
 associated trust.

The feature is available for new applications that read the
consolidated configuration files found in the /etc/pki/ca-trust/extracted directory
or that load the PKCS#11 module p11-kit-trust.so

Parts of the new feature are also provided in a way to make it useful
for legacy applications.

Many legacy applications expect CA certificates and trust configuration

in a fixed location, contained in files with particular path and name,
or by referring to a classic PKCS#11 trust module provided by the
NSS cryptographic library.

The dynamic configuration feature provides functionally compatible replacements
for classic configuration files and for the classic NSS trust module named libnssckbi.

In order to enable legacy applications, that read the classic files or
access the classic module, to make use of the new consolidated and dynamic configuration
feature, the classic filenames have been changed to symbolic links.
The symbolic links refer to dynamically created and
consolidated
output stored below the /etc/pki/ca-trust/extracted directory hierarchy.

The output is produced using the 'update-ca-trust' command (without parameters),
or using the 'update-ca-trust extract' command.
In order to produce the output, a flexible set of source configuration
is read, as described in section <<sourceconf,SOURCE CONFIGURATION>>.

In addition, the classic PKCS#11 module
is replaced with a new PKCS#11 module (p11-kit-trust.so) that dynamically
reads the same source configuration.

[[sourceconf]]
SOURCE CONFIGURATION

The dynamic configuration feature uses several source directories that
will be scanned for any number of source files. *It is important to select
the correct subdirectory for adding files, as the subdirectory defines how
contained certificates will be trusted or distrusted, and which file formats are read.*

Files in *subdirectories below the directory hierarchy /usr/share/pki/ca-trust-source/* contain CA certificates and

trust settings in the PEM file format. The trust settings found here will be
interpreted with a *low priority*.

Files in *subdirectories below the directory hierarchy /etc/pki/ca-trust/source/* contain CA certificates and
trust settings in the PEM file format. The trust settings found here will be
interpreted with a *high priority*.

.You may use the following rules of thumb to decide, whether your configuration files should be added to the /etc or rather to the /usr directory hierarchy:
* If you are manually adding a configuration file to a system, you probably
want it to override any other default configuration, and you most likely should
add it to the respective subdirectory in the /etc hierarchy.
* If you are creating a package that provides additional root CA certificates,
that is intended for distribution to several computer systems, but you still

want to allow the administrator to override your list, then your package should
add your files to the respective subdirectory in
the /usr hierarchy.
* If you are creating a package that is supposed to override the default system
trust settings, that is intended for distribution to several computer systems, then your package should install the files to the respective
subdirectory in the /etc hierarchy.

.*QUICK HELP 1*: To add a certificate in the simple PEM or DER file formats to the list of CAs trusted on the system:
* add it as a new file to directory /etc/pki/ca-trust/source/anchors/
* run 'update-ca-trust extract'

.*QUICK HELP 2*: If your certificate is in the extended BEGIN TRUSTED file format (which may contain distrust/blacklist trust flags, or trust flags for usages other than TLS) then:
* add it as a new file to directory /etc/pki/ca-trust/source/
* run 'update-ca-trust extract'

.In order to offer simplicity and flexibility, the way certificate files are treated depends on the subdirectory they are installed to.
* simple trust anchors subdirectory: /usr/share/pki/ca-trust-source/anchors/ or /etc/pki/ca-trust/source/anchors/
*
simple blacklist (distrust) subdirectory: /usr/share/pki/ca-trust-source/blacklist/ or /etc/pki/ca-trust/source/blacklist/
* extended format directory: /usr/share/pki/ca-trust-source/ or /etc/pki/ca-trust/source/

.In the main directories /usr/share/pki/ca-trust-source/ or /etc/pki/ca-trust/source/ you may install one or multiple files in the following file formats:
* certificate files that include trust flags,
in the BEGIN/END TRUSTED CERTIFICATE file format
(any file name), which have been created using the openssl x509 tool
and the -addreject -addtrust options.
Bundle files with multiple certificates are supported.
* files in the p11-kit file format using the .p11-kit file name
extension, which can (e.g.) be used to distrust certificates
based on serial number and issuer name, without having the
full certificate available.
(This is currently an undocumented format, to be extended later.
For examples of the supported formats, see the files
shipped with the ca-certificates package.)
* certificate files without trust flags in either the DER file format or in
the PEM (BEGIN/END CERTIFICATE) file format (any file name). Such files
will be added with neutral trust, neither trusted nor distrusted.
They will simply be known to the system, which might be helpful to
assist cryptographic software in constructing chains of certificates.
(If you want a CA certificate in these file formats to be trusted, you
should remove it from this directory and move it to the
./anchors subdirectory instead.)

In the anchors subdirectories /usr/share/pki/ca-trust-source/anchors/ or /etc/pki/ca-trust/source/anchors/
you may install one or multiple certificates in either the DER file
format or in the PEM (BEGIN/END CERTIFICATE) file format.
Each certificate will be treated as *trusted* for all purposes.

In the blacklist subdirectories /usr/share/pki/ca-trust-source/blacklist/ or /etc/pki/ca-trust/source/blacklist/
you may install
one or multiple certificates in either the DER file
format or in the PEM (BEGIN/END CERTIFICATE) file format.
Each certificate will be treated as *distrusted* for all purposes.

Please refer to the x509(1) manual page for the documentation of the
BEGIN/END CERTIFICATE and BEGIN/END TRUSTED CERTIFICATE file formats.

Applications that rely on a static file for a list of trusted CAs
may load one of the files found in the /etc/pki/ca-trust/extracted
directory. After modifying any file in the
/usr/share/pki/ca-trust-source/ or /etc/pki/ca-trust/source/
directories or in any of their subdirectories, or after adding a file,
it is necessary to run the 'update-ca-trust extract' command,
in order to update the consolidated files in /etc/pki/ca-trust/extracted/ .

Applications that load the classic PKCS#11 module using filename libnssckbi.so
(which has been converted into a symbolic link pointing to the new module)
and any application capable of
loading PKCS#11 modules and loading p11-kit-trust.so,
will benefit from
the dynamically merged set of certificates and trust information stored in the
/usr/share/pki/ca-trust-source/ and /etc/pki/ca-trust/source/ directories.

[[extractconf]]
EXTRACTED CONFIGURATION

The directory /etc/pki/ca-trust/extracted/ contains generated CA certificate
bundle files which are created and updated, based on the <<sourceconf,SOURCE CONFIGURATION>>
by running the 'update-ca-trust extract' command.

If your application isn't able to load the PKCS#11 module p11-kit-trust.so,
then you can use these files in your application to load a list of global
root CA certificates.

Please never manually edit the files stored in this directory,
because your changes will be lost and the files automatically overwritten,
each time the 'update-ca-trust extract' command gets executed.

In order to install new trusted or distrusted certificates,
please rather install them in the respective subdirectory below the

/usr/share/pki/ca-trust-source/
or /etc/pki/ca-trust/source/
directories, as described in the <<sourceconf,SOURCE CONFIGURATION>> section.

The directory /etc/pki/ca-trust/extracted/java/ contains
a CA certificate bundle in the java keystore file format.
Distrust information cannot be represented in this file format,
and distrusted certificates are missing from these files.
File cacerts contains CA certificates trusted for TLS server authentication.

The directory /etc/pki/ca-trust/extracted/openssl/ contains
CA certificate bundle files in the extended BEGIN/END TRUSTED CERTIFICATE file format,
as described in the x509(1) manual page.
File ca-bundle.trust.crt contains the full set of all trusted
or distrusted certificates, including the associated trust flags.

The directory /etc/pki/ca-trust/extracted/pem/ contains
CA certificate bundle files in the simple BEGIN/END CERTIFICATE file format,
as described in the x509(1) manual page.
Distrust information cannot be represented in this file format,
and distrusted
certificates are missing from these files.
File tls-ca-bundle.pem contains CA certificates
trusted for TLS server authentication.
File email-ca-bundle.pem contains CA certificates
trusted for E-Mail protection.
File objsign-ca-bundle.pem contains CA certificates
trusted for code signing.

COMMANDS

(absent/empty command)::
Same as the *extract* command described below. (However, the command may
print fewer warnings, as this command is being run during rpm package
installation, where non-fatal status output is undesired.)

extract::
Instruct update-ca-trust to scan the <<sourceconf,SOURCE CONFIGURATION>> and produce
updated versions of the consolidated configuration files stored below
the /etc/pki/ca-trust/extracted directory hierarchy.

FILES

/etc/pki/tls/certs/ca-bundle.crt::
Classic filename, file contains a list of CA certificates trusted for TLS server authentication usage, in the simple BEGIN/END CERTIFICATE file format, without

distrust information.
This file is a symbolic link that refers to the consolidated output created by the update-ca-trust command.

/etc/pki/tls/certs/ca-bundle.trust.crt::
Classic filename, file contains a list of CA certificates in the extended BEGIN/END TRUSTED CERTIFICATE file format, which includes trust (and/or distrust) flags specific to certificate usage.
This file is a symbolic link that refers to the consolidated output created by the update-ca-trust command.

/etc/pki/java/cacerts::
Classic filename, file contains a list of CA certificates trusted for TLS server authentication usage, in the Java keystore file format, without distrust information.
This file is a symbolic link that refers to the consolidated output created by the update-ca-trust command.

/usr/share/pki/ca-trust-source::
Contains multiple, low priority source configuration files as explained in section <<sourceconf,SOURCE CONFIGURATION>>. Please pay attention to the specific meanings of the respective subdirectories.

/etc/pki/ca-trust/source::
Contains
multiple, high priority source configuration files as explained in section <<sourceconf,SOURCE CONFIGURATION>>. Please pay attention to the specific meanings of the respective subdirectories.

/etc/pki/ca-trust/extracted::
Contains consolidated and automatically generated configuration files for consumption by applications,
which are created using the 'update-ca-trust extract' command. Don't edit files in this directory, because they will be overwritten.
See section <<extractconf,EXTRACTED CONFIGURATION>> for additional details.

AUTHOR

Written by Kai Engert and Stef Walter.

Found in path(s):
* /opt/cola/permits/1425443200_1664017022.0583818/0/ca-certificates-2022.2.54-74.el7_9.src.rpm-cosi-expand-archive-GCjLhYzR/update-ca-trust.8.txt

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isprime.pod
lap.pod
mpi-test.pod
prime.txt
prng.pod
This file contains a list of people who've made non-trivial
contribution to the Google C++ Testing Framework project. People
who commit code to the project are encouraged to add their names
here. Please keep the list sorted by first names.

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1.342 nspr 4.34.0-3.1.el7_9

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This file contains a list of people who've made non-trivial
contribution to the Google C++ Testing Framework project. People
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1.344 protobuf-java 3.21.7

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* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/MapField.java
*
/opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/IterableByteBufferInputStream.java
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/FieldSet.java
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/AbstractMessage.java
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/TextFormatParseLocation.java
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/UnknownFieldSchema.java
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/MapFieldSchemaFull.java
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/BooleanArrayList.java
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/LazyField.java
*
/opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/ProtocolStringList.java
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/GeneratedMessage.java
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/google/protobuf/source_context.proto
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/MapEntryLite.java
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/UninitializedMessageException.java

* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/google/protobuf/compiler/plugin.proto
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/BlockingService.java
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/ArrayDecoders.java
*
 /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/google/protobuf/descriptor.proto
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/ExtensionSchema.java
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/AbstractProtobufList.java
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/ExtensionLite.java
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/AbstractMessageLite.java
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/BinaryWriter.java
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/IntArrayList.java
* /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/LongArrayList.java
*
 /opt/cola/permits/1434218640_1664996220.3766007/0/protobuf-java-3-21-7-sources-jar/com/google/protobuf/WireFormat.java

1.345 jline 3.20.0

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* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Buffer.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/NonBlockingPumpInputStream.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/ssh/Ssh.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/ssh/ShellFactoryImpl.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/AbstractWindowsConsoleWriter.java
*
 /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/BufferImpl.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/style/InterpolationHelper.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/style/StyleBundle.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/WriterOutputStream.java

* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/style/StyleBundleInvocationHandler.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/style/StyleResolver.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/style/StyledWriter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jansi/solaris/SolarisNativePty.java
*
 /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/style/MemoryStyleSource.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/PumpReader.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/SimpleMaskingCallback.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/ssh/ShellCommand.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jansi/osx/OsXNativePty.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/style/StyleColor.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/telnet/Telnet.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jansi/freebsd/FreeBsdNativePty.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jansi/linux/LinuxNativePty.java
*
 /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jna/win/JnaWinConsoleWriter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/NonBlockingPumpReader.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/style/NopStyleSource.java

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 /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/telnet/ConnectionEvent.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/telnet/TelnetIO.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/telnet/Connection.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/telnet/ConnectionData.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/telnet/PortListener.java
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* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/ParsedLine.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/History.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/PosixSysTerminal.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/CompletingParsedLine.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/NonBlocking.java
*
 /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/NonBlockingReader.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/style/StyleExpression.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/KillRing.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/StyleResolver.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/Size.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Completer.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/completer/FileNameCompleter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/PosixPtyTerminal.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/Colors.java
*
 /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/AttributedStringBuilder.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/style/Styler.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/Terminal.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/Curses.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/LineDisciplineTerminal.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/style/StyleFactory.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/ExternalTerminal.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/DumbTerminal.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/NfaMatcher.java
*
 /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/NonBlockingInputStream.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/NonBlockingReaderImpl.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jna/win/Kernel32.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/keymap/BindingReader.java

* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/MaskingCallback.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/style/StyleSource.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/NonBlockingInputStreamImpl.java

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auto_left_margin, bw, bw
auto_right_margin, am, am
back_color_erase, bce, ut
can_change, ccc, cc
ceol_standout_glitch, xhp, xs
col_addr_glitch, xhpa, YA
cpi_changes_res, cpix, YF
cr_cancels_micro_mode, crxm, YB
dest_tabs_magic_smso, xt, xt
eat_newline_glitch, xenl, xn
erase_overstrike, eo, eo
generic_type, gn, gn
hard_copy, hc, hc
hard_cursor, chts, HC
has_meta_key, km, km
has_print_wheel, daisy, YC
has_status_line, hs, hs
hue_lightness_saturation, hls, hl
insert_null_glitch, in, in
lpi_changes_res, lpix, YG
memory_above, da, da
memory_below, db, db
move_insert_mode, mir, mi
move_standout_mode, msgr, ms
needs_xon_xoff, nxon, nx
no_esc_ctlc, xsb, xb
no_pad_char, npc,
 NP
non_dest_scroll_region, ndscr, ND
non_rev_rmcup, nrrmc, NR
over_strike, os, os
prtr_silent, mc5i, 5i
```

row_addr_glitch, xvpa, YD
semi_auto_right_margin, sam, YE
status_line_esc_ok, eslok, es
tilde_glitch, hz, hz
transparent_underline, ul, ul
xon_xoff, xon, xo
columns, cols, co
init_tabs, it, it
label_height, lh, lh
label_width, lw, lw
lines, lines, li
lines_of_memory, lm, lm
magic_cookie_glitch, xmc, sg
max_attributes, ma, ma
max_colors, colors, Co
max_pairs, pairs, pa
maximum_windows, wnum, MW
no_color_video, ncv, NC
num_labels, nlab, Nl
padding_baud_rate, pb, pb
virtual_terminal, vt, vt
width_status_line, wsl, ws
bit_image_entwining, bitwin, Yo
bit_image_type, bitype, Yp
buffer_capacity, bufsz, Ya
buttons, btns, BT
dot_horz_spacing, spinh, Yc
dot_vert_spacing, spinv, Yb
max_micro_address, maddr, Yd
max_micro_jump, mjump, Ye
micro_col_size, mcs, Yf
micro_line_size, mls, Yg
number_of_pins, npins, Yh
output_res_char, orc, Yi
output_res_horz_inch, orhi, Yk
output_res_line, orl, Yj
output_res_vert_inch,
orvi, Yl
print_rate, cps, Ym
wide_char_size, widcs, Yn
acs_chars, acsc, ac
back_tab, cbt, bt
bell, bel, bl
carriage_return, cr, cr
change_char_pitch, cpi, ZA
change_line_pitch, lpi, ZB
change_res_horz, chr, ZC
change_res_vert, cvr, ZD

change_scroll_region, csr, cs
char_padding, rmp, rP
clear_all_tabs, tbc, ct
clear_margins, mgc, MC
clear_screen, clear, cl
clr_bol, el1, cb
clr_eol, el, ce
clr_eos, ed, cd
column_address, hpa, ch
command_character, cmdch, CC
create_window, cwin, CW
cursor_address, cup, cm
cursor_down, cud1, do
cursor_home, home, ho
cursor_invisible, civis, vi
cursor_left, cub1, le
cursor_mem_address, mrcup, CM
cursor_normal, cnorm, ve
cursor_right, cuf1, nd
cursor_to_ll, ll, ll
cursor_up, cuu1, up
cursor_visible, cvvis, vs
define_char, defc, ZE
delete_character, dch1, dc
delete_line, dl1, dl
dial_phone, dial, DI
dis_status_line, dsl, ds
display_clock, dclk, DK
down_half_line, hd, hd
ena_acs, enacs, eA
enter_alt_charset_mode, smacs, as
enter_am_mode, smam,
 SA
enter_blink_mode, blink, mb
enter_bold_mode, bold, md
enter_ca_mode, smcup, ti
enter_delete_mode, smdc, dm
enter_dim_mode, dim, mh
enter_doublewide_mode, swidm, ZF
enter_draft_quality, sdrfq, ZG
enter_insert_mode, smir, im
enter_italics_mode, sitm, ZH
enter_leftward_mode, slm, ZI
enter_micro_mode, smicm, ZJ
enter_near_letter_quality, snlq, ZK
enter_normal_quality, snrmq, ZL
enter_protected_mode, prot, mp
enter_reverse_mode, rev, mr

enter_secure_mode, invis, mk
enter_shadow_mode, sshm, ZM
enter_standout_mode, smso, so
enter_subscript_mode, ssubm, ZN
enter_superscript_mode, ssupm, ZO
enter_underline_mode, smul, us
enter_upward_mode, sum, ZP
enter_xon_mode, smxon, SX
erase_chars, ech, ec
exit_alt_charset_mode, rmacs, ae
exit_am_mode, rmam, RA
exit_attribute_mode, sgr0, me
exit_ca_mode, rmcup, te
exit_delete_mode, rmdc, ed
exit_doublewide_mode, rwidm, ZQ
exit_insert_mode, rmir, ei
exit_italics_mode, ritm, ZR
exit_leftward_mode, rlm, ZS
exit_micro_mode, rmicm, ZT
exit_shadow_mode, rshm,
ZU
exit_standout_mode, rmso, se
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exit_superscript_mode, rsupm, ZW
exit_underline_mode, rmul, ue
exit_upward_mode, rum, ZX
exit_xon_mode, rmxon, RX
fixed_pause, pause, PA
flash_hook, hook, fh
flash_screen, flash, vb
form_feed, ff, ff
from_status_line, fsl, fs
goto_window, wingo, WG
hangup, hup, HU
init_1string, is1, i1
init_2string, is2, is
init_3string, is3, i3
init_file, if, if
init_prog, iprog, iP
initialize_color, initc, Ic
initialize_pair, initp, Ip
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insert_line, il1, al
insert_padding, ip, ip
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key_a3, ka3, K3
key_b2, kb2, K2
key_backspace, kbs, kb

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key_c1, kc1, K4
key_c3, kc3, K5
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key_catab, ktbc, ka
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key_create, kcrt, @6
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ked, kS
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key_f63, kf63, Fr
key_f7, kf7, k7
key_f8, kf8, k8
key_f9, kf9, k9
key_find, kfnd, @0
key_help, khlp, %1
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key_il, kil1, kA
key_left, kcub1, kl
key_ll, kll, kH
key_mark, kmrk, %2
key_message, kmsg, %3

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key_options, kopt, %7
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key_print, kprt, %9
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key_suspend, kspd, &7
key_undo, kund, &8
key_up, kcuu1, ku
keypad_local, rmkx, ke
keypad_xmit, smkx, ks
lab_f0, lf0, l0
lab_f1, lf1, l1
lab_f10, lf10, la
lab_f2, lf2, l2
lab_f3, lf3, l3
lab_f4, lf4, l4
lab_f5, lf5, l5
lab_f6, lf6, l6
lab_f7, lf7, l7
lab_f8, lf8, l8
lab_f9, lf9, l9
label_format, fln, Lf
label_off, rmln, LF
label_on, smln, LO
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meta_on, smm, mm
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micro_down, mcud1, ZZ
micro_left, mcub1, Za
micro_right, mcuf1, Zb
micro_row_address, mvpa, Zc
micro_up, mcuu1, Zd
newline, nel, nw
order_of_pins, porder, Ze
orig_colors, oc, oc
orig_pair, op, op
pad_char, pad, pc
parm_dch, dch, DC
parm_delete_line, dl, DL
parm_down_cursor, cud, DO
parm_down_micro,
 mcud, Zf
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parm_index, indn, SF
parm_insert_line, il, AL
parm_left_cursor, cub, LE
parm_left_micro, mcub, Zg
parm_right_cursor, cuf, RI
parm_right_micro, mcuf, Zh
parm_rindex, rin, SR
parm_up_cursor, cuu, UP
parm_up_micro, mcuu, Zi

pkey_key, pfkey, pk
pkey_local, pfloc, pl
pkey_xmit, pfx, px
plab_norm, pln, pn
print_screen, mc0, ps
prtr_non, mc5p, pO
prtr_off, mc4, pf
prtr_on, mc5, po
pulse, pulse, PU
quick_dial, qdial, QD
remove_clock, rmclk, RC
repeat_char, rep, rp
req_for_input, rfi, RF
reset_1string, rs1, r1
reset_2string, rs2, r2
reset_3string, rs3, r3
reset_file, rf, rf
restore_cursor, rc, rc
row_address, vpa, cv
save_cursor, sc, sc
scroll_forward, ind, sf
scroll_reverse, ri, sr
select_char_set, scs, Zj
set_attributes, sgr, sa
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set_color_pair, scp, sp
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set_left_margin_parm, smglp, Zm
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smgr, MR
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set_top_margin, smgt, Zo
set_top_margin_parm, smgtp, Zp
set_window, wind, wi
start_bit_image, sbim, Zq
start_char_set_def, scsd, Zr
stop_bit_image, rbim, Zs
stop_char_set_def, rcsd, Zt
subscript_characters, subcs, Zu
superscript_characters, supcs, Zv
tab, ht, ta
these_cause_cr, docr, Zw
to_status_line, tsl, ts

tone, tone, TO
underline_char, uc, uc
up_half_line, hu, hu
user0, u0, u0
user1, u1, u1
user2, u2, u2
user3, u3, u3
user4, u4, u4
user5, u5, u5
user6, u6, u6
user7, u7, u7
user8, u8, u8
user9, u9, u9
wait_tone, wait, WA
xoff_character, xoffc, XF
xon_character, xonc, XN
zero_motion, zerom, Zx
alt_scancode_esc, scesa, S8
bit_image_carriage_return, bicr, Yv
bit_image_newline, binel, Zz
bit_image_repeat, birep, Xy
char_set_names, csnm, Zy
code_set_init, csin, ci
color_names, colornm, Yw
define_bit_image_region, defbi, Yx
device_type, devt, dv
display_pc_char, dispc, S1
end_bit_image_region, endbi, Yy
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 smpch, S2
enter_scancode_mode, smsc, S4
exit_pc_charset_mode, rmpch, S3
exit_scancode_mode, rmsc, S5
get_mouse, getm, Gm
key_mouse, kmous, Km
mouse_info, minfo, Mi
pc_term_options, pctrm, S6
pkey_plab, pfxl, xl
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scancode_escape, scesc, S7
set0_des_seq, s0ds, s0
set1_des_seq, s1ds, s1
set2_des_seq, s2ds, s2
set3_des_seq, s3ds, s3
set_a_background, setab, AB
set_a_foreground, setaf, AF
set_color_band, setcolor, Yz
set_lr_margin, smglr, ML

set_page_length, slines, YZ
set_tb_margin, smgtb, MT
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enter_left_hl_mode, elhlm, Xl
enter_low_hl_mode, elohlm, Xo
enter_right_hl_mode, erhlm, Xr
enter_top_hl_mode, ethlm, Xt
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set_pglen_inch, slength, sL

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* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/capabilities.txt
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*
 /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/telnet/ConnectionFilter.java
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black
maroon
green
olive
navy
purple
teal
silver
grey
red
lime
yellow
blue
fuchsia
aqua
white
grey0
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darkblue
blue3
blue3a
blue1
darkgreen
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deepskyblue4a
deepskyblue4b
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dodgerblue2
green4
springgreen4
turquoise4
deepskyblue3
deepskyblue3a
dodgerblue1
green3
springgreen3
darkcyan
lightseagreen
deepskyblue2
deepskyblue1
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springgreen3a
springgreen2
cyan3
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turquoise2
green1
springgreen2a
springgreen1
mediumspringgreen
cyan2
cyan1
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paleturquoise4
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steelblue3
cornflowerblue
chartreuse3
darkseagreen4a

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skyblue3
steelblue1
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palegreen3
seagreen3
aquamarine3
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 in path(s):
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/colors.txt
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* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Reference.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Expander.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/spi/Pty.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/package-info.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/CursorSupport.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jna/win/WindowsAnsiWriter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/completer/NullCompleter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/Levenshtein.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/completer/AggregateCompleter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/history/package-info.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/keymap/KeyMap.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/OSUtils.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/completer/package-info.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/MouseEvent.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/package-info.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/Attributes.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/MouseSupport.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/ExecPty.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/AttributedString.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/ShutdownHooks.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/AbstractPosixTerminal.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/DiffHelper.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/WCWidth.java
*

/opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/DefaultExpander.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/Source.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/ExecHelper.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/Cursor.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Macro.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/InputStreamReader.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Binding.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/UserInterruptException.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/UndoTree.java
*
/opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/completer/EnumCompleter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Widget.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/package-info.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/ClosedException.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/NativeSignalHandler.java
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Found in path(s):
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/ReaderUtils.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/widget/AutosuggestionWidgets.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/Signals.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/CommandInput.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jansi/JansiNativePty.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/impl/AbstractCommandRegistry.java
*
/opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jna/win/JnaWinSysTerminal.java

* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/LineReaderBuilder.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/completer/SystemCompleter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jna/linux/CLibrary.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jna/osx/CLibrary.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/widget/Widgets.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jna/linux/LinuxNativePty.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/widget/AutopairWidgets.java
*
 /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/CommandRegistry.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/Nano.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/CommandMethods.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/spi/JnaSupport.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/TerminalBuilder.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jna/JnaSupportImpl.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/impl/Builtins.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/Display.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jansi/win/JansiWinSysTerminal.java
*
 /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jna/solaris/SolarisNativePty.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jansi/JansiSupportImpl.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/Log.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/DefaultParser.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Parser.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/LineReaderImpl.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/ConsoleOptionGetter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/impl/JlineCommandRegistry.java
*
 /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/CompletionMatcher.java

* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/CmdLine.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/EndOfFileException.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/TTop.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/ConsoleEngine.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/ColorPalette.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jna/solaris/CLibrary.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/CmdDesc.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jna/freebsd/CLibrary.java
*
 /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/spi/JansiSupport.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/ScriptEngine.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jna/freebsd/FreeBsdNativePty.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jna/JnaNativePty.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jna/osx/OsXNativePty.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/Less.java
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* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/AnsiWriter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/jansi/win/WindowsAnsiWriter.java
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Found in path(s):
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline-console/pom.xml
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline-terminal-jansi/pom.xml

* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline-remote-ssh/pom.xml
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline-reader/pom.xml
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline/pom.xml
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline-terminal-jna/pom.xml
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline-builtins/pom.xml
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline-style/pom.xml
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline-terminal/pom.xml
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/META-INF/maven/org.jline/jline-remote-telnet/pom.xml

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* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/AbstractWindowsTerminal.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Candidate.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/Status.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/AbstractPty.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/ConfigurationPath.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/Tmux.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/completer/ArgumentCompleter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/completer/StringsCompleter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/InfoCmp.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Highlighter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/Editor.java

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* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/impl/ConsoleEngineImpl.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/PrintAboveWriter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/Commands.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/history/DefaultHistory.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/ArgDesc.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/DefaultHighlighter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/Printer.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/widget/TailTipWidgets.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/Styles.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/LineReader.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/impl/SystemRegistryImpl.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/AttributedCharSequence.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/impl/CompletionMatcherImpl.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/builtins/Completers.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/terminal/impl/AbstractTerminal.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/impl/SystemHighlighter.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/console/SystemRegistry.java
* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/utils/AttributedStyle.java
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* /opt/cola/permits/1434683282_1665037674.3132415/0/jline-3-20-0-sources-jar/org/jline/reader/EOFError.java

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(root, factory) {\n   if (typeof define === 'function' && define.amd) {\n   define('kotlin', ['exports'], factory);\n   }\n   else if (typeof exports === 'object') {\n   factory(module.exports);\n   }\n   else {\n   root.kotlin = {};\n   factory(root.kotlin);\n   }\n}(this, function (Kotlin) {\n   var _ = Kotlin;\n\n   insertContent();\n}));\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\nKotlin.isBooleanArray = function (a) {\n   return (Array.isArray(a) || a instanceof Int8Array) && a.$type$ === \"BooleanArray\"\n};\n\nKotlin.isByteArray = function (a) {\n   return a instanceof Int8Array && a.$type$!== \"BooleanArray\"\n};\n\nKotlin.isShortArray = function (a) {\n   return a instanceof Int16Array\n};\n\nKotlin.isCharArray = function (a) {\n   return a instanceof Uint16Array && a.$type$ === \"CharArray\"\n};\n\nKotlin.isIntArray = function (a) {\n   return a instanceof Int32Array\n};\n\nKotlin.isFloatArray = function (a) {\n   return a instanceof Float32Array\n};\n\nKotlin.isDoubleArray = function (a) {\n   return a instanceof Float64Array\n};\n\nKotlin.isLongArray = function (a) {\n   return Array.isArray(a) && a.$type$ === \"LongArray\"\n};\n\nKotlin.isArray = function (a) {\n   return Array.isArray(a) && !a.$type$;\n};\n\nKotlin.isArrayish = function (a) {\n   return Array.isArray(a) || ArrayBuffer.isView(a)\n};\n\nKotlin.arrayToString = function (a) {\n   if (a === null) return \"null\"\n   var toString = Kotlin.isCharArray(a) ? String.fromCharCode : Kotlin.toString;\n   return \"[\" + Array.prototype.map.call(a, function(e) { return toString(e); }).join(\", \") + \"]\";\n};\n\nKotlin.arrayDeepToString = function (arr) {\n   return Kotlin.kotlin.collections.contentDeepToStringImpl(arr);\n};\n\nKotlin.arrayEquals = function (a, b) {\n   if (a === b) {\n   return true;\n   }\n   if (a === null || b === null || !Kotlin.isArrayish(b) || a.length !== b.length) {\n   return false;\n   }\n\n   for (var i = 0, n = a.length; i < n; i++) {\n   if (!Kotlin.equals(a[i], b[i])) {\n   return false;\n   }\n   }\n   return true;\n};\n\nKotlin.arrayDeepEquals = function (a, b) {\n   return Kotlin.kotlin.collections.contentDeepEqualsImpl(a, b);\n};\n\nKotlin.arrayHashCode = function (arr) {\n   if (arr === null) return 0\n   var result = 1;\n   for (var i = 0, n = arr.length; i < n; i++) {\n   result = ((31 * result | 0) + Kotlin.hashCode(arr[i])) | 0;\n   }\n   return result;\n};\n\nKotlin.arrayDeepHashCode = function (arr) {\n   return Kotlin.kotlin.collections.contentDeepHashCodeImpl(arr);\n};\n\nKotlin.primitiveArraySort = function (array) {\n   array.sort(Kotlin.doubleCompareTo)\n};\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\nKotlin.getCallableRef = function(name, f) {\n   f.callableName = name;\n   return f;\n};\n\nKotlin.getPropertyCallableRef = function(name, paramCount, getter, setter) {\n   getter.get = getter;\n   getter.set = setter;\n   getter.callableName = name;\n   return getPropertyRefClass(getter, setter, propertyRefClassMetadataCache[paramCount]);\n};\n\nfunction getPropertyRefClass(obj, setter, cache) {\n   obj.$metadata$ = getPropertyRefMetadata(typeof setter === \"function\" ? cache.mutable : cache.immutable);\n   obj.constructor = obj;\n   return obj;\n}\n\nvar propertyRefClassMetadataCache = [\n   {\n   mutable: { value:

null, implementedInterface: function () {\n   return Kotlin.kotlin.reflect.KMutableProperty0 }\n   },\n   immutable:
{ value: null, implementedInterface: function () {\n   return Kotlin.kotlin.reflect.KProperty0 }\n   }\n   },\n   {\n   mutable: { value: null, implementedInterface: function () {\n   return Kotlin.kotlin.reflect.KMutableProperty1 }\n   },\n   immutable: { value: null, implementedInterface: function () {\n   return Kotlin.kotlin.reflect.KProperty1 }\n   }\n   }\n];\n\nfunction getPropertyRefMetadata(cache) {\n   if (cache.value === null) {\n   cache.value = {\n   interfaces: [cache.implementedInterface()],\n   baseClass: null,\n   functions: {},\n   properties: {},\n   types: {},\n   staticMembers: {}\n   };\n   }\n   return cache.value;\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\nKotlin.toShort
= function (a) {\n   return (a & 0xFFFF) << 16 >> 16;\n};\n\nKotlin.toByte = function (a) {\n   return (a & 0xFF) << 24 >> 24;\n};\n\nKotlin.toChar = function (a) {\n   return a & 0xFFFF;\n};\n\nKotlin.numberToLong = function (a) {\n   return a instanceof Kotlin.Long ? a : Kotlin.Long.fromNumber(a);\n};\n\nKotlin.numberToInt = function (a) {\n   return a instanceof Kotlin.Long ? a.toInt() : Kotlin.doubleToInt(a);\n};\n\nKotlin.numberToShort = function (a) {\n   return Kotlin.toShort(Kotlin.numberToInt(a));\n};\n\nKotlin.numberToByte = function (a) {\n   return Kotlin.toByte(Kotlin.numberToInt(a));\n};\n\nKotlin.numberToDouble = function (a) {\n   return +a;\n};\n\nKotlin.numberToChar = function (a) {\n   return Kotlin.toChar(Kotlin.numberToInt(a));\n};\n\nKotlin.doubleToInt = function(a) {\n   if (a > 2147483647) return 2147483647;\n   if (a < -2147483648) return -2147483648;\n   return a | 0;\n};\n\nKotlin.toBoxedChar = function (a) {\n   if (a == null) return a;\n
if (a instanceof Kotlin.BoxedChar) return a;\n   return new Kotlin.BoxedChar(a);\n};\n\nKotlin.unboxChar = function(a) {\n   if (a == null) return a;\n   return Kotlin.toChar(a);\n};\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\nKotlin.equals = function (obj1, obj2) {\n   if (obj1 == null) {\n   return obj2 == null;\n   }\n\n   if (obj2 == null) {\n   return false;\n   }\n\n   if (obj1 !== obj1) {\n   return obj2 !== obj2;\n   }\n\n   if (typeof obj1 === \"object\" && typeof obj1.equals === \"function\") {\n   return obj1.equals(obj2);\n   }\n\n   if (typeof obj1 === \"number\" && typeof obj2 === \"number\") {\n   return obj1 === obj2 && (obj1 !== 0 || 1 / obj1 === 1 / obj2)\n   }\n\n   return obj1 === obj2;\n};\n\nKotlin.hashCode = function (obj) {\n   if (obj == null)
{\n   return 0;\n   }\n   var objType = typeof obj;\n   if (\"object\" === objType) {\n   return \"function\" === typeof obj.hashCode ? obj.hashCode() : getObjectHashCode(obj);\n   }\n   if (\"function\" === objType) {\n   return getObjectHashCode(obj);\n   }\n   if (\"number\" === objType) {\n   return Kotlin.numberHashCode(obj);\n   }\n   if (\"boolean\" === objType) {\n   return Number(obj)\n   }\n\n   var str = String(obj);\n   return getStringHashCode(str);\n};\n\n\nKotlin.toString = function (o) {\n   if (o == null) {\n   return \"null\";\n   }\n   else if (Kotlin.isArrayish(o)) {\n   return \"[...]\";\n   }\n   else {\n   return o.toString();\n   }\n};\n\n/** @const */\nvar POW_2_32 = 4294967296;\n// TODO: consider switching to Symbol type once we are on ES6.\n/** @const */\nvar OBJECT_HASH_CODE_PROPERTY_NAME = \"kotlinHashCodeValue$\";\n\nfunction getObjectHashCode(obj) {\n   if (!(OBJECT_HASH_CODE_PROPERTY_NAME in obj))
{\n   var hash = (Math.random() * POW_2_32) | 0; // Make 32-bit singed integer.\n   Object.defineProperty(obj, OBJECT_HASH_CODE_PROPERTY_NAME, { value: hash, enumerable: false });\n   }\n   return obj[OBJECT_HASH_CODE_PROPERTY_NAME];\n}\n\nfunction getStringHashCode(str) {\n   var hash = 0;\n   for (var i = 0; i < str.length; i++) {\n   var code = str.charCodeAt(i);\n   hash = (hash * 31 + code) | 0; // Keep it 32-bit.\n   }\n   return hash;\n}\n\nKotlin.identityHashCode = getObjectHashCode;\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Copyright 2009 The Closure Library Authors. All Rights Reserved.\n//\n// Licensed under the Apache License, Version 2.0 (the

\"License\");\n// you may not use this file except in compliance with the License.\n// You may obtain a copy of the License
 at\n//\n//   http://www.apache.org/licenses/LICENSE-2.0\n//\n// Unless required by applicable law or agreed to in writing, software\n// distributed under the License is distributed on an \"AS-IS\" BASIS,\n// WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.\n\n/**\n * Constructs a 64-bit two's-complement integer, given its low and high 32-bit\n * values as *signed* integers. See the from* functions below for more\n * convenient ways of constructing Longs.\n *\n * The internal representation of a long is the two given signed, 32-bit values.\n * We use 32-bit pieces because these are the size of integers on which\n * Javascript performs bit-operations. For operations like addition and\n * multiplication, we split each number into 16-bit pieces, which can easily be\n * multiplied within Javascript's floating-point representation without overflow\n * or change in sign.\n *\n * In the algorithms below, we frequently reduce the negative case to the\n * positive case
 by negating the input(s) and then post-processing the result.\n * Note that we must ALWAYS check specially whether those values are MIN_VALUE\n * (-2^63) because -MIN_VALUE == MIN_VALUE (since 2^63 cannot be represented as\n * a positive number, it overflows back into a negative). Not handling this\n * case would often result in infinite recursion.\n *\n * @param {number} low The low (signed) 32 bits of the long.\n * @param {number} high The high (signed) 32 bits of the long.\n * @constructor\n * @final\n */\nKotlin.Long = function(low, high) {\n /**\n   * @type {number}\n   * @private\n   */\n this.low_ = low | 0; // force into 32 signed bits.\n\n /**\n   * @type {number}\n   * @private\n   */\n this.high_ = high | 0; // force into 32 signed bits.\n};\n\nKotlin.Long.$metadata$ = {\n   kind: \"class\",\n   simpleName: \"Long\",\n   interfaces:[]\n};\n\n\n// NOTE: Common constant values ZERO, ONE, NEG_ONE, etc. are defined below the\n// from* methods on which they depend.\n\n\n/**\n
 * A cache of the Long representations of small integer values.\n * @type {!Object}\n * @private\n */\nKotlin.Long.IntCache_ = {};\n\n\n/**\n * Returns a Long representing the given (32-bit) integer value.\n * @param {number} value The 32-bit integer in question.\n * @return {!Kotlin.Long} The corresponding Long value.\n */\nKotlin.Long.fromInt = function(value) {\n if (-128 <= value && value < 128) {\n   var cachedObj = Kotlin.Long.IntCache_[value];\n   if (cachedObj) {\n   return cachedObj;\n   }\n }\n\n var obj = new Kotlin.Long(value | 0, value < 0 ? -1 : 0);\n if (-128 <= value && value < 128) {\n   Kotlin.Long.IntCache_[value] = obj;\n }\n return obj;\n};\n\n\n/**\n * Converts this number value to `Long`.\n * The fractional part, if any, is rounded down towards zero.\n * Returns zero if this `Double` value is `NaN`, `Long.MIN_VALUE` if it's less than `Long.MIN_VALUE`,\n * `Long.MAX_VALUE` if it's bigger than `Long.MAX_VALUE`.\n * @param {number} value The
 number in question.\n * @return {!Kotlin.Long} The corresponding Long value.\n */\nKotlin.Long.fromNumber = function(value) {\n if (isNaN(value)) {\n   return Kotlin.Long.ZERO;\n } else if (value <= -Kotlin.Long.TWO_PWR_63_DBL_) {\n   return Kotlin.Long.MIN_VALUE;\n } else if (value + 1 >= Kotlin.Long.TWO_PWR_63_DBL_) {\n   return Kotlin.Long.MAX_VALUE;\n } else if (value < 0) {\n   return Kotlin.Long.fromNumber(-value).negate();\n } else {\n   return new Kotlin.Long(\n   (value % Kotlin.Long.TWO_PWR_32_DBL_) | 0,\n   (value / Kotlin.Long.TWO_PWR_32_DBL_) | 0);\n }\n};\n\n\n/**\n * Returns a Long representing the 64-bit integer that comes by concatenating\n * the given high and low bits. Each is assumed to use 32 bits.\n * @param {number} lowBits The low 32-bits.\n * @param {number} highBits The high 32-bits.\n * @return {!Kotlin.Long} The corresponding Long value.\n */\nKotlin.Long.fromBits = function(lowBits, highBits) {\n return new Kotlin.Long(lowBits, highBits);\n};\n\n\n/**\n
 * Returns a Long representation of the given string, written using the given\n * radix.\n * @param {string} str The textual representation of the Long.\n * @param {number=} opt_radix The radix in which the text is written.\n * @return {!Kotlin.Long} The corresponding Long value.\n */\nKotlin.Long.fromString = function(str, opt_radix) {\n if (str.length == 0) {\n   throw Error('number format error: empty string');\n }\n\n var radix = opt_radix || 10;\n if (radix < 2 || 36 < radix) {\n   throw Error('radix out of range: ' + radix);\n }\n\n if (str.charAt(0) == '-') {\n   return Kotlin.Long.fromString(str.substring(1), radix).negate();\n } else if (str.indexOf('-') >= 0) {\n   throw Error('number format error: interior \"-\" character: ' + str);\n }\n\n // Do several (8) digits each time through the loop, so as to\n //

minimize the calls to the very expensive emulated div.\n var radixToPower = Kotlin.Long.fromNumber(Math.pow(radix, 8));\n\n var result = Kotlin.Long.ZERO;\n for (var i = 0; i < str.length; i += 8) {\n var size = Math.min(8, str.length - i);\n var value = parseInt(str.substring(i, i + size), radix);\n if (size < 8) {\n var power = Kotlin.Long.fromNumber(Math.pow(radix, size));\n result = result.multiply(power).add(Kotlin.Long.fromNumber(value));\n } else {\n result = result.multiply(radixToPower);\n result = result.add(Kotlin.Long.fromNumber(value));\n }\n }\n return result;\n};\n\n\n// NOTE: the compiler should inline these constant values below and then remove\n// these variables, so there should be no runtime penalty for these.\n\n\n/**\n * Number used repeated below in calculations. This must appear before the\n * first call to any from* function below.\n * @type {number}\n * @private\n */\nKotlin.Long.TWO_PWR_16_DBL_ = 1 << 16;\n\n\n/**\n * @type {number}\n * @private\n */\nKotlin.Long.TWO_PWR_24_DBL_ = 1 << 24;\n\n\n/**\n * @type {number}\n * @private\n */\nKotlin.Long.TWO_PWR_32_DBL_ =\n Kotlin.Long.TWO_PWR_16_DBL_ * Kotlin.Long.TWO_PWR_16_DBL_;\n\n\n/**\n * @type {number}\n * @private\n */\nKotlin.Long.TWO_PWR_31_DBL_ =\n Kotlin.Long.TWO_PWR_32_DBL_ / 2;\n\n\n/**\n * @type {number}\n * @private\n */\nKotlin.Long.TWO_PWR_48_DBL_ =\n Kotlin.Long.TWO_PWR_32_DBL_ * Kotlin.Long.TWO_PWR_16_DBL_;\n\n\n/**\n * @type {number}\n * @private\n */\nKotlin.Long.TWO_PWR_64_DBL_ =\n Kotlin.Long.TWO_PWR_32_DBL_ * Kotlin.Long.TWO_PWR_32_DBL_;\n\n\n/**\n * @type {number}\n * @private\n */\nKotlin.Long.TWO_PWR_63_DBL_ =\n Kotlin.Long.TWO_PWR_64_DBL_ / 2;\n\n\n/** @type {!Kotlin.Long} */\nKotlin.Long.ZERO = Kotlin.Long.fromInt(0);\n\n\n/** @type {!Kotlin.Long} */\nKotlin.Long.ONE = Kotlin.Long.fromInt(1);\n\n\n/** @type {!Kotlin.Long} */\nKotlin.Long.NEG_ONE = Kotlin.Long.fromInt(-1);\n\n\n/** @type {!Kotlin.Long} */\nKotlin.Long.MAX_VALUE =\n Kotlin.Long.fromBits(0xFFFFFFFF | 0, 0x7FFFFFFF | 0);\n\n\n/** @type {!Kotlin.Long} */\nKotlin.Long.MIN_VALUE = Kotlin.Long.fromBits(0, 0x80000000 | 0);\n\n\n/**\n * @type {!Kotlin.Long}\n * @private\n */\nKotlin.Long.TWO_PWR_24_ = Kotlin.Long.fromInt(1 << 24);\n\n\n/** @return {number} The value, assuming it is a 32-bit integer. */\nKotlin.Long.prototype.toInt = function() {\n return this.low_;\n};\n\n\n/** @return {number} The closest floating-point representation to this value. */\nKotlin.Long.prototype.toNumber = function() {\n return this.high_ * Kotlin.Long.TWO_PWR_32_DBL_ +\n this.getLowBitsUnsigned();\n};\n\n/** @return {number} The 32-bit hashCode of this value. */\nKotlin.Long.prototype.hashCode = function() {\n return this.high_ ^ this.low_;\n};\n\n/**\n * @param {number=} opt_radix The radix in which the text should be written.\n * @return {string} The textual representation of this value.\n * @override\n */\nKotlin.Long.prototype.toString = function(opt_radix) {\n var radix = opt_radix || 10;\n if (radix < 2 || 36 < radix) {\n throw Error('radix out of range: ' + radix);\n }\n\n if (this.isZero()) {\n return '0';\n }\n\n if (this.isNegative()) {\n if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n // We need to change the Long value before it can be negated, so we remove\n // the bottom-most digit in this base and then recurse to do the rest.\n var radixLong = Kotlin.Long.fromNumber(radix);\n var div = this.div(radixLong);\n var rem = div.multiply(radixLong).subtract(this);\n return div.toString(radix) + rem.toInt().toString(radix);\n } else {\n return '-' + this.negate().toString(radix);\n }\n }\n\n // Do several (5) digits each time through the loop, so as to\n // minimize the calls to the very expensive emulated div.\n var radixToPower = Kotlin.Long.fromNumber(Math.pow(radix, 5));\n\n var rem = this;\n var result = '';\n while (true) {\n var remDiv = rem.div(radixToPower);\n var intval = rem.subtract(remDiv.multiply(radixToPower)).toInt();\n var digits = intval.toString(radix);\n\n rem = remDiv;\n if (rem.isZero()) {\n return digits + result;\n } else {\n while (digits.length < 5) {\n digits = '0' + digits;\n }\n result = '' + digits + result;\n }\n }\n};\n\n\n/** @return {number} The high 32-bits as a signed value. */\nKotlin.Long.prototype.getHighBits = function() {\n return this.high_;\n};\n\n\n/**

@return {number} The low 32-bits as a signed value. */\nKotlin.Long.prototype.getLowBits = function() {\n return this.low_;\n};\n\n\n/** @return {number} The low 32-bits as an unsigned value.
*/\nKotlin.Long.prototype.getLowBitsUnsigned = function() {\n return (this.low_ >= 0) ?\n   this.low_ : Kotlin.Long.TWO_PWR_32_DBL_ + this.low_;\n};\n\n\n/**\n * @return {number} Returns the number of bits needed to represent the absolute\n *   value of this Long.\n */\nKotlin.Long.prototype.getNumBitsAbs = function() {\n if (this.isNegative()) {\n   if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   return 64;\n   } else {\n   return this.negate().getNumBitsAbs();\n   }\n } else {\n   var val = this.high_ != 0 ? this.high_ : this.low_;\n   for (var bit = 31; bit > 0; bit--) {\n   if ((val & (1 << bit)) != 0) {\n   break;\n   }\n   }\n   return this.high_ != 0 ? bit + 33 : bit + 1;\n }\n};\n\n\n/** @return {boolean} Whether this value is zero.
*/\nKotlin.Long.prototype.isZero = function() {\n return this.high_ == 0 && this.low_ == 0;\n};\n\n\n/** @return {boolean} Whether this value is negative. */\nKotlin.Long.prototype.isNegative = function() {\n return this.high_ < 0;\n};\n\n\n/** @return {boolean} Whether this value is odd. */\nKotlin.Long.prototype.isOdd = function() {\n return (this.low_ & 1) == 1;\n};\n\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long equals the other.\n */\nKotlin.Long.prototype.equalsLong = function(other) {\n return (this.high_ == other.high_) && (this.low_ == other.low_);\n};\n\n\n/**\n * @param {Kotlin.Long}
other Long to compare against.\n * @return {boolean} Whether this Long does not equal the other.\n */\nKotlin.Long.prototype.notEqualsLong = function(other) {\n return (this.high_ != other.high_) || (this.low_ != other.low_);\n};\n\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long is less than the other.\n */\nKotlin.Long.prototype.lessThan = function(other) {\n return this.compare(other) < 0;\n};\n\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long is less than or equal to the other.\n */\nKotlin.Long.prototype.lessThanOrEqual = function(other) {\n return this.compare(other) <= 0;\n};\n\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long is greater than the other.\n */\nKotlin.Long.prototype.greaterThan = function(other) {\n return this.compare(other) > 0;\n};\n\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n
* @return {boolean} Whether this Long is greater than or equal to the other.\n */\nKotlin.Long.prototype.greaterThanOrEqual = function(other) {\n return this.compare(other) >= 0;\n};\n\n\n/**\n * Compares this Long with the given one.\n * @param {Kotlin.Long} other Long to compare against.\n * @return {number} 0 if they are the same, 1 if the this is greater, and -1\n *   if the given one is greater.\n */\nKotlin.Long.prototype.compare = function(other) {\n if (this.equalsLong(other)) {\n   return 0;\n }\n\n var thisNeg = this.isNegative();\n var otherNeg = other.isNegative();\n if (thisNeg && !otherNeg) {\n   return -1;\n }\n if (!thisNeg && otherNeg) {\n   return 1;\n }\n\n // at this point, the signs are the same, so subtraction will not overflow\n if (this.subtract(other).isNegative()) {\n   return -1;\n } else {\n   return 1;\n }\n};\n\n\n/** @return {!Kotlin.Long} The negation of this value. */\nKotlin.Long.prototype.negate = function() {\n if (this.equalsLong(Kotlin.Long.MIN_VALUE))
{\n   return Kotlin.Long.MIN_VALUE;\n } else {\n   return this.not().add(Kotlin.Long.ONE);\n }\n};\n\n\n/**\n * Returns the sum of this and the given Long.\n * @param {Kotlin.Long} other Long to add to this one.\n * @return {!Kotlin.Long} The sum of this and the given Long.\n */\nKotlin.Long.prototype.add = function(other) {\n // Divide each number into 4 chunks of 16 bits, and then sum the chunks.\n\n var a48 = this.high_ >>> 16;\n var a32 = this.high_ & 0xFFFF;\n var a16 = this.low_ >>> 16;\n var a00 = this.low_ & 0xFFFF;\n\n var b48 = other.high_ >>> 16;\n var b32 = other.high_ & 0xFFFF;\n var b16 = other.low_ >>> 16;\n var b00 = other.low_ & 0xFFFF;\n\n var c48 = 0, c32 = 0, c16 = 0, c00 = 0;\n c00 += a00 + b00;\n c16 += c00 >>> 16;\n c00 &= 0xFFFF;\n c16 += a16 + b16;\n c32 += c16 >>> 16;\n c16 &= 0xFFFF;\n c32 += a32 + b32;\n c48 += c32 >>> 16;\n c32 &= 0xFFFF;\n c48 += a48 + b48;\n c48 &= 0xFFFF;\n return Kotlin.Long.fromBits((c16
<< 16) | c00, (c48 << 16) | c32);\n};\n\n\n/**\n * Returns the difference of this and the given Long.\n * @param {Kotlin.Long} other Long to subtract from this.\n * @return {!Kotlin.Long} The difference of this and the given Long.\n */\nKotlin.Long.prototype.subtract = function(other) {\n return this.add(other.negate());\n};\n\n\n/**\n * Returns the product of this and the given long.\n * @param {Kotlin.Long} other Long to multiply with this.\n *

@return {!Kotlin.Long} The product of this and the other.\n */\nKotlin.Long.prototype.multiply = function(other) {\n if (this.isZero()) {\n   return Kotlin.Long.ZERO;\n } else if (other.isZero()) {\n   return Kotlin.Long.ZERO;\n }\n\n if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   return other.isOdd() ? Kotlin.Long.MIN_VALUE : Kotlin.Long.ZERO;\n } else if (other.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   return this.isOdd() ? Kotlin.Long.MIN_VALUE : Kotlin.Long.ZERO;\n }\n\n if (this.isNegative()) {\n   if (other.isNegative()) {\n   return this.negate().multiply(other.negate());\n   } else {\n   return this.negate().multiply(other).negate();\n }\n } else if (other.isNegative()) {\n   return this.multiply(other.negate()).negate();\n }\n\n // If both longs are small, use float multiplication\n if (this.lessThan(Kotlin.Long.TWO_PWR_24_) &&\n other.lessThan(Kotlin.Long.TWO_PWR_24_)) {\n   return Kotlin.Long.fromNumber(this.toNumber() * other.toNumber());\n }\n\n // Divide each long into 4 chunks of 16 bits, and then add up 4x4 products.\n // We can skip products that would overflow.\n\n var a48 = this.high_ >>> 16;\n var a32 = this.high_ & 0xFFFF;\n var a16 = this.low_ >>> 16;\n var a00 = this.low_ & 0xFFFF;\n\n var b48 = other.high_ >>> 16;\n var b32 = other.high_ & 0xFFFF;\n var b16 = other.low_ >>> 16;\n var b00 = other.low_ & 0xFFFF;\n\n var c48 = 0, c32 = 0, c16 = 0, c00 = 0;\n c00 += a00 * b00;\n c16 += c00 >>> 16;\n c00 &= 0xFFFF;\n c16 += a16 * b00;\n c32 += c16 >>> 16;\n c16 &= 0xFFFF;\n c16 += a00 * b16;\n c32 += c16 >>> 16;\n c16 &= 0xFFFF;\n c32 += a32 * b00;\n c48 += c32 >>> 16;\n c32 &= 0xFFFF;\n c32 += a16 * b16;\n c48 += c32 >>> 16;\n c32 &= 0xFFFF;\n c32 += a00 * b32;\n c48 += c32 >>> 16;\n c32 &= 0xFFFF;\n c48 += a48 * b00 + a32 * b16 + a16 * b32 + a00 * b48;\n c48 &= 0xFFFF;\n return Kotlin.Long.fromBits((c16 << 16) | c00, (c48 << 16) | c32);\n};\n\n\n/**\n * Returns this Long divided by the given one.\n * @param {Kotlin.Long} other Long by which to divide.\n * @return {!Kotlin.Long} This Long divided by the given one.\n */\nKotlin.Long.prototype.div = function(other) {\n if (other.isZero()) {\n   throw Error('division by zero');\n } else if (this.isZero()) {\n   return Kotlin.Long.ZERO;\n }\n\n if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   if (other.equalsLong(Kotlin.Long.ONE) ||\n other.equalsLong(Kotlin.Long.NEG_ONE)) {\n   return Kotlin.Long.MIN_VALUE; // recall that -MIN_VALUE == MIN_VALUE\n

} else if (other.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   return Kotlin.Long.ONE;\n   } else {\n   // At this point, we have |other| >= 2, so |this/other| < |MIN_VALUE|.\n   var halfThis = this.shiftRight(1);\n   var approx = halfThis.div(other).shiftLeft(1);\n   if (approx.equalsLong(Kotlin.Long.ZERO)) {\n   return other.isNegative() ? Kotlin.Long.ONE : Kotlin.Long.NEG_ONE;\n   } else {\n   var rem = this.subtract(other.multiply(approx));\n   var result = approx.add(rem.div(other));\n   return result;\n   }\n }\n } else if (other.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   return Kotlin.Long.ZERO;\n }\n\n if (this.isNegative()) {\n   if (other.isNegative()) {\n   return this.negate().div(other.negate());\n   } else {\n   return this.negate().div(other).negate();\n   }\n } else if (other.isNegative()) {\n   return this.div(other.negate()).negate();\n }\n\n // Repeat the following until the remainder is less than other:

find a\n // floating-point that approximates remainder / other *from below*, add this\n // into the result, and subtract it from the remainder. It is critical that\n // the approximate value is less than or equal to the real value so that the\n // remainder never becomes negative.\n var res = Kotlin.Long.ZERO;\n var rem = this;\n while (rem.greaterThanOrEqual(other)) {\n   // Approximate the result of division. This may be a little greater or\n   // smaller than the actual value.\n   var approx = Math.max(1, Math.floor(rem.toNumber() / other.toNumber()));\n\n // We will tweak the approximate result by changing it in the 48-th digit or\n   // the smallest non-fractional digit, whichever is larger.\n   var log2 = Math.ceil(Math.log(approx) / Math.LN2);\n   var delta = (log2 <= 48) ? 1 : Math.pow(2, log2 - 48);\n\n   // Decrease the approximation until it is smaller than the remainder. Note\n   // that if it is too large, the product overflows and is negative.\n

var approxRes = Kotlin.Long.fromNumber(approx);\n   var approxRem = approxRes.multiply(other);\n   while (approxRem.isNegative() || approxRem.greaterThan(rem)) {\n   approx -= delta;\n   approxRes = Kotlin.Long.fromNumber(approx);\n   approxRem = approxRes.multiply(other);\n   }\n\n   // We know the answer can't be zero... and actually, zero would cause\n   // infinite recursion since we would make no progress.\n   if (approxRes.isZero()) {\n   approxRes = Kotlin.Long.ONE;\n   }\n\n   res = res.add(approxRes);\n   rem = rem.subtract(approxRem);\n }\n return res;\n};\n\n\n/**\n * Returns this Long modulo the given one.\n * @param

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{Kotlin.Long} other Long by which to mod.\n * @return {!Kotlin.Long} This Long modulo the given one.\n
*/\nKotlin.Long.prototype.modulo = function(other) {\n  return
this.subtract(this.div(other).multiply(other));\n};\n\n\n/** @return {!Kotlin.Long} The bitwise-NOT of this value.
*/\nKotlin.Long.prototype.not = function() {\n  return Kotlin.Long.fromBits(~this.low_,
 ~this.high_);\n};\n\n\n/**\n * Returns the bitwise-AND of this Long and the given one.\n * @param {Kotlin.Long}
other The Long with which to AND.\n * @return {!Kotlin.Long} The bitwise-AND of this and the other.\n
*/\nKotlin.Long.prototype.and = function(other) {\n  return Kotlin.Long.fromBits(this.low_ & other.low_,\n
                this.high_ & other.high_);\n};\n\n\n/**\n * Returns the bitwise-OR of this Long and the given one.\n *
@param {Kotlin.Long} other The Long with which to OR.\n * @return {!Kotlin.Long} The bitwise-OR of this and
the other.\n */\nKotlin.Long.prototype.or = function(other) {\n  return Kotlin.Long.fromBits(this.low_ |
other.low_,\n                              this.high_ | other.high_);\n};\n\n\n/**\n * Returns the bitwise-XOR of this Long
and the given one.\n * @param {Kotlin.Long} other The Long with which to XOR.\n * @return {!Kotlin.Long}
The bitwise-XOR of this and the other.\n */\nKotlin.Long.prototype.xor
 = function(other) {\n  return Kotlin.Long.fromBits(this.low_ ^ other.low_,\n                              this.high_ ^
other.high_);\n};\n\n\n/**\n * Returns this Long with bits shifted to the left by the given amount.\n * @param
{number} numBits The number of bits by which to shift.\n * @return {!Kotlin.Long} This shifted to the left by the
given amount.\n */\nKotlin.Long.prototype.shiftLeft = function(numBits) {\n  numBits &= 63;\n  if (numBits == 0)
{\n    return this;\n  } else {\n    var low = this.low_;\n    if (numBits < 32) {\n      var high = this.high_;\n      return
Kotlin.Long.fromBits(\n          low << numBits,\n          (high << numBits) | (low >>> (32 - numBits)));\n    } else
{\n      return Kotlin.Long.fromBits(0, low << (numBits - 32));\n    }\n  }\n};\n\n\n/**\n * Returns this Long with
bits shifted to the right by the given amount.\n * @param {number} numBits The number of bits by which to shift.\n
* @return {!Kotlin.Long} This shifted to the right by the given
 amount.\n */\nKotlin.Long.prototype.shiftRight = function(numBits) {\n  numBits &= 63;\n  if (numBits == 0) {\n
return this;\n  } else {\n    var high = this.high_;\n    if (numBits < 32) {\n      var low = this.low_;\n      return
Kotlin.Long.fromBits(\n          (low >>> numBits) | (high << (32 - numBits)),\n          high >> numBits);\n    } else
{\n      return Kotlin.Long.fromBits(\n          high >> (numBits - 32),\n          high >= 0 ? 0 : -1);\n    }\n
}\n};\n\n\n/**\n * Returns this Long with bits shifted to the right by the given amount, with\n * zeros placed into the
new leading bits.\n * @param {number} numBits The number of bits by which to shift.\n * @return {!Kotlin.Long}
This shifted to the right by the given amount, with\n *     zeros placed into the new leading bits.\n
*/\nKotlin.Long.prototype.shiftRightUnsigned = function(numBits) {\n  numBits &= 63;\n  if (numBits == 0) {\n
return this;\n  } else {\n    var high = this.high_;\n    if (numBits < 32) {\n
     var low = this.low_;\n      return Kotlin.Long.fromBits(\n          (low >>> numBits) | (high << (32 - numBits)),\n
     high >>> numBits);\n    } else if (numBits == 32) {\n      return Kotlin.Long.fromBits(high, 0);\n    } else {\n
return Kotlin.Long.fromBits(high >>> (numBits - 32), 0);\n    }\n  }\n};\n\n// Support for
Kotlin\nKotlin.Long.prototype.equals = function (other) {\n    return other instanceof Kotlin.Long &&
this.equalsLong(other);\n};\n\nKotlin.Long.prototype.compareTo_11rb$ =
Kotlin.Long.prototype.compare;\n\nKotlin.Long.prototype.inc = function() {\n    return
this.add(Kotlin.Long.ONE);\n};\n\nKotlin.Long.prototype.dec = function() {\n    return
this.add(Kotlin.Long.NEG_ONE);\n};\n\nKotlin.Long.prototype.valueOf = function() {\n    return
this.toNumber();\n};\n\nKotlin.Long.prototype.unaryPlus = function() {\n    return
this;\n};\n\nKotlin.Long.prototype.unaryMinus = Kotlin.Long.prototype.negate;\nKotlin.Long.prototype.inv =
Kotlin.Long.prototype.not;\n\nKotlin.Long.prototype.rangeTo
 = function (other) {\n    return new Kotlin.kotlin.ranges.LongRange(this, other);\n};","/*\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/**\n * @param {string} id\n *
@param {Object} declaration\n */\nKotlin.defineModule = function (id, declaration)
{\n};\n\nKotlin.defineInlineFunction = function(tag, fun) {\n    return fun;\n};\n\nKotlin.wrapFunction =
function(fun) {\n    var f = function() {\n        f = fun();\n        return f.apply(this, arguments);\n    };\n    return
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function() {\n        return f.apply(this, arguments);\n    };\n};\n\nKotlin.isTypeOf = function(type) {\n    return
function (object) {\n        return typeof object === type;\n    }\n};\n\nKotlin.isInstanceOf = function (klass) {\n
return function (object) {\n        return Kotlin.isType(object, klass);\n    }\n};\n\nKotlin.orNull
 = function (fn) {\n    return function (object) {\n        return object == null || fn(object);\n
}\n};\n\nKotlin.andPredicate = function (a, b) {\n    return function (object) {\n        return a(object) && b(object);\n
  }\n};\n\nKotlin.kotlinModuleMetadata = function (abiVersion, moduleName, data) {\n};\n\nKotlin.suspendCall =
function(value) {\n    return value;\n};\n\nKotlin.coroutineResult = function(qualifier) {\n
throwMarkerError();\n};\n\nKotlin.coroutineController = function(qualifier) {\n
throwMarkerError();\n};\n\nKotlin.coroutineReceiver = function(qualifier) {\n
throwMarkerError();\n};\n\nKotlin.setCoroutineResult = function(value, qualifier) {\n
throwMarkerError();\n};\n\nKotlin.getReifiedTypeParameterKType = function(typeParameter) {\n
throwMarkerError();\n};\n\nfunction throwMarkerError() {\n    throw new Error(\n        \"This marker function
should never been called. \" +\n        \"Looks like compiler did not eliminate it properly.
 \" +\n        \"Please, report an issue if you caught this exception.\");\n}\n\nKotlin.getFunctionById = function(id,
defaultValue) {\n    return function() {\n        return defaultValue;\n    }\n};","/*\n * Copyright 2010-2018 JetBrains
s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n */\n\nKotlin.compareTo = function (a, b) {\n    var
typeA = typeof a;\n    if (typeA === \"number\") {\n        if (typeof b === \"number\") {\n            return
Kotlin.doubleCompareTo(a, b);\n        }\n        return Kotlin.primitiveCompareTo(a, b);\n    }\n    if (typeA ===
\"string\" || typeA === \"boolean\") {\n        return Kotlin.primitiveCompareTo(a, b);\n    }\n    return
a.compareTo_11rb$(b);\n};\n\nKotlin.primitiveCompareTo = function (a, b) {\n    return a < b ? -1 : a > b ? 1 :
0;\n};\n\nKotlin.doubleCompareTo = function (a, b) {\n    if (a < b) return -1;\n    if (a
 > b) return 1;\n\n    if (a === b) {\n        if (a !== 0) return 0;\n\n        var ia = 1 / a;\n        return ia === 1 / b ? 0 : (ia
< 0 ? -1 : 1);\n    }\n\n    return a !== a ? (b !== b ? 0 : 1) : -1\n};\n\nKotlin.charInc = function (value) {\n    return
Kotlin.toChar(value+1);\n};\n\nKotlin.charDec = function (value) {\n    return Kotlin.toChar(value-
1);\n};\n\nKotlin.imul = Math.imul || imul;\n\nKotlin.imulEmulated = imul;\n\nfunction imul(a, b) {\n    return ((a &
0xffff0000) * (b & 0xffff) + (a & 0xffff) * (b | 0)) | 0;\n}\n\n(function() {\n    var buf = new ArrayBuffer(8);\n    var
bufFloat64 = new Float64Array(buf);\n    var bufFloat32 = new Float32Array(buf);\n    var bufInt32 = new
Int32Array(buf);\n    var lowIndex = 0;\n    var highIndex = 1;\n\n    bufFloat64[0] = -1; // bff00000_00000000\n    if
(bufInt32[lowIndex] !== 0) {\n        lowIndex = 1;\n        highIndex = 0;\n    }\n\n    Kotlin.doubleToBits =
function(value) {\n        return Kotlin.doubleToRawBits(isNaN(value)
 ? NaN : value);\n    };\n\n    Kotlin.doubleToRawBits = function(value) {\n        bufFloat64[0] = value;\n        return
Kotlin.Long.fromBits(bufInt32[lowIndex], bufInt32[highIndex]);\n    };\n\n    Kotlin.doubleFromBits =
function(value) {\n        bufInt32[lowIndex] = value.low_;\n        bufInt32[highIndex] = value.high_;\n        return
bufFloat64[0];\n    };\n\n    Kotlin.floatToBits = function(value) {\n        return Kotlin.floatToRawBits(isNaN(value)
? NaN : value);\n    };\n\n    Kotlin.floatToRawBits = function(value) {\n        bufFloat32[0] = value;\n        return
bufInt32[0];\n    };\n\n    Kotlin.floatFromBits = function(value) {\n        bufInt32[0] = value;\n        return
bufFloat32[0];\n    };\n\n    // returns zero value for number with positive sign bit and non-zero value for number
with negative sign bit.\n    Kotlin.doubleSignBit = function(value) {\n        bufFloat64[0] = value;\n        return
bufInt32[highIndex] & 0x80000000;\n    };\n\n    Kotlin.numberHashCode
 = function(obj) {\n        if ((obj | 0) === obj) {\n            return obj | 0;\n        }\n        else {\n            bufFloat64[0] =
obj;\n            return (bufInt32[highIndex] * 31 | 0) + bufInt32[lowIndex] | 0;\n        }\n
}\n})();\n\nKotlin.ensureNotNull = function(x) {\n    return x != null ? x : Kotlin.throwNPE();\n};\n","/*\n *
Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is
governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\nif (typeof
String.prototype.startsWith === \"undefined\") {\n    Object.defineProperty(String.prototype, \"startsWith\", {\n
value: function (searchString, position) {\n            position = position || 0;\n            return
this.lastIndexOf(searchString, position) === position;\n        }\n    });\n}\nif (typeof String.prototype.endsWith ===
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\"undefined\") {\n    Object.defineProperty(String.prototype, \"endsWith\", {\n
        value: function (searchString, position) {\n            var subjectString = this.toString();\n            if (position ===
undefined || position > subjectString.length) {\n                position = subjectString.length;\n            }\n
position -= searchString.length;\n            var lastIndex = subjectString.indexOf(searchString, position);\n
return lastIndex !== -1 && lastIndex === position;\n        }\n    });\n}\n// ES6 Math polyfills\nif (typeof Math.sign
=== \"undefined\") {\n    Math.sign = function(x) {\n        x = +x; // convert to a number\n        if (x === 0 ||
isNaN(x)) {\n            return Number(x);\n        }\n        return x > 0 ? 1 : -1;\n    };\n}\nif (typeof Math.trunc ===
\"undefined\") {\n    Math.trunc = function(x) {\n        if (isNaN(x)) {\n            return NaN;\n        }\n        if (x > 0)
{\n            return Math.floor(x);\n        }\n        return Math.ceil(x);\n    };\n}\n\n(function() {\n    var epsilon =
2.220446049250313E-16;\n
    var taylor_2_bound = Math.sqrt(epsilon);\n    var taylor_n_bound = Math.sqrt(taylor_2_bound);\n    var
upper_taylor_2_bound = 1/taylor_2_bound;\n    var upper_taylor_n_bound = 1/taylor_n_bound;\n\n    if (typeof
Math.sinh === \"undefined\") {\n        Math.sinh = function(x) {\n            if (Math.abs(x) < taylor_n_bound) {\n
       var result = x;\n                if (Math.abs(x) > taylor_2_bound) {\n                    result += (x * x * x) / 6;\n
}\n                return result;\n            } else {\n                var y = Math.exp(x);\n                var y1 = 1 / y;\n                if
(!isFinite(y)) return Math.exp(x - Math.LN2);\n                if (!isFinite(y1)) return -Math.exp(-x - Math.LN2);\n
    return (y - y1) / 2;\n            }\n        };\n    }\n    if (typeof Math.cosh === \"undefined\") {\n        Math.cosh =
function(x) {\n            var y = Math.exp(x);\n            var y1 = 1 / y;\n            if (!isFinite(y)
 || !isFinite(y1)) return Math.exp(Math.abs(x) - Math.LN2);\n            return (y + y1) / 2;\n        };\n    }\n\n    if
(typeof Math.tanh === \"undefined\") {\n        Math.tanh = function(x){\n            if (Math.abs(x) < taylor_n_bound)
{\n                var result = x;\n                if (Math.abs(x) > taylor_2_bound) {\n                    result -= (x * x * x) / 3;\n
           }\n                return result;\n            }\n            else {\n                var a = Math.exp(+x), b = Math.exp(-x);\n
        return a === Infinity ? 1 : b === Infinity ? -1 : (a - b) / (a + b);\n            }\n        };\n    }\n\n    // Inverse
hyperbolic function implementations derived from boost special math functions,\n    // Copyright Eric Ford &
Hubert Holin 2001.\n\n    if (typeof Math.asinh === \"undefined\") {\n        var asinh = function(x) {\n            if (x
>= +taylor_n_bound)\n            {\n                if (x > upper_taylor_n_bound)\n                {\n
                    if (x > upper_taylor_2_bound)\n                    {\n                        // approximation by laurent series in 1/x
at 0+ order from -1 to 0\n                        return Math.log(x) + Math.LN2;\n                    }\n                    else\n
       {\n                        // approximation by laurent series in 1/x at 0+ order from -1 to 1\n                        return
Math.log(x * 2 + (1 / (x * 2)));\n                    }\n                }\n                else\n                {\n                    return
Math.log(x + Math.sqrt(x * x + 1));\n                }\n            }\n            else if (x <= -taylor_n_bound)\n            {\n
       return -asinh(-x);\n            }\n            else\n            {\n                // approximation by taylor series in x at 0 up to
order 2\n                var result = x;\n                if (Math.abs(x) >= taylor_2_bound)\n                {\n                    var x3 =
x * x * x;\n
                    // approximation by taylor series in x at 0 up to order 4\n                    result -= x3 / 6;\n                }\n
   return result;\n            }\n        };\n        Math.asinh = asinh;\n    }\n    if (typeof Math.acosh === \"undefined\") {\n
     Math.acosh = function(x) {\n            if (x < 1)\n            {\n                return NaN;\n            }\n            else if (x - 1
>= taylor_n_bound)\n            {\n                if (x > upper_taylor_2_bound)\n                {\n                    //
approximation by laurent series in 1/x at 0+ order from -1 to 0\n                    return Math.log(x) + Math.LN2;\n
     }\n                else\n                {\n                    return Math.log(x + Math.sqrt(x * x - 1));\n                }\n            }\n
       else\n            {\n                var y = Math.sqrt(x - 1);\n                // approximation by taylor series in y at 0 up to
order 2\n                var result =
 y;\n                if (y >= taylor_2_bound)\n                {\n                    var y3 = y * y * y;\n                    // approximation
by taylor series in y at 0 up to order 4\n                    result -= y3 / 12;\n                }\n\n                return Math.sqrt(2) *
result;\n            }\n        };\n    }\n    if (typeof Math.atanh === \"undefined\") {\n        Math.atanh = function(x) {\n
       if (Math.abs(x) < taylor_n_bound) {\n                var result = x;\n                if (Math.abs(x) > taylor_2_bound) {\n
                result += (x * x * x) / 3;\n                }\n                return result;\n            }\n            return Math.log((1 + x)
/ (1 - x)) / 2;\n        };\n    }\n    if (typeof Math.log1p === \"undefined\") {\n        Math.log1p = function(x) {\n
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if (Math.abs(x) < taylor_n_bound) {\n            var x2 = x * x;\n            var x3 = x2 * x;\n            var x4 = x3 *
x;\n            // approximation by
 taylor series in x at 0 up to order 4\n            return (-x4 / 4 + x3 / 3 - x2 / 2 + x);\n        }\n        return
Math.log(x + 1);\n    };\n  }\n  if (typeof Math.expm1 === \"undefined\") {\n    Math.expm1 = function(x)
{\n        if (Math.abs(x) < taylor_n_bound) {\n            var x2 = x * x;\n            var x3 = x2 * x;\n            var
x4 = x3 * x;\n            // approximation by taylor series in x at 0 up to order 4\n            return (x4 / 24 + x3 / 6 +
x2 / 2 + x);\n        }\n        return Math.exp(x) - 1;\n    };\n  }\n})();\nif (typeof Math.hypot ===
\"undefined\") {\n  Math.hypot = function() {\n    var y = 0;\n    var length = arguments.length;\n\n    for
(var i = 0; i < length; i++) {\n        if (arguments[i] === Infinity || arguments[i] === -Infinity) {\n            return
Infinity;\n        }\n        y += arguments[i] * arguments[i];\n    }\n    return Math.sqrt(y);\n
  };\n}\nif (typeof Math.log10 === \"undefined\") {\n  Math.log10 = function(x) {\n    return Math.log(x) *
Math.LOG10E;\n  };\n}\nif (typeof Math.log2 === \"undefined\") {\n  Math.log2 = function(x) {\n    return
Math.log(x) * Math.LOG2E;\n  };\n}\nif (typeof Math.clz32 === \"undefined\") {\n  Math.clz32 = (function(log,
LN2) {\n    return function(x) {\n        var asUint = x >>> 0;\n        if (asUint === 0) {\n            return
32;\n        }\n        return 31 - (log(asUint) / LN2 | 0) | 0; // the \"| 0\" acts like math.floor\n    };\n
})(Math.log, Math.LN2);\n}\n\n// For HtmlUnit and PhantomJs\nif (typeof ArrayBuffer.isView === \"undefined\")
{\n  ArrayBuffer.isView = function(a) {\n    return a != null && a.__proto__ != null && a.__proto__.__proto__
=== Int8Array.prototype.__proto__;\n  };\n}\n\nif (typeof Array.prototype.fill === \"undefined\") {\n  // Polyfill
from https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Array/fill#Polyfill\n
  Object.defineProperty(Array.prototype, 'fill', {\n    value: function (value) {\n\n        // Steps 1-2.\n        if
(this == null) {\n            throw new TypeError('this is null or not defined');\n        }\n\n        var O =
Object(this);\n\n        // Steps 3-5.\n        var len = O.length >>> 0;\n\n        // Steps 6-7.\n        var start =
arguments[1];\n        var relativeStart = start >> 0;\n\n        // Step 8.\n        var k = relativeStart < 0 ?\n
      Math.max(len + relativeStart, 0) :\n            Math.min(relativeStart, len);\n\n        // Steps 9-10.\n
var end = arguments[2];\n        var relativeEnd = end === undefined ?\n                len : end >> 0;\n\n
  // Step 11.\n        var finalValue = relativeEnd < 0 ?\n                Math.max(len + relativeEnd, 0) :\n
            Math.min(relativeEnd, len);\n\n        // Step 12.\n        while (k < finalValue) {\n            O[k] =
value;\n            k++;\n        }\n\n        // Step 13.\n        return O;\n    }\n  });\n}\n\n(function() {\n
function normalizeOffset(offset, length) {\n    if (offset < 0) return Math.max(0, offset + length);\n    return
Math.min(offset, length);\n  }\n  function typedArraySlice(begin, end) {\n    if (typeof end === \"undefined\")
{\n        end = this.length;\n    }\n    begin = normalizeOffset(begin || 0, this.length);\n    end =
Math.max(begin, normalizeOffset(end, this.length));\n    return new this.constructor(this.subarray(begin, end));\n
}\n\n  var arrays = [Int8Array, Int16Array, Uint16Array, Int32Array, Float32Array, Float64Array];\n  for (var i =
0; i < arrays.length; ++i) {\n    var TypedArray = arrays[i];\n    if (typeof TypedArray.prototype.fill ===
\"undefined\")
 {\n        Object.defineProperty(TypedArray.prototype, 'fill', {\n            value: Array.prototype.fill\n        });\n
    }\n    if (typeof TypedArray.prototype.slice === \"undefined\") {\n
Object.defineProperty(TypedArray.prototype, 'slice', {\n            value: typedArraySlice\n        });\n    }\n
}\n\n  // Patch apply to work with TypedArrays if needed.\n  try {\n    (function() {}).apply(null, new
Int32Array(0))\n  } catch (e) {\n    var apply = Function.prototype.apply;\n
Object.defineProperty(Function.prototype, 'apply', {\n        value: function(self, array) {\n            return
apply.call(this, self, [].slice.call(array));\n        }\n    });\n  }\n\n\n  // Patch map to work with TypedArrays if
needed.\n  for (var i = 0; i < arrays.length; ++i) {\n    var TypedArray = arrays[i];\n    if (typeof
TypedArray.prototype.map === \"undefined\") {\n        Object.defineProperty(TypedArray.prototype,
 'map', {\n            value: function(callback, self) {\n                return [].slice.call(this).map(callback, self);\n
    }\n        });\n    }\n  }\n\n  // Patch sort to work with TypedArrays if needed.\n  // TODO: consider to
remove following function and replace it with `Kotlin.doubleCompareTo` (see misc.js)\n  var
totalOrderComparator = function (a, b) {\n    if (a < b) return -1;\n    if (a > b) return 1;\n\n    if (a === b) {\n
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        if (a !== 0) return 0;\n\n            var ia = 1 / a;\n            return ia === 1 / b ? 0 : (ia < 0 ? -1 : 1);\n        }\n\n
return a !== a ? (b !== b ? 0 : 1) : -1\n    };\n\n    for (var i = 0; i < arrays.length; ++i) {\n        var TypedArray =
arrays[i];\n        if (typeof TypedArray.prototype.sort === \"undefined\") {\n
Object.defineProperty(TypedArray.prototype, 'sort', {\n                value: function(compareFunction) {\n
 return Array.prototype.sort.call(this, compareFunction || totalOrderComparator);\n                }\n            });\n        }\n
  }\n})();\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use
of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\nKotlin.Kind = {\n    CLASS: \"class\",\n    INTERFACE: \"interface\",\n    OBJECT:
\"object\"\n};\n\nKotlin.callGetter = function (thisObject, klass, propertyName) {\n    var propertyDescriptor =
Object.getOwnPropertyDescriptor(klass, propertyName);\n    if (propertyDescriptor != null &&
propertyDescriptor.get != null) {\n        return propertyDescriptor.get.call(thisObject);\n    }\n\n    propertyDescriptor
= Object.getOwnPropertyDescriptor(thisObject, propertyName);\n    if (propertyDescriptor != null && \"value\" in
propertyDescriptor) {\n        return thisObject[propertyName];\n    }\n\n    return Kotlin.callGetter(thisObject,
 Object.getPrototypeOf(klass), propertyName);\n};\n\nKotlin.callSetter = function (thisObject, klass, propertyName,
value) {\n    var propertyDescriptor = Object.getOwnPropertyDescriptor(klass, propertyName);\n    if
(propertyDescriptor != null && propertyDescriptor.set != null) {\n        propertyDescriptor.set.call(thisObject,
value);\n        return;\n    }\n\n    propertyDescriptor = Object.getOwnPropertyDescriptor(thisObject,
propertyName);\n    if (propertyDescriptor != null && \"value\" in propertyDescriptor) {\n
thisObject[propertyName] = value;\n        return\n    }\n\n    Kotlin.callSetter(thisObject,
Object.getPrototypeOf(klass), propertyName, value);\n};\n\nfunction isInheritanceFromInterface(ctor, iface) {\n    if
(ctor === iface) return true;\n\n    var metadata = ctor.$metadata$;\n    if (metadata != null) {\n        var interfaces =
metadata.interfaces;\n        for (var i = 0; i < interfaces.length; i++) {\n            if
(isInheritanceFromInterface(interfaces[i],
 iface)) {\n                return true;\n            }\n        }\n    }\n\n    var superPrototype = ctor.prototype != null ?
Object.getPrototypeOf(ctor.prototype) : null;\n    var superConstructor = superPrototype != null ?
superPrototype.constructor : null;\n    return superConstructor != null &&
isInheritanceFromInterface(superConstructor, iface);\n}\n\n/**\n *\n * @param {*} object\n * @param
{Function|Object} klass\n * @returns {Boolean}\n */\nKotlin.isType = function (object, klass) {\n    if (klass ===
Object) {\n        switch (typeof object) {\n            case \"string\":\n            case \"number\":\n            case
\"boolean\":\n            case \"function\":\n                return true;\n            default:\n                return object instanceof
Object;\n        }\n    }\n\n    if (object == null || klass == null || (typeof object !== 'object' && typeof object !==
'function')) {\n        return false;\n    }\n\n    if (typeof klass === \"function\" && object instanceof
 klass) {\n        return true;\n    }\n\n    var proto = Object.getPrototypeOf(klass);\n    var constructor = proto != null ?
proto.constructor : null;\n    if (constructor != null && \"$metadata$\" in constructor) {\n        var metadata =
constructor.$metadata$;\n        if (metadata.kind === Kotlin.Kind.OBJECT) {\n            return object === klass;\n
 }\n    }\n\n    var klassMetadata = klass.$metadata$;\n\n    // In WebKit (JavaScriptCore) for some interfaces from
DOM typeof returns \"object\", nevertheless they can be used in RHS of instanceof\n    if (klassMetadata == null)
{\n        return object instanceof klass;\n    }\n\n    if (klassMetadata.kind === Kotlin.Kind.INTERFACE &&
object.constructor != null) {\n        return isInheritanceFromInterface(object.constructor, klass);\n    }\n\n    return
false;\n};\n\nKotlin.isNumber = function (a) {\n    return typeof a == \"number\" || a instanceof
Kotlin.Long;\n};\n\nKotlin.isChar = function (value) {\n    return
 value instanceof Kotlin.BoxedChar\n};\n\nKotlin.isComparable = function (value) {\n    var type = typeof
value;\n\n    return type === \"string\" ||\n           type === \"boolean\" ||\n           Kotlin.isNumber(value) ||\n
Kotlin.isType(value, Kotlin.kotlin.Comparable);\n};\n\nKotlin.isCharSequence = function (value) {\n    return
typeof value === \"string\" || Kotlin.isType(value, Kotlin.kotlin.CharSequence);\n};","/*\n * Copyright 2010-2020
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// a package is omitted to get
declarations directly under the module\n\n@PublishedApi\nexternal internal fun <T> Array(size: Int):
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Array<T>\n\n@JsName(\"newArray\")\nfun <T> newArray(size: Int, initValue: T) = fillArrayVal(Array<T>(size), initValue)\n\n@JsName(\"newArrayF\")\ninline fun <T> arrayWithFun(size: Int, init: (Int) -> T) = fillArrayFun(Array<T>(size),
 init)\n\n@JsName(\"fillArray\")\ninline fun <T> fillArrayFun(array: Array<T>, init: (Int) -> T): Array<T> {\n   for (i in 0..array.size - 1) {\n   array[i] = init(i)\n   }\n   return array\n}\n\n@JsName(\"booleanArray\")\nfun booleanArray(size: Int, init: dynamic): Array<Boolean> {\n   val result: dynamic = Array<Boolean>(size)\n   result.`$type$` = \"BooleanArray\"\n   return when (init) {\n   null, true -> fillArrayVal(result, false)\n   false -> result\n   else -> fillArrayFun<Boolean>(result, init)\n   }\n}\n\n@JsName(\"booleanArrayF\")\ninline fun booleanArrayWithFun(size: Int, init: (Int) -> Boolean): Array<Boolean> = fillArrayFun(booleanArray(size, false), init)\n\n@JsName(\"charArray\")\n@Suppress(\"UNUSED_PARAMETER\")\nfun charArray(size: Int, init: dynamic): Array<Char> {\n   val result = js(\"new Uint16Array(size)\")\n   result.`$type$` = \"CharArray\"\n   return when (init) {\n   null, true, false -> result // For consistency\n
        else -> fillArrayFun<Char>(result, init)\n   }\n}\n\n@JsName(\"charArrayF\")\ninline fun charArrayWithFun(size: Int, init: (Int) -> Char): Array<Char> {\n   val array = charArray(size, null)\n   for (i in 0..array.size - 1) {\n   @Suppress(\"UNUSED_VARIABLE\") // used in js block\n   val value = init(i)\n   js(\"array[i] = value;\")\n   }\n   return array\n}\n\n@JsName(\"untypedCharArrayF\")\ninline fun untypedCharArrayWithFun(size: Int, init: (Int) -> Char): Array<Char> {\n   val array = Array<Char>(size)\n   for (i in 0..array.size - 1) {\n   @Suppress(\"UNUSED_VARIABLE\") // used in js block\n   val value = init(i)\n   js(\"array[i] = value;\")\n   }\n   return array\n}\n\n@JsName(\"longArray\")\nfun longArray(size: Int, init: dynamic): Array<Long> {\n   val result: dynamic = Array<Long>(size)\n   result.`$type$` = \"LongArray\"\n   return when (init) {\n   null, true -> fillArrayVal(result, 0L)\n   false -> result\n
    else -> fillArrayFun<Long>(result, init)\n   }\n}\n\n@JsName(\"longArrayF\")\ninline fun longArrayWithFun(size: Int, init: (Int) -> Long): Array<Long> = fillArrayFun(longArray(size, false), init)\n\nprivate fun <T> fillArrayVal(array: Array<T>, initValue: T): Array<T> {\n   for (i in 0..array.size - 1) {\n   array[i] = initValue\n   }\n   return array\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\npublic class Enum<T : Enum<T>> : Comparable<Enum<T>> {\n   @JsName(\"name$\") private var _name: String = \"\"\n   @JsName(\"ordinal$\") private var _ordinal: Int = 0\n\n   val name: String\n   get() = _name\n\n   val ordinal: Int\n   get() = _ordinal\n\n   override fun compareTo(other: Enum<T>) = ordinal.compareTo(other.ordinal)\n\n   override fun equals(other: Any?) = this ===
 other\n\n   override fun hashCode(): Int = js(\"Kotlin.identityHashCode\")(this)\n\n   override fun toString() = name\n\n   companion object\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js.internal\n\n@JsName(\"DoubleCompanionObject\")\ninternal object DoubleCompanionObject {\n   @JsName(\"MIN_VALUE\")\n   const val MIN_VALUE: Double = 4.9E-324\n\n   @JsName(\"MAX_VALUE\")\n   const val MAX_VALUE: Double = 1.7976931348623157E308\n\n   @JsName(\"POSITIVE_INFINITY\")\n   @Suppress(\"DIVISION_BY_ZERO\")\n   const val POSITIVE_INFINITY: Double = 1.0 / 0.0\n\n   @JsName(\"NEGATIVE_INFINITY\")\n   @Suppress(\"DIVISION_BY_ZERO\")\n   const val NEGATIVE_INFINITY: Double = -1.0 / 0.0\n\n   @JsName(\"NaN\")\n   @Suppress(\"DIVISION_BY_ZERO\")\n   const val NaN: Double = -(0.0 / 0.0)\n\n   @JsName(\"SIZE_BYTES\")\n
    const val SIZE_BYTES = 8\n\n   @JsName(\"SIZE_BITS\")\n   const val SIZE_BITS = 64\n}\n\n@JsName(\"FloatCompanionObject\")\ninternal object FloatCompanionObject {\n   @JsName(\"MIN_VALUE\")\n   const val MIN_VALUE: Float = 1.4E-45F\n\n   @JsName(\"MAX_VALUE\")\n   const val MAX_VALUE: Float = 3.4028235E38F\n\n   @JsName(\"POSITIVE_INFINITY\")\n   @Suppress(\"DIVISION_BY_ZERO\")\n   const val POSITIVE_INFINITY: Float = 1.0F / 0.0F\n\n   @JsName(\"NEGATIVE_INFINITY\")\n   @Suppress(\"DIVISION_BY_ZERO\")\n   const val

NEGATIVE_INFINITY: Float = -1.0F / 0.0F\n\n   @JsName(\"NaN\")\n
@Suppress(\"DIVISION_BY_ZERO\")\n   const val NaN: Float = -(0.0F / 0.0F)\n\n
@JsName(\"SIZE_BYTES\")\n   const val SIZE_BYTES = 4\n\n   @JsName(\"SIZE_BITS\")\n   const val
SIZE_BITS = 32\n}\n\n@JsName(\"IntCompanionObject\")\ninternal object IntCompanionObject {\n
@JsName(\"MIN_VALUE\")\n   val MIN_VALUE: Int = -2147483647 - 1\n\n   @JsName(\"MAX_VALUE\")\n
    val MAX_VALUE: Int = 2147483647\n\n   @JsName(\"SIZE_BYTES\")\n   const val SIZE_BYTES = 4\n\n
@JsName(\"SIZE_BITS\")\n   const val SIZE_BITS = 32\n}\n\n@JsName(\"LongCompanionObject\")\ninternal
object LongCompanionObject {\n   @JsName(\"MIN_VALUE\")\n   val MIN_VALUE: Long =
js(\"Kotlin.Long.MIN_VALUE\")\n\n   @JsName(\"MAX_VALUE\")\n   val MAX_VALUE: Long =
js(\"Kotlin.Long.MAX_VALUE\")\n\n   @JsName(\"SIZE_BYTES\")\n   const val SIZE_BYTES = 8\n\n
@JsName(\"SIZE_BITS\")\n   const val SIZE_BITS = 64\n}\n\n@JsName(\"ShortCompanionObject\")\ninternal
object ShortCompanionObject {\n   @JsName(\"MIN_VALUE\")\n   val MIN_VALUE: Short = -32768\n\n
@JsName(\"MAX_VALUE\")\n   val MAX_VALUE: Short = 32767\n\n   @JsName(\"SIZE_BYTES\")\n   const
val SIZE_BYTES = 2\n\n   @JsName(\"SIZE_BITS\")\n   const val SIZE_BITS =
16\n}\n\n@JsName(\"ByteCompanionObject\")\ninternal object ByteCompanionObject {\n
@JsName(\"MIN_VALUE\")\n   val MIN_VALUE: Byte = -128\n\n
    @JsName(\"MAX_VALUE\")\n   val MAX_VALUE: Byte = 127\n\n   @JsName(\"SIZE_BYTES\")\n   const
val SIZE_BYTES = 1\n\n   @JsName(\"SIZE_BITS\")\n   const val SIZE_BITS =
8\n}\n\n@JsName(\"CharCompanionObject\")\ninternal object CharCompanionObject {\n
@JsName(\"MIN_VALUE\")\n   public const val MIN_VALUE: Char = '\\u0000'\n\n
@JsName(\"MAX_VALUE\")\n   public const val MAX_VALUE: Char = '\\uFFFF'\n\n
@JsName(\"MIN_HIGH_SURROGATE\")\n   public const val MIN_HIGH_SURROGATE: Char = '\\uD800'\n\n
@JsName(\"MAX_HIGH_SURROGATE\")\n   public const val MAX_HIGH_SURROGATE: Char =
'\\uDBFF'\n\n   @JsName(\"MIN_LOW_SURROGATE\")\n   public const val MIN_LOW_SURROGATE: Char =
'\\uDC00'\n\n   @JsName(\"MAX_LOW_SURROGATE\")\n   public const val MAX_LOW_SURROGATE: Char
= '\\uDFFF'\n\n   @JsName(\"MIN_SURROGATE\")\n   public const val MIN_SURROGATE: Char =
MIN_HIGH_SURROGATE\n\n   @JsName(\"MAX_SURROGATE\")\n   public const val MAX_SURROGATE:
Char = MAX_LOW_SURROGATE\n\n
    @JsName(\"SIZE_BYTES\")\n   const val SIZE_BYTES = 2\n\n   @JsName(\"SIZE_BITS\")\n   const val
SIZE_BITS = 16\n}\n\ninternal object StringCompanionObject {}\n\ninternal object BooleanCompanionObject
{}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of
this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"ArraysKt\")\n\npackage
kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\nimport
kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the
size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior
is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic
 inline operator fun <T> Array<out T>.component1(): T {\n   return get(0)\n}\n\n/**\n * Returns 1st *element*
from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in
Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun
ByteArray.component1(): Byte {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the
size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior
is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component1(): Short {\n
return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1,
throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component1():

Int {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component1(): Long {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component1(): Float {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component1(): Double {\n   return get(0)\n}\n\n/**\n * Returns 1st *element*

from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component1(): Boolean {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component1(): Char {\n   return get(0)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component2(): T {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this

array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component2(): Byte {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component2(): Short {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component2(): Int {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except

in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component2(): Long {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component2(): Float {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component2(): Double {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic

inline operator fun BooleanArray.component2(): Boolean {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component2(): Char {\n   return get(1)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component3(): T {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator

fun ByteArray.component3(): Byte {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component3(): Short {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component3(): Int {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component3(): Long {\n   return get(2)\n}\n\n/**\n
 * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component3(): Float {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component3(): Double {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component3(): Boolean {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n *
 If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component3(): Char {\n   return get(2)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component4(): T {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component4(): Byte {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException]
 except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component4(): Short {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component4(): Int {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component4(): Long {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is
 unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component4(): Float {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component4(): Double {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component4(): Boolean {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n

*/\n@kotlin.internal.InlineOnly\npublic
 inline operator fun CharArray.component4(): Char {\n   return get(3)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component5(): T {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component5(): Byte {\n return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component5(): Short {\n
    return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component5(): Int {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component5(): Long {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component5(): Float {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n
 * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component5(): Double {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component5(): Boolean {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component5(): Char {\n   return get(4)\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun <@kotlin.internal.OnlyInputTypes
 T> Array<out T>.contains(element: T): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun ByteArray.contains(element: Byte): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun ShortArray.contains(element: Short): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun IntArray.contains(element: Int): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun LongArray.contains(element: Long): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\n@Deprecated(\"The function has unclear behavior when searching for NaN or zero values and will be removed soon. Use 'any { it == element }' instead
 to continue using this behavior, or '.asList().contains(element: T)' to get the same search behavior as in a list.\", ReplaceWith(\"any { it == element }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\", hiddenSince = \"1.7\")\npublic operator fun FloatArray.contains(element: Float): Boolean {\n   return any { it == element }\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\n@Deprecated(\"The function has unclear behavior when searching for NaN or zero values and will be removed soon. Use 'any { it == element }' instead to continue using this behavior, or '.asList().contains(element: T)' to get the same search behavior as in a list.\", ReplaceWith(\"any { it == element }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\", hiddenSince = \"1.7\")\npublic operator fun DoubleArray.contains(element: Double): Boolean {\n   return any { it == element }\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic

operator fun BooleanArray.contains(element: Boolean): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun CharArray.contains(element: Char): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun <T> Array<out T>.elementAt(index: Int): T\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun ByteArray.elementAt(index: Int): Byte\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n

*/\npublic expect fun ShortArray.elementAt(index: Int): Short\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun IntArray.elementAt(index: Int): Int\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun LongArray.elementAt(index: Int): Long\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun FloatArray.elementAt(index: Int): Float\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index]

is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun DoubleArray.elementAt(index: Int): Double\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun BooleanArray.elementAt(index: Int): Boolean\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun CharArray.elementAt(index: Int): Char\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out

T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Byte): Byte {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Short): Short {\n   return if (index >= 0 && index <= lastIndex)

get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Int): Int {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Long): Long {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of

calling
 the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Float): Float {\n   return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun
DoubleArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Double): Double {\n   return if (index >= 0 &&
index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the
result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n
 */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.elementAtOrElse(index: Int, defaultValue: (Int) ->
Boolean): Boolean {\n   return if (index >= 0 && index <= lastIndex) get(index) else
defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue]
function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun
CharArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Char): Char {\n   return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the
[index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun
<T> Array<out T>.elementAtOrNull(index: Int): T? {\n
    return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of
bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.elementAtOrNull(index: Int): Byte? {\n   return
this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds
of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.elementAtOrNull(index: Int): Short? {\n   return
this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds
of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.elementAtOrNull(index: Int): Int? {\n   return
this.getOrNull(index)\n}\n\n/**\n
 * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun
LongArray.elementAtOrNull(index: Int): Long? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element
at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.elementAtOrNull(index: Int): Float? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element
at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun
DoubleArray.elementAtOrNull(index: Int): Double? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an
element at the given
 [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun
BooleanArray.elementAtOrNull(index: Int): Boolean? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an
element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun
CharArray.elementAtOrNull(index: Int): Char? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns the first
element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample

samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.find(predicate: (T) -> Boolean): T? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if
 no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.find(predicate: (Byte) -> Boolean): Byte? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.find(predicate: (Short) -> Boolean): Short? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.find(predicate: (Int) -> Boolean): Int? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n
 */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.find(predicate: (Long) -> Boolean): Long? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.find(predicate: (Float) -> Boolean): Float? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.find(predicate: (Double) -> Boolean): Double? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n
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 inline fun ByteArray.findLast(predicate: (Byte) -> Boolean): Byte? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.findLast(predicate: (Short) -> Boolean): Short? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.findLast(predicate: (Int) -> Boolean): Int? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.findLast(predicate:
 (Long) -> Boolean): Long? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.findLast(predicate: (Float) -> Boolean): Float? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun

DoubleArray.findLast(predicate: (Double) -> Boolean): Double? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.findLast(predicate: (Boolean) -> Boolean): Boolean?
 {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.findLast(predicate: (Char) -> Boolean): Char? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the first element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\npublic fun <T> Array<out T>.first(): T {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns the first element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\npublic fun ByteArray.first(): Byte {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns the first element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\npublic fun ShortArray.first(): Short
 {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns the first element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\npublic fun IntArray.first(): Int {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns the first element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\npublic fun LongArray.first(): Long {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns the first element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\npublic fun FloatArray.first(): Float {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns the first element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\npublic fun DoubleArray.first(): Double {\n   if
 (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns the first element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\npublic fun BooleanArray.first(): Boolean {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns the first element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\npublic fun CharArray.first(): Char {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun <T> Array<out T>.first(predicate: (T) -> Boolean): T {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element
 matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun ByteArray.first(predicate: (Byte) -> Boolean): Byte {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun ShortArray.first(predicate: (Short) -> Boolean): Short {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun IntArray.first(predicate: (Int) -> Boolean): Int {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array
 contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun LongArray.first(predicate: (Long) -> Boolean): Long {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such

element is found.\n */\npublic inline fun FloatArray.first(predicate: (Float) -> Boolean): Float {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun DoubleArray.first(predicate: (Double) -> Boolean): Double {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun BooleanArray.first(predicate: (Boolean) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun CharArray.first(predicate: (Char) -> Boolean): Char {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first non-null value produced

by [transform] function being applied to elements of this array in iteration order,\n * or throws [NoSuchElementException] if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any> Array<out T>.firstNotNullOf(transform: (T) -> R?): R {\n   return firstNotNullOfOrNull(transform) ?: throw NoSuchElementException(\"No element of the array was transformed to a non-null value.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to elements of this array in iteration order,\n * or `null` if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any> Array<out T>.firstNotNullOfOrNull(transform: (T) -> R?): R? {\n   for (element in this) {\n   val result = transform(element)\n

if (result != null) {\n   return result\n   }\n   }\n   return null\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun <T> Array<out T>.firstOrNull(): T? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun ByteArray.firstOrNull(): Byte? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun ShortArray.firstOrNull(): Short? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun IntArray.firstOrNull(): Int? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun LongArray.firstOrNull(): Long? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element,

or `null` if the array is empty.\n */\npublic fun FloatArray.firstOrNull(): Float? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun DoubleArray.firstOrNull(): Double? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun BooleanArray.firstOrNull(): Boolean? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun CharArray.firstOrNull(): Char? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun <T> Array<out T>.firstOrNull(predicate: (T) -> Boolean): T? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or

`null` if element was not found.\n */\npublic inline fun ByteArray.firstOrNull(predicate: (Byte) -> Boolean): Byte? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun ShortArray.firstOrNull(predicate: (Short) -> Boolean): Short? {\n   for (element in this) if (predicate(element))

return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun IntArray.firstOrNull(predicate: (Int) -> Boolean): Int? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun LongArray.firstOrNull(predicate: (Long) -> Boolean): Long? {\n   for (element in this) if (predicate(element)) return
element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun FloatArray.firstOrNull(predicate: (Float) -> Boolean): Float? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun DoubleArray.firstOrNull(predicate: (Double) -> Boolean): Double? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun BooleanArray.firstOrNull(predicate: (Boolean) -> Boolean): Boolean? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline
fun CharArray.firstOrNull(predicate: (Char) -> Boolean): Char? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.getOrElse(index: Int, defaultValue: (Int) -> T): T {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.getOrElse(index: Int, defaultValue: (Int) -> Byte): Byte {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is
out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.getOrElse(index: Int, defaultValue: (Int) -> Short): Short {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.getOrElse(index: Int, defaultValue: (Int) -> Int): Int {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.getOrElse(index: Int, defaultValue: (Int) -> Long): Long {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the
given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.getOrElse(index: Int, defaultValue: (Int) -> Float): Float {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.getOrElse(index: Int, defaultValue: (Int) -> Double): Double {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.getOrElse(index: Int, defaultValue: (Int) -> Boolean): Boolean {\n   return if (index
>= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.getOrElse(index: Int, defaultValue: (Int) -> Char): Char {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample

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samples.collections.Collections.Elements.getOrNull\n */\npublic fun <T> Array<out T>.getOrNull(index: Int): T?
{\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the
given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.getOrNull\n */\npublic fun ByteArray.getOrNull(index: Int): Byte? {\n
return if (index >=
 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the
[index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n
*/\npublic fun ShortArray.getOrNull(index: Int): Short? {\n    return if (index >= 0 && index <= lastIndex)
get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of
this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun
IntArray.getOrNull(index: Int): Int? {\n    return if (index >= 0 && index <= lastIndex) get(index) else
null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n
* @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun LongArray.getOrNull(index: Int):
Long? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element
 at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.getOrNull\n */\npublic fun FloatArray.getOrNull(index: Int): Float? {\n
return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given
[index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.getOrNull\n */\npublic fun DoubleArray.getOrNull(index: Int): Double?
{\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the
given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.getOrNull\n */\npublic fun BooleanArray.getOrNull(index: Int): Boolean?
{\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the
given [index] or `null` if the [index] is out of bounds
 of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun
CharArray.getOrNull(index: Int): Char? {\n    return if (index >= 0 && index <= lastIndex) get(index) else
null\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun
<@kotlin.internal.OnlyInputTypes T> Array<out T>.indexOf(element: T): Int {\n    if (element == null) {\n        for
(index in indices) {\n            if (this[index] == null) {\n                return index\n            }\n        }\n    } else {\n
for (index in indices) {\n            if (element == this[index]) {\n                return index\n            }\n        }\n    }\n
return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun
ByteArray.indexOf(element: Byte): Int {\n    for (index in indices) {\n        if (element == this[index]) {\n
return index\n        }\n    }\n    return
 -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun
ShortArray.indexOf(element: Short): Int {\n    for (index in indices) {\n        if (element == this[index]) {\n
return index\n        }\n    }\n    return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not
contain element.\n */\npublic fun IntArray.indexOf(element: Int): Int {\n    for (index in indices) {\n        if (element
== this[index]) {\n            return index\n        }\n    }\n    return -1\n}\n\n/**\n * Returns first index of [element], or -
1 if the array does not contain element.\n */\npublic fun LongArray.indexOf(element: Long): Int {\n    for (index in
indices) {\n        if (element == this[index]) {\n            return index\n        }\n    }\n    return -1\n}\n\n/**\n * Returns
first index of [element], or -1 if the array does not contain element.\n */\n@Deprecated(\"The function has unclear
behavior when searching
 for NaN or zero values and will be removed soon. Use 'indexOfFirst { it == element }' instead to continue using this
behavior, or '.asList().indexOf(element: T)' to get the same search behavior as in a list.\",
ReplaceWith(\"indexOfFirst { it == element }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince =
\"1.6\", hiddenSince = \"1.7\")\npublic fun FloatArray.indexOf(element: Float): Int {\n    for (index in indices) {\n
  if (element == this[index]) {\n            return index\n        }\n    }\n    return -1\n}\n\n/**\n * Returns first index of
[element], or -1 if the array does not contain element.\n */\n@Deprecated(\"The function has unclear behavior when
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searching for NaN or zero values and will be removed soon. Use 'indexOfFirst { it == element }' instead to continue using this behavior, or '.asList().indexOf(element: T)' to get the same search behavior as in a list.\", ReplaceWith(\"indexOfFirst { it == element }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\", hiddenSince = \"1.7\")\npublic fun DoubleArray.indexOf(element: Double): Int {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun BooleanArray.indexOf(element: Boolean): Int {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun CharArray.indexOf(element: Char): Int {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun <T> Array<out T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun ByteArray.indexOfFirst(predicate: (Byte) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun ShortArray.indexOfFirst(predicate: (Short) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun IntArray.indexOfFirst(predicate: (Int) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun LongArray.indexOfFirst(predicate: (Long) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun FloatArray.indexOfFirst(predicate: (Float) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun DoubleArray.indexOfFirst(predicate: (Double) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun BooleanArray.indexOfFirst(predicate: (Boolean) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun CharArray.indexOfFirst(predicate: (Char) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun <T> Array<out T>.indexOfLast(predicate: (T) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun ByteArray.indexOfLast(predicate: (Byte) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun ShortArray.indexOfLast(predicate: (Short) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun IntArray.indexOfLast(predicate: (Int) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun LongArray.indexOfLast(predicate: (Long) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun FloatArray.indexOfLast(predicate: (Float) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun DoubleArray.indexOfLast(predicate: (Double) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun BooleanArray.indexOfLast(predicate: (Boolean) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun CharArray.indexOfLast(predicate: (Char) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> Array<out T>.last(): T {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun ByteArray.last(): Byte {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun ShortArray.last(): Short {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun IntArray.last(): Int {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun LongArray.last(): Long {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun FloatArray.last(): Float {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun DoubleArray.last(): Double {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun BooleanArray.last(): Boolean {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun CharArray.last(): Char {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element matching the given [predicate].\n

* \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Array<out T>.last(predicate: (T) -> Boolean): T {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun ByteArray.last(predicate: (Byte) -> Boolean): Byte {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the

given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun ShortArray.last(predicate: (Short) -> Boolean): Short {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun IntArray.last(predicate: (Int) -> Boolean): Int {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching

the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun LongArray.last(predicate: (Long) -> Boolean): Long {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun FloatArray.last(predicate: (Float) -> Boolean): Float {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last

element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun DoubleArray.last(predicate: (Double) -> Boolean): Double {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun BooleanArray.last(predicate: (Boolean) -> Boolean): Boolean {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n

* Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun CharArray.last(predicate: (Char) -> Boolean): Char {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun <@kotlin.internal.OnlyInputTypes T> Array<out T>.lastIndexOf(element: T): Int {\n   if (element == null) {\n   for (index in indices.reversed()) {\n   if (this[index] == null) {\n   return index\n   }\n   }\n   } else {\n   for (index in indices.reversed()) {\n   if (element ==

this[index]) {\n   return index\n
        }\n   }\n   }\n   return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun ByteArray.lastIndexOf(element: Byte): Int {\n   for (index in indices.reversed()) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun ShortArray.lastIndexOf(element: Short): Int {\n   for (index in indices.reversed()) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun IntArray.lastIndexOf(element: Int): Int {\n   for (index in indices.reversed()) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n
 */\npublic fun LongArray.lastIndexOf(element: Long): Int {\n   for (index in indices.reversed()) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\n@Deprecated(\"The function has unclear behavior when searching for NaN or zero values and will be removed soon. Use 'indexOfLast { it == element }' instead to continue using this behavior, or '.asList().lastIndexOf(element: T)' to get the same search behavior as in a list.\", ReplaceWith(\"indexOfLast { it == element }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\", hiddenSince = \"1.7\")\npublic fun FloatArray.lastIndexOf(element: Float): Int {\n   for (index in indices.reversed()) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain
 element.\n */\n@Deprecated(\"The function has unclear behavior when searching for NaN or zero values and will be removed soon. Use 'indexOfLast { it == element }' instead to continue using this behavior, or '.asList().lastIndexOf(element: T)' to get the same search behavior as in a list.\", ReplaceWith(\"indexOfLast { it == element }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\", hiddenSince = \"1.7\")\npublic fun DoubleArray.lastIndexOf(element: Double): Int {\n   for (index in indices.reversed()) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun BooleanArray.lastIndexOf(element: Boolean): Int {\n   for (index in indices.reversed()) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does
 not contain element.\n */\npublic fun CharArray.lastIndexOf(element: Char): Int {\n   for (index in indices.reversed()) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> Array<out T>.lastOrNull(): T? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun ByteArray.lastOrNull(): Byte? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun ShortArray.lastOrNull(): Short? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array
 is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun IntArray.lastOrNull(): Int? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun LongArray.lastOrNull(): Long? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun FloatArray.lastOrNull(): Float? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun DoubleArray.lastOrNull(): Double? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n
 */\npublic fun BooleanArray.lastOrNull(): Boolean? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample

samples.collections.Collections.Elements.last\n */\npublic fun CharArray.lastOrNull(): Char? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Array<out T>.lastOrNull(predicate: (T) -> Boolean): T? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun ByteArray.lastOrNull(predicate: (Byte) -> Boolean): Byte? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun ShortArray.lastOrNull(predicate: (Short) -> Boolean): Short? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun IntArray.lastOrNull(predicate: (Int) -> Boolean): Int? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun LongArray.lastOrNull(predicate: (Long) -> Boolean): Long? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun FloatArray.lastOrNull(predicate: (Float) -> Boolean): Float? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun DoubleArray.lastOrNull(predicate: (Double) -> Boolean): Double? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun BooleanArray.lastOrNull(predicate: (Boolean) -> Boolean): Boolean? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun CharArray.lastOrNull(predicate: (Char) -> Boolean): Char? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.random(): T {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.random(): Byte {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.random(): Short {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.random(): Int {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n

*/\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.random(): Long {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.random(): Float {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.random(): Double {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.random(): Boolean {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.random(): Char {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun <T> Array<out T>.random(random: Random): T {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun ByteArray.random(random: Random): Byte {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun ShortArray.random(random: Random): Short {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun IntArray.random(random: Random): Int {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun LongArray.random(random: Random): Long {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun FloatArray.random(random: Random): Float {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun DoubleArray.random(random: Random): Double {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun BooleanArray.random(random: Random): Boolean {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun CharArray.random(random: Random): Char {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.randomOrNull(): T? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n

*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic

inline fun ByteArray.randomOrNull(): Byte? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.randomOrNull(): Short? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.randomOrNull(): Int? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.randomOrNull(): Long? {\n   return randomOrNull(Random)\n}\n\n/**\n

* Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.randomOrNull(): Float? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.randomOrNull(): Double? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.randomOrNull(): Boolean? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic

inline fun CharArray.randomOrNull(): Char? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> Array<out T>.randomOrNull(random: Random): T? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun ByteArray.randomOrNull(random: Random): Byte? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic

fun ShortArray.randomOrNull(random: Random): Short? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun IntArray.randomOrNull(random: Random): Int? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun LongArray.randomOrNull(random: Random): Long? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array

is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun FloatArray.randomOrNull(random: Random): Float? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun DoubleArray.randomOrNull(random: Random): Double? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun BooleanArray.randomOrNull(random: Random): Boolean? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun CharArray.randomOrNull(random: Random): Char? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun <T> Array<out T>.single(): T {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun ByteArray.single(): Byte {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun ShortArray.single(): Short {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun IntArray.single(): Int {\n return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun LongArray.single(): Long {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun FloatArray.single(): Float {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun DoubleArray.single(): Double {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun BooleanArray.single(): Boolean {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun CharArray.single(): Char {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun <T> Array<out T>.single(predicate: (T) -> Boolean): T {\n var single: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as T\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun ByteArray.single(predicate: (Byte) -> Boolean): Byte {\n var single: Byte? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Byte\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun ShortArray.single(predicate: (Short) -> Boolean): Short {\n var single: Short? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Short\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun IntArray.single(predicate: (Int) -> Boolean): Int {\n var single: Int? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Int\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun LongArray.single(predicate: (Long) -> Boolean): Long {\n var single: Long? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Long\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun FloatArray.single(predicate: (Float) -> Boolean): Float {\n var single: Float? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Float\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun DoubleArray.single(predicate: (Double) -> Boolean): Double {\n var single: Double? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Double\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun BooleanArray.single(predicate: (Boolean) -> Boolean): Boolean {\n var single: Boolean? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Boolean\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun CharArray.single(predicate: (Char) -> Boolean): Char {\n   var single: Char? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return single as Char\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun <T> Array<out T>.singleOrNull(): T? {\n   return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun ByteArray.singleOrNull(): Byte? {\n   return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun ShortArray.singleOrNull(): Short? {\n   return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun IntArray.singleOrNull(): Int? {\n   return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun LongArray.singleOrNull(): Long? {\n   return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun FloatArray.singleOrNull(): Float? {\n   return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun DoubleArray.singleOrNull(): Double? {\n   return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun BooleanArray.singleOrNull(): Boolean? {\n   return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun CharArray.singleOrNull(): Char? {\n   return if (size == 1) this[0] else null\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun <T> Array<out T>.singleOrNull(predicate: (T) -> Boolean): T? {\n   var single: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun ByteArray.singleOrNull(predicate: (Byte) -> Boolean): Byte? {\n   var single: Byte? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun ShortArray.singleOrNull(predicate: (Short) -> Boolean): Short? {\n   var single: Short? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun IntArray.singleOrNull(predicate: (Int) -> Boolean): Int? {\n   var single: Int? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun LongArray.singleOrNull(predicate: (Long) -> Boolean): Long? {\n   var single: Long? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun FloatArray.singleOrNull(predicate: (Float) -> Boolean): Float? {\n   var single: Float? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun DoubleArray.singleOrNull(predicate: (Double) -> Boolean): Double? {\n var single: Double? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) return null\n single = element\n

found = true\n }\n }\n if (!found) return null\n return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun BooleanArray.singleOrNull(predicate: (Boolean) -> Boolean): Boolean? {\n var single: Boolean? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) return null\n single = element\n found = true\n }\n }\n if (!found) return null\n return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun CharArray.singleOrNull(predicate: (Char) -> Boolean): Char? {\n var single: Char? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) return null\n

single = element\n found = true\n }\n }\n if (!found) return null\n return single\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun <T> Array<out T>.drop(n: Int): List<T> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun ByteArray.drop(n: Int): List<Byte> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException

if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun ShortArray.drop(n: Int): List<Short> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun IntArray.drop(n: Int): List<Int> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun LongArray.drop(n: Int): List<Long> {\n require(n >= 0) { \"Requested element count $n is less

than zero.\" }\n return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun FloatArray.drop(n: Int): List<Float> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun DoubleArray.drop(n: Int): List<Double> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n

* \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun BooleanArray.drop(n: Int): List<Boolean> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun CharArray.drop(n: Int): List<Char> {\n

require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun <T> Array<out T>.dropLast(n: Int): List<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun ByteArray.dropLast(n: Int): List<Byte> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun ShortArray.dropLast(n: Int): List<Short> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun IntArray.dropLast(n: Int): List<Int> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun LongArray.dropLast(n: Int): List<Long> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun FloatArray.dropLast(n: Int): List<Float> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun DoubleArray.dropLast(n: Int): List<Double> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun BooleanArray.dropLast(n: Int): List<Boolean> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun CharArray.dropLast(n: Int): List<Char> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun <T> Array<out T>.dropLastWhile(predicate: (T) -> Boolean): List<T> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun ByteArray.dropLastWhile(predicate: (Byte) -> Boolean): List<Byte> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n return take(index + 1)\n }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun ShortArray.dropLastWhile(predicate: (Short) -> Boolean): List<Short> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun IntArray.dropLastWhile(predicate: (Int) -> Boolean): List<Int> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun LongArray.dropLastWhile(predicate: (Long) -> Boolean): List<Long> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun FloatArray.dropLastWhile(predicate: (Float) -> Boolean): List<Float> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun DoubleArray.dropLastWhile(predicate: (Double) -> Boolean): List<Double> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun BooleanArray.dropLastWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun CharArray.dropLastWhile(predicate: (Char) -> Boolean): List<Char> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun <T> Array<out T>.dropWhile(predicate: (T) -> Boolean): List<T> {\n var yielding = false\n val list = ArrayList<T>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun ByteArray.dropWhile(predicate: (Byte) -> Boolean): List<Byte> {\n var yielding = false\n val list = ArrayList<Byte>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun ShortArray.dropWhile(predicate: (Short) -> Boolean): List<Short> {\n var yielding = false\n val list = ArrayList<Short>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun IntArray.dropWhile(predicate: (Int) -> Boolean): List<Int> {\n var yielding = false\n val list = ArrayList<Int>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun LongArray.dropWhile(predicate: (Long) -> Boolean): List<Long> {\n var yielding = false\n val list =

ArrayList<Long>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun FloatArray.dropWhile(predicate: (Float) -> Boolean): List<Float> {\n   var yielding = false\n
    val list = ArrayList<Float>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun DoubleArray.dropWhile(predicate: (Double) -> Boolean): List<Double> {\n   var yielding = false\n   val list = ArrayList<Double>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun BooleanArray.dropWhile(predicate:
(Boolean) -> Boolean): List<Boolean> {\n   var yielding = false\n   val list = ArrayList<Boolean>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun CharArray.dropWhile(predicate: (Char) -> Boolean): List<Char> {\n   var yielding = false\n   val list = ArrayList<Char>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline
fun <T> Array<out T>.filter(predicate: (T) -> Boolean): List<T> {\n   return filterTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun ByteArray.filter(predicate: (Byte) -> Boolean): List<Byte> {\n   return filterTo(ArrayList<Byte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun ShortArray.filter(predicate: (Short) -> Boolean): List<Short> {\n   return filterTo(ArrayList<Short>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun IntArray.filter(predicate: (Int) -> Boolean): List<Int> {\n   return filterTo(ArrayList<Int>(), predicate)\n}\n\n/**\n * Returns
a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun LongArray.filter(predicate: (Long) -> Boolean): List<Long> {\n   return filterTo(ArrayList<Long>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun FloatArray.filter(predicate: (Float) -> Boolean): List<Float> {\n   return filterTo(ArrayList<Float>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun DoubleArray.filter(predicate: (Double) -> Boolean): List<Double> {\n   return filterTo(ArrayList<Double>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n
*/\npublic inline fun BooleanArray.filter(predicate: (Boolean) -> Boolean): List<Boolean> {\n   return filterTo(ArrayList<Boolean>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun CharArray.filter(predicate: (Char) -> Boolean): List<Char> {\n   return filterTo(ArrayList<Char>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate

evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun <T> Array<out T>.filterIndexed(predicate: (index: Int, T) -> Boolean): List<T> {\n   return filterIndexedTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun ByteArray.filterIndexed(predicate: (index: Int, Byte) -> Boolean): List<Byte> {\n   return filterIndexedTo(ArrayList<Byte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun ShortArray.filterIndexed(predicate: (index: Int, Short) -> Boolean): List<Short> {\n   return filterIndexedTo(ArrayList<Short>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun IntArray.filterIndexed(predicate: (index: Int, Int) -> Boolean): List<Int> {\n   return filterIndexedTo(ArrayList<Int>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun LongArray.filterIndexed(predicate: (index: Int, Long) -> Boolean): List<Long> {\n   return filterIndexedTo(ArrayList<Long>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun FloatArray.filterIndexed(predicate: (index: Int, Float) -> Boolean): List<Float> {\n   return filterIndexedTo(ArrayList<Float>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun DoubleArray.filterIndexed(predicate: (index: Int, Double) -> Boolean): List<Double> {\n   return filterIndexedTo(ArrayList<Double>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun BooleanArray.filterIndexed(predicate: (index: Int, Boolean) -> Boolean): List<Boolean> {\n   return filterIndexedTo(ArrayList<Boolean>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun CharArray.filterIndexed(predicate: (index: Int, Char) -> Boolean): List<Char> {\n   return filterIndexedTo(ArrayList<Char>(), predicate)\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Array<out T>.filterIndexedTo(destination: C, predicate: (index: Int, T) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Byte>> ByteArray.filterIndexedTo(destination: C, predicate: (index: Int, Byte) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Short>> ShortArray.filterIndexedTo(destination: C, predicate: (index: Int, Short) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Int>> IntArray.filterIndexedTo(destination: C, predicate: (index: Int, Int) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Long>> LongArray.filterIndexedTo(destination: C, predicate: (index: Int, Long) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Float>> FloatArray.filterIndexedTo(destination: C, predicate: (index: Int, Float) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Double>> DoubleArray.filterIndexedTo(destination: C, predicate: (index: Int, Double) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Boolean>> BooleanArray.filterIndexedTo(destination: C, predicate: (index: Int, Boolean) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Char>> CharArray.filterIndexedTo(destination: C, predicate: (index: Int, Char) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Returns a list containing all elements that are instances of specified type parameter R.\n * \n * @sample samples.collections.Collections.Filtering.filterIsInstance\n */\npublic inline fun <reified R>

Array<*>.filterIsInstance(): List<@kotlin.internal.NoInfer R> {\n   return filterIsInstanceTo(ArrayList<R>())\n}\n\n/**\n * Appends all elements that are instances of specified type parameter R to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterIsInstanceTo\n */\npublic inline fun <reified R, C : MutableCollection<in R>> Array<*>.filterIsInstanceTo(destination: C): C {\n   for (element in this) if (element is R) destination.add(element)\n   return destination\n}\n\n/**\n * Returns
 a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun <T> Array<out T>.filterNot(predicate: (T) -> Boolean): List<T> {\n   return filterNotTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun ByteArray.filterNot(predicate: (Byte) -> Boolean): List<Byte> {\n   return filterNotTo(ArrayList<Byte>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun ShortArray.filterNot(predicate: (Short) -> Boolean): List<Short> {\n   return filterNotTo(ArrayList<Short>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n
 */\npublic inline fun IntArray.filterNot(predicate: (Int) -> Boolean): List<Int> {\n   return filterNotTo(ArrayList<Int>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun LongArray.filterNot(predicate: (Long) -> Boolean): List<Long> {\n   return filterNotTo(ArrayList<Long>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun FloatArray.filterNot(predicate: (Float) -> Boolean): List<Float> {\n   return filterNotTo(ArrayList<Float>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun DoubleArray.filterNot(predicate: (Double) -> Boolean):
 List<Double> {\n   return filterNotTo(ArrayList<Double>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun BooleanArray.filterNot(predicate: (Boolean) -> Boolean): List<Boolean> {\n   return filterNotTo(ArrayList<Boolean>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun CharArray.filterNot(predicate: (Char) -> Boolean): List<Char> {\n   return filterNotTo(ArrayList<Char>(), predicate)\n}\n\n/**\n * Returns a list containing all elements that are not `null`.\n * \n * @sample samples.collections.Collections.Filtering.filterNotNull\n */\npublic fun <T : Any> Array<out T?>.filterNotNull(): List<T> {\n   return filterNotNullTo(ArrayList<T>())\n}\n\n/**\n * Appends all elements that are not `null` to the
 given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterNotNullTo\n */\npublic fun <C : MutableCollection<in T>, T : Any> Array<out T?>.filterNotNullTo(destination: C): C {\n   for (element in this) if (element != null) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Array<out T>.filterNotTo(destination: C, predicate: (T) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Byte>> ByteArray.filterNotTo(destination: C, predicate: (Byte) -> Boolean): C {\n   for
 (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Short>> ShortArray.filterNotTo(destination: C, predicate: (Short) -> Boolean): C {\n   for (element in this) if

(!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not
matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Int>>
IntArray.filterNotTo(destination: C, predicate: (Int) -> Boolean): C {\n   for (element in this) if
(!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not
matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Long>>
LongArray.filterNotTo(destination: C, predicate: (Long) -> Boolean): C {\n   for (element in this) if
(!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not
matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Float>>
FloatArray.filterNotTo(destination: C, predicate: (Float) -> Boolean): C {\n   for (element in this) if
(!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not
matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Double>>
DoubleArray.filterNotTo(destination: C, predicate: (Double) -> Boolean): C {\n   for (element
in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements
not matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Boolean>>
BooleanArray.filterNotTo(destination: C, predicate: (Boolean) -> Boolean): C {\n   for (element in this) if
(!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not
matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Char>>
CharArray.filterNotTo(destination: C, predicate: (Char) -> Boolean): C {\n   for (element in this) if
(!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching
the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <T, C : MutableCollection<in T>>
Array<out T>.filterTo(destination: C, predicate: (T) -> Boolean): C {\n   for (element in this) if
(predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching
the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n
*/\npublic inline fun <C : MutableCollection<in Byte>> ByteArray.filterTo(destination: C, predicate: (Byte) ->
Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return
destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n *
@sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in
Short>> ShortArray.filterTo(destination: C, predicate: (Short) -> Boolean): C {\n   for (element in this) if
(predicate(element))
destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate]
to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun
<C : MutableCollection<in Int>> IntArray.filterTo(destination: C, predicate: (Int) -> Boolean): C {\n   for (element
in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements
matching the given [predicate] to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Long>>
LongArray.filterTo(destination: C, predicate: (Long) -> Boolean): C {\n   for (element in this) if
(predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching
the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n
*/\npublic inline fun <C : MutableCollection<in Float>> FloatArray.filterTo(destination: C, predicate: (Float) ->
Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return
destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n *

@sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Double>> DoubleArray.filterTo(destination: C, predicate: (Double) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Boolean>> BooleanArray.filterTo(destination: C, predicate: (Boolean) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Char>> CharArray.filterTo(destination: C, predicate: (Char) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun <T> Array<out T>.slice(indices: IntRange): List<T> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun ByteArray.slice(indices: IntRange): List<Byte> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list

containing elements at indices in the specified [indices] range.\n */\npublic fun ShortArray.slice(indices: IntRange): List<Short> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun IntArray.slice(indices: IntRange): List<Int> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun LongArray.slice(indices: IntRange): List<Long> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun FloatArray.slice(indices: IntRange): List<Float> {\n   if (indices.isEmpty()) return

listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun DoubleArray.slice(indices: IntRange): List<Double> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun BooleanArray.slice(indices: IntRange): List<Boolean> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun CharArray.slice(indices: IntRange): List<Char> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n

*/\npublic fun <T> Array<out T>.slice(indices: Iterable<Int>): List<T> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<T>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun ByteArray.slice(indices: Iterable<Int>): List<Byte> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Byte>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun ShortArray.slice(indices: Iterable<Int>): List<Short> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Short>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n

* Returns a list containing elements at specified [indices].\n */\npublic fun IntArray.slice(indices: Iterable<Int>): List<Int> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Int>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun LongArray.slice(indices: Iterable<Int>): List<Long> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Long>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n *

Returns a list containing elements at specified [indices].\n */\npublic fun FloatArray.slice(indices: Iterable<Int>): List<Float> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Float>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun DoubleArray.slice(indices: Iterable<Int>): List<Double> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Double>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun BooleanArray.slice(indices: Iterable<Int>): List<Boolean> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Boolean>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun CharArray.slice(indices: Iterable<Int>): List<Char> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Char>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun <T> Array<T>.sliceArray(indices: Collection<Int>): Array<T> {\n   val result = arrayOfNulls(this, indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun ByteArray.sliceArray(indices: Collection<Int>): ByteArray {\n   val result = ByteArray(indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun ShortArray.sliceArray(indices: Collection<Int>): ShortArray {\n   val result = ShortArray(indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun IntArray.sliceArray(indices: Collection<Int>): IntArray {\n   val result = IntArray(indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun LongArray.sliceArray(indices: Collection<Int>): LongArray {\n   val result = LongArray(indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun FloatArray.sliceArray(indices: Collection<Int>): FloatArray {\n   val result = FloatArray(indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun DoubleArray.sliceArray(indices: Collection<Int>): DoubleArray {\n   val result = DoubleArray(indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun BooleanArray.sliceArray(indices: Collection<Int>): BooleanArray {\n   val result = BooleanArray(indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun CharArray.sliceArray(indices: Collection<Int>): CharArray {\n   val result = CharArray(indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun <T> Array<T>.sliceArray(indices: IntRange): Array<T> {\n   if (indices.isEmpty()) return copyOfRange(0, 0)\n   return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun ByteArray.sliceArray(indices: IntRange): ByteArray {\n   if (indices.isEmpty()) return ByteArray(0)\n   return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun ShortArray.sliceArray(indices:

IntRange): ShortArray {\n   if (indices.isEmpty()) return ShortArray(0)\n   return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun IntArray.sliceArray(indices: IntRange): IntArray {\n   if (indices.isEmpty()) return IntArray(0)\n   return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun LongArray.sliceArray(indices: IntRange): LongArray {\n   if (indices.isEmpty()) return LongArray(0)\n   return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun FloatArray.sliceArray(indices: IntRange): FloatArray {\n   if (indices.isEmpty()) return FloatArray(0)\n   return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun DoubleArray.sliceArray(indices: IntRange): DoubleArray {\n   if (indices.isEmpty()) return DoubleArray(0)\n   return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun BooleanArray.sliceArray(indices: IntRange): BooleanArray {\n   if (indices.isEmpty()) return BooleanArray(0)\n   return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun CharArray.sliceArray(indices: IntRange): CharArray {\n   if (indices.isEmpty()) return CharArray(0)\n   return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun <T> Array<out T>.take(n: Int): List<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<T>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun ByteArray.take(n: Int): List<Byte> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Byte>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun ShortArray.take(n: Int): List<Short> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Short>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun IntArray.take(n: Int): List<Int> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Int>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun LongArray.take(n: Int): List<Long> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Long>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun FloatArray.take(n: Int): List<Float> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Float>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun DoubleArray.take(n: Int): List<Double> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Double>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun BooleanArray.take(n: Int): List<Boolean> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Boolean>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun CharArray.take(n: Int): List<Char> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Char>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun <T> Array<out T>.takeLast(n: Int): List<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   val size = size\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[size - 1])\n   val list = ArrayList<T>(n)\n   for (index in size - n until size)\n   list.add(this[index])\n   return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun ByteArray.takeLast(n: Int): List<Byte> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   val size = size\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[size - 1])\n   val list = ArrayList<Byte>(n)\n   for (index in size - n until size)\n   list.add(this[index])\n   return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun ShortArray.takeLast(n: Int): List<Short> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   val size = size\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[size - 1])\n   val list = ArrayList<Short>(n)\n   for (index in size - n until size)\n   list.add(this[index])\n   return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun IntArray.takeLast(n: Int): List<Int> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   val size = size\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[size - 1])\n   val list = ArrayList<Int>(n)\n   for (index in size - n until size)\n   list.add(this[index])\n   return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun LongArray.takeLast(n: Int): List<Long> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   val size = size\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[size - 1])\n   val list = ArrayList<Long>(n)\n   for (index in size - n until size)\n   list.add(this[index])\n   return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun FloatArray.takeLast(n: Int): List<Float> {\n

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require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val size =
size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list = ArrayList<Float>(n)\n
for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last
[n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
 */\npublic fun DoubleArray.takeLast(n: Int): List<Double> {\n    require(n >= 0) { \"Requested element count $n is
less than zero.\" }\n    if (n == 0) return emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n ==
1) return listOf(this[size - 1])\n    val list = ArrayList<Double>(n)\n    for (index in size - n until size)\n
list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic fun BooleanArray.takeLast(n: Int):
List<Boolean> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return
emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list
= ArrayList<Boolean>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n
    return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if
[n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun
CharArray.takeLast(n: Int): List<Char> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n
 if (n == 0) return emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return
listOf(this[size - 1])\n    val list = ArrayList<Char>(n)\n    for (index in size - n until size)\n
list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last elements satisfying the given
[predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun <T>
Array<out T>.takeLastWhile(predicate: (T) -> Boolean): List<T> {\n    for (index in lastIndex downTo 0) {\n        if
(!predicate(this[index])) {\n            return drop(index + 1)\n
   }\n    }\n    return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n *
\n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun
ByteArray.takeLastWhile(predicate: (Byte) -> Boolean): List<Byte> {\n    for (index in lastIndex downTo 0) {\n
if (!predicate(this[index])) {\n            return drop(index + 1)\n        }\n    }\n    return toList()\n}\n\n/**\n * Returns a
list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic inline fun ShortArray.takeLastWhile(predicate:
(Short) -> Boolean): List<Short> {\n    for (index in lastIndex downTo 0) {\n        if (!predicate(this[index])) {\n
   return drop(index + 1)\n        }\n    }\n    return toList()\n}\n\n/**\n * Returns a list containing last elements
satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n
 */\npublic inline fun IntArray.takeLastWhile(predicate: (Int) -> Boolean): List<Int> {\n    for (index in lastIndex
downTo 0) {\n        if (!predicate(this[index])) {\n            return drop(index + 1)\n        }\n    }\n    return
toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic inline fun LongArray.takeLastWhile(predicate:
(Long) -> Boolean): List<Long> {\n    for (index in lastIndex downTo 0) {\n        if (!predicate(this[index])) {\n
  return drop(index + 1)\n        }\n    }\n    return toList()\n}\n\n/**\n * Returns a list containing last elements
satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic
inline fun FloatArray.takeLastWhile(predicate: (Float) -> Boolean): List<Float> {\n    for (index in lastIndex
downTo 0) {\n        if (!predicate(this[index])) {\n
   return drop(index + 1)\n        }\n    }\n    return toList()\n}\n\n/**\n * Returns a list containing last elements
satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic
inline fun DoubleArray.takeLastWhile(predicate: (Double) -> Boolean): List<Double> {\n    for (index in lastIndex
downTo 0) {\n        if (!predicate(this[index])) {\n            return drop(index + 1)\n        }\n    }\n    return
toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic inline fun
BooleanArray.takeLastWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n    for (index in lastIndex
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downTo 0) {\n        if (!predicate(this[index])) {\n            return drop(index + 1)\n        }\n    }\n    return
toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
 */\npublic inline fun CharArray.takeLastWhile(predicate: (Char) -> Boolean): List<Char> {\n    for (index in
lastIndex downTo 0) {\n        if (!predicate(this[index])) {\n            return drop(index + 1)\n        }\n    }\n    return
toList()\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic inline fun <T> Array<out
T>.takeWhile(predicate: (T) -> Boolean): List<T> {\n    val list = ArrayList<T>()\n    for (item in this) {\n        if
(!predicate(item))\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns a list containing first
elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n
*/\npublic inline fun ByteArray.takeWhile(predicate: (Byte) -> Boolean): List<Byte> {\n    val list =
ArrayList<Byte>()\n    for (item in this)
 {\n        if (!predicate(item))\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns a list
containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic inline fun ShortArray.takeWhile(predicate:
(Short) -> Boolean): List<Short> {\n    val list = ArrayList<Short>()\n    for (item in this) {\n        if
(!predicate(item))\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns a list containing first
elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n
*/\npublic inline fun IntArray.takeWhile(predicate: (Int) -> Boolean): List<Int> {\n    val list = ArrayList<Int>()\n
for (item in this) {\n        if (!predicate(item))\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n *
Returns a list containing first elements satisfying the given [predicate].\n
 * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun
LongArray.takeWhile(predicate: (Long) -> Boolean): List<Long> {\n    val list = ArrayList<Long>()\n    for (item
in this) {\n        if (!predicate(item))\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns a
list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic inline fun FloatArray.takeWhile(predicate:
(Float) -> Boolean): List<Float> {\n    val list = ArrayList<Float>()\n    for (item in this) {\n        if
(!predicate(item))\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns a list containing first
elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n
*/\npublic inline fun DoubleArray.takeWhile(predicate: (Double) -> Boolean): List<Double> {\n    val list =
ArrayList<Double>()\n
    for (item in this) {\n        if (!predicate(item))\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n *
Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic inline fun BooleanArray.takeWhile(predicate:
(Boolean) -> Boolean): List<Boolean> {\n    val list = ArrayList<Boolean>()\n    for (item in this) {\n        if
(!predicate(item))\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns a list containing first
elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n
*/\npublic inline fun CharArray.takeWhile(predicate: (Char) -> Boolean): List<Char> {\n    val list =
ArrayList<Char>()\n    for (item in this) {\n        if (!predicate(item))\n            break\n        list.add(item)\n    }\n
return list\n}\n\n/**\n * Reverses elements in the
 array in-place.\n */\npublic fun <T> Array<T>.reverse(): Unit {\n    val midPoint = (size / 2) - 1\n    if (midPoint <
0) return\n    var reverseIndex = lastIndex\n    for (index in 0..midPoint) {\n        val tmp = this[index]\n
this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n        reverseIndex--\n    }\n}\n\n/**\n * Reverses
elements in the array in-place.\n */\npublic fun ByteArray.reverse(): Unit {\n    val midPoint = (size / 2) - 1\n    if
(midPoint < 0) return\n    var reverseIndex = lastIndex\n    for (index in 0..midPoint) {\n        val tmp = this[index]\n
     this[index] = this[reverseIndex]\n        this[reverseIndex] = tmp\n        reverseIndex--\n    }\n}\n\n/**\n *
Reverses elements in the array in-place.\n */\npublic fun ShortArray.reverse(): Unit {\n    val midPoint = (size / 2) -
1\n    if (midPoint < 0) return\n    var reverseIndex = lastIndex\n    for (index in 0..midPoint) {\n        val tmp =
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this[index]\n this[index] = this[reverseIndex]\n
 this[reverseIndex] = tmp\n reverseIndex--\n }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun IntArray.reverse(): Unit {\n val midPoint = (size / 2) - 1\n if (midPoint < 0) return\n var reverseIndex = lastIndex\n for (index in 0..midPoint) {\n val tmp = this[index]\n this[index] = this[reverseIndex]\n this[reverseIndex] = tmp\n reverseIndex--\n }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun LongArray.reverse(): Unit {\n val midPoint = (size / 2) - 1\n if (midPoint < 0) return\n var reverseIndex = lastIndex\n for (index in 0..midPoint) {\n val tmp = this[index]\n this[index] = this[reverseIndex]\n this[reverseIndex] = tmp\n reverseIndex--\n }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun FloatArray.reverse(): Unit {\n val midPoint = (size / 2) - 1\n if (midPoint < 0) return\n var reverseIndex
 = lastIndex\n for (index in 0..midPoint) {\n val tmp = this[index]\n this[index] = this[reverseIndex]\n this[reverseIndex] = tmp\n reverseIndex--\n }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun DoubleArray.reverse(): Unit {\n val midPoint = (size / 2) - 1\n if (midPoint < 0) return\n var reverseIndex = lastIndex\n for (index in 0..midPoint) {\n val tmp = this[index]\n this[index] = this[reverseIndex]\n this[reverseIndex] = tmp\n reverseIndex--\n }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun BooleanArray.reverse(): Unit {\n val midPoint = (size / 2) - 1\n if (midPoint < 0) return\n var reverseIndex = lastIndex\n for (index in 0..midPoint) {\n val tmp = this[index]\n this[index] = this[reverseIndex]\n this[reverseIndex] = tmp\n reverseIndex--\n }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic
 fun CharArray.reverse(): Unit {\n val midPoint = (size / 2) - 1\n if (midPoint < 0) return\n var reverseIndex = lastIndex\n for (index in 0..midPoint) {\n val tmp = this[index]\n this[index] = this[reverseIndex]\n this[reverseIndex] = tmp\n reverseIndex--\n }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Array<T>.reverse(fromIndex: Int, toIndex: Int): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n val midPoint = (fromIndex + toIndex) / 2\n if (fromIndex == midPoint) return\n var reverseIndex
 = toIndex - 1\n for (index in fromIndex until midPoint) {\n val tmp = this[index]\n this[index] = this[reverseIndex]\n this[reverseIndex] = tmp\n reverseIndex--\n }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n val midPoint = (fromIndex + toIndex) / 2\n if (fromIndex == midPoint) return\n var reverseIndex = toIndex - 1\n for (index in fromIndex until midPoint) {\n val tmp = this[index]\n this[index]
 = this[reverseIndex]\n this[reverseIndex] = tmp\n reverseIndex--\n }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n val midPoint = (fromIndex + toIndex) / 2\n if (fromIndex == midPoint) return\n var reverseIndex = toIndex - 1\n for (index in fromIndex until midPoint) {\n val tmp = this[index]\n this[index] = this[reverseIndex]\n this[reverseIndex] = tmp\n reverseIndex--\n }\n}\n\n/**\n * Reverses
 elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws

IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun BooleanArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Returns a list with elements in reversed order.\n

*/\npublic fun <T> Array<out T>.reversed(): List<T> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun ByteArray.reversed(): List<Byte> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun ShortArray.reversed(): List<Short> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a

list with elements in reversed order.\n */\npublic fun IntArray.reversed(): List<Int> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun LongArray.reversed(): List<Long> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun FloatArray.reversed(): List<Float> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun DoubleArray.reversed(): List<Double> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun BooleanArray.reversed(): List<Boolean> {\n   if (isEmpty())

return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun CharArray.reversed(): List<Char> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun <T> Array<T>.reversedArray(): Array<T> {\n   if (isEmpty()) return this\n   val result = arrayOfNulls(this, size)\n   val lastIndex = lastIndex\n   for (i in 0..lastIndex)\n   result[lastIndex - i] = this[i]\n   return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun ByteArray.reversedArray(): ByteArray {\n   if (isEmpty()) return this\n   val result = ByteArray(size)\n   val lastIndex = lastIndex\n   for (i in 0..lastIndex)\n   result[lastIndex - i] = this[i]\n   return result\n}\n\n/**\n * Returns an array

with elements of this array in reversed order.\n */\npublic fun ShortArray.reversedArray(): ShortArray {\n   if (isEmpty()) return this\n   val result = ShortArray(size)\n   val lastIndex = lastIndex\n   for (i in 0..lastIndex)\n   result[lastIndex - i] = this[i]\n   return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun IntArray.reversedArray(): IntArray {\n   if (isEmpty()) return this\n   val result = IntArray(size)\n   val lastIndex = lastIndex\n   for (i in 0..lastIndex)\n   result[lastIndex - i] = this[i]\n   return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun LongArray.reversedArray(): LongArray {\n   if (isEmpty()) return this\n   val result = LongArray(size)\n   val lastIndex = lastIndex\n   for (i in 0..lastIndex)\n   result[lastIndex - i] = this[i]\n   return result\n}\n\n/**\n * Returns an array with elements of this array in reversed

order.\n */\npublic fun FloatArray.reversedArray(): FloatArray {\n   if (isEmpty()) return this\n   val result = FloatArray(size)\n   val lastIndex = lastIndex\n   for (i in 0..lastIndex)\n   result[lastIndex - i] = this[i]\n   return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun DoubleArray.reversedArray(): DoubleArray {\n   if (isEmpty()) return this\n   val result = DoubleArray(size)\n   val lastIndex = lastIndex\n   for (i in 0..lastIndex)\n   result[lastIndex - i] = this[i]\n   return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun BooleanArray.reversedArray(): BooleanArray {\n   if (isEmpty()) return this\n   val result = BooleanArray(size)\n   val lastIndex = lastIndex\n   for (i in 0..lastIndex)\n   result[lastIndex - i] = this[i]\n   return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun

CharArray.reversedArray(): CharArray {\n   if (isEmpty()) return this\n   val result = CharArray(size)\n   val lastIndex = lastIndex\n   for (i in 0..lastIndex)\n   result[lastIndex - i] = this[i]\n   return result\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Array<T>.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.shuffle(): Unit {\n

shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun IntArray.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly
shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.shuffle(): Unit {\n
shuffle(Random)\n}\n\n/**\n
 * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.shuffle():
Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly
shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun BooleanArray.shuffle(): Unit {\n
shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun CharArray.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly
shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n *
See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n
*/\n@SinceKotlin(\"1.4\")\npublic fun <T> Array<T>.shuffle(random: Random): Unit {\n   for (i in lastIndex
downTo 1) {\n   val j = random.nextInt(i
 + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles
elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n
*/\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo
1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n
}\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the
source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n
*/\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo
1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n
        this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified
[random] instance as the source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n
*/\n@SinceKotlin(\"1.4\")\npublic fun IntArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1)
{\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n
}\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the
source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n
*/\n@SinceKotlin(\"1.4\")\npublic fun LongArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo
1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n
}\n}\n\n/**\n * Randomly shuffles
 elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n
*/\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo
1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n
}\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the
source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n
*/\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.shuffle(random: Random): Unit {\n   for (i in lastIndex
downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n
  }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random]
 instance as the source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n
*/\n@SinceKotlin(\"1.4\")\npublic fun BooleanArray.shuffle(random: Random): Unit {\n   for (i in lastIndex

downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Sorts elements in the array in-place according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>> Array<out T>.sortBy(crossinline selector: (T) -> R?): Unit {\n   if (size > 1) sortWith(compareBy(selector))\n}\n\n/**\n * Sorts elements in the array in-place descending according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>> Array<out T>.sortByDescending(crossinline selector: (T) -> R?): Unit {\n   if (size > 1) sortWith(compareByDescending(selector))\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Array<out T>.sortDescending(): Unit {\n   sortWith(reverseOrder())\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun ByteArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun ShortArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun IntArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun LongArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun FloatArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun DoubleArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun CharArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Array<out T>.sorted(): List<T> {\n   return sortedArray().asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun ByteArray.sorted(): List<Byte> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun ShortArray.sorted(): List<Short> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun IntArray.sorted(): List<Int> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun LongArray.sorted(): List<Long> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun FloatArray.sorted(): List<Float> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun DoubleArray.sorted(): List<Double> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun CharArray.sorted(): List<Char> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T :

Comparable<T>> Array<T>.sortedArray(): Array<T> {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun ByteArray.sortedArray(): ByteArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun ShortArray.sortedArray(): ShortArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun IntArray.sortedArray(): IntArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun LongArray.sortedArray(): LongArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun FloatArray.sortedArray(): FloatArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun DoubleArray.sortedArray(): DoubleArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun CharArray.sortedArray(): CharArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Array<T>.sortedArrayDescending(): Array<T> {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortWith(reverseOrder()) }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun ByteArray.sortedArrayDescending(): ByteArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun ShortArray.sortedArrayDescending(): ShortArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun IntArray.sortedArrayDescending(): IntArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun LongArray.sortedArrayDescending(): LongArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun FloatArray.sortedArrayDescending(): FloatArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun DoubleArray.sortedArrayDescending(): DoubleArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun CharArray.sortedArrayDescending(): CharArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according the specified [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T> Array<out T>.sortedArrayWith(comparator: Comparator<in T>): Array<out T> {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortWith(comparator) }\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <T, R : Comparable<R>> Array<out T>.sortedBy(crossinline selector: (T) -> R?): List<T> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>>

ByteArray.sortedBy(crossinline selector: (Byte) -> R?): List<Byte> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> ShortArray.sortedBy(crossinline selector: (Short) -> R?): List<Short> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> IntArray.sortedBy(crossinline selector: (Int) -> R?): List<Int> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> LongArray.sortedBy(crossinline selector: (Long) -> R?): List<Long> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> FloatArray.sortedBy(crossinline selector: (Float) -> R?): List<Float> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> DoubleArray.sortedBy(crossinline selector: (Double) -> R?): List<Double> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> BooleanArray.sortedBy(crossinline selector: (Boolean) -> R?): List<Boolean> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> CharArray.sortedBy(crossinline selector: (Char) -> R?): List<Char> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>> Array<out T>.sortedByDescending(crossinline selector: (T) -> R?): List<T> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> ByteArray.sortedByDescending(crossinline selector: (Byte) -> R?): List<Byte> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> ShortArray.sortedByDescending(crossinline selector: (Short) -> R?): List<Short> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> IntArray.sortedByDescending(crossinline selector: (Int) -> R?): List<Int> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> LongArray.sortedByDescending(crossinline selector: (Long) -> R?): List<Long> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> FloatArray.sortedByDescending(crossinline selector: (Float) -> R?): List<Float> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> DoubleArray.sortedByDescending(crossinline selector: (Double) -> R?): List<Double> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> BooleanArray.sortedByDescending(crossinline selector: (Boolean) -> R?): List<Boolean> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> CharArray.sortedByDescending(crossinline selector: (Char) -> R?): List<Char> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Array<out T>.sortedDescending(): List<T> {\n   return sortedWith(reverseOrder())\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun ByteArray.sortedDescending(): List<Byte> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun ShortArray.sortedDescending(): List<Short> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun IntArray.sortedDescending(): List<Int> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun LongArray.sortedDescending(): List<Long> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun FloatArray.sortedDescending(): List<Float> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun DoubleArray.sortedDescending(): List<Double> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun CharArray.sortedDescending(): List<Char> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T> Array<out T>.sortedWith(comparator: Comparator<in T>): List<T> {\n   return sortedArrayWith(comparator).asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun ByteArray.sortedWith(comparator: Comparator<in Byte>): List<Byte> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun ShortArray.sortedWith(comparator: Comparator<in Short>): List<Short> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun IntArray.sortedWith(comparator: Comparator<in Int>): List<Int> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun LongArray.sortedWith(comparator: Comparator<in Long>): List<Long> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun FloatArray.sortedWith(comparator: Comparator<in Float>): List<Float> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun DoubleArray.sortedWith(comparator: Comparator<in Double>): List<Double> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun BooleanArray.sortedWith(comparator: Comparator<in Boolean>): List<Boolean> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun CharArray.sortedWith(comparator: Comparator<in Char>):

List<Char> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun <T> Array<out T>.asList(): List<T>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun ByteArray.asList(): List<Byte>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun ShortArray.asList(): List<Short>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun IntArray.asList(): List<Int>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun LongArray.asList(): List<Long>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun FloatArray.asList(): List<Float>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun DoubleArray.asList(): List<Double>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun BooleanArray.asList(): List<Boolean>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun CharArray.asList(): List<Char>\n\n/**\n * Returns `true` if the two specified arrays are *deeply* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * If two corresponding elements are nested arrays, they are also compared deeply.\n * If any of arrays contains itself on any nesting level the behavior is undefined.\n * \n * The elements of other types are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic expect infix fun <T> Array<out T>.contentDeepEquals(other: Array<out T>): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *deeply* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The specified arrays are also considered deeply equal if both are `null`.\n * \n * If two corresponding elements are nested arrays, they are also compared deeply.\n * If any of arrays contains itself on any nesting level the behavior is undefined.\n * \n * The elements of other types are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun <T> Array<out T>?.contentDeepEquals(other: Array<out T>?): Boolean\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level the behavior is undefined.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic expect fun <T> Array<out T>.contentDeepHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level the behavior is undefined.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T> Array<out T>?.contentDeepHashCode(): Int\n\n/**\n * Returns a string representation of the contents of this array as if it is a [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level that reference\n * is rendered as `\"[...]\"` to prevent recursion.\n * \n * @sample samples.collections.Arrays.ContentOperations.contentDeepToString\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic expect fun <T> Array<out T>.contentDeepToString(): String\n\n/**\n * Returns a string representation of the contents of this array as if it is a [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level that reference\n * is rendered as `\"[...]\"` to prevent recursion.\n * \n * @sample samples.collections.Arrays.ContentOperations.contentDeepToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T> Array<out T>?.contentDeepToString(): String\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun <T> Array<out T>.contentEquals(other: Array<out T>): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun ByteArray.contentEquals(other: ByteArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally*

equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun ShortArray.contentEquals(other: ShortArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince

= \"1.4\")\npublic expect infix fun IntArray.contentEquals(other: IntArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun LongArray.contentEquals(other: LongArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself

and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun FloatArray.contentEquals(other: FloatArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun DoubleArray.contentEquals(other: DoubleArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements

in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun BooleanArray.contentEquals(other: BooleanArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun CharArray.contentEquals(other:

CharArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun <T> Array<out T>?.contentEquals(other: Array<out T>?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun ByteArray?.contentEquals(other: ByteArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun ShortArray?.contentEquals(other: ShortArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun IntArray?.contentEquals(other: IntArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun LongArray?.contentEquals(other: LongArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun FloatArray?.contentEquals(other: FloatArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun DoubleArray?.contentEquals(other: DoubleArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun BooleanArray?.contentEquals(other: BooleanArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun CharArray?.contentEquals(other: CharArray?): Boolean\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun <T> Array<out T>.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun ByteArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun ShortArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun IntArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun LongArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun FloatArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun DoubleArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun BooleanArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun CharArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T> Array<out T>?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun ByteArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun ShortArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun IntArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun LongArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun FloatArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun DoubleArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun BooleanArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun CharArray?.contentHashCode(): Int\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun <T> Array<out T>.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun ByteArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun ShortArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun IntArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun LongArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun

FloatArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun DoubleArray.contentToString():

String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun BooleanArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun CharArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic

expect fun <T> Array<out T>?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun ByteArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun ShortArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun IntArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n

*/\n@SinceKotlin(\"1.4\")\npublic expect fun LongArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun FloatArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun DoubleArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun BooleanArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified

array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun CharArray?.contentToString(): String\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't

fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun <T> Array<out T>.copyInto(destination: Array<T>, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): Array<T>\n\n/**\n * Copies this array or its subrange into the [destination] array and returns

that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException]
 when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun ByteArray.copyInto(destination: ByteArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ByteArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange
 to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun ShortArray.copyInto(destination: ShortArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ShortArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the
 array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun IntArray.copyInto(destination: IntArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): IntArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n
 * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun LongArray.copyInto(destination: LongArray, destinationOffset:
 Int = 0, startIndex: Int = 0, endIndex: Int = size): LongArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or

[IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of

the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun FloatArray.copyInto(destination: FloatArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): FloatArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n

* @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun DoubleArray.copyInto(destination: DoubleArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): DoubleArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n

* \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun BooleanArray.copyInto(destination: BooleanArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): BooleanArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by

default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun CharArray.copyInto(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): CharArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect fun <T>

Array<T>.copyOf(): Array<T>\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun ByteArray.copyOf(): ByteArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun ShortArray.copyOf(): ShortArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun IntArray.copyOf(): IntArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun LongArray.copyOf():

LongArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun FloatArray.copyOf(): FloatArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun DoubleArray.copyOf(): DoubleArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun BooleanArray.copyOf(): BooleanArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun CharArray.copyOf(): CharArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun ByteArray.copyOf(newSize: Int): ByteArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun ShortArray.copyOf(newSize: Int): ShortArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun IntArray.copyOf(newSize: Int): IntArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun LongArray.copyOf(newSize: Int): LongArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun FloatArray.copyOf(newSize: Int): FloatArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun DoubleArray.copyOf(newSize: Int): DoubleArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with `false` values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with `false` values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun BooleanArray.copyOf(newSize: Int): BooleanArray\n\n/**\n * Returns new array which is a copy of the original

array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with null char (`\\u0000`) values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater
than the size of the original array, the extra elements in the copy array are filled with null char (`\\u0000`) values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun CharArray.copyOf(newSize: Int): CharArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with `null` values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with `null` values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizingCopyOf\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect fun <T> Array<T>.copyOf(newSize: Int): Array<T?>\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param
fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect fun <T> Array<T>.copyOfRange(fromIndex: Int, toIndex: Int): Array<T>\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun ByteArray.copyOfRange(fromIndex: Int, toIndex: Int): ByteArray\n\n/**\n * Returns a new array
which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun ShortArray.copyOfRange(fromIndex: Int, toIndex: Int): ShortArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun IntArray.copyOfRange(fromIndex: Int, toIndex: Int):
IntArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun LongArray.copyOfRange(fromIndex: Int, toIndex: Int): LongArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun FloatArray.copyOfRange(fromIndex:
Int, toIndex: Int): FloatArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun DoubleArray.copyOfRange(fromIndex: Int, toIndex: Int): DoubleArray\n\n/**\n *

Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun BooleanArray.copyOfRange(fromIndex: Int, toIndex: Int): BooleanArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun CharArray.copyOfRange(fromIndex: Int, toIndex: Int): CharArray\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun <T> Array<T>.fill(element: T, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun ByteArray.fill(element: Byte, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun ShortArray.fill(element: Short, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun IntArray.fill(element: Int, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun LongArray.fill(element: Long, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun FloatArray.fill(element: Float, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun DoubleArray.fill(element: Double, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end

of the range (exclusive) to fill, size of this array by default.\n * \n
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun BooleanArray.fill(element: Boolean, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun CharArray.fill(element: Char, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val <T>
 Array<out T>.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val ByteArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val ShortArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val IntArray.indices: IntRange\n get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val LongArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val FloatArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val DoubleArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val
 BooleanArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val CharArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.isEmpty(): Boolean {\n   return size
 == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns
 `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns

`true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns the last valid index for the array.\n */\npublic val <T> Array<out T>.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val ByteArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val ShortArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val IntArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val LongArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val FloatArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val DoubleArray.lastIndex: Int\n   get() = size - 1\n\n/**\n

 * Returns the last valid index for the array.\n */\npublic val BooleanArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val CharArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect operator fun <T> Array<T>.plus(element: T): Array<T>\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun ByteArray.plus(element: Byte): ByteArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun ShortArray.plus(element: Short): ShortArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun IntArray.plus(element: Int): IntArray\n\n/**\n * Returns

 an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun LongArray.plus(element: Long): LongArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun FloatArray.plus(element: Float): FloatArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun DoubleArray.plus(element: Double): DoubleArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun BooleanArray.plus(element: Boolean): BooleanArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun CharArray.plus(element: Char): CharArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given

 [elements] collection.\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect operator fun <T> Array<T>.plus(elements: Collection<T>): Array<T>\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun ByteArray.plus(elements: Collection<Byte>): ByteArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun ShortArray.plus(elements: Collection<Short>): ShortArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun IntArray.plus(elements: Collection<Int>): IntArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun LongArray.plus(elements: Collection<Long>):

 LongArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun FloatArray.plus(elements: Collection<Float>): FloatArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun DoubleArray.plus(elements: Collection<Double>): DoubleArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun BooleanArray.plus(elements: Collection<Boolean>): BooleanArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun CharArray.plus(elements: Collection<Char>): CharArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect operator fun <T> Array<T>.plus(elements: Array<out T>): Array<T>\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun ByteArray.plus(elements: ByteArray): ByteArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun ShortArray.plus(elements: ShortArray): ShortArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun IntArray.plus(elements: IntArray): IntArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun LongArray.plus(elements: LongArray): LongArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun FloatArray.plus(elements: FloatArray): FloatArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun DoubleArray.plus(elements: DoubleArray): DoubleArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun BooleanArray.plus(elements: BooleanArray): BooleanArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun CharArray.plus(elements: CharArray): CharArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect fun <T> Array<T>.plusElement(element: T): Array<T>\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun IntArray.sort(): Unit\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun LongArray.sort(): Unit\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun ByteArray.sort(): Unit\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun ShortArray.sort(): Unit\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun DoubleArray.sort(): Unit\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun FloatArray.sort(): Unit\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun CharArray.sort(): Unit\n\n/**\n * Sorts the array in-place according to the natural order of its elements.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @sample samples.collections.Arrays.Sorting.sortArrayOfComparable\n */\npublic expect fun <T : Comparable<T>> Array<out T>.sort(): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArrayOfComparable\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T : Comparable<T>> Array<out T>.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun ByteArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun ShortArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun IntArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun LongArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun FloatArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun DoubleArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun CharArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Array<out T>.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sortWith(reverseOrder(), fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException

if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according

to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex]

is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparator].\n * \n * The sort is _stable_. It means that

equal elements preserve their order relative to each other after sorting.\n */\npublic expect fun <T> Array<out T>.sortWith(comparator: Comparator<in T>): Unit\n\n/**\n * Sorts a range in the array in-place with the given [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun <T> Array<out T>.sortWith(comparator: Comparator<in T>, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Returns an array of Boolean containing all of the elements of this generic array.\n */\npublic fun Array<out Boolean>.toBooleanArray():

BooleanArray {\n   return BooleanArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Byte containing all of the elements of this generic array.\n */\npublic fun Array<out Byte>.toByteArray(): ByteArray {\n return ByteArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Char containing all of the elements of this generic array.\n */\npublic fun Array<out Char>.toCharArray(): CharArray {\n   return CharArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Double containing all of the elements of this generic array.\n */\npublic fun Array<out Double>.toDoubleArray(): DoubleArray {\n   return DoubleArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Float containing all of the elements of this generic array.\n */\npublic fun Array<out Float>.toFloatArray(): FloatArray {\n   return FloatArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Int containing all of the elements of this generic array.\n */\npublic fun Array<out Int>.toIntArray(): IntArray {\n   return IntArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Long containing all of the elements of this generic array.\n */\npublic fun Array<out Long>.toLongArray(): LongArray {\n   return LongArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Short containing all of the elements of this generic array.\n */\npublic fun Array<out Short>.toShortArray(): ShortArray {\n   return ShortArray(size) { index -> this[index] }\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun ByteArray.toTypedArray(): Array<Byte>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun ShortArray.toTypedArray(): Array<Short>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun IntArray.toTypedArray(): Array<Int>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun LongArray.toTypedArray(): Array<Long>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun FloatArray.toTypedArray(): Array<Float>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun DoubleArray.toTypedArray(): Array<Double>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun BooleanArray.toTypedArray(): Array<Boolean>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun CharArray.toTypedArray(): Array<Char>\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <T, K, V> Array<out T>.associate(transform: (T) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> ByteArray.associate(transform: (Byte) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> ShortArray.associate(transform: (Short) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> IntArray.associate(transform: (Int) -> Pair<K, V>): Map<K, V> {\n   val capacity =

mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> LongArray.associate(transform: (Long) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> FloatArray.associate(transform: (Float) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> DoubleArray.associate(transform: (Double) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> BooleanArray.associate(transform: (Boolean) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> CharArray.associate(transform: (Char) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <T, K> Array<out T>.associateBy(keySelector: (T) -> K): Map<K, T> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, T>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> ByteArray.associateBy(keySelector: (Byte) -> K): Map<K, Byte> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Byte>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> ShortArray.associateBy(keySelector: (Short) -> K): Map<K, Short> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Short>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> IntArray.associateBy(keySelector: (Int) -> K): Map<K, Int> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Int>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> LongArray.associateBy(keySelector: (Long) -> K): Map<K, Long> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Long>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> FloatArray.associateBy(keySelector: (Float) -> K): Map<K, Float> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Float>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> DoubleArray.associateBy(keySelector: (Double) -> K): Map<K, Double> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Double>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> BooleanArray.associateBy(keySelector: (Boolean) -> K): Map<K, Boolean> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Boolean>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> CharArray.associateBy(keySelector: (Char) -> K): Map<K, Char> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Char>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <T, K, V> Array<out T>.associateBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> ByteArray.associateBy(keySelector: (Byte) -> K, valueTransform: (Byte) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> ShortArray.associateBy(keySelector: (Short) -> K, valueTransform: (Short) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> IntArray.associateBy(keySelector: (Int) -> K, valueTransform: (Int) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> LongArray.associateBy(keySelector: (Long) -> K, valueTransform: (Long) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> FloatArray.associateBy(keySelector: (Float) -> K, valueTransform: (Float) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> DoubleArray.associateBy(keySelector: (Double) -> K, valueTransform: (Double) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n

*/\npublic inline fun <K, V> BooleanArray.associateBy(keySelector: (Boolean) -> K, valueTransform: (Boolean) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> CharArray.associateBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n

* Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <T, K, M : MutableMap<in K, in T>> Array<out T>.associateByTo(destination: M, keySelector: (T) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last

one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Byte>> ByteArray.associateByTo(destination: M, keySelector: (Byte) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Short>> ShortArray.associateByTo(destination: M, keySelector: (Short) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element),

element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Int>> IntArray.associateByTo(destination: M, keySelector: (Int) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned

by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M :

MutableMap<in K, in Long>> LongArray.associateByTo(destination: M, keySelector: (Long) -> K): M {\n for (element in this) {\n destination.put(keySelector(element), element)\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Float>> FloatArray.associateByTo(destination: M, keySelector: (Float) -> K): M {\n for (element in this) {\n destination.put(keySelector(element), element)\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Double>> DoubleArray.associateByTo(destination: M, keySelector: (Double) -> K): M {\n for (element in this) {\n destination.put(keySelector(element), element)\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Boolean>> BooleanArray.associateByTo(destination: M, keySelector: (Boolean) -> K): M {\n for (element in this) {\n destination.put(keySelector(element), element)\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Char>> CharArray.associateByTo(destination: M, keySelector: (Char) -> K): M {\n for (element in this) {\n destination.put(keySelector(element), element)\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Array<out T>.associateByTo(destination: M, keySelector: (T) -> K, valueTransform: (T) -> V): M {\n for (element in this) {\n destination.put(keySelector(element), valueTransform(element))\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> ByteArray.associateByTo(destination: M, keySelector: (Byte) -> K, valueTransform: (Byte) -> V): M {\n for (element in this) {\n destination.put(keySelector(element), valueTransform(element))\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> ShortArray.associateByTo(destination: M, keySelector: (Short) -> K, valueTransform: (Short) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> IntArray.associateByTo(destination: M, keySelector: (Int) -> K, valueTransform: (Int) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> LongArray.associateByTo(destination: M, keySelector: (Long) -> K, valueTransform: (Long) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> FloatArray.associateByTo(destination: M, keySelector: (Float) -> K, valueTransform: (Float) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> DoubleArray.associateByTo(destination: M, keySelector: (Double) -> K, valueTransform: (Double) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> BooleanArray.associateByTo(destination: M, keySelector: (Boolean) -> K, valueTransform: (Boolean) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> CharArray.associateByTo(destination: M, keySelector: (Char) -> K, valueTransform: (Char) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n

* Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Array<out T>.associateTo(destination: M, transform: (T) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> ByteArray.associateTo(destination:

M, transform: (Byte) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> ShortArray.associateTo(destination: M, transform: (Short) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the

map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> IntArray.associateTo(destination: M, transform: (Int) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> LongArray.associateTo(destination: M, transform: (Long) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n

* provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> FloatArray.associateTo(destination: M, transform: (Float) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> DoubleArray.associateTo(destination: M, transform: (Double) -> Pair<K, V>): M {\n   for (element

in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> BooleanArray.associateTo(destination: M, transform: (Boolean) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n

*/\npublic inline fun <K, V, M : MutableMap<in K, in V>> CharArray.associateTo(destination: M, transform: (Char) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <K, V> Array<out K>.associateWith(valueSelector: (K) -> V): Map<K, V> {\n   val result = LinkedHashMap<K, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> ByteArray.associateWith(valueSelector: (Byte) -> V): Map<Byte, V> {\n   val result = LinkedHashMap<Byte, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> ShortArray.associateWith(valueSelector: (Short) -> V): Map<Short, V> {\n   val result = LinkedHashMap<Short, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> IntArray.associateWith(valueSelector: (Int) -> V): Map<Int, V> {\n   val result = LinkedHashMap<Int, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> LongArray.associateWith(valueSelector: (Long) -> V): Map<Long, V> {\n   val result = LinkedHashMap<Long, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> FloatArray.associateWith(valueSelector: (Float) -> V): Map<Float, V> {\n   val result = LinkedHashMap<Float, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V>

DoubleArray.associateWith(valueSelector: (Double) -> V): Map<Double, V> {\n   val result = LinkedHashMap<Double, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns
 a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> BooleanArray.associateWith(valueSelector: (Boolean) -> V): Map<Boolean, V> {\n   val result = LinkedHashMap<Boolean, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n *
 @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> CharArray.associateWith(valueSelector: (Char) -> V): Map<Char, V> {\n   val result = LinkedHashMap<Char, V>(mapCapacity(size.coerceAtMost(128)).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <K, V, M : MutableMap<in K, in V>> Array<out K>.associateWithTo(destination: M, valueSelector: (K) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n
    }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Byte, in V>> ByteArray.associateWithTo(destination: M, valueSelector: (Byte) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n *
 \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Short, in V>> ShortArray.associateWithTo(destination: M, valueSelector: (Short) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Int, in V>> IntArray.associateWithTo(destination:
 M, valueSelector: (Int) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample

samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Long, in V>> LongArray.associateWithTo(destination: M, valueSelector: (Long) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Float, in V>> FloatArray.associateWithTo(destination: M, valueSelector: (Float) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Double, in V>> DoubleArray.associateWithTo(destination: M, valueSelector: (Double) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Boolean, in V>> BooleanArray.associateWithTo(destination: M, valueSelector: (Boolean) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Char, in V>> CharArray.associateWithTo(destination: M, valueSelector: (Char) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <T, C : MutableCollection<in T>> Array<out T>.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Byte>> ByteArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Short>> ShortArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Int>> IntArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Long>> LongArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Float>> FloatArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Double>>

DoubleArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Boolean>> BooleanArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Char>> CharArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun <T> Array<out T>.toHashSet(): HashSet<T> {\n   return toCollection(HashSet<T>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun ByteArray.toHashSet(): HashSet<Byte> {\n   return toCollection(HashSet<Byte>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun ShortArray.toHashSet(): HashSet<Short> {\n   return toCollection(HashSet<Short>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun IntArray.toHashSet(): HashSet<Int> {\n   return toCollection(HashSet<Int>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun LongArray.toHashSet(): HashSet<Long> {\n   return toCollection(HashSet<Long>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun FloatArray.toHashSet(): HashSet<Float> {\n   return toCollection(HashSet<Float>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun DoubleArray.toHashSet(): HashSet<Double> {\n   return toCollection(HashSet<Double>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun BooleanArray.toHashSet(): HashSet<Boolean> {\n   return toCollection(HashSet<Boolean>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun CharArray.toHashSet(): HashSet<Char> {\n   return toCollection(HashSet<Char>(mapCapacity(size.coerceAtMost(128))))\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun <T> Array<out T>.toList(): List<T> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun ByteArray.toList(): List<Byte> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun ShortArray.toList(): List<Short> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun IntArray.toList(): List<Int> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun LongArray.toList(): List<Long> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun FloatArray.toList(): List<Float> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun DoubleArray.toList(): List<Double> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun BooleanArray.toList(): List<Boolean> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun CharArray.toList(): List<Char> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun <T> Array<out T>.toMutableList(): MutableList<T> {\n   return ArrayList(this.asCollection())\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun ByteArray.toMutableList(): MutableList<Byte> {\n   val list = ArrayList<Byte>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new

[MutableList] filled with all elements of this array.\n */\npublic fun ShortArray.toMutableList(): MutableList<Short> {\n   val list = ArrayList<Short>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun IntArray.toMutableList(): MutableList<Int> {\n   val list = ArrayList<Int>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun LongArray.toMutableList(): MutableList<Long> {\n   val list = ArrayList<Long>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n
 */\npublic fun FloatArray.toMutableList(): MutableList<Float> {\n   val list = ArrayList<Float>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun DoubleArray.toMutableList(): MutableList<Double> {\n   val list = ArrayList<Double>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun BooleanArray.toMutableList(): MutableList<Boolean> {\n   val list = ArrayList<Boolean>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun CharArray.toMutableList(): MutableList<Char> {\n   val list = ArrayList<Char>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration
 order of the original array.\n */\npublic fun <T> Array<out T>.toSet(): Set<T> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<T>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun ByteArray.toSet(): Set<Byte> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Byte>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun ShortArray.toSet(): Set<Short> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Short>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves
 the element iteration order of the original array.\n */\npublic fun IntArray.toSet(): Set<Int> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Int>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun LongArray.toSet(): Set<Long> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Long>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun FloatArray.toSet(): Set<Float> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Float>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned
 set preserves the element iteration order of the original array.\n */\npublic fun DoubleArray.toSet(): Set<Double> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Double>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun BooleanArray.toSet(): Set<Boolean> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Boolean>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun CharArray.toSet(): Set<Char> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Char>(mapCapacity(size.coerceAtMost(128))))\n   }\n}\n\n/**\n
 * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun

<T, R> Array<out T>.flatMap(transform: (T) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> ByteArray.flatMap(transform: (Byte) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> ShortArray.flatMap(transform: (Short) -> Iterable<R>):
 List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> IntArray.flatMap(transform: (Int) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> LongArray.flatMap(transform: (Long) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n
 */\npublic inline fun <R> FloatArray.flatMap(transform: (Float) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> DoubleArray.flatMap(transform: (Double) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> BooleanArray.flatMap(transform: (Boolean) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element
 of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> CharArray.flatMap(transform: (Char) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapSequence\")\npublic inline fun <T, R> Array<out T>.flatMap(transform: (T) -> Sequence<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Array<out T>.flatMapIndexed(transform: (index: Int, T) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic

inline fun <R> ByteArray.flatMapIndexed(transform: (index: Int, Byte) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.flatMapIndexed(transform: (index: Int, Short) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> IntArray.flatMapIndexed(transform: (index: Int, Int) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.flatMapIndexed(transform: (index: Int, Long) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.flatMapIndexed(transform: (index: Int, Float) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.flatMapIndexed(transform: (index: Int, Double) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.flatMapIndexed(transform: (index: Int, Boolean) -> Iterable<R>): List<R> {\n return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.flatMapIndexed(transform: (index: Int, Char) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

ByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedSequence\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Array<out T>.flatMapIndexed(transform: (index: Int, T) -> Sequence<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.flatMapIndexedTo(destination: C, transform: (index: Int, T) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> ByteArray.flatMapIndexedTo(destination: C, transform: (index: Int, Byte) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> ShortArray.flatMapIndexedTo(destination: C, transform: (index: Int, Short) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> IntArray.flatMapIndexedTo(destination: C, transform: (index: Int, Int) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> LongArray.flatMapIndexedTo(destination: C, transform: (index: Int, Long) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> FloatArray.flatMapIndexedTo(destination: C, transform: (index: Int, Float) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> DoubleArray.flatMapIndexedTo(destination: C, transform: (index: Int, Double) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> BooleanArray.flatMapIndexedTo(destination: C, transform: (index: Int, Boolean) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> CharArray.flatMapIndexedTo(destination: C, transform: (index: Int, Char) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedSequenceTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.flatMapIndexedTo(destination: C, transform: (index: Int, T) -> Sequence<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.flatMapTo(destination: C, transform: (T) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> ByteArray.flatMapTo(destination: C, transform: (Byte) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> ShortArray.flatMapTo(destination: C, transform: (Short) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> IntArray.flatMapTo(destination: C, transform: (Int) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> LongArray.flatMapTo(destination: C, transform: (Long) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> FloatArray.flatMapTo(destination: C, transform: (Float) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> DoubleArray.flatMapTo(destination: C, transform: (Double) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> BooleanArray.flatMapTo(destination: C, transform: (Boolean) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> CharArray.flatMapTo(destination: C, transform: (Char) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapSequenceTo\")\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.flatMapTo(destination: C, transform: (T) -> Sequence<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K> Array<out T>.groupBy(keySelector: (T) -> K): Map<K, List<T>> {\n   return groupByTo(LinkedHashMap<K, MutableList<T>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> ByteArray.groupBy(keySelector: (Byte) -> K): Map<K, List<Byte>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Byte>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> ShortArray.groupBy(keySelector: (Short) -> K): Map<K, List<Short>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Short>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> IntArray.groupBy(keySelector: (Int) -> K): Map<K, List<Int>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Int>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n

*/\npublic inline fun <K> LongArray.groupBy(keySelector: (Long) -> K): Map<K, List<Long>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Long>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> FloatArray.groupBy(keySelector: (Float) -> K): Map<K, List<Float>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Float>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n

* \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> DoubleArray.groupBy(keySelector: (Double) -> K): Map<K, List<Double>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Double>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> BooleanArray.groupBy(keySelector: (Boolean) -> K): Map<K, List<Boolean>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Boolean>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array

by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> CharArray.groupBy(keySelector: (Char) -> K): Map<K, List<Char>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Char>>(), keySelector)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n

*/\npublic inline fun <T, K, V> Array<out T>.groupBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> ByteArray.groupBy(keySelector: (Byte) -> K, valueTransform: (Byte) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied

to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> ShortArray.groupBy(keySelector: (Short) -> K, valueTransform: (Short) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by

the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from
 the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> IntArray.groupBy(keySelector: (Int) -> K, valueTransform: (Int) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> LongArray.groupBy(keySelector: (Long) -> K, valueTransform: (Long) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n
 * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> FloatArray.groupBy(keySelector: (Float) -> K, valueTransform: (Float) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n
 * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> DoubleArray.groupBy(keySelector: (Double) -> K, valueTransform: (Double) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> BooleanArray.groupBy(keySelector: (Boolean) -> K, valueTransform:
 (Boolean) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> CharArray.groupBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group
 key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K, M : MutableMap<in K, MutableList<T>>> Array<out T>.groupByTo(destination: M, keySelector: (T) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<T>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned

by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Byte>>> ByteArray.groupByTo(destination: M, keySelector: (Byte) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Byte>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Short>>> ShortArray.groupByTo(destination: M, keySelector: (Short) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Short>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Int>>> IntArray.groupByTo(destination: M, keySelector: (Int) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Int>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Long>>> LongArray.groupByTo(destination: M, keySelector: (Long) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Long>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Float>>> FloatArray.groupByTo(destination: M, keySelector: (Float) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Float>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Double>>> DoubleArray.groupByTo(destination: M, keySelector: (Double) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Double>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Boolean>>> BooleanArray.groupByTo(destination: M, keySelector: (Boolean) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Boolean>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Char>>> CharArray.groupByTo(destination: M, keySelector: (Char) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Char>() }\n list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <T, K, V, M : MutableMap<in K, MutableList<V>>> Array<out T>.groupByTo(destination: M, keySelector: (T) -> K, valueTransform: (T) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> ByteArray.groupByTo(destination: M, keySelector: (Byte) -> K, valueTransform: (Byte) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> ShortArray.groupByTo(destination: M, keySelector: (Short) -> K, valueTransform: (Short) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> IntArray.groupByTo(destination: M, keySelector: (Int) -> K, valueTransform: (Int) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> LongArray.groupByTo(destination: M, keySelector: (Long) -> K, valueTransform: (Long) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> FloatArray.groupByTo(destination: M, keySelector: (Float) -> K, valueTransform: (Float) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return

destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key
associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> DoubleArray.groupByTo(destination: M, keySelector: (Double) -> K, valueTransform: (Double) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline
fun <K, V, M : MutableMap<in K, MutableList<V>>> BooleanArray.groupByTo(destination: M, keySelector: (Boolean) -> K, valueTransform: (Boolean) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> CharArray.groupByTo(destination: M, keySelector: (Char) -> K, valueTransform: (Char) -> V): M {\n   for (element in this) {\n   val key =
keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Creates a [Grouping] source from an array to be used later with one of group-and-fold operations\n * using the specified [keySelector] function to extract a key from each element.\n * \n * @sample samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K> Array<out T>.groupingBy(crossinline keySelector: (T) -> K): Grouping<T, K> {\n   return object : Grouping<T, K> {\n   override fun sourceIterator(): Iterator<T> = this@groupingBy.iterator()\n   override fun keyOf(element: T): K = keySelector(element)\n   }\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <T, R> Array<out T>.map(transform:
(T) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> ByteArray.map(transform: (Byte) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> ShortArray.map(transform: (Short) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> IntArray.map(transform:
(Int) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> LongArray.map(transform: (Long) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> FloatArray.map(transform: (Float)

-> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> DoubleArray.map(transform: (Double) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> BooleanArray.map(transform: (Boolean) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> CharArray.map(transform: (Char) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T, R> Array<out T>.mapIndexed(transform: (index: Int, T) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> ByteArray.mapIndexed(transform: (index: Int, Byte) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> ShortArray.mapIndexed(transform: (index: Int, Short) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> IntArray.mapIndexed(transform: (index: Int, Int) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> LongArray.mapIndexed(transform: (index: Int, Long) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> FloatArray.mapIndexed(transform: (index: Int, Float) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> DoubleArray.mapIndexed(transform: (index: Int, Double) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> BooleanArray.mapIndexed(transform: (index: Int, Boolean) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> CharArray.mapIndexed(transform: (index: Int, Char) -> R): List<R> {\n return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T, R : Any> Array<out T>.mapIndexedNotNull(transform: (index: Int, T) -> R?): List<R> {\n   return mapIndexedNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends only the non-null results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T, R : Any, C : MutableCollection<in R>> Array<out T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R?): C {\n   forEachIndexed { index, element -> transform(index, element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.mapIndexedTo(destination: C, transform: (index: Int, T) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> ByteArray.mapIndexedTo(destination: C, transform: (index: Int, Byte) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> ShortArray.mapIndexedTo(destination: C, transform: (index: Int, Short) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> IntArray.mapIndexedTo(destination: C, transform: (index: Int, Int) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> LongArray.mapIndexedTo(destination: C, transform: (index: Int, Long) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> FloatArray.mapIndexedTo(destination: C, transform: (index: Int, Float) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> DoubleArray.mapIndexedTo(destination: C, transform: (index: Int, Double) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> BooleanArray.mapIndexedTo(destination: C, transform: (index: Int, Boolean) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> CharArray.mapIndexedTo(destination: C, transform: (index: Int, Char) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.mapNotNull\n */\npublic inline fun <T, R : Any> Array<out T>.mapNotNull(transform: (T) -> R?): List<R> {\n   return mapNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each element in the original array\n * and appends only the non-null results to the given [destination].\n */\npublic inline fun <T, R : Any, C : MutableCollection<in R>> Array<out T>.mapNotNullTo(destination: C, transform: (T) -> R?): C {\n   forEach { element -> transform(element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.mapTo(destination: C, transform: (T) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> ByteArray.mapTo(destination: C, transform: (Byte) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> ShortArray.mapTo(destination: C, transform: (Short) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> IntArray.mapTo(destination: C, transform: (Int) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> LongArray.mapTo(destination: C, transform: (Long) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> FloatArray.mapTo(destination: C, transform: (Float) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> DoubleArray.mapTo(destination: C, transform: (Double) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> BooleanArray.mapTo(destination: C, transform: (Boolean) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> CharArray.mapTo(destination: C, transform: (Char) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun <T> Array<out T>.withIndex(): Iterable<IndexedValue<T>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun ByteArray.withIndex(): Iterable<IndexedValue<Byte>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun ShortArray.withIndex(): Iterable<IndexedValue<Short>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun IntArray.withIndex(): Iterable<IndexedValue<Int>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun LongArray.withIndex(): Iterable<IndexedValue<Long>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun FloatArray.withIndex(): Iterable<IndexedValue<Float>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun DoubleArray.withIndex(): Iterable<IndexedValue<Double>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun BooleanArray.withIndex(): Iterable<IndexedValue<Boolean>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun CharArray.withIndex(): Iterable<IndexedValue<Char>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * Among equal elements of the given array, only the first one will be present in the resulting list.\n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun <T> Array<out T>.distinct(): List<T> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun ByteArray.distinct(): List<Byte> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun ShortArray.distinct(): List<Short> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun IntArray.distinct(): List<Int> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun LongArray.distinct(): List<Long> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n

*/\npublic fun FloatArray.distinct(): List<Float> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun DoubleArray.distinct(): List<Double> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun BooleanArray.distinct(): List<Boolean> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order

as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun CharArray.distinct(): List<Char> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * Among elements of the given array with equal keys, only the first one will be present in the resulting list.\n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <T, K> Array<out T>.distinctBy(selector: (T) -> K): List<T> {\n   val set = HashSet<K>()\n   val list = ArrayList<T>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given

array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> ByteArray.distinctBy(selector: (Byte) -> K): List<Byte> {\n   val set = HashSet<K>()\n   val list = ArrayList<Byte>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> ShortArray.distinctBy(selector: (Short) -> K): List<Short> {\n   val set = HashSet<K>()\n   val list = ArrayList<Short>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> IntArray.distinctBy(selector: (Int) -> K): List<Int> {\n   val set = HashSet<K>()\n   val list = ArrayList<Int>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n

* \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> LongArray.distinctBy(selector: (Long) -> K): List<Long> {\n   val set = HashSet<K>()\n   val list = ArrayList<Long>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> FloatArray.distinctBy(selector: (Float) -> K): List<Float> {\n   val set = HashSet<K>()\n   val list =

ArrayList<Float>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> DoubleArray.distinctBy(selector: (Double) -> K): List<Double> {\n   val set = HashSet<K>()\n   val list = ArrayList<Double>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> BooleanArray.distinctBy(selector: (Boolean) -> K): List<Boolean> {\n   val set = HashSet<K>()\n   val list = ArrayList<Boolean>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> CharArray.distinctBy(selector: (Char) -> K): List<Char> {\n   val set = HashSet<K>()\n   val list = ArrayList<Char>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun <T> Array<out T>.intersect(other: Iterable<T>): Set<T> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun ByteArray.intersect(other: Iterable<Byte>): Set<Byte> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun ShortArray.intersect(other: Iterable<Short>): Set<Short> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun IntArray.intersect(other: Iterable<Int>): Set<Int> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun LongArray.intersect(other: Iterable<Long>): Set<Long> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun FloatArray.intersect(other: Iterable<Float>): Set<Float> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections

use [union].\n */\npublic infix fun DoubleArray.intersect(other: Iterable<Double>): Set<Double> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun BooleanArray.intersect(other: Iterable<Boolean>): Set<Boolean> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix
fun CharArray.intersect(other: Iterable<Char>): Set<Char> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun <T> Array<out T>.subtract(other: Iterable<T>): Set<T> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun ByteArray.subtract(other: Iterable<Byte>): Set<Byte> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the
specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun ShortArray.subtract(other: Iterable<Short>): Set<Short> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun IntArray.subtract(other: Iterable<Int>): Set<Int> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun LongArray.subtract(other: Iterable<Long>): Set<Long> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n
return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun FloatArray.subtract(other: Iterable<Float>): Set<Float> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun DoubleArray.subtract(other: Iterable<Double>): Set<Double> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic
infix fun BooleanArray.subtract(other: Iterable<Boolean>): Set<Boolean> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun CharArray.subtract(other: Iterable<Char>): Set<Char> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun <T> Array<out T>.toMutableSet(): MutableSet<T> {\n   return toCollection(LinkedHashSet<T>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of
the original array.\n */\npublic fun ByteArray.toMutableSet(): MutableSet<Byte> {\n   return toCollection(LinkedHashSet<Byte>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original

array.\n */\npublic fun ShortArray.toMutableSet(): MutableSet<Short> {\n   return toCollection(LinkedHashSet<Short>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun IntArray.toMutableSet(): MutableSet<Int> {\n   return toCollection(LinkedHashSet<Int>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun LongArray.toMutableSet(): MutableSet<Long> {\n   return toCollection(LinkedHashSet<Long>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun FloatArray.toMutableSet(): MutableSet<Float> {\n   return toCollection(LinkedHashSet<Float>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun DoubleArray.toMutableSet(): MutableSet<Double> {\n   return toCollection(LinkedHashSet<Double>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun BooleanArray.toMutableSet(): MutableSet<Boolean> {\n   return toCollection(LinkedHashSet<Boolean>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun CharArray.toMutableSet(): MutableSet<Char> {\n   return toCollection(LinkedHashSet<Char>(mapCapacity(size.coerceAtMost(128))))\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun <T> Array<out T>.union(other: Iterable<T>): Set<T> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun ByteArray.union(other: Iterable<Byte>): Set<Byte> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun ShortArray.union(other: Iterable<Short>): Set<Short> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun IntArray.union(other: Iterable<Int>): Set<Int> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun LongArray.union(other: Iterable<Long>): Set<Long> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun FloatArray.union(other: Iterable<Float>): Set<Float> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun DoubleArray.union(other: Iterable<Double>): Set<Double> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun BooleanArray.union(other: Iterable<Boolean>): Set<Boolean> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun CharArray.union(other: Iterable<Char>): Set<Char> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun <T> Array<out T>.all(predicate: (T) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun ByteArray.all(predicate: (Byte) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun ShortArray.all(predicate: (Short) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun IntArray.all(predicate: (Int) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun LongArray.all(predicate: (Long) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun FloatArray.all(predicate: (Float) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun DoubleArray.all(predicate: (Double) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun BooleanArray.all(predicate: (Boolean) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun CharArray.all(predicate: (Char) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun <T> Array<out T>.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun ByteArray.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun ShortArray.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun IntArray.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun LongArray.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun FloatArray.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun DoubleArray.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun BooleanArray.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun CharArray.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun <T> Array<out T>.any(predicate: (T) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun ByteArray.any(predicate: (Byte) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun ShortArray.any(predicate: (Short) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun IntArray.any(predicate: (Int) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun LongArray.any(predicate: (Long) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun FloatArray.any(predicate: (Float) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun DoubleArray.any(predicate: (Double) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun BooleanArray.any(predicate: (Boolean) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun CharArray.any(predicate: (Char) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.count():

Int {\n   return size\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun <T> Array<out T>.count(predicate: (T) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun ByteArray.count(predicate: (Byte) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun ShortArray.count(predicate: (Short) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun IntArray.count(predicate: (Int) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun LongArray.count(predicate: (Long) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun FloatArray.count(predicate: (Float) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun DoubleArray.count(predicate: (Double) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun BooleanArray.count(predicate: (Boolean) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun CharArray.count(predicate: (Char) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Array<out T>.fold(initial: R, operation: (acc: R, T) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> ByteArray.fold(initial: R, operation: (acc: R, Byte) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> ShortArray.fold(initial: R, operation: (acc: R, Short) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> IntArray.fold(initial: R, operation: (acc: R, Int) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> LongArray.fold(initial: R, operation: (acc: R, Long) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> FloatArray.fold(initial: R, operation: (acc: R, Float) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> DoubleArray.fold(initial: R, operation: (acc: R, Double) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> BooleanArray.fold(initial: R, operation: (acc: R, Boolean) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> CharArray.fold(initial: R, operation: (acc: R, Char) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Array<out T>.foldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> ByteArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Byte) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> ShortArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Short) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator,

element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n
 * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> IntArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Int) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> LongArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Long) -> R): R {\n   var index = 0\n   var
 accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> FloatArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Float) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index
 in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> DoubleArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Double) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> BooleanArray.foldIndexed(initial:
 R, operation: (index: Int, acc: R, Boolean) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> CharArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial]
 value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Array<out T>.foldRight(initial: R, operation: (T, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> ByteArray.foldRight(initial: R,

operation: (Byte, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> ShortArray.foldRight(initial: R, operation: (Short, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n

* \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> IntArray.foldRight(initial: R, operation: (Int, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> LongArray.foldRight(initial: R, operation: (Long, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while

(index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> FloatArray.foldRight(initial: R, operation: (Float, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function

that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> DoubleArray.foldRight(initial: R, operation: (Double, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> BooleanArray.foldRight(initial: R, operation: (Boolean, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return

accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> CharArray.foldRight(initial: R, operation: (Char, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n

* and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Array<out T>.foldRightIndexed(initial: R, operation: (index: Int, T, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(index, get(index), accumulator)\n

    --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> ByteArray.foldRightIndexed(initial: R, operation: (index: Int, Byte, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> ShortArray.foldRightIndexed(initial: R, operation: (index: Int, Short, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> IntArray.foldRightIndexed(initial: R, operation: (index: Int, Int, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> LongArray.foldRightIndexed(initial: R, operation: (index: Int, Long, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> FloatArray.foldRightIndexed(initial: R, operation: (index: Int, Float, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> DoubleArray.foldRightIndexed(initial: R, operation: (index: Int, Double, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> BooleanArray.foldRightIndexed(initial: R, operation: (index: Int, Boolean, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> CharArray.foldRightIndexed(initial: R, operation: (index: Int, Char, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun <T> Array<out T>.forEach(action: (T) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun ByteArray.forEach(action: (Byte) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun ShortArray.forEach(action: (Short) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun IntArray.forEach(action: (Int) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun LongArray.forEach(action: (Long) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun FloatArray.forEach(action: (Float) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun DoubleArray.forEach(action: (Double) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun BooleanArray.forEach(action: (Boolean) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun CharArray.forEach(action: (Char) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun <T> Array<out T>.forEachIndexed(action: (index: Int, T) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun ByteArray.forEachIndexed(action: (index: Int, Byte) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun ShortArray.forEachIndexed(action: (index: Int, Short) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun IntArray.forEachIndexed(action: (index: Int, Int) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun LongArray.forEachIndexed(action: (index: Int, Long) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun FloatArray.forEachIndexed(action: (index: Int, Float) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun DoubleArray.forEachIndexed(action: (index: Int, Double) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an

element and the element itself\n * and performs the action on the element.\n */\npublic inline
 fun BooleanArray.forEachIndexed(action: (index: Int, Boolean) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun CharArray.forEachIndexed(action: (index: Int, Char) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Returns the largest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun Array<out Double>.max(): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   max = maxOf(max,
 e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun Array<out Float>.max(): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun <T : Comparable<T>> Array<out T>.max(): T {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element.\n
 * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun ByteArray.max(): Byte {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun ShortArray.max(): Short {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic
 fun IntArray.max(): Int {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun LongArray.max(): Long {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun FloatArray.max(): Float {\n   if (isEmpty()) throw
 NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun DoubleArray.max(): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n

* Returns the largest element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun CharArray.max(): Char {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <T, R : Comparable<R>> Array<out T>.maxBy(selector: (T) -> R): T {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> ByteArray.maxBy(selector: (Byte) -> R): Byte {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> ShortArray.maxBy(selector: (Short) -> R): Short {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> IntArray.maxBy(selector: (Int) -> R): Int {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> LongArray.maxBy(selector: (Long) -> R): Long {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n

*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> FloatArray.maxBy(selector: (Float) -> R): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> DoubleArray.maxBy(selector: (Double) -> R): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> BooleanArray.maxBy(selector: (Boolean) -> R): Boolean {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> CharArray.maxBy(selector: (Char) -> R): Char {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R : Comparable<R>> Array<out T>.maxByOrNull(selector: (T) -> R): T? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> ByteArray.maxByOrNull(selector: (Byte) -> R): Byte? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> ShortArray.maxByOrNull(selector:

(Short) -> R): Short? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> IntArray.maxByOrNull(selector: (Int) -> R): Int? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if

(maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> LongArray.maxByOrNull(selector: (Long) -> R): Long? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic

inline fun <R : Comparable<R>> FloatArray.maxByOrNull(selector: (Float) -> R): Float? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> DoubleArray.maxByOrNull(selector: (Double) -> R): Double? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for

(i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> BooleanArray.maxByOrNull(selector: (Boolean) -> R): Boolean? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if

there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> CharArray.maxByOrNull(selector: (Char) -> R): Char? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic

inline fun <T> Array<out T>.maxOf(selector: (T) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v =

selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.maxOf(selector: (Byte) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.maxOf(selector: (Short) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.maxOf(selector: (Int) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.maxOf(selector: (Long) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.maxOf(selector: (Float) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.maxOf(selector: (Double) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.maxOf(selector: (Boolean) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.maxOf(selector: (Char) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among 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*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.maxOf(selector: (Byte) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.maxOf(selector: (Short) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.maxOf(selector: (Int) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * 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Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.maxOf(selector: (Float) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.maxOf(selector: (Double) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.maxOf(selector: (Boolean) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.maxOf(selector: (Char) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Array<out T>.maxOf(selector: (T) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ByteArray.maxOf(selector: (Byte) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>

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T>.maxOfOrNull(selector: (T) -> Float): Float? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.maxOfOrNull(selector: (Byte) -> Float): Float? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value

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inline fun IntArray.maxOfOrNull(selector: (Int) -> Float): Float? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.maxOfOrNull(selector: (Long) -> Float): Float? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.maxOfOrNull(selector: (Float) -> Float): Float? 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   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]

function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Float) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Double) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Boolean) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Char) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Array<out Double>.maxOrNull(): Double? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Array<out Float>.maxOrNull(): Float? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Array<out T>.maxOrNull(): T? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.maxOrNull(): Byte? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.maxOrNull(): Short? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.maxOrNull(): Int? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.maxOrNull(): Long? {\n   if (isEmpty()) return null\n   var max

= this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.maxOrNull(): Float? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.maxOrNull(): Double? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.maxOrNull(): Char? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun <T> Array<out T>.maxWith(comparator: Comparator<in T>): T {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun ByteArray.maxWith(comparator: Comparator<in Byte>): Byte {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun ShortArray.maxWith(comparator: Comparator<in Short>): Short {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun IntArray.maxWith(comparator: Comparator<in Int>): Int {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun LongArray.maxWith(comparator: Comparator<in Long>): Long {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun FloatArray.maxWith(comparator: Comparator<in Float>): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is

empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic
fun DoubleArray.maxWith(comparator: Comparator<in Double>): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun BooleanArray.maxWith(comparator: Comparator<in Boolean>): Boolean {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value
according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun CharArray.maxWith(comparator: Comparator<in Char>): Char {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun <T> Array<out T>.maxWithOrNull(comparator: Comparator<in T>): T? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according
to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.maxWithOrNull(comparator: Comparator<in Byte>): Byte? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.maxWithOrNull(comparator: Comparator<in Short>): Short? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun IntArray.maxWithOrNull(comparator:
Comparator<in Int>): Int? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun LongArray.maxWithOrNull(comparator: Comparator<in Long>): Long? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.maxWithOrNull(comparator: Comparator<in Float>): Float? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n
val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.maxWithOrNull(comparator: Comparator<in Double>): Double? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun BooleanArray.maxWithOrNull(comparator: Comparator<in Boolean>):

Boolean? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the
 first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.maxWithOrNull(comparator: Comparator<in Char>): Char? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the smallest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun Array<out Double>.min(): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n
 * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun Array<out Float>.min(): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun <T : Comparable<T>> Array<out T>.min(): T {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic
 fun ByteArray.min(): Byte {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun ShortArray.min(): Short {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun IntArray.min(): Int {\n   if (isEmpty()) throw NoSuchElementException()\n   var min
 = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun LongArray.min(): Long {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun FloatArray.min(): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   min = minOf(min,
 e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun DoubleArray.min(): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element.\n * \n * @throws NoSuchElementException if the array is empty.\n

*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun CharArray.min(): Char {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element yielding the smallest
 value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <T, R : Comparable<R>> Array<out T>.minBy(selector: (T) -> R): T {\n   if (isEmpty()) throw NoSuchElementException()\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic
 inline fun <R : Comparable<R>> ByteArray.minBy(selector: (Byte) -> R): Byte {\n   if (isEmpty()) throw NoSuchElementException()\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> ShortArray.minBy(selector: (Short) -> R): Short {\n   if (isEmpty()) throw NoSuchElementException()\n
    var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> IntArray.minBy(selector: (Int) -> R): Int {\n   if (isEmpty()) throw NoSuchElementException()\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n
        val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> LongArray.minBy(selector: (Long) -> R): Long {\n   if (isEmpty()) throw NoSuchElementException()\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the
 first element yielding the smallest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLO

ADS\")\npublic inline fun <R : Comparable<R>> FloatArray.minBy(selector: (Float) -> R): Float {\n if (isEmpty()) throw NoSuchElementException()\n var minElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return minElem\n var minValue = selector(minElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (minValue > v) {\n minElem = e\n minValue = v\n }\n }\n return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> DoubleArray.minBy(selector: (Double) -> R): Double {\n if (isEmpty()) throw NoSuchElementException()\n var minElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return minElem\n var minValue = selector(minElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (minValue > v) {\n minElem = e\n minValue = v\n }\n }\n return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> BooleanArray.minBy(selector: (Boolean) -> R): Boolean {\n if (isEmpty()) throw NoSuchElementException()\n var minElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return minElem\n var minValue = selector(minElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (minValue > v) {\n minElem = e\n minValue = v\n }\n }\n return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> CharArray.minBy(selector: (Char) -> R): Char {\n if (isEmpty()) throw NoSuchElementException()\n var minElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return minElem\n var minValue = selector(minElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (minValue > v) {\n minElem = e\n minValue = v\n }\n }\n return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R : Comparable<R>> Array<out T>.minByOrNull(selector: (T) -> R): T? {\n if (isEmpty()) return null\n var minElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return minElem\n var minValue = selector(minElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (minValue > v) {\n minElem = e\n minValue = v\n }\n }\n return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> ByteArray.minByOrNull(selector: (Byte) -> R): Byte? {\n if (isEmpty()) return null\n var minElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return minElem\n var minValue = selector(minElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (minValue > v) {\n minElem = e\n minValue = v\n }\n }\n return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> ShortArray.minByOrNull(selector: (Short) -> R): Short? {\n if (isEmpty()) return null\n var minElem = this[0]\n val lastIndex = this.lastIndex\n if (lastIndex == 0) return minElem\n var minValue = selector(minElem)\n for (i in 1..lastIndex) {\n val e = this[i]\n val v = selector(e)\n if (minValue > v) {\n minElem = e\n minValue = v\n }\n }\n return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value

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of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R :
Comparable<R>> IntArray.minByOrNull(selector: (Int) -> R): Int? {\n    if (isEmpty()) return null\n    var minElem
= this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue =
selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v)
{\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n
 * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n
* @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline
fun <R : Comparable<R>> LongArray.minByOrNull(selector: (Long) -> R): Long? {\n    if (isEmpty()) return
null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var
minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if
(minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n *
Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n *
@sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun
<R : Comparable<R>> FloatArray.minByOrNull(selector: (Float) ->
 R): Float? {\n    if (isEmpty()) return null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if
(lastIndex == 0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e =
this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n
}\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or
`null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n
*/\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> DoubleArray.minByOrNull(selector: (Double)
-> R): Double? {\n    if (isEmpty()) return null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if
(lastIndex == 0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e =
this[i]\n        val v = selector(e)\n        if (minValue > v)
 {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first
element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R :
Comparable<R>> BooleanArray.minByOrNull(selector: (Boolean) -> R): Boolean? {\n    if (isEmpty()) return
null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var
minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if
(minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n *
Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n *
@sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic
 inline fun <R : Comparable<R>> CharArray.minByOrNull(selector: (Char) -> R): Char? {\n    if (isEmpty()) return
null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var
minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if
(minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n *
Returns the smallest value among all values produced by [selector] function\n * applied to each element in the
array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n *
@throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.minOf(selector: (T) ->
 Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n    var minValue = selector(this[0])\n    for
(i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
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ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.minOf(selector: (Byte) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n *
 Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.minOf(selector: (Short) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException
 if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.minOf(selector: (Int) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.minOf(selector: (Long) -> Double): Double
 {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.minOf(selector: (Float) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest
 value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.minOf(selector: (Double) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array
 is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.minOf(selector: (Boolean) ->

Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.minOf(selector: (Char) -> Double): Double {\n

if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.minOf(selector: (T) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest

value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.minOf(selector: (Byte) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.minOf(selector: (Short) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.minOf(selector: (Int) -> Float): Float {\n   if (isEmpty()) throw

NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.minOf(selector: (Long) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.minOf(selector: (Float) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.minOf(selector: (Double) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.minOf(selector: (Boolean) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.minOf(selector: (Char) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] 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(Short) -> Double): Double? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
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inline fun FloatArray.minOfOrNull(selector: (Float) -> Double): Double? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
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{\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.minOfOrNull(selector: (Long) -> Float): Float? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.minOfOrNull(selector: (Float) -> Float): Float? 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{\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> FloatArray.minOfOrNull(selector: (Float) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> DoubleArray.minOfOrNull(selector: (Double) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> BooleanArray.minOfOrNull(selector: (Boolean) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> CharArray.minOfOrNull(selector: (Char) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Array<out T>.minOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws

NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.minOfWith(comparator: Comparator<in R>, selector: (Byte) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.minOfWith(comparator: Comparator<in R>, selector: (Short) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> IntArray.minOfWith(comparator: Comparator<in R>, selector: (Int) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.minOfWith(comparator: Comparator<in R>, selector: (Long) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.minOfWith(comparator: Comparator<in R>, selector: (Float) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.minOfWith(comparator: Comparator<in R>, selector: (Double) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n

*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.minOfWith(comparator: Comparator<in R>, selector: (Boolean) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException

if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.minOfWith(comparator: Comparator<in R>, selector: (Char) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Array<out T>.minOfWithOrNull(comparator: Comparator<in R>,

selector: (T) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Byte) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n

* Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Short) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic

inline fun <R> IntArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Int) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Long) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Float) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Double) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Boolean) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Char) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Array<out Double>.minOrNull(): Double? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Array<out Float>.minOrNull(): Float? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Array<out T>.minOrNull(): T? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.minOrNull(): Byte? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.minOrNull(): Short? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.minOrNull(): Int? {\n   if (isEmpty()) return null\n   var min =

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 this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.minOrNull(): Long? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.minOrNull(): Float? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        min = minOf(min, e)\n    }\n    return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.minOrNull(): Double?
 {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        min = minOf(min, e)\n    }\n    return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.minOrNull(): Char? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun <T> Array<out T>.minWith(comparator: Comparator<in T>): T {\n    if (isEmpty()) throw NoSuchElementException()\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(min, e)
 > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun ByteArray.minWith(comparator: Comparator<in Byte>): Byte {\n    if (isEmpty()) throw NoSuchElementException()\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun ShortArray.minWith(comparator: Comparator<in Short>): Short {\n    if (isEmpty()) throw NoSuchElementException()\n    var min
 = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun IntArray.minWith(comparator: Comparator<in Int>): Int {\n    if (isEmpty()) throw NoSuchElementException()\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun LongArray.minWith(comparator:
 Comparator<in Long>): Long {\n    if (isEmpty()) throw NoSuchElementException()\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun FloatArray.minWith(comparator: Comparator<in Float>): Float {\n    if (isEmpty()) throw NoSuchElementException()\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if
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(comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic
 fun DoubleArray.minWith(comparator: Comparator<in Double>): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun BooleanArray.minWith(comparator: Comparator<in Boolean>): Boolean {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according
 to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun CharArray.minWith(comparator: Comparator<in Char>): Char {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun <T> Array<out T>.minWithOrNull(comparator: Comparator<in T>): T? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided
 [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.minWithOrNull(comparator: Comparator<in Byte>): Byte? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.minWithOrNull(comparator: Comparator<in Short>): Short? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun IntArray.minWithOrNull(comparator:
 Comparator<in Int>): Int? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun LongArray.minWithOrNull(comparator: Comparator<in Long>): Long? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.minWithOrNull(comparator: Comparator<in Float>): Float? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e
 = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.minWithOrNull(comparator: Comparator<in Double>): Double? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the

smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun BooleanArray.minWithOrNull(comparator: Comparator<in Boolean>): Boolean? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first
 element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.minWithOrNull(comparator: Comparator<in Char>): Char? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun <T> Array<out T>.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun ByteArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun ShortArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns
 `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun IntArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun LongArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun FloatArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun DoubleArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun BooleanArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n
 * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun CharArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun <T> Array<out T>.none(predicate: (T) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun ByteArray.none(predicate: (Byte) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun ShortArray.none(predicate: (Short) -> Boolean): Boolean {\n
  for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun IntArray.none(predicate: (Int) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun LongArray.none(predicate: (Long) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun FloatArray.none(predicate: (Float) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n
  return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun DoubleArray.none(predicate: (Double) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun

BooleanArray.none(predicate: (Boolean) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun CharArray.none(predicate: (Char) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Performs the given [action]

on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.onEach(action: (T) -> Unit): Array<out T> {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.onEach(action: (Byte) -> Unit): ByteArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.onEach(action: (Short) -> Unit): ShortArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic

inline fun IntArray.onEach(action: (Int) -> Unit): IntArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.onEach(action: (Long) -> Unit): LongArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.onEach(action: (Float) -> Unit): FloatArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.onEach(action: (Double) -> Unit): DoubleArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n

* Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.onEach(action: (Boolean) -> Unit): BooleanArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.onEach(action: (Char) -> Unit): CharArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.onEachIndexed(action: (index: Int, T) -> Unit):

Array<out T> {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.onEachIndexed(action: (index: Int, Byte) -> Unit): ByteArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.onEachIndexed(action: (index: Int, Short) -> Unit): ShortArray {\n   return apply { forEachIndexed(action)

}\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.onEachIndexed(action: (index: Int, Int) -> Unit): IntArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.onEachIndexed(action: (index: Int, Long) -> Unit): LongArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action]

on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.onEachIndexed(action: (index: Int, Float) -> Unit): FloatArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.onEachIndexed(action: (index: Int, Double) -> Unit): DoubleArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index

with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.onEachIndexed(action: (index: Int, Boolean) -> Unit): BooleanArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.onEachIndexed(action: (index: Int, Char) -> Unit): CharArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator

value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun <S, T : S> Array<out T>.reduce(operation: (acc: S, T) -> S): S {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator: S = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can

be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun ByteArray.reduce(operation: (acc: Byte, Byte) -> Byte): Byte {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n

* \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun

ShortArray.reduce(operation: (acc: Short, Short) -> Short): Short {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun IntArray.reduce(operation: (acc: Int, Int) -> Int): Int {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun LongArray.reduce(operation: (acc: Long, Long) -> Long): Long {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun FloatArray.reduce(operation: (acc: Float, Float) -> Float): Float {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun DoubleArray.reduce(operation: (acc: Double, Double) -> Double): Double {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun BooleanArray.reduce(operation: (acc: Boolean, Boolean) -> Boolean): Boolean {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n

*/\npublic inline fun CharArray.reduce(operation: (acc: Char, Char) -> Char): Char {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation]
 from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun <S, T : S> Array<out T>.reduceIndexed(operation: (index: Int, acc: S, T) -> S): S {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator: S = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation]
 from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun ByteArray.reduceIndexed(operation: (index: Int, acc: Byte, Byte) -> Byte): Byte {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation]
 from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun ShortArray.reduceIndexed(operation: (index: Int, acc: Short, Short) -> Short): Short {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from
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and an element, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R>
Array<out T>.runningFold(initial: R, operation: (acc: R, T) -> R): List<R> {\n if (isEmpty()) return
listOf(initial)\n val result = ArrayList<R>(size + 1).apply { add(initial) }\n var accumulator = initial\n for
(element in
this) {\n accumulator = operation(accumulator, element)\n result.add(accumulator)\n }\n return
result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from
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*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> IntArray.runningFold(initial: R,

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operation: (acc: R, Int) -> R): List<R> {\n    if (isEmpty()) return listOf(initial)\n    val result = ArrayList<R>(size +
1).apply { add(initial) }\n    var accumulator = initial\n    for
 (element in this) {\n        accumulator = operation(accumulator, element)\n        result.add(accumulator)\n    }\n
return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
[operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n
* Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the
previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an
element, and calculates the next accumulator value.\n * \n * @sample
samples.collections.Collections.Aggregates.runningFold\n
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.runningFold(initial: R,
operation: (acc: R, Long) -> R): List<R> {\n    if (isEmpty()) return listOf(initial)\n    val result = ArrayList<R>(size
+ 1).apply { add(initial) }\n    var accumulator = initial\n
   for (element in this) {\n        accumulator = operation(accumulator, element)\n        result.add(accumulator)\n    }\n
  return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
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samples.collections.Collections.Aggregates.runningFold\n
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.runningFold(initial: R,
operation: (acc: R, Float) -> R): List<R> {\n    if (isEmpty()) return listOf(initial)\n    val result = ArrayList<R>(size
+ 1).apply { add(initial) }\n    var accumulator = initial\n
    for (element in this) {\n        accumulator = operation(accumulator, element)\n        result.add(accumulator)\n
}\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
[operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n
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samples.collections.Collections.Aggregates.runningFold\n
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.runningFold(initial: R,
operation: (acc: R, Double) -> R): List<R> {\n    if (isEmpty()) return listOf(initial)\n    val result =
ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator
 = initial\n    for (element in this) {\n        accumulator = operation(accumulator, element)\n
result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation
values generated by applying [operation] from left to right\n * to each element and current accumulator value that
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samples.collections.Collections.Aggregates.runningFold\n
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.runningFold(initial:
R, operation: (acc: R, Boolean) -> R): List<R> {\n    if (isEmpty()) return listOf(initial)\n    val result =
ArrayList<R>(size + 1).apply { add(initial) }\n    var accumulator
 = initial\n    for (element in this) {\n        accumulator = operation(accumulator, element)\n
result.add(accumulator)\n    }\n    return result\n}\n\n/**\n * Returns a list containing successive accumulation
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samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.runningFold(initial: R, operation: (acc: R, Char) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (element in this) {\n   accumulator = operation(accumulator, element)\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R> Array<out T>.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (index in indices) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Byte) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (index in indices) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous 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result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Double) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (index in indices) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Boolean) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (index in indices) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (index in indices) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and the element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S> Array<out T>.runningReduce(operation: (acc: S, T) -> S): List<S> {\n   if (isEmpty()) return emptyList()\n   var accumulator: S = this[0]\n   val result = ArrayList<S>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.runningReduce(operation: (acc: Byte, Byte) -> Byte): List<Byte> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Byte>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.runningReduce(operation: (acc: Short, Short) -> Short): List<Short> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Short>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.runningReduce(operation: (acc: Int, Int) -> Int): List<Int> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Int>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.runningReduce(operation: (acc: Long, Long) -> Long): List<Long> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Long>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * 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@sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.runningReduce(operation: (acc: Double, Double) -> Double): List<Double> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Double>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.runningReduce(operation: (acc: Boolean, Boolean) -> Boolean): List<Boolean> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Boolean>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.runningReduce(operation: (acc: Char, Char) -> Char): List<Char> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Char>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <S, T : S> Array<out T>.runningReduceIndexed(operation: (index: Int, acc: S, T) -> S): List<S> {\n   if (isEmpty()) return emptyList()\n   var accumulator: S = this[0]\n   val result = ArrayList<S>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.runningReduceIndexed(operation: (index: Int, acc: Byte, Byte) -> Byte): List<Byte> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Byte>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.runningReduceIndexed(operation: (index: Int, acc: Short, Short) -> Short): List<Short> {\n   if 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= this[0]\n   val result = ArrayList<Int>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.runningReduceIndexed(operation: (index: Int, acc: Long, Long) -> Long): List<Long> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Long>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.runningReduceIndexed(operation: (index: Int, acc: Float, Float) -> Float): List<Float> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Float>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.runningReduceIndexed(operation: (index: Int, acc: Double, Double) -> Double): List<Double> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Double>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.runningReduceIndexed(operation: (index: Int, acc: Boolean, Boolean) -> Boolean): List<Boolean> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Boolean>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.runningReduceIndexed(operation: (index: Int, acc: Char, Char) -> Char): List<Char> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Char>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <T, R> Array<out T>.scan(initial: R, operation: (acc: R, T) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current 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 inline fun <R> IntArray.scan(initial: R, operation: (acc: R, Int) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.scan(initial: R, operation: (acc: R, Long) -> R): List<R> {\n   return runningFold(initial,
 operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.scan(initial: R, operation: (acc: R, Float) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator
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*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.scan(initial: R, operation: (acc: R, Char) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <T, R> Array<out T>.scanIndexed(initial:
 R, operation: (index: Int, acc: R, T) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Byte) -> R): List<R> {\n   return runningFoldIndexed(initial,
 operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Short) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
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accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Float) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Double) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Boolean) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun <T> Array<out T>.sumBy(selector: (T) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun ByteArray.sumBy(selector: (Byte) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun ShortArray.sumBy(selector: (Short) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun

IntArray.sumBy(selector: (Int) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun LongArray.sumBy(selector: (Long) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun FloatArray.sumBy(selector: (Float) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of 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ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun CharArray.sumBy(selector: (Char) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun <T> Array<out T>.sumByDouble(selector: (T) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun ByteArray.sumByDouble(selector: (Byte) -> Double): 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sum += selector(element)\n   }\n
    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n
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sum += selector(element)\n   }\n   return sum\n}\n\n/**\n
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 sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the
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*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.sumOf(selector: (Double) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n

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LongArray.sumOf(selector: (Long) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.sumOf(selector: (Float) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the

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ULong {\n    var sum: ULong = 0.toULong()\n    for (element in this) {\n        sum += selector(element)\n    }\n
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ByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic
 inline fun CharArray.sumOf(selector: (Char) -> ULong): ULong {\n    var sum: ULong = 0.toULong()\n    for
(element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns an original collection
containing all the non-`null` elements, throwing an [IllegalArgumentException] if there are any `null` elements.\n
*/\npublic fun <T : Any> Array<T?>.requireNoNulls(): Array<T> {\n    for (element in this) {\n        if (element ==
null) {\n            throw IllegalArgumentException(\"null element found in $this.\")\n        }\n    }\n
@Suppress(\"UNCHECKED_CAST\")\n    return this as Array<T>\n}\n\n/**\n * Splits the original array into pair
of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list
 contains elements for which [predicate] yielded `false`.\n * \n * @sample
samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun <T> Array<out
T>.partition(predicate: (T) -> Boolean): Pair<List<T>, List<T>> {\n    val first = ArrayList<T>()\n    val second =
ArrayList<T>()\n    for (element in this) {\n        if (predicate(element)) {\n            first.add(element)\n        } else {\n
         second.add(element)\n        }\n    }\n    return Pair(first, second)\n}\n\n/**\n * Splits the original array into pair
of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains
elements for which [predicate] yielded `false`.\n * \n * @sample
samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun
ByteArray.partition(predicate: (Byte) -> Boolean): Pair<List<Byte>, List<Byte>> {\n    val first =
ArrayList<Byte>()\n    val second = ArrayList<Byte>()\n
  for (element in this) {\n        if (predicate(element)) {\n            first.add(element)\n        } else {\n
second.add(element)\n        }\n    }\n    return Pair(first, second)\n}\n\n/**\n * Splits the original array into pair of
lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains
elements for which [predicate] yielded `false`.\n * \n * @sample
samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun
ShortArray.partition(predicate: (Short) -> Boolean): Pair<List<Short>, List<Short>> {\n    val first =
ArrayList<Short>()\n    val second = ArrayList<Short>()\n    for (element in this) {\n        if (predicate(element)) {\n
         first.add(element)\n        } else {\n            second.add(element)\n        }\n    }\n    return Pair(first,
second)\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which
[predicate]
 yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample
samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun
IntArray.partition(predicate: (Int) -> Boolean): Pair<List<Int>, List<Int>> {\n    val first = ArrayList<Int>()\n    val
second = ArrayList<Int>()\n    for (element in this) {\n        if (predicate(element)) {\n            first.add(element)\n
 } else {\n            second.add(element)\n        }\n    }\n    return Pair(first, second)\n}\n\n/**\n * Splits the original
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array into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while
*second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample
samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun
LongArray.partition(predicate: (Long) -> Boolean): Pair<List<Long>, List<Long>> {\n    val first =
ArrayList<Long>()\n
    val second = ArrayList<Long>()\n    for (element in this) {\n        if (predicate(element)) {\n
first.add(element)\n        } else {\n            second.add(element)\n        }\n    }\n    return Pair(first,
second)\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which
[predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n *
@sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun
FloatArray.partition(predicate: (Float) -> Boolean): Pair<List<Float>, List<Float>> {\n    val first =
ArrayList<Float>()\n    val second = ArrayList<Float>()\n    for (element in this) {\n        if (predicate(element)) {\n
         first.add(element)\n        } else {\n            second.add(element)\n        }\n    }\n    return Pair(first,
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[predicate] yielded `false`.\n * \n * @sample
samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun
DoubleArray.partition(predicate: (Double) -> Boolean): Pair<List<Double>, List<Double>> {\n    val first =
ArrayList<Double>()\n    val second = ArrayList<Double>()\n    for (element in this) {\n        if (predicate(element))
{\n            first.add(element)\n        } else {\n            second.add(element)\n        }\n    }\n    return Pair(first,
second)\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which
[predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n *
@sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun
BooleanArray.partition(predicate: (Boolean) -> Boolean):
 Pair<List<Boolean>, List<Boolean>> {\n    val first = ArrayList<Boolean>()\n    val second =
ArrayList<Boolean>()\n    for (element in this) {\n        if (predicate(element)) {\n            first.add(element)\n        }
else {\n            second.add(element)\n        }\n    }\n    return Pair(first, second)\n}\n\n/**\n * Splits the original array
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contains elements for which [predicate] yielded `false`.\n * \n * @sample
samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun
CharArray.partition(predicate: (Char) -> Boolean): Pair<List<Char>, List<Char>> {\n    val first =
ArrayList<Char>()\n    val second = ArrayList<Char>()\n    for (element in this) {\n        if (predicate(element)) {\n
        first.add(element)\n        } else {\n            second.add(element)\n        }\n    }\n    return Pair(first,
second)\n}\n\n/**\n
 * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The
returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <T, R> Array<out T>.zip(other:
Array<out R>): List<Pair<T, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs
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the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun
<R> ByteArray.zip(other: Array<out R>): List<Pair<Byte, R>> {\n    return zip(other) { t1, t2 -> t1 to t2
}\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same
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samples.collections.Iterables.Operations.zipIterable\n
 */\npublic infix fun <R> ShortArray.zip(other: Array<out R>): List<Pair<Short, R>> {\n    return zip(other) { t1, t2
-> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the
same index.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> IntArray.zip(other: Array<out R>):
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List<Pair<Int, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> LongArray.zip(other: Array<out R>): List<Pair<Long, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> FloatArray.zip(other: Array<out R>): List<Pair<Float, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> DoubleArray.zip(other: Array<out R>): List<Pair<Double, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> BooleanArray.zip(other: Array<out R>): List<Pair<Boolean, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> CharArray.zip(other: Array<out R>): List<Pair<Char, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <T, R, V> Array<out T>.zip(other: Array<out R>, transform: (a: T, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> ByteArray.zip(other: Array<out R>, transform: (a: Byte, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> ShortArray.zip(other: Array<out R>, transform: (a: Short, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using 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Array<out R>, transform: (a: Float, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> DoubleArray.zip(other: Array<out R>, transform: (a: Double, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n
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other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <T, R> Array<out T>.zip(other: Iterable<R>): List<Pair<T, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> ByteArray.zip(other: Iterable<R>): List<Pair<Byte, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection
and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> ShortArray.zip(other: Iterable<R>): List<Pair<Short, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> IntArray.zip(other: Iterable<R>): List<Pair<Int, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> LongArray.zip(other: Iterable<R>):
List<Pair<Long, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> FloatArray.zip(other: Iterable<R>): List<Pair<Float, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> DoubleArray.zip(other:

Iterable<R>): List<Pair<Double, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> BooleanArray.zip(other: Iterable<R>): List<Pair<Boolean, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> CharArray.zip(other: Iterable<R>): List<Pair<Char, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <T, R, V> Array<out T>.zip(other: Iterable<R>, transform: (a: T, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> ByteArray.zip(other: Iterable<R>, transform: (a: Byte, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> ShortArray.zip(other: Iterable<R>, transform: (a: Short, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list 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applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic

inline fun <R, V> BooleanArray.zip(other: Iterable<R>, transform: (a: Boolean, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> CharArray.zip(other: Iterable<R>, transform: (a: Char, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >=

arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun ByteArray.zip(other: ByteArray): List<Pair<Byte, Byte>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun ShortArray.zip(other: ShortArray): List<Pair<Short, Short>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has

length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun IntArray.zip(other: IntArray): List<Pair<Int, Int>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun LongArray.zip(other: LongArray): List<Pair<Long, Long>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun FloatArray.zip(other: FloatArray): List<Pair<Float, Float>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n

* Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun DoubleArray.zip(other: DoubleArray): List<Pair<Double, Double>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun BooleanArray.zip(other: BooleanArray): List<Pair<Boolean, Boolean>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n

*/\npublic infix fun CharArray.zip(other: CharArray): List<Pair<Char, Char>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> ByteArray.zip(other: ByteArray, transform: (a: Byte, b: Byte) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length
 of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> ShortArray.zip(other: ShortArray, transform: (a: Short, b: Short) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> IntArray.zip(other: IntArray, transform: (a: Int, b: Int) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n
    return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> LongArray.zip(other: LongArray, transform: (a: Long, b: Long) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun
 <V> FloatArray.zip(other: FloatArray, transform: (a: Float, b: Float) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> DoubleArray.zip(other: DoubleArray, transform: (a: Double, b: Double) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with
 the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> BooleanArray.zip(other: BooleanArray, transform: (a: Boolean, b: Boolean) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> CharArray.zip(other: CharArray, transform: (a: Char, b: Char) -> V): List<V> {\n   val size = minOf(size,

other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <T, A : Appendable> Array<out T>.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   buffer.appendElement(element, transform)\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> ByteArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Byte) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   if (transform != null)\n   buffer.append(transform(element))\n   else\n   buffer.append(element.toString())\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> ShortArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Short) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   if (transform != null)\n   buffer.append(transform(element))\n   else\n   buffer.append(element.toString())\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> IntArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Int) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   if (transform != null)\n   buffer.append(transform(element))\n   else\n   buffer.append(element.toString())\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> LongArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform:

((Long) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   if (transform != null)\n   buffer.append(transform(element))\n   else\n   buffer.append(element.toString())\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> FloatArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Float) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   if (transform != null)\n   buffer.append(transform(element))\n   else\n   buffer.append(element.toString())\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> DoubleArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Double) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   if (transform != null)\n   buffer.append(transform(element))\n   else\n   buffer.append(element.toString())\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> BooleanArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Boolean) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   if (transform != null)\n   buffer.append(transform(element))\n   else\n   buffer.append(element.toString())\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> CharArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Char) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   if (transform != null)\n   buffer.append(transform(element))\n   else\n   buffer.append(element)\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun <T> Array<out T>.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun ByteArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Byte) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun ShortArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Short) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun IntArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Int) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun LongArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Long) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun FloatArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Float) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun DoubleArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Double) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(),

separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated
 using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun BooleanArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Boolean) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n
 * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun CharArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Char) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun <T> Array<out T>.asIterable(): Iterable<T> {\n   if (isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun ByteArray.asIterable(): Iterable<Byte> {\n   if (isEmpty()) return emptyList()\n   return
 Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun ShortArray.asIterable(): Iterable<Short> {\n   if (isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun IntArray.asIterable(): Iterable<Int> {\n   if (isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun LongArray.asIterable(): Iterable<Long> {\n   if (isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun FloatArray.asIterable(): Iterable<Float> {\n   if (isEmpty())
 return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun DoubleArray.asIterable(): Iterable<Double> {\n   if (isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun BooleanArray.asIterable(): Iterable<Boolean> {\n   if (isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun CharArray.asIterable(): Iterable<Char> {\n   if (isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n
 */\npublic fun <T> Array<out T>.asSequence(): Sequence<T> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun ByteArray.asSequence(): Sequence<Byte> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun ShortArray.asSequence(): Sequence<Short> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n

*/\npublic fun IntArray.asSequence(): Sequence<Int> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun LongArray.asSequence(): Sequence<Long> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun FloatArray.asSequence(): Sequence<Float> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun DoubleArray.asSequence(): Sequence<Double> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun BooleanArray.asSequence(): Sequence<Boolean> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun CharArray.asSequence(): Sequence<Char> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Returns an average value of elements in the array.\n */\n@kotlin.jvm.JvmName(\"averageOfByte\")\npublic fun Array<out Byte>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\n@kotlin.jvm.JvmName(\"averageOfShort\")\npublic fun Array<out Short>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\n@kotlin.jvm.JvmName(\"averageOfInt\")\npublic fun Array<out Int>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\n@kotlin.jvm.JvmName(\"averageOfLong\")\npublic fun Array<out Long>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\n@kotlin.jvm.JvmName(\"averageOfFloat\")\npublic fun Array<out Float>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\n@kotlin.jvm.JvmName(\"averageOfDouble\")\npublic fun Array<out Double>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun ByteArray.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun ShortArray.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun IntArray.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun LongArray.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun FloatArray.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return

if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun DoubleArray.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfByte\")\npublic fun Array<out Byte>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfShort\")\npublic fun Array<out Short>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfInt\")\npublic fun Array<out Int>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfLong\")\npublic fun Array<out Long>.sum(): Long {\n   var sum: Long = 0L\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfFloat\")\npublic fun Array<out Float>.sum(): Float {\n   var sum: Float = 0.0f\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfDouble\")\npublic fun Array<out Double>.sum(): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun ByteArray.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun ShortArray.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun IntArray.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun LongArray.sum(): Long {\n   var sum: Long = 0L\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun FloatArray.sum(): Float {\n   var sum: Float = 0.0f\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun DoubleArray.sum(): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"RangesKt\")\n\npackage kotlin.ranges\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n * Returns the first element.\n * \n * @throws NoSuchElementException if the progression is empty.\n */\n@SinceKotlin(\"1.7\")\npublic fun IntProgression.first(): Int {\n   if (isEmpty())\n   throw NoSuchElementException(\"Progression $this is empty.\")\n   return this.first\n}\n\n/**\n * Returns the first element.\n * \n * @throws NoSuchElementException if the progression is empty.\n */\n@SinceKotlin(\"1.7\")\npublic fun LongProgression.first(): Long {\n   if (isEmpty())\n   throw NoSuchElementException(\"Progression $this is empty.\")\n   return this.first\n}\n\n/**\n * Returns the first element.\n * \n * @throws NoSuchElementException if the progression is empty.\n */\n@SinceKotlin(\"1.7\")\npublic fun CharProgression.first(): Char {\n   if (isEmpty())\n   throw NoSuchElementException(\"Progression $this is empty.\")\n   return this.first\n}\n\n/**\n * Returns the first element, or `null` if the progression is empty.\n */\n@SinceKotlin(\"1.7\")\npublic fun IntProgression.firstOrNull(): Int? {\n   return if (isEmpty()) null else this.first\n}\n\n/**\n * Returns the first element, or `null` if the progression is empty.\n */\n@SinceKotlin(\"1.7\")\npublic fun LongProgression.firstOrNull(): Long? {\n   return if (isEmpty()) null else this.first\n}\n\n/**\n * Returns the first element, or `null` if the progression is empty.\n */\n@SinceKotlin(\"1.7\")\npublic fun CharProgression.firstOrNull(): Char? {\n   return if (isEmpty()) null else this.first\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the

progression is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.7\")\npublic fun IntProgression.last(): Int {\n   if (isEmpty())\n   throw NoSuchElementException(\"Progression $this is empty.\")\n   return this.last\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the progression is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.7\")\npublic fun LongProgression.last(): Long {\n   if (isEmpty())\n
throw NoSuchElementException(\"Progression $this is empty.\")\n   return this.last\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the progression is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.7\")\npublic fun CharProgression.last(): Char {\n   if (isEmpty())\n   throw NoSuchElementException(\"Progression $this is empty.\")\n   return this.last\n}\n\n/**\n * Returns the last element, or `null` if the progression is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.7\")\npublic fun IntProgression.lastOrNull(): Int? {\n   return if (isEmpty()) null else this.last\n}\n\n/**\n * Returns the last element, or `null` if the progression is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.7\")\npublic fun LongProgression.lastOrNull(): Long? {\n   return if (isEmpty()) null else this.last\n}\n\n/**\n * Returns
the last element, or `null` if the progression is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.7\")\npublic fun CharProgression.lastOrNull(): Char? {\n   return if (isEmpty()) null else this.last\n}\n\n/**\n * Returns a random element from this range.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun IntRange.random(): Int {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this range.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun LongRange.random(): Long {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this range.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun CharRange.random(): Char {\n   return random(Random)\n}\n\n/**\n
* Returns a random element from this range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun IntRange.random(random: Random): Int {\n   try {\n   return random.nextInt(this)\n   } catch(e: IllegalArgumentException) {\n   throw NoSuchElementException(e.message)\n   }\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun LongRange.random(random: Random): Long {\n   try {\n   return random.nextLong(this)\n   } catch(e: IllegalArgumentException) {\n   throw NoSuchElementException(e.message)\n   }\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun CharRange.random(random:
Random): Char {\n   try {\n   return random.nextInt(first.code, last.code + 1).toChar()\n   } catch(e: IllegalArgumentException) {\n   throw NoSuchElementException(e.message)\n   }\n}\n\n/**\n * Returns a random element from this range, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun IntRange.randomOrNull(): Int? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun LongRange.randomOrNull(): Long? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharRange.randomOrNull():

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 Char? {\n    return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range using the
specified source of randomness, or `null` if this range is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun
IntRange.randomOrNull(random: Random): Int? {\n    if (isEmpty())\n        return null\n    return
random.nextInt(this)\n}\n\n/**\n * Returns a random element from this range using the specified source of
randomness, or `null` if this range is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun
LongRange.randomOrNull(random: Random): Long? {\n    if (isEmpty())\n        return null\n    return
random.nextLong(this)\n}\n\n/**\n * Returns a random element from this range using the specified source of
randomness, or `null` if this range is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun
CharRange.randomOrNull(random: Random): Char? {\n    if
 (isEmpty())\n        return null\n    return random.nextInt(first.code, last.code + 1).toChar()\n}\n\n/**\n * Returns
`true` if this range contains the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n
*/\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline operator fun IntRange.contains(element:
Int?): Boolean {\n    return element != null && contains(element)\n}\n\n/**\n * Returns `true` if this range contains
the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n
*/\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline operator fun LongRange.contains(element:
Long?): Boolean {\n    return element != null && contains(element)\n}\n\n/**\n * Returns `true` if this range
contains the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n
*/\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline operator fun CharRange.contains(element:
Char?): Boolean {\n
   return element != null && contains(element)\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n
*/\n@kotlin.jvm.JvmName(\"intRangeContains\")\npublic operator fun ClosedRange<Int>.contains(value: Byte):
Boolean {\n    return contains(value.toInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n
*/\n@kotlin.jvm.JvmName(\"longRangeContains\")\npublic operator fun ClosedRange<Long>.contains(value:
Byte): Boolean {\n    return contains(value.toLong())\n}\n\n/**\n * Checks if the specified [value] belongs to this
range.\n */\n@kotlin.jvm.JvmName(\"shortRangeContains\")\npublic operator fun
ClosedRange<Short>.contains(value: Byte): Boolean {\n    return contains(value.toShort())\n}\n\n/**\n * Checks if
the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and
floating point arguments has ambiguous semantics and is going to be
removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince
 = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"doubleRangeContains\")\npublic operator fun
ClosedRange<Double>.contains(value: Byte): Boolean {\n    return contains(value.toDouble())\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer
and floating point arguments has ambiguous semantics and is going to be
removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince =
\"1.5\")\n@kotlin.jvm.JvmName(\"floatRangeContains\")\npublic operator fun ClosedRange<Float>.contains(value:
Byte): Boolean {\n    return contains(value.toFloat())\n}\n\n/**\n * Checks if the specified [value] belongs to this
range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous
semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\",
hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"intRangeContains\")\npublic
 operator fun ClosedRange<Int>.contains(value: Double): Boolean {\n    return value.toIntExactOrNull().let { if (it
!= null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n
*/\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics
and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince
= \"1.5\")\n@kotlin.jvm.JvmName(\"longRangeContains\")\npublic operator fun
ClosedRange<Long>.contains(value: Double): Boolean {\n    return value.toLongExactOrNull().let { if (it != null)
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contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n
*/\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics
and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince
= \"1.5\")\n@kotlin.jvm.JvmName(\"byteRangeContains\")\npublic
operator fun ClosedRange<Byte>.contains(value: Double): Boolean {\n   return value.toByteExactOrNull().let { if
(it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n
*/\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics
and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince
= \"1.5\")\n@kotlin.jvm.JvmName(\"shortRangeContains\")\npublic operator fun
ClosedRange<Short>.contains(value: Double): Boolean {\n   return value.toShortExactOrNull().let { if (it != null)
contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n
*/\n@kotlin.jvm.JvmName(\"floatRangeContains\")\npublic operator fun ClosedRange<Float>.contains(value:
Double): Boolean {\n   return contains(value.toFloat())\n}\n\n/**\n * Checks if the specified [value] belongs to this
range.\n
*/\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics
and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince
= \"1.5\")\n@kotlin.jvm.JvmName(\"intRangeContains\")\npublic operator fun ClosedRange<Int>.contains(value:
Float): Boolean {\n   return value.toIntExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer
and floating point arguments has ambiguous semantics and is going to be
removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince =
\"1.5\")\n@kotlin.jvm.JvmName(\"longRangeContains\")\npublic operator fun ClosedRange<Long>.contains(value:
Float): Boolean {\n   return value.toLongExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n *
Checks if the specified [value] belongs
to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has
ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince
= \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"byteRangeContains\")\npublic operator fun
ClosedRange<Byte>.contains(value: Float): Boolean {\n   return value.toByteExactOrNull().let { if (it != null)
contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n
*/\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics
and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince
= \"1.5\")\n@kotlin.jvm.JvmName(\"shortRangeContains\")\npublic operator fun
ClosedRange<Short>.contains(value: Float): Boolean {\n   return value.toShortExactOrNull().let { if (it != null)
contains(it) else false }\n}\n\n/**\n * Checks if the
specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"doubleRangeContains\")\npublic operator
fun ClosedRange<Double>.contains(value: Float): Boolean {\n   return contains(value.toDouble())\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"longRangeContains\")\npublic
operator fun ClosedRange<Long>.contains(value: Int): Boolean {\n   return contains(value.toLong())\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"byteRangeContains\")\npublic
operator fun ClosedRange<Byte>.contains(value: Int): Boolean {\n   return value.toByteExactOrNull().let { if (it !=
null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n
*/\n@kotlin.jvm.JvmName(\"shortRangeContains\")\npublic operator fun ClosedRange<Short>.contains(value: Int):
Boolean {\n   return value.toShortExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks
if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and
floating point arguments has ambiguous semantics and is going to be
removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince =
\"1.5\")\n@kotlin.jvm.JvmName(\"doubleRangeContains\")\npublic operator fun
ClosedRange<Double>.contains(value: Int): Boolean {\n   return contains(value.toDouble())\n}\n\n/**\n * Checks

if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"floatRangeContains\")\npublic operator fun ClosedRange<Float>.contains(value: Int): Boolean {\n   return contains(value.toFloat())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"intRangeContains\")\npublic

operator fun ClosedRange<Int>.contains(value: Long): Boolean {\n   return value.toIntExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"byteRangeContains\")\npublic operator fun ClosedRange<Byte>.contains(value: Long): Boolean {\n   return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"shortRangeContains\")\npublic operator fun ClosedRange<Short>.contains(value: Long): Boolean {\n   return value.toShortExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\",

errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"doubleRangeContains\")\npublic operator fun ClosedRange<Double>.contains(value: Long): Boolean {\n   return contains(value.toDouble())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"floatRangeContains\")\npublic operator fun ClosedRange<Float>.contains(value: Long): Boolean {\n   return contains(value.toFloat())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"intRangeContains\")\npublic operator fun ClosedRange<Int>.contains(value: Short): Boolean {\n   return contains(value.toInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"longRangeContains\")\npublic

operator fun ClosedRange<Long>.contains(value: Short): Boolean {\n   return contains(value.toLong())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"byteRangeContains\")\npublic operator fun ClosedRange<Byte>.contains(value: Short): Boolean {\n   return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"doubleRangeContains\")\npublic operator fun ClosedRange<Double>.contains(value: Short): Boolean {\n   return contains(value.toDouble())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and

floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"floatRangeContains\")\npublic operator fun ClosedRange<Float>.contains(value: Short): Boolean {\n   return contains(value.toFloat())\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Int.downTo(to: Byte): IntProgression {\n   return IntProgression.fromClosedRange(this, to.toInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Long.downTo(to:

Byte): LongProgression {\n   return LongProgression.fromClosedRange(this, to.toLong(), -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should

be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Byte.downTo(to: Byte): IntProgression {\n   return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Short.downTo(to: Byte): IntProgression {\n   return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n
 * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Char.downTo(to: Char): CharProgression {\n   return CharProgression.fromClosedRange(this, to, -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Int.downTo(to: Int): IntProgression {\n   return IntProgression.fromClosedRange(this, to, -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Long.downTo(to: Int): LongProgression {\n   return LongProgression.fromClosedRange(this,
 to.toLong(), -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Byte.downTo(to: Int): IntProgression {\n   return IntProgression.fromClosedRange(this.toInt(), to, -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Short.downTo(to: Int): IntProgression {\n   return IntProgression.fromClosedRange(this.toInt(), to, -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the
 [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Int.downTo(to: Long): LongProgression {\n   return LongProgression.fromClosedRange(this.toLong(), to, -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Long.downTo(to: Long): LongProgression {\n   return LongProgression.fromClosedRange(this, to, -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Byte.downTo(to: Long): LongProgression {\n   return LongProgression.fromClosedRange(this.toLong(), to, -1L)\n}\n\n/**\n * Returns
 a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Short.downTo(to: Long): LongProgression {\n   return LongProgression.fromClosedRange(this.toLong(), to, -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Int.downTo(to: Short): IntProgression {\n   return IntProgression.fromClosedRange(this, to.toInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression
 is empty.\n */\npublic infix fun Long.downTo(to: Short): LongProgression {\n   return LongProgression.fromClosedRange(this, to.toLong(), -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Byte.downTo(to: Short): IntProgression {\n   return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -

1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Short.downTo(to: Short): IntProgression {\n   return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the same step.\n */\npublic fun IntProgression.reversed(): IntProgression {\n   return IntProgression.fromClosedRange(last, first, -step)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the same step.\n */\npublic fun LongProgression.reversed(): LongProgression {\n   return LongProgression.fromClosedRange(last, first, -step)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the same step.\n */\npublic fun CharProgression.reversed(): CharProgression {\n   return CharProgression.fromClosedRange(last, first, -step)\n}\n\n/**\n * Returns a progression that goes over the same range with the given step.\n */\npublic infix fun IntProgression.step(step: Int): IntProgression {\n   checkStepIsPositive(step > 0, step)\n   return IntProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/**\n * Returns a progression that goes over

the same range with the given step.\n */\npublic infix fun LongProgression.step(step: Long): LongProgression {\n   checkStepIsPositive(step > 0, step)\n   return LongProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/**\n * Returns a progression that goes over the same range with the given step.\n */\npublic infix fun CharProgression.step(step: Int): CharProgression {\n   checkStepIsPositive(step > 0, step)\n   return CharProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\ninternal fun Int.toByteExactOrNull(): Byte? {\n   return if (this in Byte.MIN_VALUE.toInt()..Byte.MAX_VALUE.toInt()) this.toByte() else null\n}\n\ninternal fun Long.toByteExactOrNull(): Byte? {\n   return if (this in Byte.MIN_VALUE.toLong()..Byte.MAX_VALUE.toLong()) this.toByte() else null\n}\n\ninternal fun Short.toByteExactOrNull(): Byte? {\n   return if (this in Byte.MIN_VALUE.toShort()..Byte.MAX_VALUE.toShort()) this.toByte() else null\n}\n\ninternal

fun Double.toByteExactOrNull(): Byte? {\n   return if (this in Byte.MIN_VALUE.toDouble()..Byte.MAX_VALUE.toDouble()) this.toInt().toByte() else null\n}\n\ninternal fun Float.toByteExactOrNull(): Byte? {\n   return if (this in Byte.MIN_VALUE.toFloat()..Byte.MAX_VALUE.toFloat()) this.toInt().toByte() else null\n}\n\ninternal fun Long.toIntExactOrNull(): Int? {\n   return if (this in Int.MIN_VALUE.toLong()..Int.MAX_VALUE.toLong()) this.toInt() else null\n}\n\ninternal fun Double.toIntExactOrNull(): Int? {\n   return if (this in Int.MIN_VALUE.toDouble()..Int.MAX_VALUE.toDouble()) this.toInt() else null\n}\n\ninternal fun Float.toIntExactOrNull(): Int? {\n   return if (this in Int.MIN_VALUE.toFloat()..Int.MAX_VALUE.toFloat()) this.toInt() else null\n}\n\ninternal fun Double.toLongExactOrNull(): Long? {\n   return if (this in Long.MIN_VALUE.toDouble()..Long.MAX_VALUE.toDouble()) this.toLong() else null\n}\n\ninternal fun Float.toLongExactOrNull(): Long? {\n   return if (this

in Long.MIN_VALUE.toFloat()..Long.MAX_VALUE.toFloat()) this.toLong() else null\n}\n\ninternal fun Int.toShortExactOrNull(): Short? {\n   return if (this in Short.MIN_VALUE.toInt()..Short.MAX_VALUE.toInt()) this.toShort() else null\n}\n\ninternal fun Long.toShortExactOrNull(): Short? {\n   return if (this in Short.MIN_VALUE.toLong()..Short.MAX_VALUE.toLong()) this.toShort() else null\n}\n\ninternal fun Double.toShortExactOrNull(): Short? {\n   return if (this in Short.MIN_VALUE.toDouble()..Short.MAX_VALUE.toDouble()) this.toInt().toShort() else null\n}\n\ninternal fun Float.toShortExactOrNull(): Short? {\n   return if (this in Short.MIN_VALUE.toFloat()..Short.MAX_VALUE.toFloat()) this.toInt().toShort() else null\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Int.until(to: Byte): IntRange {\n   return this .. (to.toInt()

- 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Long.until(to:

Byte): LongRange {\n   return this .. (to.toLong() - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Byte.until(to: Byte): IntRange {\n   return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Short.until(to: Byte): IntRange {\n   return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Char.until(to: Char): CharRange {\n   if (to <= '\\u0000') return CharRange.EMPTY\n   return this .. (to - 1).toChar()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Int.until(to: Int): IntRange {\n   if (to <= Int.MIN_VALUE) return IntRange.EMPTY\n   return this .. (to - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Long.until(to: Int): LongRange {\n   return this .. (to.toLong() - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Byte.until(to: Int): IntRange {\n   if (to <= Int.MIN_VALUE) return IntRange.EMPTY\n   return this.toInt() .. (to - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Short.until(to: Int): IntRange {\n   if (to <= Int.MIN_VALUE) return IntRange.EMPTY\n   return this.toInt() .. (to - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Int.until(to: Long): LongRange {\n   if (to <= Long.MIN_VALUE) return LongRange.EMPTY\n   return this.toLong() .. (to - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Long.until(to: Long): LongRange {\n   if (to <= Long.MIN_VALUE) return LongRange.EMPTY\n   return this .. (to - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Byte.until(to: Long): LongRange {\n   if (to <= Long.MIN_VALUE) return LongRange.EMPTY\n   return this.toLong() .. (to - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Short.until(to: Long): LongRange {\n   if (to <= Long.MIN_VALUE) return LongRange.EMPTY\n   return this.toLong() .. (to - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Int.until(to: Short): IntRange {\n   return this .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Long.until(to: Short): LongRange {\n   return this .. (to.toLong() - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Byte.until(to: Short): IntRange {\n   return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Short.until(to: Short): IntRange {\n   return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeastComparable\n */\npublic fun <T : Comparable<T>> T.coerceAtLeast(minimumValue: T): T {\n   return if (this < minimumValue)

minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Byte.coerceAtLeast(minimumValue: Byte): Byte {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Short.coerceAtLeast(minimumValue: Short): Short {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Int.coerceAtLeast(minimumValue: Int): Int {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Long.coerceAtLeast(minimumValue: Long): Long {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Float.coerceAtLeast(minimumValue: Float): Float {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Double.coerceAtLeast(minimumValue: Double): Double {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMostComparable\n */\npublic fun <T : Comparable<T>> T.coerceAtMost(maximumValue: T): T {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Byte.coerceAtMost(maximumValue: Byte): Byte {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Short.coerceAtMost(maximumValue: Short): Short {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Int.coerceAtMost(maximumValue: Int): Int {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Long.coerceAtMost(maximumValue: Long): Long {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Float.coerceAtMost(maximumValue: Float): Float {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n *

\n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Double.coerceAtMost(maximumValue: Double): Double {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceInComparable\n */\npublic fun <T : Comparable<T>> T.coerceIn(minimumValue: T?, maximumValue: T?): T {\n   if (minimumValue !== null && maximumValue !== null) {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   }\n   else {\n   if (minimumValue !== null && this < minimumValue) return minimumValue\n   if (maximumValue !== null && this > maximumValue) return maximumValue\n   }\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Byte.coerceIn(minimumValue: Byte, maximumValue: Byte): Byte {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Short.coerceIn(minimumValue: Short, maximumValue: Short): Short {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Int.coerceIn(minimumValue: Int, maximumValue: Int): Int {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Long.coerceIn(minimumValue: Long, maximumValue: Long): Long {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Float.coerceIn(minimumValue: Float, maximumValue: Float): Float {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this <

minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return
this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n *
@return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or
[maximumValue] if this value is greater than [maximumValue].\n * \n * @sample
samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Double.coerceIn(minimumValue: Double,
maximumValue: Double): Double {\n   if (minimumValue > maximumValue) throw
IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than
minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue)
return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n *
@return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive`
if this value is greater than `range.endInclusive`.\n * \n * @sample
samples.comparisons.ComparableOps.coerceInFloatingPointRange\n */\n@SinceKotlin(\"1.1\")\npublic fun <T :
Comparable<T>> T.coerceIn(range: ClosedFloatingPointRange<T>): T {\n   if (range.isEmpty()) throw
IllegalArgumentException(\"Cannot coerce value to an empty range: $range.\")\n   return when {\n   // this <
start equiv to this <= start && !(this >= start)\n   range.lessThanOrEquals(this, range.start) &&
!range.lessThanOrEquals(range.start, this) -> range.start\n   // this > end equiv to this >= end && !(this <= end)\n
range.lessThanOrEquals(range.endInclusive, this) && !range.lessThanOrEquals(this, range.endInclusive) ->
range.endInclusive\n   else -> this\n   }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n *
@return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive`
if this
value is greater than `range.endInclusive`.\n * \n * @sample
samples.comparisons.ComparableOps.coerceInComparable\n */\npublic fun <T : Comparable<T>>
T.coerceIn(range: ClosedRange<T>): T {\n   if (range is ClosedFloatingPointRange) {\n   return
this.coerceIn<T>(range)\n   }\n   if (range.isEmpty()) throw IllegalArgumentException(\"Cannot coerce value to an
empty range: $range.\")\n   return when {\n   this < range.start -> range.start\n   this > range.endInclusive ->
range.endInclusive\n   else -> this\n   }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n *
@return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive`
if this value is greater than `range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n
*/\npublic fun Int.coerceIn(range: ClosedRange<Int>): Int {\n   if (range is ClosedFloatingPointRange) {\n
return this.coerceIn<Int>(range)\n
}\n   if (range.isEmpty()) throw IllegalArgumentException(\"Cannot coerce value to an empty range: $range.\")\n
return when {\n   this < range.start -> range.start\n   this > range.endInclusive -> range.endInclusive\n
else -> this\n   }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n * @return this value if it's
in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive` if this value is greater
than `range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun
Long.coerceIn(range: ClosedRange<Long>): Long {\n   if (range is ClosedFloatingPointRange) {\n   return
this.coerceIn<Long>(range)\n   }\n   if (range.isEmpty()) throw IllegalArgumentException(\"Cannot coerce value
to an empty range: $range.\")\n   return when {\n   this < range.start -> range.start\n   this >
range.endInclusive -> range.endInclusive\n   else -> this\n
}\n}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of
this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n//
Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.experimental.*\nimport
kotlin.jvm.*\n\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@JvmInline\npublic value class UByte @PublishedApi internal constructor(@PublishedApi internal val data: Byte) :
Comparable<UByte> {\n\n   companion object {\n   /**\n   * A constant holding the minimum value an
instance of UByte can have.\n   */\n   public const val MIN_VALUE: UByte = UByte(0)\n\n   /**\n   *
A constant holding the maximum value an instance of UByte can have.\n   */\n   public const val
MAX_VALUE: UByte = UByte(-1)\n\n   /**\n   * The number of bytes used to represent an instance of

UByte in a binary form.\n

*/\n   public const val SIZE_BYTES: Int = 1\n\n   /**\n   * The number of bits used to represent an instance of UByte in a binary form.\n   */\n   public const val SIZE_BITS: Int = 8\n }\n\n /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n @kotlin.internal.InlineOnly\n @Suppress(\"OVERRIDE_BY_INLINE\")\n public override inline operator fun compareTo(other: UByte): Int = this.toInt().compareTo(other.toInt())\n\n /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n @kotlin.internal.InlineOnly\n public inline operator fun compareTo(other:

UShort): Int = this.toInt().compareTo(other.toInt())\n\n /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n @kotlin.internal.InlineOnly\n public inline operator fun compareTo(other: UInt): Int = this.toUInt().compareTo(other)\n\n /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n @kotlin.internal.InlineOnly\n public inline operator fun compareTo(other: ULong): Int = this.toULong().compareTo(other)\n\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: UByte): UInt = this.toUInt().plus(other.toUInt())\n

/** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: UShort): UInt = this.toUInt().plus(other.toUInt())\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: UInt): UInt = this.toUInt().plus(other)\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: ULong): ULong = this.toULong().plus(other)\n\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: UByte): UInt = this.toUInt().minus(other.toUInt())\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: UShort): UInt = this.toUInt().minus(other.toUInt())\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator

fun minus(other: UInt): UInt = this.toUInt().minus(other)\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: ULong): ULong = this.toULong().minus(other)\n\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: UByte): UInt = this.toUInt().times(other.toUInt())\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: UShort): UInt = this.toUInt().times(other.toUInt())\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: UInt): UInt = this.toUInt().times(other)\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: ULong): ULong = this.toULong().times(other)\n\n /** Divides this value by the other value,

truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: UByte): UInt = this.toUInt().div(other.toUInt())\n /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: UShort): UInt = this.toUInt().div(other.toUInt())\n /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: UInt): UInt = this.toUInt().div(other)\n /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: ULong): ULong = this.toULong().div(other)\n\n /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n

* The result is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun rem(other: UByte): UInt = this.toUInt().rem(other.toUInt())\n /**\n * Calculates the remainder of truncating division of this value by the other value.\n * \n * The result is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun rem(other: UShort): UInt = this.toUInt().rem(other.toUInt())\n /**\n * Calculates the remainder of truncating division of this value by the other value.\n * \n * The result is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun rem(other: UInt): UInt = this.toUInt().rem(other)\n /**\n * Calculates the remainder of truncating division of this value by the other value.\n * \n * The result is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun rem(other: ULong): ULong = this.toULong().rem(other)\n\n /**\n * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n * \n * For unsigned types, the results of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other: UByte): UInt = this.toUInt().floorDiv(other.toUInt())\n /**\n * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n * \n * For unsigned types, the results of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other: UShort): UInt = this.toUInt().floorDiv(other.toUInt())\n /**\n * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n * \n * For unsigned types, the results of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other: UInt): UInt = this.toUInt().floorDiv(other)\n /**\n * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n * \n * For unsigned types, the results of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun floorDiv(other: ULong): ULong = this.toULong().floorDiv(other)\n\n /**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is always less than the divisor.\n * \n * For unsigned types, the remainders of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun mod(other: UByte): UByte = this.toUInt().mod(other.toUInt()).toUByte()\n /**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is always less than the divisor.\n * \n * For unsigned types, the remainders of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun mod(other: UShort): UShort = this.toUInt().mod(other.toUInt()).toUShort()\n /**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is always less than the divisor.\n * \n * For unsigned types, the remainders of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun mod(other: UInt): UInt = this.toUInt().mod(other)\n /**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is always less than the divisor.\n * \n * For unsigned types, the remainders of flooring division and truncating division are the same.\n */\n @kotlin.internal.InlineOnly\n public inline fun mod(other: ULong): ULong = this.toULong().mod(other)\n\n /**\n * Returns this value incremented by one.\n *\n * @sample samples.misc.Builtins.inc\n */\n @kotlin.internal.InlineOnly\n public inline operator fun inc(): UByte = UByte(data.inc())\n\n /**\n * Returns this value decremented by one.\n *\n * @sample samples.misc.Builtins.dec\n */\n @kotlin.internal.InlineOnly\n public inline operator fun dec(): UByte = UByte(data.dec())\n\n /** Creates a range from this value to the specified [other] value. */\n @kotlin.internal.InlineOnly\n public inline operator fun rangeTo(other: UByte): UIntRange = UIntRange(this.toUInt(), other.toUInt())\n\n /** Performs a bitwise AND operation between the two values. */\n @kotlin.internal.InlineOnly\n public inline infix fun and(other: UByte): UByte = UByte(this.data and other.data)\n /** Performs a bitwise OR operation between the two values. */\n @kotlin.internal.InlineOnly\n public inline infix fun or(other: UByte): UByte = UByte(this.data or other.data)\n /** Performs a bitwise XOR operation between the two values. */\n @kotlin.internal.InlineOnly\n public inline infix fun xor(other: UByte): UByte = UByte(this.data xor other.data)\n /** Inverts the bits in this

value. */\n   @kotlin.internal.InlineOnly\n   public inline fun inv(): UByte = UByte(data.inv())\n\n   /**\n   * Converts this [UByte] value to [Byte].\n   *\n   * If this value is less than or equals to [Byte.MAX_VALUE], the resulting `Byte` value represents\n   * the same numerical value as this `UByte`. Otherwise the result is negative.\n   *\n   * The resulting `Byte` value has the same binary representation as this `UByte` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toByte(): Byte = data\n   /**\n   * Converts this [UByte] value to [Short].\n   *\n   * The resulting `Short` value represents
the same numerical value as this `UByte`.\n   *\n   * The least significant 8 bits of the resulting `Short` value are the same as the bits of this `UByte` value,\n   * whereas the most significant 8 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toShort(): Short = data.toShort() and 0xFF\n   /**\n   * Converts this [UByte] value to [Int].\n   *\n   * The resulting `Int` value represents the same numerical value as this `UByte`.\n   *\n   * The least significant 8 bits of the resulting `Int` value are the same as the bits of this `UByte` value,\n   * whereas the most significant 24 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toInt(): Int = data.toInt() and 0xFF\n   /**\n   * Converts this [UByte] value to [Long].\n   *\n   * The resulting `Long` value represents the same numerical value as this `UByte`.\n   *\n   * The least significant 8 bits of the resulting
`Long` value are the same as the bits of this `UByte` value,\n   * whereas the most significant 56 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toLong(): Long = data.toLong() and 0xFF\n\n   /** Returns this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun toUByte(): UByte = this\n   /**\n   * Converts this [UByte] value to [UShort].\n   *\n   * The resulting `UShort` value represents the same numerical value as this `UByte`.\n   *\n   * The least significant 8 bits of the resulting `UShort` value are the same as the bits of this `UByte` value,\n   * whereas the most significant 8 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUShort(): UShort = UShort(data.toShort() and 0xFF)\n   /**\n   * Converts this [UByte] value to [UInt].\n   *\n   * The resulting `UInt` value represents the same numerical value as this `UByte`.\n   *\n   * The least significant
8 bits of the resulting `UInt` value are the same as the bits of this `UByte` value,\n   * whereas the most significant 24 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUInt(): UInt = UInt(data.toInt() and 0xFF)\n   /**\n   * Converts this [UByte] value to [ULong].\n   *\n   * The resulting `ULong` value represents the same numerical value as this `UByte`.\n   *\n   * The least significant 8 bits of the resulting `ULong` value are the same as the bits of this `UByte` value,\n   * whereas the most significant 56 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toULong(): ULong = ULong(data.toLong() and 0xFF)\n\n   /**\n   * Converts this [UByte] value to [Float].\n   *\n   * The resulting `Float` value represents the same numerical value as this `UByte`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toFloat(): Float = this.toInt().toFloat()\n   /**\n
* Converts this [UByte] value to [Double].\n   *\n   * The resulting `Double` value represents the same numerical value as this `UByte`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toDouble(): Double = this.toInt().toDouble()\n\n   public override fun toString(): String = toInt().toString()\n\n}\n\n/**\n * Converts this [Byte] value to [UByte].\n *\n * If this value is positive, the resulting `UByte` value represents the same numerical value as this `Byte`.\n *\n * The resulting `UByte` value has the same binary representation as this `Byte` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.toUByte(): UByte = UByte(this)\n/**\n * Converts this [Short] value to [UByte].\n *\n * If this value is positive and less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\n * the same numerical value as this `Short`.\n *\n * The resulting `UByte` value
is represented by the least significant 8 bits of this `Short` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.toUByte(): UByte = UByte(this.toByte())\n/**\n * Converts this [Int] value to [UByte].\n *\n * If this value is positive and less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\n * the same numerical value as this `Int`.\n *\n * The resulting `UByte` value is represented by the least significant 8 bits of this `Int` value.\n

*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Int.toUByte(): UByte = UByte(this.toByte())\n/**\n * Converts this [Long] value to [UByte].\n *\n * If this value is positive and less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\n * the same numerical value as this `Long`.\n *\n * The resulting `UByte` value is represented by the least significant 8 bits of this `Long` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Long.toUByte(): UByte = UByte(this.toByte())\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.experimental.*\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@JvmInline\npublic value class UInt @PublishedApi internal constructor(@PublishedApi internal val data: Int) : Comparable<UInt> {\n\n   companion object {\n   /**\n   * A constant holding the minimum value an instance of UInt can have.\n   */\n   public const val MIN_VALUE: UInt = UInt(0)\n\n   /**\n   * A constant holding the maximum value an instance of UInt can have.\n   */\n   public const val MAX_VALUE: UInt = UInt(-1)\n\n   /**\n   * The number of bytes used to represent an instance of UInt in a binary form.\n   */\n   public const val SIZE_BYTES: Int = 4\n\n   /**\n   * The number of bits used to represent an instance of UInt in a binary form.\n   */\n   public const val SIZE_BITS: Int = 32\n   }\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other: UByte): Int = this.compareTo(other.toUInt())\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other: UShort): Int = this.compareTo(other.toUInt())\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   @Suppress(\"OVERRIDE_BY_INLINE\")\n   public override inline operator fun compareTo(other: UInt): Int = uintCompare(this.data, other.data)\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other: ULong): Int = this.toULong().compareTo(other)\n\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UByte): UInt = this.plus(other.toUInt())\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UShort): UInt = this.plus(other.toUInt())\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UInt): UInt = UInt(this.data.plus(other.data))\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: ULong): ULong = this.toULong().plus(other)\n\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UByte): UInt = this.minus(other.toUInt())\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UShort): UInt = this.minus(other.toUInt())\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UInt): UInt = UInt(this.data.minus(other.data))\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: ULong): ULong = this.toULong().minus(other)\n\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UByte): UInt = this.times(other.toUInt())\n   /** Multiplies this value by the

other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UShort): UInt = this.times(other.toUInt())\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UInt): UInt = UInt(this.data.times(other.data))\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n

public inline operator fun times(other: ULong): ULong = this.toULong().times(other)\n\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UByte): UInt = this.div(other.toUInt())\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UShort): UInt = this.div(other.toUInt())\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UInt): UInt = uintDivide(this, other)\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: ULong): ULong =

this.toULong().div(other)\n\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UByte): UInt = this.rem(other.toUInt())\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UShort): UInt = this.rem(other.toUInt())\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UInt): UInt = uintRemainder(this, other)\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n

* The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: ULong): ULong = this.toULong().rem(other)\n\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UByte): UInt = this.floorDiv(other.toUInt())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UShort): UInt = this.floorDiv(other.toUInt())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer

to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UInt): UInt = div(other)\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: ULong): ULong = this.toULong().floorDiv(other)\n\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UByte): UByte = this.mod(other.toUInt()).toUByte()\n

/**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UShort): UShort = this.mod(other.toUInt()).toUShort()\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UInt): UInt = rem(other)\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the

remainders of flooring division
 and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: ULong): ULong = this.toULong().mod(other)\n\n   /**\n   * Returns this value incremented by one.\n   *\n   * @sample samples.misc.Builtins.inc\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun inc(): UInt = UInt(data.inc())\n\n   /**\n   * Returns this value decremented by one.\n   *\n   * @sample samples.misc.Builtins.dec\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun dec(): UInt = UInt(data.dec())\n\n   /** Creates a range from this value to the specified [other] value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rangeTo(other: UInt): UIntRange = UIntRange(this, other)\n\n   /**\n   * Shifts this value left by the [bitCount] number of bits.\n   *\n   * Note that only the five lowest-order bits of the [bitCount] are used as the shift distance.\n   * The shift distance actually
 used is therefore always in the range `0..31`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline infix fun shl(bitCount: Int): UInt = UInt(data shl bitCount)\n\n   /**\n   * Shifts this value right by the [bitCount] number of bits, filling the leftmost bits with zeros.\n   *\n   * Note that only the five lowest-order bits of the [bitCount] are used as the shift distance.\n   * The shift distance actually used is therefore always in the range `0..31`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline infix fun shr(bitCount: Int): UInt = UInt(data ushr bitCount)\n\n   /** Performs a bitwise AND operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun and(other: UInt): UInt = UInt(this.data and other.data)\n   /** Performs a bitwise OR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun or(other: UInt): UInt = UInt(this.data or other.data)\n   /** Performs a bitwise
 XOR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun xor(other: UInt): UInt = UInt(this.data xor other.data)\n   /** Inverts the bits in this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun inv(): UInt = UInt(data.inv())\n\n   /**\n   * Converts this [UInt] value to [Byte].\n   *\n   * If this value is less than or equals to [Byte.MAX_VALUE], the resulting `Byte` value represents\n   * the same numerical value as this `UInt`.\n   *\n   * The resulting `Byte` value is represented by the least significant 8 bits of this `UInt` value.\n   * Note that the resulting `Byte` value may be negative.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toByte(): Byte = data.toByte()\n   /**\n   * Converts this [UInt] value to [Short].\n   *\n   * If this value is less than or equals to [Short.MAX_VALUE], the resulting `Short` value represents\n   * the same numerical value as this `UInt`.\n
     *\n   * The resulting `Short` value is represented by the least significant 16 bits of this `UInt` value.\n   * Note that the resulting `Short` value may be negative.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toShort(): Short = data.toShort()\n   /**\n   * Converts this [UInt] value to [Int].\n   *\n   * If this value is less than or equals to [Int.MAX_VALUE], the resulting `Int` value represents\n   * the same numerical value as this `UInt`. Otherwise the result is negative.\n   *\n   * The resulting `Int` value has the same binary representation as this `UInt` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toInt(): Int = data\n   /**\n   * Converts this [UInt] value to [Long].\n   *\n   * The resulting `Long` value represents the same numerical value as this `UInt`.\n   *\n   * The least significant 32 bits of the resulting `Long` value are the same as the bits of this `UInt` value,\n   * whereas the most
 significant 32 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toLong(): Long = data.toLong() and 0xFFFF_FFFF\n\n   /**\n   * Converts this [UInt] value to [UByte].\n   *\n   * If this value is less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\n   * the same numerical value as this `UInt`.\n   *\n   * The resulting `UByte` value is represented by the least significant 8 bits of this `UInt` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUByte(): UByte = data.toUByte()\n   /**\n   * Converts this [UInt] value to [UShort].\n   *\n   * If this value is less than or equals to [UShort.MAX_VALUE], the resulting `UShort` value represents\n   * the same numerical value as this `UInt`.\n   *\n   * The resulting `UShort` value is represented by the least significant 16 bits of this `UInt` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUShort():
 UShort = data.toUShort()\n   /** Returns this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun toUInt(): UInt = this\n   /**\n   * Converts this [UInt] value to [ULong].\n   *\n   * The resulting `ULong` value

represents the same numerical value as this `UInt`.\n   *\n   * The least significant 32 bits of the resulting `ULong` value are the same as the bits of this `UInt` value,\n   * whereas the most significant 32 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toULong(): ULong = ULong(data.toLong() and 0xFFFF_FFFF)\n\n   /**\n   * Converts this [UInt] value to [Float].\n   *\n   * The resulting value is the closest `Float` to this `UInt` value.\n   * In case when this `UInt` value is exactly between two `Float`s,\n   * the one with zero at least significant bit of mantissa is selected.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toFloat(): Float = this.toDouble().toFloat()\n
    /**\n   * Converts this [UInt] value to [Double].\n   *\n   * The resulting `Double` value represents the same numerical value as this `UInt`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toDouble(): Double = uintToDouble(data)\n\n   public override fun toString(): String = toLong().toString()\n\n}\n\n/**\n * Converts this [Byte] value to [UInt].\n *\n * If this value is positive, the resulting `UInt` value represents the same numerical value as this `Byte`.\n *\n * The least significant 8 bits of the resulting `UInt` value are the same as the bits of this `Byte` value,\n * whereas the most significant 24 bits are filled with the sign bit of this value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.toUInt(): UInt = UInt(this.toInt())\n/**\n * Converts this [Short] value to [UInt].\n *\n * If this value is positive, the resulting `UInt` value represents the same numerical
 value as this `Short`.\n *\n * The least significant 16 bits of the resulting `UInt` value are the same as the bits of this `Short` value,\n * whereas the most significant 16 bits are filled with the sign bit of this value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.toUInt(): UInt = UInt(this.toInt())\n/**\n * Converts this [Int] value to [UInt].\n *\n * If this value is positive, the resulting `UInt` value represents the same numerical value as this `Int`.\n *\n * The resulting `UInt` value has the same binary representation as this `Int` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Int.toUInt(): UInt = UInt(this)\n/**\n * Converts this [Long] value to [UInt].\n *\n * If this value is positive and less than or equals to [UInt.MAX_VALUE], the resulting `UInt` value represents\n * the same numerical value
 as this `Long`.\n *\n * The resulting `UInt` value is represented by the least significant 32 bits of this `Long` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Long.toUInt(): UInt = UInt(this.toInt())\n\n/**\n * Converts this [Float] value to [UInt].\n *\n * The fractional part, if any, is rounded down towards zero.\n * Returns zero if this `Float` value is negative or `NaN`, [UInt.MAX_VALUE] if it's bigger than `UInt.MAX_VALUE`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Float.toUInt(): UInt = doubleToUInt(this.toDouble())\n/**\n * Converts this [Double] value to [UInt].\n *\n * The fractional part, if any, is rounded down towards zero.\n * Returns zero if this `Double` value is negative or `NaN`, [UInt.MAX_VALUE] if it's bigger than `UInt.MAX_VALUE`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic
 inline fun Double.toUInt(): UInt = doubleToUInt(this)\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.experimental.*\nimport
kotlin.jvm.*\n\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@JvmInline\npublic value class UShort @PublishedApi internal constructor(@PublishedApi internal val data: Short) : Comparable<UShort> {\n\n   companion object {\n   /**\n   * A constant holding the minimum value an instance of UShort can have.\n   */\n   public const val MIN_VALUE: UShort = UShort(0)\n\n   /**\n   * A constant holding the maximum value an instance of UShort can have.\n   */\n   public const val MAX_VALUE: UShort = UShort(-1)\n\n

/**\n * The number of bytes used to represent an instance of UShort in a binary form.\n */\n public const val SIZE_BYTES: Int = 2\n\n /**\n * The number of bits used to represent an instance of UShort in a binary form.\n */\n public const val SIZE_BITS: Int = 16\n }\n\n /**\n * Compares this value with the specified value for order.\n * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n * or a positive number if it's greater than other.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun compareTo(other: UByte): Int = this.toInt().compareTo(other.toInt())\n\n /**\n * Compares this value with the specified value for order.\n * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n * or a positive number if it's greater than other.\n */\n @kotlin.internal.InlineOnly\n

@Suppress(\"OVERRIDE_BY_INLINE\")\n public override inline operator fun compareTo(other: UShort): Int = this.toInt().compareTo(other.toInt())\n\n /**\n * Compares this value with the specified value for order.\n * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n * or a positive number if it's greater than other.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun compareTo(other: UInt): Int = this.toUInt().compareTo(other)\n\n /**\n * Compares this value with the specified value for order.\n * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n * or a positive number if it's greater than other.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun compareTo(other: ULong): Int = this.toULong().compareTo(other)\n\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n

public inline operator fun plus(other: UByte): UInt = this.toUInt().plus(other.toUInt())\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: UShort): UInt = this.toUInt().plus(other.toUInt())\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: UInt): UInt = this.toUInt().plus(other)\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: ULong): ULong = this.toULong().plus(other)\n\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: UByte): UInt = this.toUInt().minus(other.toUInt())\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: UShort): UInt = this.toUInt().minus(other.toUInt())\n

/** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: UInt): UInt = this.toUInt().minus(other)\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: ULong): ULong = this.toULong().minus(other)\n\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: UByte): UInt = this.toUInt().times(other.toUInt())\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: UShort): UInt = this.toUInt().times(other.toUInt())\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: UInt): UInt = this.toUInt().times(other)\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: ULong): ULong = this.toULong().times(other)\n\n /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: UByte): UInt = this.toUInt().div(other.toUInt())\n /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: UShort): UInt = this.toUInt().div(other.toUInt())\n /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: UInt): UInt = this.toUInt().div(other)\n /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: ULong): ULong = this.toULong().div(other)\n\n

/**\n * Calculates the remainder of truncating division of this value by the other value.\n * \n * The result is always less than the divisor.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun rem(other: UByte): UInt = this.toUInt().rem(other.toUInt())\n /**\n * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UShort): UInt = this.toUInt().rem(other.toUInt())\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UInt): UInt = this.toUInt().rem(other)\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: ULong): ULong = this.toULong().rem(other)\n\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UByte): UInt = this.toUInt().floorDiv(other.toUInt())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UShort): UInt = this.toUInt().floorDiv(other.toUInt())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UInt): UInt = this.toUInt().floorDiv(other)\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: ULong): ULong = this.toULong().floorDiv(other)\n\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UByte): UByte = this.toUInt().mod(other.toUInt()).toUByte()\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UShort): UShort = this.toUInt().mod(other.toUInt()).toUShort()\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UInt): UInt = this.toUInt().mod(other)\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: ULong): ULong = this.toULong().mod(other)\n\n   /**\n   * Returns this value incremented by one.\n   *\n   * @sample samples.misc.Builtins.inc\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun inc(): UShort = UShort(data.inc())\n\n   /**\n   * Returns this value decremented by one.\n   *\n   * @sample samples.misc.Builtins.dec\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun dec(): UShort = UShort(data.dec())\n\n   /** Creates a range from this value to the specified [other] value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rangeTo(other: UShort): UIntRange = UIntRange(this.toUInt(), other.toUInt())\n\n   /** Performs a bitwise AND operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun and(other: UShort): UShort = UShort(this.data and other.data)\n   /** Performs a bitwise OR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun or(other: UShort): UShort = UShort(this.data or other.data)\n   /** Performs a bitwise XOR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun xor(other: UShort): UShort = UShort(this.data xor other.data)\n   /** Inverts the bits in this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun inv(): UShort = UShort(data.inv())\n\n   /**\n   * Converts this [UShort] value to [Byte].\n   *\n   * If this value is less

than or equals to [Byte.MAX_VALUE], the resulting `Byte` value represents\n   * the same numerical value as this `UShort`.\n   *\n   * The resulting `Byte` value is represented by the least significant 8 bits of this `UShort` value.\n   * Note that the resulting `Byte` value may be negative.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toByte(): Byte = data.toByte()\n   /**\n   * Converts this [UShort] value to [Short].\n   *\n   * If this value is less than or equals to [Short.MAX_VALUE], the resulting `Short` value represents\n   * the same numerical value as this `UShort`. Otherwise the result is negative.\n   *\n   * The resulting `Short` value has the same binary representation as this `UShort` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toShort(): Short = data\n   /**\n   * Converts this [UShort] value to [Int].\n   *\n   * The resulting `Int` value represents the same numerical value as this `UShort`.\n   *\n   * The least significant 16 bits of the resulting `Int` value are the same as the bits of this `UShort` value,\n   * whereas the most significant 16 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toInt(): Int = data.toInt() and 0xFFFF\n   /**\n   * Converts this
 [UShort] value to [Long].\n   *\n   * The resulting `Long` value represents the same numerical value as this `UShort`.\n   *\n   * The least significant 16 bits of the resulting `Long` value are the same as the bits of this `UShort` value,\n   * whereas the most significant 48 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toLong(): Long = data.toLong() and 0xFFFF\n\n   /**\n   * Converts this [UShort] value to [UByte].\n   *\n   * If this value is less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\n   * the same numerical value as this `UShort`.\n   *\n   * The resulting `UByte` value is represented by the least significant 8 bits of this `UShort` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUByte(): UByte = data.toUByte()\n   /** Returns this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun toUShort(): UShort = this\n   /**\n   * Converts
 this [UShort] value to [UInt].\n   *\n   * The resulting `UInt` value represents the same numerical value as this `UShort`.\n   *\n   * The least significant 16 bits of the resulting `UInt` value are the same as the bits of this `UShort` value,\n   * whereas the most significant 16 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUInt(): UInt = UInt(data.toInt() and 0xFFFF)\n   /**\n   * Converts this [UShort] value to [ULong].\n   *\n   * The resulting `ULong` value represents the same numerical value as this `UShort`.\n   *\n   * The least significant 16 bits of the resulting `ULong` value are the same as the bits of this `UShort` value,\n   * whereas the most significant 48 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toULong(): ULong = ULong(data.toLong() and 0xFFFF)\n\n   /**\n   * Converts this [UShort] value to [Float].\n   *\n   * The resulting `Float`
 value represents the same numerical value as this `UShort`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toFloat(): Float = this.toInt().toFloat()\n   /**\n   * Converts this [UShort] value to [Double].\n   *\n   * The resulting `Double` value represents the same numerical value as this `UShort`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toDouble(): Double = this.toInt().toDouble()\n\n   public override fun toString(): String = toInt().toString()\n\n}\n\n/**\n * Converts this [Byte] value to [UShort].\n *\n * If this value is positive, the resulting `UShort` value represents the same numerical value as this `Byte`.\n *\n * The least significant 8 bits of the resulting `UShort` value are the same as the bits of this `Byte` value,\n * whereas the most significant 8 bits are filled with the sign bit of this value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun
 Byte.toUShort(): UShort = UShort(this.toShort())\n/**\n * Converts this [Short] value to [UShort].\n *\n * If this value is positive, the resulting `UShort` value represents the same numerical value as this `Short`.\n *\n * The resulting `UShort` value has the same binary representation as this `Short` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.toUShort(): UShort = UShort(this)\n/**\n * Converts this [Int] value to [UShort].\n *\n * If this value is positive and less than or equals to [UShort.MAX_VALUE], the resulting `UShort` value represents\n * the same numerical value as this `Int`.\n *\n * The resulting `UShort` value is represented by the least significant 16 bits of this `Int` value.\n

*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Int.toUShort(): UShort = UShort(this.toShort())\n/**\n * Converts this [Long] value to [UShort].\n *\n * If this value is positive and less than or equals to [UShort.MAX_VALUE], the resulting `UShort` value represents\n * the same numerical value as this `Long`.\n *\n * The resulting `UShort` value is represented by the least significant 16 bits of this `Long` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Long.toUShort(): UShort = UShort(this.toShort())\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.ranges\n\n/**\n * A range of values of type `Char`.\n */\npublic class CharRange(start: Char, endInclusive: Char) : CharProgression(start, endInclusive, 1), ClosedRange<Char> {\n override val start: Char get() = first\n override val endInclusive: Char get() = last\n\n override fun contains(value: Char): Boolean = first <= value && value <= last\n\n /** \n * Checks whether the range is empty.\n *\n * The range is empty if its start value is greater than the end value.\n */\n override fun isEmpty(): Boolean = first > last\n\n override fun equals(other: Any?): Boolean =\n other is CharRange && (isEmpty() && other.isEmpty() ||\n first == other.first && last == other.last)\n\n override fun hashCode(): Int =\n if (isEmpty()) -1 else (31 * first.code + last.code)\n\n override fun toString(): String = \"$first..$last\"\n\n companion object {\n /** An empty range of values of type Char. */\n public val EMPTY: CharRange = CharRange(1.toChar(), 0.toChar())\n }\n}\n\n/**\n * A range of values of type `Int`.\n */\npublic class IntRange(start: Int, endInclusive: Int) : IntProgression(start, endInclusive, 1), ClosedRange<Int> {\n override val start: Int get() = first\n override val endInclusive: Int get() = last\n\n override fun contains(value: Int): Boolean = first <= value && value <= last\n\n /** \n * Checks whether the range is empty.\n *\n * The range is empty if its start value is greater than the end value.\n */\n override fun isEmpty(): Boolean = first > last\n\n override fun equals(other: Any?): Boolean =\n other is IntRange && (isEmpty() && other.isEmpty() ||\n first == other.first && last == other.last)\n\n override fun hashCode(): Int =\n if (isEmpty()) -1 else (31 * first + last)\n\n override fun toString(): String = \"$first..$last\"\n\n companion object {\n /** An empty range of values of type Int. */\n public val EMPTY: IntRange = IntRange(1, 0)\n }\n}\n\n/**\n * A range of values of type `Long`.\n */\npublic class LongRange(start: Long, endInclusive: Long) : LongProgression(start, endInclusive, 1), ClosedRange<Long> {\n override val start: Long get() = first\n override val endInclusive: Long get() = last\n\n override fun contains(value: Long): Boolean = first <= value && value <= last\n\n /** \n * Checks whether the range is empty.\n *\n * The range is empty if its start value is greater than the end value.\n */\n override fun isEmpty(): Boolean = first > last\n\n override fun equals(other: Any?): Boolean =\n other is LongRange && (isEmpty() && other.isEmpty() ||\n first == other.first && last == other.last)\n\n override fun hashCode(): Int =\n if (isEmpty()) -1 else (31 * (first xor (first ushr 32)) + (last xor (last ushr 32))).toInt()\n\n override fun toString(): String = \"$first..$last\"\n\n companion object {\n /** An empty range of values of type Long. */\n public val EMPTY: LongRange = LongRange(1, 0)\n }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CollectionsKt\")\n@file:OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n\npackage kotlin.collections\n\nimport kotlin.contracts.*\nimport kotlin.random.Random\n\ninternal object EmptyIterator : ListIterator<Nothing> {\n override fun hasNext(): Boolean = false\n override fun hasPrevious(): Boolean = false\n override fun nextIndex(): Int = 0\n override fun previousIndex(): Int = -1\n override fun next(): Nothing = throw NoSuchElementException()\n override fun previous(): Nothing = throw NoSuchElementException()\n}\n\ninternal object EmptyList : List<Nothing>, Serializable, RandomAccess {\n private const val serialVersionUID: Long = -7390468764508069838L\n\n override fun equals(other: Any?): Boolean = other is List<*> && other.isEmpty()\n override fun hashCode(): Int

```
= 1\n    override fun toString(): String
 = \"[]\"\n\n    override val size: Int get() = 0\n    override fun isEmpty(): Boolean = true\n    override fun
contains(element: Nothing): Boolean = false\n    override fun containsAll(elements: Collection<Nothing>): Boolean
= elements.isEmpty()\n\n    override fun get(index: Int): Nothing = throw IndexOutOfBoundsException(\"Empty list
doesn't contain element at index $index.\")\n    override fun indexOf(element: Nothing): Int = -1\n    override fun
lastIndexOf(element: Nothing): Int = -1\n\n    override fun iterator(): Iterator<Nothing> = EmptyIterator\n
override fun listIterator(): ListIterator<Nothing> = EmptyIterator\n    override fun listIterator(index: Int):
ListIterator<Nothing> {\n        if (index != 0) throw IndexOutOfBoundsException(\"Index: $index\")\n        return
EmptyIterator\n    }\n\n    override fun subList(fromIndex: Int, toIndex: Int): List<Nothing> {\n        if (fromIndex
== 0 && toIndex == 0) return this\n        throw IndexOutOfBoundsException(\"fromIndex:
 $fromIndex, toIndex: $toIndex\")\n    }\n\n    private fun readResolve(): Any = EmptyList\n}\n\ninternal fun <T>
Array<out T>.asCollection(): Collection<T> = ArrayAsCollection(this, isVarargs = false)\n\nprivate class
ArrayAsCollection<T>(val values: Array<out T>, val isVarargs: Boolean) : Collection<T> {\n    override val size:
Int get() = values.size\n    override fun isEmpty(): Boolean = values.isEmpty()\n    override fun contains(element:
T): Boolean = values.contains(element)\n    override fun containsAll(elements: Collection<T>): Boolean =
elements.all { contains(it) }\n    override fun iterator(): Iterator<T> = values.iterator()\n    // override hidden toArray
implementation to prevent copying of values array\n    public fun toArray(): Array<out Any?> =
values.copyToArrayOfAny(isVarargs)\n}\n\n/**\n * Returns an empty read-only list.  The returned list is
serializable (JVM).\n * @sample samples.collections.Collections.Lists.emptyReadOnlyList\n */\npublic fun <T>
emptyList(): List<T>
 = EmptyList\n\n/**\n * Returns a new read-only list of given elements.  The returned list is serializable (JVM).\n *
@sample samples.collections.Collections.Lists.readOnlyList\n */\npublic fun <T> listOf(vararg elements: T):
List<T> = if (elements.size > 0) elements.asList() else emptyList()\n\n/**\n * Returns an empty read-only list.  The
returned list is serializable (JVM).\n * @sample samples.collections.Collections.Lists.emptyReadOnlyList\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T> listOf(): List<T> = emptyList()\n\n/**\n * Returns an empty
new [MutableList].\n * @sample samples.collections.Collections.Lists.emptyMutableList\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> mutableListOf(): MutableList<T> =
ArrayList()\n\n/**\n * Returns an empty new [ArrayList].\n * @sample
samples.collections.Collections.Lists.emptyArrayList\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> arrayListOf(): ArrayList<T>
 = ArrayList()\n\n/**\n * Returns a new [MutableList] with the given elements.\n * @sample
samples.collections.Collections.Lists.mutableList\n */\npublic fun <T> mutableListOf(vararg elements: T):
MutableList<T> =\n    if (elements.size == 0) ArrayList() else ArrayList(ArrayAsCollection(elements, isVarargs =
true))\n\n/**\n * Returns a new [ArrayList] with the given elements.\n * @sample
samples.collections.Collections.Lists.arrayList\n */\npublic fun <T> arrayListOf(vararg elements: T): ArrayList<T>
=\n    if (elements.size == 0) ArrayList() else ArrayList(ArrayAsCollection(elements, isVarargs = true))\n\n/**\n *
Returns a new read-only list either of single given element, if it is not null, or empty list if the element is null. The
returned list is serializable (JVM).\n * @sample samples.collections.Collections.Lists.listOfNotNull\n */\npublic fun
<T : Any> listOfNotNull(element: T?): List<T> = if (element != null) listOf(element) else emptyList()\n\n/**\n *
Returns a new read-only list
 only of those given elements, that are not null.  The returned list is serializable (JVM).\n * @sample
samples.collections.Collections.Lists.listOfNotNull\n */\npublic fun <T : Any> listOfNotNull(vararg elements: T?):
List<T> = elements.filterNotNull()\n\n/**\n * Creates a new read-only list with the specified [size], where each
element is calculated by calling the specified\n * [init] function.\n *\n * The function [init] is called for each list
element sequentially starting from the first one.\n * It should return the value for a list element given its index.\n *\n
* @sample samples.collections.Collections.Lists.readOnlyListFromInitializer\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> List(size: Int, init: (index: Int) -> T):
List<T> = MutableList(size, init)\n\n/**\n * Creates a new mutable list with the specified [size], where each element
```

is calculated by calling the specified\n * [init] function.\n *\n * The function [init] is called for each list element sequentially starting from the first one.\n * It should return the value for a list element given its index.\n *\n * @sample samples.collections.Collections.Lists.mutableListFromInitializer\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> MutableList(size: Int, init: (index: Int) -> T): MutableList<T> {\n   val list = ArrayList<T>(size)\n   repeat(size) { index -> list.add(init(index)) }\n   return list\n}\n\n/**\n * Builds a new read-only [List] by populating a [MutableList] using the given [builderAction]\n * and returning a read-only list with the same elements.\n *\n * The list passed as a receiver to the [builderAction] is valid only inside that function.\n * Using it outside of the function produces an unspecified behavior.\n *\n * The returned list is serializable (JVM).\n *\n * @sample samples.collections.Builders.Lists.buildListSample\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <E> buildList(@BuilderInference builderAction: MutableList<E>.() -> Unit): List<E> {\n   contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n   return buildListInternal(builderAction)\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal expect inline fun <E> buildListInternal(builderAction: MutableList<E>.() -> Unit): List<E>\n\n/**\n * Builds a new read-only [List] by populating a [MutableList] using the given [builderAction]\n * and returning a read-only list with the same elements.\n *\n * The list passed as a receiver to the [builderAction] is valid only inside that function.\n * Using it outside of the function produces an unspecified behavior.\n *\n * The returned list is serializable (JVM).\n *\n * [capacity] is used to hint the expected number of elements added in the [builderAction].\n *\n * @throws IllegalArgumentException if the given [capacity] is negative.\n *\n * @sample samples.collections.Builders.Lists.buildListSampleWithCapacity\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <E> buildList(capacity: Int, @BuilderInference builderAction: MutableList<E>.() -> Unit): List<E> {\n   contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n   return buildListInternal(capacity, builderAction)\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal expect inline fun <E> buildListInternal(capacity: Int, builderAction: MutableList<E>.() -> Unit): List<E>\n\n/**\n * Returns an [IntRange] of the valid indices for this collection.\n * @sample samples.collections.Collections.Collections.indicesOfCollection\n */\npublic val Collection<*>.indices: IntRange\n   get() = 0..size - 1\n\n/**\n * Returns the index of the last item in the list or -1 if the list is empty.\n *\n * @sample samples.collections.Collections.Lists.lastIndexOfList\n */\npublic val <T> List<T>.lastIndex: Int\n   get() = this.size - 1\n\n/**\n * Returns `true` if the collection is not empty.\n * @sample samples.collections.Collections.Collections.collectionIsNotEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>.isNotEmpty(): Boolean = !isEmpty()\n\n/**\n * Returns `true` if this nullable collection is either null or empty.\n * @sample samples.collections.Collections.Collections.collectionIsNullOrEmpty\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>?.isNullOrEmpty(): Boolean {\n   contract {\n   returns(false) implies (this@isNullOrEmpty != null)\n   }\n\n   return this == null || this.isEmpty()\n}\n\n/**\n * Returns this Collection if it's not `null` and the empty list otherwise.\n * @sample samples.collections.Collections.Collections.collectionOrEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>?.orEmpty(): Collection<T> = this ?: emptyList()\n\n/**\n * Returns this List if it's not `null` and the empty list otherwise.\n * @sample samples.collections.Collections.Lists.listOrEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>?.orEmpty(): List<T> = this ?: emptyList()\n\n/**\n * Returns this collection if it's not empty\n * or the result of calling [defaultValue] function if the collection is empty.\n *\n * @sample samples.collections.Collections.Collections.collectionIfEmpty\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <C, R> C.ifEmpty(defaultValue: () -> R): R where C : Collection<*>, C : R =\n   if (isEmpty()) defaultValue() else this\n\n\n/**\n * Checks if all elements in the specified collection are contained in this collection.\n *\n * Allows to overcome type-safety restriction of `containsAll` that requires to pass a collection of type `Collection<E>`.\n * @sample

samples.collections.Collections.Collections.collectionContainsAll\n
*/\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\") // false warning, extension
takes precedence in some cases\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes T> Collection<T>.containsAll(elements: Collection<T>): Boolean = this.containsAll(elements)\n\n\n/**\n * Returns a new list with the elements of this list randomly shuffled\n * using the specified [random] instance as the source of randomness.\n */\n@SinceKotlin(\"1.3\")\npublic fun <T> Iterable<T>.shuffled(random: Random): List<T> = toMutableList().apply { shuffle(random) }\n\n\ninternal fun <T> List<T>.optimizeReadOnlyList() = when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this\n}\n\n/**\n * Searches this list or its range for the provided [element] using the binary search algorithm.\n * The list is expected to be sorted into ascending order according to the Comparable natural ordering of its elements,\n * otherwise the result is undefined.\n *\n * If the list contains multiple elements equal to the specified [element], there is no guarantee which
one will be found.\n *\n * `null` value is considered to be less than any non-null value.\n *\n * @return the index of the element, if it is contained in the list within the specified range;\n * otherwise, the inverted insertion point `(-insertion point - 1)`.\n * The insertion point is defined as the index at which the element should be inserted,\n * so that the list (or the specified subrange of list) still remains sorted.\n * @sample samples.collections.Collections.Lists.binarySearchOnComparable\n * @sample samples.collections.Collections.Lists.binarySearchWithBoundaries\n */\npublic fun <T : Comparable<T>> List<T?>.binarySearch(element: T?, fromIndex: Int = 0, toIndex: Int = size): Int {\n   rangeCheck(size, fromIndex, toIndex)\n\n   var low = fromIndex\n   var high = toIndex - 1\n\n   while (low <= high) {\n   val mid = (low + high).ushr(1) // safe from overflows\n   val midVal = get(mid)\n   val cmp = compareValues(midVal, element)\n\n   if (cmp < 0)\n
low = mid + 1\n   else if (cmp > 0)\n   high = mid - 1\n   else\n   return mid // key found\n   }\n   return -(low + 1) // key not found\n}\n\n/**\n * Searches this list or its range for the provided [element] using the binary search algorithm.\n * The list is expected to be sorted into ascending order according to the specified [comparator],\n * otherwise the result is undefined.\n *\n * If the list contains multiple elements equal to the specified [element], there is no guarantee which one will be found.\n *\n * `null` value is considered to be less than any non-null value.\n *\n * @return the index of the element, if it is contained in the list within the specified range;\n * otherwise, the inverted insertion point `(-insertion point - 1)`.\n * The insertion point is defined as the index at which the element should be inserted,\n * so that the list (or the specified subrange of list) still remains sorted according to the specified [comparator].\n
* @sample samples.collections.Collections.Lists.binarySearchWithComparator\n */\npublic fun <T> List<T>.binarySearch(element: T, comparator: Comparator<in T>, fromIndex: Int = 0, toIndex: Int = size): Int {\n   rangeCheck(size, fromIndex, toIndex)\n\n   var low = fromIndex\n   var high = toIndex - 1\n\n   while (low <= high) {\n   val mid = (low + high).ushr(1) // safe from overflows\n   val midVal = get(mid)\n   val cmp = comparator.compare(midVal, element)\n\n   if (cmp < 0)\n   low = mid + 1\n   else if (cmp > 0)\n   high = mid - 1\n   else\n   return mid // key found\n   }\n   return -(low + 1) // key not found\n}\n\n/**\n * Searches this list or its range for an element having the key returned by the specified [selector] function\n * equal to the provided [key] value using the binary search algorithm.\n * The list is expected to be sorted into ascending order according to the Comparable natural ordering of keys
of its elements.\n * otherwise the result is undefined.\n *\n * If the list contains multiple elements with the specified [key], there is no guarantee which one will be found.\n *\n * `null` value is considered to be less than any non-null value.\n *\n * @return the index of the element with the specified [key], if it is contained in the list within the specified range;\n * otherwise, the inverted insertion point `(-insertion point - 1)`.\n * The insertion point is defined as the index at which the element should be inserted,\n * so that the list (or the specified subrange of list) still remains sorted.\n * @sample samples.collections.Collections.Lists.binarySearchByKey\n */\npublic inline fun <T, K : Comparable<K>> List<T>.binarySearchBy(\n   key: K?,\n   fromIndex: Int = 0,\n   toIndex: Int = size,\n   crossinline selector: (T) -> K?\n): Int =\n   binarySearch(fromIndex, toIndex) { compareValues(selector(it), key) }\n\n// do not introduce this overload --- too rare\n//public fun

<T, K> List<T>.binarySearchBy(key: K, comparator: Comparator<K>, fromIndex: Int = 0, toIndex: Int = size(),
selector: (T) -> K): Int =\n//   binarySearch(fromIndex, toIndex) { comparator.compare(selector(it), key)
}\n\n\n/**\n * Searches this list or its range for an element for which the given [comparison] function returns zero
using the binary search algorithm.\n *\n * The list is expected to be sorted so that the signs of the [comparison]
function's return values ascend on the list elements,\n * i.e. negative values come before zero and zeroes come
before positive values.\n * Otherwise, the result is undefined.\n *\n * If the list contains multiple elements for which
[comparison] returns zero, there is no guarantee which one will be found.\n *\n * @param comparison function that
returns zero when called on the list element being searched.\n * On the elements coming before the target element,
the function must return negative values;\n * on the elements coming after the target
element, the function must return positive values.\n *\n * @return the index of the found element, if it is contained
in the list within the specified range;\n * otherwise, the inverted insertion point `(-insertion point - 1)`.\n * The
insertion point is defined as the index at which the element should be inserted,\n * so that the list (or the specified
subrange of list) still remains sorted.\n * @sample
samples.collections.Collections.Lists.binarySearchWithComparisonFunction\n */\npublic fun <T>
List<T>.binarySearch(fromIndex: Int = 0, toIndex: Int = size, comparison: (T) -> Int): Int {\n   rangeCheck(size,
fromIndex, toIndex)\n\n   var low = fromIndex\n   var high = toIndex - 1\n\n   while (low <= high) {\n   val mid
= (low + high).ushr(1) // safe from overflows\n   val midVal = get(mid)\n   val cmp = comparison(midVal)\n\n
        if (cmp < 0)\n   low = mid + 1\n   else if (cmp > 0)\n   high = mid - 1\n   else\n   return
mid //
key found\n   }\n   return -(low + 1) // key not found\n}\n\n/**\n * Checks that `from` and `to` are in\n * the range
of [0..size] and throws an appropriate exception, if they aren't.\n */\nprivate fun rangeCheck(size: Int, fromIndex:
Int, toIndex: Int) {\n   when {\n   fromIndex > toIndex -> throw IllegalArgumentException(\"fromIndex
($fromIndex) is greater than toIndex ($toIndex).\")\n   fromIndex < 0 -> throw
IndexOutOfBoundsException(\"fromIndex ($fromIndex) is less than zero.\")\n   toIndex > size -> throw
IndexOutOfBoundsException(\"toIndex ($toIndex) is greater than size ($size).\")\n
}\n}\n\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal expect fun checkIndexOverflow(index: Int):
Int\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal expect fun checkCountOverflow(count: Int):
Int\n\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal fun throwIndexOverflow() { throw
ArithmeticException(\"Index overflow has happened.\") }\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal
fun throwCountOverflow() { throw ArithmeticException(\"Count overflow has happened.\") }\n\n","/*\n *
Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is
governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"MapsKt\")\n@file:OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n\npackage kotlin.collections\n\nimport kotlin.contracts.\n\nprivate object
EmptyMap : Map<Any?, Nothing>, Serializable {\n   private const val serialVersionUID: Long =
8246714829545688274\n\n   override fun equals(other: Any?): Boolean = other is Map<*, *> &&
other.isEmpty()\n   override fun hashCode(): Int = 0\n   override fun toString(): String = \"{}\"\n\n   override val
size: Int get() = 0\n   override fun isEmpty(): Boolean = true\n\n   override fun containsKey(key: Any?): Boolean =
false\n   override fun containsValue(value:
Nothing): Boolean = false\n   override fun get(key: Any?): Nothing? = null\n   override val entries:
Set<Map.Entry<Any?, Nothing>> get() = EmptySet\n   override val keys: Set<Any?> get() = EmptySet\n
override val values: Collection<Nothing> get() = EmptyList\n\n   private fun readResolve(): Any =
EmptyMap\n}\n\n/**\n * Returns an empty read-only map of specified type.\n *\n * The returned map is serializable
(JVM).\n * @sample samples.collections.Maps.Instantiation.emptyReadOnlyMap\n */\npublic fun <K, V>
emptyMap(): Map<K, V> = @Suppress(\"UNCHECKED_CAST\") (EmptyMap as Map<K, V>)\n\n/**\n * Returns
a new read-only map with the specified contents, given as a list of pairs\n * where the first value is the key and the
second is the value.\n *\n * If multiple pairs have the same key, the resulting map will contain the value from the
last of those pairs.\n *\n * Entries of the map are iterated in the order they were specified.\n *\n * The returned map

is serializable (JVM).\n

*\n * @sample samples.collections.Maps.Instantiation.mapFromPairs\n */\npublic fun <K, V> mapOf(vararg pairs: Pair<K, V>): Map<K, V> =\n   if (pairs.size > 0) pairs.toMap(LinkedHashMap(mapCapacity(pairs.size))) else emptyMap()\n\n/**\n * Returns an empty read-only map.\n *\n * The returned map is serializable (JVM).\n * @sample samples.collections.Maps.Instantiation.emptyReadOnlyMap\n */\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> mapOf(): Map<K, V> = emptyMap()\n\n/**\n * Returns an empty new [MutableMap].\n *\n * The returned map preserves the entry iteration order.\n * @sample samples.collections.Maps.Instantiation.emptyMutableMap\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> mutableMapOf(): MutableMap<K, V> = LinkedHashMap()\n\n/**\n * Returns a new [MutableMap] with the specified contents, given as a list of pairs\n * where the first component is the key and the second is the value.\n *\n * If multiple pairs have the same key,

the resulting map will contain the value from the last of those pairs.\n *\n * Entries of the map are iterated in the order they were specified.\n *\n * @sample samples.collections.Maps.Instantiation.mutableMapFromPairs\n * @sample samples.collections.Maps.Instantiation.emptyMutableMap\n */\npublic fun <K, V> mutableMapOf(vararg pairs: Pair<K, V>): MutableMap<K, V> =\n   LinkedHashMap<K, V>(mapCapacity(pairs.size)).apply { putAll(pairs) }\n\n/**\n * Returns an empty new [HashMap].\n *\n * @sample samples.collections.Maps.Instantiation.emptyHashMap\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> hashMapOf(): HashMap<K, V> = HashMap<K, V>()\n\n/**\n * Returns a new [HashMap] with the specified contents, given as a list of pairs\n * where the first component is the key and the second is the value.\n *\n * @sample samples.collections.Maps.Instantiation.hashMapFromPairs\n */\npublic fun <K, V> hashMapOf(vararg pairs: Pair<K, V>): HashMap<K, V> = HashMap<K,

V>(mapCapacity(pairs.size)).apply { putAll(pairs) }\n\n/**\n * Returns an empty new [LinkedHashMap].\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> linkedMapOf(): LinkedHashMap<K, V> = LinkedHashMap<K, V>()\n\n/**\n * Returns a new [LinkedHashMap] with the specified contents, given as a list of pairs\n * where the first component is the key and the second is the value.\n *\n * If multiple pairs have the same key, the resulting map will contain the value from the last of those pairs.\n *\n * Entries of the map are iterated in the order they were specified.\n *\n * @sample samples.collections.Maps.Instantiation.linkedMapFromPairs\n */\npublic fun <K, V> linkedMapOf(vararg pairs: Pair<K, V>): LinkedHashMap<K, V> = pairs.toMap(LinkedHashMap(mapCapacity(pairs.size)))\n\n/**\n * Builds a new read-only [Map] by populating a [MutableMap] using the given [builderAction]\n * and returning a read-only map with the same key-value pairs.\n *\n * The map passed

as a receiver to the [builderAction] is valid only inside that function.\n * Using it outside of the function produces an unspecified behavior.\n *\n * Entries of the map are iterated in the order they were added by the [builderAction].\n *\n * The returned map is serializable (JVM).\n *\n * @sample samples.collections.Builders.Maps.buildMapSample\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> buildMap(@BuilderInference builderAction: MutableMap<K, V>.() -> Unit): Map<K, V> {\n   contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n   return buildMapInternal(builderAction)\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal expect inline fun <K, V> buildMapInternal(builderAction: MutableMap<K, V>.() -> Unit): Map<K, V>\n\n/**\n * Builds a new read-only [Map] by populating a [MutableMap] using the given [builderAction]\n * and returning a read-only map with

the same key-value pairs.\n *\n * The map passed as a receiver to the [builderAction] is valid only inside that function.\n * Using it outside of the function produces an unspecified behavior.\n *\n * [capacity] is used to hint the expected number of pairs added in the [builderAction].\n *\n * Entries of the map are iterated in the order they were added by the [builderAction].\n *\n * The returned map is serializable (JVM).\n *\n * @throws

IllegalArgumentException if the given [capacity] is negative.\n *\n * @sample samples.collections.Builders.Maps.buildMapSample\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> buildMap(capacity: Int, @BuilderInference builderAction: MutableMap<K, V>.() -> Unit): Map<K, V> {\n   contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n   return buildMapInternal(capacity, builderAction)\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal expect inline fun <K, V> buildMapInternal(capacity: Int, builderAction: MutableMap<K, V>.() -> Unit): Map<K, V>\n\n/**\n * Calculate the initial capacity of a map.\n */\n@PublishedApi\ninternal expect fun mapCapacity(expectedSize: Int): Int\n\n/**\n * Returns `true` if this map is not empty.\n * @sample samples.collections.Maps.Usage.mapIsNotEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.isNotEmpty(): Boolean = !isEmpty()\n\n/**\n * Returns `true` if this nullable map is either null or empty.\n * @sample samples.collections.Maps.Usage.mapIsNullOrEmpty\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>?.isNullOrEmpty(): Boolean {\n   contract {\n   returns(false) implies (this@isNullOrEmpty != null)\n   }\n\n   return this == null || isEmpty()\n}\n\n/**\n * Returns the [Map] if its not `null`, or the empty [Map] otherwise.\n *\n * @sample samples.collections.Maps.Usage.mapOrEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<K, V>?.orEmpty(): Map<K, V> = this ?: emptyMap()\n\n/**\n * Returns this map if it's not empty\n * or the result of calling [defaultValue] function if the map is empty.\n *\n * @sample samples.collections.Maps.Usage.mapIfEmpty\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <M, R> M.ifEmpty(defaultValue: () -> R): R where M : Map<*, *>, M : R =\n   if (isEmpty()) defaultValue() else this\n\n/**\n * Checks if the map contains the given key.\n *\n * This method allows to use the `x in map` syntax for checking whether an object is contained in the map.\n *\n * @sample samples.collections.Maps.Usage.containsKey\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <@kotlin.internal.OnlyInputTypes K, V> Map<out K, V>.contains(key: K): Boolean = containsKey(key)\n\n/**\n * Returns the value corresponding to the given [key], or `null` if such a key is not present in the map.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <@kotlin.internal.OnlyInputTypes K, V> Map<out K, V>.get(key: K): V? =\n   @Suppress(\"UNCHECKED_CAST\") (this as Map<K, V>).get(key)\n\n/**\n * Allows to use the index operator for storing values in a mutable map.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<K, V>.set(key: K, value: V): Unit {\n   put(key, value)\n}\n\n/**\n * Returns `true` if the map contains the specified [key].\n *\n * Allows to overcome type-safety restriction of `containsKey` that requires to pass a key of type `K`.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes K> Map<out K, *>.containsKey(key: K): Boolean =\n   @Suppress(\"UNCHECKED_CAST\") (this as Map<K, *>).containsKey(key)\n\n/**\n * Returns `true` if the map maps one or more keys to the specified [value].\n *\n * Allows to overcome type-safety restriction of `containsValue` that requires to pass a value of type `V`.\n *\n * @sample samples.collections.Maps.Usage.containsValue\n */\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\") // false warning, extension takes precedence in some cases\n@kotlin.internal.InlineOnly\npublic inline fun <K, @kotlin.internal.OnlyInputTypes V> Map<K, V>.containsValue(value: V): Boolean = this.containsValue(value)\n\n\n/**\n * Removes the specified key and its corresponding value from this map.\n *\n * @return the previous value associated with the key, or `null` if the key was not present in the map.\n\n * Allows to overcome type-safety restriction of `remove` that requires to pass a key of type `K`.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes K, V> MutableMap<out K, V>.remove(key: K): V? =\n   @Suppress(\"UNCHECKED_CAST\") (this as MutableMap<K, V>).remove(key)\n\n/**\n * Returns the key component of the map entry.\n *\n * This method allows to use destructuring declarations when working with maps, for example:\n * ```\n * for ((key, value) in map) {\n *   // do something with the key and the value\n * }\n * ```\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> Map.Entry<K, V>.component1(): K = key\n\n/**\n * Returns the value component of the map entry.\n

*\n * This method allows to use destructuring declarations when working with maps, for example:\n * ```\n * for ((key, value) in map) {\n *   // do something with the key and the value\n * }\n * ```\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> Map.Entry<K, V>.component2(): V = value\n\n/**\n * Converts entry to [Pair] with key being first component and value being second.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map.Entry<K, V>.toPair(): Pair<K, V> = Pair(key, value)\n\n/**\n * Returns the value for the given key, or the result of the [defaultValue] function if there was no entry for the given key.\n *\n * @sample samples.collections.Maps.Usage.getOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<K,
 V>.getOrElse(key: K, defaultValue: () -> V): V = get(key) ?: defaultValue()\n\n\ninternal inline fun <K, V> Map<K, V>.getOrElseNullable(key: K, defaultValue: () -> V): V {\n   val value = get(key)\n   if (value == null && !containsKey(key)) {\n   return defaultValue()\n   } else {\n   @Suppress(\"UNCHECKED_CAST\")\n
  return value as V\n   }\n}\n\n/**\n * Returns the value for the given [key] or throws an exception if there is no such key in the map.\n *\n * If the map was created by [withDefault], resorts to its `defaultValue` provider function\n * instead of throwing an exception.\n *\n * @throws NoSuchElementException when the map doesn't contain a value for the specified key and\n * no implicit default value was provided for that map.\n */\n@SinceKotlin(\"1.1\")\npublic fun <K, V> Map<K, V>.getValue(key: K): V = getOrImplicitDefault(key)\n\n/**\n * Returns the value for the given key. If the key is not found in the map, calls the [defaultValue] function,\n * puts
 its result into the map under the given key and returns it.\n *\n * Note that the operation is not guaranteed to be atomic if the map is being modified concurrently.\n *\n * @sample samples.collections.Maps.Usage.getOrPut\n */\npublic inline fun <K, V> MutableMap<K, V>.getOrPut(key: K, defaultValue: () -> V): V {\n   val value = get(key)\n   return if (value == null) {\n   val answer = defaultValue()\n   put(key, answer)\n   answer\n   } else {\n   value\n   }\n}\n\n/**\n * Returns an [Iterator] over the entries in the [Map].\n *\n * @sample samples.collections.Maps.Usage.forOverEntries\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> Map<out K, V>.iterator(): Iterator<Map.Entry<K, V>> = entries.iterator()\n\n/**\n * Returns a [MutableIterator] over the mutable entries in the [MutableMap].\n *\n */\n@kotlin.jvm.JvmName(\"mutableIterator\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<K, V>.iterator(): MutableIterator<MutableMap.MutableEntry<K,
 V>> = entries.iterator()\n\n/**\n * Populates the given [destination] map with entries having the keys of this map and the values obtained\n * by applying the [transform] function to each entry in this [Map].\n */\npublic inline fun <K, V, R, M : MutableMap<in K, in R>> Map<out K, V>.mapValuesTo(destination: M, transform: (Map.Entry<K, V>) -> R): M {\n   return entries.associateByTo(destination, { it.key }, transform)\n}\n\n/**\n * Populates the given [destination] map with entries having the keys obtained\n * by applying the [transform] function to each entry in this [Map] and the values of this map.\n *\n * In case if any two entries are mapped to the equal keys, the value of the latter one will overwrite\n * the value associated with the former one.\n */\npublic inline fun <K, V, R, M : MutableMap<in R, in V>> Map<out K, V>.mapKeysTo(destination: M, transform: (Map.Entry<K, V>) -> R): M {\n   return entries.associateByTo(destination, transform, {
 it.value })\n}\n\n/**\n * Puts all the given [pairs] into this [MutableMap] with the first component in the pair being the key and the second the value.\n */\npublic fun <K, V> MutableMap<in K, in V>.putAll(pairs: Array<out Pair<K, V>>): Unit {\n   for ((key, value) in pairs) {\n   put(key, value)\n   }\n}\n\n/**\n * Puts all the elements of the given collection into this [MutableMap] with the first component in the pair being the key and the second the value.\n */\npublic fun <K, V> MutableMap<in K, in V>.putAll(pairs: Iterable<Pair<K, V>>): Unit {\n   for ((key, value) in pairs) {\n   put(key, value)\n   }\n}\n\n/**\n * Puts all the elements of the given sequence into this [MutableMap] with the first component in the pair being the key and the second the value.\n */\npublic fun <K, V> MutableMap<in K, in V>.putAll(pairs: Sequence<Pair<K, V>>): Unit {\n   for ((key, value) in pairs) {\n   put(key, value)\n   }\n}\n\n/**\n * Returns a new map with entries having the
 keys of this map and the values obtained by applying the [transform]\n * function to each entry in this [Map].\n *\n * The returned map preserves the entry iteration order of the original map.\n *\n * @sample

samples.collections.Maps.Transformations.mapValues\n */\npublic inline fun <K, V, R> Map<out K, V>.mapValues(transform: (Map.Entry<K, V>) -> R): Map<K, R> {\n   return mapValuesTo(LinkedHashMap<K, R>(mapCapacity(size)), transform) // .optimizeReadOnlyMap()\n}\n\n/**\n * Returns a new Map with entries having the keys obtained by applying the [transform] function to each entry in this\n * [Map] and the values of this map.\n *\n * In case if any two entries are mapped to the equal keys, the value of the latter one will overwrite\n * the value associated with the former one.\n *\n * The returned map preserves the entry iteration order of the original map.\n *\n * @sample samples.collections.Maps.Transformations.mapKeys\n */\npublic inline fun <K, V, R> Map<out K, V>.mapKeys(transform:

(Map.Entry<K, V>) -> R): Map<R, V> {\n   return mapKeysTo(LinkedHashMap<R, V>(mapCapacity(size)), transform) // .optimizeReadOnlyMap()\n}\n\n/**\n * Returns a map containing all key-value pairs with keys matching the given [predicate].\n *\n * The returned map preserves the entry iteration order of the original map.\n * @sample samples.collections.Maps.Filtering.filterKeys\n */\npublic inline fun <K, V> Map<out K, V>.filterKeys(predicate: (K) -> Boolean): Map<K, V> {\n   val result = LinkedHashMap<K, V>()\n   for (entry in this) {\n   if (predicate(entry.key)) {\n   result.put(entry.key, entry.value)\n   }\n   }\n   return result\n}\n\n/**\n * Returns a map containing all key-value pairs with values matching the given [predicate].\n *\n * The returned map preserves the entry iteration order of the original map.\n * @sample samples.collections.Maps.Filtering.filterValues\n */\npublic inline fun <K, V> Map<out K, V>.filterValues(predicate: (V) -> Boolean): Map<K,

V> {\n   val result = LinkedHashMap<K, V>()\n   for (entry in this) {\n   if (predicate(entry.value)) {\n   result.put(entry.key, entry.value)\n   }\n   }\n   return result\n}\n\n\n/**\n * Appends all entries matching the given [predicate] into the mutable map given as [destination] parameter.\n *\n * @return the destination map.\n * @sample samples.collections.Maps.Filtering.filterTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> Map<out K, V>.filterTo(destination: M, predicate: (Map.Entry<K, V>) -> Boolean): M {\n   for (element in this) {\n   if (predicate(element)) {\n   destination.put(element.key, element.value)\n   }\n   }\n   return destination\n}\n\n/**\n * Returns a new map containing all key-value pairs matching the given [predicate].\n *\n * The returned map preserves the entry iteration order of the original map.\n * @sample samples.collections.Maps.Filtering.filter\n */\npublic inline fun <K, V> Map<out K, V>.filter(predicate:

(Map.Entry<K, V>) -> Boolean): Map<K, V> {\n   return filterTo(LinkedHashMap<K, V>(), predicate)\n}\n\n/**\n * Appends all entries not matching the given [predicate] into the given [destination].\n *\n * @return the destination map.\n * @sample samples.collections.Maps.Filtering.filterNotTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> Map<out K, V>.filterNotTo(destination: M, predicate: (Map.Entry<K, V>) -> Boolean): M {\n   for (element in this) {\n   if (!predicate(element)) {\n   destination.put(element.key, element.value)\n   }\n   }\n   return destination\n}\n\n/**\n * Returns a new map containing all key-value pairs not matching the given [predicate].\n *\n * The returned map preserves the entry iteration order of the original map.\n * @sample samples.collections.Maps.Filtering.filterNot\n */\npublic inline fun <K, V> Map<out K, V>.filterNot(predicate: (Map.Entry<K, V>) -> Boolean): Map<K, V> {\n   return filterNotTo(LinkedHashMap<K,

V>(), predicate)\n}\n\n/**\n * Returns a new map containing all key-value pairs from the given collection of pairs.\n *\n * The returned map preserves the entry iteration order of the original collection.\n * If any of two pairs would have the same key the last one gets added to the map.\n */\npublic fun <K, V> Iterable<Pair<K, V>>.toMap(): Map<K, V> {\n   if (this is Collection) {\n   return when (size) {\n   0 -> emptyMap()\n

1 -> mapOf(if (this is List) this[0] else iterator().next())\n   else -> toMap(LinkedHashMap<K, V>(mapCapacity(size)))\n   }\n   }\n   return toMap(LinkedHashMap<K, V>()).optimizeReadOnlyMap()\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs from the given collection of pairs.\n */\npublic fun <K, V, M : MutableMap<in K, in V>> Iterable<Pair<K, V>>.toMap(destination: M): M =\n   destination.apply { putAll(this@toMap) }\n\n/**\n * Returns a new map containing all key-value

pairs from the given array of pairs.\n *\n * The returned map preserves the entry iteration order of the original array.\n * If any of two pairs would have the same key the last one gets added to the map.\n */\npublic fun <K, V>

Array<out Pair<K, V>>.toMap(): Map<K, V> = when (size) {\n   0 -> emptyMap()\n   1 -> mapOf(this[0])\n   else -> toMap(LinkedHashMap<K, V>(mapCapacity(size)))\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs from the given array of pairs.\n */\npublic fun <K, V, M : MutableMap<in K, in V>> Array<out Pair<K, V>>.toMap(destination: M): M =\n   destination.apply { putAll(this@toMap) }\n\n/**\n * Returns a new map containing all key-value pairs from the given sequence of pairs.\n *\n * The returned map preserves the entry iteration order of the original sequence.\n * If any of two pairs would have the same key the last one gets added to the map.\n */\npublic fun <K, V> Sequence<Pair<K, V>>.toMap(): Map<K, V> = toMap(LinkedHashMap<K,
 V>()).optimizeReadOnlyMap()\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs from the given sequence of pairs.\n */\npublic fun <K, V, M : MutableMap<in K, in V>> Sequence<Pair<K, V>>.toMap(destination: M): M =\n   destination.apply { putAll(this@toMap) }\n\n/**\n * Returns a new read-only map containing all key-value pairs from the original map.\n *\n * The returned map preserves the entry iteration order of the original map.\n */\n@SinceKotlin(\"1.1\")\npublic fun <K, V> Map<out K, V>.toMap(): Map<K, V> = when (size) {\n   0 -> emptyMap()\n   1 -> toSingletonMap()\n   else -> toMutableMap()\n}\n\n/**\n * Returns a new mutable map containing all key-value pairs from the original map.\n *\n * The returned map preserves the entry iteration order of the original map.\n */\n@SinceKotlin(\"1.1\")\npublic fun <K, V> Map<out K, V>.toMutableMap(): MutableMap<K, V> = LinkedHashMap(this)\n\n/**\n * Populates and returns the [destination] mutable
 map with key-value pairs from the given map.\n */\n@SinceKotlin(\"1.1\")\npublic fun <K, V, M : MutableMap<in K, in V>> Map<out K, V>.toMap(destination: M): M =\n   destination.apply { putAll(this@toMap) }\n\n/**\n * Creates a new read-only map by replacing or adding an entry to this map from a given key-value [pair].\n *\n * The returned map preserves the entry iteration order of the original map.\n * The [pair] is iterated in the end if it has a unique key.\n */\npublic operator fun <K, V> Map<out K, V>.plus(pair: Pair<K, V>): Map<K, V> =\n   if (this.isEmpty()) mapOf(pair) else LinkedHashMap(this).apply { put(pair.first, pair.second) }\n\n/**\n * Creates a new read-only map by replacing or adding entries to this map from a given collection of key-value [pairs].\n *\n * The returned map preserves the entry iteration order of the original map.\n * Those [pairs] with unique keys are iterated in the end in the order of [pairs] collection.\n */\npublic operator fun <K, V> Map<out K, V>.plus(pairs:
 Iterable<Pair<K, V>>): Map<K, V> =\n   if (this.isEmpty()) pairs.toMap() else LinkedHashMap(this).apply { putAll(pairs) }\n\n/**\n * Creates a new read-only map by replacing or adding entries to this map from a given array of key-value [pairs].\n *\n * The returned map preserves the entry iteration order of the original map.\n * Those [pairs] with unique keys are iterated in the end in the order of [pairs] array.\n */\npublic operator fun <K, V> Map<out K, V>.plus(pairs: Array<out Pair<K, V>>): Map<K, V> =\n   if (this.isEmpty()) pairs.toMap() else LinkedHashMap(this).apply { putAll(pairs) }\n\n/**\n * Creates a new read-only map by replacing or adding entries to this map from a given sequence of key-value [pairs].\n *\n * The returned map preserves the entry iteration order of the original map.\n * Those [pairs] with unique keys are iterated in the end in the order of [pairs] sequence.\n */\npublic operator fun <K, V> Map<out K, V>.plus(pairs: Sequence<Pair<K, V>>): Map<K,
 V> =\n   LinkedHashMap(this).apply { putAll(pairs) }.optimizeReadOnlyMap()\n\n/**\n * Creates a new read-only map by replacing or adding entries to this map from another [map].\n *\n * The returned map preserves the entry iteration order of the original map.\n * Those entries of another [map] that are missing in this map are iterated in the end in the order of that [map].\n */\npublic operator fun <K, V> Map<out K, V>.plus(map: Map<out K, V>): Map<K, V> =\n   LinkedHashMap(this).apply { putAll(map) }\n\n\n/**\n * Appends or replaces the given [pair] in this mutable map.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pair: Pair<K, V>) {\n   put(pair.first, pair.second)\n}\n\n/**\n * Appends or replaces all pairs from the given collection of [pairs] in this mutable map.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pairs: Iterable<Pair<K, V>>) {\n   putAll(pairs)\n}\n\n/**\n
 * Appends or replaces all pairs from the given array of [pairs] in this mutable map.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pairs: Array<out Pair<K, V>>) {\n   putAll(pairs)\n}\n\n/**\n * Appends or replaces all pairs from the given sequence of

[pairs] in this mutable map.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pairs: Sequence<Pair<K, V>>) {\n   putAll(pairs)\n}\n\n/**\n * Appends or replaces all entries from the given [map] in this mutable map.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(map: Map<K, V>) {\n   putAll(map)\n}\n\n/**\n * Returns a map containing all entries of the original map except the entry with the given [key].\n *\n * The returned map preserves the entry iteration order of the original map.\n */\n@SinceKotlin(\"1.1\")\npublic operator fun <K, V> Map<out K, V>.minus(key: K):

Map<K, V> =\n   this.toMutableMap().apply { minusAssign(key) }.optimizeReadOnlyMap()\n\n/**\n * Returns a map containing all entries of the original map except those entries\n * the keys of which are contained in the given [keys] collection.\n *\n * The returned map preserves the entry iteration order of the original map.\n */\n@SinceKotlin(\"1.1\")\npublic operator fun <K, V> Map<out K, V>.minus(keys: Iterable<K>): Map<K, V> =\n   this.toMutableMap().apply { minusAssign(keys) }.optimizeReadOnlyMap()\n\n/**\n * Returns a map containing all entries of the original map except those entries\n * the keys of which are contained in the given [keys] array.\n *\n * The returned map preserves the entry iteration order of the original map.\n */\n@SinceKotlin(\"1.1\")\npublic operator fun <K, V> Map<out K, V>.minus(keys: Array<out K>): Map<K, V> =\n   this.toMutableMap().apply { minusAssign(keys) }.optimizeReadOnlyMap()\n\n/**\n * Returns a map containing all entries of the original map except

those entries\n * the keys of which are contained in the given [keys] sequence.\n *\n * The returned map preserves the entry iteration order of the original map.\n */\n@SinceKotlin(\"1.1\")\npublic operator fun <K, V> Map<out K, V>.minus(keys: Sequence<K>): Map<K, V> =\n   this.toMutableMap().apply { minusAssign(keys) }.optimizeReadOnlyMap()\n\n/**\n * Removes the entry with the given [key] from this mutable map.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<K, V>.minusAssign(key: K) {\n   remove(key)\n}\n\n/**\n * Removes all entries the keys of which are contained in the given [keys] collection from this mutable map.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<K, V>.minusAssign(keys: Iterable<K>) {\n   this.keys.removeAll(keys)\n}\n\n/**\n * Removes all entries the keys of which are contained in the given [keys] array from this mutable map.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic

inline operator fun <K, V> MutableMap<K, V>.minusAssign(keys: Array<out K>) {\n   this.keys.removeAll(keys)\n}\n\n/**\n * Removes all entries from the keys of which are contained in the given [keys] sequence from this mutable map.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<K, V>.minusAssign(keys: Sequence<K>) {\n   this.keys.removeAll(keys)\n}\n\n\n// do not expose for now @PublishedApi\ninternal fun <K, V> Map<K, V>.optimizeReadOnlyMap() = when (size) {\n   0 -> emptyMap()\n   1 -> toSingletonMapOrSelf()\n   else -> this\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"SetsKt\")\n@file:OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n\npackage

kotlin.collections\n\nimport kotlin.contracts.*\n\ninternal object EmptySet : Set<Nothing>, Serializable {\n   private const val serialVersionUID: Long = 3406603774387020532\n\n   override fun equals(other: Any?): Boolean = other is Set<*> && other.isEmpty()\n   override fun hashCode(): Int = 0\n   override fun toString(): String = \"[]\"\n\n   override val size: Int get() = 0\n   override fun isEmpty(): Boolean = true\n   override fun contains(element: Nothing): Boolean = false\n   override fun containsAll(elements: Collection<Nothing>): Boolean = elements.isEmpty()\n\n   override fun iterator(): Iterator<Nothing> = EmptyIterator\n\n   private fun readResolve(): Any = EmptySet\n}\n\n\n/**\n * Returns an empty read-only set. The returned set is serializable (JVM).\n * @sample samples.collections.Collections.Sets.emptyReadOnlySet\n */\npublic fun <T> emptySet(): Set<T> = EmptySet\n\n/**\n * Returns a new read-only set with the given elements.\n * Elements of the set are iterated in the order they were specified.\n * The returned set is serializable (JVM).\n * @sample samples.collections.Collections.Sets.readOnlySet\n */\npublic fun <T> setOf(vararg elements: T): Set<T> = if (elements.size > 0) elements.toSet() else emptySet()\n\n/**\n * Returns an empty read-only set. The returned set is serializable (JVM).\n * @sample samples.collections.Collections.Sets.emptyReadOnlySet\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> setOf(): Set<T> = emptySet()\n\n/**\n * Returns an empty new [MutableSet].\n *\n * The returned set preserves the element iteration order.\n * @sample samples.collections.Collections.Sets.emptyMutableSet\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> mutableSetOf(): MutableSet<T> = LinkedHashSet()\n\n/**\n * Returns a new [MutableSet] with the given elements.\n * Elements of the set are iterated in the order they were specified.\n * @sample samples.collections.Collections.Sets.mutableSet\n */\npublic fun <T> mutableSetOf(vararg elements: T): MutableSet<T> = elements.toCollection(LinkedHashSet(mapCapacity(elements.size)))\n\n/** Returns an empty new [HashSet]. */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> hashSetOf(): HashSet<T> = HashSet()\n\n/** Returns a new [HashSet] with the given elements. */\npublic fun <T> hashSetOf(vararg elements: T): HashSet<T> = elements.toCollection(HashSet(mapCapacity(elements.size)))\n\n/**\n * Returns an empty new [LinkedHashSet].\n * @sample samples.collections.Collections.Sets.emptyLinkedHashSet\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> linkedSetOf(): LinkedHashSet<T> = LinkedHashSet()\n\n/**\n * Returns a new [LinkedHashSet] with the given elements.\n * Elements of the set are iterated in the order they were specified.\n * @sample samples.collections.Collections.Sets.linkedHashSet\n */\npublic fun <T> linkedSetOf(vararg elements: T): LinkedHashSet<T> = elements.toCollection(LinkedHashSet(mapCapacity(elements.size)))\n\n/**\n * Returns a new read-only set either with single given element, if it is not null, or empty set if the element is null.\n * The returned set is serializable (JVM).\n * @sample samples.collections.Collections.Sets.setOfNotNull\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Any> setOfNotNull(element: T?): Set<T> = if (element != null) setOf(element) else emptySet()\n\n/**\n * Returns a new read-only set only with those given elements, that are not null.\n * Elements of the set are iterated in the order they were specified.\n * The returned set is serializable (JVM).\n * @sample samples.collections.Collections.Sets.setOfNotNull\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Any> setOfNotNull(vararg elements: T?): Set<T> {\n   return elements.filterNotNullTo(LinkedHashSet())\n}\n\n/**\n * Builds a new read-only [Set] by populating a [MutableSet] using the given [builderAction]\n * and returning a read-only set with the same elements.\n *\n * The set passed as a receiver to the [builderAction] is valid only inside that function.\n * Using it outside of the function produces an unspecified behavior.\n *\n * Elements of the set are iterated in the order they were added by the [builderAction].\n *\n * The returned set is serializable (JVM).\n *\n * @sample samples.collections.Builders.Sets.buildSetSample\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <E> buildSet(@BuilderInference builderAction: MutableSet<E>.() -> Unit): Set<E> {\n   contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n   return buildSetInternal(builderAction)\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal expect inline fun <E> buildSetInternal(builderAction: MutableSet<E>.() -> Unit): Set<E>\n\n/**\n * Builds a new read-only [Set] by populating a [MutableSet] using the given [builderAction]\n * and returning a read-only set with the same elements.\n *\n * The set passed as a receiver to the [builderAction] is valid only inside that function.\n * Using it outside of the function produces an unspecified behavior.\n *\n * [capacity] is used to hint the expected number of elements added in the [builderAction].\n *\n * Elements of the set are iterated in the order they were added by the [builderAction].\n *\n * The returned set is serializable (JVM).\n *\n * @throws IllegalArgumentException if the given [capacity] is negative.\n *\n * @sample samples.collections.Builders.Sets.buildSetSample\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <E> buildSet(capacity: Int, @BuilderInference builderAction: MutableSet<E>.() -> Unit): Set<E> {\n contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n   return buildSetInternal(capacity, builderAction)\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal expect inline fun <E> buildSetInternal(capacity: Int, builderAction: MutableSet<E>.() -> Unit): Set<E>\n\n\n/** Returns this Set if it's not `null` and the empty set otherwise. */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Set<T>?.orEmpty(): Set<T> = this ?: emptySet()\n\ninternal fun <T> Set<T>.optimizeReadOnlySet() = when (size) {\n   0 -> emptySet()\n   1 -> setOf(iterator().next())\n   else -> this\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n@file:Suppress(\"PLATFORM_CLASS_MAPPED_TO_KOTLIN\")\n\npackage kotlin.text\n\n/**\n * Parses the string as a signed [Byte] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toByteOrNull(): Byte? = toByteOrNull(radix = 10)\n\n/**\n * Parses the string as a signed [Byte] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toByteOrNull(radix: Int): Byte? {\n   val int = this.toIntOrNull(radix) ?: return null\n   if (int < Byte.MIN_VALUE || int > Byte.MAX_VALUE) return null\n   return int.toByte()\n}\n\n/**\n * Parses the string as a [Short] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toShortOrNull(): Short? = toShortOrNull(radix = 10)\n\n/**\n * Parses the string as a [Short] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toShortOrNull(radix: Int): Short? {\n   val int = this.toIntOrNull(radix) ?: return null\n   if (int < Short.MIN_VALUE || int > Short.MAX_VALUE) return null\n   return int.toShort()\n}\n\n/**\n * Parses the string as an [Int] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toIntOrNull(): Int? = toIntOrNull(radix = 10)\n\n/**\n * Parses the string as an [Int] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toIntOrNull(radix: Int): Int? {\n   checkRadix(radix)\n\n   val length = this.length\n   if (length == 0) return null\n\n   val start: Int\n   val isNegative: Boolean\n   val limit: Int\n\n   val firstChar = this[0]\n   if (firstChar < '0') { // Possible leading sign\n   if (length == 1) return null // non-digit (possible sign) only, no digits after\n\n   start = 1\n\n   if (firstChar == '-') {\n   isNegative = true\n   limit = Int.MIN_VALUE\n   } else if (firstChar == '+') {\n   isNegative = false\n   limit = -Int.MAX_VALUE\n   } else\n   return null\n   } else {\n   start = 0\n   isNegative = false\n   limit = -Int.MAX_VALUE\n   }\n\n\n   val limitForMaxRadix = (-Int.MAX_VALUE) / 36\n\n   var limitBeforeMul = limitForMaxRadix\n   var result = 0\n   for (i in start until length) {\n   val digit = digitOf(this[i], radix)\n\n   if (digit < 0) return null\n   if (result < limitBeforeMul) {\n   if (limitBeforeMul == limitForMaxRadix) {\n   limitBeforeMul = limit / radix\n\n   if (result < limitBeforeMul) {\n   return null\n   }\n   } else {\n   return null\n   }\n   }\n\n   result *= radix\n\n   if (result < limit + digit) return null\n\n   result -= digit\n   }\n\n   return if (isNegative) result else -result\n}\n\n/**\n * Parses the string as a [Long] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toLongOrNull(): Long? = toLongOrNull(radix = 10)\n\n/**\n * Parses the string as a [Long] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toLongOrNull(radix: Int): Long? {\n   checkRadix(radix)\n\n   val length = this.length\n   if (length == 0) return null\n\n   val start: Int\n   val isNegative: Boolean\n   val limit: Long\n\n   val firstChar

 = this[0]\n   if (firstChar < '0') { // Possible leading sign\n   if (length == 1) return null // non-digit (possible sign) only, no digits after\n\n   start = 1\n\n   if (firstChar == '-') {\n   isNegative = true\n   limit = Long.MIN_VALUE\n   } else if (firstChar == '+') {\n   isNegative = false\n   limit = -Long.MAX_VALUE\n   } else\n   return null\n   } else {\n   start = 0\n   isNegative = false\n   limit = -Long.MAX_VALUE\n   }\n\n\n   val limitForMaxRadix = (-Long.MAX_VALUE) / 36\n\n   var limitBeforeMul = limitForMaxRadix\n   var result = 0L\n   for (i in start until length) {\n   val digit = digitOf(this[i], radix)\n\n   if (digit < 0) return null\n   if (result < limitBeforeMul) {\n   if (limitBeforeMul == limitForMaxRadix) {\n   limitBeforeMul = limit / radix\n\n   if (result < limitBeforeMul) {\n   return null\n

}\n   } else {\n   return null\n   }\n   }\n\n   result *= radix\n\n   if (result < limit + digit) return null\n\n   result -= digit\n   }\n\n   return if (isNegative) result else -result\n}\n\n\ninternal fun numberFormatError(input: String): Nothing = throw NumberFormatException(\"Invalid number format: '$input'\")\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\nimport kotlin.contracts.*\nimport kotlin.jvm.JvmInline\nimport kotlin.math.*\n\n/**\n * Represents the amount of time one instant of time is away from another instant.\n *\n * A negative duration is possible in a situation when the second instant is earlier than the first one.\n *\n * The type can store duration values up to \u00b1146 years with nanosecond precision,\n

* and up to \u00b1146 million years with millisecond precision.\n * If a duration-returning operation provided in `kotlin.time` produces a duration value that doesn't fit into the above range,\n * the returned `Duration` is infinite.\n *\n * An infinite duration value [Duration.INFINITE] can be used to represent infinite timeouts.\n *\n * To construct a duration use either the extension function [toDuration],\n * or the extension properties [hours], [minutes], [seconds], and so on,\n * available on [Int], [Long], and [Double] numeric types.\n *\n * To get the value of this duration expressed in a particular [duration units][DurationUnit]\n * use the functions [toInt], [toLong], and [toDouble]\n * or the properties [inWholeHours], [inWholeMinutes], [inWholeSeconds], [inWholeNanoseconds], and so on.\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\n@JvmInline\npublic value class Duration internal constructor(private val rawValue: Long) : Comparable<Duration> {\n\n

private val value: Long get() = rawValue shr 1\n   private inline val unitDiscriminator: Int get() = rawValue.toInt() and 1\n   private fun isInNanos() = unitDiscriminator == 0\n   private fun isInMillis() = unitDiscriminator == 1\n   private val storageUnit get() = if (isInNanos()) DurationUnit.NANOSECONDS else DurationUnit.MILLISECONDS\n\n   init {\n   if (durationAssertionsEnabled) {\n   if (isInNanos()) {\n

if (value !in -MAX_NANOS..MAX_NANOS) throw AssertionError(\"$value ns is out of nanoseconds range\")\n   } else {\n   if (value !in -MAX_MILLIS..MAX_MILLIS) throw AssertionError(\"$value ms is out of milliseconds range\")\n   if (value in -MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS) throw AssertionError(\"$value ms is denormalized\")\n

}\n   }\n   }\n\n   companion object {\n   /** The duration equal to exactly 0 seconds. */\n   public val ZERO: Duration = Duration(0L)\n\n

/** The duration whose value is positive infinity. It is useful for representing timeouts that should never expire. */\n   public val INFINITE: Duration = durationOfMillis(MAX_MILLIS)\n   internal val NEG_INFINITE: Duration = durationOfMillis(-MAX_MILLIS)\n\n   /** Converts the given time duration [value] expressed in the specified [sourceUnit] into the specified [targetUnit]. */\n   @ExperimentalTime\n   public fun convert(value: Double, sourceUnit: DurationUnit, targetUnit: DurationUnit): Double =\n   convertDurationUnit(value, sourceUnit, targetUnit)\n\n   // Duration construction extension properties in Duration companion scope\n\n   /** Returns a [Duration] equal to this [Int] number of nanoseconds. */\n   @kotlin.internal.InlineOnly\n   public inline val Int.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)\n\n   /** Returns a [Duration] equal to this [Long] number of nanoseconds. */\n   @kotlin.internal.InlineOnly\n

public inline val Long.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)\n\n   /**\n   * Returns a [Duration] equal to this [Double] number of nanoseconds.\n   *\n   * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)\n\n\n /** Returns a [Duration] equal to this [Int] number of microseconds. */\n @kotlin.internal.InlineOnly\n public inline val Int.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n /** Returns a [Duration] equal to this [Long] number of microseconds. */\n @kotlin.internal.InlineOnly\n public inline val Long.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n /**\n * Returns a [Duration] equal to this [Double] number of microseconds.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n\n /** Returns a [Duration] equal to this [Int] number of milliseconds. */\n @kotlin.internal.InlineOnly\n public inline val Int.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n /** Returns a [Duration] equal to this [Long] number of milliseconds. */\n @kotlin.internal.InlineOnly\n public inline val Long.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n /**\n * Returns a [Duration] equal to this [Double] number of milliseconds.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n\n /** Returns a [Duration] equal to this [Int] number of seconds. */\n @kotlin.internal.InlineOnly\n public inline val Int.seconds get() = toDuration(DurationUnit.SECONDS)\n\n /** Returns a [Duration] equal to this [Long] number of seconds. */\n @kotlin.internal.InlineOnly\n public inline val Long.seconds get() = toDuration(DurationUnit.SECONDS)\n\n /**\n * Returns a [Duration] equal to this [Double] number of seconds.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.seconds get() = toDuration(DurationUnit.SECONDS)\n\n\n /** Returns a [Duration] equal to this [Int] number of minutes. */\n @kotlin.internal.InlineOnly\n public inline val Int.minutes get() = toDuration(DurationUnit.MINUTES)\n\n /** Returns a [Duration] equal to this [Long] number of minutes. */\n @kotlin.internal.InlineOnly\n public inline val Long.minutes get() = toDuration(DurationUnit.MINUTES)\n\n /**\n * Returns a [Duration] equal to this [Double] number of minutes.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.minutes get() = toDuration(DurationUnit.MINUTES)\n\n\n /** Returns a [Duration] equal to this [Int] number of hours. */\n @kotlin.internal.InlineOnly\n public inline val Int.hours get() = toDuration(DurationUnit.HOURS)\n\n /** Returns a [Duration] equal to this [Long] number of hours. */\n @kotlin.internal.InlineOnly\n public inline val Long.hours get() = toDuration(DurationUnit.HOURS)\n\n /**\n * Returns a [Duration] equal to this [Double] number of hours.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.hours get() = toDuration(DurationUnit.HOURS)\n\n\n /** Returns a [Duration] equal to this [Int] number of days. */\n @kotlin.internal.InlineOnly\n public inline val Int.days get() = toDuration(DurationUnit.DAYS)\n\n /** Returns a [Duration] equal to this [Long] number of days. */\n @kotlin.internal.InlineOnly\n public inline val Long.days get() = toDuration(DurationUnit.DAYS)\n\n /**\n * Returns a [Duration] equal to this [Double] number of days.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.days get() = toDuration(DurationUnit.DAYS)\n\n\n

// deprecated static factory functions\n\n /** Returns a [Duration] representing the specified [value] number of nanoseconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Int.nanoseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.nanoseconds\", \"kotlin.time.Duration.Companion.nanoseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun nanoseconds(value: Int): Duration = value.toDuration(DurationUnit.NANOSECONDS)\n\n /** Returns a [Duration] representing the specified [value] number of nanoseconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Long.nanoseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.nanoseconds\", \"kotlin.time.Duration.Companion.nanoseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun nanoseconds(value: Long): Duration = value.toDuration(DurationUnit.NANOSECONDS)\n\n /**\n * Returns a [Duration] representing the specified [value] number of nanoseconds.\n *\n * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Double.nanoseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.nanoseconds\", \"kotlin.time.Duration.Companion.nanoseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun nanoseconds(value: Double): Duration = value.toDuration(DurationUnit.NANOSECONDS)\n\n\n /** Returns a [Duration] representing the specified [value] number of microseconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Int.microseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.microseconds\", \"kotlin.time.Duration.Companion.microseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun microseconds(value: Int): Duration = value.toDuration(DurationUnit.MICROSECONDS)\n\n /** Returns a [Duration] representing the specified [value] number of microseconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Long.microseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.microseconds\", \"kotlin.time.Duration.Companion.microseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun microseconds(value: Long): Duration = value.toDuration(DurationUnit.MICROSECONDS)\n\n /**\n * Returns a [Duration] representing the specified [value] number of microseconds.\n *\n * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Double.microseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.microseconds\", \"kotlin.time.Duration.Companion.microseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun microseconds(value: Double): Duration = value.toDuration(DurationUnit.MICROSECONDS)\n\n\n /** Returns a [Duration] representing the specified [value] number of milliseconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Int.milliseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.milliseconds\", \"kotlin.time.Duration.Companion.milliseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun milliseconds(value: Int): Duration = value.toDuration(DurationUnit.MILLISECONDS)\n\n /** Returns a [Duration] representing the specified [value] number of milliseconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Long.milliseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.milliseconds\", \"kotlin.time.Duration.Companion.milliseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun milliseconds(value: Long): Duration = value.toDuration(DurationUnit.MILLISECONDS)\n\n /**\n * Returns a [Duration] representing the specified [value] number of milliseconds.\n *\n * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Double.milliseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.milliseconds\", \"kotlin.time.Duration.Companion.milliseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun milliseconds(value: Double): Duration = value.toDuration(DurationUnit.MILLISECONDS)\n\n\n /** Returns a [Duration] representing the specified [value] number of seconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Int.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun seconds(value: Int): Duration = value.toDuration(DurationUnit.SECONDS)\n\n

/** Returns a [Duration] representing the specified [value] number of seconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Long.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun seconds(value: Long): Duration = value.toDuration(DurationUnit.SECONDS)\n\n /**\n * Returns a [Duration] representing the specified [value] number of seconds.\n *\n * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Double.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun seconds(value:

Double): Duration = value.toDuration(DurationUnit.SECONDS)\n\n\n /** Returns a [Duration] representing the specified [value] number of minutes. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Int.minutes' extension property from Duration.Companion instead.\", ReplaceWith(\"value.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun minutes(value: Int): Duration = value.toDuration(DurationUnit.MINUTES)\n\n /** Returns a [Duration] representing the specified [value] number of minutes. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Long.minutes' extension property from Duration.Companion instead.\", ReplaceWith(\"value.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun minutes(value: Long): Duration = value.toDuration(DurationUnit.MINUTES)\n\n

/**\n * Returns a [Duration] representing the specified [value] number of minutes.\n *\n * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Double.minutes' extension property from Duration.Companion instead.\", ReplaceWith(\"value.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun minutes(value: Double): Duration = value.toDuration(DurationUnit.MINUTES)\n\n\n /** Returns a [Duration] representing the specified [value] number of hours. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Int.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"value.hours\", \"kotlin.time.Duration.Companion.hours\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun hours(value:

Int): Duration = value.toDuration(DurationUnit.HOURS)\n\n /** Returns a [Duration] representing the specified [value] number of hours. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Long.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"value.hours\", \"kotlin.time.Duration.Companion.hours\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun hours(value: Long): Duration = value.toDuration(DurationUnit.HOURS)\n\n /**\n * Returns a [Duration] representing the specified [value] number of hours.\n *\n * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Double.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"value.hours\", \"kotlin.time.Duration.Companion.hours\"))\n @DeprecatedSinceKotlin(warningSince

= \"1.6\")\n public fun hours(value: Double): Duration = value.toDuration(DurationUnit.HOURS)\n\n\n /** Returns a [Duration] representing the specified [value] number of days. */\n @SinceKotlin(\"1.5\")\n

@ExperimentalTime\n @Deprecated(\"Use 'Int.days' extension property from Duration.Companion instead.\", ReplaceWith(\"value.days\", \"kotlin.time.Duration.Companion.days\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun days(value: Int): Duration = value.toDuration(DurationUnit.DAYS)\n\n /** Returns a [Duration] representing the specified [value] number of days. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Long.days' extension property from Duration.Companion instead.\", ReplaceWith(\"value.days\", \"kotlin.time.Duration.Companion.days\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun days(value: Long): Duration = value.toDuration(DurationUnit.DAYS)\n\n /**\n * Returns a [Duration] representing the specified [value] number of days.\n *\n * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Double.days' extension property from Duration.Companion instead.\", ReplaceWith(\"value.days\", \"kotlin.time.Duration.Companion.days\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun days(value: Double): Duration = value.toDuration(DurationUnit.DAYS)\n\n /**\n * Parses a string that represents a duration and returns the parsed [Duration] value.\n *\n * The following formats are accepted:\n *\n * - ISO-8601 Duration format, e.g. `P1DT2H3M4.058S`, see [toIsoString] and [parseIsoString].\n * - The format of string returned by the default [Duration.toString] and `toString` in a specific unit,\n * e.g. `10s`, `1h 30m` or `-(1h 30m)`.\n *\n * @throws IllegalArgumentException if the string doesn't represent a duration in any of the supported formats.\n * @sample samples.time.Durations.parse\n */\n public fun parse(value: String): Duration = try {\n parseDuration(value, strictIso = false)\n } catch (e: IllegalArgumentException) {\n throw IllegalArgumentException(\"Invalid duration string format: '$value'.\", e)\n }\n\n /**\n * Parses a string that represents a duration in ISO-8601 format and returns the parsed [Duration] value.\n *\n * @throws IllegalArgumentException if the string doesn't represent a duration in ISO-8601 format.\n * @sample samples.time.Durations.parseIsoString\n */\n public fun parseIsoString(value: String): Duration = try {\n parseDuration(value, strictIso = true)\n } catch (e: IllegalArgumentException) {\n throw IllegalArgumentException(\"Invalid ISO duration string format: '$value'.\", e)\n }\n\n /**\n * Parses a string that represents a duration and returns the parsed [Duration] value,\n * or `null` if the string doesn't represent a duration in any of the supported formats.\n *\n * The following formats are accepted:\n *\n * - ISO-8601 Duration format, e.g. `P1DT2H3M4.058S`, see [toIsoString] and [parseIsoString].\n * - The format of string returned by the default [Duration.toString] and `toString` in a specific unit,\n * e.g. `10s`, `1h 30m` or `-(1h 30m)`.\n * @sample samples.time.Durations.parse\n */\n public fun parseOrNull(value: String): Duration? = try {\n parseDuration(value, strictIso = false)\n } catch (e: IllegalArgumentException) {\n null\n }\n\n /**\n * Parses a string that represents a duration in ISO-8601 format and returns the parsed [Duration] value,\n * or `null` if the string doesn't represent a duration in ISO-8601 format.\n * @sample samples.time.Durations.parseIsoString\n */\n public fun parseIsoStringOrNull(value: String): Duration? = try {\n parseDuration(value, strictIso = true)\n } catch (e: IllegalArgumentException) {\n null\n }\n }\n\n // arithmetic operators\n\n /** Returns the negative of this value. */\n public operator fun unaryMinus(): Duration = durationOf(-value, unitDiscriminator)\n\n /**\n * Returns a duration whose value is the sum of this and [other] duration values.\n *\n * @throws IllegalArgumentException if the operation results in an undefined value for the given arguments,\n * e.g. when adding infinite durations of different sign.\n */\n public operator fun plus(other: Duration): Duration {\n when {\n this.isInfinite() -> {\n if (other.isFinite() || (this.rawValue xor other.rawValue >= 0))\n return this\n else\n throw IllegalArgumentException(\"Summing infinite durations of different signs yields an undefined result.\")\n }\n other.isInfinite() -> return other\n }\n\n return when {\n this.unitDiscriminator == other.unitDiscriminator -> {\n val result = this.value + other.value // never overflows long, but can

overflow long63\n when {\n isInNanos() ->\n durationOfNanosNormalized(result)\n else ->\n durationOfMillisNormalized(result)\n }\n }\n this.isInMillis() ->\n addValuesMixedRanges(this.value, other.value)\n else ->\n addValuesMixedRanges(other.value, this.value)\n }\n }\n\n private fun addValuesMixedRanges(thisMillis:
Long, otherNanos: Long): Duration {\n val otherMillis = nanosToMillis(otherNanos)\n val resultMillis = thisMillis + otherMillis\n return if (resultMillis in -MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS) {\n val otherNanoRemainder = otherNanos - millisToNanos(otherMillis)\n durationOfNanos(millisToNanos(resultMillis) + otherNanoRemainder)\n } else {\n durationOfMillis(resultMillis.coerceIn(-MAX_MILLIS, MAX_MILLIS))\n }\n }\n\n /**\n * Returns a duration whose value is the difference between this and [other] duration values.\n *\n * @throws IllegalArgumentException if the operation results in an undefined value for the given arguments,\n * e.g. when subtracting infinite durations of the same sign.\n */\n public operator fun minus(other: Duration): Duration = this + (-other)\n\n /**\n * Returns a duration whose value is this duration value multiplied by the given [scale]
number.\n *\n * @throws IllegalArgumentException if the operation results in an undefined value for the given arguments,\n * e.g. when multiplying an infinite duration by zero.\n */\n public operator fun times(scale: Int): Duration {\n if (isInfinite()) {\n return when {\n scale == 0 -> throw IllegalArgumentException(\"Multiplying infinite duration by zero yields an undefined result.\")\n scale > 0 -> this\n else -> -this\n }\n }\n if (scale == 0) return ZERO\n\n val value = value\n val result = value * scale\n return if (isInNanos()) {\n if (value in (MAX_NANOS / Int.MIN_VALUE)..(-MAX_NANOS / Int.MIN_VALUE)) {\n // can't overflow nanos range for any scale\n durationOfNanos(result)\n } else {\n if (result / scale == value) {\n durationOfNanosNormalized(result)\n
} else {\n val millis = nanosToMillis(value)\n val remNanos = value - millisToNanos(millis)\n val resultMillis = millis * scale\n val totalMillis = resultMillis + nanosToMillis(remNanos * scale)\n if (resultMillis / scale == millis && totalMillis xor resultMillis >= 0) {\n durationOfMillis(totalMillis.coerceIn(-MAX_MILLIS..MAX_MILLIS))\n } else {\n if (value.sign * scale.sign > 0) INFINITE else NEG_INFINITE\n }\n }\n }\n } else {\n if (result / scale == value) {\n durationOfMillis(result.coerceIn(-MAX_MILLIS..MAX_MILLIS))\n } else {\n if (value.sign * scale.sign > 0) INFINITE else NEG_INFINITE\n }\n }\n }\n\n /**\n * Returns a duration whose value is this duration value multiplied by the given [scale]
number.\n *\n * The operation may involve rounding when the result cannot be represented exactly with a [Double] number.\n *\n * @throws IllegalArgumentException if the operation results in an undefined value for the given arguments,\n * e.g. when multiplying an infinite duration by zero.\n */\n public operator fun times(scale: Double): Duration {\n val intScale = scale.roundToInt()\n if (intScale.toDouble() == scale) {\n return times(intScale)\n }\n\n val unit = storageUnit\n val result = toDouble(unit) * scale\n return result.toDuration(unit)\n }\n\n /**\n * Returns a duration whose value is this duration value divided by the given [scale] number.\n *\n * @throws IllegalArgumentException if the operation results in an undefined value for the given arguments,\n * e.g. when dividing zero duration by zero.\n */\n public operator fun div(scale: Int): Duration {\n if (scale
== 0) {\n return when {\n isPositive() -> INFINITE\n isNegative() -> NEG_INFINITE\n else -> throw IllegalArgumentException(\"Dividing zero duration by zero yields an undefined result.\")\n }\n }\n if (isInNanos()) {\n return durationOfNanos(value / scale)\n } else {\n if (isInfinite())\n return this * scale.sign\n\n val result = value / scale\n\n if (result in -MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS) {\n val rem = millisToNanos(value - (result * scale)) / scale\n return durationOfNanos(millisToNanos(result) + rem)\n }\n return durationOfMillis(result)\n }\n }\n\n /**\n * Returns a duration whose value is this duration value divided

by the given [scale] number.\n   *\n   * @throws IllegalArgumentException if the operation results in an undefined value for the given
 arguments,\n   * e.g. when dividing an infinite duration by infinity or zero duration by zero.\n   */\n   public operator fun div(scale: Double): Duration {\n   val intScale = scale.roundToInt()\n   if (intScale.toDouble() == scale && intScale != 0) {\n   return div(intScale)\n   }\n\n   val unit = storageUnit\n   val result = toDouble(unit) / scale\n   return result.toDuration(unit)\n   }\n\n   /** Returns a number that is the ratio of this and [other] duration values. */\n   public operator fun div(other: Duration): Double {\n   val coarserUnit = maxOf(this.storageUnit, other.storageUnit)\n   return this.toDouble(coarserUnit) / other.toDouble(coarserUnit)\n   }\n\n   /** Returns true, if the duration value is less than zero. */\n   public fun isNegative(): Boolean = rawValue < 0\n\n   /** Returns true, if the duration value is greater than zero. */\n   public fun isPositive(): Boolean = rawValue > 0\n\n   /** Returns true,
 if the duration value is infinite. */\n   public fun isInfinite(): Boolean = rawValue == INFINITE.rawValue || rawValue == NEG_INFINITE.rawValue\n\n   /** Returns true, if the duration value is finite. */\n   public fun isFinite(): Boolean = !isInfinite()\n\n   /** Returns the absolute value of this value. The returned value is always non-negative. */\n   public val absoluteValue: Duration get() = if (isNegative()) -this else this\n\n   override fun compareTo(other: Duration): Int {\n   val compareBits = this.rawValue xor other.rawValue\n   if (compareBits < 0 || compareBits.toInt() and 1 == 0) // different signs or same sign/same range\n   return this.rawValue.compareTo(other.rawValue)\n   // same sign/different ranges\n   val r = this.unitDiscriminator - other.unitDiscriminator // compare ranges\n   return if (isNegative()) -r else r\n   }\n\n\n   // splitting to components\n\n   /**\n   * Splits this duration into days, hours, minutes,
 seconds, and nanoseconds and executes the given [action] with these components.\n   * The result of [action] is returned as the result of this function.\n   *\n   * - `nanoseconds` represents the whole number of nanoseconds in this duration, and its absolute value is less than 1_000_000_000;\n   * - `seconds` represents the whole number of seconds in this duration, and its absolute value is less than 60;\n   * - `minutes` represents the whole number of minutes in this duration, and its absolute value is less than 60;\n   * - `hours` represents the whole number of hours in this duration, and its absolute value is less than 24;\n   * - `days` represents the whole number of days in this duration.\n   *\n   *   Infinite durations are represented as either [Long.MAX_VALUE] days, or [Long.MIN_VALUE] days (depending on the sign of infinity),\n   *   and zeroes in the lower components.\n   */\n   public inline fun <T> toComponents(action: (days: Long, hours: Int, minutes:
 Int, seconds: Int, nanoseconds: Int) -> T): T {\n   contract { callsInPlace(action, InvocationKind.EXACTLY_ONCE) }\n   return action(inWholeDays, hoursComponent, minutesComponent, secondsComponent, nanosecondsComponent)\n   }\n\n   /**\n   * Splits this duration into hours, minutes, seconds, and nanoseconds and executes the given [action] with these components.\n   * The result of [action] is returned as the result of this function.\n   *\n   * - `nanoseconds` represents the whole number of nanoseconds in this duration, and its absolute value is less than 1_000_000_000;\n   * - `seconds` represents the whole number of seconds in this duration, and its absolute value is less than 60;\n   * - `minutes` represents the whole number of minutes in this duration, and its absolute value is less than 60;\n   * - `hours` represents the whole number of hours in this duration.\n   *\n   *   Infinite durations are represented as either [Long.MAX_VALUE] hours, or [Long.MIN_VALUE]
 hours (depending on the sign of infinity),\n   *   and zeroes in the lower components.\n   */\n   public inline fun <T> toComponents(action: (hours: Long, minutes: Int, seconds: Int, nanoseconds: Int) -> T): T {\n   contract { callsInPlace(action, InvocationKind.EXACTLY_ONCE) }\n   return action(inWholeHours, minutesComponent, secondsComponent, nanosecondsComponent)\n   }\n\n   /**\n   * Splits this duration into minutes, seconds, and nanoseconds and executes the given [action] with these components.\n   * The result of [action] is returned as the result of this function.\n   *\n   * - `nanoseconds` represents the whole number of nanoseconds in this duration, and its absolute value is less than 1_000_000_000;\n   * - `seconds` represents the whole number of seconds in this duration, and its absolute value is less than 60;\n   * - `minutes` represents the whole number of minutes in this duration.\n   *\n   *   Infinite durations are represented

as either [Long.MAX_VALUE] minutes, or [Long.MIN_VALUE] minutes (depending on the sign of infinity),\n * and zeroes in the lower components.\n */\n public inline fun <T> toComponents(action: (minutes: Long, seconds: Int, nanoseconds: Int) -> T): T {\n contract { callsInPlace(action, InvocationKind.EXACTLY_ONCE) }\n return action(inWholeMinutes, secondsComponent, nanosecondsComponent)\n }\n\n /**\n * Splits this duration into seconds, and nanoseconds and executes the given [action] with these components.\n * The result of [action] is returned as the result of this function.\n *\n * - `nanoseconds` represents the whole number of nanoseconds in this duration, and its absolute value is less than 1_000_000_000;\n * - `seconds` represents the whole number of seconds in this duration.\n *\n * Infinite durations are represented as either [Long.MAX_VALUE] seconds, or [Long.MIN_VALUE] seconds (depending on the sign of infinity),\n * and zero nanoseconds.\n */\n public inline fun <T> toComponents(action: (seconds: Long, nanoseconds: Int) -> T): T {\n contract { callsInPlace(action, InvocationKind.EXACTLY_ONCE) }\n return action(inWholeSeconds, nanosecondsComponent)\n }\n\n @PublishedApi\n internal val hoursComponent: Int\n get() = if (isInfinite()) 0 else (inWholeHours % 24).toInt()\n\n @PublishedApi\n internal val minutesComponent: Int\n get() = if (isInfinite()) 0 else (inWholeMinutes % 60).toInt()\n\n @PublishedApi\n internal val secondsComponent: Int\n get() = if (isInfinite()) 0 else (inWholeSeconds % 60).toInt()\n\n @PublishedApi\n internal val nanosecondsComponent: Int\n get() = when {\n isInfinite() -> 0\n isInMillis() -> millisToNanos(value % 1_000).toInt()\n else -> (value % 1_000_000_000).toInt()\n }\n\n\n // conversion to units\n\n /**\n * Returns the value of this duration
expressed as a [Double] number of the specified [unit].\n *\n * The operation may involve rounding when the result cannot be represented exactly with a [Double] number.\n *\n * An infinite duration value is converted either to [Double.POSITIVE_INFINITY] or [Double.NEGATIVE_INFINITY] depending on its sign.\n */\n public fun toDouble(unit: DurationUnit): Double {\n return when (rawValue) {\n INFINITE.rawValue -> Double.POSITIVE_INFINITY\n NEG_INFINITE.rawValue -> Double.NEGATIVE_INFINITY\n else -> {\n // TODO: whether it's ok to convert to Double before scaling\n convertDurationUnit(value.toDouble(), storageUnit, unit)\n }\n }\n }\n\n /**\n * Returns the value of this duration expressed as a [Long] number of the specified [unit].\n *\n * If the result doesn't fit in the range of [Long] type, it is coerced into that range:\n * - [Long.MIN_VALUE] is returned
if it's less than `Long.MIN_VALUE`,\n * - [Long.MAX_VALUE] is returned if it's greater than `Long.MAX_VALUE`.\n *\n * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n */\n public fun toLong(unit: DurationUnit): Long {\n return when (rawValue) {\n INFINITE.rawValue -> Long.MAX_VALUE\n NEG_INFINITE.rawValue -> Long.MIN_VALUE\n else -> convertDurationUnit(value, storageUnit, unit)\n }\n }\n\n /**\n * Returns the value of this duration expressed as an [Int] number of the specified [unit].\n *\n * If the result doesn't fit in the range of [Int] type, it is coerced into that range:\n * - [Int.MIN_VALUE] is returned if it's less than `Int.MIN_VALUE`,\n * - [Int.MAX_VALUE] is returned if it's greater than `Int.MAX_VALUE`.\n *\n * An infinite duration value is converted either to [Int.MAX_VALUE] or [Int.MIN_VALUE] depending on
its sign.\n */\n public fun toInt(unit: DurationUnit): Int =\n toLong(unit).coerceIn(Int.MIN_VALUE.toLong(), Int.MAX_VALUE.toLong()).toInt()\n\n /** The value of this duration expressed as a [Double] number of days. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeDays property instead or convert toDouble(DAYS) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.DAYS)\"))\n public val inDays: Double get() = toDouble(DurationUnit.DAYS)\n\n /** The value of this duration expressed as a [Double] number of hours. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeHours property instead or convert toDouble(HOURS) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.HOURS)\"))\n public val inHours: Double get() = toDouble(DurationUnit.HOURS)\n\n /** The value of this duration expressed as a [Double] number of minutes. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeMinutes property instead or convert toDouble(MINUTES)

if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.MINUTES)\"))\n public val inMinutes: Double get() = toDouble(DurationUnit.MINUTES)\n\n /** The value of this duration expressed as a [Double] number of seconds. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeSeconds property instead or convert toDouble(SECONDS) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.SECONDS)\"))\n public val inSeconds: Double get() = toDouble(DurationUnit.SECONDS)\n\n /** The value of this duration expressed as a [Double] number of milliseconds. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeMilliseconds property instead or convert toDouble(MILLISECONDS) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.MILLISECONDS)\"))\n public val inMilliseconds: Double get() = toDouble(DurationUnit.MILLISECONDS)\n\n /** The value of this duration expressed as a [Double] number of microseconds. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeMicroseconds property instead or convert toDouble(MICROSECONDS) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.MICROSECONDS)\"))\n public val inMicroseconds: Double get() = toDouble(DurationUnit.MICROSECONDS)\n\n /** The value of this duration expressed as a [Double] number of nanoseconds. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeNanoseconds property instead or convert toDouble(NANOSECONDS) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.NANOSECONDS)\"))\n public val inNanoseconds: Double get() = toDouble(DurationUnit.NANOSECONDS)\n\n\n /**\n * The value of this duration expressed as a [Long] number of days.\n *\n * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n */\n public val inWholeDays: Long\n get() = toLong(DurationUnit.DAYS)\n\n /**\n * The value of this duration expressed as a [Long] number of hours.\n *\n * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n */\n public val inWholeHours: Long\n get() = toLong(DurationUnit.HOURS)\n\n /**\n * The value of this duration expressed as a [Long] number of minutes.\n *\n * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n */\n public val inWholeMinutes: Long\n get() = toLong(DurationUnit.MINUTES)\n\n /**\n * The value of this duration expressed as a [Long] number of seconds.\n *\n * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n */\n public val inWholeSeconds: Long\n get() = toLong(DurationUnit.SECONDS)\n\n /**\n * The value of this duration expressed as a [Long] number of milliseconds.\n *\n * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n */\n public val inWholeMilliseconds: Long\n get() {\n return if (isInMillis() && isFinite()) value else toLong(DurationUnit.MILLISECONDS)\n }\n\n /**\n * The value of this duration expressed as a [Long] number of microseconds.\n *\n * If the result doesn't fit in the range of [Long] type, it is coerced into that range:\n * - [Long.MIN_VALUE] is returned if it's less than `Long.MIN_VALUE`,\n * - [Long.MAX_VALUE] is returned if it's greater than `Long.MAX_VALUE`.\n *\n * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n */\n public val inWholeMicroseconds: Long\n get() = toLong(DurationUnit.MICROSECONDS)\n\n /**\n * The value of this duration expressed as a [Long] number of nanoseconds.\n *\n * If the result doesn't fit in the range of [Long] type, it is coerced into that range:\n * - [Long.MIN_VALUE] is returned if it's less than `Long.MIN_VALUE`,\n * - [Long.MAX_VALUE] is returned if it's greater than `Long.MAX_VALUE`.\n *\n * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n */\n public val inWholeNanoseconds: Long\n get() {\n val value = value\n return when {\n isInNanos() -> value\n value > Long.MAX_VALUE / NANOS_IN_MILLIS -> Long.MAX_VALUE\n value < Long.MIN_VALUE / NANOS_IN_MILLIS -> Long.MIN_VALUE\n else -> millisToNanos(value)\n }\n }\n\n // shortcuts\n\n /**\n * Returns the value of this duration expressed as a [Long] number of

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nanoseconds.\n     *\n     * If the value doesn't fit in the range of [Long] type, it is coerced into that range, see the
conversion [Double.toLong] for details.\n     *\n     * The range of durations that can be expressed
 as a `Long` number of nanoseconds is approximately \u00b1292 years.\n     */\n    @ExperimentalTime\n
@Deprecated(\"Use inWholeNanoseconds property instead.\", ReplaceWith(\"this.inWholeNanoseconds\"))\n
public fun toLongNanoseconds(): Long = inWholeNanoseconds\n\n    /**\n     * Returns the value of this duration
expressed as a [Long] number of milliseconds.\n     *\n     * The value is coerced to the range of [Long] type, if it
doesn't fit in that range, see the conversion [Double.toLong] for details.\n     *\n     * The range of durations that can
be expressed as a `Long` number of milliseconds is approximately \u00b1292 million years.\n     */\n
@ExperimentalTime\n    @Deprecated(\"Use inWholeMilliseconds property instead.\",
ReplaceWith(\"this.inWholeMilliseconds\"))\n    public fun toLongMilliseconds(): Long = inWholeMilliseconds\n\n
  /**\n     * Returns a string representation of this duration value\n     * expressed as a combination of numeric
components, each in its
 own unit.\n     *\n     * Each component is a number followed by the unit abbreviated name: `d`, `h`, `m`, `s`:\n     *
`5h`, `1d 12h`, `1h 0m 30.340s`.\n     * The last component, usually seconds, can be a number with a fractional
part.\n     *\n     * If the duration is less than a second, it is represented as a single number\n     * with one of sub-
second units: `ms` (milliseconds), `us` (microseconds), or `ns` (nanoseconds):\n     * `140.884ms`, `500us`, `24ns`.\n
   *\n     * A negative duration is prefixed with `-` sign and, if it consists of multiple components, surrounded with
parentheses:\n     * `-12m` and `-(1h 30m)`.\n     *\n     * Special cases:\n     *  - an infinite duration is formatted as
`\"Infinity\"` or `\"-Infinity\"` without a unit.\n     *\n     * It's recommended to use [toIsoString] that uses more strict
ISO-8601 format instead of this `toString`\n     * when you want to convert a duration to a string in cases of
serialization, interchange, etc.\n     *\n
     * @sample samples.time.Durations.toStringDefault\n     */\n    override fun toString(): String = when (rawValue)
{\n        0L -> \"0s\"\n        INFINITE.rawValue -> \"Infinity\"\n        NEG_INFINITE.rawValue -> \"-Infinity\"\n
 else -> {\n            val isNegative = isNegative()\n            buildString {\n                if (isNegative) append('-')\n
    absoluteValue.toComponents { days, hours, minutes, seconds, nanoseconds ->\n                    val hasDays = days
!= 0L\n                    val hasHours = hours != 0\n                    val hasMinutes = minutes != 0\n                    val
hasSeconds = seconds != 0 || nanoseconds != 0\n                    var components = 0\n                    if (hasDays) {\n
            append(days).append('d')\n                        components++\n                    }\n                    if (hasHours ||
(hasDays && (hasMinutes || hasSeconds))) {\n                        if (components++ > 0) append(' ')\n
                        append(hours).append('h')\n                    }\n                    if (hasMinutes || (hasSeconds && (hasHours
|| hasDays))) {\n                        if (components++ > 0) append(' ')\n                        append(minutes).append('m')\n
          }\n                    if (hasSeconds) {\n                        if (components++ > 0) append(' ')\n                        when
{\n                            seconds != 0 || hasDays || hasHours || hasMinutes ->\n
appendFractional(seconds, nanoseconds, 9, \"s\", isoZeroes = false)\n                            nanoseconds >= 1_000_000 -
>\n                                appendFractional(nanoseconds / 1_000_000, nanoseconds % 1_000_000, 6, \"ms\",
isoZeroes = false)\n                            nanoseconds >= 1_000 ->\n                                appendFractional(nanoseconds
/ 1_000, nanoseconds % 1_000, 3, \"us\", isoZeroes = false)\n                            else ->\n
                                append(nanoseconds).append(\"ns\")\n                        }\n                    }\n                    if
(isNegative && components > 1) insert(1, '(').append(')')\n                }\n            }\n        }\n    }\n\n    private fun
StringBuilder.appendFractional(whole: Int, fractional: Int, fractionalSize: Int, unit: String, isoZeroes: Boolean) {\n
   append(whole)\n        if (fractional != 0) {\n            append('.')\n            val fracString =
fractional.toString().padStart(fractionalSize, '0')\n            val nonZeroDigits = fracString.indexOfLast { it != '0' } +
1\n            when {\n                !isoZeroes && nonZeroDigits < 3 -> appendRange(fracString, 0, nonZeroDigits)\n
        else -> appendRange(fracString, 0, ((nonZeroDigits + 2) / 3) * 3)\n            }\n        }\n        append(unit)\n
}\n\n    /**\n     * Returns a string representation of this duration value expressed in the given [unit]\n     * and
formatted
 with the specified [decimals] number of digits after decimal point.\n     *\n     * Special cases:\n     *  - an infinite
duration is formatted as `\"Infinity\"` or `\"-Infinity\"` without a unit.\n     *\n     * @param decimals the number of
```

```
digits after decimal point to show. The value must be non-negative.\n     * No more than 12 decimals will be shown,
even if a larger number is requested.\n     *\n     * @return the value of duration in the specified [unit] followed by
that unit abbreviated name: `d`, `h`, `m`, `s`, `ms`, `us`, or `ns`.\n     *\n     * @throws IllegalArgumentException if
[decimals] is less than zero.\n     *\n     * @sample samples.time.Durations.toStringDecimals\n     */\n    public fun
toString(unit: DurationUnit, decimals: Int = 0): String {\n        require(decimals >= 0) { \"decimals must be not
negative, but was $decimals\" }\n        val number = toDouble(unit)\n        if (number.isInfinite()) return
number.toString()\n        return formatToExactDecimals(number,
 decimals.coerceAtMost(12)) + unit.shortName()\n    }\n\n\n    /**\n     * Returns an ISO-8601 based string
representation of this duration.\n     *\n     * The returned value is presented in the format `PThHmMs.fS`, where `h`,
`m`, `s` are the integer components of this duration (see [toComponents])\n     * and `f` is a fractional part of second.
Depending on the roundness of the value the fractional part can be formatted with either\n     * 0, 3, 6, or 9 decimal
digits.\n     *\n     * The infinite duration is represented as `\"PT9999999999999H\"` which is larger than any
possible finite duration in Kotlin.\n     *\n     * Negative durations are indicated with the sign `-` in the beginning of
the returned string, for example, `\"-PT5M30S\"`.\n     *\n     * @sample samples.time.Durations.toIsoString\n
*/\n    public fun toIsoString(): String = buildString {\n        if (isNegative()) append('-')\n        append(\"PT\")\n
this@Duration.absoluteValue.toComponents {
 hours, minutes, seconds, nanoseconds ->\n            @Suppress(\"NAME_SHADOWING\")\n            var hours =
hours\n            if (isInfinite()) {\n                // use large enough value instead of Long.MAX_VALUE\n
hours = 9_999_999_999_999\n            }\n            val hasHours = hours != 0L\n            val hasSeconds = seconds !=
0 || nanoseconds != 0\n            val hasMinutes = minutes != 0 || (hasSeconds && hasHours)\n            if (hasHours)
{\n                append(hours).append('H')\n            }\n            if (hasMinutes) {\n
append(minutes).append('M')\n            }\n            if (hasSeconds || (!hasHours && !hasMinutes)) {\n
appendFractional(seconds, nanoseconds, 9, \"S\", isoZeroes = true)\n            }\n        }\n    }\n\n}\n\n// constructing
from number of units\n// extension functions\n\n/** Returns a [Duration] equal to this [Int] number of the specified
[unit]. */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\npublic
 fun Int.toDuration(unit: DurationUnit): Duration {\n    return if (unit <= DurationUnit.SECONDS) {\n
durationOfNanos(convertDurationUnitOverflow(this.toLong(), unit, DurationUnit.NANOSECONDS))\n    } else\n
    toLong().toDuration(unit)\n}\n\n/** Returns a [Duration] equal to this [Long] number of the specified [unit].
*/\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\npublic fun Long.toDuration(unit:
DurationUnit): Duration {\n    val maxNsInUnit = convertDurationUnitOverflow(MAX_NANOS,
DurationUnit.NANOSECONDS, unit)\n    if (this in -maxNsInUnit..maxNsInUnit) {\n        return
durationOfNanos(convertDurationUnitOverflow(this, unit, DurationUnit.NANOSECONDS))\n    } else {\n        val
millis = convertDurationUnit(this, unit, DurationUnit.MILLISECONDS)\n        return
durationOfMillis(millis.coerceIn(-MAX_MILLIS, MAX_MILLIS))\n    }\n}\n\n/**\n * Returns a [Duration] equal
to this [Double] number of the specified [unit].\n *\n
 * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n *
@throws IllegalArgumentException if this `Double` value is `NaN`.\n
*/\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\npublic fun Double.toDuration(unit:
DurationUnit): Duration {\n    val valueInNs = convertDurationUnit(this, unit, DurationUnit.NANOSECONDS)\n
require(!valueInNs.isNaN()) { \"Duration value cannot be NaN.\" }\n    val nanos = valueInNs.roundToLong()\n
return if (nanos in -MAX_NANOS..MAX_NANOS) {\n        durationOfNanos(nanos)\n    } else {\n        val millis =
convertDurationUnit(this, unit, DurationUnit.MILLISECONDS).roundToLong()\n
durationOfMillisNormalized(millis)\n    }\n}\n\n// constructing from number of units\n// deprecated extension
properties\n\n/** Returns a [Duration] equal to this [Int] number of nanoseconds.
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.nanoseconds' extension property from
 Duration.Companion instead.\", ReplaceWith(\"this.nanoseconds\",
\"kotlin.time.Duration.Companion.nanoseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val
Int.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)\n\n/** Returns a [Duration] equal to this
```

[Long] number of nanoseconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.nanoseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.nanoseconds\", \"kotlin.time.Duration.Companion.nanoseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)\n\n/**\n * Returns a [Duration] equal to this [Double] number of nanoseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.nanoseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.nanoseconds\", \"kotlin.time.Duration.Companion.nanoseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)\n\n\n/** Returns a [Duration] equal to this [Int] number of microseconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.microseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.microseconds\", \"kotlin.time.Duration.Companion.microseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n/** Returns a [Duration] equal to this [Long] number of microseconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.microseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.microseconds\", \"kotlin.time.Duration.Companion.microseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n/**\n * Returns a [Duration] equal to this [Double] number of microseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.microseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.microseconds\", \"kotlin.time.Duration.Companion.microseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n\n/** Returns a [Duration] equal to this [Int] number of milliseconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.milliseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.milliseconds\", \"kotlin.time.Duration.Companion.milliseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n/** Returns a [Duration] equal to this [Long] number of milliseconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.milliseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.milliseconds\", \"kotlin.time.Duration.Companion.milliseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n/**\n * Returns a [Duration] equal to this [Double] number of milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.milliseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.milliseconds\", \"kotlin.time.Duration.Companion.milliseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n\n/** Returns a [Duration] equal to this [Int] number of seconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.seconds get() = toDuration(DurationUnit.SECONDS)\n\n/** Returns a [Duration] equal to this [Long] number of seconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.seconds get() = toDuration(DurationUnit.SECONDS)\n\n/**\n * Returns a [Duration] equal to this [Double] number of seconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.seconds\",

\"kotlin.time.Duration.Companion.seconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.seconds get() = toDuration(DurationUnit.SECONDS)\n\n\n/** Returns a [Duration] equal to this [Int] number of minutes. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.minutes' extension property from Duration.Companion instead.\", ReplaceWith(\"this.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.minutes get() = toDuration(DurationUnit.MINUTES)\n\n/** Returns a [Duration] equal to this [Long] number of minutes. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.minutes' extension property from Duration.Companion instead.\", ReplaceWith(\"this.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.minutes get() = toDuration(DurationUnit.MINUTES)\n\n/**\n * Returns a [Duration] equal to this [Double] number of minutes.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.minutes' extension property from Duration.Companion instead.\", ReplaceWith(\"this.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.minutes get() = toDuration(DurationUnit.MINUTES)\n\n\n/** Returns a [Duration] equal to this [Int] number of hours. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"this.hours\", \"kotlin.time.Duration.Companion.hours\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.hours get() = toDuration(DurationUnit.HOURS)\n\n/** Returns a [Duration] equal to this [Long] number of hours. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"this.hours\", \"kotlin.time.Duration.Companion.hours\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.hours get() = toDuration(DurationUnit.HOURS)\n\n/**\n * Returns a [Duration] equal to this [Double] number of hours.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"this.hours\", \"kotlin.time.Duration.Companion.hours\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.hours get() = toDuration(DurationUnit.HOURS)\n\n\n/** Returns a [Duration] equal to this [Int] number of days. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.days' extension property from Duration.Companion instead.\", ReplaceWith(\"this.days\", \"kotlin.time.Duration.Companion.days\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.days get() = toDuration(DurationUnit.DAYS)\n\n/** Returns a [Duration] equal to this [Long] number of days. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.days' extension property from Duration.Companion instead.\", ReplaceWith(\"this.days\", \"kotlin.time.Duration.Companion.days\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.days get() = toDuration(DurationUnit.DAYS)\n\n/**\n * Returns a [Duration] equal to this [Double] number of days.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.days' extension property from Duration.Companion instead.\", ReplaceWith(\"this.days\", \"kotlin.time.Duration.Companion.days\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.days get() = toDuration(DurationUnit.DAYS)\n\n\n/** Returns a duration whose value is the specified [duration] value multiplied by this number. */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\n@kotlin.internal.InlineOnly\npublic inline operator fun Int.times(duration: Duration): Duration = duration * this\n\n/**\n * Returns a duration whose value is the specified [duration] value multiplied by this number.\n *\n * The operation may involve rounding when the result cannot be represented exactly with a [Double] number.\n *\n * @throws IllegalArgumentException if the operation results in a `NaN` value.\n

*/\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\n@kotlin.internal.InlineOnly\npublic inline operator fun Double.times(duration: Duration): Duration = duration * this\n\n\n\nprivate fun parseDuration(value: String, strictIso: Boolean): Duration {\n var length = value.length\n if (length == 0) throw IllegalArgumentException(\"The string is empty\")\n var index = 0\n var result = Duration.ZERO\n val infinityString = \"Infinity\"\n when (value[index]) {\n '+', '-' -> index++\n }\n val hasSign = index > 0\n val isNegative = hasSign && value.startsWith('-')\n when {\n length <= index ->\n throw IllegalArgumentException(\"No components\")\n value[index] == 'P' -> {\n if (++index == length) throw IllegalArgumentException()\n val nonDigitSymbols = \"+-.\"\n var isTimeComponent = false\n var prevUnit: DurationUnit? = null\n while (index < length) {\n if (value[index] == 'T') {\n if (isTimeComponent || ++index == length) throw IllegalArgumentException()\n isTimeComponent = true\n continue\n }\n val component = value.substringWhile(index) { it in '0'..'9' || it in nonDigitSymbols }\n if (component.isEmpty()) throw IllegalArgumentException()\n index += component.length\n val unitChar = value.getOrElse(index) { throw IllegalArgumentException(\"Missing unit for value $component\") }\n index++\n val unit = durationUnitByIsoChar(unitChar, isTimeComponent)\n if (prevUnit != null && prevUnit <= unit) throw IllegalArgumentException(\"Unexpected order of duration components\")\n prevUnit = unit\n val dotIndex = component.indexOf('.')\n if (unit == DurationUnit.SECONDS && dotIndex > 0) {\n val whole = component.substring(0, dotIndex)\n result += parseOverLongIsoComponent(whole).toDuration(unit)\n result += component.substring(dotIndex).toDouble().toDuration(unit)\n } else {\n result += parseOverLongIsoComponent(component).toDuration(unit)\n }\n }\n }\n strictIso ->\n throw IllegalArgumentException()\n value.regionMatches(index, infinityString, 0, length = maxOf(length - index, infinityString.length), ignoreCase = true) -> {\n result = Duration.INFINITE\n }\n else -> {\n // parse default string format\n var prevUnit: DurationUnit? = null\n var afterFirst = false\n var allowSpaces = !hasSign\n if (hasSign && value[index] == '(' && value.last() == ')') {\n allowSpaces = true\n if (++index == --length) throw IllegalArgumentException(\"No components\")\n }\n while (index < length) {\n if (afterFirst && allowSpaces) {\n index = value.skipWhile(index) { it == ' ' }\n }\n afterFirst = true\n val component = value.substringWhile(index) { it in '0'..'9' || it == '.' }\n if (component.isEmpty()) throw IllegalArgumentException()\n index += component.length\n val unitName = value.substringWhile(index) { it in 'a'..'z' }\n index += unitName.length\n val unit = durationUnitByShortName(unitName)\n if (prevUnit != null && prevUnit <= unit) throw IllegalArgumentException(\"Unexpected order of duration components\")\n prevUnit = unit\n val dotIndex = component.indexOf('.')\n if (dotIndex > 0) {\n val whole = component.substring(0, dotIndex)\n result += whole.toLong().toDuration(unit)\n result += component.substring(dotIndex).toDouble().toDuration(unit)\n if (index < length) throw IllegalArgumentException(\"Fractional component must be last\")\n } else {\n result += component.toLong().toDuration(unit)\n }\n }\n }\n }\n return if (isNegative) -result else result\n}\n\n\nprivate fun parseOverLongIsoComponent(value: String): Long {\n val length = value.length\n var startIndex = 0\n if (length > 0 && value[0] in \"+-\") startIndex++\n if ((length - startIndex) > 16 && (startIndex..value.lastIndex).all { value[it] in '0'..'9' }) {\n // all chars are digits, but more than ceiling(log10(MAX_MILLIS / 1000)) of them\n return if (value[0] == '-') Long.MIN_VALUE else Long.MAX_VALUE\n }\n // TODO: replace with just toLong after min JDK becomes 8\n return if (value.startsWith(\"+\")) value.drop(1).toLong() else value.toLong()\n}\n\n\n\nprivate inline fun String.substringWhile(startIndex: Int, predicate: (Char) -> Boolean): String =\n substring(startIndex, skipWhile(startIndex, predicate))\n\nprivate inline fun

String.skipWhile(startIndex: Int, predicate: (Char) -> Boolean): Int {\n   var i = startIndex\n   while (i < length && predicate(this[i])) i++\n   return i\n}\n\n\n\n\n\n// The ranges are chosen so that they are:\n// - symmetric relative to zero: this greatly simplifies operations with sign, e.g. unaryMinus and minus.\n// - non-overlapping, but adjacent: the first value that doesn't fit in nanos range, can be exactly represented in millis.\n\ninternal const val NANOS_IN_MILLIS = 1_000_000\n// maximum number duration can store in nanosecond range\ninternal const val MAX_NANOS = Long.MAX_VALUE / 2 / NANOS_IN_MILLIS * NANOS_IN_MILLIS - 1 // ends in ..._999_999\n// maximum number duration can store in millisecond range, also encodes an infinite value\ninternal const val MAX_MILLIS = Long.MAX_VALUE / 2\n// MAX_NANOS expressed in milliseconds\nprivate const val MAX_NANOS_IN_MILLIS = MAX_NANOS / NANOS_IN_MILLIS\n\nprivate fun nanosToMillis(nanos: Long): Long = nanos / NANOS_IN_MILLIS\nprivate fun millisToNanos(millis: Long): Long = millis * NANOS_IN_MILLIS\n\nprivate fun durationOfNanos(normalNanos: Long) = Duration(normalNanos shl 1)\nprivate fun durationOfMillis(normalMillis: Long) = Duration((normalMillis shl 1) + 1)\nprivate fun durationOf(normalValue: Long, unitDiscriminator: Int) = Duration((normalValue shl 1) + unitDiscriminator)\nprivate fun durationOfNanosNormalized(nanos: Long) =\n   if (nanos in -MAX_NANOS..MAX_NANOS) {\n   durationOfNanos(nanos)\n   } else {\n   durationOfMillis(nanosToMillis(nanos))\n   }\n\nprivate fun durationOfMillisNormalized(millis: Long) =\n   if (millis in -MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS) {\n   durationOfNanos(millisToNanos(millis))\n   } else {\n   durationOfMillis(millis.coerceIn(-MAX_MILLIS, MAX_MILLIS))\n   }\n\ninternal expect val durationAssertionsEnabled: Boolean\n\ninternal expect fun formatToExactDecimals(value: Double, decimals: Int): String\ninternal expect fun formatUpToDecimals(value: Double, decimals: Int): String","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n@file:kotlin.jvm.JvmName(\"UnsignedKt\")\npackage kotlin\n\n@PublishedApi\ninternal fun uintCompare(v1: Int, v2: Int): Int = (v1 xor Int.MIN_VALUE).compareTo(v2 xor Int.MIN_VALUE)\n@PublishedApi\ninternal fun ulongCompare(v1: Long, v2: Long): Int = (v1 xor Long.MIN_VALUE).compareTo(v2 xor Long.MIN_VALUE)\n\n@PublishedApi\ninternal fun uintDivide(v1: UInt, v2: UInt): UInt = (v1.toLong() / v2.toLong()).toUInt()\n@PublishedApi\ninternal fun uintRemainder(v1: UInt, v2: UInt): UInt = (v1.toLong() % v2.toLong()).toUInt()\n\n// Division and remainder are based on Guava's UnsignedLongs implementation\n// Copyright 2011 The Guava Authors\n\n@PublishedApi\ninternal fun ulongDivide(v1: ULong, v2: ULong): ULong {\n   val dividend = v1.toLong()\n   val divisor = v2.toLong()\n   if (divisor < 0) { // i.e., divisor >= 2^63:\n   return if (v1 < v2) ULong(0) else ULong(1)\n   }\n\n   // Optimization - use signed division if both dividend and divisor < 2^63\n   if (dividend >= 0) {\n   return ULong(dividend / divisor)\n   }\n\n   // Otherwise, approximate the quotient, check, and correct if necessary.\n   val quotient = ((dividend ushr 1) / divisor) shl 1\n   val rem = dividend - quotient * divisor\n   return ULong(quotient + if (ULong(rem) >= ULong(divisor)) 1 else 0)\n\n}\n\n@PublishedApi\ninternal fun ulongRemainder(v1: ULong, v2: ULong): ULong {\n   val dividend = v1.toLong()\n   val divisor = v2.toLong()\n   if (divisor < 0) { // i.e., divisor >= 2^63:\n   return if (v1 < v2) {\n   v1 // dividend < divisor\n   } else {\n   v1 - v2 // dividend >= divisor\n   }\n   }\n\n   // Optimization - use signed modulus if both dividend and divisor < 2^63\n   if (dividend >= 0) {\n   return ULong(dividend % divisor)\n   }\n\n   // Otherwise, approximate the quotient, check, and correct if necessary.\n   val quotient = ((dividend ushr 1) / divisor) shl 1\n   val rem = dividend - quotient * divisor\n   return ULong(rem - if (ULong(rem) >= ULong(divisor)) divisor else 0)\n}\n\n@PublishedApi\ninternal fun doubleToUInt(v: Double): UInt = when {\n   v.isNaN() -> 0u\n   v <= UInt.MIN_VALUE.toDouble() -> UInt.MIN_VALUE\n   v >= UInt.MAX_VALUE.toDouble() -> UInt.MAX_VALUE\n   v <= Int.MAX_VALUE -> v.toInt().toUInt()\n   else -> (v - Int.MAX_VALUE).toInt().toUInt() + Int.MAX_VALUE.toUInt()   // Int.MAX_VALUE < v < UInt.MAX_VALUE\n}\n\n@PublishedApi\ninternal fun doubleToULong(v: Double): ULong = when {\n   v.isNaN() -> 0u\n   v <= ULong.MIN_VALUE.toDouble() -> ULong.MIN_VALUE\n   v >= ULong.MAX_VALUE.toDouble() -> ULong.MAX_VALUE\n   v < Long.MAX_VALUE ->

v.toLong().toULong()\n\n   // Real values from Long.MAX_VALUE to (Long.MAX_VALUE + 1) are not
representable in Double, so don't handle them.\n   else -> (v - 9223372036854775808.0).toLong().toULong() +
9223372036854775808uL   // Long.MAX_VALUE + 1 < v <
ULong.MAX_VALUE\n}\n\n\n@PublishedApi\ninternal fun uintToDouble(v: Int): Double = (v and
Int.MAX_VALUE).toDouble() + (v ushr 31 shl 30).toDouble() * 2\n\n@PublishedApi\ninternal fun
ulongToDouble(v: Long): Double = (v ushr 11).toDouble() * 2048 + (v and 2047)\n\n\ninternal fun
ulongToString(v: Long): String = ulongToString(v, 10)\n\ninternal fun ulongToString(v: Long, base: Int): String
{\n   if (v >= 0) return v.toString(base)\n\n   var quotient = ((v ushr 1) / base) shl 1\n   var rem = v - quotient *
base\n   if (rem >= base) {\n   rem -= base\n   quotient += 1\n   }\n   return quotient.toString(base) +
rem.toString(base)\n}\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*/\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CollectionsKt\")\n\npackage
kotlin.collections\n\n/**\n * Given an [iterator] function constructs an [Iterable] instance that returns values through
the [Iterator]\n * provided by that function.\n * @sample samples.collections.Iterables.Building.iterable\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable(crossinline iterator: ()
-> Iterator<T>): Iterable<T> = object : Iterable<T> {\n   override fun iterator(): Iterator<T> = iterator()\n}\n\n/**\n
* A wrapper over another [Iterable] (or any other object that can produce an [Iterator]) that returns\n * an indexing
iterator.\n */\ninternal class IndexingIterable<out T>(private val iteratorFactory: () -> Iterator<T>) :
Iterable<IndexedValue<T>> {\n   override fun iterator(): Iterator<IndexedValue<T>> =
IndexingIterator(iteratorFactory())\n}\n\n\n/**\n * Returns the size of this iterable if it is known, or `null`
otherwise.\n */\n@PublishedApi\ninternal fun <T> Iterable<T>.collectionSizeOrNull(): Int? = if (this is
Collection<*>) this.size else null\n\n/**\n * Returns the size of this iterable if it is known, or the specified [default]
value otherwise.\n */\n@PublishedApi\ninternal fun <T> Iterable<T>.collectionSizeOrDefault(default: Int): Int = if
(this is Collection<*>) this.size else default\n\n\n/**\n * Returns a single list of all elements from all collections
in the given collection.\n * @sample samples.collections.Iterables.Operations.flattenIterable\n */\npublic fun <T>
Iterable<Iterable<T>>.flatten(): List<T> {\n   val result = ArrayList<T>()\n   for (element in this) {\n
result.addAll(element)\n   }\n   return result\n}\n\n/**\n * Returns a pair of lists, where\n * *first* list is built from
the first values of each pair from this collection,\n * *second* list is built from the second values of each pair from
this collection.\n * @sample samples.collections.Iterables.Operations.unzipIterable\n */\npublic fun <T, R>
Iterable<Pair<T, R>>.unzip(): Pair<List<T>, List<R>> {\n   val expectedSize = collectionSizeOrDefault(10)\n
val listT = ArrayList<T>(expectedSize)\n   val listR = ArrayList<R>(expectedSize)\n   for (pair in this) {\n
listT.add(pair.first)\n   listR.add(pair.second)\n   }\n   return listT to listR\n}\n","/*\n * Copyright 2010-2020
JetBrains s.r.o. and Kotlin Programming Language contributors.\n
* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"SequencesKt\")\n\npackage
kotlin.sequences\n\nimport kotlin.random.Random\n\n/**\n * Given an [iterator] function constructs a [Sequence]
that returns values through the [Iterator]\n * provided by that function.\n * The values are evaluated lazily, and the
sequence is potentially infinite.\n *\n * @sample samples.collections.Sequences.Building.sequenceFromIterator\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence(crossinline iterator: () -> Iterator<T>):
Sequence<T> = object : Sequence<T> {\n   override fun iterator(): Iterator<T> = iterator()\n}\n\n/**\n * Creates a
sequence that returns all elements from this iterator. The sequence is constrained to be iterated only once.\n *\n *
@sample samples.collections.Sequences.Building.sequenceFromIterator\n */\npublic fun <T>
Iterator<T>.asSequence():
Sequence<T> = Sequence { this }.constrainOnce()\n\n/**\n * Creates a sequence that returns the specified values.\n
*\n * @sample samples.collections.Sequences.Building.sequenceOfValues\n */\npublic fun <T> sequenceOf(vararg
elements: T): Sequence<T> = if (elements.isEmpty()) emptySequence() else elements.asSequence()\n\n/**\n *
Returns an empty sequence.\n */\npublic fun <T> emptySequence(): Sequence<T> = EmptySequence\n\nprivate

object EmptySequence : Sequence<Nothing>, DropTakeSequence<Nothing> {\n   override fun iterator(): Iterator<Nothing> = EmptyIterator\n   override fun drop(n: Int) = EmptySequence\n   override fun take(n: Int) = EmptySequence\n}\n\n/**\n * Returns this sequence if it's not `null` and the empty sequence otherwise.\n * @sample samples.collections.Sequences.Usage.sequenceOrEmpty\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>?.orEmpty(): Sequence<T> = this ?: emptySequence()\n\n\n/**\n * Returns a sequence that iterates through the elements either of this sequence\n * or, if this sequence turns out to be empty, of the sequence returned by [defaultValue] function.\n *\n * @sample samples.collections.Sequences.Usage.sequenceIfEmpty\n */\n@SinceKotlin(\"1.3\")\npublic fun <T> Sequence<T>.ifEmpty(defaultValue: () -> Sequence<T>): Sequence<T> = sequence {\n   val iterator = this@ifEmpty.iterator()\n   if (iterator.hasNext()) {\n   yieldAll(iterator)\n   } else {\n   yieldAll(defaultValue())\n   }\n}\n\n/**\n * Returns a sequence of all elements from all sequences in this sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n *\n * @sample samples.collections.Sequences.Transformations.flattenSequenceOfSequences\n */\npublic fun <T> Sequence<Sequence<T>>.flatten(): Sequence<T> = flatten { it.iterator() }\n\n/**\n * Returns a sequence of all elements from all iterables in this sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n *\n * @sample samples.collections.Sequences.Transformations.flattenSequenceOfLists\n */\n@kotlin.jvm.JvmName(\"flattenSequenceOfIterable\")\npublic fun <T> Sequence<Iterable<T>>.flatten(): Sequence<T> = flatten { it.iterator() }\n\nprivate fun <T, R> Sequence<T>.flatten(iterator: (T) -> Iterator<R>): Sequence<R> {\n   if (this is TransformingSequence<*, *>) {\n   return (this as TransformingSequence<*, T>).flatten(iterator)\n   }\n   return FlatteningSequence(this, { it }, iterator)\n}\n\n/**\n * Returns a pair of lists, where\n * *first* list is built from the first values of each pair from this sequence,\n * *second* list is built from the second values of each pair from this sequence.\n *\n * The operation is _terminal_.\n *\n * @sample samples.collections.Sequences.Transformations.unzip\n */\npublic fun <T, R> Sequence<Pair<T, R>>.unzip(): Pair<List<T>, List<R>> {\n   val listT = ArrayList<T>()\n   val listR = ArrayList<R>()\n   for (pair in this) {\n   listT.add(pair.first)\n   listR.add(pair.second)\n   }\n   return listT to listR\n}\n\n/**\n * Returns a sequence that yields elements of this sequence randomly shuffled.\n *\n * Note that every iteration of the sequence returns elements in a different order.\n *\n * The operation is _intermediate_ and _stateful_.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Sequence<T>.shuffled(): Sequence<T> = shuffled(Random)\n\n/**\n * Returns a sequence that yields elements of this sequence randomly shuffled\n * using the specified [random] instance as the source of randomness.\n *\n * Note that every iteration of the sequence returns elements in a different order.\n *\n * The operation is _intermediate_ and _stateful_.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Sequence<T>.shuffled(random: Random): Sequence<T> = sequence<T> {\n   val buffer = toMutableList()\n   while (buffer.isNotEmpty()) {\n   val j = random.nextInt(buffer.size)\n   val last = buffer.removeLast()\n   val value = if (j < buffer.size) buffer.set(j, last) else last\n   yield(value)\n   }\n}\n\n\n/**\n * A sequence that returns the values from the underlying [sequence] that either match or do not match\n * the specified [predicate].\n *\n * @param sendWhen If `true`, values for which the predicate returns `true` are returned. Otherwise,\n * values for which the predicate returns `false` are returned\n */\ninternal class FilteringSequence<T>(\n   private val sequence: Sequence<T>,\n   private val sendWhen: Boolean = true,\n   private val predicate: (T) -> Boolean\n) : Sequence<T> {\n\n   override fun iterator(): Iterator<T> = object : Iterator<T> {\n   val iterator = sequence.iterator()\n   var nextState: Int = -1 // -1 for unknown, 0 for done, 1 for continue\n   var nextItem: T? = null\n\n   private fun calcNext() {\n   while (iterator.hasNext()) {\n   val item = iterator.next()\n   if (predicate(item) == sendWhen) {\n   nextItem = item\n   nextState = 1\n   return\n   }\n   }\n   nextState = 0\n   }\n\n   override fun next(): T {\n   if (nextState == -1)\n   calcNext()\n   if (nextState == 0)\n   throw NoSuchElementException()\n   val result = nextItem\n   nextItem = null\n   nextState = -1\n   @Suppress(\"UNCHECKED_CAST\")\n   return result as T\n   }\n\n   override fun hasNext(): Boolean

{\n   if (nextState == -1)\n   calcNext()\n   return nextState == 1\n   }\n   }\n}\n\n/**\n * A sequence which returns the results of applying the given [transformer] function to the values\n * in the underlying [sequence].\n */\n\ninternal class TransformingSequence<T, R>\nconstructor(private val sequence: Sequence<T>, private val transformer: (T) -> R) : Sequence<R> {\n   override fun iterator(): Iterator<R> = object : Iterator<R> {\n   val iterator = sequence.iterator()\n   override fun next(): R {\n   return transformer(iterator.next())\n   }\n\n   override fun hasNext(): Boolean {\n   return iterator.hasNext()\n   }\n   }\n\n   internal fun <E> flatten(iterator: (R) -> Iterator<E>): Sequence<E> {\n   return FlatteningSequence<T, R, E>(sequence, transformer, iterator)\n   }\n}\n\n/**\n * A sequence which returns the results of applying the given [transformer] function to the values\n * in the underlying [sequence], where the transformer function takes the index of the value in the underlying\n * sequence along with the value itself.\n */\ninternal class TransformingIndexedSequence<T, R>\nconstructor(private val sequence: Sequence<T>, private val transformer: (Int, T) -> R) : Sequence<R> {\n   override fun iterator(): Iterator<R> = object : Iterator<R> {\n   val iterator = sequence.iterator()\n   var index = 0\n   override fun next(): R {\n   return transformer(checkIndexOverflow(index++), iterator.next())\n   }\n\n   override fun hasNext(): Boolean {\n   return iterator.hasNext()\n   }\n   }\n}\n\n/**\n * A sequence which combines values from the underlying [sequence] with their indices and returns them as\n * [IndexedValue] objects.\n */\ninternal class IndexingSequence<T>\nconstructor(private val sequence: Sequence<T>) : Sequence<IndexedValue<T>> {\n   override fun iterator(): Iterator<IndexedValue<T>> = object : Iterator<IndexedValue<T>> {\n   val iterator = sequence.iterator()\n   var index = 0\n   override fun next(): IndexedValue<T> {\n   return IndexedValue(checkIndexOverflow(index++), iterator.next())\n   }\n\n   override fun hasNext(): Boolean {\n   return iterator.hasNext()\n   }\n   }\n}\n\n/**\n * A sequence which takes the values from two parallel underlying sequences, passes them to the given\n * [transform] function and returns the values returned by that function. The sequence stops returning\n * values as soon as one of the underlying sequences stops returning values.\n */\ninternal class MergingSequence<T1, T2, V>\nconstructor(\n   private val sequence1: Sequence<T1>,\n   private val sequence2: Sequence<T2>,\n   private val transform: (T1, T2) -> V\n) : Sequence<V> {\n   override fun iterator(): Iterator<V> = object : Iterator<V> {\n   val iterator1 = sequence1.iterator()\n   val iterator2 = sequence2.iterator()\n   override fun next(): V {\n   return transform(iterator1.next(), iterator2.next())\n   }\n\n   override fun hasNext(): Boolean {\n   return iterator1.hasNext() && iterator2.hasNext()\n   }\n   }\n}\n\ninternal class FlatteningSequence<T, R, E>\nconstructor(\n   private val sequence: Sequence<T>,\n   private val transformer: (T) -> R,\n   private val iterator: (R) -> Iterator<E>\n) : Sequence<E> {\n   override fun iterator(): Iterator<E> = object : Iterator<E> {\n   val iterator = sequence.iterator()\n   var itemIterator: Iterator<E>? = null\n\n   override fun next(): E {\n   if (!ensureItemIterator())\n   throw NoSuchElementException()\n   return itemIterator!!.next()\n   }\n\n   override fun hasNext(): Boolean {\n   return ensureItemIterator()\n   }\n\n   private fun ensureItemIterator(): Boolean {\n   if (itemIterator?.hasNext() == false)\n   itemIterator = null\n\n   while (itemIterator == null) {\n   if (!iterator.hasNext()) {\n   return false\n   } else {\n   val element = iterator.next()\n   val nextItemIterator = iterator(transformer(element))\n   if (nextItemIterator.hasNext()) {\n   itemIterator = nextItemIterator\n   return true\n   }\n   }\n   }\n   return true\n   }\n   }\n}\n\ninternal fun <T, C, R> flatMapIndexed(source: Sequence<T>, transform: (Int, T) -> C, iterator: (C) -> Iterator<R>): Sequence<R> =\n   sequence {\n   var index = 0\n   for (element in source) {\n   val result = transform(checkIndexOverflow(index++), element)\n   yieldAll(iterator(result))\n   }\n   }\n\n/**\n * A sequence that supports drop(n) and take(n) operations\n */\ninternal interface DropTakeSequence<T> : Sequence<T> {\n   fun drop(n: Int): Sequence<T>\n   fun take(n: Int): Sequence<T>\n}\n\n/**\n * A sequence that skips [startIndex] values from the underlying [sequence]\n * and stops returning values right before [endIndex], i.e. stops at `endIndex - 1`\n */\ninternal class SubSequence<T>(\n   private val sequence: Sequence<T>,\n   private val startIndex: Int,\n   private val endIndex: Int\n) : Sequence<T>, DropTakeSequence<T> {\n\n   init {\n   require(startIndex >=

0) { \"startIndex should be non-negative, but is $startIndex\" }\n require(endIndex >= 0) { \"endIndex should be non-negative, but is $endIndex\" }\n require(endIndex >= startIndex) { \"endIndex should be not less than startIndex, but was $endIndex < $startIndex\" }\n }\n\n private val count: Int get() = endIndex - startIndex\n\n override fun drop(n: Int): Sequence<T> = if (n >= count) emptySequence() else SubSequence(sequence, startIndex + n, endIndex)\n override fun take(n: Int): Sequence<T> = if (n >= count) this else SubSequence(sequence, startIndex, startIndex + n)\n\n override fun iterator() = object : Iterator<T> {\n\n val iterator = sequence.iterator()\n var position = 0\n\n // Shouldn't be called from constructor to avoid premature iteration\n private fun drop() {\n while (position < startIndex && iterator.hasNext()) {\n iterator.next()\n position++\n }\n }\n\n override fun hasNext(): Boolean {\n drop()\n return (position < endIndex) && iterator.hasNext()\n }\n\n override fun next(): T {\n drop()\n if (position >= endIndex)\n throw NoSuchElementException()\n position++\n return iterator.next()\n }\n }\n}\n\n/**\n * A sequence that returns at most [count] values from the underlying [sequence], and stops returning values\n * as soon as that count is reached.\n */\ninternal class TakeSequence<T>(\n private val sequence: Sequence<T>,\n private val count: Int\n) : Sequence<T>, DropTakeSequence<T> {\n\n init {\n require(count >= 0) { \"count must be non-negative, but was $count.\" }\n }\n\n override fun drop(n: Int): Sequence<T> = if (n >= count) emptySequence() else SubSequence(sequence, n, count)\n override fun take(n: Int): Sequence<T> = if (n >= count) this else TakeSequence(sequence, n)\n\n override fun iterator(): Iterator<T> = object : Iterator<T> {\n var left = count\n val iterator = sequence.iterator()\n\n override fun next(): T {\n if (left == 0)\n throw NoSuchElementException()\n left--\n return iterator.next()\n }\n\n override fun hasNext(): Boolean {\n return left > 0 && iterator.hasNext()\n }\n }\n}\n\n/**\n * A sequence that returns values from the underlying [sequence] while the [predicate] function returns\n * `true`, and stops returning values once the function returns `false` for the next element.\n */\ninternal class TakeWhileSequence<T>\nconstructor(\n private val sequence: Sequence<T>,\n private val predicate: (T) -> Boolean\n) : Sequence<T> {\n override fun iterator(): Iterator<T> = object : Iterator<T> {\n val iterator = sequence.iterator()\n var nextState: Int = -1 // -1 for unknown, 0 for done, 1 for continue\n var nextItem: T? = null\n\n private fun calcNext() {\n if (iterator.hasNext()) {\n val item = iterator.next()\n if (predicate(item)) {\n nextState = 1\n nextItem = item\n return\n }\n }\n nextState = 0\n }\n\n override fun next(): T {\n if (nextState == -1)\n calcNext() // will change nextState\n if (nextState == 0)\n throw NoSuchElementException()\n @Suppress(\"UNCHECKED_CAST\")\n val result = nextItem as T\n\n // Clean next to avoid keeping reference on yielded instance\n nextItem = null\n nextState = -1\n return result\n }\n\n override fun hasNext(): Boolean {\n if (nextState == -1)\n calcNext() // will change nextState\n return nextState == 1\n }\n }\n}\n\n/**\n * A sequence that skips the specified number of values from the underlying [sequence] and returns\n * all values after that.\n */\ninternal class DropSequence<T>(\n private val sequence: Sequence<T>,\n private val count: Int\n) : Sequence<T>, DropTakeSequence<T> {\n init {\n require(count >= 0) { \"count must be non-negative, but was $count.\" }\n }\n\n override fun drop(n: Int): Sequence<T> = (count + n).let { n1 -> if (n1 < 0) DropSequence(this, n) else DropSequence(sequence, n1) }\n override fun take(n: Int): Sequence<T> = (count + n).let { n1 -> if (n1 < 0) TakeSequence(this, n) else SubSequence(sequence, count, n1) }\n\n override fun iterator(): Iterator<T> = object : Iterator<T> {\n val iterator = sequence.iterator()\n var left = count\n\n // Shouldn't be called from constructor to avoid premature iteration\n private fun drop() {\n while (left > 0 && iterator.hasNext()) {\n iterator.next()\n left--\n }\n }\n\n override fun next(): T {\n drop()\n return iterator.next()\n }\n\n override fun hasNext(): Boolean {\n drop()\n return iterator.hasNext()\n }\n }\n}\n\n/**\n * A sequence that skips the values from the underlying [sequence] while the given [predicate] returns `true` and returns\n * all values after that.\n */\ninternal class DropWhileSequence<T>\nconstructor(\n private val sequence:

Sequence<T>,\n   private val predicate: (T) -> Boolean\n) : Sequence<T> {\n\n   override fun iterator(): Iterator<T> = object : Iterator<T> {\n   val iterator = sequence.iterator()\n   var dropState: Int = -1 // -1 for not dropping, 1 for nextItem, 0 for normal iteration\n   var nextItem: T? = null\n\n   private fun drop() {\n   while (iterator.hasNext()) {\n   val item = iterator.next()\n   if (!predicate(item)) {\n   nextItem = item\n   dropState = 1\n   return\n   }\n   }\n   dropState = 0\n   }\n\n   override fun next(): T {\n   if (dropState == -1)\n   drop()\n\n   if (dropState == 1) {\n   @Suppress(\"UNCHECKED_CAST\")\n   val result = nextItem as T\n   nextItem = null\n   dropState = 0\n   return result\n   }\n   return iterator.next()\n   }\n\n   override fun hasNext(): Boolean {\n   if (dropState == -1)\n   drop()\n   return dropState == 1 || iterator.hasNext()\n   }\n   }\n}\n\ninternal class DistinctSequence<T, K>(private val source: Sequence<T>, private val keySelector: (T) -> K) : Sequence<T> {\n   override fun iterator(): Iterator<T> = DistinctIterator(source.iterator(), keySelector)\n}\n\nprivate class DistinctIterator<T, K>(private val source: Iterator<T>, private val keySelector: (T) -> K) : AbstractIterator<T>() {\n   private val observed = HashSet<K>()\n\n   override fun computeNext() {\n   while (source.hasNext()) {\n   val next = source.next()\n   val key = keySelector(next)\n\n   if (observed.add(key)) {\n   setNext(next)\n   return\n   }\n   }\n\n   done()\n   }\n}\n\n\nprivate class GeneratorSequence<T : Any>(private val getInitialValue: () -> T?, private val getNextValue: (T) -> T?) : Sequence<T> {\n   override fun iterator(): Iterator<T> = object : Iterator<T> {\n   var nextItem: T? = null\n   var nextState: Int = -2 // -2 for initial unknown, -1 for next unknown, 0 for done, 1 for continue\n\n   private fun calcNext() {\n   nextItem = if (nextState == -2) getInitialValue() else getNextValue(nextItem!!)\n   nextState = if (nextItem == null) 0 else 1\n   }\n\n   override fun next(): T {\n   if (nextState < 0)\n   calcNext()\n\n   if (nextState == 0)\n   throw NoSuchElementException()\n   val result = nextItem as T\n   // Do not clean nextItem (to avoid keeping reference on yielded instance) -- need to keep state for getNextValue\n   nextState = -1\n   return result\n   }\n\n   override fun hasNext(): Boolean {\n   if (nextState < 0)\n   calcNext()\n   return nextState == 1\n   }\n   }\n}\n\n/**\n * Returns a wrapper sequence that provides values of this sequence, but ensures it can be iterated only one time.\n *\n * The operation is _intermediate_ and _stateless_.\n *\n * [IllegalStateException] is thrown on iterating the returned sequence for the second time and the following times.\n *\n */\npublic fun <T> Sequence<T>.constrainOnce(): Sequence<T> {\n   // as? does not work in js\n   //return this as? ConstrainedOnceSequence<T> ?: ConstrainedOnceSequence(this)\n   return if (this is ConstrainedOnceSequence<T>) this else ConstrainedOnceSequence(this)\n}\n\n\n/**\n * Returns a sequence which invokes the function to calculate the next value on each iteration until the function returns `null`.\n *\n * The returned sequence is constrained to be iterated only once.\n *\n * @see constrainOnce\n * @see kotlin.sequences.sequence\n *\n * @sample samples.collections.Sequences.Building.generateSequence\n */\npublic fun <T : Any> generateSequence(nextFunction: () -> T?): Sequence<T> {\n   return GeneratorSequence(nextFunction, { nextFunction() }).constrainOnce()\n}\n\n/**\n * Returns a sequence defined by the starting value [seed] and the function [nextFunction],\n * which is invoked to calculate the next value based on the previous one on each iteration.\n *\n * The sequence produces values until it encounters first `null` value.\n * If [seed] is `null`, an empty sequence is produced.\n *\n * The sequence can be iterated multiple times, each time starting with [seed].\n *\n * @see kotlin.sequences.sequence\n *\n * @sample samples.collections.Sequences.Building.generateSequenceWithSeed\n */\n@kotlin.internal.LowPriorityInOverloadResolution\npublic fun <T : Any> generateSequence(seed: T?, nextFunction: (T) -> T?): Sequence<T> =\n   if (seed == null)\n   EmptySequence\n   else\n   GeneratorSequence({ seed }, nextFunction)\n\n/**\n * Returns a sequence defined by the function [seedFunction], which is invoked to produce the starting value,\n * and the [nextFunction], which is invoked to calculate the next

value based on the previous one on each iteration.\n *\n * The sequence produces values until it encounters first `null` value.\n * If [seedFunction] returns `null`, an empty sequence is produced.\n *\n * The sequence can be iterated multiple times.\n *\n * @see kotlin.sequences.sequence\n *\n * @sample samples.collections.Sequences.Building.generateSequenceWithLazySeed\n */\npublic fun <T : Any> generateSequence(seedFunction:
 () -> T?, nextFunction: (T) -> T?): Sequence<T> =\n   GeneratorSequence(seedFunction, nextFunction)\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"PreconditionsKt\")\n\npackage kotlin\n\nimport kotlin.contracts.contract\n\n/**\n * Throws an [IllegalArgumentException] if the [value] is false.\n *\n * @sample samples.misc.Preconditions.failRequireWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun require(value: Boolean): Unit {\n   contract {\n   returns() implies value\n   }\n   require(value) { \"Failed requirement.\" }\n}\n\n/**\n * Throws an [IllegalArgumentException] with the result of calling [lazyMessage] if the [value] is false.\n *\n * @sample samples.misc.Preconditions.failRequireWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic
 inline fun require(value: Boolean, lazyMessage: () -> Any): Unit {\n   contract {\n   returns() implies value\n   }\n   if (!value) {\n   val message = lazyMessage()\n   throw IllegalArgumentException(message.toString())\n   }\n}\n\n/**\n * Throws an [IllegalArgumentException] if the [value] is null. Otherwise returns the not null value.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T : Any> requireNotNull(value: T?): T {\n   contract {\n   returns() implies (value != null)\n   }\n   return requireNotNull(value) { \"Required value was null.\" }\n}\n\n/**\n * Throws an [IllegalArgumentException] with the result of calling [lazyMessage] if the [value] is null. Otherwise\n * returns the not null value.\n *\n * @sample samples.misc.Preconditions.failRequireNotNullWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T : Any> requireNotNull(value: T?, lazyMessage: () -> Any): T {\n   contract {\n   returns() implies
 (value != null)\n   }\n\n   if (value == null) {\n   val message = lazyMessage()\n   throw IllegalArgumentException(message.toString())\n   } else {\n   return value\n   }\n}\n\n/**\n * Throws an [IllegalStateException] if the [value] is false.\n *\n * @sample samples.misc.Preconditions.failCheckWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun check(value: Boolean): Unit {\n   contract {\n   returns() implies value\n   }\n   check(value) { \"Check failed.\" }\n}\n\n/**\n * Throws an [IllegalStateException] with the result of calling [lazyMessage] if the [value] is false.\n *\n * @sample samples.misc.Preconditions.failCheckWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun check(value: Boolean, lazyMessage: () -> Any): Unit {\n   contract {\n   returns() implies value\n   }\n   if (!value) {\n   val message = lazyMessage()\n   throw IllegalStateException(message.toString())\n   }\n}\n\n/**\n * Throws
 an [IllegalStateException] if the [value] is null. Otherwise\n * returns the not null value.\n *\n * @sample samples.misc.Preconditions.failCheckWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T : Any> checkNotNull(value: T?): T {\n   contract {\n   returns() implies (value != null)\n   }\n   return checkNotNull(value) { \"Required value was null.\" }\n}\n\n/**\n * Throws an [IllegalStateException] with the result of calling [lazyMessage] if the [value] is null. Otherwise\n * returns the not null value.\n *\n * @sample samples.misc.Preconditions.failCheckWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T : Any> checkNotNull(value: T?, lazyMessage: () -> Any): T {\n   contract {\n   returns() implies (value != null)\n   }\n\n   if (value == null) {\n   val message = lazyMessage()\n   throw IllegalStateException(message.toString())\n   } else {\n   return value\n   }\n}\n\n\n/**\n * Throws an [IllegalStateException]
 with the given [message].\n *\n * @sample samples.misc.Preconditions.failWithError\n */\n@kotlin.internal.InlineOnly\npublic inline fun error(message: Any): Nothing = throw IllegalStateException(message.toString())\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the

license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED
by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport
kotlin.js.*\nimport primitiveArrayConcat\nimport withType\nimport kotlin.ranges.contains\nimport
kotlin.ranges.reversed\n\n/**\n * Returns an element at the given [index] or throws an
[IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAt\n */\npublic actual fun <T> Array<out T>.elementAt(index:
Int): T {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\")
}\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is
out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic
actual fun ByteArray.elementAt(index: Int): Byte {\n   return elementAtOrElse(index) { throw
IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given
[index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAt\n */\npublic actual fun ShortArray.elementAt(index: Int): Short
{\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\")
}\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is
out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic
actual fun IntArray.elementAt(index: Int): Int {\n   return elementAtOrElse(index) { throw
IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given
[index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAt\n */\npublic actual fun LongArray.elementAt(index: Int): Long
{\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\")
}\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is
out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic
actual fun FloatArray.elementAt(index: Int): Float {\n   return elementAtOrElse(index) { throw
IndexOutOfBoundsException(\"index: $index,
size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException]
if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n
*/\npublic actual fun DoubleArray.elementAt(index: Int): Double {\n   return elementAtOrElse(index) { throw
IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given
[index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAt\n */\npublic actual fun BooleanArray.elementAt(index: Int):
Boolean {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\")
}\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is
out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic
actual fun CharArray.elementAt(index: Int): Char {\n   return elementAtOrElse(index) { throw
IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns a [List] that wraps the original
array.\n */\npublic actual fun <T> Array<out T>.asList(): List<T> {\n   return
ArrayList<T>(this.unsafeCast<Array<Any?>>())\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
*/\n@kotlin.internal.InlineOnly\npublic actual inline fun ByteArray.asList(): List<Byte> {\n   return
this.unsafeCast<Array<Byte>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
*/\n@kotlin.internal.InlineOnly\npublic actual inline fun ShortArray.asList(): List<Short> {\n   return
this.unsafeCast<Array<Short>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
*/\n@kotlin.internal.InlineOnly\npublic actual inline fun IntArray.asList(): List<Int> {\n   return
this.unsafeCast<Array<Int>>().asList()\n}\n\n/**\n * Returns a [List] that
wraps the original array.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun LongArray.asList():
List<Long> {\n   return this.unsafeCast<Array<Long>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the
original array.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun FloatArray.asList(): List<Float> {\n
return this.unsafeCast<Array<Float>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n

*/\n@kotlin.internal.InlineOnly\npublic actual inline fun DoubleArray.asList(): List<Double> {\n   return this.unsafeCast<Array<Double>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun BooleanArray.asList(): List<Boolean> {\n   return this.unsafeCast<Array<Boolean>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic actual fun CharArray.asList(): List<Char> {\n   return object : AbstractList<Char>(), RandomAccess {\n   override
 val size: Int get() = this@asList.size\n   override fun isEmpty(): Boolean = this@asList.isEmpty()\n   override fun contains(element: Char): Boolean = this@asList.contains(element)\n   override fun get(index: Int): Char {\n   AbstractList.checkElementIndex(index, size)\n   return this@asList[index]\n   }\n   override fun indexOf(element: Char): Int {\n   @Suppress(\"USELESS_CAST\")\n   if ((element as Any?) !is Char) return -1\n   return this@asList.indexOf(element)\n   }\n   override fun lastIndexOf(element: Char): Int {\n   @Suppress(\"USELESS_CAST\")\n   if ((element as Any?) !is Char) return -1\n   return this@asList.lastIndexOf(element)\n   }\n   }\n}\n\n/**\n * Returns `true` if the two specified arrays are *deeply* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * If two corresponding elements are nested arrays,
 they are also compared deeply.\n * If any of arrays contains itself on any nesting level the behavior is undefined.\n * \n * The elements of other types are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic actual infix fun <T> Array<out T>.contentDeepEquals(other: Array<out T>): Boolean {\n   return this.contentDeepEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *deeply* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The specified arrays are also considered deeply equal if both are `null`.\n * \n * If two corresponding elements are nested arrays, they are also compared deeply.\n * If any of arrays contains itself on any nesting level the behavior is undefined.\n * \n * The elements of other types are
 compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayDeepEquals\")\npublic actual infix fun <T> Array<out T>?.contentDeepEquals(other: Array<out T>?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level the behavior is undefined.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic actual fun <T> Array<out T>.contentDeepHashCode(): Int {\n   return this.contentDeepHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level the behavior is undefined.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayDeepHashCode\")\npublic
 actual fun <T> Array<out T>?.contentDeepHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of this array as if it is a [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level that reference\n * is rendered as `\"[...]\"` to prevent recursion.\n * \n * @sample samples.collections.Arrays.ContentOperations.contentDeepToString\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic actual fun <T> Array<out T>.contentDeepToString(): String {\n   return this.contentDeepToString()\n}\n\n/**\n * Returns a string representation of the contents of this array as if it is a [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level that reference\n * is rendered as `\"[...]\"` to prevent recursion.\n * \n * @sample samples.collections.Arrays.ContentOperations.contentDeepToString\n
 */\n@SinceKotlin(\"1.4\")\n@library(\"arrayDeepToString\")\npublic actual fun <T> Array<out T>?.contentDeepToString(): String {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers

it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun <T> Array<out T>.contentEquals(other: Array<out T>): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun ByteArray.contentEquals(other: ByteArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun ShortArray.contentEquals(other: ShortArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun IntArray.contentEquals(other: IntArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun LongArray.contentEquals(other: LongArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun FloatArray.contentEquals(other: FloatArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun DoubleArray.contentEquals(other: DoubleArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun BooleanArray.contentEquals(other: BooleanArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun CharArray.contentEquals(other: CharArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n

* \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun <T> Array<out T>?.contentEquals(other: Array<out T>?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun ByteArray?.contentEquals(other: ByteArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the

same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun ShortArray?.contentEquals(other: ShortArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun IntArray?.contentEquals(other: IntArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal

to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun LongArray?.contentEquals(other: LongArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun FloatArray?.contentEquals(other: FloatArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns `true` if the

two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun DoubleArray?.contentEquals(other: DoubleArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun BooleanArray?.contentEquals(other: BooleanArray?): Boolean {\n

definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun

CharArray?.contentEquals(other: CharArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun <T> Array<out T>.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun ByteArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun ShortArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun IntArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun LongArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun FloatArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun DoubleArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun BooleanArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun CharArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun <T> Array<out T>?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun ByteArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun ShortArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun IntArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun LongArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun FloatArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun DoubleArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun BooleanArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun CharArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a string representation

of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to
avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic
actual fun <T> Array<out T>.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a
string representation
of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to
avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic
actual fun ByteArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string
representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to
avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic
actual fun ShortArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string
representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use
Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun
IntArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation
of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to
avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic
actual fun LongArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string
representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to
avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic
actual fun FloatArray.contentToString():
String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the
specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun
DoubleArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string
representation of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to
avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic
actual fun BooleanArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string
representation of the contents of the specified array as
if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun
CharArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation
of the contents of the specified array as if it is [List].\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun <T> Array<out T>?.contentToString():
String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as
if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun ByteArray?.contentToString(): String
{\n   definedExternally\n}\n\n/**\n * Returns

a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun ShortArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun IntArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun LongArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the

contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun FloatArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun DoubleArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun BooleanArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array

as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun CharArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException

when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun <T> Array<out T>.copyInto(destination: Array<T>, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): Array<T> {\n   arrayCopy(this, destination, destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n

* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun ByteArray.copyInto(destination: ByteArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ByteArray {\n   arrayCopy(this.unsafeCast<Array<Byte>>(),

destination.unsafeCast<Array<Byte>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun ShortArray.copyInto(destination: ShortArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ShortArray {\n   arrayCopy(this.unsafeCast<Array<Short>>(), destination.unsafeCast<Array<Short>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun IntArray.copyInto(destination: IntArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): IntArray {\n   arrayCopy(this.unsafeCast<Array<Int>>(), destination.unsafeCast<Array<Int>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun LongArray.copyInto(destination: LongArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): LongArray {\n   arrayCopy(this.unsafeCast<Array<Long>>(), destination.unsafeCast<Array<Long>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws

IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun FloatArray.copyInto(destination: FloatArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): FloatArray {\n   arrayCopy(this.unsafeCast<Array<Float>>(), destination.unsafeCast<Array<Float>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun DoubleArray.copyInto(destination: DoubleArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): DoubleArray {\n   arrayCopy(this.unsafeCast<Array<Double>>(), destination.unsafeCast<Array<Double>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun BooleanArray.copyInto(destination: BooleanArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): BooleanArray {\n   arrayCopy(this.unsafeCast<Array<Boolean>>(), destination.unsafeCast<Array<Boolean>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun CharArray.copyInto(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): CharArray {\n   arrayCopy(this.unsafeCast<Array<Char>>(), destination.unsafeCast<Array<Char>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\", \"NOTHING_TO_INLINE\")\npublic actual inline fun <T> Array<out T>.copyOf(): Array<T> {\n   return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun ByteArray.copyOf(): ByteArray {\n   return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun ShortArray.copyOf(): ShortArray {\n   return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n

 */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun IntArray.copyOf(): IntArray {\n   return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic actual fun LongArray.copyOf(): LongArray {\n   return withType(\"LongArray\", this.asDynamic().slice())\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun FloatArray.copyOf(): FloatArray {\n   return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun DoubleArray.copyOf(): DoubleArray {\n   return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which

 is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic actual fun BooleanArray.copyOf(): BooleanArray {\n   return withType(\"BooleanArray\", this.asDynamic().slice())\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic actual fun CharArray.copyOf(): CharArray {\n   return withType(\"CharArray\", this.asDynamic().slice())\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n

 */\npublic actual fun ByteArray.copyOf(newSize: Int): ByteArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return fillFrom(this, ByteArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun ShortArray.copyOf(newSize: Int): ShortArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return fillFrom(this, ShortArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n

 * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun IntArray.copyOf(newSize: Int): IntArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return fillFrom(this, IntArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array,

resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array
are filled with zero values.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun
LongArray.copyOf(newSize: Int): LongArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return withType(\"LongArray\", arrayCopyResize(this, newSize, 0L))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun
FloatArray.copyOf(newSize: Int): FloatArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return fillFrom(this,
FloatArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun
DoubleArray.copyOf(newSize: Int): DoubleArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return fillFrom(this, DoubleArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with `false` values if necessary.\n * \n * - If [newSize] is less than the size of the original array,
the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with `false` values.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun
BooleanArray.copyOf(newSize: Int): BooleanArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return withType(\"BooleanArray\", arrayCopyResize(this, newSize, false))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with null char (`\\u0000`) values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with null char (`\\u0000`) values.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n
*/\npublic actual fun CharArray.copyOf(newSize: Int): CharArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return withType(\"CharArray\", fillFrom(this, CharArray(newSize)))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with `null` values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with `null` values.\n * \n * @sample
samples.collections.Arrays.CopyOfOperations.resizingCopyOf\n
*/\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\")\npublic actual fun <T> Array<out T>.copyOf(newSize: Int): Array<T?> {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return arrayCopyResize(this, newSize, null)\n}\n\n/**\n
* Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*/\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\")\npublic actual fun <T> Array<out

T>.copyOfRange(fromIndex: Int, toIndex: Int): Array<T> {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex]

is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun ByteArray.copyOfRange(fromIndex: Int, toIndex: Int): ByteArray {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun ShortArray.copyOfRange(fromIndex: Int, toIndex: Int): ShortArray {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array

which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun IntArray.copyOfRange(fromIndex: Int, toIndex: Int): IntArray {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException

if [fromIndex] is greater than [toIndex].\n */\npublic actual fun LongArray.copyOfRange(fromIndex: Int, toIndex: Int): LongArray {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return withType(\"LongArray\", this.asDynamic().slice(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun FloatArray.copyOfRange(fromIndex: Int, toIndex: Int): FloatArray {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original

array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun DoubleArray.copyOfRange(fromIndex: Int, toIndex: Int): DoubleArray {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic

actual fun BooleanArray.copyOfRange(fromIndex: Int, toIndex: Int): BooleanArray {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return withType(\"BooleanArray\", this.asDynamic().slice(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param

toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun CharArray.copyOfRange(fromIndex: Int, toIndex: Int): CharArray {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return withType(\"CharArray\", this.asDynamic().slice(fromIndex, toIndex))\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param
 fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun <T> Array<T>.fill(element: T, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   nativeFill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex]
 is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun ByteArray.fill(element: Byte, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   nativeFill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun ShortArray.fill(element:
 Short, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   nativeFill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun IntArray.fill(element: Int, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   nativeFill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element]
 value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun LongArray.fill(element: Long, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   nativeFill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex]

is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun FloatArray.fill(element: Float, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n nativeFill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual

fun DoubleArray.fill(element: Double, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n nativeFill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun BooleanArray.fill(element: Boolean, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n nativeFill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its

subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun CharArray.fill(element: Char, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n nativeFill(element, fromIndex, toIndex);\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\", \"NOTHING_TO_INLINE\")\npublic actual inline operator fun <T> Array<out T>.plus(element: T): Array<T> {\n return this.asDynamic().concat(arrayOf(element))\n}\n\n/**\n

* Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun ByteArray.plus(element: Byte): ByteArray {\n return plus(byteArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun ShortArray.plus(element: Short): ShortArray {\n return plus(shortArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun IntArray.plus(element: Int): IntArray {\n return plus(intArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun LongArray.plus(element:

Long): LongArray {\n return plus(longArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun FloatArray.plus(element: Float): FloatArray {\n return plus(floatArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun DoubleArray.plus(element: Double): DoubleArray {\n return plus(doubleArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun BooleanArray.plus(element: Boolean): BooleanArray {\n   return plus(booleanArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun CharArray.plus(element: Char): CharArray {\n   return plus(charArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\")\npublic actual operator fun <T> Array<out T>.plus(elements: Collection<T>): Array<T> {\n   return arrayPlusCollection(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun ByteArray.plus(elements: Collection<Byte>): ByteArray {\n   return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun ShortArray.plus(elements: Collection<Short>): ShortArray {\n   return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun IntArray.plus(elements: Collection<Int>): IntArray {\n   return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun LongArray.plus(elements: Collection<Long>): LongArray {\n   return arrayPlusCollection(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun FloatArray.plus(elements: Collection<Float>): FloatArray {\n   return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun DoubleArray.plus(elements: Collection<Double>): DoubleArray {\n   return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun BooleanArray.plus(elements: Collection<Boolean>): BooleanArray {\n   return arrayPlusCollection(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun CharArray.plus(elements: Collection<Char>): CharArray {\n   return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\", \"NOTHING_TO_INLINE\")\npublic actual inline operator fun <T> Array<out T>.plus(elements: Array<out T>): Array<T> {\n   return this.asDynamic().concat(elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun ByteArray.plus(elements: ByteArray): ByteArray {\n   return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun ShortArray.plus(elements: ShortArray): ShortArray {\n   return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun IntArray.plus(elements: IntArray): IntArray {\n   return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun LongArray.plus(elements: LongArray): LongArray {\n   return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n

*/\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun FloatArray.plus(elements: FloatArray): FloatArray {\n   return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun DoubleArray.plus(elements: DoubleArray): DoubleArray {\n   return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun BooleanArray.plus(elements: BooleanArray): BooleanArray {\n   return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun CharArray.plus(elements: CharArray): CharArray {\n   return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\", \"NOTHING_TO_INLINE\")\npublic actual inline fun <T> Array<out T>.plusElement(element: T): Array<T> {\n   return this.asDynamic().concat(arrayOf(element))\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@library(\"primitiveArraySort\")\npublic actual fun IntArray.sort(): Unit {\n   definedExternally\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic actual fun LongArray.sort(): Unit {\n   @Suppress(\"DEPRECATION\")\n   if (size > 1) sort { a: Long, b: Long -> a.compareTo(b) }\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@library(\"primitiveArraySort\")\npublic actual fun ByteArray.sort(): Unit {\n   definedExternally\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@library(\"primitiveArraySort\")\npublic actual fun ShortArray.sort(): Unit {\n   definedExternally\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@library(\"primitiveArraySort\")\npublic actual fun DoubleArray.sort(): Unit {\n   definedExternally\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@library(\"primitiveArraySort\")\npublic actual fun FloatArray.sort(): Unit {\n   definedExternally\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@library(\"primitiveArraySort\")\npublic actual fun CharArray.sort(): Unit {\n   definedExternally\n}\n\n/**\n * Sorts the array in-place according to the natural order of its elements.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @sample samples.collections.Arrays.Sorting.sortArrayOfComparable\n */\npublic actual fun <T : Comparable<T>> Array<out T>.sort(): Unit {\n   if (size > 1) sortArray(this)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n@Deprecated(\"Use sortWith instead\", ReplaceWith(\"this.sortWith(Comparator(comparison))\"))\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\npublic fun <T> Array<out T>.sort(comparison: (a: T, b: T) -> Int): Unit {\n   if (size > 1) sortArrayWith(this, comparison)\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArrayOfComparable\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun <T : Comparable<T>> Array<out T>.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArrayWith(this, fromIndex, toIndex, naturalOrder())\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range

(inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun ByteArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex,
 toIndex, size)\n   val subarray = this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<ByteArray>()\n subarray.sort()\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun ShortArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val subarray = this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<ShortArray>()\n   subarray.sort()\n}\n\n/**\n
 * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun IntArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val subarray = this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<IntArray>()\n   subarray.sort()\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the
 range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun LongArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArrayWith(this.unsafeCast<Array<Long>>(), fromIndex, toIndex, naturalOrder())\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this
 array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun FloatArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val subarray = this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<FloatArray>()\n   subarray.sort()\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *

@throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n

*/\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun DoubleArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val subarray = this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<DoubleArray>()\n   subarray.sort()\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun CharArray.sort(fromIndex: Int = 0, toIndex: Int = size):

Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val subarray = this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<CharArray>()\n   subarray.sort()\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.sort(noinline comparison: (a: Byte, b: Byte) -> Int): Unit {\n   nativeSort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.sort(noinline comparison: (a: Short, b: Short) -> Int): Unit {\n   nativeSort(comparison)\n}\n\n/**\n * Sorts the array in-place according to

the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.sort(noinline comparison: (a: Int, b: Int) -> Int): Unit {\n   nativeSort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.sort(noinline comparison: (a: Long, b: Long) -> Int): Unit {\n   nativeSort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.sort(noinline

comparison: (a: Float, b: Float) -> Int): Unit {\n   nativeSort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.sort(noinline comparison: (a: Double, b: Double) -> Int): Unit {\n   nativeSort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.sort(noinline comparison: (a: Char, b: Char) -> Int): Unit {\n   nativeSort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparator].\n * \n * The sort is _stable_. It means that equal

elements preserve their order relative to each other after sorting.\n */\npublic actual fun <T> Array<out T>.sortWith(comparator: Comparator<in T>): Unit {\n   if (size > 1) sortArrayWith(this, comparator)\n}\n\n/**\n * Sorts a range in the array in-place with the given [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by

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default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than
the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*/\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic
actual fun <T> Array<out T>.sortWith(comparator: Comparator<in T>, fromIndex: Int = 0, toIndex: Int = size):
Unit {\n
    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n    sortArrayWith(this, fromIndex, toIndex,
comparator)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n
*/\npublic actual fun ByteArray.toTypedArray(): Array<Byte> {\n    return js(\"[]\").slice.call(this)\n}\n\n/**\n *
Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic actual fun
ShortArray.toTypedArray(): Array<Short> {\n    return js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed*
object array containing all of the elements of this primitive array.\n */\npublic actual fun IntArray.toTypedArray():
Array<Int> {\n    return js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the
elements of this primitive array.\n */\npublic actual fun LongArray.toTypedArray(): Array<Long> {\n    return
js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all
 of the elements of this primitive array.\n */\npublic actual fun FloatArray.toTypedArray(): Array<Float> {\n
return js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this
primitive array.\n */\npublic actual fun DoubleArray.toTypedArray(): Array<Double> {\n    return
js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive
array.\n */\npublic actual fun BooleanArray.toTypedArray(): Array<Boolean> {\n    return
js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive
array.\n */\npublic actual fun CharArray.toTypedArray(): Array<Char> {\n    return Array(size) { index ->
this[index] }\n}\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*/\n@file:kotlin.jvm.JvmName(\"ComparisonsKt\")\n@file:kotlin.jvm.JvmMultifileClass\n\npackage
 kotlin.comparisons\n\n/**\n * Compares two values using the specified functions [selectors] to calculate the result
of the comparison.\n * The functions are called sequentially, receive the given values [a] and [b] and return
[Comparable]\n * objects. As soon as the [Comparable] instances returned by a function for [a] and [b] values do
not\n * compare as equal, the result of that comparison is returned.\n *\n * @sample
samples.comparisons.Comparisons.compareValuesByWithSelectors\n */\npublic fun <T> compareValuesBy(a: T,
b: T, vararg selectors: (T) -> Comparable<*>?): Int {\n    require(selectors.size > 0)\n    return
compareValuesByImpl(a, b, selectors)\n}\n\nprivate fun <T> compareValuesByImpl(a: T, b: T, selectors:
Array<out (T) -> Comparable<*>?>): Int {\n    for (fn in selectors) {\n        val v1 = fn(a)\n        val v2 = fn(b)\n
val diff = compareValues(v1, v2)\n        if (diff
 != 0) return diff\n    }\n    return 0\n}\n\n/**\n * Compares two values using the specified [selector] function to
calculate the result of the comparison.\n * The function is applied to the given values [a] and [b] and return
[Comparable] objects.\n * The result of comparison of these [Comparable] instances is returned.\n *\n * @sample
samples.comparisons.Comparisons.compareValuesByWithSingleSelector\n */\n@kotlin.internal.InlineOnly\npublic
inline fun <T> compareValuesBy(a: T, b: T, selector: (T) -> Comparable<*>?): Int {\n    return
compareValues(selector(a), selector(b))\n}\n\n/**\n * Compares two values using the specified [selector] function to
calculate the result of the comparison.\n * The function is applied to the given values [a] and [b] and return objects
of type K which are then being\n * compared with the given [comparator].\n *\n * @sample
samples.comparisons.Comparisons.compareValuesByWithComparator\n */\n@kotlin.internal.InlineOnly\npublic
inline fun <T, K> compareValuesBy(a:
 T, b: T, comparator: Comparator<in K>, selector: (T) -> K): Int {\n    return comparator.compare(selector(a),
selector(b))\n}\n\n//// Not so useful without type inference for receiver of expression\n//// compareValuesWith(v1,
v2, compareBy { it.prop1 } thenByDescending { it.prop2 })\n///**\n// * Compares two values using the specified
[comparator].\n// */\n//@Suppress(\"NOTHING_TO_INLINE\")\n//public inline fun <T> compareValuesWith(a: T,
```

b: T, comparator: Comparator<T>): Int = comparator.compare(a, b)\n//\n\n\n/**\n * Compares two nullable [Comparable] values. Null is considered less than any value.\n *\n * @sample samples.comparisons.Comparisons.compareValues\n */\npublic fun <T : Comparable<*>> compareValues(a: T?, b: T?): Int {\n   if (a === b) return 0\n   if (a == null) return -1\n   if (b == null) return 1\n\n   @Suppress(\"UNCHECKED_CAST\")\n   return (a as Comparable<Any>).compareTo(b)\n}\n\n/**\n * Creates a comparator using the sequence of functions to calculate

a result of comparison.\n * The functions are called sequentially, receive the given values `a` and `b` and return [Comparable]\n * objects. As soon as the [Comparable] instances returned by a function for `a` and `b` values do not\n * compare as equal, the result of that comparison is returned from the [Comparator].\n *\n * @sample samples.comparisons.Comparisons.compareByWithSelectors\n */\npublic fun <T> compareBy(vararg selectors: (T) -> Comparable<*>?): Comparator<T> {\n   require(selectors.size > 0)\n   return Comparator { a, b -> compareValuesByImpl(a, b, selectors) }\n}\n\n\n/**\n * Creates a comparator using the function to transform value to a [Comparable] instance for comparison.\n *\n * @sample samples.comparisons.Comparisons.compareByWithSingleSelector\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> compareBy(crossinline selector: (T) -> Comparable<*>?): Comparator<T> =\n   Comparator { a, b -> compareValuesBy(a, b, selector) }\n\n/**\n * Creates a comparator

using the [selector] function to transform values being compared and then applying\n * the specified [comparator] to compare transformed values.\n *\n * @sample samples.comparisons.Comparisons.compareByWithComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T, K> compareBy(comparator: Comparator<in K>, crossinline selector: (T) -> K): Comparator<T> =\n   Comparator { a, b -> compareValuesBy(a, b, comparator, selector) }\n\n/**\n * Creates a descending comparator using the function to transform value to a [Comparable] instance for comparison.\n *\n * @sample samples.comparisons.Comparisons.compareByDescendingWithSingleSelector\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> compareByDescending(crossinline selector: (T) -> Comparable<*>?): Comparator<T> =\n   Comparator { a, b -> compareValuesBy(b, a, selector) }\n\n/**\n * Creates a descending comparator using the [selector] function to transform values being compared and then applying\n * the specified [comparator]

to compare transformed values.\n *\n * Note that an order of [comparator] is reversed by this wrapper.\n *\n * @sample samples.comparisons.Comparisons.compareByDescendingWithComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T, K> compareByDescending(comparator: Comparator<in K>, crossinline selector: (T) -> K): Comparator<T> =\n   Comparator { a, b -> compareValuesBy(b, a, comparator, selector) }\n\n/**\n * Creates a comparator comparing values after the primary comparator defined them equal. It uses\n * the function to transform value to a [Comparable] instance for comparison.\n *\n * @sample samples.comparisons.Comparisons.thenBy\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Comparator<T>.thenBy(crossinline selector: (T) -> Comparable<*>?): Comparator<T> =\n   Comparator { a, b ->\n   val previousCompare = this@thenBy.compare(a, b)\n   if (previousCompare != 0) previousCompare else compareValuesBy(a, b, selector)\n   }\n\n/**\n * Creates a

comparator comparing values after the primary comparator defined them equal. It uses\n * the [selector] function to transform values and then compares them with the given [comparator].\n *\n * @sample samples.comparisons.Comparisons.thenByWithComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T, K> Comparator<T>.thenBy(comparator: Comparator<in K>, crossinline selector: (T) -> K): Comparator<T> =\n   Comparator { a, b ->\n   val previousCompare = this@thenBy.compare(a, b)\n   if (previousCompare != 0) previousCompare else compareValuesBy(a, b, comparator, selector)\n   }\n\n/**\n * Creates a descending comparator using the primary comparator and\n * the function to transform value to a [Comparable] instance for comparison.\n *\n * @sample samples.comparisons.Comparisons.thenByDescending\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Comparator<T>.thenByDescending(crossinline selector: (T) -> Comparable<*>?): Comparator<T> =\n   Comparator { a, b ->\n

val previousCompare = this@thenByDescending.compare(a, b)\n   if (previousCompare != 0) previousCompare else compareValuesBy(b, a, selector)\n   }\n\n/**\n * Creates a descending comparator comparing values after the primary comparator defined them equal. It uses\n * the [selector] function to transform values and then compares them with the given [comparator].\n *\n * @sample samples.comparisons.Comparisons.thenByDescendingWithComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T, K> Comparator<T>.thenByDescending(comparator: Comparator<in K>, crossinline selector: (T) -> K): Comparator<T> =\n   Comparator { a, b ->\n   val previousCompare = this@thenByDescending.compare(a, b)\n   if (previousCompare != 0) previousCompare else compareValuesBy(b, a, comparator, selector)\n }\n\n\n/**\n * Creates a comparator using the primary comparator and function to calculate a result of comparison.\n *\n * @sample samples.comparisons.Comparisons.thenComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Comparator<T>.thenComparator(crossinline comparison: (a: T, b: T) -> Int): Comparator<T> =\n   Comparator { a, b ->\n   val previousCompare = this@thenComparator.compare(a, b)\n   if (previousCompare != 0) previousCompare else comparison(a, b)\n }\n\n/**\n * Combines this comparator and the given [comparator] such that the latter is applied only\n * when the former considered values equal.\n *\n * @sample samples.comparisons.Comparisons.then\n */\npublic infix fun <T> Comparator<T>.then(comparator: Comparator<in T>): Comparator<T> =\n   Comparator { a, b ->\n   val previousCompare = this@then.compare(a, b)\n   if (previousCompare != 0) previousCompare else comparator.compare(a, b)\n   }\n\n/**\n * Combines this comparator and the given [comparator] such that the latter is applied only\n * when the former considered values equal.\n *\n * @sample samples.comparisons.Comparisons.thenDescending\n */\npublic infix fun <T> Comparator<T>.thenDescending(comparator: Comparator<in T>): Comparator<T> =\n   Comparator<T> { a, b ->\n   val previousCompare = this@thenDescending.compare(a, b)\n   if (previousCompare != 0) previousCompare else comparator.compare(b, a)\n   }\n\n// Not so useful without type inference for receiver of expression\n/**\n * Extends the given [comparator] of non-nullable values to a comparator of nullable values\n * considering `null` value less than any other value.\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastWithComparator\n */\npublic fun <T : Any> nullsFirst(comparator: Comparator<in T>): Comparator<T?> =\n   Comparator { a, b ->\n   when {\n   a === b -> 0\n   a == null -> -1\n   b == null -> 1\n   else -> comparator.compare(a, b)\n   }\n }\n\n/**\n * Provides a comparator of nullable [Comparable] values\n * considering `null` value less than any other value.\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T : Comparable<T>> nullsFirst(): Comparator<T?> = nullsFirst(naturalOrder())\n\n/**\n * Extends the given [comparator] of non-nullable values to a comparator of nullable values\n * considering `null` value greater than any other value.\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastWithComparator\n */\npublic fun <T : Any> nullsLast(comparator: Comparator<in T>): Comparator<T?> =\n   Comparator { a, b ->\n   when {\n   a === b -> 0\n   a == null -> 1\n   b == null -> -1\n   else -> comparator.compare(a, b)\n   }\n }\n\n/**\n * Provides a comparator of nullable [Comparable] values\n * considering `null` value greater than any other value.\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T : Comparable<T>> nullsLast(): Comparator<T?> = nullsLast(naturalOrder())\n\n/**\n * Returns a comparator that compares [Comparable] objects in natural order.\n *\n * @sample samples.comparisons.Comparisons.naturalOrderComparator\n */\npublic fun <T : Comparable<T>> naturalOrder(): Comparator<T> = @Suppress(\"UNCHECKED_CAST\") (NaturalOrderComparator as Comparator<T>)\n\n/**\n * Returns a comparator that compares [Comparable] objects in reversed natural order.\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastWithComparator\n */\npublic fun <T : Comparable<T>> reverseOrder(): Comparator<T> = @Suppress(\"UNCHECKED_CAST\") (ReverseOrderComparator as Comparator<T>)\n\n/**\n * Returns a comparator that imposes the reverse ordering of this comparator.\n *\n * @sample samples.comparisons.Comparisons.reversed\n */\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\")\npublic fun <T> Comparator<T>.reversed(): Comparator<T> = when (this) {\n   is ReversedComparator -> this.comparator\n   NaturalOrderComparator ->

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@Suppress(\"UNCHECKED_CAST\") (ReverseOrderComparator
 as Comparator<T>)\n    ReverseOrderComparator -> @Suppress(\"UNCHECKED_CAST\")
(NaturalOrderComparator as Comparator<T>)\n    else -> ReversedComparator(this)\n}\n\n\nprivate class
ReversedComparator<T>(public val comparator: Comparator<T>) : Comparator<T> {\n    override fun compare(a:
T, b: T): Int = comparator.compare(b, a)\n    @Suppress(\"VIRTUAL_MEMBER_HIDDEN\")\n    fun reversed():
Comparator<T> = comparator\n}\n\nprivate object NaturalOrderComparator : Comparator<Comparable<Any>> {\n
  override fun compare(a: Comparable<Any>, b: Comparable<Any>): Int = a.compareTo(b)\n
@Suppress(\"VIRTUAL_MEMBER_HIDDEN\")\n    fun reversed(): Comparator<Comparable<Any>> =
ReverseOrderComparator\n}\n\nprivate object ReverseOrderComparator : Comparator<Comparable<Any>> {\n
override fun compare(a: Comparable<Any>, b: Comparable<Any>): Int = b.compareTo(a)\n
@Suppress(\"VIRTUAL_MEMBER_HIDDEN\")\n    fun reversed(): Comparator<Comparable<Any>> =
NaturalOrderComparator\n}\n","/*\n
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is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StandardKt\")\npackage kotlin\n\nimport
kotlin.contracts.*\n\n/**\n * An exception is thrown to indicate that a method body remains to be implemented.\n
*/\npublic class NotImplementedError(message: String = \"An operation is not implemented.\") :
Error(message)\n\n/**\n * Always throws [NotImplementedError] stating that operation is not implemented.\n
*/\n\n@kotlin.internal.InlineOnly\npublic inline fun TODO(): Nothing = throw NotImplementedError()\n\n/**\n *
Always throws [NotImplementedError] stating that operation is not implemented.\n *\n * @param reason a string
explaining why the implementation is missing.\n */\n@kotlin.internal.InlineOnly\npublic inline fun TODO(reason:
String): Nothing = throw NotImplementedError(\"An
 operation is not implemented: $reason\")\n\n\n\n/**\n * Calls the specified function [block] and returns its result.\n
*\n * For detailed usage information see the documentation for [scope
functions](https://kotlinlang.org/docs/reference/scope-functions.html#run).\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <R> run(block: () -> R): R {\n    contract {\n
callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n    }\n    return block()\n}\n\n/**\n * Calls the specified
function [block] with `this` value as its receiver and returns its result.\n *\n * For detailed usage information see the
documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#run).\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> T.run(block: T.() -> R): R {\n    contract {\n
callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n    }\n    return block()\n}\n\n/**\n * Calls the specified
function [block] with the given [receiver] as its
 receiver and returns its result.\n *\n * For detailed usage information see the documentation for [scope
functions](https://kotlinlang.org/docs/reference/scope-functions.html#with).\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> with(receiver: T, block: T.() -> R): R {\n    contract {\n
  callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n    }\n    return receiver.block()\n}\n\n/**\n * Calls the
specified function [block] with `this` value as its receiver and returns `this` value.\n *\n * For detailed usage
information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-
functions.html#apply).\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> T.apply(block: T.() -> Unit): T {\n
 contract {\n        callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n    }\n    block()\n    return
this\n}\n\n/**\n * Calls the specified function [block] with `this` value as its argument and returns `this` value.\n *\n
* For detailed usage information
 see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#also).\n
*/\n@kotlin.internal.InlineOnly\n@SinceKotlin(\"1.1\")\npublic inline fun <T> T.also(block: (T) -> Unit): T {\n
contract {\n        callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n    }\n    block(this)\n    return
this\n}\n\n/**\n * Calls the specified function [block] with `this` value as its argument and returns its result.\n *\n *
For detailed usage information see the documentation for [scope
functions](https://kotlinlang.org/docs/reference/scope-functions.html#let).\n */\n@kotlin.internal.InlineOnly\npublic
```

inline fun <T, R> T.let(block: (T) -> R): R {\n   contract {\n   callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n   return block(this)\n}\n\n/**\n * Returns `this` value if it satisfies the given [predicate] or `null`, if it doesn't.\n *\n * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#takeif-and-takeunless).\n */\n@kotlin.internal.InlineOnly\n@SinceKotlin(\"1.1\")\npublic inline fun <T> T.takeIf(predicate: (T) -> Boolean): T? {\n   contract {\n   callsInPlace(predicate, InvocationKind.EXACTLY_ONCE)\n   }\n   return if (predicate(this)) this else null\n}\n\n/**\n * Returns `this` value if it _does not_ satisfy the given [predicate] or `null`, if it does.\n *\n * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#takeif-and-takeunless).\n */\n@kotlin.internal.InlineOnly\n@SinceKotlin(\"1.1\")\npublic inline fun <T> T.takeUnless(predicate: (T) -> Boolean): T? {\n   contract {\n   callsInPlace(predicate, InvocationKind.EXACTLY_ONCE)\n   }\n   return if (!predicate(this)) this else null\n}\n\n/**\n * Executes the given function [action] specified number of [times].\n *\n * A zero-based index of current iteration is passed as a parameter to [action].\n *\n * @sample samples.misc.ControlFlow.repeat\n */\n@kotlin.internal.InlineOnly\npublic inline fun repeat(times: Int, action: (Int) -> Unit) {\n   contract { callsInPlace(action) }\n\n   for (index in 0 until times) {\n   action(index)\n   }\n}\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.comparisons\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.js.*\n\n/**\n * Returns the greater of two values.\n * \n * If values are equal, returns the first one.\n */\n@SinceKotlin(\"1.1\")\npublic actual fun <T : Comparable<T>> maxOf(a: T, b: T): T {\n   return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Byte, b: Byte): Byte {\n   return maxOf(a.toInt(), b.toInt()).unsafeCast<Byte>()\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Short, b: Short): Short {\n   return maxOf(a.toInt(), b.toInt()).unsafeCast<Short>()\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Int, b: Int): Int {\n   return JsMath.max(a, b)\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun maxOf(a: Long, b: Long): Long {\n   return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Float, b: Float): Float {\n   return JsMath.max(a, b)\n}\n\n/**\n * Returns the greater of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Double, b: Double): Double {\n   return JsMath.max(a, b)\n}\n\n/**\n * Returns the greater of three values.\n * \n * If there are multiple equal maximal values, returns the first of them.\n */\n@SinceKotlin(\"1.1\")\npublic actual fun <T : Comparable<T>> maxOf(a: T, b: T, c: T): T {\n   return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Byte, b: Byte, c: Byte): Byte {\n   return JsMath.max(a.toInt(), b.toInt(), c.toInt()).unsafeCast<Byte>()\n}\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Short, b: Short, c: Short): Short {\n   return JsMath.max(a.toInt(), b.toInt(), c.toInt()).unsafeCast<Short>()\n}\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Int, b: Int, c: Int): Int {\n   return JsMath.max(a, b, c)\n}\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Long, b: Long, c: Long): Long {\n   return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Float, b: Float, c: Float): Float {\n   return JsMath.max(a, b, c)\n}\n\n/**\n * Returns the greater of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Double, b: Double, c: Double): Double {\n   return JsMath.max(a, b, c)\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If there are multiple equal maximal values, returns the first of them.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun <T : Comparable<T>> maxOf(a: T, vararg other: T): T {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun maxOf(a: Byte, vararg other: Byte): Byte {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun maxOf(a: Short, vararg other: Short): Short {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun maxOf(a: Int, vararg other: Int): Int {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun maxOf(a: Long, vararg other: Long): Long {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun maxOf(a: Float, vararg other: Float): Float {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun maxOf(a: Double, vararg other: Double): Double {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the smaller of two values.\n * \n * If values are equal, returns the first one.\n */\n@SinceKotlin(\"1.1\")\npublic actual fun <T : Comparable<T>> minOf(a: T, b: T): T {\n   return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Byte, b: Byte): Byte {\n   return minOf(a.toInt(), b.toInt()).unsafeCast<Byte>()\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Short, b: Short): Short {\n   return minOf(a.toInt(), b.toInt()).unsafeCast<Short>()\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Int, b: Int): Int {\n   return JsMath.min(a, b)\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun minOf(a: Long, b: Long): Long {\n   return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Float, b: Float): Float {\n   return JsMath.min(a, b)\n}\n\n/**\n * Returns the smaller of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Double, b: Double): Double {\n   return JsMath.min(a, b)\n}\n\n/**\n * Returns the smaller of three values.\n * \n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin(\"1.1\")\npublic actual fun <T : Comparable<T>> minOf(a: T, b: T, c: T): T {\n   return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Byte, b: Byte, c: Byte): Byte {\n   return JsMath.min(a.toInt(), b.toInt(), c.toInt()).unsafeCast<Byte>()\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Short, b: Short, c: Short): Short {\n   return JsMath.min(a.toInt(), b.toInt(), c.toInt()).unsafeCast<Short>()\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Int, b: Int, c: Int): Int {\n   return JsMath.min(a, b, c)\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Long, b: Long, c: Long): Long {\n   return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Float, b: Float, c: Float): Float {\n   return JsMath.min(a, b, c)\n}\n\n/**\n * Returns the smaller of three

values.\n * \n * If any value is `NaN`, returns `NaN`.\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Double, b: Double, c: Double): Double {\n   return JsMath.min(a, b, c)\n}\n\n/**\n * Returns the smaller of the given values.\n * \n *
 If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun <T : Comparable<T>> minOf(a: T, vararg other: T): T {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun minOf(a: Byte, vararg other: Byte): Byte {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun minOf(a: Short, vararg other: Short): Short {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun minOf(a: Int, vararg other: Int): Int {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual
 fun minOf(a: Long, vararg other: Long): Long {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun minOf(a: Float, vararg other: Float): Float {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun minOf(a: Double, vararg other: Double): Double {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.experimental.*\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@JvmInline\npublic
 value class ULong @PublishedApi internal constructor(@PublishedApi internal val data: Long) : Comparable<ULong> {\n\n   companion object {\n   /**\n   * A constant holding the minimum value an instance of ULong can have.\n   */\n   public const val MIN_VALUE: ULong = ULong(0)\n\n   /**\n   * A constant holding the maximum value an instance of ULong can have.\n   */\n   public const val MAX_VALUE: ULong = ULong(-1)\n\n   /**\n   * The number of bytes used to represent an instance of ULong in a binary form.\n   */\n   public const val SIZE_BYTES: Int = 8\n\n   /**\n   * The number of bits used to represent an instance of ULong in a binary form.\n   */\n   public const val SIZE_BITS: Int = 64\n   }\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value
 is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other: UByte): Int = this.compareTo(other.toULong())\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other: UShort): Int = this.compareTo(other.toULong())\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other:
 UInt): Int = this.compareTo(other.toULong())\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   @Suppress(\"OVERRIDE_BY_INLINE\")\n   public override inline operator fun compareTo(other: ULong): Int = ulongCompare(this.data, other.data)\n\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UByte): ULong = this.plus(other.toULong())\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UShort): ULong = this.plus(other.toULong())\n   /** Adds the other value to this value. */\n

@kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UInt): ULong = this.plus(other.toULong())\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: ULong): ULong = ULong(this.data.plus(other.data))\n\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UByte): ULong = this.minus(other.toULong())\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UShort): ULong = this.minus(other.toULong())\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UInt): ULong = this.minus(other.toULong())\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: ULong): ULong = ULong(this.data.minus(other.data))\n\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UByte): ULong = this.times(other.toULong())\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UShort): ULong = this.times(other.toULong())\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UInt): ULong = this.times(other.toULong())\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: ULong): ULong = ULong(this.data.times(other.data))\n\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UByte): ULong = this.div(other.toULong())\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UShort): ULong = this.div(other.toULong())\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UInt): ULong = this.div(other.toULong())\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: ULong): ULong = ulongDivide(this, other)\n\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UByte): ULong = this.rem(other.toULong())\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UShort): ULong = this.rem(other.toULong())\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UInt): ULong = this.rem(other.toULong())\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: ULong): ULong = ulongRemainder(this, other)\n\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UByte): ULong = this.floorDiv(other.toULong())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UShort): ULong = this.floorDiv(other.toULong())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UInt): ULong = this.floorDiv(other.toULong())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: ULong): ULong = div(other)\n\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UByte): UByte = this.mod(other.toULong()).toUByte()\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UShort): UShort = this.mod(other.toULong()).toUShort()\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UInt): UInt = this.mod(other.toULong()).toUInt()\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: ULong): ULong = rem(other)\n\n   /**\n   * Returns this value incremented by one.\n   *\n   * @sample samples.misc.Builtins.inc\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun inc(): ULong = ULong(data.inc())\n\n   /**\n   * Returns this value decremented by one.\n   *\n   * @sample samples.misc.Builtins.dec\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun dec(): ULong = ULong(data.dec())\n\n   /** Creates a range from this value to the specified [other] value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rangeTo(other: ULong): ULongRange = ULongRange(this, other)\n\n   /**\n   * Shifts this value left by the [bitCount] number of bits.\n   *\n   * Note that only the six lowest-order bits of the [bitCount] are used as the shift distance.\n   * The shift distance actually used is therefore always in the range `0..63`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline infix fun shl(bitCount: Int): ULong = ULong(data shl bitCount)\n\n   /**\n   * Shifts this value right by the [bitCount] number of bits, filling the leftmost bits with zeros.\n   *\n   * Note that only the six lowest-order bits of the [bitCount] are used as the shift distance.\n   * The shift distance actually used is therefore always in the range `0..63`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline infix fun shr(bitCount: Int): ULong = ULong(data ushr bitCount)\n\n   /** Performs a bitwise AND operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun and(other: ULong): ULong = ULong(this.data and other.data)\n   /** Performs a bitwise OR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun or(other: ULong): ULong = ULong(this.data or other.data)\n   /** Performs a bitwise XOR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun xor(other: ULong): ULong = ULong(this.data xor other.data)\n   /** Inverts the bits in this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun inv(): ULong = ULong(data.inv())\n\n   /**\n   * Converts this [ULong] value to [Byte].\n   *\n   * If this value is less than or equals to [Byte.MAX_VALUE], the resulting `Byte` value represents\n   * the same numerical value as this `ULong`.\n   *\n   * The resulting `Byte` value is represented by the least significant 8 bits of this `ULong` value.\n   * Note that the resulting `Byte` value may be negative.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toByte(): Byte = data.toByte()\n   /**\n   * Converts this [ULong] value to [Short].\n   *\n   * If this value is less than or equals to [Short.MAX_VALUE], the resulting `Short` value represents\n   * the same numerical value as this `ULong`.\n   *\n   * The resulting `Short` value is represented by the least significant 16 bits of this `ULong` value.\n   * Note that the resulting `Short` value may be negative.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toShort(): Short = data.toShort()\n   /**\n   * Converts this [ULong] value to [Int].\n   *\n   * If this value is less than or equals to [Int.MAX_VALUE], the resulting `Int` value represents\n   * the same numerical value as this `ULong`.\n   *\n   * The resulting `Int` value is represented by the least significant 32 bits of this `ULong` value.\n   * Note that the resulting `Int` value may be negative.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toInt(): Int = data.toInt()\n   /**\n   * Converts this [ULong] value to [Long].\n   *\n   * If this value is less than or equals to [Long.MAX_VALUE], the resulting `Long` value represents\n   * the same numerical value as this `ULong`. Otherwise the result is negative.\n   *\n   * The resulting `Long` value has the same binary representation as this `ULong` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toLong(): Long = data\n\n   /**\n   * Converts this [ULong] value to [UByte].\n   *\n   * If this value is less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\n   * the same numerical value as this `ULong`.\n   *\n   * The resulting `UByte` value

is represented by the least significant 8 bits of this `ULong` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUByte(): UByte = data.toUByte()\n   /**\n   * Converts this [ULong] value to [UShort].\n   *\n   * If this value is less than or equals to [UShort.MAX_VALUE], the resulting `UShort` value represents\n   * the same numerical value as this `ULong`.\n   *\n   * The resulting `UShort` value is represented by the least significant 16 bits of this `ULong` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUShort(): UShort = data.toUShort()\n   /**\n   * Converts this [ULong] value to [UInt].\n   *\n   * If this value is less than or equals to [UInt.MAX_VALUE], the resulting `UInt` value represents\n   * the same numerical value as this `ULong`.\n   *\n   * The resulting `UInt` value is represented by the least significant 32 bits of this `ULong` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline

fun toUInt(): UInt = data.toUInt()\n   /** Returns this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun toULong(): ULong = this\n\n   /**\n   * Converts this [ULong] value to [Float].\n   *\n   * The resulting value is the closest `Float` to this `ULong` value.\n   * In case when this `ULong` value is exactly between two `Float`s,\n   * the one with zero at least significant bit of mantissa is selected.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toFloat(): Float = this.toDouble().toFloat()\n   /**\n   * Converts this [ULong] value to [Double].\n   *\n   * The resulting value is the closest `Double` to this `ULong` value.\n   * In case when this `ULong` value is exactly between two `Double`s,\n   * the one with zero at least significant bit of mantissa is selected.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toDouble(): Double = ulongToDouble(data)\n\n   public override fun toString(): String = ulongToString(data)\n\n}\n\n/**\n

* Converts this [Byte] value to [ULong].\n *\n * If this value is positive, the resulting `ULong` value represents the same numerical value as this `Byte`.\n *\n * The least significant 8 bits of the resulting `ULong` value are the same as the bits of this `Byte` value,\n * whereas the most significant 56 bits are filled with the sign bit of this value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.toULong(): ULong = ULong(this.toLong())\n/**\n * Converts this [Short] value to [ULong].\n *\n * If this value is positive, the resulting `ULong` value represents the same numerical value as this `Short`.\n *\n * The least significant 16 bits of the resulting `ULong` value are the same as the bits of this `Short` value,\n * whereas the most significant 48 bits are filled with the sign bit of this value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic

inline fun Short.toULong(): ULong = ULong(this.toLong())\n/**\n * Converts this [Int] value to [ULong].\n *\n * If this value is positive, the resulting `ULong` value represents the same numerical value as this `Int`.\n *\n * The least significant 32 bits of the resulting `ULong` value are the same as the bits of this `Int` value,\n * whereas the most significant 32 bits are filled with the sign bit of this value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Int.toULong(): ULong = ULong(this.toLong())\n/**\n * Converts this [Long] value to [ULong].\n *\n * If this value is positive, the resulting `ULong` value represents the same numerical value as this `Long`.\n *\n * The resulting `ULong` value has the same binary representation as this `Long` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic

inline fun Long.toULong(): ULong = ULong(this)\n\n/**\n * Converts this [Float] value to [ULong].\n *\n * The fractional part, if any, is rounded down towards zero.\n * Returns zero if this `Float` value is negative or `NaN`, [ULong.MAX_VALUE] if it's bigger than `ULong.MAX_VALUE`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Float.toULong(): ULong = doubleToULong(this.toDouble())\n/**\n * Converts this [Double] value to [ULong].\n *\n * The fractional part, if any, is rounded down towards zero.\n * Returns zero if this

`Double` value is negative or `NaN`, [ULong.MAX_VALUE] if it's bigger than `ULong.MAX_VALUE`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Double.toULong(): ULong = doubleToULong(this)\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source

code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CollectionsKt\")\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns 1st *element* from the list.\n * \n * Throws an [IndexOutOfBoundsException] if the size of this list is less than 1.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component1(): T {\n   return get(0)\n}\n\n/**\n * Returns 2nd *element* from the list.\n * \n * Throws an [IndexOutOfBoundsException] if the size of this list is less than 2.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component2(): T {\n   return get(1)\n}\n\n/**\n * Returns 3rd *element* from the list.\n

* \n * Throws an [IndexOutOfBoundsException] if the size of this list is less than 3.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component3(): T {\n   return get(2)\n}\n\n/**\n * Returns 4th *element* from the list.\n * \n * Throws an [IndexOutOfBoundsException] if the size of this list is less than 4.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component4(): T {\n   return get(3)\n}\n\n/**\n * Returns 5th *element* from the list.\n * \n * Throws an [IndexOutOfBoundsException] if the size of this list is less than 5.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component5(): T {\n   return get(4)\n}\n\n/**\n * Returns `true` if [element] is found in the collection.\n */\npublic operator fun <@kotlin.internal.OnlyInputTypes T> Iterable<T>.contains(element: T): Boolean {\n   if (this is Collection)\n   return contains(element)\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns an element

at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this collection.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic fun <T> Iterable<T>.elementAt(index: Int): T {\n   if (this is List)\n   return get(index)\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"Collection doesn't contain element at index $index.\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this list.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>.elementAt(index: Int): T {\n   return get(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this collection.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\npublic fun

<T> Iterable<T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n   if (this is List)\n   return this.getOrElse(index, defaultValue)\n   if (index < 0)\n   return defaultValue(index)\n   val iterator = iterator()\n

var count = 0\n   while (iterator.hasNext()) {\n   val element = iterator.next()\n   if (index == count++)\n

return element\n   }\n   return defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this list.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this collection.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n

*/\npublic fun <T> Iterable<T>.elementAtOrNull(index: Int): T? {\n   if (this is List)\n   return this.getOrNull(index)\n   if (index < 0)\n   return null\n   val iterator = iterator()\n   var count = 0\n   while (iterator.hasNext()) {\n   val element = iterator.next()\n   if (index == count++)\n   return element\n   }\n

return null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this

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list.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>.elementAtOrNull(index: Int): T? {\n    return
this.getOrNull(index)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such
element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.find(predicate:
 (T) -> Boolean): T? {\n    return firstOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given
[predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T>
Iterable<T>.findLast(predicate: (T) -> Boolean): T? {\n    return lastOrNull(predicate)\n}\n\n/**\n * Returns the last
element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T>
List<T>.findLast(predicate: (T) -> Boolean): T? {\n    return lastOrNull(predicate)\n}\n\n/**\n * Returns the first
element.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\npublic fun <T>
Iterable<T>.first(): T {\n    when (this) {\n        is List -> return this.first()\n        else -> {\n            val iterator =
iterator()\n            if (!iterator.hasNext())\n
                throw NoSuchElementException(\"Collection is empty.\")\n            return iterator.next()\n        }\n
}\n}\n\n/**\n * Returns the first element.\n * \n * @throws NoSuchElementException if the list is empty.\n
*/\npublic fun <T> List<T>.first(): T {\n    if (isEmpty())\n        throw NoSuchElementException(\"List is
empty.\")\n    return this[0]\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws
[NoSuchElementException] if no such element is found.\n */\npublic inline fun <T> Iterable<T>.first(predicate: (T)
-> Boolean): T {\n    for (element in this) if (predicate(element)) return element\n    throw
NoSuchElementException(\"Collection contains no element matching the predicate.\")\n}\n\n/**\n * Returns the
first non-null value produced by [transform] function being applied to elements of this collection in iteration order,\n
* or throws [NoSuchElementException] if no non-null value was produced.\n * \n * @sample
samples.collections.Collections.Transformations.firstNotNullOf\n
 */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any>
Iterable<T>.firstNotNullOf(transform: (T) -> R?): R {\n    return firstNotNullOfOrNull(transform) ?: throw
NoSuchElementException(\"No element of the collection was transformed to a non-null value.\")\n}\n\n/**\n *
Returns the first non-null value produced by [transform] function being applied to elements of this collection in
iteration order,\n * or `null` if no non-null value was produced.\n * \n * @sample
samples.collections.Collections.Transformations.firstNotNullOf\n
*/\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any>
Iterable<T>.firstNotNullOfOrNull(transform: (T) -> R?): R? {\n    for (element in this) {\n        val result =
transform(element)\n        if (result != null) {\n            return result\n        }\n    }\n    return null\n}\n\n/**\n *
Returns the first element, or `null` if the collection is
 empty.\n */\npublic fun <T> Iterable<T>.firstOrNull(): T? {\n    when (this) {\n        is List -> {\n            if
(isEmpty())\n                return null\n            else\n                return this[0]\n        }\n        else -> {\n            val iterator
= iterator()\n            if (!iterator.hasNext())\n                return null\n            return iterator.next()\n        }\n
}\n}\n\n/**\n * Returns the first element, or `null` if the list is empty.\n */\npublic fun <T> List<T>.firstOrNull():
T? {\n    return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element matching the given [predicate],
or `null` if element was not found.\n */\npublic inline fun <T> Iterable<T>.firstOrNull(predicate: (T) -> Boolean):
T? {\n    for (element in this) if (predicate(element)) return element\n    return null\n}\n\n/**\n * Returns an element
at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this list.\n
*/\n@kotlin.internal.InlineOnly\npublic
 inline fun <T> List<T>.getOrElse(index: Int, defaultValue: (Int) -> T): T {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the
[index] is out of bounds of this list.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n
*/\npublic fun <T> List<T>.getOrNull(index: Int): T? {\n    return if (index >= 0 && index <= lastIndex) get(index)
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else null\n}\n\n/**\n * Returns first index of [element], or -1 if the collection does not contain element.\n */\npublic fun <@kotlin.internal.OnlyInputTypes T> Iterable<T>.indexOf(element: T): Int {\n   if (this is List) return this.indexOf(element)\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (element == item)\n   return index\n   index++\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the list does not contain
 element.\n */\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\") // false warning, extension takes precedence in some cases\npublic fun <@kotlin.internal.OnlyInputTypes T> List<T>.indexOf(element: T): Int {\n   return indexOf(element)\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the collection does not contain such element.\n */\npublic inline fun <T> Iterable<T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (predicate(item))\n   return index\n   index++\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the list does not contain such element.\n */\npublic inline fun <T> List<T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n   var index = 0\n   for (item in this) {\n   if (predicate(item))\n   return index\n   index++\n   }\n   return -1\n}\n\n/**\n *
 Returns index of the last element matching the given [predicate], or -1 if the collection does not contain such element.\n */\npublic inline fun <T> Iterable<T>.indexOfLast(predicate: (T) -> Boolean): Int {\n   var lastIndex = -1\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (predicate(item))\n   lastIndex = index\n   index++\n   }\n   return lastIndex\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the list does not contain such element.\n */\npublic inline fun <T> List<T>.indexOfLast(predicate: (T) -> Boolean): Int {\n   val iterator = this.listIterator(size)\n   while (iterator.hasPrevious()) {\n   if (predicate(iterator.previous())) {\n   return iterator.nextIndex()\n   }\n   }\n   return -1\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the collection is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n
 */\npublic fun <T> Iterable<T>.last(): T {\n   when (this) {\n   is List -> return this.last()\n   else -> {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   throw NoSuchElementException(\"Collection is empty.\")\n   var last = iterator.next()\n   while (iterator.hasNext())\n   last = iterator.next()\n
  return last\n   }\n   }\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the list is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> List<T>.last(): T {\n   if (isEmpty())\n   throw NoSuchElementException(\"List is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Iterable<T>.last(predicate:
 (T) -> Boolean): T {\n   var last: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   last = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Collection contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return last as T\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> List<T>.last(predicate: (T) -> Boolean): T {\n   val iterator = this.listIterator(size)\n   while (iterator.hasPrevious()) {\n   val element = iterator.previous()\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"List contains no element matching the predicate.\")\n}\n\n/**\n * Returns last index of [element], or -1 if the collection does not
 contain element.\n */\npublic fun <@kotlin.internal.OnlyInputTypes T> Iterable<T>.lastIndexOf(element: T): Int {\n   if (this is List) return this.lastIndexOf(element)\n   var lastIndex = -1\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (element == item)\n   lastIndex = index\n   index++\n   }\n   return lastIndex\n}\n\n/**\n * Returns last index of [element], or -1 if the list does not contain element.\n */\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\") // false warning, extension takes precedence in some cases\npublic fun <@kotlin.internal.OnlyInputTypes T> List<T>.lastIndexOf(element: T): Int {\n   return lastIndexOf(element)\n}\n\n/**\n * Returns the last element, or `null` if the collection is empty.\n * \n * @sample

samples.collections.Collections.Elements.last\n */\npublic fun <T> Iterable<T>.lastOrNull(): T? {\n   when (this) {\n   is List -> return if (isEmpty()) null else this[size - 1]\n   else -> {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   return null\n   var last = iterator.next()\n   while (iterator.hasNext())\n   last = iterator.next()\n   return last\n   }\n   }\n}\n\n/**\n * Returns the last element, or `null` if the list is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> List<T>.lastOrNull(): T? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Iterable<T>.lastOrNull(predicate: (T) -> Boolean): T? {\n   var last: T? = null\n   for (element in this) {\n   if (predicate(element)) {\n   last = element\n   }\n   }\n   return last\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> List<T>.lastOrNull(predicate: (T) -> Boolean): T? {\n   val iterator = this.listIterator(size)\n   while (iterator.hasPrevious()) {\n   val element = iterator.previous()\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns a random element from this collection.\n * \n * @throws NoSuchElementException if this collection is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>.random(): T {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this collection using the specified source of randomness.\n * \n * @throws NoSuchElementException if this collection is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun <T> Collection<T>.random(random: Random): T {\n   if (isEmpty())\n   throw NoSuchElementException(\"Collection is empty.\")\n   return elementAt(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this collection, or `null` if this collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>.randomOrNull(): T? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this collection using the specified source of randomness, or `null` if this collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> Collection<T>.randomOrNull(random: Random): T? {\n   if (isEmpty())\n   return null\n   return elementAt(random.nextInt(size))\n}\n\n/**\n * Returns the single element, or throws an exception if the collection is empty or has more than one element.\n */\npublic fun <T> Iterable<T>.single(): T {\n   when (this) {\n   is List -> return this.single()\n   else -> {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   throw NoSuchElementException(\"Collection is empty.\")\n   val single = iterator.next()\n   if (iterator.hasNext())\n   throw IllegalArgumentException(\"Collection has more than one element.\")\n   return single\n   }\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the list is empty or has more than one element.\n */\npublic fun <T> List<T>.single(): T {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"List is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"List has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun <T> Iterable<T>.single(predicate: (T) -> Boolean): T {\n   var single: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Collection contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Collection contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return single as T\n}\n\n/**\n * Returns single element, or `null` if the collection is empty or has more than one element.\n */\npublic fun <T> Iterable<T>.singleOrNull(): T? {\n   when (this) {\n   is List -> return if (size == 1) this[0] else null\n   else -> {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   return null\n   val single = iterator.next()\n   if (iterator.hasNext())\n   return null\n   return single\n   }\n   }\n}\n\n/**\n * Returns single element, or `null` if the list is empty or has more than one element.\n */\npublic fun <T> List<T>.singleOrNull(): T?

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 {\n    return if (size == 1) this[0] else null\n}\n\n/**\n * Returns the single element matching the given [predicate],
or `null` if element was not found or more than one element was found.\n */\npublic inline fun <T>
Iterable<T>.singleOrNull(predicate: (T) -> Boolean): T? {\n    var single: T? = null\n    var found = false\n    for
(element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single = element\n
found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns a list containing all
elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n */\npublic fun <T> Iterable<T>.drop(n: Int): List<T> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return toList()\n    val list:
ArrayList<T>\n    if (this is Collection<*>) {\n        val
 resultSize = size - n\n        if (resultSize <= 0)\n            return emptyList()\n        if (resultSize == 1)\n            return
listOf(last())\n        list = ArrayList<T>(resultSize)\n        if (this is List<T>) {\n            if (this is RandomAccess)
{\n                for (index in n until size)\n                    list.add(this[index])\n            } else {\n                for (item in
listIterator(n))\n                    list.add(item)\n            }\n            return list\n        }\n    }\n    else {\n        list =
ArrayList<T>()\n    }\n    var count = 0\n    for (item in this) {\n        if (count >= n) list.add(item) else ++count\n
}\n    return list.optimizeReadOnlyList()\n}\n\n/**\n * Returns a list containing all elements except last [n]
elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n */\npublic fun <T> List<T>.dropLast(n: Int): List<T> {\n
require(n >= 0) {
 \"Requested element count $n is less than zero.\" }\n    return take((size - n).coerceAtLeast(0))\n}\n\n/**\n *
Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n */\npublic inline fun <T>
List<T>.dropLastWhile(predicate: (T) -> Boolean): List<T> {\n    if (!isEmpty()) {\n        val iterator =
listIterator(size)\n        while (iterator.hasPrevious()) {\n            if (!predicate(iterator.previous())) {\n                return
take(iterator.nextIndex() + 1)\n            }\n        }\n    }\n    return emptyList()\n}\n\n/**\n * Returns a list containing
all elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n */\npublic inline fun <T> Iterable<T>.dropWhile(predicate:
(T) -> Boolean): List<T> {\n    var yielding = false\n    val list = ArrayList<T>()\n    for (item in this)\n        if
 (yielding)\n            list.add(item)\n        else if (!predicate(item)) {\n            list.add(item)\n            yielding = true\n
    }\n    return list\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n *
@sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun <T> Iterable<T>.filter(predicate: (T)
-> Boolean): List<T> {\n    return filterTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing only
elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the
element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun <T>
Iterable<T>.filterIndexed(predicate: (index: Int, T) -> Boolean): List<T> {\n    return
filterIndexedTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Appends all elements matching the given [predicate] to
the given
 [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and
returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <T, C : MutableCollection<in T>>
Iterable<T>.filterIndexedTo(destination: C, predicate: (index: Int, T) -> Boolean): C {\n    forEachIndexed { index,
element ->\n        if (predicate(index, element)) destination.add(element)\n    }\n    return destination\n}\n\n/**\n *
Returns a list containing all elements that are instances of specified type parameter R.\n * \n * @sample
samples.collections.Collections.Filtering.filterIsInstance\n */\npublic inline fun <reified R>
Iterable<*>.filterIsInstance(): List<@kotlin.internal.NoInfer R> {\n    return
filterIsInstanceTo(ArrayList<R>())\n}\n\n/**\n * Appends all elements that are instances of specified type
parameter R to the given [destination].\n * \n * @sample
samples.collections.Collections.Filtering.filterIsInstanceTo\n
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 /\npublic inline fun <reified R, C : MutableCollection<in R>> Iterable<>.filterIsInstanceTo(destination: C): C {\n   for (element in this) if (element is R) destination.add(element)\n   return destination\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun <T> Iterable<T>.filterNot(predicate: (T) -> Boolean): List<T> {\n   return filterNotTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing all elements that are not `null`.\n * \n * @sample samples.collections.Collections.Filtering.filterNotNull\n */\npublic fun <T : Any> Iterable<T?>.filterNotNull(): List<T> {\n   return filterNotNullTo(ArrayList<T>())\n}\n\n/**\n * Appends all elements that are not `null` to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterNotNullTo\n */\npublic fun <C : MutableCollection<in T>, T : Any> Iterable<T?>.filterNotNullTo(destination: C): C {\n   for (element in this) if (element != null) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Iterable<T>.filterNotTo(destination: C, predicate: (T) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Iterable<T>.filterTo(destination: C, predicate: (T) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun <T> List<T>.slice(indices: IntRange): List<T> {\n   if (indices.isEmpty()) return listOf()\n   return this.subList(indices.start, indices.endInclusive + 1).toList()\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun <T> List<T>.slice(indices: Iterable<Int>): List<T> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<T>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun <T> Iterable<T>.take(n: Int): List<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (this is Collection<T>) {\n   if (n >= size) return toList()\n   if (n == 1) return listOf(first())\n   }\n   var count = 0\n   val list = ArrayList<T>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list.optimizeReadOnlyList()\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun <T> List<T>.takeLast(n: Int): List<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   val size = size\n   if (n >= size) return toList()\n   if (n == 1) return listOf(last())\n   val list = ArrayList<T>(n)\n   if (this is RandomAccess) {\n   for (index in size - n until size)\n   list.add(this[index])\n   } else {\n   for (item in listIterator(size - n))\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun <T> List<T>.takeLastWhile(predicate: (T) -> Boolean): List<T> {\n   if (isEmpty())\n   return emptyList()\n   val iterator = listIterator(size)\n   while (iterator.hasPrevious()) {\n   if (!predicate(iterator.previous())) {\n   iterator.next()\n   val expectedSize = size - iterator.nextIndex()\n   if (expectedSize == 0) return emptyList()\n   return ArrayList<T>(expectedSize).apply {\n   while (iterator.hasNext())\n   add(iterator.next())\n   }\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun <T> Iterable<T>.takeWhile(predicate: (T) -> Boolean): List<T> {\n   val list = ArrayList<T>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Reverses elements in the list in-place.\n */\npublic expect fun <T> MutableList<T>.reverse(): Unit\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun <T> Iterable<T>.reversed(): List<T> {\n   if (this is

Collection && size <= 1) return toList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Randomly shuffles elements in this list in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.3\")\npublic fun <T> MutableList<T>.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   this[j] = this.set(i, this[j])\n   }\n}\n\n/**\n * Sorts elements in the list in-place according to natural
 sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>> MutableList<T>.sortBy(crossinline selector: (T) -> R?): Unit {\n   if (size > 1) sortWith(compareBy(selector))\n}\n\n/**\n * Sorts elements in the list in-place descending according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>> MutableList<T>.sortByDescending(crossinline selector: (T) -> R?): Unit {\n   if (size > 1) sortWith(compareByDescending(selector))\n}\n\n/**\n * Sorts elements in the list in-place descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after
 sorting.\n */\npublic fun <T : Comparable<T>> MutableList<T>.sortDescending(): Unit {\n   sortWith(reverseOrder())\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Iterable<T>.sorted(): List<T> {\n   if (this is Collection) {\n   if (size <= 1) return this.toList()\n   @Suppress(\"UNCHECKED_CAST\")\n   return (toTypedArray<Comparable<T>>() as Array<T>).apply { sort() }.asList()\n   }\n   return toMutableList().apply { sort() }\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun
 <T, R : Comparable<R>> Iterable<T>.sortedBy(crossinline selector: (T) -> R?): List<T> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>> Iterable<T>.sortedByDescending(crossinline selector: (T) -> R?): List<T> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Iterable<T>.sortedDescending(): List<T> {\n   return sortedWith(reverseOrder())\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n
 * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T> Iterable<T>.sortedWith(comparator: Comparator<in T>): List<T> {\n   if (this is Collection) {\n   if (size <= 1) return this.toList()\n   @Suppress(\"UNCHECKED_CAST\")\n   return (toTypedArray<Any?>() as Array<T>).apply { sortWith(comparator) }.asList()\n   }\n   return toMutableList().apply { sortWith(comparator) }\n}\n\n/**\n * Returns an array of Boolean containing all of the elements of this collection.\n */\npublic fun Collection<Boolean>.toBooleanArray(): BooleanArray {\n   val result = BooleanArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of Byte containing all of the elements of this collection.\n */\npublic fun Collection<Byte>.toByteArray(): ByteArray {\n   val result = ByteArray(size)\n   var index = 0\n   for (element
 in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of Char containing all of the elements of this collection.\n */\npublic fun Collection<Char>.toCharArray(): CharArray {\n   val result = CharArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return

result\n}\n\n/**\n * Returns an array of Double containing all of the elements of this collection.\n */\npublic fun Collection<Double>.toDoubleArray(): DoubleArray {\n val result = DoubleArray(size)\n var index = 0\n for (element in this)\n result[index++] = element\n return result\n}\n\n/**\n * Returns an array of Float containing all of the elements of this collection.\n */\npublic fun Collection<Float>.toFloatArray(): FloatArray {\n val result = FloatArray(size)\n var index = 0\n for (element in this)\n result[index++] = element\n return result\n}\n\n/**\n * Returns an array of Int containing all of the elements

of this collection.\n */\npublic fun Collection<Int>.toIntArray(): IntArray {\n val result = IntArray(size)\n var index = 0\n for (element in this)\n result[index++] = element\n return result\n}\n\n/**\n * Returns an array of Long containing all of the elements of this collection.\n */\npublic fun Collection<Long>.toLongArray(): LongArray {\n val result = LongArray(size)\n var index = 0\n for (element in this)\n result[index++] = element\n return result\n}\n\n/**\n * Returns an array of Short containing all of the elements of this collection.\n */\npublic fun Collection<Short>.toShortArray(): ShortArray {\n val result = ShortArray(size)\n var index = 0\n for (element in this)\n result[index++] = element\n return result\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given collection.\n * \n * If any of two pairs would have the same key the last one gets

added to the map.\n * \n * The returned map preserves the entry iteration order of the original collection.\n * \n * @sample samples.collections.Collections.Transformations.associate\n */\npublic inline fun <T, K, V> Iterable<T>.associate(transform: (T) -> Pair<K, V>): Map<K, V> {\n val capacity = mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16)\n return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing the elements from the given collection indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original collection.\n * \n * @sample samples.collections.Collections.Transformations.associateBy\n */\npublic inline fun <T, K> Iterable<T>.associateBy(keySelector: (T) -> K): Map<K, T> {\n val capacity = mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16)\n

return associateByTo(LinkedHashMap<K, T>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given collection.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original collection.\n * \n * @sample samples.collections.Collections.Transformations.associateByWithValueTransform\n */\npublic inline fun <T, K, V> Iterable<T>.associateBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, V> {\n val capacity = mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16)\n return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector]

function applied to each element of the given collection\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Collections.Transformations.associateByTo\n */\npublic inline fun <T, K, M : MutableMap<in K, in T>> Iterable<T>.associateByTo(destination: M, keySelector: (T) -> K): M {\n for (element in this) {\n destination.put(keySelector(element), element)\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given collection.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Collections.Transformations.associateByToWithValueTransform\n

*/\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Iterable<T>.associateByTo(destination: M, keySelector: (T) -> K, valueTransform: (T) -> V): M {\n for (element in this) {\n destination.put(keySelector(element), valueTransform(element))\n }\n return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each

element of the given collection.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Collections.Transformations.associateTo\n */\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Iterable<T>.associateTo(destination: M, transform: (T) -> Pair<K, V>): M {\n for (element in this) {\n destination += transform(element)\n }\n return destination\n}\n\n/**\n * Returns a [Map] where keys are elements from the given collection and values are\n * produced by the [valueSelector] function
 applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original collection.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.3\")\npublic inline fun <K, V> Iterable<K>.associateWith(valueSelector: (K) -> V): Map<K, V> {\n val result = LinkedHashMap<K, V>(mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16))\n return associateWithTo(result, valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given collection,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.3\")\npublic inline
 fun <K, V, M : MutableMap<in K, in V>> Iterable<K>.associateWithTo(destination: M, valueSelector: (K) -> V): M {\n for (element in this) {\n destination.put(element, valueSelector(element))\n }\n return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <T, C : MutableCollection<in T>> Iterable<T>.toCollection(destination: C): C {\n for (item in this) {\n destination.add(item)\n }\n return destination\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun <T> Iterable<T>.toHashSet(): HashSet<T> {\n return toCollection(HashSet<T>(mapCapacity(collectionSizeOrDefault(12))))\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun <T> Iterable<T>.toList(): List<T> {\n if (this is Collection) {\n return when (size) {\n 0 -> emptyList()\n 1 -> listOf(if (this is List) get(0) else iterator().next())\n else -> this.toMutableList()\n
 }\n }\n return this.toMutableList().optimizeReadOnlyList()\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this collection.\n */\npublic fun <T> Iterable<T>.toMutableList(): MutableList<T> {\n if (this is Collection<T>)\n return this.toMutableList()\n return toCollection(ArrayList<T>())\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this collection.\n */\npublic fun <T> Collection<T>.toMutableList(): MutableList<T> {\n return ArrayList(this)\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original collection.\n */\npublic fun <T> Iterable<T>.toSet(): Set<T> {\n if (this is Collection) {\n return when (size) {\n 0 -> emptySet()\n 1 -> setOf(if (this is List) this[0] else iterator().next())\n else -> toCollection(LinkedHashSet<T>(mapCapacity(size)))\n }\n }\n return toCollection(LinkedHashSet<T>()).optimizeReadOnlySet()\n}\n\n/**\n
 * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original collection.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <T, R> Iterable<T>.flatMap(transform: (T) -> Iterable<R>): List<R> {\n return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original collection.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapSequence\")\npublic inline fun <T, R> Iterable<T>.flatMap(transform: (T) -> Sequence<R>): List<R> {\n return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results
 of [transform] function being invoked on each element\n * and its index in the original collection.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n

*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Iterable<T>.flatMapIndexed(transform: (index: Int, T) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original collection.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedSequence\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Iterable<T>.flatMapIndexed(transform: (index: Int, T) -> Sequence<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original collection, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.flatMapIndexedTo(destination: C, transform: (index: Int, T) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(checkIndexOverflow(index++), element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original collection, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedSequenceTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.flatMapIndexedTo(destination: C, transform: (index: Int, T) -> Sequence<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(checkIndexOverflow(index++), element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original collection, to the given [destination].\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.flatMapTo(destination: C, transform: (T) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original collection, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapSequenceTo\")\npublic inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.flatMapTo(destination: C, transform: (T) -> Sequence<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original collection by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original collection.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K> Iterable<T>.groupBy(keySelector: (T) -> K): Map<K, List<T>> {\n   return groupByTo(LinkedHashMap<K, MutableList<T>>(), keySelector)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original collection\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original collection.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <T, K, V> Iterable<T>.groupBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups elements

of the original collection by the key

returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K, M : MutableMap<in K, MutableList<T>>> Iterable<T>.groupByTo(destination: M, keySelector: (T) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<T>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original collection\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n

*/\npublic inline fun <T, K, V, M : MutableMap<in K, MutableList<V>>> Iterable<T>.groupByTo(destination: M, keySelector: (T) -> K, valueTransform: (T) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Creates a [Grouping] source from a collection to be used later with one of group-and-fold operations\n * using the specified [keySelector] function to extract a key from each element.\n * \n * @sample samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K> Iterable<T>.groupingBy(crossinline keySelector: (T) -> K): Grouping<T, K> {\n   return object : Grouping<T, K> {\n   override fun sourceIterator(): Iterator<T> = this@groupingBy.iterator()\n   override fun keyOf(element: T): K = keySelector(element)\n

}\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original collection.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <T, R> Iterable<T>.map(transform: (T) -> R): List<R> {\n   return mapTo(ArrayList<R>(collectionSizeOrDefault(10)), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original collection.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T, R> Iterable<T>.mapIndexed(transform: (index: Int, T) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(collectionSizeOrDefault(10)), transform)\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each element and its index

in the original collection.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T, R : Any> Iterable<T>.mapIndexedNotNull(transform: (index: Int, T) -> R?): List<R> {\n   return mapIndexedNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original collection\n * and appends only the non-null results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T, R : Any, C : MutableCollection<in R>> Iterable<T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R?): C {\n   forEachIndexed { index, element -> transform(index, element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given

[transform] function to each element and its index in the original collection\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.mapIndexedTo(destination: C, transform: (index: Int, T) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(checkIndexOverflow(index++), item))\n   return destination\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each element in the original collection.\n * \n * @sample samples.collections.Collections.Transformations.mapNotNull\n */\npublic inline fun <T, R : Any> Iterable<T>.mapNotNull(transform: (T) -> R?): List<R> {\n   return

mapNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each element in the original collection\n * and appends only the non-null results to the given [destination].\n */\npublic inline fun <T, R : Any, C : MutableCollection<in R>> Iterable<T>.mapNotNullTo(destination: C, transform: (T) -> R?): C {\n   forEach { element -> transform(element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original collection\n * and appends the results to the given [destination].\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.mapTo(destination: C, transform: (T) -> R): C {\n   for (item in this)\n destination.add(transform(item))\n   return destination\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original collection\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun <T> Iterable<T>.withIndex(): Iterable<IndexedValue<T>> {\n   return IndexingIterable { iterator()
 }\n}\n\n/**\n * Returns a list containing only distinct elements from the given collection.\n * \n * Among equal elements of the given collection, only the first one will be present in the resulting list.\n * The elements in the resulting list are in the same order as they were in the source collection.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun <T> Iterable<T>.distinct(): List<T> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only elements from the given collection\n * having distinct keys returned by the given [selector] function.\n * \n * Among elements of the given collection with equal keys, only the first one will be present in the resulting list.\n * The elements in the resulting list are in the same order as they were in the source collection.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <T, K> Iterable<T>.distinctBy(selector:
 (T) -> K): List<T> {\n   val set = HashSet<K>()\n   val list = ArrayList<T>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a set containing all elements that are contained by both this collection and the specified collection.\n * \n * The returned set preserves the element iteration order of the original collection.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun <T> Iterable<T>.intersect(other: Iterable<T>): Set<T> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this collection and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original collection.\n */\npublic infix fun <T> Iterable<T>.subtract(other: Iterable<T>):
 Set<T> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given collection.\n * \n * The returned set preserves the element iteration order of the original collection.\n */\npublic fun <T> Iterable<T>.toMutableSet(): MutableSet<T> {\n   return when (this) {\n   is Collection<T> -> LinkedHashSet(this)\n   else -> toCollection(LinkedHashSet<T>())\n   }\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original collection.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun <T> Iterable<T>.union(other: Iterable<T>): Set<T> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun <T> Iterable<T>.all(predicate: (T) -> Boolean): Boolean {\n   if (this is Collection && isEmpty()) return true\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if collection has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun <T> Iterable<T>.any(): Boolean {\n   if (this is Collection) return !isEmpty()\n   return iterator().hasNext()\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun <T> Iterable<T>.any(predicate: (T) -> Boolean): Boolean {\n   if (this is Collection && isEmpty()) return false\n   for

(element in this) if (predicate(element))

return true\n   return false\n}\n\n/**\n * Returns the number of elements in this collection.\n */\npublic fun <T> Iterable<T>.count(): Int {\n   if (this is Collection) return size\n   var count = 0\n   for (element in this) checkCountOverflow(++count)\n   return count\n}\n\n/**\n * Returns the number of elements in this collection.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun <T> Iterable<T>.count(predicate: (T) -> Boolean): Int {\n   if (this is Collection && isEmpty()) return 0\n   var count = 0\n   for (element in this) if (predicate(element)) checkCountOverflow(++count)\n   return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the collection

is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Iterable<T>.fold(initial: R, operation: (acc: R, T) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original collection.\n * \n * Returns the specified [initial] value if the collection is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Iterable<T>.foldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this)

accumulator = operation(checkIndexOverflow(index++), accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the list is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <T, R> List<T>.foldRight(initial: R, operation: (T, acc: R) -> R): R {\n   var accumulator = initial\n   if (!isEmpty()) {\n   val iterator = listIterator(size)\n   while (iterator.hasPrevious()) {\n   accumulator = operation(iterator.previous(), accumulator)\n   }\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original list and current accumulator value.\n

* \n * Returns the specified [initial] value if the list is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <T, R> List<T>.foldRightIndexed(initial: R, operation: (index: Int, T, acc: R) -> R): R {\n   var accumulator = initial\n   if (!isEmpty()) {\n   val iterator = listIterator(size)\n   while (iterator.hasPrevious()) {\n   val index = iterator.previousIndex()\n   accumulator = operation(index, iterator.previous(), accumulator)\n   }\n   }\n   return accumulator\n}\n\n/**\n * Performs the given [action] on each element.\n */\n@kotlin.internal.HidesMembers\npublic inline fun <T> Iterable<T>.forEach(action: (T) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function

that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun <T> Iterable<T>.forEachIndexed(action: (index: Int, T) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(checkIndexOverflow(index++), item)\n}\n\n/**\n * Returns the largest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun Iterable<Double>.max(): Double {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun Iterable<Float>.max(): Float {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw

NoSuchElementException()\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun <T : Comparable<T>> Iterable<T>.max(): T {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the collection is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <T, R : Comparable<R>> Iterable<T>.maxBy(selector: (T) -> R): T {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxElem = iterator.next()\n   if (!iterator.hasNext()) return maxElem\n   var maxValue = selector(maxElem)\n   do {\n   val e = iterator.next()\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   } while (iterator.hasNext())\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R : Comparable<R>> Iterable<T>.maxByOrNull(selector: (T) -> R): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxElem = iterator.next()\n   if (!iterator.hasNext()) return maxElem\n   var maxValue = selector(maxElem)\n   do {\n   val e = iterator.next()\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   } while (iterator.hasNext())\n   return maxElem\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the collection.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.maxOf(selector: (T) -> Double): Double {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the collection.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.maxOf(selector: (T) -> Float): Float {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the collection.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Iterable<T>.maxOf(selector: (T) -> R): R {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the collection or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.maxOfOrNull(selector: (T) -> Double): Double? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the collection or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.maxOfOrNull(selector: (T) -> Float): Float? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the collection or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Iterable<T>.maxOfOrNull(selector: (T) -> R): R? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the collection.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Iterable<T>.maxOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the collection or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Iterable<T>.maxOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Iterable<Double>.maxOrNull(): Double? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Iterable<Float>.maxOrNull(): Float? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Iterable<T>.maxOrNull(): T? {\n   val iterator =

iterator()\n   if (!iterator.hasNext()) return null\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n

 * Returns the first element having the largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun <T> Iterable<T>.maxWith(comparator: Comparator<in T>): T {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Iterable<T>.maxWithOrNull(comparator: Comparator<in T>): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n

        val e = iterator.next()\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the smallest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun Iterable<Double>.min(): Double {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun Iterable<Float>.min(): Float {\n   val iterator = iterator()\n

    if (!iterator.hasNext()) throw NoSuchElementException()\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun <T : Comparable<T>> Iterable<T>.min(): T {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function.\n * \n * @throws NoSuchElementException if the collection is empty.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic

 inline fun <T, R : Comparable<R>> Iterable<T>.minBy(selector: (T) -> R): T {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minElem = iterator.next()\n   if (!iterator.hasNext()) return minElem\n   var minValue = selector(minElem)\n   do {\n   val e = iterator.next()\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   } while (iterator.hasNext())\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R : Comparable<R>> Iterable<T>.minByOrNull(selector: (T) -> R): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minElem = iterator.next()\n

 if (!iterator.hasNext()) return minElem\n   var minValue = selector(minElem)\n   do {\n   val e = iterator.next()\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   } while (iterator.hasNext())\n   return minElem\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the collection.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n

*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOf(selector: (T) -> Double): Double {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the collection.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOf(selector: (T) -> Float): Float {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the collection.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Iterable<T>.minOf(selector: (T) -> R): R {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the collection or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOfOrNull(selector: (T) -> Double): Double? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the collection or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOfOrNull(selector: (T) -> Float): Float? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the collection or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Iterable<T>.minOfOrNull(selector: (T) -> R): R? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the collection.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Iterable<T>.minOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the collection or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
 inline fun <T, R> Iterable<T>.minOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Iterable<Double>.minOrNull(): Double? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   min = minOf(min, e)\n   }\n   return
 min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Iterable<Float>.minOrNull(): Float? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Iterable<T>.minOrNull(): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the collection is
 empty.\n
 */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun <T> Iterable<T>.minWith(comparator: Comparator<in T>): T {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Iterable<T>.minWithOrNull(comparator: Comparator<in T>): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns `true` if the collection has no
 elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun <T> Iterable<T>.none(): Boolean {\n   if (this is Collection) return isEmpty()\n   return !iterator().hasNext()\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun <T> Iterable<T>.none(predicate: (T) -> Boolean): Boolean {\n   if (this is Collection && isEmpty()) return true\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Performs the given [action] on each element and returns the collection itself afterwards.\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, C : Iterable<T>> C.onEach(action: (T) -> Unit): C {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the collection itself afterwards.\n *
 @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, C : Iterable<T>> C.onEachIndexed(action: (index:

Int, T) -> Unit): C {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this collection is empty. If the collection can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun <S, T : S> Iterable<T>.reduce(operation: (acc: S, T) -> S): S {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) throw UnsupportedOperationException(\"Empty collection can't be reduced.\")\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original collection.\n * \n * Throws an exception if this collection is empty. If the collection can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun <S, T : S> Iterable<T>.reduceIndexed(operation: (index: Int, acc: S, T) -> S): S {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) throw UnsupportedOperationException(\"Empty collection can't be reduced.\")\n   var index = 1\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(checkIndexOverflow(index++), accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original collection.\n * \n * Returns `null` if the collection is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <S, T : S> Iterable<T>.reduceIndexedOrNull(operation: (index: Int, acc: S, T) -> S): S? {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) return null\n   var index = 1\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(checkIndexOverflow(index++), accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns `null` if the collection is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S> Iterable<T>.reduceOrNull(operation: (acc: S, T) -> S): S? {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) return null\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Throws an exception if this list is empty. If the list can be empty in an expected way,\n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun <S, T : S> List<T>.reduceRight(operation: (T, acc: S) -> S): S {\n   val iterator = listIterator(size)\n   if (!iterator.hasPrevious())\n   throw UnsupportedOperationException(\"Empty list can't be reduced.\")\n   var accumulator: S = iterator.previous()\n   while (iterator.hasPrevious()) {\n   accumulator = operation(iterator.previous(), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original list and current accumulator value.\n * \n * Throws an exception if this list is empty. If the list can be empty in an expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun <S, T : S> List<T>.reduceRightIndexed(operation: (index: Int, T, acc: S) -> S): S {\n   val iterator = listIterator(size)\n   if (!iterator.hasPrevious())\n   throw UnsupportedOperationException(\"Empty list can't be reduced.\")\n   var accumulator: S = iterator.previous()\n   while (iterator.hasPrevious()) {\n   val index = iterator.previousIndex()\n   accumulator = operation(index, iterator.previous(), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original list and current accumulator value.\n * \n * Returns `null` if the list is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <S, T : S> List<T>.reduceRightIndexedOrNull(operation: (index: Int, T, acc: S) -> S): S? {\n   val iterator = listIterator(size)\n   if (!iterator.hasPrevious())\n   return null\n   var accumulator: S = iterator.previous()\n   while (iterator.hasPrevious()) {\n   val index = iterator.previousIndex()\n   accumulator = operation(index, iterator.previous(), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns `null` if the list is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S> List<T>.reduceRightOrNull(operation: (T, acc: S) -> S): S? {\n   val iterator = listIterator(size)\n   if (!iterator.hasPrevious())\n   return null\n   var accumulator: S = iterator.previous()\n   while (iterator.hasPrevious()) {\n   accumulator = operation(iterator.previous(), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R> Iterable<T>.runningFold(initial: R, operation: (acc: R, T) -> R): List<R> {\n   val estimatedSize = collectionSizeOrDefault(9)\n   if (estimatedSize == 0) return listOf(initial)\n   val result = ArrayList<R>(estimatedSize + 1).apply { add(initial) }\n   var accumulator = initial\n   for (element in this) {\n   accumulator = operation(accumulator, element)\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original collection and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R> Iterable<T>.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): List<R> {\n   val estimatedSize = collectionSizeOrDefault(9)\n   if (estimatedSize == 0) return listOf(initial)\n   val result = ArrayList<R>(estimatedSize + 1).apply { add(initial) }\n   var index = 0\n   var accumulator = initial\n   for (element in this) {\n   accumulator = operation(index++, accumulator, element)\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this collection.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and the element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S> Iterable<T>.runningReduce(operation: (acc: S, T)

-> S): List<S> {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) return emptyList()\n   var accumulator: S = iterator.next()\n   val result = ArrayList<S>(collectionSizeOrDefault(10)).apply { add(accumulator) }\n   while (iterator.hasNext()) {\n   accumulator = operation(accumulator, iterator.next())\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original collection and current accumulator value that starts with the first element of this collection.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n

*/\n@SinceKotlin(\"1.4\")\npublic inline fun <S, T : S> Iterable<T>.runningReduceIndexed(operation: (index: Int, acc: S, T) -> S): List<S> {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) return emptyList()\n   var accumulator: S = iterator.next()\n   val result = ArrayList<S>(collectionSizeOrDefault(10)).apply { add(accumulator) }\n   var index = 1\n   while (iterator.hasNext()) {\n   accumulator = operation(index++, accumulator, iterator.next())\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes

current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <T, R> Iterable<T>.scan(initial: R, operation: (acc: R, T) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original collection and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n

*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <T, R> Iterable<T>.scanIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun <T> Iterable<T>.sumBy(selector: (T) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun <T> Iterable<T>.sumByDouble(selector: (T) -> Double): Double {\n

var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n

*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.sumOf(selector: (T) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.sumOf(selector: (T) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.sumOf(selector: (T) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.sumOf(selector: (T) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.sumOf(selector: (T) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns an original collection containing all the non-`null` elements, throwing an [IllegalArgumentException] if there are any `null` elements.\n */\npublic fun <T : Any> Iterable<T?>.requireNoNulls(): Iterable<T> {\n   for (element in this) {\n   if (element == null) {\n   throw IllegalArgumentException(\"null element found in $this.\")\n   }\n   }\n   @Suppress(\"UNCHECKED_CAST\")\n   return this as Iterable<T>\n}\n\n/**\n * Returns an original collection containing all the non-`null` elements, throwing an [IllegalArgumentException] if there are any `null` elements.\n */\npublic fun <T : Any> List<T?>.requireNoNulls(): List<T> {\n   for (element in this) {\n   if (element == null) {\n   throw IllegalArgumentException(\"null element found in $this.\")\n   }\n   }\n   @Suppress(\"UNCHECKED_CAST\")\n   return this as List<T>\n}\n\n/**\n * Splits this collection into a list of lists each not exceeding the given [size].\n * \n * The last list in the resulting list may have fewer elements than the given [size].\n * \n * @param size the number of elements to take in each list, must be positive and can be greater than the number of elements in this collection.\n * \n * @sample samples.collections.Collections.Transformations.chunked\n */\n@SinceKotlin(\"1.2\")\npublic fun <T> Iterable<T>.chunked(size: Int): List<List<T>> {\n   return windowed(size, size, partialWindows = true)\n}\n\n/**\n * Splits this collection into several lists each not exceeding the given [size]\n * and applies the given [transform] function to an each.\n * \n * @return list of results of the [transform] applied to an each list.\n * \n * Note that the list passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * The last list may have fewer elements than the given [size].\n * \n * @param size the number of elements to take in each list, must be positive and can be greater than the number of elements in this collection.\n * \n * @sample samples.text.Strings.chunkedTransform\n */\n@SinceKotlin(\"1.2\")\npublic fun <T, R> Iterable<T>.chunked(size: Int, transform: (List<T>)

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-> R): List<R> {\n    return windowed(size, size, partialWindows = true, transform = transform)\n}\n\n/**\n *
Returns a list containing all elements of the original collection without the first occurrence of the given [element].\n
*/\npublic operator fun <T> Iterable<T>.minus(element: T): List<T> {\n    val result =
ArrayList<T>(collectionSizeOrDefault(10))\n    var removed = false\n    return this.filterTo(result) { if (!removed
&& it == element) { removed = true; false } else true }\n}\n\n/**\n * Returns a list containing all elements of the
original collection except the elements contained in the given [elements] array.\n * \n * Before Kotlin 1.6, the
[elements] array may have been converted to a [HashSet] to speed up the operation, thus the elements were required
to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive
invocations.\n * On JVM, you can enable this behavior back with the system property
`kotlin.collections.convert_arg_to_set_in_removeAll`
 set to `true`.\n */\npublic operator fun <T> Iterable<T>.minus(elements: Array<out T>): List<T> {\n    if
(elements.isEmpty()) return this.toList()\n    val other = elements.convertToSetForSetOperation()\n    return
this.filterNot { it in other }\n}\n\n/**\n * Returns a list containing all elements of the original collection except the
elements contained in the given [elements] collection.\n * \n * Before Kotlin 1.6, the [elements] collection may have
been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and
stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can
enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to
`true`.\n */\npublic operator fun <T> Iterable<T>.minus(elements: Iterable<T>): List<T> {\n    val other =
elements.convertToSetForSetOperationWith(this)\n    if (other.isEmpty())\n
  return this.toList()\n    return this.filterNot { it in other }\n}\n\n/**\n * Returns a list containing all elements of the
original collection except the elements contained in the given [elements] sequence.\n * \n * Before Kotlin 1.6, the
[elements] sequence may have been converted to a [HashSet] to speed up the operation, thus the elements were
required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive
invocations.\n * On JVM, you can enable this behavior back with the system property
`kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n */\npublic operator fun <T>
Iterable<T>.minus(elements: Sequence<T>): List<T> {\n    val other = elements.convertToSetForSetOperation()\n
if (other.isEmpty())\n        return this.toList()\n    return this.filterNot { it in other }\n}\n\n/**\n * Returns a list
containing all elements of the original collection without the first occurrence of the given [element].\n
*/\n@kotlin.internal.InlineOnly\npublic
 inline fun <T> Iterable<T>.minusElement(element: T): List<T> {\n    return minus(element)\n}\n\n/**\n * Splits
the original collection into pair of lists,\n * where *first* list contains elements for which [predicate] yielded
`true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample
samples.collections.Iterables.Operations.partition\n */\npublic inline fun <T> Iterable<T>.partition(predicate: (T) ->
Boolean): Pair<List<T>, List<T>> {\n    val first = ArrayList<T>()\n    val second = ArrayList<T>()\n    for
(element in this) {\n        if (predicate(element)) {\n            first.add(element)\n        } else {\n
second.add(element)\n        }\n    }\n    return Pair(first, second)\n}\n\n/**\n * Returns a list containing all elements
of the original collection and then the given [element].\n */\npublic operator fun <T> Iterable<T>.plus(element: T):
List<T> {\n    if (this is Collection) return this.plus(element)\n
    val result = ArrayList<T>()\n    result.addAll(this)\n    result.add(element)\n    return result\n}\n\n/**\n * Returns
a list containing all elements of the original collection and then the given [element].\n */\npublic operator fun <T>
Collection<T>.plus(element: T): List<T> {\n    val result = ArrayList<T>(size + 1)\n    result.addAll(this)\n
result.add(element)\n    return result\n}\n\n/**\n * Returns a list containing all elements of the original collection
and then all elements of the given [elements] array.\n */\npublic operator fun <T> Iterable<T>.plus(elements:
Array<out T>): List<T> {\n    if (this is Collection) return this.plus(elements)\n    val result = ArrayList<T>()\n
result.addAll(this)\n    result.addAll(elements)\n    return result\n}\n\n/**\n * Returns a list containing all elements
of the original collection and then all elements of the given [elements] array.\n */\npublic operator fun <T>
Collection<T>.plus(elements: Array<out T>): List<T> {\n
```

val result = ArrayList<T>(this.size + elements.size)\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then all elements of the given [elements] collection.\n */\npublic operator fun <T> Iterable<T>.plus(elements: Iterable<T>): List<T> {\n   if (this is Collection) return this.plus(elements)\n   val result = ArrayList<T>()\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then all elements of the given [elements] collection.\n */\npublic operator fun <T> Collection<T>.plus(elements: Iterable<T>): List<T> {\n   if (elements is Collection) {\n   val result = ArrayList<T>(this.size + elements.size)\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n   } else {\n   val result = ArrayList<T>(this)\n   result.addAll(elements)\n
        return result\n   }\n}\n\n/**\n * Returns a list containing all elements of the original collection and then all elements of the given [elements] sequence.\n */\npublic operator fun <T> Iterable<T>.plus(elements: Sequence<T>): List<T> {\n   val result = ArrayList<T>()\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then all elements of the given [elements] sequence.\n */\npublic operator fun <T> Collection<T>.plus(elements: Sequence<T>): List<T> {\n   val result = ArrayList<T>(this.size + 10)\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then the given [element].\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.plusElement(element: T): List<T> {\n   return plus(element)\n}\n\n/**\n * Returns a list containing all elements of the original
collection and then the given [element].\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>.plusElement(element: T): List<T> {\n   return plus(element)\n}\n\n/**\n * Returns a list of snapshots of the window of the given [size]\n * sliding along this collection with the given [step], where each\n * snapshot is a list.\n * \n * Several last lists may have fewer elements than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in this collection.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.takeWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun <T> Iterable<T>.windowed(size:
Int, step: Int = 1, partialWindows: Boolean = false): List<List<T>> {\n   checkWindowSizeStep(size, step)\n   if (this is RandomAccess && this is List) {\n   val thisSize = this.size\n   val resultCapacity = thisSize / step + if (thisSize % step == 0) 0 else 1\n   val result = ArrayList<List<T>>(resultCapacity)\n   var index = 0\n   while (index in 0 until thisSize) {\n   val windowSize = size.coerceAtMost(thisSize - index)\n   if (windowSize < size && !partialWindows) break\n   result.add(List(windowSize) { this[it + index] })\n   index += step\n   }\n   return result\n   }\n   val result = ArrayList<List<T>>()\n   windowedIterator(iterator(), size, step, partialWindows, reuseBuffer = false).forEach {\n   result.add(it)\n   }\n   return result\n}\n\n/**\n * Returns a list of results of applying the given [transform] function to\n * an each list representing a view over the window of the given [size]\n
 * sliding along this collection with the given [step].\n * \n * Note that the list passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * Several last lists may have fewer elements than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in this collection.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.averageWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun <T, R> Iterable<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false, transform: (List<T>)
 -> R): List<R> {\n   checkWindowSizeStep(size, step)\n   if (this is RandomAccess && this is List) {\n   val thisSize = this.size\n   val resultCapacity = thisSize / step + if (thisSize % step == 0) 0 else 1\n   val result =

ArrayList<R>(resultCapacity)\n   val window = MovingSubList(this)\n   var index = 0\n   while (index in 0 until thisSize) {\n   val windowSize = size.coerceAtMost(thisSize - index)\n   if (!partialWindows && windowSize < size) break\n   window.move(index, index + windowSize)\n   result.add(transform(window))\n   index += step\n   }\n   return result\n   }\n   val result = ArrayList<R>()\n   windowedIterator(iterator(), size, step, partialWindows, reuseBuffer = true).forEach {\n   result.add(transform(it))\n   }\n   return result\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and the [other] array with the same index.\n * The returned
 list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <T, R> Iterable<T>.zip(other: Array<out R>): List<Pair<T, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` collection and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <T, R, V> Iterable<T>.zip(other: Array<out R>, transform: (a: T, b: R) -> V): List<V> {\n   val arraySize = other.size\n   val list = ArrayList<V>(minOf(collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in this) {\n   if (i >= arraySize) break\n   list.add(transform(element, other[i++]))\n   }\n   return list\n}\n\n/**\n * Returns a list
 of pairs built from the elements of `this` collection and [other] collection with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <T, R> Iterable<T>.zip(other: Iterable<R>): List<Pair<T, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` collection and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <T, R, V> Iterable<T>.zip(other: Iterable<R>, transform: (a: T, b: R) -> V): List<V> {\n   val first = iterator()\n   val second = other.iterator()\n   val list = ArrayList<V>(minOf(collectionSizeOrDefault(10), other.collectionSizeOrDefault(10)))\n   while
 (first.hasNext() && second.hasNext()) {\n   list.add(transform(first.next(), second.next()))\n   }\n   return list\n}\n\n/**\n * Returns a list of pairs of each two adjacent elements in this collection.\n * \n * The returned list is empty if this collection contains less than two elements.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNext\n */\n@SinceKotlin(\"1.2\")\npublic fun <T> Iterable<T>.zipWithNext(): List<Pair<T, T>> {\n   return zipWithNext { a, b -> a to b }\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to an each pair of two adjacent elements in this collection.\n * \n * The returned list is empty if this collection contains less than two elements.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNextToFindDeltas\n */\n@SinceKotlin(\"1.2\")\npublic inline fun <T, R> Iterable<T>.zipWithNext(transform: (a: T, b: T) -> R): List<R> {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return emptyList()\n   val result = mutableListOf<R>()\n   var current = iterator.next()\n   while (iterator.hasNext()) {\n   val next = iterator.next()\n   result.add(transform(current, next))\n   current = next\n   }\n   return result\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <T, A : Appendable> Iterable<T>.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n
    var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   buffer.appendElement(element, transform)\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Creates a string from all

the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun <T> Iterable<T>.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Returns this collection as an [Iterable].\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.asIterable(): Iterable<T> {\n   return this\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original collection returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromCollection\n */\npublic fun <T> Iterable<T>.asSequence(): Sequence<T> {\n   return Sequence { this.iterator() }\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName(\"averageOfByte\")\npublic fun Iterable<Byte>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName(\"averageOfShort\")\npublic fun Iterable<Short>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName(\"averageOfInt\")\npublic fun Iterable<Int>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName(\"averageOfLong\")\npublic fun Iterable<Long>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName(\"averageOfFloat\")\npublic fun Iterable<Float>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName(\"averageOfDouble\")\npublic fun Iterable<Double>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfByte\")\npublic fun Iterable<Byte>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfShort\")\npublic fun Iterable<Short>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfInt\")\npublic fun Iterable<Int>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfLong\")\npublic fun Iterable<Long>.sum(): Long {\n   var sum: Long = 0L\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfFloat\")\npublic fun Iterable<Float>.sum(): Float {\n   var sum: Float = 0.0f\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfDouble\")\npublic fun Iterable<Double>.sum(): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n","/*\n * Copyright 2010-2018

JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\nimport kotlin.comparisons.naturalOrder\nimport kotlin.random.Random\nimport kotlin.js.arrayBufferIsView\n\n/**\n * Returns the array if it's not `null`, or an empty array otherwise.\n * @sample samples.collections.Arrays.Usage.arrayOrEmpty\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun <T> Array<out T>?.orEmpty(): Array<out T> = this ?: emptyArray<T>()\n\n/**\n * Returns a *typed* array containing all of the elements of this collection.\n *\n

 * Allocates an array of runtime type `T` having its size equal to the size of this collection\n * and populates the array with the elements of this collection.\n * @sample samples.collections.Collections.Collections.collectionToTypedArray\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun <T> Collection<T>.toTypedArray(): Array<T> = copyToArray(this)\n\n@JsName(\"copyToArray\")\n@PublishedApi\ninternal fun <T> copyToArray(collection: Collection<T>): Array<T> {\n   return if (collection.asDynamic().toArray !== undefined)\n   collection.asDynamic().toArray().unsafeCast<Array<T>>()\n   else\n   copyToArrayImpl(collection).unsafeCast<Array<T>>()\n}\n\n@JsName(\"copyToArrayImpl\")\ninternal actual fun copyToArrayImpl(collection: Collection<*>): Array<Any?> {\n   val array = emptyArray<Any?>()\n   val iterator = collection.iterator()\n   while (iterator.hasNext())\n   array.asDynamic().push(iterator.next())\n   return array\n}\n\n@JsName(\"copyToExistingArrayImpl\")\ninternal

 actual fun <T> copyToArrayImpl(collection: Collection<*>, array: Array<T>): Array<T> {\n   if (array.size < collection.size)\n   return copyToArrayImpl(collection).unsafeCast<Array<T>>()\n\n   val iterator = collection.iterator()\n   var index = 0\n   while (iterator.hasNext()) {\n   array[index++] = iterator.next().unsafeCast<T>()\n   }\n   if (index < array.size) {\n   array[index] = null.unsafeCast<T>()\n   }\n

 return array\n}\n\n\n/**\n * Returns an immutable list containing only the specified object [element].\n */\npublic fun <T> listOf(element: T): List<T> = arrayListOf(element)\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <E> buildListInternal(builderAction: MutableList<E>.() -> Unit): List<E> {\n   return ArrayList<E>().apply(builderAction).build()\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <E> buildListInternal(capacity: Int,

 builderAction: MutableList<E>.() -> Unit): List<E> {\n   checkBuilderCapacity(capacity)\n   return ArrayList<E>(capacity).apply(builderAction).build()\n}\n\n\n/**\n * Returns an immutable set containing only the specified object [element].\n */\npublic fun <T> setOf(element: T): Set<T> = hashSetOf(element)\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <E> buildSetInternal(builderAction: MutableSet<E>.() -> Unit): Set<E> {\n   return LinkedHashSet<E>().apply(builderAction).build()\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <E> buildSetInternal(capacity: Int, builderAction: MutableSet<E>.() -> Unit): Set<E> {\n   return LinkedHashSet<E>(capacity).apply(builderAction).build()\n}\n\n\n/**\n * Returns an immutable map, mapping only the specified key to the\n * specified value.\n */\npublic fun <K, V> mapOf(pair: Pair<K, V>): Map<K, V> = hashMapOf(pair)\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal

 actual inline fun <K, V> buildMapInternal(builderAction: MutableMap<K, V>.() -> Unit): Map<K, V> {\n   return LinkedHashMap<K, V>().apply(builderAction).build()\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <K, V> buildMapInternal(capacity: Int, builderAction: MutableMap<K, V>.() -> Unit): Map<K, V> {\n   return LinkedHashMap<K, V>(capacity).apply(builderAction).build()\n}\n\n\n/**\n * Fills the list with the provided [value].\n *\n * Each element in the list gets replaced with the [value].\n */\n@SinceKotlin(\"1.2\")\npublic actual fun <T> MutableList<T>.fill(value: T): Unit {\n   for (index in 0..lastIndex) {\n   this[index] = value\n   }\n}\n\n/**\n * Randomly shuffles elements in this list.\n *\n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n

*/\n@SinceKotlin(\"1.2\")\npublic actual fun <T> MutableList<T>.shuffle(): Unit = shuffle(Random)\n\n/**\n * Returns a new list with the elements of this list randomly shuffled.\n */\n@SinceKotlin(\"1.2\")\npublic actual fun <T> Iterable<T>.shuffled(): List<T> = toMutableList().apply { shuffle() }\n\n/**\n * Sorts elements in the list in-place according to their natural sort order.\n *\n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * @sample samples.collections.Collections.Sorting.sortMutableList\n */\npublic actual fun <T : Comparable<T>> MutableList<T>.sort(): Unit {\n   collectionsSort(this, naturalOrder())\n}\n\n/**\n * Sorts elements in the list in-place according to the order specified with [comparator].\n *\n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * @sample samples.collections.Collections.Sorting.sortMutableListWith\n */\npublic actual fun <T> MutableList<T>.sortWith(comparator: Comparator<in T>): Unit {\n   collectionsSort(this, comparator)\n}\n\nprivate fun <T> collectionsSort(list: MutableList<T>, comparator: Comparator<in T>) {\n   if (list.size <= 1) return\n\n   val array = copyToArray(list)\n   sortArrayWith(array, comparator)\n\n   for (i in 0 until array.size) {\n   list[i] = array[i]\n   }\n}\n\ninternal actual fun <T> arrayOfNulls(reference: Array<T>, size: Int): Array<T> {\n   return arrayOfNulls<Any>(size).unsafeCast<Array<T>>()\n}\n\n@SinceKotlin(\"1.3\")\n@PublishedApi\n@JsName(\"arrayCopy\")\ninternal fun <T> arrayCopy(source: Array<out T>, destination: Array<in T>, destinationOffset: Int, startIndex: Int, endIndex: Int) {\n   AbstractList.checkRangeIndexes(startIndex, endIndex, source.size)\n   val rangeSize = endIndex - startIndex\n   AbstractList.checkRangeIndexes(destinationOffset, destinationOffset + rangeSize, destination.size)\n\n   if (arrayBufferIsView(destination) && arrayBufferIsView(source)) {\n   val subrange = source.asDynamic().subarray(startIndex, endIndex)\n   destination.asDynamic().set(subrange, destinationOffset)\n   } else {\n   if (source !== destination || destinationOffset <= startIndex) {\n   for (index in 0 until rangeSize) {\n   destination[destinationOffset + index] = source[startIndex + index]\n   }\n   } else {\n   for (index in rangeSize - 1 downTo 0) {\n   destination[destinationOffset + index] = source[startIndex + index]\n   }\n   }\n   }\n}\n\n// no singleton map implementation in js, return map as is\n@Suppress(\"NOTHING_TO_INLINE\")\ninternal actual inline fun <K, V> Map<K, V>.toSingletonMapOrSelf(): Map<K, V> = this\n\n@Suppress(\"NOTHING_TO_INLINE\")\ninternal actual inline fun <K, V> Map<out K, V>.toSingletonMap(): Map<K, V> = this.toMutableMap()\n\n\n@Suppress(\"NOTHING_TO_INLINE\")\ninternal actual inline fun <T> Array<out T>.copyToArrayOfAny(isVarargs: Boolean): Array<out Any?> =\n   if (isVarargs)\n   // no need to copy vararg array in JS\n   this\n   else\n   this.copyOf()\n\n\n\n@PublishedApi\ninternal actual fun checkIndexOverflow(index: Int): Int {\n   if (index < 0) {\n   throwIndexOverflow()\n   }\n   return index\n}\n\n@PublishedApi\ninternal actual fun checkCountOverflow(count: Int): Int {\n   if (count < 0) {\n   throwCountOverflow()\n   }\n   return count\n}\n\n\n/**\n * JS map and set implementations do not make use of capacities or load factors.\n */\n@PublishedApi\ninternal actual fun mapCapacity(expectedSize: Int) = expectedSize\n\n/**\n * Checks a collection builder function capacity argument.\n * In JS no validation is made in Map/Set constructor yet.\n */\n@SinceKotlin(\"1.3\")\n@PublishedApi\ninternal fun checkBuilderCapacity(capacity: Int) {\n   require(capacity >= 0) { \"capacity must be non-negative.\" }\n}\n\ninternal actual fun brittleContainsOptimizationEnabled(): Boolean = false","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CollectionsKt\")\n\npackage kotlin.collections\n\n\n/**\n * Returns the given iterator itself. This allows to use an instance of iterator in a `for` loop.\n * @sample samples.collections.Iterators.iterator\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Iterator<T>.iterator(): Iterator<T> = this\n\n/**\n * Returns an [Iterator] that wraps each element produced by the original iterator\n * into an [IndexedValue] containing the index of that element and the element itself.\n *\n * @sample samples.collections.Iterators.withIndexIterator\n */\npublic fun <T> Iterator<T>.withIndex():

Iterator<IndexedValue<T>> = IndexingIterator(this)\n\n/**\n * Performs the given [operation] on each element of this [Iterator].\n * @sample samples.collections.Iterators.forEachIterator\n
 */\npublic inline fun <T> Iterator<T>.forEach(operation: (T) -> Unit): Unit {\n   for (element in this) operation(element)\n}\n\n/**\n * Iterator transforming original `iterator` into iterator of [IndexedValue], counting index from zero.\n */\ninternal class IndexingIterator<out T>(private val iterator: Iterator<T>) : Iterator<IndexedValue<T>> {\n   private var index = 0\n   final override fun hasNext(): Boolean = iterator.hasNext()\n   final override fun next(): IndexedValue<T> = IndexedValue(checkIndexOverflow(index++), iterator.next())\n}\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"ComparisonsKt\")\n\npackage kotlin.comparisons\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport
 kotlin.random.*\n\n/**\n * Returns the greater of two values.\n * \n * If values are equal, returns the first one.\n */\n@SinceKotlin(\"1.1\")\npublic expect fun <T : Comparable<T>> maxOf(a: T, b: T): T\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Byte, b: Byte): Byte\n\n/**\n * Returns the greater of two values.\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Short, b: Short): Short\n\n/**\n * Returns the greater of two values.\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Int, b: Int): Int\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Long, b: Long): Long\n\n/**\n * Returns the greater of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic
 expect inline fun maxOf(a: Float, b: Float): Float\n\n/**\n * Returns the greater of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Double, b: Double): Double\n\n/**\n * Returns the greater of three values.\n * \n * If there are multiple equal maximal values, returns the first of them.\n */\n@SinceKotlin(\"1.1\")\npublic expect fun <T : Comparable<T>> maxOf(a: T, b: T, c: T): T\n\n/**\n * Returns the greater of three values.\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Byte, b: Byte, c: Byte): Byte\n\n/**\n * Returns the greater of three values.\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Short, b: Short, c: Short): Short\n\n/**\n * Returns the greater of three values.\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic
 expect inline fun maxOf(a: Int, b: Int, c: Int): Int\n\n/**\n * Returns the greater of three values.\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Long, b: Long, c: Long): Long\n\n/**\n * Returns the greater of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Float, b: Float, c: Float): Float\n\n/**\n * Returns the greater of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Double, b: Double, c: Double): Double\n\n/**\n * Returns the greater of three values according to the order specified by the given [comparator].\n * \n * If there are multiple equal maximal values, returns the first of them.\n
*/\n@SinceKotlin(\"1.1\")\npublic fun <T> maxOf(a: T, b: T, c: T, comparator: Comparator<in T>): T {\n   return maxOf(a, maxOf(b, c, comparator),
 comparator)\n}\n\n/**\n * Returns the greater of two values according to the order specified by the given [comparator].\n * \n * If values are equal, returns the first one.\n */\n@SinceKotlin(\"1.1\")\npublic fun <T> maxOf(a: T, b: T, comparator: Comparator<in T>): T {\n   return if (comparator.compare(a, b) >= 0) a else b\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If there are multiple equal maximal values, returns the first of them.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T : Comparable<T>> maxOf(a: T, vararg other:

T): T\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun maxOf(a: Byte, vararg other: Byte): Byte\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun maxOf(a: Short, vararg other: Short): Short\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun maxOf(a: Int, vararg other: Int): Int\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun maxOf(a: Long, vararg other: Long): Long\n\n/**\n * Returns the greater of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun maxOf(a: Float, vararg other: Float): Float\n\n/**\n * Returns the greater of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun maxOf(a: Double, vararg other: Double): Double\n\n/**\n * Returns the greater of the given values according to the order specified by the given [comparator].\n * \n * If there are multiple equal maximal values, returns the first of them.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> maxOf(a: T, vararg other: T, comparator: Comparator<in T>): T {\n   var max = a\n   for (e in other) if (comparator.compare(max, e) < 0) max = e\n   return max\n}\n\n/**\n * Returns the smaller of two values.\n * \n * If values are equal, returns the first one.\n */\n@SinceKotlin(\"1.1\")\npublic expect fun <T : Comparable<T>> minOf(a: T, b: T): T\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Byte, b: Byte): Byte\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Short, b: Short): Short\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Int, b: Int): Int\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Long, b: Long): Long\n\n/**\n * Returns the smaller of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Float, b: Float): Float\n\n/**\n * Returns the smaller of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Double, b: Double): Double\n\n/**\n * Returns the smaller of three values.\n * \n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin(\"1.1\")\npublic expect fun <T : Comparable<T>> minOf(a: T, b: T, c: T): T\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Byte, b: Byte, c: Byte): Byte\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Short, b: Short, c: Short): Short\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Int, b: Int, c: Int): Int\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Long, b: Long, c: Long): Long\n\n/**\n * Returns the smaller of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Float, b: Float, c: Float): Float\n\n/**\n * Returns the smaller of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Double, b: Double, c: Double): Double\n\n/**\n * Returns the smaller of three values according to the order specified by the given [comparator].\n * \n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin(\"1.1\")\npublic fun <T> minOf(a: T, b: T, c: T, comparator: Comparator<in T>): T {\n   return minOf(a, minOf(b, c, comparator), comparator)\n}\n\n/**\n * Returns the smaller of two values according to the order specified by the given [comparator].\n * \n * If values are equal, returns the first one.\n */\n@SinceKotlin(\"1.1\")\npublic fun <T> minOf(a: T, b: T, comparator: Comparator<in T>): T {\n   return if (comparator.compare(a, b) <= 0) a else b\n}\n\n/**\n * Returns the smaller of the given values.\n * \n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T : Comparable<T>> minOf(a: T, vararg other: T): T\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun minOf(a: Byte, vararg other: Byte): Byte\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun minOf(a: Short, vararg other: Short): Short\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun minOf(a: Int, vararg other: Int): Int\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun minOf(a: Long, vararg other: Long): Long\n\n/**\n * Returns the smaller of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun minOf(a: Float, vararg other: Float): Float\n\n/**\n * Returns the smaller of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun minOf(a: Double, vararg other: Double): Double\n\n/**\n * Returns the smaller of the given values according to the order specified by the given [comparator].\n * \n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> minOf(a: T, vararg other: T, comparator: Comparator<in T>): T {\n var min = a\n for (e in other) if (comparator.compare(min, e) > 0) min = e\n return min\n}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"MapsKt\")\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to entries of this map in iteration order,\n * or throws [NoSuchElementException] if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Any> Map<out K, V>.firstNotNullOf(transform: (Map.Entry<K, V>) -> R?): R {\n return firstNotNullOfOrNull(transform) ?: throw NoSuchElementException(\"No element of the map was transformed to a non-null value.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to entries of this map in iteration order,\n * or `null` if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Any> Map<out K, V>.firstNotNullOfOrNull(transform: (Map.Entry<K, V>) -> R?): R? {\n for (element in this) {\n val result = transform(element)\n if (result != null) {\n return result\n }\n }\n return null\n}\n\n/**\n * Returns a [List] containing all key-value pairs.\n */\npublic fun <K, V> Map<out K, V>.toList(): List<Pair<K, V>> {\n if (size == 0)\n return emptyList()\n val iterator = entries.iterator()\n if (!iterator.hasNext())\n return emptyList()\n val first = iterator.next()\n if (!iterator.hasNext())\n return listOf(first.toPair())\n val result = ArrayList<Pair<K, V>>(size)\n result.add(first.toPair())\n do {\n result.add(iterator.next().toPair())\n } while (iterator.hasNext())\n return result\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each entry of original map.\n * \n * @sample samples.collections.Maps.Transformations.flatMap\n */\npublic inline fun <K, V, R> Map<out K, V>.flatMap(transform: (Map.Entry<K, V>) -> Iterable<R>): List<R> {\n return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each entry of original map.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapSequence\")\npublic inline fun <K, V, R> Map<out K, V>.flatMap(transform: (Map.Entry<K, V>) -> Sequence<R>): List<R> {\n return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each entry of original map, to the given [destination].\n */\npublic inline fun <K, V, R, C : MutableCollection<in R>> Map<out K, V>.flatMapTo(destination: C, transform: (Map.Entry<K, V>) -> Iterable<R>): C {\n for (element in this) {\n val list = transform(element)\n destination.addAll(list)\n }\n return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each entry of original map, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapSequenceTo\")\npublic inline fun <K, V, R, C : MutableCollection<in R>> Map<out K, V>.flatMapTo(destination: C, transform: (Map.Entry<K, V>) -> Sequence<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n

  return destination\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each entry in the original map.\n * \n * @sample samples.collections.Maps.Transformations.mapToList\n */\npublic inline fun <K, V, R> Map<out K, V>.map(transform: (Map.Entry<K, V>) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each entry in the original map.\n * \n * @sample samples.collections.Maps.Transformations.mapNotNull\n */\npublic inline fun <K, V, R : Any> Map<out K, V>.mapNotNull(transform: (Map.Entry<K, V>) -> R?): List<R> {\n   return mapNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each entry in the original map\n * and appends only the non-null results to the given [destination].\n */\npublic inline fun <K, V, R : Any, C : MutableCollection<in R>> Map<out K, V>.mapNotNullTo(destination:

 C, transform: (Map.Entry<K, V>) -> R?): C {\n   forEach { element -> transform(element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each entry of the original map\n * and appends the results to the given [destination].\n */\npublic inline fun <K, V, R, C : MutableCollection<in R>> Map<out K, V>.mapTo(destination: C, transform: (Map.Entry<K, V>) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Returns `true` if all entries match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun <K, V> Map<out K, V>.all(predicate: (Map.Entry<K, V>) -> Boolean): Boolean {\n   if (isEmpty()) return true\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if map has at least one entry.\n * \n * @sample samples.collections.Collections.Aggregates.any\n

 */\npublic fun <K, V> Map<out K, V>.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if at least one entry matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun <K, V> Map<out K, V>.any(predicate: (Map.Entry<K, V>) -> Boolean): Boolean {\n   if (isEmpty()) return false\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns the number of entries in this map.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of entries matching the given [predicate].\n */\npublic inline fun <K, V> Map<out K, V>.count(predicate: (Map.Entry<K, V>) -> Boolean): Int {\n   if (isEmpty()) return 0\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Performs the given [action] on each entry.\n */\n@kotlin.internal.HidesMembers\npublic

 inline fun <K, V> Map<out K, V>.forEach(action: (Map.Entry<K, V>) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Returns the first entry yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the map is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxByOrThrow\")\n@kotlin.internal.InlineOnly\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.maxBy(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V> {\n   return entries.maxBy(selector)\n}\n\n/**\n * Returns the first entry yielding the largest value of the given function or `null` if there are no entries.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.maxByOrNull(selector: (Map.Entry<K, V>)

-> R): Map.Entry<K, V>? {\n   return entries.maxByOrNull(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxOf(selector: (Map.Entry<K, V>) -> Double): Double {\n   return entries.maxOf(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <K, V> Map<out K, V>.maxOf(selector: (Map.Entry<K, V>) -> Float): Float {\n   return entries.maxOf(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.maxOf(selector: (Map.Entry<K, V>) -> R): R {\n   return entries.maxOf(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <K, V> Map<out K, V>.maxOfOrNull(selector: (Map.Entry<K, V>) -> Double): Double? {\n   return entries.maxOfOrNull(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxOfOrNull(selector: (Map.Entry<K, V>) -> Float): Float? {\n   return entries.maxOfOrNull(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <K, V, R : Comparable<R>> Map<out K, V>.maxOfOrNull(selector: (Map.Entry<K, V>) -> R): R? {\n   return entries.maxOfOrNull(selector)\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each entry in the map.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R> Map<out K, V>.maxOfWith(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) -> R): R {\n   return entries.maxOfWith(comparator, selector)\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each
entry in the map or `null` if there are no entries.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R> Map<out K, V>.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) -> R): R? {\n   return entries.maxOfWithOrNull(comparator, selector)\n}\n\n/**\n * Returns the first entry having the largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the map is empty.\n

*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxWithOrThrow\")\n@kotlin.internal.InlineOnly\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <K, V> Map<out K, V>.maxWith(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V> {\n   return entries.maxWith(comparator)\n}\n\n/**\n * Returns the first entry having the largest value according to the provided [comparator] or `null` if there are no entries.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic
 inline fun <K, V> Map<out K, V>.maxWithOrNull(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V>? {\n   return entries.maxWithOrNull(comparator)\n}\n\n/**\n * Returns the first entry yielding the smallest value of the given function.\n * \n * @throws NoSuchElementException if the map is empty.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow\")\n@kotlin.internal.InlineOnly\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.minBy(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V> {\n   return entries.minBy(selector)\n}\n\n/**\n * Returns the first entry yielding the smallest value of the given function or `null` if there are no entries.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>>
 Map<out K, V>.minByOrNull(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V>? {\n   return entries.minByOrNull(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.minOf(selector: (Map.Entry<K, V>) -> Double): Double {\n   return entries.minOf(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
 inline fun <K, V> Map<out K, V>.minOf(selector: (Map.Entry<K, V>) -> Float): Float {\n   return entries.minOf(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.minOf(selector: (Map.Entry<K, V>) -> R): R {\n   return entries.minOf(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n * \n * If any of values produced by [selector] function is `NaN`,
 the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.minOfOrNull(selector: (Map.Entry<K, V>) -> Double): Double? {\n   return entries.minOfOrNull(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.minOfOrNull(selector: (Map.Entry<K, V>) -> Float): Float? {\n   return entries.minOfOrNull(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each

entry in the map or `null` if there are no entries.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.minOfOrNull(selector: (Map.Entry<K, V>) -> R): R? {\n   return entries.minOfOrNull(selector)\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each entry in the map.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R> Map<out K, V>.minOfWith(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) -> R): R {\n   return entries.minOfWith(comparator, selector)\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n
 * among all values produced by [selector] function applied to each entry in the map or `null` if there are no entries.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R> Map<out K, V>.minOfWithOrNull(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) -> R): R? {\n   return entries.minOfWithOrNull(comparator, selector)\n}\n\n/**\n * Returns the first entry having the smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minWithOrThrow\")\n@kotlin.internal.InlineOnly\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <K, V> Map<out K, V>.minWith(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V> {\n   return entries.minWith(comparator)\n}\n\n/**\n * Returns the first entry having the smallest value according to
 the provided [comparator] or `null` if there are no entries.\n
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.minWithOrNull(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V>? {\n   return entries.minWithOrNull(comparator)\n}\n\n/**\n * Returns `true` if the map has no entries.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun <K, V> Map<out K, V>.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if no entries match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun <K, V> Map<out K, V>.none(predicate: (Map.Entry<K, V>) -> Boolean): Boolean {\n   if (isEmpty()) return true\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Performs the given [action] on each entry and returns the map itself afterwards.\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <K, V, M : Map<out
 K, V>> M.onEach(action: (Map.Entry<K, V>) -> Unit): M {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each entry, providing sequential index with the entry,\n * and returns the map itself afterwards.\n * @param [action] function that takes the index of an entry and the entry itself\n * and performs the action on the entry.\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <K, V, M : Map<out K, V>> M.onEachIndexed(action: (index: Int, Map.Entry<K, V>) -> Unit): M {\n   return apply { entries.forEachIndexed(action) }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original map returning its entries when being iterated.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.asIterable(): Iterable<Map.Entry<K, V>> {\n   return entries\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original map returning its entries when being iterated.\n */\npublic fun <K, V> Map<out K, V>.asSequence():
 Sequence<Map.Entry<K, V>> {\n   return entries.asSequence()\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\n// 10 mappings totally\ninternal fun Char.titlecaseImpl(): String {\n   val uppercase = uppercase()\n   if (uppercase.length > 1) {\n   return if (this ==

'\\u0149') uppercase else uppercase[0] + uppercase.substring(1).lowercase()\n   }\n   return
titlecaseChar().toString()\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/**\n *
 Converts this character to lower case using Unicode mapping rules of the invariant locale.\n
*/\n@Deprecated(\"Use lowercaseChar() instead.\",
ReplaceWith(\"lowercaseChar()\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.5\")\n@kotlin.internal.InlineOnly\npublic actual inline fun Char.toLowerCase(): Char =
lowercaseChar()\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant
locale.\n *\n * This function performs one-to-one character mapping.\n * To support one-to-many character
mapping use the [lowercase] function.\n * If this character has no mapping equivalent, the character itself is
returned.\n *\n * @sample samples.text.Chars.lowercase\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun Char.lowercaseChar(): Char = lowercase()[0]\n\n/**\n * Converts this character to lower case
using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many
 character mapping, thus the length of the returned string can be greater than one.\n * For example,
`'\\u0130'.lowercase()` returns `\"\\u0069\\u0307\"`,\n * where `'\\u0130'` is the LATIN CAPITAL LETTER I WITH
DOT ABOVE character (`\u0130`).\n * If this character has no lower case mapping, the result of `toString()` of this
char is returned.\n *\n * @sample samples.text.Chars.lowercase\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun Char.lowercase(): String = toString().asDynamic().toLowerCase().unsafeCast<String>()\n\n/**\n
* Converts this character to upper case using Unicode mapping rules of the invariant locale.\n
*/\n@Deprecated(\"Use uppercaseChar() instead.\",
ReplaceWith(\"uppercaseChar()\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.5\")\n@kotlin.internal.InlineOnly\npublic actual inline fun Char.toUpperCase(): Char =
uppercaseChar()\n\n/**\n * Converts this character to upper case using
 Unicode mapping rules of the invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To
support one-to-many character mapping use the [uppercase] function.\n * If this character has no mapping
equivalent, the character itself is returned.\n *\n * @sample samples.text.Chars.uppercase\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun
Char.uppercaseChar(): Char {\n   val uppercase = uppercase()\n   return if (uppercase.length > 1) this else
uppercase[0]\n}\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the invariant
locale.\n *\n * This function supports one-to-many character mapping, thus the length of the returned string can be
greater than one.\n * For example, `'\\uFB00'.uppercase()` returns `\"\\u0046\\u0046\"`,\n * where `'\\uFB00'` is the
LATIN SMALL LIGATURE FF character (`\ufb00`).\n * If this character has no upper case mapping, the result of
`toString()` of this char
 is returned.\n *\n * @sample samples.text.Chars.uppercase\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun Char.uppercase(): String = toString().asDynamic().toUpperCase().unsafeCast<String>()\n\n/**\n
* Converts this character to title case using Unicode mapping rules of the invariant locale.\n *\n * This function
performs one-to-one character mapping.\n * To support one-to-many character mapping use the [titlecase]
function.\n * If this character has no mapping equivalent, the result of calling [uppercaseChar] is returned.\n *\n *
@sample samples.text.Chars.titlecase\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.titlecaseChar(): Char =
titlecaseCharImpl()\n\n/**\n * Returns `true` if this character is a Unicode high-surrogate code unit (also known as
leading-surrogate code unit).\n */\npublic actual fun Char.isHighSurrogate(): Boolean = this in
Char.MIN_HIGH_SURROGATE..Char.MAX_HIGH_SURROGATE\n\n/**\n
 * Returns `true` if this character is a Unicode low-surrogate code unit (also known as trailing-surrogate code unit).\n
*/\npublic actual fun Char.isLowSurrogate(): Boolean = this in

Char.MIN_LOW_SURROGATE..Char.MAX_LOW_SURROGATE\n\n/**\n * Returns the Unicode general category of this character.\n */\n@SinceKotlin(\"1.5\")\npublic actual val Char.category: CharCategory\n   get() = CharCategory.valueOf(getCategoryValue())\n\n/**\n * Returns `true` if this character (Unicode code point) is defined in Unicode.\n *\n * A character is considered to be defined in Unicode if its [category] is not [CharCategory.UNASSIGNED].\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isDefined(): Boolean {\n   if (this < '\\u0080') {\n   return true\n   }\n   return getCategoryValue() != CharCategory.UNASSIGNED.value\n}\n\n/**\n * Returns `true` if this character is a letter.\n *\n * A character is considered to be a letter if its [category] is [CharCategory.UPPERCASE_LETTER],\n * [CharCategory.LOWERCASE_LETTER], [CharCategory.TITLECASE_LETTER], [CharCategory.MODIFIER_LETTER], or [CharCategory.OTHER_LETTER].\n *\n * @sample samples.text.Chars.isLetter\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isLetter(): Boolean {\n   if (this in 'a'..'z' || this in 'A'..'Z') {\n   return true\n   }\n   if (this < '\\u0080') {\n   return false\n   }\n   return isLetterImpl()\n}\n\n/**\n * Returns `true` if this character is a letter or digit.\n *\n * @see isLetter\n * @see isDigit\n *\n * @sample samples.text.Chars.isLetterOrDigit\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isLetterOrDigit(): Boolean {\n   if (this in 'a'..'z' || this in 'A'..'Z' || this in '0'..'9') {\n   return true\n   }\n   if (this < '\\u0080') {\n   return false\n   }\n\n   return isDigitImpl() || isLetterImpl()\n}\n\n/**\n * Returns `true` if this character is a digit.\n *\n * A character is considered to be a digit if its [category] is [CharCategory.DECIMAL_DIGIT_NUMBER].\n *\n * @sample samples.text.Chars.isDigit\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isDigit(): Boolean {\n   if (this in '0'..'9') {\n   return true\n   }\n   if (this < '\\u0080') {\n   return false\n   }\n   return isDigitImpl()\n}\n\n/**\n * Returns `true` if this character is upper case.\n *\n * A character is considered to be an upper case character if its [category] is [CharCategory.UPPERCASE_LETTER],\n * or it has contributory property `Other_Uppercase` as defined by the Unicode Standard.\n *\n * @sample samples.text.Chars.isUpperCase\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isUpperCase(): Boolean {\n   if (this in 'A'..'Z') {\n   return true\n   }\n   if (this < '\\u0080') {\n   return false\n   }\n   return isUpperCaseImpl()\n}\n\n/**\n * Returns `true` if this character is lower case.\n *\n * A character is considered to be a lower case character if its [category] is [CharCategory.LOWERCASE_LETTER],\n * or it has contributory property `Other_Lowercase` as defined by the Unicode Standard.\n *\n * @sample samples.text.Chars.isLowerCase\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isLowerCase(): Boolean {\n   if (this in 'a'..'z') {\n   return true\n   }\n   if (this < '\\u0080') {\n   return false\n   }\n   return isLowerCaseImpl()\n}\n\n/**\n * Returns `true` if this character is a title case letter.\n *\n * A character is considered to be a title case letter if its [category] is [CharCategory.TITLECASE_LETTER].\n *\n * @sample samples.text.Chars.isTitleCase\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isTitleCase(): Boolean {\n   if (this < '\\u0080') {\n   return false\n   }\n   return getCategoryValue() == CharCategory.TITLECASE_LETTER.value\n}\n\n/**\n * Returns `true` if this character is an ISO control character.\n *\n * A character is considered to be an ISO control character if its [category] is [CharCategory.CONTROL],\n * meaning the Char is in the range `'\\u0000'..'\\u001F'` or in the range `'\\u007F'..'\\u009F'`.\n *\n * @sample samples.text.Chars.isISOControl\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isISOControl(): Boolean {\n   return this <= '\\u001F' || this in '\\u007F'..'\\u009F'\n}\n\n/**\n * Determines whether a character is whitespace according to the Unicode standard.\n * Returns `true` if the character is whitespace.\n *\n * @sample samples.text.Chars.isWhitespace\n */\npublic actual fun Char.isWhitespace(): Boolean = isWhitespaceImpl()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\nimport kotlin.js.RegExp\n\n/**\n * Converts the characters in the specified array to a string.\n */\n@SinceKotlin(\"1.2\")\n@Deprecated(\"Use CharArray.concatToString() instead\", ReplaceWith(\"chars.concatToString()\"))\n@DeprecatedSinceKotlin(warningSince

= \"1.4\", errorSince = \"1.5\")\npublic actual fun String(chars: CharArray): String {\n   var result = \"\"\n   for (char in chars) {\n   result += char\n   }\n   return result\n}\n\n/**\n * Converts the characters from a portion of the specified array to a string.\n *\n * @throws IndexOutOfBoundsException if either [offset] or [length] are less than zero\n * or `offset + length` is out of [chars] array bounds.\n */\n@SinceKotlin(\"1.2\")\n@Deprecated(\"Use CharArray.concatToString(startIndex, endIndex) instead\", ReplaceWith(\"chars.concatToString(offset, offset + length)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\")\npublic actual fun String(chars: CharArray, offset: Int, length: Int): String {\n   if (offset < 0 || length < 0 || chars.size - offset < length)\n   throw IndexOutOfBoundsException(\"size: ${chars.size}; offset: $offset; length: $length\")\n   var result = \"\"\n   for (index in offset until offset + length) {\n   result += chars[index]\n   }\n   return result\n}\n\n/**\n * Concatenates characters in this [CharArray] into a String.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun CharArray.concatToString(): String {\n   var result = \"\"\n   for (char in this) {\n   result += char\n   }\n   return result\n}\n\n/**\n * Concatenates characters in this [CharArray] or its subrange into a String.\n *\n * @param startIndex the beginning (inclusive) of the subrange of characters, 0 by default.\n * @param endIndex the end (exclusive) of the subrange of characters, size of this array by default.\n *\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [startIndex] is greater than [endIndex].\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun CharArray.concatToString(startIndex: Int = 0, endIndex: Int = this.size): String {\n   AbstractList.checkBoundsIndexes(startIndex, endIndex, this.size)\n   var result = \"\"\n   for (index in startIndex until endIndex) {\n   result += this[index]\n   }\n   return result\n}\n\n/**\n * Returns a [CharArray] containing characters of this string.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun String.toCharArray(): CharArray {\n   return CharArray(length) { get(it) }\n}\n\n/**\n * Returns a [CharArray] containing characters of this string or its substring.\n *\n * @param startIndex the beginning (inclusive) of the substring, 0 by default.\n * @param endIndex the end (exclusive) of the substring, length of this string by default.\n *\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex] is greater than the length of this string.\n * @throws IllegalArgumentException if [startIndex] is greater than [endIndex].\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun String.toCharArray(startIndex: Int = 0, endIndex: Int = this.length): CharArray {\n   AbstractList.checkBoundsIndexes(startIndex, endIndex, length)\n   return CharArray(endIndex - startIndex) { get(startIndex + it) }\n}\n\n/**\n * Decodes a string from the bytes in UTF-8 encoding in this array.\n *\n * Malformed byte sequences are replaced by the replacement char `\\uFFFD`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun ByteArray.decodeToString(): String {\n   return decodeUtf8(this, 0, size, false)\n}\n\n/**\n * Decodes a string from the bytes in UTF-8 encoding in this array or its subrange.\n *\n * @param startIndex the beginning (inclusive) of the subrange to decode, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to decode, size of this array by default.\n * @param throwOnInvalidSequence specifies whether to throw an exception on malformed byte sequence or replace it by the replacement char `\\uFFFD`.\n *\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [startIndex] is greater than [endIndex].\n * @throws CharacterCodingException if the byte array contains malformed UTF-8 byte sequence and [throwOnInvalidSequence] is true.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun ByteArray.decodeToString(\n   startIndex: Int = 0,\n   endIndex: Int = this.size,\n   throwOnInvalidSequence: Boolean = false\n): String {\n   AbstractList.checkBoundsIndexes(startIndex, endIndex, this.size)\n   return decodeUtf8(this, startIndex, endIndex,

throwOnInvalidSequence)\n}\n\n/**\n * Encodes this string to an array of bytes in
 UTF-8 encoding.\n *\n * Any malformed char sequence is replaced by the replacement byte sequence.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun
String.encodeToByteArray(): ByteArray {\n   return encodeUtf8(this, 0, length, false)\n}\n\n/**\n * Encodes this
string or its substring to an array of bytes in UTF-8 encoding.\n *\n * @param startIndex the beginning (inclusive)
of the substring to encode, 0 by default.\n * @param endIndex the end (exclusive) of the substring to encode, length
of this string by default.\n * @param throwOnInvalidSequence specifies whether to throw an exception on
malformed char sequence or replace.\n *\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero
or [endIndex] is greater than the length of this string.\n * @throws IllegalArgumentException if [startIndex] is
greater than [endIndex].\n * @throws CharacterCodingException if this string contains malformed char sequence
and [throwOnInvalidSequence]
 is true.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun String.encodeToByteArray(\n   startIndex: Int = 0,\n
endIndex: Int = this.length,\n   throwOnInvalidSequence: Boolean = false\n): ByteArray {\n
AbstractList.checkBoundsIndexes(startIndex, endIndex, length)\n   return encodeUtf8(this, startIndex, endIndex,
throwOnInvalidSequence)\n}\n\n/**\n * Returns a copy of this string converted to upper case using the rules of the
default locale.\n */\n@Deprecated(\"Use uppercase() instead.\",
ReplaceWith(\"uppercase()\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.5\")\n@kotlin.internal.InlineOnly\npublic actual inline fun String.toUpperCase(): String =
asDynamic().toUpperCase()\n\n/**\n * Returns a copy of this string converted to upper case using Unicode mapping
rules of the invariant locale.\n *\n * This function supports one-to-many and many-to-one character mapping,\n
 * thus the length of the returned string can be different from the length of the original string.\n *\n * @sample
samples.text.Strings.uppercase\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun String.uppercase(): String = asDynamic().toUpperCase()\n\n/**\n * Returns a copy of this string
converted to lower case using the rules of the default locale.\n */\n@Deprecated(\"Use lowercase() instead.\",
ReplaceWith(\"lowercase()\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.5\")\n@kotlin.internal.InlineOnly\npublic actual inline fun String.toLowerCase(): String =
asDynamic().toLowerCase()\n\n/**\n * Returns a copy of this string converted to lower case using Unicode
mapping rules of the invariant locale.\n *\n * This function supports one-to-many and many-to-one character
mapping,\n * thus the length of the returned string can be different from the length of the original string.\n *\n *
@sample samples.text.Strings.lowercase\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun String.lowercase(): String = asDynamic().toLowerCase()\n\n@kotlin.internal.InlineOnly\ninternal
actual inline fun String.nativeIndexOf(str: String, fromIndex: Int): Int = asDynamic().indexOf(str,
fromIndex)\n\n@kotlin.internal.InlineOnly\ninternal actual inline fun String.nativeLastIndexOf(str: String,
fromIndex: Int): Int = asDynamic().lastIndexOf(str,
fromIndex)\n\n@kotlin.internal.InlineOnly\n@kotlin.js.JsPolyfill(\"\"\"\nif (typeof String.prototype.startsWith ===
\"undefined\") {\n   Object.defineProperty(String.prototype, \"startsWith\", {\n   value: function (searchString,
position) {\n   position = position || 0;\n   return this.lastIndexOf(searchString, position) === position;\n
    }\n   });\n}\n\"\"\")\ninternal inline fun String.nativeStartsWith(s: String, position: Int): Boolean =
asDynamic().startsWith(s,
 position)\n\n@kotlin.internal.InlineOnly\n@kotlin.js.JsPolyfill(\"\"\"\nif (typeof String.prototype.endsWith ===
\"undefined\") {\n   Object.defineProperty(String.prototype, \"endsWith\", {\n   value: function (searchString,
position) {\n   var subjectString = this.toString();\n   if (position === undefined || position >
subjectString.length) {\n   position = subjectString.length;\n   }\n   position -=
searchString.length;\n   var lastIndex = subjectString.indexOf(searchString, position);\n   return lastIndex

!== -1 && lastIndex === position;\n   }\n   });\n}\n\"\"\")\ninternal inline fun String.nativeEndsWith(s: String): Boolean = asDynamic().endsWith(s)\n\n@kotlin.internal.InlineOnly\npublic actual inline fun String.substring(startIndex: Int): String = asDynamic().substring(startIndex)\n\n@kotlin.internal.InlineOnly\npublic actual inline fun String.substring(startIndex: Int, endIndex: Int): String = asDynamic().substring(startIndex, endIndex)\n\n@Deprecated(\"Use String.plus() instead\", ReplaceWith(\"this + str\"))\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun String.concat(str: String): String = asDynamic().concat(str)\n\n@Deprecated(\"Use Regex.findAll() instead or invoke matches() on String dynamically: this.asDynamic().match(regex)\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun String.match(regex: String): Array<String>? = asDynamic().match(regex)\n\n//native public fun String.trim(): String\n//TODO: String.replace to implement effective trimLeading and trimTrailing\n\n@kotlin.internal.InlineOnly\ninternal inline fun String.nativeReplace(pattern: RegExp, replacement: String): String = asDynamic().replace(pattern, replacement)\n\n/**\n * Compares two strings lexicographically, optionally ignoring case differences.\n *\n * If [ignoreCase] is true, the result of `Char.uppercaseChar().lowercaseChar()` on each character is compared.\n */\n@SinceKotlin(\"1.2\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun String.compareTo(other: String, ignoreCase: Boolean = false): Int {\n   if (ignoreCase) {\n   val n1 = this.length\n   val n2 = other.length\n   val min = minOf(n1, n2)\n   if (min == 0) return n1 - n2\n   for (index in 0 until min) {\n   var thisChar = this[index]\n   var otherChar = other[index]\n\n   if (thisChar != otherChar) {\n   thisChar = thisChar.uppercaseChar()\n   otherChar = otherChar.uppercaseChar()\n\n   if (thisChar != otherChar) {\n   thisChar = thisChar.lowercaseChar()\n   otherChar = otherChar.lowercaseChar()\n\n   if (thisChar != otherChar) {\n   return thisChar.compareTo(otherChar)\n   }\n   }\n   }\n   }\n   return n1 - n2\n   } else {\n   return compareTo(other)\n   }\n}\n\n/**\n * Returns `true` if the contents of this char sequence are equal to the contents of the specified [other],\n * i.e. both char sequences contain the same number of the same characters in the same order.\n *\n * @sample samples.text.Strings.contentEquals\n */\n@SinceKotlin(\"1.5\")\npublic actual infix fun CharSequence?.contentEquals(other: CharSequence?): Boolean = contentEqualsImpl(other)\n\n/**\n * Returns `true` if the contents of this char sequence are equal to the contents of the specified [other], optionally ignoring case difference.\n *\n * @param ignoreCase `true` to ignore character case when comparing contents.\n *\n * @sample samples.text.Strings.contentEquals\n */\n@SinceKotlin(\"1.5\")\npublic actual fun CharSequence?.contentEquals(other: CharSequence?, ignoreCase: Boolean): Boolean {\n   return if (ignoreCase)\n   this.contentEqualsIgnoreCaseImpl(other)\n   else\n   this.contentEqualsImpl(other)\n}\n\n\nprivate val STRING_CASE_INSENSITIVE_ORDER = Comparator<String> { a, b -> a.compareTo(b, ignoreCase = true) }\n\n@SinceKotlin(\"1.2\")\npublic actual val String.Companion.CASE_INSENSITIVE_ORDER: Comparator<String>\n   get() = STRING_CASE_INSENSITIVE_ORDER\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CharsKt\")\n\npackage kotlin.text\n\n/**\n * Returns the numeric value of the decimal digit that this Char represents.\n * Throws an exception if this Char is not a valid decimal digit.\n *\n * A Char is considered to represent a decimal digit if [isDigit] is true for the Char.\n * In this case, the Unicode decimal digit value of the character is returned.\n *\n * @sample samples.text.Chars.digitToInt\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Char.digitToInt(): Int {\n   return digitOf(this, 10).also {\n   if (it < 0) throw IllegalArgumentException(\"Char $this is not a decimal digit\")\n   }\n}\n\n/**\n * Returns the numeric value of the

digit that this Char represents in the specified [radix].\n * Throws an exception if the [radix] is not in the range `2..36` or if this Char is not a valid digit in the specified [radix].\n *\n * A Char is considered to represent a digit in the specified [radix] if at least one of the following is true:\n * - [isDigit] is `true` for the Char and the Unicode decimal digit value of the character is less than the specified [radix]. In this case the decimal digit value is returned.\n * - The Char is one of the uppercase Latin letters 'A' through 'Z' and its [code] is less than `radix + 'A'.code - 10`. In this case, `this.code - 'A'.code + 10` is returned.\n * - The Char is one of the lowercase Latin letters 'a' through 'z' and
 its [code] is less than `radix + 'a'.code - 10`. In this case, `this.code - 'a'.code + 10` is returned.\n * - The Char is one of the fullwidth Latin capital letters '\\uFF21' through '\\uFF3A' and its [code] is less than `radix + 0xFF21 - 10`. In this case, `this.code - 0xFF21 + 10` is returned.\n * - The Char is one of the fullwidth Latin small letters '\\uFF41' through '\\uFF5A' and its [code] is less than `radix + 0xFF41 - 10`. In this case, `this.code - 0xFF41 + 10` is returned.\n *\n * @sample samples.text.Chars.digitToInt\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Char.digitToInt(radix: Int): Int {\n   return digitToIntOrNull(radix) ?: throw IllegalArgumentException(\"Char $this is not a digit in the given radix=$radix\")\n}\n\n/**\n *\n * Returns the numeric value of the decimal digit that this Char represents, or `null` if this Char is not a valid decimal digit.\n *\n * A Char is considered to represent a decimal digit if [isDigit]
 is true for the Char.\n * In this case, the Unicode decimal digit value of the character is returned.\n *\n * @sample samples.text.Chars.digitToIntOrNull\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Char.digitToIntOrNull(): Int? {\n   return digitOf(this, 10).takeIf { it >= 0 }\n}\n\n/**\n * Returns the numeric value of the digit that this Char represents in the specified [radix], or `null` if this Char is not a valid digit in the specified [radix].\n * Throws an exception if the [radix] is not in the range `2..36`.\n *\n * A Char is considered to represent a digit in the specified [radix] if at least one of the following is true:\n * - [isDigit] is `true` for the Char and the Unicode decimal digit value of the character is less than the specified [radix]. In this case the decimal digit value is returned.\n * - The Char is one of the uppercase Latin letters 'A' through 'Z' and its [code] is less than `radix + 'A'.code - 10`. In this case,
 `this.code - 'A'.code + 10` is returned.\n * - The Char is one of the lowercase Latin letters 'a' through 'z' and its [code] is less than `radix + 'a'.code - 10`. In this case, `this.code - 'a'.code + 10` is returned.\n * - The Char is one of the fullwidth Latin capital letters '\\uFF21' through '\\uFF3A' and its [code] is less than `radix + 0xFF21 - 10`. In this case, `this.code - 0xFF21 + 10` is returned.\n * - The Char is one of the fullwidth Latin small letters '\\uFF41' through '\\uFF5A' and its [code] is less than `radix + 0xFF41 - 10`. In this case, `this.code - 0xFF41 + 10` is returned.\n *\n * @sample samples.text.Chars.digitToIntOrNull\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Char.digitToIntOrNull(radix: Int): Int? {\n   checkRadix(radix)\n   return digitOf(this, radix).takeIf { it >= 0 }\n}\n\n/**\n * Returns the Char that represents this decimal digit.\n * Throws an exception if this value is not in the range `0..9`.\n
 *\n * If this value is in `0..9`, the decimal digit Char with code `'0'.code + this` is returned.\n *\n * @sample samples.text.Chars.digitToChar\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Int.digitToChar(): Char {\n   if (this in 0..9) {\n   return '0' + this\n   }\n   throw IllegalArgumentException(\"Int $this is not a decimal digit\")\n}\n\n/**\n * Returns the Char that represents this numeric digit value in the specified [radix].\n * Throws an exception if the [radix] is not in the range `2..36` or if this value is not in the range `0 until radix`.\n *\n * If this value is less than `10`, the decimal digit Char with code `'0'.code + this` is returned.\n * Otherwise, the uppercase Latin letter with code `'A'.code + this - 10` is returned.\n *\n * @sample samples.text.Chars.digitToChar\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Int.digitToChar(radix: Int): Char {\n   if (radix !in 2..36)
 {\n   throw IllegalArgumentException(\"Invalid radix: $radix. Valid radix values are in range 2..36\")\n   }\n   if (this < 0 || this >= radix) {\n   throw IllegalArgumentException(\"Digit $this does not represent a valid digit in

radix $radix\")\n   }\n   return if (this < 10) {\n   '0' + this\n   } else {\n   'A' + this - 10\n   }\n}\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant locale.\n */\n@Deprecated(\"Use lowercaseChar() instead.\", ReplaceWith(\"lowercaseChar()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic expect fun Char.toLowerCase(): Char\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To support one-to-many character mapping use the [lowercase] function.\n * If this character has no mapping equivalent, the character itself is returned.\n *\n * @sample samples.text.Chars.lowercase\n
 */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Char.lowercaseChar(): Char\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many character mapping, thus the length of the returned string can be greater than one.\n * For example, `'\\u0130'.lowercase()` returns `\"\\u0069\\u0307\"`,\n * where `'\\u0130'` is the LATIN CAPITAL LETTER I WITH DOT ABOVE character (`\u0130`).\n * If this character has no lower case mapping, the result of `toString()` of this char is returned.\n *\n * @sample samples.text.Chars.lowercase\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Char.lowercase(): String\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the invariant locale.\n */\n@Deprecated(\"Use uppercaseChar() instead.\", ReplaceWith(\"uppercaseChar()\"))\n@DeprecatedSinceKotlin(warningSince
 = \"1.5\")\npublic expect fun Char.toUpperCase(): Char\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To support one-to-many character mapping use the [uppercase] function.\n * If this character has no mapping equivalent, the character itself is returned.\n *\n * @sample samples.text.Chars.uppercase\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Char.uppercaseChar(): Char\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many character mapping, thus the length of the returned string can be greater than one.\n * For example, `'\\uFB00'.uppercase()` returns `\"\\u0046\\u0046\"`,\n * where `'\\uFB00'` is the LATIN SMALL LIGATURE FF character (`\ufb00`).\n * If this character has no upper case mapping, the result of `toString()`
 of this char is returned.\n *\n * @sample samples.text.Chars.uppercase\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Char.uppercase(): String\n\n/**\n * Converts this character to title case using Unicode mapping rules of the invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To support one-to-many character mapping use the [titlecase] function.\n * If this character has no mapping equivalent, the result of calling [uppercaseChar] is returned.\n *\n * @sample samples.text.Chars.titlecase\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.titlecaseChar(): Char\n\n/**\n * Converts this character to title case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many character mapping, thus the length of the returned string can be greater than one.\n * For example, `'\\uFB00'.titlecase()` returns `\"\\u0046\\u0066\"`,\n * where `'\\uFB00'` is the LATIN SMALL LIGATURE
 FF character (`\ufb00`).\n * If this character has no title case mapping, the result of [uppercase] is returned instead.\n *\n * @sample samples.text.Chars.titlecase\n */\n@SinceKotlin(\"1.5\")\npublic fun Char.titlecase(): String = titlecaseImpl()\n\n/**\n * Concatenates this Char and a String.\n *\n * @sample samples.text.Chars.plus\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun Char.plus(other: String): String = this.toString() + other\n\n/**\n * Returns `true` if this character is equal to the [other] character, optionally ignoring character case.\n *\n * Two characters are considered equal ignoring case if `Char.uppercaseChar().lowercaseChar()` on each character produces the same result.\n *\n * @param ignoreCase `true` to ignore character case when comparing characters. By default `false`.\n * @sample samples.text.Chars.equals\n */\npublic fun Char.equals(other: Char, ignoreCase: Boolean = false): Boolean {\n   if (this == other) return true\n   if (!ignoreCase)

return false\n\n   val thisUpper = this.uppercaseChar()\n   val otherUpper = other.uppercaseChar()\n\n   return thisUpper == otherUpper || thisUpper.lowercaseChar() == otherUpper.lowercaseChar()\n}\n\n/**\n * Returns `true` if this character is a Unicode surrogate code unit.\n */\npublic fun Char.isSurrogate(): Boolean = this in Char.MIN_SURROGATE..Char.MAX_SURROGATE\n\n/**\n * Returns the Unicode general category of this character.\n */\n@SinceKotlin(\"1.5\")\npublic expect val Char.category: CharCategory\n\n/**\n * Returns `true` if this character (Unicode code point) is defined in Unicode.\n *\n * A character is considered to be defined in Unicode if its [category] is not [CharCategory.UNASSIGNED].\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isDefined(): Boolean\n\n/**\n * Returns `true` if this character is a letter.\n *\n * A character is considered to be a letter if its [category] is [CharCategory.UPPERCASE_LETTER],\n * [CharCategory.LOWERCASE_LETTER], [CharCategory.TITLECASE_LETTER], [CharCategory.MODIFIER_LETTER], or [CharCategory.OTHER_LETTER].\n *\n * @sample samples.text.Chars.isLetter\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isLetter(): Boolean\n\n/**\n * Returns `true` if this character is a letter or digit.\n *\n * @see isLetter\n * @see isDigit\n *\n * @sample samples.text.Chars.isLetterOrDigit\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isLetterOrDigit(): Boolean\n\n/**\n * Returns `true` if this character is a digit.\n *\n * A character is considered to be a digit if its [category] is [CharCategory.DECIMAL_DIGIT_NUMBER].\n *\n * @sample samples.text.Chars.isDigit\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isDigit(): Boolean\n\n/**\n * Returns `true` if this character is upper case.\n *\n * A character is considered to be an upper case character if its [category] is [CharCategory.UPPERCASE_LETTER],\n * or it has contributory property `Other_Uppercase` as defined by the Unicode Standard.\n *\n * @sample samples.text.Chars.isUpperCase\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isUpperCase(): Boolean\n\n/**\n * Returns `true` if this character is lower case.\n *\n * A character is considered to be a lower case character if its [category] is [CharCategory.LOWERCASE_LETTER],\n * or it has contributory property `Other_Lowercase` as defined by the Unicode Standard.\n *\n * @sample samples.text.Chars.isLowerCase\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isLowerCase(): Boolean\n\n/**\n * Returns `true` if this character is a title case letter.\n *\n * A character is considered to be a title case letter if its [category] is [CharCategory.TITLECASE_LETTER].\n *\n * @sample samples.text.Chars.isTitleCase\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isTitleCase(): Boolean\n\n/**\n * Returns `true` if this character is an ISO control character.\n *\n * A character is considered to be an ISO control character if its [category] is [CharCategory.CONTROL],\n * meaning the Char is in the range `'\\u0000'..'\\u001F'` or in the range `'\\u007F'..'\\u009F'`.\n *\n * @sample samples.text.Chars.isISOControl\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isISOControl(): Boolean\n\n/**\n * Determines whether a character is whitespace according to the Unicode standard.\n * Returns `true` if the character is whitespace.\n *\n * @sample samples.text.Chars.isWhitespace\n */\npublic expect fun Char.isWhitespace(): Boolean\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n\n\n/**\n * Creates a Char with the specified [code], or throws an exception if the [code] is out of `Char.MIN_VALUE.code..Char.MAX_VALUE.code`.\n *\n * If the program that calls this function is written in a way that only valid [code] is passed as the argument,\n * using the overload that takes a [UShort] argument is preferable (`Char(intValue.toUShort())`).\n * That overload doesn't check validity of the argument, and may improve program performance when the function is called routinely inside a loop.\n *\n * @sample samples.text.Chars.charFromCode\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Char(code: Int): Char {\n   if (code < Char.MIN_VALUE.code || code > Char.MAX_VALUE.code) {\n   throw IllegalArgumentException(\"Invalid Char code: $code\")\n   }\n   return code.toChar()\n}\n\n/**\n * Creates a Char with the specified [code].\n *\n * @sample samples.text.Chars.charFromCode\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect fun Char(code: UShort): Char\n\n/**\n * Returns the code of this Char.\n *\n * Code of

a Char is the value it was constructed with, and the UTF-16 code unit corresponding to this Char.\n *\n * @sample samples.text.Chars.code\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\n@Suppress(\"DEPRECATION\")\npublic inline val Char.code: Int get() = this.toInt()\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"SequencesKt\")\n\npackage kotlin.sequences\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n * Returns `true` if [element] is found in the sequence.\n *\n * The operation is _terminal_.\n */\npublic operator fun <@kotlin.internal.OnlyInputTypes T> Sequence<T>.contains(element: T): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns an element at the given [index] or
 throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic fun <T> Sequence<T>.elementAt(index: Int): T {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"Sequence doesn't contain element at index $index.\") }\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\npublic fun <T> Sequence<T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n   if (index < 0)\n   return defaultValue(index)\n   val iterator = iterator()\n   var count = 0\n   while (iterator.hasNext()) {\n   val element = iterator.next()\n   if (index == count++)\n   return element\n   }\n   return defaultValue(index)\n}\n\n/**\n
 * Returns an element at the given [index] or `null` if the [index] is out of bounds of this sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\npublic fun <T> Sequence<T>.elementAtOrNull(index: Int): T? {\n   if (index < 0)\n   return null\n   val iterator = iterator()\n   var count = 0\n   while (iterator.hasNext()) {\n   val element = iterator.next()\n   if (index == count++)\n   return element\n   }\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.find(predicate: (T) -> Boolean): T? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such
 element was found.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.findLast(predicate: (T) -> Boolean): T? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the first element.\n *\n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n */\npublic fun <T> Sequence<T>.first(): T {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   throw NoSuchElementException(\"Sequence is empty.\")\n   return iterator.next()\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.first(predicate: (T) -> Boolean): T {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Sequence contains no element matching
 the predicate.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to elements of this sequence in iteration order,\n * or throws [NoSuchElementException] if no non-null value was produced.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any> Sequence<T>.firstNotNullOf(transform: (T) -> R?): R {\n   return firstNotNullOfOrNull(transform) ?: throw

NoSuchElementException(\"No element of the sequence was transformed to a non-null value.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to elements of this sequence in iteration order,\n * or `null` if no non-null value was produced.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any> Sequence<T>.firstNotNullOfOrNull(transform: (T) -> R?): R? {\n   for (element in this) {\n   val result = transform(element)\n   if (result != null) {\n   return result\n   }\n   }\n   return null\n}\n\n/**\n * Returns the first element, or `null` if the sequence is empty.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.firstOrNull(): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   return null\n   return iterator.next()\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.firstOrNull(predicate: (T) -> Boolean): T? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns first index of [element], or -1 if the sequence does not contain element.\n *\n * The operation is _terminal_.\n */\npublic fun <@kotlin.internal.OnlyInputTypes T> Sequence<T>.indexOf(element: T): Int {\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (element == item)\n   return index\n   index++\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the sequence does not contain such element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (predicate(item))\n   return index\n   index++\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the sequence does not contain such element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.indexOfLast(predicate: (T) -> Boolean): Int {\n   var lastIndex = -1\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (predicate(item))\n   lastIndex = index\n   index++\n   }\n   return lastIndex\n}\n\n/**\n * Returns the last element.\n *\n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> Sequence<T>.last(): T {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   throw NoSuchElementException(\"Sequence is empty.\")\n   var last = iterator.next()\n   while (iterator.hasNext())\n   last = iterator.next()\n   return last\n}\n\n/**\n * Returns the last element matching the given [predicate].\n *\n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Sequence<T>.last(predicate: (T) -> Boolean): T {\n   var last: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   last = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Sequence contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return last as T\n}\n\n/**\n * Returns last index of [element], or -1 if the sequence does not contain element.\n *\n * The operation is _terminal_.\n */\npublic fun <@kotlin.internal.OnlyInputTypes T> Sequence<T>.lastIndexOf(element: T): Int {\n   var lastIndex = -1\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (element == item)\n   lastIndex = index\n   index++\n   }\n   return lastIndex\n}\n\n/**\n * Returns the last element, or `null` if the sequence is empty.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> Sequence<T>.lastOrNull(): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   return null\n   var last = iterator.next()\n   while (iterator.hasNext())\n   last = iterator.next()\n   return last\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Sequence<T>.lastOrNull(predicate: (T) -> Boolean): T? {\n   var last: T? = null\n   for (element in this) {\n   if (predicate(element)) {\n   last = element\n   }\n   }\n   return last\n}\n\n/**\n * Returns the single element, or throws an exception if the

sequence is empty or has more than one element.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.single(): T {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   throw NoSuchElementException(\"Sequence is empty.\")\n   val single = iterator.next()\n   if (iterator.hasNext())\n   throw IllegalArgumentException(\"Sequence has more than one element.\")\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.single(predicate: (T) -> Boolean): T {\n   var single: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Sequence contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Sequence contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return single as T\n}\n\n/**\n * Returns single element, or `null` if the sequence is empty or has more than one element.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.singleOrNull():
T? {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   return null\n   val single = iterator.next()\n   if (iterator.hasNext())\n   return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.singleOrNull(predicate: (T) -> Boolean): T? {\n   var single: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns a sequence containing all elements except first [n] elements.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*/\npublic fun <T> Sequence<T>.drop(n: Int): Sequence<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return when {\n   n == 0 -> this\n   this is DropTakeSequence -> this.drop(n)\n   else -> DropSequence(this, n)\n   }\n}\n\n/**\n * Returns a sequence containing all elements except first elements that satisfy the given [predicate].\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun <T> Sequence<T>.dropWhile(predicate: (T) -> Boolean): Sequence<T> {\n   return DropWhileSequence(this, predicate)\n}\n\n/**\n * Returns a sequence containing only elements matching the given [predicate].\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic fun <T> Sequence<T>.filter(predicate: (T) -> Boolean): Sequence<T> {\n   return FilteringSequence(this, true, predicate)\n}\n\n/**\n
* Returns a sequence containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic fun <T> Sequence<T>.filterIndexed(predicate: (index: Int, T) -> Boolean): Sequence<T> {\n   // TODO: Rewrite with generalized MapFilterIndexingSequence\n   return TransformingSequence(FilteringSequence(IndexingSequence(this), true, { predicate(it.index, it.value) }), { it.value })\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n
*/\npublic inline fun <T, C : MutableCollection<in T>> Sequence<T>.filterIndexedTo(destination: C, predicate: (index: Int, T) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Returns a sequence containing all elements that are instances of specified type parameter R.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Filtering.filterIsInstance\n */\npublic inline fun <reified R> Sequence<*>.filterIsInstance(): Sequence<@kotlin.internal.NoInfer R> {\n   @Suppress(\"UNCHECKED_CAST\")\n   return filter { it is R } as Sequence<R>\n}\n\n/**\n * Appends all

elements that are instances of specified type parameter R to the given [destination].\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Filtering.filterIsInstanceTo\n */\npublic inline fun <reified R, C : MutableCollection<in R>> Sequence<*>.filterIsInstanceTo(destination: C): C {\n   for (element in this) if (element is R) destination.add(element)\n   return destination\n}\n\n/**\n * Returns a sequence containing all elements not matching the given [predicate].\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic fun <T> Sequence<T>.filterNot(predicate: (T) -> Boolean): Sequence<T> {\n   return FilteringSequence(this, false, predicate)\n}\n\n/**\n * Returns a sequence containing all elements that are not `null`.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Filtering.filterNotNull\n */\npublic fun <T : Any> Sequence<T?>.filterNotNull(): Sequence<T> {\n   @Suppress(\"UNCHECKED_CAST\")\n   return filterNot { it == null } as Sequence<T>\n}\n\n/**\n * Appends all elements that are not `null` to the given [destination].\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Filtering.filterNotNullTo\n */\npublic fun <C : MutableCollection<in T>, T : Any> Sequence<T?>.filterNotNullTo(destination: C): C {\n   for (element in this) if (element != null) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Sequence<T>.filterNotTo(destination: C, predicate: (T) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Sequence<T>.filterTo(destination: C, predicate: (T) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Returns a sequence containing first [n] elements.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun <T> Sequence<T>.take(n: Int): Sequence<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return when {\n   n == 0 -> emptySequence()\n   this is DropTakeSequence -> this.take(n)\n   else -> TakeSequence(this, n)\n   }\n}\n\n/**\n * Returns a sequence containing first elements satisfying the given [predicate].\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun <T> Sequence<T>.takeWhile(predicate: (T) -> Boolean): Sequence<T> {\n   return TakeWhileSequence(this, predicate)\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * The operation is _intermediate_ and _stateful_.\n */\npublic fun <T : Comparable<T>> Sequence<T>.sorted(): Sequence<T> {\n   return object : Sequence<T> {\n   override fun iterator(): Iterator<T> {\n   val sortedList = this@sorted.toMutableList()\n   sortedList.sort()\n   return sortedList.iterator()\n   }\n   }\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * The operation is _intermediate_ and _stateful_.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <T, R : Comparable<R>> Sequence<T>.sortedBy(crossinline selector: (T) -> R?): Sequence<T> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted descending according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * The operation is _intermediate_ and _stateful_.\n */\npublic inline fun <T, R : Comparable<R>> Sequence<T>.sortedByDescending(crossinline selector: (T) -> R?): Sequence<T> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements

preserve their order relative to each other after sorting.\n
*\n * The operation is _intermediate_ and _stateful_.\n */\npublic fun <T : Comparable<T>> Sequence<T>.sortedDescending(): Sequence<T> {\n   return sortedWith(reverseOrder())\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted according to the specified [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * The operation is _intermediate_ and _stateful_.\n */\npublic fun <T> Sequence<T>.sortedWith(comparator: Comparator<in T>): Sequence<T> {\n   return object : Sequence<T> {\n   override fun iterator(): Iterator<T> {\n   val sortedList = this@sortedWith.toMutableList()\n   sortedList.sortWith(comparator)\n   return sortedList.iterator()\n   }\n   }\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given sequence.\n * \n * If any of two pairs would have the same
key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associate\n */\npublic inline fun <T, K, V> Sequence<T>.associate(transform: (T) -> Pair<K, V>): Map<K, V> {\n   return associateTo(LinkedHashMap<K, V>(), transform)\n}\n\n/**\n * Returns a [Map] containing the elements from the given sequence indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateBy\n */\npublic inline fun <T, K> Sequence<T>.associateBy(keySelector: (T) -> K): Map<K, T> {\n   return associateByTo(LinkedHashMap<K,
T>(), keySelector)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given sequence.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateByWithValueTransform\n */\npublic inline fun <T, K, V> Sequence<T>.associateBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, V> {\n   return associateByTo(LinkedHashMap<K, V>(), keySelector, valueTransform)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given sequence\n * and value is the element itself.\n * \n * If any two elements would have the same
key returned by [keySelector] the last one gets added to the map.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateByTo\n */\npublic inline fun <T, K, M : MutableMap<in K, in T>> Sequence<T>.associateByTo(destination: M, keySelector: (T) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given sequence.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateByToWithValueTransform\n */\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Sequence<T>.associateByTo(destination:
M, keySelector: (T) -> K, valueTransform: (T) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given sequence.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateTo\n */\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Sequence<T>.associateTo(destination: M, transform: (T) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Returns a [Map] where keys are

elements from the given sequence and values are\n * produced by the [valueSelector] function applied to each element.\n * \n

* If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.3\")\npublic inline fun <K, V> Sequence<K>.associateWith(valueSelector: (K) -> V): Map<K, V> {\n   val result = LinkedHashMap<K, V>()\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given sequence,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.3\")\npublic inline fun <K, V, M : MutableMap<in

K, in V>> Sequence<K>.associateWithTo(destination: M, valueSelector: (K) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n *\n * The operation is _terminal_.\n */\npublic fun <T, C : MutableCollection<in T>> Sequence<T>.toCollection(destination: C): C {\n   for (item in this) {\n destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.toHashSet(): HashSet<T> {\n   return toCollection(HashSet<T>())\n}\n\n/**\n * Returns a [List] containing all elements.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.toList(): List<T> {\n   return this.toMutableList().optimizeReadOnlyList()\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this sequence.\n *\n * The operation

is _terminal_.\n */\npublic fun <T> Sequence<T>.toMutableList(): MutableList<T> {\n   return toCollection(ArrayList<T>())\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original sequence.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.toSet(): Set<T> {\n   return toCollection(LinkedHashSet<T>()).optimizeReadOnlySet()\n}\n\n/**\n * Returns a single sequence of all elements from results of [transform] function being invoked on each element of original sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIterable\")\npublic fun <T, R> Sequence<T>.flatMap(transform: (T) -> Iterable<R>): Sequence<R> {\n   return FlatteningSequence(this, transform, Iterable<R>::iterator)\n}\n\n/**\n

* Returns a single sequence of all elements from results of [transform] function being invoked on each element of original sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic fun <T, R> Sequence<T>.flatMap(transform: (T) -> Sequence<R>): Sequence<R> {\n   return FlatteningSequence(this, transform, Sequence<R>::iterator)\n}\n\n/**\n * Returns a single sequence of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\npublic fun <T, R> Sequence<T>.flatMapIndexed(transform:

(index: Int, T) -> Iterable<R>): Sequence<R> {\n   return flatMapIndexed(this, transform, Iterable<R>::iterator)\n}\n\n/**\n * Returns a single sequence of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedSequence\")\npublic fun <T, R> Sequence<T>.flatMapIndexed(transform: (index: Int, T) -> Sequence<R>): Sequence<R> {\n   return flatMapIndexed(this, transform, Sequence<R>::iterator)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original sequence, to the given [destination].\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.flatMapIndexedTo(destination: C, transform: (index: Int, T) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(checkIndexOverflow(index++), element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original sequence, to the given [destination].\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedSequenceTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.flatMapIndexedTo(destination: C, transform: (index: Int, T) -> Sequence<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(checkIndexOverflow(index++), element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original sequence, to the given [destination].\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIterableTo\")\npublic inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.flatMapTo(destination: C, transform: (T) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original sequence, to the given [destination].\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.flatMapTo(destination: C, transform: (T) -> Sequence<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original sequence by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K> Sequence<T>.groupBy(keySelector: (T) -> K): Map<K, List<T>> {\n   return groupByTo(LinkedHashMap<K, MutableList<T>>(), keySelector)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original sequence\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <T, K, V> Sequence<T>.groupBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups elements of the original sequence by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The

[destination] map.\n *\n * The operation is _terminal_.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K, M : MutableMap<in K,
MutableList<T>>> Sequence<T>.groupByTo(destination: M, keySelector: (T) -> K): M {\n   for (element in this)
{\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<T>() }\n
list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function
applied to each element of the original sequence\n * by the key returned by the given [keySelector] function applied
to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n
* \n * @return The [destination] map.\n *\n * The operation is _terminal_.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <T, K, V, M :
MutableMap<in K, MutableList<V>>> Sequence<T>.groupByTo(destination:
M, keySelector: (T) -> K, valueTransform: (T) -> V): M {\n   for (element in this) {\n   val key =
keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n
list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Creates a [Grouping] source from a
sequence to be used later with one of group-and-fold operations\n * using the specified [keySelector] function to
extract a key from each element.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample
samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K>
Sequence<T>.groupingBy(crossinline keySelector: (T) -> K): Grouping<T, K> {\n   return object : Grouping<T,
K> {\n   override fun sourceIterator(): Iterator<T> = this@groupingBy.iterator()\n   override fun
keyOf(element: T): K = keySelector(element)\n   }\n}\n\n/**\n * Returns a sequence containing the results of
applying
the given [transform] function\n * to each element in the original sequence.\n *\n * The operation is _intermediate_
and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic fun <T, R>
Sequence<T>.map(transform: (T) -> R): Sequence<R> {\n   return TransformingSequence(this,
transform)\n}\n\n/**\n * Returns a sequence containing the results of applying the given [transform] function\n * to
each element and its index in the original sequence.\n * @param [transform] function that takes the index of an
element and the element itself\n * and returns the result of the transform applied to the element.\n *\n * The
operation is _intermediate_ and _stateless_.\n */\npublic fun <T, R> Sequence<T>.mapIndexed(transform: (index:
Int, T) -> R): Sequence<R> {\n   return TransformingIndexedSequence(this, transform)\n}\n\n/**\n * Returns a
sequence containing only the non-null results of applying the given [transform] function\n * to each element and its
index
in the original sequence.\n * @param [transform] function that takes the index of an element and the element
itself\n * and returns the result of the transform applied to the element.\n *\n * The operation is _intermediate_ and
stateless.\n */\npublic fun <T, R : Any> Sequence<T>.mapIndexedNotNull(transform: (index: Int, T) -> R?):
Sequence<R> {\n   return TransformingIndexedSequence(this, transform).filterNotNull()\n}\n\n/**\n * Applies the
given [transform] function to each element and its index in the original sequence\n * and appends only the non-null
results to the given [destination].\n * @param [transform] function that takes the index of an element and the
element itself\n * and returns the result of the transform applied to the element.\n *\n * The operation is
terminal.\n */\npublic inline fun <T, R : Any, C : MutableCollection<in R>>
Sequence<T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R?): C {\n   forEachIndexed {
index, element -> transform(index,
element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to
each element and its index in the original sequence\n * and appends the results to the given [destination].\n *
@param [transform] function that takes the index of an element and the element itself\n * and returns the result of
the transform applied to the element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R, C :
MutableCollection<in R>> Sequence<T>.mapIndexedTo(destination: C, transform: (index: Int, T) -> R): C {\n
var index = 0\n   for (item in this)\n   destination.add(transform(checkIndexOverflow(index++), item))\n   return
destination\n}\n\n/**\n * Returns a sequence containing only the non-null results of applying the given [transform]
function\n * to each element in the original sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n

* @sample samples.collections.Collections.Transformations.mapNotNull\n
 */\npublic fun <T, R : Any> Sequence<T>.mapNotNull(transform: (T) -> R?): Sequence<R> {\n   return TransformingSequence(this, transform).filterNotNull()\n}\n\n/**\n * Applies the given [transform] function to each element in the original sequence\n * and appends only the non-null results to the given [destination].\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R : Any, C : MutableCollection<in R>> Sequence<T>.mapNotNullTo(destination: C, transform: (T) -> R?): C {\n   forEach { element -> transform(element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original sequence\n * and appends the results to the given [destination].\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.mapTo(destination: C, transform: (T) -> R): C {\n   for (item in this)\n destination.add(transform(item))\n   return destination\n}\n\n/**\n
 * Returns a sequence that wraps each element of the original sequence\n * into an [IndexedValue] containing the index of that element and the element itself.\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic fun <T> Sequence<T>.withIndex(): Sequence<IndexedValue<T>> {\n   return IndexingSequence(this)\n}\n\n/**\n * Returns a sequence containing only distinct elements from the given sequence.\n * \n * Among equal elements of the given sequence, only the first one will be present in the resulting sequence.\n * The elements in the resulting sequence are in the same order as they were in the source sequence.\n *\n * The operation is _intermediate_ and _stateful_.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun <T> Sequence<T>.distinct(): Sequence<T> {\n   return this.distinctBy { it }\n}\n\n/**\n * Returns a sequence containing only elements from the given sequence\n * having distinct keys returned by the given
 [selector] function.\n * \n * Among elements of the given sequence with equal keys, only the first one will be present in the resulting sequence.\n * The elements in the resulting sequence are in the same order as they were in the source sequence.\n *\n * The operation is _intermediate_ and _stateful_.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun <T, K> Sequence<T>.distinctBy(selector: (T) -> K): Sequence<T> {\n   return DistinctSequence(this, selector)\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given sequence.\n * \n * The returned set preserves the element iteration order of the original sequence.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.toMutableSet(): MutableSet<T> {\n   val set = LinkedHashSet<T>()\n   for (item in this) set.add(item)\n   return set\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n *\n * The operation is _terminal_.\n
 * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun <T> Sequence<T>.all(predicate: (T) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if sequence has at least one element.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun <T> Sequence<T>.any(): Boolean {\n   return iterator().hasNext()\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun <T> Sequence<T>.any(predicate: (T) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns the number of elements in this sequence.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.count(): Int {\n
    var count = 0\n   for (element in this) checkCountOverflow(++count)\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.count(predicate: (T) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) checkCountOverflow(++count)\n   return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the sequence is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R> Sequence<T>.fold(initial: R, operation: (acc: R, T) -> R): R {\n   var accumulator =

initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original sequence.\n * \n * Returns the specified [initial] value if the sequence is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R> Sequence<T>.foldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(checkIndexOverflow(index++), accumulator, element)\n   return accumulator\n}\n\n/**\n * Performs the given [action] on each element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.forEach(action: (T) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.forEachIndexed(action: (index: Int, T) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(checkIndexOverflow(index++), item)\n}\n\n/**\n * Returns the largest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n *\n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun Sequence<Double>.max(): Double {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n *\n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun Sequence<Float>.max(): Float {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element.\n *\n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun <T : Comparable<T>> Sequence<T>.max(): T {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n *\n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <T, R : Comparable<R>> Sequence<T>.maxBy(selector: (T) -> R): T {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxElem = iterator.next()\n   if (!iterator.hasNext()) return maxElem\n   var maxValue = selector(maxElem)\n   do {\n   val e = iterator.next()\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   } while (iterator.hasNext())\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R : Comparable<R>> Sequence<T>.maxByOrNull(selector: (T) -> R): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxElem = iterator.next()\n   if (!iterator.hasNext()) return maxElem\n   var maxValue = selector(maxElem)\n   do {\n   val e = iterator.next()\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   } while (iterator.hasNext())\n   return maxElem\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to

each element in the sequence.\n * \n * If any of values produced by [selector] function
 is `NaN`, the returned result is `NaN`.\n *\n * The operation is _terminal_.\n * \n * @throws
NoSuchElementException if the sequence is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.maxOf(selector: (T) ->
Double): Double {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var
maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n
maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all
values produced by [selector] function\n * applied to each element in the sequence.\n * \n * If any of values
produced by [selector] function is `NaN`, the returned result is `NaN`.\n *\n * The operation is _terminal_.\n * \n *
@throws NoSuchElementException if the sequence is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.maxOf(selector: (T) ->
Float): Float {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var
maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n
maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all
values produced by [selector] function\n * applied to each element in the sequence.\n *\n * The operation is
terminal.\n * \n * @throws NoSuchElementException if the sequence is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>>
Sequence<T>.maxOf(selector: (T) -> R): R {\n
  val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue =
selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (maxValue <
v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all
values produced by [selector] function\n * applied to each element in the sequence or `null` if there are no
elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n *\n * The
operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.maxOfOrNull(selector:
(T) -> Double): Double? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue =
selector(iterator.next())\n   while (iterator.hasNext())
 {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the sequence or `null` if there are no elements.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.maxOfOrNull(selector:
(T) -> Float): Float? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue =
selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue =
maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced
by [selector] function\n
 * applied to each element in the sequence or `null` if there are no elements.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>>
Sequence<T>.maxOfOrNull(selector: (T) -> R): R? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return
null\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v =
selector(iterator.next())\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return
maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values

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produced by [selector] function applied to each element in the sequence.\n * \n * @throws
NoSuchElementException if the sequence is empty.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
 inline fun <T, R> Sequence<T>.maxOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n    val
iterator = iterator()\n    if (!iterator.hasNext()) throw NoSuchElementException()\n    var maxValue =
selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n        if
(comparator.compare(maxValue, v) < 0) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n *
Returns the largest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the sequence or `null` if there are no elements.\n *\n * The operation is
_terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R>
Sequence<T>.maxOfWithOrNull(comparator:
 Comparator<in R>, selector: (T) -> R): R? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n
var maxValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n
if (comparator.compare(maxValue, v) < 0) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n
* Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n
*\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic fun Sequence<Double>.maxOrNull():
Double? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var max = iterator.next()\n    while
(iterator.hasNext()) {\n        val e = iterator.next()\n        max = maxOf(max, e)\n    }\n    return max\n}\n\n/**\n *
Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n
*\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic
 fun Sequence<Float>.maxOrNull(): Float? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n
var max = iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        max = maxOf(max, e)\n
 }\n    return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n *\n * The operation
is _terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Sequence<T>.maxOrNull(): T? {\n
val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var max = iterator.next()\n    while
(iterator.hasNext()) {\n        val e = iterator.next()\n        if (max < e) max = e\n    }\n    return max\n}\n\n/**\n *
Returns the first element having the largest value according to the provided [comparator].\n *\n * The operation is
_terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxWithOrThrow\")\n@Suppress(\"CONFLICTING_OVER
LOADS\")\npublic
 fun <T> Sequence<T>.maxWith(comparator: Comparator<in T>): T {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) throw NoSuchElementException()\n    var max = iterator.next()\n    while (iterator.hasNext())
{\n        val e = iterator.next()\n        if (comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n/**\n *
Returns the first element having the largest value according to the provided [comparator] or `null` if there are no
elements.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T>
Sequence<T>.maxWithOrNull(comparator: Comparator<in T>): T? {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) return null\n    var max = iterator.next()\n    while (iterator.hasNext()) {\n        val e =
iterator.next()\n        if (comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n/**\n * Returns the
smallest element.\n * \n * If any of elements is `NaN` returns `NaN`.\n
 *\n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOA
DS\")\npublic fun Sequence<Double>.min(): Double {\n    val iterator = iterator()\n    if (!iterator.hasNext()) throw
NoSuchElementException()\n    var min = iterator.next()\n    while (iterator.hasNext()) {\n        val e =
iterator.next()\n        min = minOf(min, e)\n    }\n    return min\n}\n\n/**\n * Returns the smallest element.\n * \n * If
any of elements is `NaN` returns `NaN`.\n *\n * The operation is _terminal_.\n * \n * @throws
```

NoSuchElementException if the sequence is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun Sequence<Float>.min(): Float {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element.\n *\n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun <T : Comparable<T>> Sequence<T>.min(): T {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function.\n *\n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <T, R : Comparable<R>> Sequence<T>.minBy(selector: (T) -> R): T {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minElem = iterator.next()\n   if (!iterator.hasNext()) return minElem\n   var minValue = selector(minElem)\n   do {\n   val e = iterator.next()\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   } while (iterator.hasNext())\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R : Comparable<R>> Sequence<T>.minByOrNull(selector: (T) -> R): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minElem = iterator.next()\n   if (!iterator.hasNext()) return minElem\n   var minValue = selector(minElem)\n   do {\n   val e = iterator.next()\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   } while (iterator.hasNext())\n   return minElem\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n *\n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.minOf(selector: (T) -> Double): Double {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n *\n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.minOf(selector: (T) -> Float): Float {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the sequence.\n *\n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Sequence<T>.minOf(selector: (T) -> R): R {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the sequence or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`,

 the returned result is `NaN`.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.minOfOrNull(selector: (T) -> Double): Double? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the sequence or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic

 inline fun <T> Sequence<T>.minOfOrNull(selector: (T) -> Float): Float? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the sequence or `null` if there are no elements.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Sequence<T>.minOfOrNull(selector: (T) -> R): R? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n

 val v = selector(iterator.next())\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the sequence.\n * \n * @throws NoSuchElementException if the sequence is empty.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Sequence<T>.minOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n

 * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the sequence or `null` if there are no elements.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Sequence<T>.minOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic

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 fun Sequence<Double>.minOrNull(): Double? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n
 var min = iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        min = minOf(min, e)\n
}\n    return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of
elements is `NaN` returns `NaN`.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic fun
Sequence<Float>.minOrNull(): Float? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var
min = iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        min = minOf(min, e)\n    }\n
 return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n *\n * The operation is
_terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Sequence<T>.minOrNull(): T? {\n
val iterator = iterator()\n
    if (!iterator.hasNext()) return null\n    var min = iterator.next()\n    while (iterator.hasNext()) {\n        val e =
iterator.next()\n        if (min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first element having the
smallest value according to the provided [comparator].\n *\n * The operation is _terminal_.\n * \n * @throws
NoSuchElementException if the sequence is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minWithOrThrow\")\n@Suppress(\"CONFLICTING_OVER
LOADS\")\npublic fun <T> Sequence<T>.minWith(comparator: Comparator<in T>): T {\n    val iterator =
iterator()\n    if (!iterator.hasNext()) throw NoSuchElementException()\n    var min = iterator.next()\n    while
(iterator.hasNext()) {\n        val e = iterator.next()\n        if (comparator.compare(min, e) > 0) min = e\n    }\n    return
min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or
`null` if there are no elements.\n *\n * The
 operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Sequence<T>.minWithOrNull(comparator:
Comparator<in T>): T? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var min =
iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        if (comparator.compare(min, e) >
0) min = e\n    }\n    return min\n}\n\n/**\n * Returns `true` if the sequence has no elements.\n *\n * The operation is
_terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun <T>
Sequence<T>.none(): Boolean {\n    return !iterator().hasNext()\n}\n\n/**\n * Returns `true` if no elements match
the given [predicate].\n *\n * The operation is _terminal_.\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun <T>
Sequence<T>.none(predicate: (T) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
false\n    return true\n}\n\n/**\n * Returns
 a sequence which performs the given [action] on each element of the original sequence as they pass through it.\n *\n
* The operation is _intermediate_ and _stateless_.\n */\n@SinceKotlin(\"1.1\")\npublic fun <T>
Sequence<T>.onEach(action: (T) -> Unit): Sequence<T> {\n    return map {\n        action(it)\n        it\n
}\n}\n\n/**\n * Returns a sequence which performs the given [action] on each element of the original sequence as
they pass through it.\n * @param [action] function that takes the index of an element and the element itself\n * and
performs the action on the element.\n *\n * The operation is _intermediate_ and _stateless_.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun <T> Sequence<T>.onEachIndexed(action: (index: Int, T) -> Unit):
Sequence<T> {\n    return mapIndexed { index, element ->\n        action(index, element)\n        element\n
}\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to
current accumulator value
 and each element.\n * \n * Throws an exception if this sequence is empty. If the sequence can be empty in an
expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param
[operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator
value.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n
*/\npublic inline fun <S, T : S> Sequence<T>.reduce(operation: (acc: S, T) -> S): S {\n    val iterator =
this.iterator()\n    if (!iterator.hasNext()) throw UnsupportedOperationException(\"Empty sequence can't be
reduced.\")\n    var accumulator: S = iterator.next()\n    while (iterator.hasNext()) {\n        accumulator =
operation(accumulator, iterator.next())\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with
the first element and applying [operation] from left to right\n * to current accumulator value and each
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element with its index in the original sequence.\n * \n * Throws an exception if this sequence is empty. If the sequence can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun <S, T : S> Sequence<T>.reduceIndexed(operation: (index: Int, acc: S, T) -> S): S {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) throw UnsupportedOperationException(\"Empty sequence can't be reduced.\")\n   var index = 1\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(checkIndexOverflow(index++), accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original sequence.\n * \n * Returns `null` if the sequence is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <S, T : S> Sequence<T>.reduceIndexedOrNull(operation: (index: Int, acc: S, T) -> S): S? {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) return null\n   var index = 1\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(checkIndexOverflow(index++), accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first

element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns `null` if the sequence is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S> Sequence<T>.reduceOrNull(operation: (acc: S, T) -> S): S? {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) return null\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Returns a sequence containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that

starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n * The [initial] value should also be immutable (or should not be mutated)\n * as it may be passed to [operation] function later because of sequence's lazy nature.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic fun <T, R> Sequence<T>.runningFold(initial: R, operation: (acc: R, T) -> R): Sequence<R> {\n   return sequence {\n   yield(initial)\n   var accumulator = initial\n   for (element in this@runningFold) {\n   accumulator = operation(accumulator, element)\n   yield(accumulator)\n   }\n   }\n}\n\n/**\n * Returns

a sequence containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original sequence and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n * The [initial] value should also be immutable (or should not be mutated)\n * as it may be passed to [operation] function later because of sequence's lazy nature.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic fun <T, R> Sequence<T>.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): Sequence<R> {\n   return sequence {\n   yield(initial)\n   var index = 0\n   var accumulator = initial\n   for (element in this@runningFoldIndexed) {\n   accumulator = operation(checkIndexOverflow(index++), accumulator, element)\n yield(accumulator)\n }\n }\n}\n\n/**\n * Returns a sequence containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this sequence.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n * \n * @param [operation] function that takes current accumulator value and the element, and calculates the next accumulator value.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <S, T : S> Sequence<T>.runningReduce(operation: (acc: S, T) -> S): Sequence<S> {\n return sequence {\n val iterator = iterator()\n if (iterator.hasNext()) {\n var accumulator: S = iterator.next()\n yield(accumulator)\n while (iterator.hasNext()) {\n accumulator = operation(accumulator, iterator.next())\n yield(accumulator)\n }\n }\n }\n}\n\n/**\n * Returns a sequence containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original sequence and current accumulator value that starts with the first element of this sequence.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\npublic fun <S, T : S> Sequence<T>.runningReduceIndexed(operation: (index: Int, acc: S, T) -> S): Sequence<S> {\n return sequence {\n val iterator = iterator()\n if (iterator.hasNext()) {\n var accumulator: S = iterator.next()\n yield(accumulator)\n var index = 1\n while (iterator.hasNext()) {\n accumulator = operation(checkIndexOverflow(index++), accumulator, iterator.next())\n yield(accumulator)\n }\n }\n }\n}\n\n/**\n * Returns a sequence containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n * The [initial] value should also be immutable (or should not be mutated)\n * as it may be passed to [operation] function later because of sequence's lazy nature.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T, R> Sequence<T>.scan(initial: R, operation: (acc: R, T) -> R): Sequence<R> {\n return runningFold(initial, operation)\n}\n\n/**\n * Returns a sequence containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original sequence and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n * The [initial] value should also be immutable (or should not be mutated)\n * as it may be passed to [operation] function later because of sequence's lazy nature.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T, R> Sequence<T>.scanIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): Sequence<R> {\n return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the sequence.\n *\n * The operation is _terminal_.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun <T>

Sequence<T>.sumBy(selector: (T) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the sequence.\n *\n * The operation is _terminal_.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun <T> Sequence<T>.sumByDouble(selector: (T) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the sequence.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.sumOf(selector: (T) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the sequence.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.sumOf(selector: (T) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the sequence.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.sumOf(selector: (T) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the sequence.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.sumOf(selector: (T) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the sequence.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.sumOf(selector: (T) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns an original collection containing all the non-`null` elements, throwing an [IllegalArgumentException] if there are any `null` elements.\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic fun <T : Any> Sequence<T?>.requireNoNulls(): Sequence<T> {\n   return map { it ?: throw IllegalArgumentException(\"null element found in $this.\") }\n}\n\n/**\n * Splits this sequence into a sequence of lists each not exceeding the given [size].\n * \n * The last list in the resulting sequence may have fewer elements than the given [size].\n * \n * @param size the number of elements to take in each list, must be positive and can be greater than the number of elements in this sequence.\n *\n * The operation is _intermediate_ and _stateful_.\n * \n * @sample samples.collections.Collections.Transformations.chunked\n */\n@SinceKotlin(\"1.2\")\npublic fun <T> Sequence<T>.chunked(size: Int): Sequence<List<T>> {\n   return windowed(size, size, partialWindows = true)\n}\n\n/**\n * Splits this sequence into several lists each not exceeding the given [size]\n * and applies the given [transform] function to an each.\n * \n * @return sequence of results of the [transform] applied to an each list.\n * \n * Note that the list passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless

you made a snapshot of it.\n * The last list may have fewer elements than the given [size].\n * \n * @param size the number of elements to take in each list, must be positive and can be greater than the number of elements in this sequence.\n *\n * The operation is _intermediate_ and _stateful_.\n * \n * @sample samples.text.Strings.chunkedTransform\n */\n@SinceKotlin(\"1.2\")\npublic fun <T, R> Sequence<T>.chunked(size: Int, transform: (List<T>) -> R): Sequence<R> {\n   return windowed(size, size, partialWindows = true, transform = transform)\n}\n\n/**\n * Returns a sequence containing all elements of the original sequence without the first occurrence of the given [element].\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic operator fun <T> Sequence<T>.minus(element: T): Sequence<T> {\n   return object: Sequence<T> {\n   override fun iterator(): Iterator<T> {\n   var removed = false\n   return this@minus.filter { if (!removed && it == element)
{ removed = true; false } else true }.iterator()\n   }\n   }\n}\n\n/**\n * Returns a sequence containing all elements of original sequence except the elements contained in the given [elements] array.\n * \n * Note that the source sequence and the array being subtracted are iterated only when an `iterator` is requested from\n * the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n * \n * Before Kotlin 1.6, the [elements] array may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n *\n * The operation is _intermediate_ and _stateful_.\n */\npublic operator fun <T> Sequence<T>.minus(elements: Array<out T>): Sequence<T> {\n   if (elements.isEmpty()) return this\n   return object: Sequence<T> {\n   override fun iterator(): Iterator<T> {\n   val other = elements.convertToSetForSetOperation()\n   return this@minus.filterNot { it in other }.iterator()\n   }\n   }\n}\n\n/**\n * Returns a sequence containing all elements of original sequence except the elements contained in the given [elements] collection.\n * \n * Note that the source sequence and the collection being subtracted are iterated only when an `iterator` is requested from\n * the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n * \n * Before Kotlin 1.6, the [elements] collection may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n *\n * The operation is _intermediate_ and _stateful_.\n */\npublic operator fun <T> Sequence<T>.minus(elements: Iterable<T>): Sequence<T> {\n   return object: Sequence<T> {\n   override fun iterator(): Iterator<T> {\n   val other = elements.convertToSetForSetOperation()\n   if (other.isEmpty())\n   return this@minus.iterator()\n   else\n   return this@minus.filterNot { it in other }.iterator()\n   }\n   }\n}\n\n/**\n * Returns a sequence containing all elements of original sequence except the elements contained in the given [elements] sequence.\n * \n * Note that the source sequence and the sequence being subtracted are iterated only when an `iterator` is requested from\n * the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n * \n * The operation is _intermediate_ for this sequence and _terminal_ and _stateful_
for the [elements] sequence.\n * \n * Before Kotlin 1.6, the [elements] sequence may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n */\npublic operator fun <T> Sequence<T>.minus(elements: Sequence<T>): Sequence<T> {\n   return object: Sequence<T> {\n   override fun iterator(): Iterator<T> {\n   val other = elements.convertToSetForSetOperation()\n   if (other.isEmpty())\n   return this@minus.iterator()\n   else\n   return this@minus.filterNot { it in other }.iterator()\n   }\n   }\n}\n\n/**\n * Returns a sequence containing all elements of the original sequence without the first occurrence of the given [element].\n *\n *
The operation is _intermediate_ and _stateless_.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.minusElement(element: T): Sequence<T> {\n   return minus(element)\n}\n\n/**\n * Splits the

original sequence into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Sequences.Transformations.partition\n */\npublic inline fun <T> Sequence<T>.partition(predicate: (T) -> Boolean): Pair<List<T>, List<T>> {\n   val first = ArrayList<T>()\n   val second = ArrayList<T>()\n   for (element in this) {\n   if (predicate(element)) {\n   first.add(element)\n   } else {\n   second.add(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Returns a sequence containing all elements of the original sequence and then the given [element].\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic operator fun <T> Sequence<T>.plus(element: T): Sequence<T> {\n   return sequenceOf(this, sequenceOf(element)).flatten()\n}\n\n/**\n * Returns a sequence containing all elements of original sequence and then all elements of the given [elements] array.\n * \n * Note that the source sequence and the array being added are iterated only when an `iterator` is requested from\n * the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic operator fun <T> Sequence<T>.plus(elements: Array<out T>): Sequence<T> {\n   return this.plus(elements.asList())\n}\n\n/**\n * Returns a sequence containing all elements of original sequence and then all elements of the given [elements] collection.\n * \n * Note that the source sequence and the collection being added are iterated only when an `iterator` is requested from\n * the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic operator fun <T> Sequence<T>.plus(elements: Iterable<T>): Sequence<T> {\n   return sequenceOf(this, elements.asSequence()).flatten()\n}\n\n/**\n * Returns a sequence containing all elements of original sequence and then all elements of the given [elements] sequence.\n * \n * Note that the source sequence and the sequence being added are iterated only when an `iterator` is requested from\n * the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic operator fun <T> Sequence<T>.plus(elements: Sequence<T>): Sequence<T> {\n   return sequenceOf(this, elements).flatten()\n}\n\n/**\n * Returns a sequence containing all elements of the original sequence and then the given [element].\n *\n * The operation is _intermediate_ and _stateless_.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.plusElement(element: T): Sequence<T> {\n   return plus(element)\n}\n\n/**\n * Returns a sequence of snapshots of the window of the given [size]\n * sliding along this sequence with the given [step], where each\n * snapshot is a list.\n * \n * Several last lists may have fewer elements than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in this sequence.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.takeWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun <T> Sequence<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false): Sequence<List<T>> {\n   return windowedSequence(size, step, partialWindows, reuseBuffer = false)\n}\n\n/**\n * Returns a sequence of results of applying the given [transform] function to\n * an each list representing a view over the window of the given [size]\n * sliding along this sequence with the given [step].\n * \n * Note that the list passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * Several last lists may have fewer elements than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in this sequence.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.averageWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun <T, R> Sequence<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false, transform: (List<T>) -> R): Sequence<R> {\n   return windowedSequence(size, step, partialWindows, reuseBuffer =

true).map(transform)\n}\n\n/**\n * Returns a sequence of values built from the elements of `this` sequence and the [other] sequence with the same index.\n * The resulting sequence ends as soon as the shortest input sequence ends.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Sequences.Transformations.zip\n */\npublic infix fun <T, R> Sequence<T>.zip(other: Sequence<R>): Sequence<Pair<T, R>> {\n   return MergingSequence(this, other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a sequence of values built from the elements of `this` sequence

 and the [other] sequence with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The resulting sequence ends as soon as the shortest input sequence ends.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Sequences.Transformations.zipWithTransform\n */\npublic fun <T, R, V> Sequence<T>.zip(other: Sequence<R>, transform: (a: T, b: R) -> V): Sequence<V> {\n   return MergingSequence(this, other, transform)\n}\n\n/**\n * Returns a sequence of pairs of each two adjacent elements in this sequence.\n * \n * The returned sequence is empty if this sequence contains less than two elements.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNext\n */\n@SinceKotlin(\"1.2\")\npublic fun <T> Sequence<T>.zipWithNext(): Sequence<Pair<T, T>> {\n   return zipWithNext { a, b -> a to b }\n}\n\n/**\n * Returns a sequence containing the results

 of applying the given [transform] function\n * to an each pair of two adjacent elements in this sequence.\n * \n * The returned sequence is empty if this sequence contains less than two elements.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNextToFindDeltas\n */\n@SinceKotlin(\"1.2\")\npublic fun <T, R> Sequence<T>.zipWithNext(transform: (a: T, b: T) -> R): Sequence<R> {\n   return sequence result@ {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return@result\n   var current = iterator.next()\n   while (iterator.hasNext()) {\n   val next = iterator.next()\n   yield(transform(current, next))\n   current = next\n   }\n   }\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value

 of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <T, A : Appendable> Sequence<T>.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   buffer.appendElement(element, transform)\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix]

 if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun <T> Sequence<T>.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original sequence returning its elements when being iterated.\n */\npublic fun <T> Sequence<T>.asIterable(): Iterable<T> {\n   return Iterable { this.iterator() }\n}\n\n/**\n * Returns this sequence as a [Sequence].\n */\n@kotlin.internal.InlineOnly\npublic

 inline fun <T> Sequence<T>.asSequence(): Sequence<T> {\n   return this\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n

*/\n@kotlin.jvm.JvmName(\"averageOfByte\")\npublic fun Sequence<Byte>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"averageOfShort\")\npublic fun Sequence<Short>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"averageOfInt\")\npublic fun Sequence<Int>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"averageOfLong\")\npublic fun Sequence<Long>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"averageOfFloat\")\npublic fun Sequence<Float>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"averageOfDouble\")\npublic fun Sequence<Double>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfByte\")\npublic fun Sequence<Byte>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfShort\")\npublic fun Sequence<Short>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfInt\")\npublic fun Sequence<Int>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfLong\")\npublic fun Sequence<Long>.sum(): Long {\n   var sum: Long = 0L\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfFloat\")\npublic fun Sequence<Float>.sum(): Float {\n   var sum: Float = 0.0f\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfDouble\")\npublic fun Sequence<Double>.sum(): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"SetsKt\")\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns a set containing all elements of the original set except the given [element].\n * \n * The returned set preserves the element iteration order of the original set.\n */\npublic operator fun <T> Set<T>.minus(element: T): Set<T> {\n   val result = LinkedHashSet<T>(mapCapacity(size))\n   var removed = false\n   return this.filterTo(result) { if (!removed && it == element) { removed = true; false } else true }\n}\n\n/**\n * Returns a

set containing all elements of the original set except the elements contained in the given [elements] array.\n * \n * The returned set preserves the element iteration order of the original set.\n * \n * Before Kotlin 1.6, the [elements] array may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n */\npublic operator fun <T> Set<T>.minus(elements: Array<out T>): Set<T> {\n   val result = LinkedHashSet<T>(this)\n result.removeAll(elements)\n   return result\n}\n\n/**\n

 * Returns a set containing all elements of the original set except the elements contained in the given [elements] collection.\n * \n * The returned set preserves the element iteration order of the original set.\n * \n * Before Kotlin 1.6, the [elements] collection may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n */\npublic operator fun <T> Set<T>.minus(elements: Iterable<T>): Set<T> {\n   val other = elements.convertToSetForSetOperationWith(this)\n   if (other.isEmpty())\n   return this.toSet()\n   if (other is Set)\n   return this.filterNotTo(LinkedHashSet<T>()) { it in other }\n   val result = LinkedHashSet<T>(this)\n result.removeAll(other)\n   return result\n}\n\n/**\n

 * Returns a set containing all elements of the original set except the elements contained in the given [elements] sequence.\n * \n * The returned set preserves the element iteration order of the original set.\n * \n * Before Kotlin 1.6, the [elements] sequence may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n */\npublic operator fun <T> Set<T>.minus(elements: Sequence<T>): Set<T> {\n   val result = LinkedHashSet<T>(this)\n result.removeAll(elements)\n   return result\n}\n\n/**\n * Returns a set containing all elements of the original set except the given [element].\n * \n * The returned set preserves the element iteration order of the original set.\n */\n@kotlin.internal.InlineOnly\npublic

 inline fun <T> Set<T>.minusElement(element: T): Set<T> {\n   return minus(element)\n}\n\n/**\n * Returns a set containing all elements of the original set and then the given [element] if it isn't already in this set.\n * \n * The returned set preserves the element iteration order of the original set.\n */\npublic operator fun <T> Set<T>.plus(element: T): Set<T> {\n   val result = LinkedHashSet<T>(mapCapacity(size + 1))\n result.addAll(this)\n   result.add(element)\n   return result\n}\n\n/**\n * Returns a set containing all elements of the original set and the given [elements] array,\n * which aren't already in this set.\n * \n * The returned set preserves the element iteration order of the original set.\n */\npublic operator fun <T> Set<T>.plus(elements: Array<out T>): Set<T> {\n   val result = LinkedHashSet<T>(mapCapacity(this.size + elements.size))\n   result.addAll(this)\n result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a set containing all

 elements of the original set and the given [elements] collection,\n * which aren't already in this set.\n * The returned set preserves the element iteration order of the original set.\n */\npublic operator fun <T> Set<T>.plus(elements: Iterable<T>): Set<T> {\n   val result = LinkedHashSet<T>(mapCapacity(elements.collectionSizeOrNull()?.let { this.size + it } ?: this.size * 2))\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a set containing all elements of the original set and the given [elements] sequence,\n * which aren't already in this set.\n * \n * The returned set preserves the element iteration order of the original set.\n */\npublic operator fun <T> Set<T>.plus(elements: Sequence<T>): Set<T> {\n   val result = LinkedHashSet<T>(mapCapacity(this.size * 2))\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a set containing all elements of the original set and then the given [element] if

 it isn't already in this set.\n * \n * The returned set preserves the element iteration order of the original set.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Set<T>.plusElement(element: T): Set<T> {\n   return plus(element)\n}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n * Returns a character at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this char sequence.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun CharSequence.elementAt(index:

Int): Char\n\n/**\n * Returns a character at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this char sequence.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.elementAtOrElse(index: Int, defaultValue: (Int) -> Char): Char {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns a character at the given [index] or `null` if the [index] is out of bounds of this char sequence.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.elementAtOrNull(index: Int): Char? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns the first character matching the given [predicate], or `null` if no such character was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic

inline fun CharSequence.find(predicate: (Char) -> Boolean): Char? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the last character matching the given [predicate], or `null` if no such character was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.findLast(predicate: (Char) -> Boolean): Char? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the first character.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\npublic fun CharSequence.first(): Char {\n   if (isEmpty())\n   throw NoSuchElementException(\"Char sequence is empty.\")\n   return this[0]\n}\n\n/**\n * Returns the first character matching the given [predicate].\n * @throws [NoSuchElementException] if no such character is found.\n */\npublic inline fun CharSequence.first(predicate: (Char) -> Boolean): Char {\n   for (element in this) if (predicate(element)) return

element\n   throw NoSuchElementException(\"Char sequence contains no character matching the predicate.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to characters of this char sequence in iteration order,\n * or throws [NoSuchElementException] if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <R : Any> CharSequence.firstNotNullOf(transform: (Char) -> R?): R {\n   return firstNotNullOfOrNull(transform) ?: throw NoSuchElementException(\"No element of the char sequence was transformed to a non-null value.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to characters of this char sequence in iteration order,\n * or `null` if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic

inline fun <R : Any> CharSequence.firstNotNullOfOrNull(transform: (Char) -> R?): R? {\n   for (element in this) {\n   val result = transform(element)\n   if (result != null) {\n   return result\n   }\n   }\n   return null\n}\n\n/**\n * Returns the first character, or `null` if the char sequence is empty.\n */\npublic fun CharSequence.firstOrNull(): Char? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first character matching the given [predicate], or `null` if character was not found.\n */\npublic inline fun CharSequence.firstOrNull(predicate: (Char) -> Boolean): Char? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns a character at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this char sequence.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.getOrElse(index:

Int, defaultValue: (Int) -> Char): Char {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns a character at the given [index] or `null` if the [index] is out of bounds of this char sequence.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun CharSequence.getOrNull(index: Int): Char? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns index of the first character matching the given [predicate], or -1 if the char sequence does not contain such character.\n */\npublic inline fun CharSequence.indexOfFirst(predicate: (Char) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last character matching the given [predicate], or -1 if the char sequence does not contain such character.\n */\npublic inline fun CharSequence.indexOfLast(predicate: (Char) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns the last character.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n * \n * @sample samples.text.Strings.last\n */\npublic fun CharSequence.last(): Char {\n   if (isEmpty())\n   throw NoSuchElementException(\"Char sequence is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last character matching the given [predicate].\n * \n * @throws NoSuchElementException if no such character is found.\n * \n * @sample samples.text.Strings.last\n */\npublic inline fun CharSequence.last(predicate: (Char) -> Boolean): Char {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Char sequence contains no character matching the predicate.\")\n}\n\n/**\n * Returns the last character, or `null` if the char sequence is empty.\n * \n * @sample samples.text.Strings.last\n */\npublic fun CharSequence.lastOrNull(): Char? {\n   return if (isEmpty()) null else this[length - 1]\n}\n\n/**\n * Returns the last character matching the given [predicate], or `null` if no such character was found.\n * \n * @sample samples.text.Strings.last\n */\npublic inline fun CharSequence.lastOrNull(predicate: (Char) -> Boolean): Char? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns a random character from this char sequence.\n * \n * @throws NoSuchElementException if this char sequence is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.random(): Char {\n   return random(Random)\n}\n\n/**\n * Returns a random character from this char sequence using the specified source of randomness.\n * \n * @throws NoSuchElementException if this char sequence is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun CharSequence.random(random: Random): Char {\n   if (isEmpty())\n   throw NoSuchElementException(\"Char sequence is empty.\")\n   return get(random.nextInt(length))\n}\n\n/**\n * Returns a random character from this char sequence, or `null` if this char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.randomOrNull(): Char? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random character from this char sequence using the specified source of randomness, or `null` if this char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun CharSequence.randomOrNull(random: Random): Char? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(length))\n}\n\n/**\n * Returns the single character, or throws an exception if the char sequence is empty or has more than one character.\n */\npublic fun CharSequence.single(): Char {\n   return when (length) {\n   0 -> throw NoSuchElementException(\"Char sequence is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Char sequence has more than one element.\")\n   }\n}\n\n/**\n * Returns the single character matching the given [predicate], or throws exception if there is no or more than one matching character.\n */\npublic inline fun CharSequence.single(predicate: (Char) -> Boolean): Char {\n   var single: Char? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Char sequence contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Char sequence contains no character matching the predicate.\")\n

@Suppress(\"UNCHECKED_CAST\")\n   return single as Char\n}\n\n/**\n * Returns single character, or `null` if the char sequence is empty or has more than one character.\n */\npublic fun CharSequence.singleOrNull(): Char? {\n   return if (length == 1) this[0] else null\n}\n\n/**\n * Returns the single character matching the given [predicate], or `null` if character was not found or more than one character was found.\n */\npublic inline fun CharSequence.singleOrNull(predicate: (Char) -> Boolean): Char? {\n   var single: Char? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns a subsequence of this char sequence with the first [n] characters removed.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.drop\n
 */\npublic fun CharSequence.drop(n: Int): CharSequence {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   return subSequence(n.coerceAtMost(length), length)\n}\n\n/**\n * Returns a string with the first [n] characters removed.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.drop\n */\npublic fun String.drop(n: Int): String {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   return substring(n.coerceAtMost(length))\n}\n\n/**\n * Returns a subsequence of this char sequence with the last [n] characters removed.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.drop\n */\npublic fun CharSequence.dropLast(n: Int): CharSequence {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   return take((length - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a string with the last [n] characters removed.\n * \n
 * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.drop\n */\npublic fun String.dropLast(n: Int): String {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   return take((length - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a subsequence of this char sequence containing all characters except last characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.drop\n */\npublic inline fun CharSequence.dropLastWhile(predicate: (Char) -> Boolean): CharSequence {\n   for (index in lastIndex downTo 0)\n   if (!predicate(this[index]))\n   return subSequence(0, index + 1)\n   return \"\"\n}\n\n/**\n * Returns a string containing all characters except last characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.drop\n */\npublic inline fun String.dropLastWhile(predicate: (Char) -> Boolean): String {\n   for (index in lastIndex downTo 0)\n   if (!predicate(this[index]))\n
            return substring(0, index + 1)\n   return \"\"\n}\n\n/**\n * Returns a subsequence of this char sequence containing all characters except first characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.drop\n */\npublic inline fun CharSequence.dropWhile(predicate: (Char) -> Boolean): CharSequence {\n   for (index in this.indices)\n   if (!predicate(this[index]))\n   return subSequence(index, length)\n   return \"\"\n}\n\n/**\n * Returns a string containing all characters except first characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.drop\n */\npublic inline fun String.dropWhile(predicate: (Char) -> Boolean): String {\n   for (index in this.indices)\n   if (!predicate(this[index]))\n   return substring(index)\n   return \"\"\n}\n\n/**\n * Returns a char sequence containing only those characters from the original char sequence that match the given [predicate].\n
 * \n * @sample samples.text.Strings.filter\n */\npublic inline fun CharSequence.filter(predicate: (Char) -> Boolean): CharSequence {\n   return filterTo(StringBuilder(), predicate)\n}\n\n/**\n * Returns a string containing only those characters from the original string that match the given [predicate].\n * \n * @sample samples.text.Strings.filter\n */\npublic inline fun String.filter(predicate: (Char) -> Boolean): String {\n   return filterTo(StringBuilder(), predicate).toString()\n}\n\n/**\n * Returns a char sequence containing only those characters from the original char sequence that match the given [predicate].\n * @param [predicate] function that takes the index of a character and the character itself\n * and returns the result of predicate evaluation on the character.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun CharSequence.filterIndexed(predicate: (index: Int, Char) -> Boolean): CharSequence {\n   return filterIndexedTo(StringBuilder(),
 predicate)\n}\n\n/**\n * Returns a string containing only those characters from the original string that match the given [predicate].\n * @param [predicate] function that takes the index of a character and the character itself\n * and

returns the result of predicate evaluation on the character.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun String.filterIndexed(predicate: (index: Int, Char) -> Boolean): String {\n   return filterIndexedTo(StringBuilder(), predicate).toString()\n}\n\n/**\n * Appends all characters matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of a character and the character itself\n * and returns the result of predicate evaluation on the character.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : Appendable> CharSequence.filterIndexedTo(destination: C, predicate: (index: Int, Char) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.append(element)\n   }\n   return destination\n}\n\n/**\n * Returns a char sequence containing only those characters from the original char sequence that do not match the given [predicate].\n * \n * @sample samples.text.Strings.filterNot\n */\npublic inline fun CharSequence.filterNot(predicate: (Char) -> Boolean): CharSequence {\n   return filterNotTo(StringBuilder(), predicate)\n}\n\n/**\n * Returns a string containing only those characters from the original string that do not match the given [predicate].\n * \n * @sample samples.text.Strings.filterNot\n */\npublic inline fun String.filterNot(predicate: (Char) -> Boolean): String {\n   return filterNotTo(StringBuilder(), predicate).toString()\n}\n\n/**\n * Appends all characters not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : Appendable> CharSequence.filterNotTo(destination: C, predicate: (Char) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.append(element)\n   return destination\n}\n\n/**\n * Appends all characters matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : Appendable> CharSequence.filterTo(destination: C, predicate: (Char) -> Boolean): C {\n   for (index in 0 until length) {\n   val element = get(index)\n   if (predicate(element)) destination.append(element)\n   }\n   return destination\n}\n\n/**\n * Returns a char sequence containing characters of the original char sequence at the specified range of [indices].\n */\npublic fun CharSequence.slice(indices: IntRange): CharSequence {\n   if (indices.isEmpty()) return \"\"\n   return subSequence(indices)\n}\n\n/**\n * Returns a string containing characters of the original string at the specified range of [indices].\n */\npublic fun String.slice(indices: IntRange): String {\n   if (indices.isEmpty()) return \"\"\n   return substring(indices)\n}\n\n/**\n * Returns a char sequence containing characters of the original char sequence at specified [indices].\n */\npublic fun CharSequence.slice(indices: Iterable<Int>): CharSequence {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return \"\"\n   val result = StringBuilder(size)\n   for (i in indices) {\n   result.append(get(i))\n   }\n   return result\n}\n\n/**\n * Returns a string containing characters of the original string at specified [indices].\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.slice(indices: Iterable<Int>): String {\n   return (this as CharSequence).slice(indices).toString()\n}\n\n/**\n * Returns a subsequence of this char sequence containing the first [n] characters from this char sequence, or the entire char sequence if this char sequence is shorter.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.take\n */\npublic fun CharSequence.take(n: Int): CharSequence {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   return subSequence(0, n.coerceAtMost(length))\n}\n\n/**\n * Returns a string containing the first [n] characters from this string, or the entire string if this string is shorter.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.take\n */\npublic fun String.take(n: Int): String {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   return substring(0, n.coerceAtMost(length))\n}\n\n/**\n * Returns a subsequence of this char sequence containing the last [n] characters from this char sequence, or the entire char sequence if this char sequence is shorter.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.take\n */\npublic fun CharSequence.takeLast(n: Int): CharSequence {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   val length = length\n   return subSequence(length - n.coerceAtMost(length), length)\n}\n\n/**\n * Returns a string containing the last [n] characters from this string, or the entire string if this string is shorter.\n * \n * @throws

IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.take\n */\npublic fun String.takeLast(n: Int): String {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   val length = length\n   return substring(length - n.coerceAtMost(length))\n}\n\n/**\n * Returns a subsequence of this char sequence containing last characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.take\n */\npublic inline fun CharSequence.takeLastWhile(predicate: (Char) -> Boolean): CharSequence {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return subSequence(index + 1, length)\n   }\n   }\n   return subSequence(0, length)\n}\n\n/**\n * Returns a string containing last characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.take\n */\npublic inline fun String.takeLastWhile(predicate: (Char) -> Boolean): String {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return substring(index + 1)\n   }\n   }\n   return this\n}\n\n/**\n * Returns a subsequence of this char sequence containing the first characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.take\n */\npublic inline fun CharSequence.takeWhile(predicate: (Char) -> Boolean): CharSequence {\n   for (index in 0 until length)\n   if (!predicate(get(index))) {\n   return subSequence(0, index)\n   }\n   return subSequence(0, length)\n}\n\n/**\n * Returns a string containing the first characters that satisfy the given [predicate].\n

 * \n * @sample samples.text.Strings.take\n */\npublic inline fun String.takeWhile(predicate: (Char) -> Boolean): String {\n   for (index in 0 until length)\n   if (!predicate(get(index))) {\n   return substring(0, index)\n   }\n   return this\n}\n\n/**\n * Returns a char sequence with characters in reversed order.\n */\npublic fun CharSequence.reversed(): CharSequence {\n   return StringBuilder(this).reverse()\n}\n\n/**\n * Returns a string with characters in reversed order.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.reversed(): String {\n   return (this as CharSequence).reversed().toString()\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to characters of the given char sequence.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original char sequence.\n * \n * @sample samples.text.Strings.associate\n

 */\npublic inline fun <K, V> CharSequence.associate(transform: (Char) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(length).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing the characters from the given char sequence indexed by the key\n * returned from [keySelector] function applied to each character.\n * \n * If any two characters would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original char sequence.\n * \n * @sample samples.text.Strings.associateBy\n */\npublic inline fun <K> CharSequence.associateBy(keySelector: (Char) -> K): Map<K, Char> {\n   val capacity = mapCapacity(length).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Char>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector]

 functions applied to characters of the given char sequence.\n * \n * If any two characters would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original char sequence.\n * \n * @sample samples.text.Strings.associateByWithValueTransform\n */\npublic inline fun <K, V> CharSequence.associateBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, V> {\n   val capacity = mapCapacity(length).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each character of the given char sequence\n * and value is the character itself.\n * \n * If any two characters would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.text.Strings.associateByTo\n

 */\npublic inline fun <K, M : MutableMap<in K, in Char>> CharSequence.associateByTo(destination: M, keySelector: (Char) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function

applied to characters of the given char sequence.\n * \n * If any two characters would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.text.Strings.associateByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> CharSequence.associateByTo(destination: M, keySelector: (Char) -> K, valueTransform: (Char) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n
 * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each character of the given char sequence.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.text.Strings.associateTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> CharSequence.associateTo(destination: M, transform: (Char) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Returns a [Map] where keys are characters from the given char sequence and values are\n * produced by the [valueSelector] function applied to each character.\n * \n * If any two characters are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original char sequence.\n * \n * @sample samples.text.Strings.associateWith\n */\n@SinceKotlin(\"1.3\")\npublic inline
 fun <V> CharSequence.associateWith(valueSelector: (Char) -> V): Map<Char, V> {\n   val result = LinkedHashMap<Char, V>(mapCapacity(length.coerceAtMost(128)).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each character of the given char sequence,\n * where key is the character itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two characters are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.text.Strings.associateWithTo\n */\n@SinceKotlin(\"1.3\")\npublic inline fun <V, M : MutableMap<in Char, in V>> CharSequence.associateWithTo(destination: M, valueSelector: (Char) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Appends all characters to the given [destination] collection.\n */\npublic fun
 <C : MutableCollection<in Char>> CharSequence.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Returns a new [HashSet] of all characters.\n */\npublic fun CharSequence.toHashSet(): HashSet<Char> {\n   return toCollection(HashSet<Char>(mapCapacity(length.coerceAtMost(128))))\n}\n\n/**\n * Returns a [List] containing all characters.\n */\npublic fun CharSequence.toList(): List<Char> {\n   return when (length) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a new [MutableList] filled with all characters of this char sequence.\n */\npublic fun CharSequence.toMutableList(): MutableList<Char> {\n   return toCollection(ArrayList<Char>(length))\n}\n\n/**\n * Returns a [Set] of all characters.\n * \n * The returned set preserves the element iteration order of the original char sequence.\n */\npublic fun CharSequence.toSet(): Set<Char>
 {\n   return when (length) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Char>(mapCapacity(length.coerceAtMost(128))))\n   }\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each character of original char sequence.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> CharSequence.flatMap(transform: (Char) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each character\n * and its index in the original char sequence.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic
 inline fun <R> CharSequence.flatMapIndexed(transform: (index: Int, Char) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each character\n * and its index in the original char sequence, to the given

[destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> CharSequence.flatMapIndexedTo(destination: C, transform: (index: Int, Char) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each character
 of original char sequence, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> CharSequence.flatMapTo(destination: C, transform: (Char) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Groups characters of the original char sequence by the key returned by the given [keySelector] function\n * applied to each character and returns a map where each group key is associated with a list of corresponding characters.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original char sequence.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> CharSequence.groupBy(keySelector: (Char) -> K): Map<K, List<Char>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Char>>(), keySelector)\n}\n\n/**\n * Groups values returned by the [valueTransform] function
 applied to each character of the original char sequence\n * by the key returned by the given [keySelector] function applied to the character\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original char sequence.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> CharSequence.groupBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups characters of the original char sequence by the key returned by the given [keySelector] function\n * applied to each character and puts to the [destination] map each group key associated with a list of corresponding characters.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
 */\npublic inline fun <K, M : MutableMap<in K, MutableList<Char>>> CharSequence.groupByTo(destination: M, keySelector: (Char) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Char>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each character of the original char sequence\n * by the key returned by the given [keySelector] function applied to the character\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> CharSequence.groupByTo(destination: M, keySelector: (Char) -> K, valueTransform: (Char) -> V): M {\n   for (element in this) {\n   val key
 = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Creates a [Grouping] source from a char sequence to be used later with one of group-and-fold operations\n * using the specified [keySelector] function to extract a key from each character.\n * \n * @sample samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <K> CharSequence.groupingBy(crossinline keySelector: (Char) -> K): Grouping<Char, K> {\n   return object : Grouping<Char, K> {\n   override fun sourceIterator(): Iterator<Char> = this@groupingBy.iterator()\n   override fun keyOf(element: Char): K = keySelector(element)\n   }\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each character in the original char sequence.\n * \n * @sample samples.text.Strings.map\n */\npublic inline fun <R> CharSequence.map(transform:
 (Char) -> R): List<R> {\n   return mapTo(ArrayList<R>(length), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each character and its index in the original char

sequence.\n * @param [transform] function that takes the index of a character and the character itself\n * and returns the result of the transform applied to the character.\n */\npublic inline fun <R> CharSequence.mapIndexed(transform: (index: Int, Char) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(length), transform)\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each character and its index in the original char sequence.\n * @param [transform] function that takes the index of a character and the character itself\n * and returns the result of the transform applied to the character.\n */\npublic inline fun <R : Any> CharSequence.mapIndexedNotNull(transform: (index: Int, Char) -> R?): List<R> {\n   return mapIndexedNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each character and its index in the original char sequence\n * and appends only the non-null results to the given [destination].\n * @param [transform] function that takes the index of a character and the character itself\n * and returns the result of the transform applied to the character.\n */\npublic inline fun <R : Any, C : MutableCollection<in R>> CharSequence.mapIndexedNotNullTo(destination: C, transform: (index: Int, Char) -> R?): C {\n   forEachIndexed { index, element -> transform(index, element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each character and its index in the original char sequence\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of a character and the character itself\n * and returns the result of the transform applied to the character.\n */\npublic inline fun <R, C : MutableCollection<in R>> CharSequence.mapIndexedTo(destination: C, transform: (index: Int, Char) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each character in the original char sequence.\n * \n * @sample samples.collections.Collections.Transformations.mapNotNull\n */\npublic inline fun <R : Any> CharSequence.mapNotNull(transform: (Char) -> R?): List<R> {\n   return mapNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each character in the original char sequence\n * and appends only the non-null results to the given [destination].\n */\npublic inline fun <R : Any, C : MutableCollection<in R>> CharSequence.mapNotNullTo(destination: C, transform: (Char) -> R?): C {\n   forEach { element -> transform(element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each character of the original char sequence\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> CharSequence.mapTo(destination: C, transform: (Char) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each character of the original char sequence\n * into an [IndexedValue] containing the index of that character and the character itself.\n */\npublic fun CharSequence.withIndex(): Iterable<IndexedValue<Char>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns `true` if all characters match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun CharSequence.all(predicate: (Char) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if char sequence has at least one character.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun CharSequence.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if at least one character matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun CharSequence.any(predicate: (Char) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns the length of this char sequence.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.count(): Int {\n   return length\n}\n\n/**\n * Returns the number of characters matching the given [predicate].\n */\npublic inline fun CharSequence.count(predicate: (Char) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each character.\n * \n * Returns the specified [initial] value if the char sequence is empty.\n * \n * @param [operation] function that takes current accumulator value and a character, and calculates the next accumulator value.\n */\npublic inline fun <R> CharSequence.fold(initial: R, operation: (acc: R, Char) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each character with its index in the original char sequence.\n * \n * Returns the specified [initial] value if the char sequence is empty.\n * \n * @param [operation] function that takes the index of a character, current accumulator value\n * and the character

itself, and calculates the next accumulator value.\n */\npublic inline fun <R> CharSequence.foldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each character and current accumulator value.\n * \n * Returns the specified [initial] value if the char sequence is empty.\n * \n * @param [operation] function that takes a character and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> CharSequence.foldRight(initial: R, operation: (Char, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value

starting with [initial] value and applying [operation] from right to left\n * to each character with its index in the original char sequence and current accumulator value.\n * \n * Returns the specified [initial] value if the char sequence is empty.\n * \n * @param [operation] function that takes the index of a character, the character itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> CharSequence.foldRightIndexed(initial: R, operation: (index: Int, Char, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Performs the given [action] on each character.\n */\npublic inline fun CharSequence.forEach(action: (Char) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each character, providing sequential

index with the character.\n * @param [action] function that takes the index of a character and the character itself\n * and performs the action on the character.\n */\npublic inline fun CharSequence.forEachIndexed(action: (index: Int, Char) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Returns the largest character.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun CharSequence.max(): Char {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first character yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> CharSequence.maxBy(selector: (Char) -> R): Char {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first character yielding the largest value of the given function or `null` if there are no characters.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> CharSequence.maxByOrNull(selector: (Char) -> R): Char? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n

    if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n

}\n   return maxElem\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.maxOf(selector: (Char) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.maxOf(selector: (Char) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> CharSequence.maxOf(selector: (Char) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.maxOfOrNull(selector: (Char) -> Double): Double? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.maxOfOrNull(selector: (Char) -> Float): Float? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> CharSequence.maxOfOrNull(selector: (Char) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each character in the char sequence.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic

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 inline fun <R> CharSequence.maxOfWith(comparator: Comparator<in R>, selector: (Char) -> R): R {\n    if
(isEmpty()) throw NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n
val v = selector(this[i])\n        if (comparator.compare(maxValue, v) < 0) {\n            maxValue = v\n        }\n    }\n
return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all
values produced by [selector] function applied to each character in the char sequence or `null` if there are no
characters.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
CharSequence.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Char) -> R): R? {\n    if (isEmpty())
return null\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n
    val v = selector(this[i])\n        if (comparator.compare(maxValue, v) < 0) {\n            maxValue = v\n        }\n    }\n
  return maxValue\n}\n\n/**\n * Returns the largest character or `null` if there are no characters.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun CharSequence.maxOrNull(): Char? {\n    if (isEmpty()) return null\n    var
max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (max < e) max = e\n    }\n    return
max\n}\n\n/**\n * Returns the first character having the largest value according to the provided [comparator].\n * \n
* @throws NoSuchElementException if the char sequence is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxWithOrThrow\")\n@Suppress(\"CONFLICTING_OVER
LOADS\")\npublic fun CharSequence.maxWith(comparator: Comparator<in Char>): Char {\n    if (isEmpty())
throw NoSuchElementException()\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if
(comparator.compare(max, e) < 0)
 max = e\n    }\n    return max\n}\n\n/**\n * Returns the first character having the largest value according to the
provided [comparator] or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\npublic fun
CharSequence.maxWithOrNull(comparator: Comparator<in Char>): Char? {\n    if (isEmpty()) return null\n    var
max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(max, e) < 0) max = e\n
}\n    return max\n}\n\n/**\n * Returns the smallest character.\n * \n * @throws NoSuchElementException if the
char sequence is empty.\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOA
DS\")\npublic fun CharSequence.min(): Char {\n    if (isEmpty()) throw NoSuchElementException()\n    var min =
this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (min > e) min = e\n    }\n    return min\n}\n\n/**\n *
Returns the first character yielding the smallest value of the given function.\n
 * \n * @throws NoSuchElementException if the char sequence is empty.\n * \n * @sample
samples.collections.Collections.Aggregates.minBy\n
*/\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow\")\n@Suppress(\"CONFLICTING_OVERLO
ADS\")\npublic inline fun <R : Comparable<R>> CharSequence.minBy(selector: (Char) -> R): Char {\n    if
(isEmpty()) throw NoSuchElementException()\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if
(lastIndex == 0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e =
this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n
}\n    return minElem\n}\n\n/**\n * Returns the first character yielding the smallest value of the given function or
`null` if there are no characters.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n
*/\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>>
 CharSequence.minByOrNull(selector: (Char) -> R): Char? {\n    if (isEmpty()) return null\n    var minElem =
this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue =
selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v)
{\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the smallest
value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * If
any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if the char sequence is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
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ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOf(selector: (Char) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOf(selector: (Char) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> CharSequence.minOf(selector: (Char) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOfOrNull(selector: (Char) -> Double): Double? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOfOrNull(selector: (Char) -> Float): Float? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> CharSequence.minOfOrNull(selector: (Char) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each character in the char sequence.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharSequence.minOfWith(comparator: Comparator<in R>, selector: (Char) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each character in the char sequence or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharSequence.minOfWithOrNull(comparator: Comparator<in R>, selector: (Char) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest character or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharSequence.minOrNull(): Char? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first character having the smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minWithOrThrow\")\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun CharSequence.minWith(comparator: Comparator<in Char>): Char {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first character having the smallest value according to the provided [comparator] or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharSequence.minWithOrNull(comparator: Comparator<in Char>): Char? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns `true` if the char sequence has no characters.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun CharSequence.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if no characters match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun CharSequence.none(predicate: (Char) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Performs the given [action] on each character and returns the char sequence itself afterwards.\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <S : CharSequence> S.onEach(action: (Char) -> Unit): S {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each character, providing sequential index with the character,\n * and returns the char sequence itself afterwards.\n * @param [action] function that takes the index of a character and the character itself\n * and performs the action on the character.\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <S : CharSequence> S.onEachIndexed(action: (index: Int, Char) -> Unit): S {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Accumulates value starting with the first character and applying [operation] from left to right\n * to current accumulator value and each character.\n * \n * Throws an exception if this char sequence is empty. If the char sequence can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and a character,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun CharSequence.reduce(operation: (acc: Char, Char) -> Char): Char {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty char sequence can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first character and applying [operation] from left to right\n * to current accumulator value and each character with its index in the original char sequence.\n * \n * Throws an exception if this char sequence is empty. If the char sequence can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of a character, current accumulator value and the character itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun CharSequence.reduceIndexed(operation: (index: Int, acc: Char, Char) -> Char): Char {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty char sequence can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first character and applying [operation] from left to right\n * to current accumulator value and each character with its index in the original char sequence.\n * \n * Returns `null` if the char sequence is empty.\n * \n * @param [operation] function that takes the index of a character, current accumulator value and the character itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun CharSequence.reduceIndexedOrNull(operation: (index: Int, acc: Char, Char) -> Char): Char? {\n   if (isEmpty())\n   return null\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first character and applying [operation] from left to right\n * to current accumulator value and each character.\n * \n * Returns `null` if the char sequence is empty.\n * \n * @param [operation] function that takes current accumulator value and a character,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun CharSequence.reduceOrNull(operation: (acc: Char, Char) -> Char): Char? {\n   if (isEmpty())\n   return null\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last character and applying [operation] from right to left\n * to each character and current accumulator value.\n * \n * Throws an exception if this char sequence is empty. If the char sequence can be empty in an expected way,\n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes a character and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun CharSequence.reduceRight(operation: (Char, acc: Char) -> Char): Char {\n   var index = lastIndex\n   if (index < 0) throw UnsupportedOperationException(\"Empty char sequence can't be reduced.\")\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last character and applying [operation] from right to left\n * to each character with its index in the original char sequence and current accumulator value.\n * \n * Throws an exception if this char sequence is empty. If the char sequence can be empty in an expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of a character, the character itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun CharSequence.reduceRightIndexed(operation: (index: Int, Char, acc: Char) -> Char): Char {\n   var index = lastIndex\n   if (index < 0) throw UnsupportedOperationException(\"Empty char sequence can't be reduced.\")\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last character and applying [operation] from right to left\n * to each character with its index in the original char sequence and current accumulator value.\n * \n * Returns `null` if the char sequence is empty.\n * \n * @param [operation] function that takes the index of a character, the character itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun CharSequence.reduceRightIndexedOrNull(operation: (index: Int, Char, acc: Char) -> Char): Char? {\n   var index = lastIndex\n   if (index < 0) return null\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last character and applying [operation] from right to left\n * to each character and current accumulator value.\n * \n * Returns `null` if the char sequence is empty.\n * \n * @param [operation] function that takes a character and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun CharSequence.reduceRightOrNull(operation: (Char, acc: Char) ->

Char): Char? {\n   var index = lastIndex\n   if (index < 0) return null\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each character and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and a character, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R> CharSequence.runningFold(initial: R, operation: (acc: R, Char) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(length + 1).apply { add(initial) }\n   var accumulator = initial\n   for (element in this) {\n   accumulator = operation(accumulator, element)\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each character, its index in the original char sequence and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of a character, current accumulator value\n * and the character itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R> CharSequence.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(length + 1).apply { add(initial) }\n   var accumulator = initial\n   for (index in indices) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each character and current accumulator value that starts with the first character of this char sequence.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and a character, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\npublic inline fun CharSequence.runningReduce(operation: (acc: Char, Char) -> Char): List<Char> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Char>(length).apply { add(accumulator) }\n   for (index in 1 until length) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each character, its index in the original char sequence and current accumulator value that starts with the first character of this char sequence.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of a character, current accumulator value\n * and the character itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\npublic inline fun CharSequence.runningReduceIndexed(operation: (index: Int, acc: Char, Char) -> Char): List<Char> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Char>(length).apply { add(accumulator) }\n   for (index in 1 until length) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each character and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and a character, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <R> CharSequence.scan(initial: R, operation: (acc: R, Char) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation]

from left to right\n * to each character, its index in the original char sequence and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of a character, current accumulator value\n * and the character itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <R> CharSequence.scanIndexed(initial: R,
operation: (index: Int, acc: R, Char) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun CharSequence.sumBy(selector: (Char) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun CharSequence.sumByDouble(selector: (Char) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns
the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.sumOf(selector: (Char) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.sumOf(selector: (Char) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return
sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.sumOf(selector: (Char) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.sumOf(selector: (Char) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element
in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.sumOf(selector: (Char) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Splits this char sequence into a list of strings each not exceeding the given [size].\n * \n * The last string in the resulting list may have fewer characters than the given [size].\n * \n * @param size the number of elements to take in each string, must be positive and can be greater than the number of elements in this char sequence.\n * \n * @sample

samples.text.Strings.chunked\n */\n@SinceKotlin(\"1.2\")\npublic fun CharSequence.chunked(size: Int): List<String> {\n   return windowed(size, size, partialWindows = true)\n}\n\n/**\n * Splits this char sequence into several char sequences each not exceeding the given [size]\n * and applies the given [transform] function to an each.\n * \n * @return list of results of the [transform] applied to an each char sequence.\n * \n * Note that the char sequence passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * The last char sequence may have fewer characters than the given [size].\n * \n * @param size the number of elements to take in each char sequence, must be positive and can be greater than the number of elements in this char sequence.\n * \n * @sample samples.text.Strings.chunkedTransform\n */\n@SinceKotlin(\"1.2\")\npublic fun <R> CharSequence.chunked(size: Int, transform: (CharSequence) -> R): List<R> {\n   return windowed(size, size, partialWindows = true, transform = transform)\n}\n\n/**\n * Splits this char sequence into a sequence of strings each not exceeding the given [size].\n * \n * The last string in the resulting sequence may have fewer characters than the given [size].\n * \n * @param size the number of elements to take in each string, must be positive and can be greater than the number of elements in this char sequence.\n * \n * @sample samples.collections.Collections.Transformations.chunked\n */\n@SinceKotlin(\"1.2\")\npublic fun CharSequence.chunkedSequence(size: Int): Sequence<String> {\n   return chunkedSequence(size) { it.toString() }\n}\n\n/**\n * Splits this char sequence into several char sequences each not exceeding the given [size]\n * and applies the given [transform] function to an each.\n * \n * @return sequence of results of the [transform] applied to an each char sequence.\n * \n * Note that the
char sequence passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * The last char sequence may have fewer characters than the given [size].\n * \n * @param size the number of elements to take in each char sequence, must be positive and can be greater than the number of elements in this char sequence.\n * \n * @sample samples.text.Strings.chunkedTransformToSequence\n */\n@SinceKotlin(\"1.2\")\npublic fun <R> CharSequence.chunkedSequence(size: Int, transform: (CharSequence) -> R): Sequence<R> {\n   return windowedSequence(size, size, partialWindows = true, transform = transform)\n}\n\n/**\n * Splits the original char sequence into pair of char sequences,\n * where *first* char sequence contains characters for which [predicate] yielded `true`,\n * while *second* char sequence contains characters for which [predicate] yielded `false`.\n * \n * @sample samples.text.Strings.partition\n
*/\npublic inline fun CharSequence.partition(predicate: (Char) -> Boolean): Pair<CharSequence, CharSequence> {\n   val first = StringBuilder()\n   val second = StringBuilder()\n   for (element in this) {\n   if (predicate(element)) {\n   first.append(element)\n   } else {\n   second.append(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Splits the original string into pair of strings,\n * where *first* string contains characters for which [predicate] yielded `true`,\n * while *second* string contains characters for which [predicate] yielded `false`.\n * \n * @sample samples.text.Strings.partition\n */\npublic inline fun String.partition(predicate: (Char) -> Boolean): Pair<String, String> {\n   val first = StringBuilder()\n   val second = StringBuilder()\n   for (element in this) {\n   if (predicate(element)) {\n   first.append(element)\n   } else {\n   second.append(element)\n
}\n   }\n   return Pair(first.toString(), second.toString())\n}\n\n/**\n * Returns a list of snapshots of the window of the given [size]\n * sliding along this char sequence with the given [step], where each\n * snapshot is a string.\n * \n * Several last strings may have fewer characters than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in this char sequence.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.takeWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun CharSequence.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false): List<String> {\n   return windowed(size,

step, partialWindows) { it.toString() }\n}\n\n/**\n * Returns a list of results of applying the given [transform] function to\n * an each char sequence representing a view over the window of the given [size]\n * sliding along this char sequence with the given [step].\n * \n * Note that the char sequence passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * Several last char sequences may have fewer characters than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in this char sequence.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows

won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.averageWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun <R> CharSequence.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false, transform: (CharSequence) -> R): List<R> {\n   checkWindowSizeStep(size, step)\n   val thisSize = this.length\n   val resultCapacity = thisSize / step + if (thisSize % step == 0) 0 else 1\n   val result = ArrayList<R>(resultCapacity)\n   var index = 0\n   while (index in 0 until thisSize) {\n   val end = index + size\n   val coercedEnd = if (end < 0 || end > thisSize) { if (partialWindows) thisSize else break } else end\n   result.add(transform(subSequence(index, coercedEnd)))\n   index += step\n   }\n   return result\n}\n\n/**\n * Returns a sequence of snapshots of the window of the given [size]\n * sliding along this char sequence with the given [step], where each\n * snapshot is a string.\n * \n * Several last strings may have fewer

characters than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in this char sequence.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.takeWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun CharSequence.windowedSequence(size: Int, step: Int = 1, partialWindows: Boolean = false): Sequence<String> {\n   return windowedSequence(size, step, partialWindows) { it.toString() }\n}\n\n/**\n * Returns a sequence of results of applying the given [transform] function to\n * an each char sequence representing a view over the window of the given [size]\n * sliding along this char sequence with the given

[step].\n * \n * Note that the char sequence passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * Several last char sequences may have fewer characters than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in this char sequence.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.averageWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun <R> CharSequence.windowedSequence(size: Int, step: Int = 1, partialWindows: Boolean = false, transform: (CharSequence) -> R):

Sequence<R> {\n   checkWindowSizeStep(size, step)\n   val windows = (if (partialWindows) indices else 0 until length - size + 1) step step\n   return windows.asSequence().map { index ->\n   val end = index + size\n   val coercedEnd = if (end < 0 || end > length) length else end\n   transform(subSequence(index, coercedEnd))\n   }\n}\n\n/**\n * Returns a list of pairs built from the characters of `this` and the [other] char sequences with the same index\n * The returned list has length of the shortest char sequence.\n * \n * @sample samples.text.Strings.zip\n */\npublic infix fun CharSequence.zip(other: CharSequence): List<Pair<Char, Char>> {\n   return zip(other) { c1, c2 -> c1 to c2 }\n}\n\n/**\n * Returns a list of values built from the characters of `this` and the [other] char sequences with the same index\n * using the provided [transform] function applied to each pair of characters.\n * The returned list has length of the shortest char sequence.\n * \n * @sample

samples.text.Strings.zipWithTransform\n */\npublic inline fun <V> CharSequence.zip(other: CharSequence, transform: (a: Char, b: Char) -> V): List<V> {\n   val length = minOf(this.length, other.length)\n   val list =

ArrayList<V>(length)\n   for (i in 0 until length) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of pairs of each two adjacent characters in this char sequence.\n * \n * The returned list is empty if this char sequence contains less than two characters.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNext\n */\n@SinceKotlin(\"1.2\")\npublic fun CharSequence.zipWithNext(): List<Pair<Char, Char>> {\n   return zipWithNext { a, b -> a to b }\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to an each pair of two adjacent characters in this char sequence.\n * \n * The returned list is empty if this char sequence contains less than two characters.\n
 * \n * @sample samples.collections.Collections.Transformations.zipWithNextToFindDeltas\n */\n@SinceKotlin(\"1.2\")\npublic inline fun <R> CharSequence.zipWithNext(transform: (a: Char, b: Char) -> R): List<R> {\n   val size = length - 1\n   if (size < 1) return emptyList()\n   val result = ArrayList<R>(size)\n   for (index in 0 until size) {\n   result.add(transform(this[index], this[index + 1]))\n   }\n   return result\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original char sequence returning its characters when being iterated.\n */\npublic fun CharSequence.asIterable(): Iterable<Char> {\n   if (this is String && isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original char sequence returning its characters when being iterated.\n */\npublic fun CharSequence.asSequence(): Sequence<Char> {\n   if (this is String && isEmpty()) return emptySequence()\n   return Sequence {
 this.iterator() }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n\npackage kotlin.text\n\nimport kotlin.contracts.contract\nimport kotlin.jvm.JvmName\n\n/**\n * Returns a copy of this string converted to upper case using the rules of the default locale.\n */\n@Deprecated(\"Use uppercase() instead.\", ReplaceWith(\"uppercase()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic expect fun String.toUpperCase(): String\n\n/**\n * Returns a copy of this string converted to upper case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many and many-to-one character mapping,\n * thus the length of the returned string can be different from the length of the original string.\n *\n * @sample samples.text.Strings.uppercase\n
 */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun String.uppercase(): String\n\n/**\n * Returns a copy of this string converted to lower case using the rules of the default locale.\n */\n@Deprecated(\"Use lowercase() instead.\", ReplaceWith(\"lowercase()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic expect fun String.toLowerCase(): String\n\n/**\n * Returns a copy of this string converted to lower case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many and many-to-one character mapping,\n * thus the length of the returned string can be different from the length of the original string.\n *\n * @sample samples.text.Strings.lowercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun String.lowercase(): String\n\n/**\n * Returns a copy of this string having its first letter titlecased using the rules of the default locale,\n
 * or the original string if it's empty or already starts with a title case letter.\n *\n * The title case of a character is usually the same as its upper case with several exceptions.\n * The particular list of characters with the special title case form depends on the underlying platform.\n *\n * @sample samples.text.Strings.capitalize\n */\n@Deprecated(\"Use replaceFirstChar instead.\", ReplaceWith(\"replaceFirstChar { if (it.isLowerCase()) it.titlecase() else it.toString() }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic expect fun String.capitalize(): String\n\n/**\n * Returns a copy of this string having its first letter lowercased using the rules of the default locale,\n * or the original string if it's empty or already starts with a lower case letter.\n *\n * @sample samples.text.Strings.decapitalize\n */\n@Deprecated(\"Use replaceFirstChar instead.\", ReplaceWith(\"replaceFirstChar { it.lowercase() }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic

expect fun String.decapitalize(): String\n\n/**\n * Returns a sub sequence of this char sequence having leading and trailing characters matching the [predicate] removed.\n */\npublic inline fun CharSequence.trim(predicate: (Char) -> Boolean): CharSequence {\n   var startIndex = 0\n   var endIndex = length - 1\n   var startFound = false\n\n   while (startIndex <= endIndex) {\n   val index = if (!startFound) startIndex else endIndex\n   val match = predicate(this[index])\n\n   if (!startFound) {\n   if (!match)\n   startFound = true\n   else\n   startIndex += 1\n   } else {\n   if (!match)\n   break\n   else\n   endIndex -= 1\n   }\n   }\n\n   return subSequence(startIndex, endIndex + 1)\n}\n\n/**\n * Returns a string having leading and trailing characters matching the [predicate] removed.\n */\npublic inline fun String.trim(predicate: (Char) -> Boolean): String =\n

(this as CharSequence).trim(predicate).toString()\n\n/**\n * Returns a sub sequence of this char sequence having leading characters matching the [predicate] removed.\n */\npublic inline fun CharSequence.trimStart(predicate: (Char) -> Boolean): CharSequence {\n   for (index in this.indices)\n   if (!predicate(this[index]))\n   return subSequence(index, length)\n\n   return \"\"\n}\n\n/**\n * Returns a string having leading characters matching the [predicate] removed.\n */\npublic inline fun String.trimStart(predicate: (Char) -> Boolean): String =\n   (this as CharSequence).trimStart(predicate).toString()\n\n/**\n * Returns a sub sequence of this char sequence having trailing characters matching the [predicate] removed.\n */\npublic inline fun CharSequence.trimEnd(predicate: (Char) -> Boolean): CharSequence {\n   for (index in this.indices.reversed())\n   if (!predicate(this[index]))\n   return subSequence(0, index + 1)\n\n   return \"\"\n}\n\n/**\n * Returns

a string having trailing characters matching the [predicate] removed.\n */\npublic inline fun String.trimEnd(predicate: (Char) -> Boolean): String =\n   (this as CharSequence).trimEnd(predicate).toString()\n\n/**\n * Returns a sub sequence of this char sequence having leading and trailing characters from the [chars] array removed.\n */\npublic fun CharSequence.trim(vararg chars: Char): CharSequence = trim { it in chars }\n\n/**\n * Returns a string having leading and trailing characters from the [chars] array removed.\n */\npublic fun String.trim(vararg chars: Char): String = trim { it in chars }\n\n/**\n * Returns a sub sequence of this char sequence having leading characters from the [chars] array removed.\n */\npublic fun CharSequence.trimStart(vararg chars: Char): CharSequence = trimStart { it in chars }\n\n/**\n * Returns a string having leading characters from the [chars] array removed.\n */\npublic fun String.trimStart(vararg chars: Char): String = trimStart { it in chars

}\n\n/**\n * Returns a sub sequence of this char sequence having trailing characters from the [chars] array removed.\n */\npublic fun CharSequence.trimEnd(vararg chars: Char): CharSequence = trimEnd { it in chars }\n\n/**\n * Returns a string having trailing characters from the [chars] array removed.\n */\npublic fun String.trimEnd(vararg chars: Char): String = trimEnd { it in chars }\n\n/**\n * Returns a sub sequence of this char sequence having leading and trailing whitespace removed.\n */\npublic fun CharSequence.trim(): CharSequence = trim(Char::isWhitespace)\n\n/**\n * Returns a string having leading and trailing whitespace removed.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.trim(): String = (this as CharSequence).trim().toString()\n\n/**\n * Returns a sub sequence of this char sequence having leading whitespace removed.\n */\npublic fun CharSequence.trimStart(): CharSequence = trimStart(Char::isWhitespace)\n\n/**\n * Returns a string having leading whitespace removed.\n

*/\n@kotlin.internal.InlineOnly\npublic inline fun String.trimStart(): String = (this as CharSequence).trimStart().toString()\n\n/**\n * Returns a sub sequence of this char sequence having trailing whitespace removed.\n */\npublic fun CharSequence.trimEnd(): CharSequence = trimEnd(Char::isWhitespace)\n\n/**\n * Returns a string having trailing whitespace removed.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.trimEnd(): String = (this as CharSequence).trimEnd().toString()\n\n/**\n * Returns a char sequence with content of this char sequence padded at the beginning\n * to the specified [length] with the specified character or space.\n *\n * @param length the desired string length.\n * @param padChar the character to pad string with, if it has length less than the [length] specified. Space is used by default.\n * @return Returns a char sequence of length at least [length] consisting of `this` char sequence prepended with [padChar] as many times\n * as are necessary

to reach that length.\n * @sample samples.text.Strings.padStart\n */\npublic fun CharSequence.padStart(length: Int, padChar: Char = ' '): CharSequence {\n   if (length < 0)\n   throw IllegalArgumentException(\"Desired length $length is less than zero.\")\n   if (length <= this.length)\n   return this.subSequence(0, this.length)\n\n   val sb = StringBuilder(length)\n   for (i in 1..(length - this.length))\n   sb.append(padChar)\n   sb.append(this)\n   return sb\n}\n\n/**\n * Pads the string to the specified [length] at the beginning with the specified character or space.\n *\n * @param length the desired string length.\n * @param padChar the character to pad string with, if it has length less than the [length] specified. Space is used by default.\n * @return Returns a string of length at least [length] consisting of `this` string prepended with [padChar] as many times\n * as are necessary to reach that length.\n * @sample samples.text.Strings.padStart\n */\npublic fun

String.padStart(length: Int, padChar: Char = ' '): String =\n   (this as CharSequence).padStart(length, padChar).toString()\n\n/**\n * Returns a char sequence with content of this char sequence padded at the end\n * to the specified [length] with the specified character or space.\n *\n * @param length the desired string length.\n * @param padChar the character to pad string with, if it has length less than the [length] specified. Space is used by default.\n * @return Returns a char sequence of length at least [length] consisting of `this` char sequence appended with [padChar] as many times\n * as are necessary to reach that length.\n * @sample samples.text.Strings.padEnd\n */\npublic fun CharSequence.padEnd(length: Int, padChar: Char = ' '): CharSequence {\n   if (length < 0)\n   throw IllegalArgumentException(\"Desired length $length is less than zero.\")\n   if (length <= this.length)\n   return this.subSequence(0, this.length)\n\n   val sb = StringBuilder(length)\n

sb.append(this)\n   for (i in 1..(length - this.length))\n   sb.append(padChar)\n   return sb\n}\n\n/**\n * Pads the string to the specified [length] at the end with the specified character or space.\n *\n * @param length the desired string length.\n * @param padChar the character to pad string with, if it has length less than the [length] specified. Space is used by default.\n * @return Returns a string of length at least [length] consisting of `this` string appended with [padChar] as many times\n * as are necessary to reach that length.\n * @sample samples.text.Strings.padEnd\n */\npublic fun String.padEnd(length: Int, padChar: Char = ' '): String =\n   (this as CharSequence).padEnd(length, padChar).toString()\n\n/**\n * Returns `true` if this nullable char sequence is either `null` or empty.\n *\n * @sample samples.text.Strings.stringIsNullOrEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence?.isNullOrEmpty(): Boolean {\n   contract {\n   returns(false)

implies (this@isNullOrEmpty != null)\n   }\n\n   return this == null || this.length == 0\n}\n\n/**\n * Returns `true` if this char sequence is empty (contains no characters).\n *\n * @sample samples.text.Strings.stringIsEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.isEmpty(): Boolean = length == 0\n\n/**\n * Returns `true` if this char sequence is not empty.\n *\n * @sample samples.text.Strings.stringIsNotEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.isNotEmpty(): Boolean = length > 0\n\n// implemented differently in JVM and JS\n//public fun String.isBlank(): Boolean = length() == 0 || all { it.isWhitespace() }\n\n\n/**\n * Returns `true` if this char sequence is not empty and contains some characters except of whitespace characters.\n *\n * @sample samples.text.Strings.stringIsNotBlank\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.isNotBlank(): Boolean = !isBlank()\n\n/**\n * Returns `true` if this nullable

char sequence is either `null` or empty or consists solely of whitespace characters.\n *\n * @sample samples.text.Strings.stringIsNullOrBlank\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence?.isNullOrBlank(): Boolean {\n   contract {\n   returns(false) implies (this@isNullOrBlank != null)\n   }\n\n   return this == null || this.isBlank()\n}\n\n/**\n * Iterator for characters of the given char sequence.\n */\npublic operator fun CharSequence.iterator(): CharIterator = object : CharIterator() {\n   private var index = 0\n\n   public override fun nextChar(): Char = get(index++)\n\n   public override fun hasNext(): Boolean = index < length\n}\n\n/** Returns the string if it is not `null`, or the empty string otherwise. */\n@kotlin.internal.InlineOnly\npublic inline fun String?.orEmpty(): String = this ?: \"\"\n\n/**\n * Returns this char sequence if it's not empty\n * or the result of calling [defaultValue] function if the char sequence is empty.\n *\n * @sample samples.text.Strings.stringIfEmpty\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <C, R> C.ifEmpty(defaultValue: () -> R): R where C : CharSequence, C : R =\n   if (isEmpty()) defaultValue() else this\n\n/**\n * Returns this char sequence if it is not empty and doesn't consist solely of whitespace characters,\n * or the result of calling [defaultValue] function otherwise.\n *\n * @sample samples.text.Strings.stringIfBlank\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <C, R> C.ifBlank(defaultValue: () -> R): R where C : CharSequence, C : R =\n   if (isBlank()) defaultValue() else this\n\n/**\n * Returns the range of valid character indices for this char sequence.\n */\npublic val CharSequence.indices: IntRange\n   get() = 0..length - 1\n\n/**\n * Returns the index of the last character in the char sequence or -1 if it is empty.\n */\npublic val CharSequence.lastIndex: Int\n   get() = this.length - 1\n\n/**\n * Returns `true`

if this CharSequence has Unicode surrogate pair at the specified [index].\n */\npublic fun CharSequence.hasSurrogatePairAt(index: Int): Boolean {\n   return index in 0..length - 2\n   && this[index].isHighSurrogate()\n   && this[index + 1].isLowSurrogate()\n}\n\n/**\n * Returns a substring specified by the given [range] of indices.\n */\npublic fun String.substring(range: IntRange): String = substring(range.start, range.endInclusive + 1)\n\n/**\n * Returns a subsequence of this char sequence specified by the given [range] of indices.\n */\npublic fun CharSequence.subSequence(range: IntRange): CharSequence = subSequence(range.start, range.endInclusive + 1)\n\n/**\n * Returns a subsequence of this char sequence.\n *\n * This extension is chosen only for invocation with old-named parameters.\n * Replace parameter names with the same as those of [CharSequence.subSequence].\n */\n@kotlin.internal.InlineOnly\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\") // false warning\n@Deprecated(\"Use

parameters named startIndex and endIndex.\", ReplaceWith(\"subSequence(startIndex = start, endIndex = end)\"))\npublic inline fun String.subSequence(start: Int, end: Int): CharSequence = subSequence(start, end)\n\n/**\n * Returns a substring of chars from a range of this char sequence starting at the [startIndex] and ending right before the [endIndex].\n *\n * @param startIndex the start index (inclusive).\n * @param endIndex the end index (exclusive). If not specified, the length of the char sequence is used.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.substring(startIndex: Int, endIndex: Int = length): String = subSequence(startIndex, endIndex).toString()\n\n/**\n * Returns a substring of chars at indices from the specified [range] of this char sequence.\n */\npublic fun CharSequence.substring(range: IntRange): String = subSequence(range.start, range.endInclusive + 1).toString()\n\n/**\n * Returns a substring before the first occurrence of

[delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringBefore(delimiter: Char, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(0, index)\n}\n\n/**\n * Returns a substring before the first occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringBefore(delimiter: String, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(0, index)\n}\n\n/**\n * Returns a substring after the first occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringAfter(delimiter:

Char, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(index + 1, length)\n}\n\n/**\n * Returns a substring after the first occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringAfter(delimiter: String, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(index + delimiter.length, length)\n}\n\n/**\n * Returns a substring before the last occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringBeforeLast(delimiter: Char, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index

== -1) missingDelimiterValue else substring(0, index)\n}\n\n/**\n * Returns a substring before the last occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringBeforeLast(delimiter: String, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(0, index)\n}\n\n/**\n * Returns a substring after the last occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringAfterLast(delimiter: Char, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(index + 1, length)\n}\n\n/**\n * Returns a substring after the last occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringAfterLast(delimiter: String, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(index + delimiter.length, length)\n}\n\n/**\n * Returns a char sequence with content of this char sequence where its part at the given range\n * is replaced with the [replacement] char sequence.\n * @param startIndex the index of the first character to be replaced.\n * @param endIndex the index of the first character after the replacement to keep in the string.\n */\npublic fun CharSequence.replaceRange(startIndex: Int, endIndex: Int, replacement: CharSequence): CharSequence {\n   if (endIndex < startIndex)\n   throw IndexOutOfBoundsException(\"End index ($endIndex) is less than start index ($startIndex).\")\n   val sb = StringBuilder()\n   sb.appendRange(this, 0, startIndex)\n   sb.append(replacement)\n   sb.appendRange(this, endIndex, length)\n   return sb\n}\n\n/**\n * Replaces the part of the string at the given range with the [replacement] char sequence.\n * @param startIndex the index of the first character to be replaced.\n * @param endIndex the index of the first character after the replacement to keep in the string.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.replaceRange(startIndex: Int, endIndex: Int, replacement: CharSequence): String =\n   (this as CharSequence).replaceRange(startIndex, endIndex, replacement).toString()\n\n/**\n * Returns a char sequence with content of this char sequence where its part at the given [range]\n * is replaced with the [replacement] char sequence.\n *\n * The end index of the [range] is included in the part to be replaced.\n */\npublic fun CharSequence.replaceRange(range: IntRange, replacement: CharSequence): CharSequence =\n   replaceRange(range.start, range.endInclusive + 1, replacement)\n\n/**\n * Replace the part of string at the given [range] with the [replacement] string.\n *\n * The end index of the [range] is included in the part to be replaced.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.replaceRange(range: IntRange, replacement: CharSequence): String =\n   (this as CharSequence).replaceRange(range, replacement).toString()\n\n/**\n * Returns a char sequence with content of this char sequence where its part at the given range is removed.\n *\n * @param startIndex the index of the first character to be removed.\n * @param endIndex the index of the first character after the removed part to keep in the string.\n *\n * [endIndex] is not included in the removed part.\n */\npublic fun CharSequence.removeRange(startIndex: Int, endIndex: Int): CharSequence {\n   if (endIndex < startIndex)\n   throw IndexOutOfBoundsException(\"End index ($endIndex) is less than start index ($startIndex).\")\n\n   if (endIndex == startIndex)\n   return this.subSequence(0, length)\n\n   val sb = StringBuilder(length - (endIndex - startIndex))\n   sb.appendRange(this, 0, startIndex)\n   sb.appendRange(this, endIndex, length)\n   return sb\n}\n\n/**\n * Removes the part of a string at a given range.\n * @param startIndex the index of the first character to be removed.\n * @param endIndex the index of the first character after the removed part to keep in the string.\n *\n * [endIndex] is not included in the removed part.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.removeRange(startIndex: Int, endIndex: Int): String =\n   (this as CharSequence).removeRange(startIndex, endIndex).toString()\n\n/**\n * Returns a char sequence with content of this char sequence where its part at the given [range] is removed.\n *\n * The end index of the [range] is included in the removed part.\n */\npublic fun CharSequence.removeRange(range: IntRange): CharSequence = removeRange(range.start, range.endInclusive + 1)\n\n/**\n * Removes the part of a string at the given [range].\n *\n * The end index of the [range] is included in the removed part.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.removeRange(range: IntRange): String =\n   (this as

CharSequence).removeRange(range).toString()\n\n/**\n * If this char sequence starts with the given [prefix], returns a new char sequence\n * with the prefix removed. Otherwise, returns a new char sequence with the same characters.\n */\npublic fun CharSequence.removePrefix(prefix: CharSequence): CharSequence {\n   if (startsWith(prefix)) {\n   return subSequence(prefix.length, length)\n   }\n   return subSequence(0, length)\n}\n\n/**\n * If this string starts with the given [prefix], returns a copy of this string\n * with the prefix removed. Otherwise, returns this string.\n */\npublic fun String.removePrefix(prefix: CharSequence): String {\n   if (startsWith(prefix)) {\n   return substring(prefix.length)\n   }\n   return this\n}\n\n/**\n * If this char sequence ends with the given [suffix], returns a new char sequence\n * with the suffix removed. Otherwise, returns a new char sequence with the same characters.\n */\npublic fun CharSequence.removeSuffix(suffix: CharSequence): CharSequence {\n   if (endsWith(suffix)) {\n   return subSequence(0, length - suffix.length)\n   }\n   return subSequence(0, length)\n}\n\n/**\n * If this string ends with the given [suffix], returns a copy of this string\n * with the suffix removed. Otherwise, returns this string.\n */\npublic fun String.removeSuffix(suffix: CharSequence): String {\n   if (endsWith(suffix)) {\n   return substring(0, length - suffix.length)\n   }\n   return this\n}\n\n/**\n * When this char sequence starts with the given [prefix] and ends with the given [suffix],\n * returns a new char sequence having both the given [prefix] and [suffix] removed.\n * Otherwise returns a new char sequence with the same characters.\n */\npublic fun CharSequence.removeSurrounding(prefix: CharSequence, suffix: CharSequence): CharSequence {\n   if ((length >= prefix.length + suffix.length) && startsWith(prefix) && endsWith(suffix)) {\n   return subSequence(prefix.length, length - suffix.length)\n   }\n   return subSequence(0, length)\n}\n\n/**\n * Removes from a string both the given [prefix] and [suffix] if and only if\n * it starts with the [prefix] and ends with the [suffix].\n * Otherwise returns this string unchanged.\n */\npublic fun String.removeSurrounding(prefix: CharSequence, suffix: CharSequence): String {\n   if ((length >= prefix.length + suffix.length) && startsWith(prefix) && endsWith(suffix)) {\n   return substring(prefix.length, length - suffix.length)\n   }\n   return this\n}\n\n/**\n * When this char sequence starts with and ends with the given [delimiter],\n * returns a new char sequence having this [delimiter] removed both from the start and end.\n * Otherwise returns a new char sequence with the same characters.\n */\npublic fun CharSequence.removeSurrounding(delimiter: CharSequence): CharSequence = removeSurrounding(delimiter, delimiter)\n\n/**\n * Removes the given [delimiter] string from both the start and the end of this string\n * if and only if it starts with and ends with the [delimiter].\n * Otherwise returns this string unchanged.\n */\npublic fun String.removeSurrounding(delimiter: CharSequence): String = removeSurrounding(delimiter, delimiter)\n\n/**\n * Replace part of string before the first occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceBefore(delimiter: Char, replacement: String, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(0, index, replacement)\n}\n\n/**\n * Replace part of string before the first occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceBefore(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(0, index, replacement)\n}\n\n/**\n * Replace part of string after the first occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceAfter(delimiter: Char, replacement: String, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(index + 1, length, replacement)\n}\n\n/**\n * Replace part of string after the first occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceAfter(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(index + delimiter.length, length, replacement)\n}\n\n/**\n * Replace part of string after the last occurrence of given delimiter with the [replacement] string.\n * If the string does not contain

the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceAfterLast(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {\n val index = lastIndexOf(delimiter)\n return if (index == -1) missingDelimiterValue else replaceRange(index + delimiter.length, length, replacement)\n}\n\n/**\n * Replace part of string after the last occurrence
 of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceAfterLast(delimiter: Char, replacement: String, missingDelimiterValue: String = this): String {\n val index = lastIndexOf(delimiter)\n return if (index == -1) missingDelimiterValue else replaceRange(index + 1, length, replacement)\n}\n\n/**\n * Replace part of string before the last occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceBeforeLast(delimiter: Char, replacement: String, missingDelimiterValue: String = this): String {\n val index = lastIndexOf(delimiter)\n return if (index == -1) missingDelimiterValue else replaceRange(0, index, replacement)\n}\n\n/**\n * Replace part of string before the last occurrence
 of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceBeforeLast(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {\n val index = lastIndexOf(delimiter)\n return if (index == -1) missingDelimiterValue else replaceRange(0, index, replacement)\n}\n\n\n// public fun String.replace(oldChar: Char, newChar: Char, ignoreCase: Boolean): String // JVM- and JS-specific\n// public fun String.replace(oldValue: String, newValue: String, ignoreCase: Boolean): String // JVM- and JS-specific\n\n/**\n * Returns a new string obtained by replacing each substring of this char sequence that matches the given regular expression\n * with the given [replacement].\n *\n * The [replacement] can consist of any combination of literal text and $-substitutions. To treat the replacement string\n * literally escape it with the
 [kotlin.text.Regex.Companion.escapeReplacement] method.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.replace(regex: Regex, replacement: String): String = regex.replace(this, replacement)\n\n/**\n * Returns a new string obtained by replacing each substring of this char sequence that matches the given regular expression\n * with the result of the given function [transform] that takes [MatchResult] and returns a string to be used as a\n * replacement for that match.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.replace(regex: Regex, noinline transform: (MatchResult) -> CharSequence): String =\n regex.replace(this, transform)\n\n/**\n * Replaces the first occurrence of the given regular expression [regex] in this char sequence with specified [replacement] expression.\n *\n * @param replacement A replacement expression that can include substitutions. See [Regex.replaceFirst] for details.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.replaceFirst(regex:
 Regex, replacement: String): String = regex.replaceFirst(this, replacement)\n\n/**\n * Returns a copy of this string having its first character replaced with the result of the specified [transform],\n * or the original string if it's empty.\n *\n * @param transform function that takes the first character and returns the result of the transform applied to the character.\n *\n * @sample samples.text.Strings.replaceFirstChar\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@JvmName(\"replaceFirstCharWithChar\")\n@kotlin.internal.InlineOnly\npublic inline fun String.replaceFirstChar(transform: (Char) -> Char): String {\n return if (isNotEmpty()) transform(this[0]) + substring(1) else this\n}\n\n/**\n * Returns a copy of this string having its first character replaced with the result of the specified [transform],\n * or the original
 string if it's empty.\n *\n * @param transform function that takes the first character and returns the result of the transform applied to the character.\n *\n * @sample samples.text.Strings.replaceFirstChar\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@JvmName(\"replaceFirstCharWithCharSequence\")\n@kotlin.internal.InlineOnly\npublic inline fun String.replaceFirstChar(transform: (Char) -> CharSequence): String {\n return if (isNotEmpty()) transform(this[0]).toString() + substring(1) else this\n}\n\n\n/**\n * Returns `true` if this char sequence matches the given regular expression.\n

*/\n@kotlin.internal.InlineOnly\npublic inline infix fun CharSequence.matches(regex: Regex): Boolean = regex.matches(this)\n\n/**\n * Implementation of [regionMatches] for CharSequences.\n * Invoked when it's already known that arguments are not Strings, so that no additional
 type checks are performed.\n */\ninternal fun CharSequence.regionMatchesImpl(thisOffset: Int, other: CharSequence, otherOffset: Int, length: Int, ignoreCase: Boolean): Boolean {\n   if ((otherOffset < 0) || (thisOffset < 0) || (thisOffset > this.length - length) || (otherOffset > other.length - length)) {\n   return false\n   }\n\n   for (index in 0 until length) {\n   if (!this[thisOffset + index].equals(other[otherOffset + index], ignoreCase))\n   return false\n   }\n   return true\n}\n\n/**\n * Returns `true` if this char sequence starts with the specified character.\n */\npublic fun CharSequence.startsWith(char: Char, ignoreCase: Boolean = false): Boolean =\n   this.length > 0 && this[0].equals(char, ignoreCase)\n\n/**\n * Returns `true` if this char sequence ends with the specified character.\n */\npublic fun CharSequence.endsWith(char: Char, ignoreCase: Boolean = false): Boolean =\n   this.length > 0 && this[lastIndex].equals(char, ignoreCase)\n\n/**\n
 * Returns `true` if this char sequence starts with the specified prefix.\n */\npublic fun CharSequence.startsWith(prefix: CharSequence, ignoreCase: Boolean = false): Boolean {\n   if (!ignoreCase && this is String && prefix is String)\n   return this.startsWith(prefix)\n   else\n   return regionMatchesImpl(0, prefix, 0, prefix.length, ignoreCase)\n}\n\n/**\n * Returns `true` if a substring of this char sequence starting at the specified offset [startIndex] starts with the specified prefix.\n */\npublic fun CharSequence.startsWith(prefix: CharSequence, startIndex: Int, ignoreCase: Boolean = false): Boolean {\n   if (!ignoreCase && this is String && prefix is String)\n   return this.startsWith(prefix, startIndex)\n   else\n   return regionMatchesImpl(startIndex, prefix, 0, prefix.length, ignoreCase)\n}\n\n/**\n * Returns `true` if this char sequence ends with the specified suffix.\n */\npublic fun CharSequence.endsWith(suffix: CharSequence, ignoreCase: Boolean
 = false): Boolean {\n   if (!ignoreCase && this is String && suffix is String)\n   return this.endsWith(suffix)\n   else\n   return regionMatchesImpl(length - suffix.length, suffix, 0, suffix.length, ignoreCase)\n}\n\n\n// common prefix and suffix\n\n/**\n * Returns the longest string `prefix` such that this char sequence and [other] char sequence both start with this prefix,\n * taking care not to split surrogate pairs.\n * If this and [other] have no common prefix, returns the empty string.\n\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @sample samples.text.Strings.commonPrefixWith\n */\npublic fun CharSequence.commonPrefixWith(other: CharSequence, ignoreCase: Boolean = false): String {\n   val shortestLength = minOf(this.length, other.length)\n\n   var i = 0\n   while (i < shortestLength && this[i].equals(other[i], ignoreCase = ignoreCase)) {\n   i++\n   }\n   if (this.hasSurrogatePairAt(i - 1) || other.hasSurrogatePairAt(i
 - 1)) {\n   i--\n   }\n   return subSequence(0, i).toString()\n}\n\n/**\n * Returns the longest string `suffix` such that this char sequence and [other] char sequence both end with this suffix,\n * taking care not to split surrogate pairs.\n * If this and [other] have no common suffix, returns the empty string.\n\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @sample samples.text.Strings.commonSuffixWith\n */\npublic fun CharSequence.commonSuffixWith(other: CharSequence, ignoreCase: Boolean = false): String {\n   val thisLength = this.length\n   val otherLength = other.length\n   val shortestLength = minOf(thisLength, otherLength)\n\n   var i = 0\n   while (i < shortestLength && this[thisLength - i - 1].equals(other[otherLength - i - 1], ignoreCase = ignoreCase)) {\n   i++\n   }\n   if (this.hasSurrogatePairAt(thisLength - i - 1) || other.hasSurrogatePairAt(otherLength - i - 1)) {\n
    i--\n   }\n   return subSequence(thisLength - i, thisLength).toString()\n}\n\n\n// indexOfAny()\n\n/**\n * Finds the index of the first occurrence of any of the specified [chars] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n *\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @return An index of the first occurrence of matched character from [chars] or -1 if none of [chars] are found.\n *\n */\npublic fun CharSequence.indexOfAny(chars: CharArray, startIndex: Int = 0, ignoreCase: Boolean = false): Int {\n   if (!ignoreCase && chars.size == 1 && this is String) {\n
      val char = chars.single()\n   return nativeIndexOf(char, startIndex)\n   }\n\n   for (index in startIndex.coerceAtLeast(0)..lastIndex) {\n   val charAtIndex = get(index)\n   if (chars.any {

it.equals(charAtIndex, ignoreCase) })\n   return index\n   }\n   return -1\n}\n\n/**\n * Finds the index of the last occurrence of any of the specified [chars] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n *\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @return An index of the last occurrence of matched character from [chars] or -1 if none of [chars] are found.\n *\n */\npublic fun CharSequence.lastIndexOfAny(chars: CharArray, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Int {\n   if (!ignoreCase && chars.size == 1 && this is String) {\n   val char = chars.single()\n   return nativeLastIndexOf(char, startIndex)\n   }\n\n\n   for (index in startIndex.coerceAtMost(lastIndex) downTo 0) {\n   val charAtIndex = get(index)\n   if (chars.any { it.equals(charAtIndex, ignoreCase) })\n   return index\n   }\n\n   return -1\n}\n\n\nprivate fun CharSequence.indexOf(other: CharSequence, startIndex: Int, endIndex: Int, ignoreCase: Boolean, last: Boolean = false): Int {\n   val indices = if (!last)\n   startIndex.coerceAtLeast(0)..endIndex.coerceAtMost(length)\n   else\n   startIndex.coerceAtMost(lastIndex) downTo endIndex.coerceAtLeast(0)\n\n   if (this is String && other is String) { // smart cast\n   for (index in indices) {\n   if (other.regionMatches(0, this, index, other.length, ignoreCase))\n   return index\n   }\n   } else {\n   for (index in indices) {\n   if (other.regionMatchesImpl(0, this, index, other.length, ignoreCase))\n   return index\n   }\n   }\n   return -1\n}\n\nprivate fun CharSequence.findAnyOf(strings: Collection<String>, startIndex: Int, ignoreCase: Boolean, last: Boolean): Pair<Int, String>? {\n   if (!ignoreCase && strings.size == 1) {\n   val string = strings.single()\n   val index = if (!last) indexOf(string, startIndex) else lastIndexOf(string, startIndex)\n   return if (index < 0) null else index to string\n   }\n\n   val indices = if (!last) startIndex.coerceAtLeast(0)..length else startIndex.coerceAtMost(lastIndex) downTo 0\n\n   if (this is String) {\n   for (index in indices) {\n   val matchingString = strings.firstOrNull { it.regionMatches(0, this, index, it.length, ignoreCase) }\n   if (matchingString != null)\n   return index to matchingString\n   }\n   } else {\n   for (index in indices) {\n   val matchingString = strings.firstOrNull { it.regionMatchesImpl(0, this, index, it.length, ignoreCase) }\n   if (matchingString != null)\n   return index to matchingString\n   }\n   }\n\n   return null\n}\n\n/**\n * Finds the first occurrence of any of the specified [strings] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n *\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return A pair of an index of the first occurrence of matched string from [strings] and the string matched\n * or `null` if none of [strings] are found.\n *\n * To avoid ambiguous results when strings in [strings] have characters in common, this method proceeds from\n * the beginning to the end of this string, and finds at each position the first element in [strings]\n * that matches this string at that position.\n */\npublic fun CharSequence.findAnyOf(strings: Collection<String>, startIndex: Int = 0, ignoreCase: Boolean = false): Pair<Int, String>? =\n   findAnyOf(strings, startIndex, ignoreCase, last = false)\n\n/**\n * Finds the last occurrence of any of the specified [strings] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n *\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return A pair of an index of the last occurrence of matched string from [strings] and the string matched or `null` if none of [strings] are found.\n *\n * To avoid ambiguous results when strings in [strings] have characters in common, this method proceeds from\n * the end toward the beginning of this string, and finds at each position the first element in [strings]\n * that matches this string at that position.\n */\npublic fun CharSequence.findLastAnyOf(strings: Collection<String>, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Pair<Int, String>? =\n   findAnyOf(strings, startIndex, ignoreCase, last = true)\n\n/**\n * Finds the index of the first occurrence of any of the specified [strings] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n *\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return An index of the first occurrence of matched string from [strings] or -1 if none of [strings] are found.\n *\n * To avoid ambiguous

results when strings in [strings] have characters in common, this method proceeds from\n * the beginning to the end of this string, and finds at each position the first element in [strings]\n * that matches this string at that position.\n */\npublic fun CharSequence.indexOfAny(strings: Collection<String>, startIndex: Int = 0, ignoreCase: Boolean = false): Int =\n   findAnyOf(strings, startIndex, ignoreCase, last = false)?.first ?: -1\n\n/**\n * Finds the index of the last occurrence of any of the specified [strings] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n *\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param
 ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return An index of the last occurrence of matched string from [strings] or -1 if none of [strings] are found.\n *\n * To avoid ambiguous results when strings in [strings] have characters in common, this method proceeds from\n * the end toward the beginning of this string, and finds at each position the first element in [strings]\n * that matches this string at that position.\n */\npublic fun CharSequence.lastIndexOfAny(strings: Collection<String>, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Int =\n   findAnyOf(strings, startIndex, ignoreCase, last = true)?.first ?: -1\n\n\n// indexOf\n\n/**\n * Returns the index within this string of the first occurrence of the specified character, starting from the specified [startIndex].\n *\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @return An index of the first occurrence of [char]
 or -1 if none is found.\n */\npublic fun CharSequence.indexOf(char: Char, startIndex: Int = 0, ignoreCase: Boolean = false): Int {\n   return if (ignoreCase || this !is String)\n   indexOfAny(charArrayOf(char), startIndex, ignoreCase)\n   else\n   nativeIndexOf(char, startIndex)\n}\n\n/**\n * Returns the index within this char sequence of the first occurrence of the specified [string],\n * starting from the specified [startIndex].\n *\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return An index of the first occurrence of [string] or `-1` if none is found.\n * @sample samples.text.Strings.indexOf\n */\npublic fun CharSequence.indexOf(string: String, startIndex: Int = 0, ignoreCase: Boolean = false): Int {\n   return if (ignoreCase || this !is String)\n   indexOf(string, startIndex, length, ignoreCase)\n   else\n   nativeIndexOf(string, startIndex)\n}\n\n/**\n * Returns the index within this char sequence
 of the last occurrence of the specified character,\n * starting from the specified [startIndex].\n *\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @return An index of the last occurrence of [char] or -1 if none is found.\n */\npublic fun CharSequence.lastIndexOf(char: Char, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Int {\n   return if (ignoreCase || this !is String)\n   lastIndexOfAny(charArrayOf(char), startIndex, ignoreCase)\n   else\n   nativeLastIndexOf(char, startIndex)\n}\n\n/**\n * Returns the index within this char sequence of the last occurrence of the specified [string],\n * starting from the specified [startIndex].\n *\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n *
 @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return An index of the last occurrence of [string] or -1 if none is found.\n */\npublic fun CharSequence.lastIndexOf(string: String, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Int {\n   return if (ignoreCase || this !is String)\n
 indexOf(string, startIndex, 0, ignoreCase, last = true)\n   else\n   nativeLastIndexOf(string, startIndex)\n}\n\n/**\n * Returns `true` if this char sequence contains the specified [other] sequence of characters as a substring.\n *\n * @param ignoreCase `true` to ignore character case when comparing strings. By default `false`.\n */\n@Suppress(\"INAPPLICABLE_OPERATOR_MODIFIER\")\npublic operator fun CharSequence.contains(other: CharSequence, ignoreCase: Boolean = false): Boolean =\n   if (other is String)\n   indexOf(other, ignoreCase = ignoreCase) >= 0\n   else\n   indexOf(other, 0, length, ignoreCase) >= 0\n\n\n\n/**\n
 * Returns `true` if this char sequence contains the specified character [char].\n *\n * @param ignoreCase `true` to ignore character case when comparing characters. By default `false`.\n */\n@Suppress(\"INAPPLICABLE_OPERATOR_MODIFIER\")\npublic operator fun CharSequence.contains(char: Char, ignoreCase: Boolean = false): Boolean =\n   indexOf(char, ignoreCase = ignoreCase) >= 0\n\n/**\n * Returns

`true` if this char sequence contains at least one match of the specified regular expression [regex].\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun CharSequence.contains(regex: Regex): Boolean = regex.containsMatchIn(this)\n\n\n// rangesDelimitedBy\n\n\nprivate class DelimitedRangesSequence(\n   private val input: CharSequence,\n   private val startIndex: Int,\n   private val limit: Int,\n   private val getNextMatch: CharSequence.(currentIndex: Int) -> Pair<Int, Int>?\n) : Sequence<IntRange> {\n\n   override fun iterator(): Iterator<IntRange> = object : Iterator<IntRange> {\n   var nextState: Int = -1 // -1 for unknown, 0 for done, 1 for continue\n   var currentStartIndex: Int = startIndex.coerceIn(0, input.length)\n   var nextSearchIndex: Int = currentStartIndex\n   var nextItem: IntRange? = null\n   var counter: Int = 0\n\n   private fun calcNext() {\n   if (nextSearchIndex < 0) {\n   nextState = 0\n   nextItem = null\n   } else {\n   if (limit > 0 && ++counter >= limit || nextSearchIndex > input.length) {\n   nextItem = currentStartIndex..input.lastIndex\n   nextSearchIndex = -1\n   } else {\n   val match = input.getNextMatch(nextSearchIndex)\n   if (match == null) {\n   nextItem = currentStartIndex..input.lastIndex\n   nextSearchIndex = -1\n   } else {\n   val (index, length) = match\n   nextItem = currentStartIndex until index\n   currentStartIndex = index + length\n   nextSearchIndex = currentStartIndex + if (length == 0) 1 else 0\n   }\n   }\n   nextState = 1\n   }\n   }\n\n   override fun next(): IntRange {\n   if (nextState == -1)\n   calcNext()\n   if (nextState == 0)\n   throw NoSuchElementException()\n   val result = nextItem as IntRange\n   // Clean next to avoid keeping reference on yielded instance\n   nextItem = null\n   nextState = -1\n   return result\n   }\n\n   override fun hasNext(): Boolean {\n   if (nextState == -1)\n   calcNext()\n   return nextState == 1\n   }\n   }\n}\n\n/**\n * Returns a sequence of index ranges of substrings in this char sequence around occurrences of the specified [delimiters].\n *\n * @param delimiters One or more characters to be used as delimiters.\n * @param startIndex The index to start searching delimiters from.\n * No range having its start value less than [startIndex] is returned.\n * [startIndex] is coerced to be non-negative and not greater than length of this string.\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return. Zero by default means no limit is set.\n */\nprivate fun CharSequence.rangesDelimitedBy(delimiters: CharArray, startIndex: Int = 0, ignoreCase: Boolean = false, limit: Int = 0): Sequence<IntRange> {\n   requireNonNegativeLimit(limit)\n\n   return DelimitedRangesSequence(this, startIndex, limit, { currentIndex ->\n   indexOfAny(delimiters, currentIndex, ignoreCase = ignoreCase).let { if (it < 0) null else it to 1 }\n   })\n}\n\n\n/**\n * Returns a sequence of index ranges of substrings in this char sequence around occurrences of the specified [delimiters].\n *\n * @param delimiters One or more strings to be used as delimiters.\n * @param startIndex The index to start searching delimiters from.\n * No range having its start value less than [startIndex] is returned.\n * [startIndex] is coerced to be non-negative and not greater than length of this string.\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return. Zero by default means no limit is set.\n *\n * To avoid ambiguous results when strings in [delimiters] have characters in common, this method proceeds from\n * the beginning to the end of this string, and finds at each position the first element in [delimiters]\n * that matches this string at that position.\n */\nprivate fun CharSequence.rangesDelimitedBy(delimiters: Array<out String>, startIndex: Int = 0, ignoreCase: Boolean = false, limit: Int = 0): Sequence<IntRange> {\n   requireNonNegativeLimit(limit)\n   val delimitersList = delimiters.asList()\n\n   return DelimitedRangesSequence(this, startIndex, limit, { currentIndex -> findAnyOf(delimitersList, currentIndex, ignoreCase = ignoreCase, last = false)?.let { it.first to it.second.length } })\n\n}\n\ninternal fun requireNonNegativeLimit(limit: Int) =\n   require(limit >= 0) { \"Limit must be non-negative, but was $limit\" }\n\n\n// split\n\n/**\n * Splits this char sequence to a sequence of strings around occurrences of the specified [delimiters].\n *\n * @param delimiters One or more strings to be used as delimiters.\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return. Zero by default means no limit is set.\n *\n * To avoid ambiguous results when strings in [delimiters] have characters in common, this method proceeds from\n * the beginning to the end of this string, and finds at each position the first element in [delimiters]\n * that matches this string at that position.\n */\npublic fun CharSequence.splitToSequence(vararg delimiters: String, ignoreCase: Boolean = false, limit: Int = 0): Sequence<String> =\n rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).map { substring(it) }\n\n/**\n * Splits this char sequence to a list of strings around occurrences of the specified [delimiters].\n *\n * @param delimiters One or more strings to be used as delimiters.\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return. Zero by default means no limit is set.\n *\n * To avoid ambiguous results when strings in [delimiters] have characters in common, this method proceeds from\n * the beginning to the end of this string, and matches at each position the first element in [delimiters]\n * that is equal to a delimiter in this instance at that position.\n */\npublic fun CharSequence.split(vararg delimiters: String, ignoreCase: Boolean = false, limit: Int = 0): List<String> {\n   if (delimiters.size == 1) {\n val delimiter = delimiters[0]\n   if (!delimiter.isEmpty()) {\n   return split(delimiter, ignoreCase, limit)\n }\n   }\n\n   return rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).asIterable().map { substring(it) }\n}\n\n/**\n * Splits this char sequence to a sequence of strings around occurrences of the specified [delimiters].\n *\n * @param delimiters One or more characters to be used as delimiters.\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return.\n */\npublic fun CharSequence.splitToSequence(vararg delimiters: Char, ignoreCase: Boolean = false, limit: Int = 0): Sequence<String> =\n   rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).map { substring(it) }\n\n/**\n * Splits this char sequence to a list of strings around occurrences of the specified [delimiters].\n *\n * @param delimiters One or more characters to be used as delimiters.\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return.\n */\npublic fun CharSequence.split(vararg delimiters: Char, ignoreCase: Boolean = false, limit: Int = 0): List<String> {\n   if (delimiters.size == 1) {\n   return split(delimiters[0].toString(), ignoreCase, limit)\n   }\n\n   return rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).asIterable().map { substring(it) }\n}\n\n/**\n * Splits this char sequence to a list of strings around occurrences of the specified [delimiter].\n * This is specialized version of split which receives single non-empty delimiter and offers better performance\n *\n * @param delimiter String used as delimiter\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return.\n */\nprivate fun CharSequence.split(delimiter: String, ignoreCase: Boolean, limit: Int): List<String> {\n requireNonNegativeLimit(limit)\n\n   var currentOffset = 0\n   var nextIndex = indexOf(delimiter, currentOffset, ignoreCase)\n   if (nextIndex == -1 || limit == 1) {\n   return listOf(this.toString())\n   }\n\n   val isLimited = limit > 0\n   val result = ArrayList<String>(if (isLimited) limit.coerceAtMost(10) else 10)\n   do {\n result.add(substring(currentOffset, nextIndex))\n   currentOffset = nextIndex + delimiter.length\n   // Do not search for next occurrence if we're reaching limit\n   if (isLimited && result.size == limit - 1) break\n nextIndex = indexOf(delimiter, currentOffset, ignoreCase)\n   } while (nextIndex != -1)\n\n result.add(substring(currentOffset, length))\n   return result\n}\n\n/**\n * Splits this char sequence to a list of strings around matches of the given regular expression.\n *\n * @param limit Non-negative value specifying the maximum number of substrings to return.\n * Zero by default means no limit is set.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.split(regex: Regex, limit: Int = 0): List<String> = regex.split(this, limit)\n\n/**\n * Splits this char sequence to a sequence of strings around matches of the given regular expression.\n *\n * @param limit Non-negative value specifying the maximum number of substrings to return.\n * Zero by default means no limit is set.\n * @sample samples.text.Strings.splitToSequence\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.splitToSequence(regex: Regex, limit: Int = 0): Sequence<String> = regex.splitToSequence(this, limit)\n\n/**\n * Splits this char sequence to a sequence of lines delimited by any of the following character sequences:

CRLF, LF or CR.\n *\n * The lines returned do not include terminating line separators.\n */\npublic fun CharSequence.lineSequence(): Sequence<String> = splitToSequence(\"\\r\\n\", \"\\n\", \"\\r\")\n\n/**\n * Splits this char sequence to a list of lines delimited by any of the following character sequences: CRLF, LF or CR.\n *\n * The lines returned do not include terminating line separators.\n */\npublic fun CharSequence.lines(): List<String> = lineSequence().toList()\n\n/**\n * Returns `true` if the contents of this char sequence are equal to the contents of the specified [other],\n * i.e. both char sequences contain the same number of the same characters in the same order.\n *\n * @sample samples.text.Strings.contentEquals\n */\n@SinceKotlin(\"1.5\")\npublic expect infix fun CharSequence?.contentEquals(other: CharSequence?): Boolean\n\n/**\n * Returns `true` if the contents of this char sequence are equal to the contents of the specified [other], optionally ignoring case difference.\n *\n * @param ignoreCase `true` to ignore character case when comparing contents.\n *\n * @sample samples.text.Strings.contentEquals\n */\n@SinceKotlin(\"1.5\")\npublic expect fun CharSequence?.contentEquals(other: CharSequence?, ignoreCase: Boolean): Boolean\n\ninternal fun CharSequence?.contentEqualsIgnoreCaseImpl(other: CharSequence?): Boolean {\n   if (this is String && other is String) {\n   return this.equals(other, ignoreCase = true)\n   }\n\n   if (this === other) return true\n   if (this == null || other == null || this.length != other.length) return false\n\n   for (i in 0 until length) {\n   if (!this[i].equals(other[i], ignoreCase = true)) {\n   return false\n   }\n   }\n\n   return true\n}\n\ninternal fun CharSequence?.contentEqualsImpl(other: CharSequence?): Boolean {\n   if (this is String && other is String) {\n   return this == other\n   }\n\n   if (this === other) return true\n   if (this == null || other == null || this.length != other.length) return false\n\n   for (i in 0 until length) {\n   if (this[i] != other[i]) {\n   return false\n   }\n   }\n\n   return true\n}\n\n/**\n * Returns `true` if the content of this string is equal to the word \"true\", `false` if it is equal to \"false\",\n * and throws an exception otherwise.\n *\n * There is also a lenient version of the function available on nullable String, [String?.toBoolean].\n * Note that this function is case-sensitive.\n *\n * @sample samples.text.Strings.toBooleanStrict\n */\n@SinceKotlin(\"1.5\")\npublic fun String.toBooleanStrict(): Boolean = when (this) {\n   \"true\" -> true\n   \"false\" -> false\n   else -> throw IllegalArgumentException(\"The string doesn't represent a boolean value: $this\")\n}\n\n/**\n * Returns `true` if the content of this string is equal to the word \"true\", `false` if it is equal to \"false\",\n * and `null` otherwise.\n *\n * There is also a lenient version of the function available on nullable String, [String?.toBoolean].\n * Note that this function is case-sensitive.\n *\n * @sample samples.text.Strings.toBooleanStrictOrNull\n */\n@SinceKotlin(\"1.5\")\npublic fun String.toBooleanStrictOrNull(): Boolean? = when (this) {\n   \"true\" -> true\n   \"false\" -> false\n   else -> null\n}","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@JvmInline\npublic value class UByteArray\n@PublishedApi\ninternal constructor(@PublishedApi internal val storage: ByteArray) : Collection<UByte> {\n\n   /** Creates a new array of the specified [size], with all elements initialized to zero. */\n   public constructor(size: Int) : this(ByteArray(size))\n\n   /**\n   * Returns the array element at the given [index]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun get(index: Int): UByte = storage[index].toUByte()\n\n   /**\n   * Sets the element at the given [index] to the given [value]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun set(index: Int, value: UByte) {\n   storage[index] = value.toByte()\n   }\n\n   /** Returns the number of elements in the array. */\n   public override val size: Int get() = storage.size\n\n   /** Creates an iterator over the elements of the array. */\n   public override operator fun iterator(): kotlin.collections.Iterator<UByte> = Iterator(storage)\n\n   private class Iterator(private val array: ByteArray) : kotlin.collections.Iterator<UByte> {\n   private var index = 0\n   override fun hasNext() = index < array.size\n   override fun next() = if (index <

array.size) array[index++].toUByte() else throw NoSuchElementException(index.toString())\n   }\n\n   override fun contains(element: UByte): Boolean {\n   // TODO: Eliminate this check after KT-30016 gets fixed.\n   // Currently JS BE does not generate special bridge method for this method.\n   @Suppress(\"USELESS_CAST\")\n   if ((element as Any?) !is UByte) return false\n\n   return storage.contains(element.toByte())\n   }\n\n   override fun containsAll(elements: Collection<UByte>): Boolean {\n   return (elements as Collection<*>).all { it is UByte && storage.contains(it.toByte()) }\n   }\n\n   override fun isEmpty(): Boolean = this.storage.size == 0\n}\n\n/**\n * Creates a new array of the specified [size], where each element is calculated by calling the specified\n * [init] function.\n *\n * The function [init] is called for each array element sequentially starting from the first one.\n * It should return the value for an array element given its index.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray(size: Int, init: (Int) -> UByte): UByteArray {\n   return UByteArray(ByteArray(size) { index -> init(index).toByte() })\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ubyteArrayOf(vararg elements: UByte): UByteArray = elements\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@JvmInline\npublic value class UIntArray\n@PublishedApi\ninternal constructor(@PublishedApi internal val storage: IntArray) : Collection<UInt> {\n\n   /** Creates a new array of the specified [size], with all elements initialized to zero. */\n   public constructor(size: Int) : this(IntArray(size))\n\n   /**\n   * Returns the array element at the given [index]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun get(index: Int): UInt = storage[index].toUInt()\n\n   /**\n   * Sets the element at the given [index] to the given [value]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun set(index: Int, value: UInt) {\n   storage[index] = value.toInt()\n   }\n\n   /** Returns the number of elements in the array. */\n   public override val size: Int get() = storage.size\n\n   /** Creates an iterator over the elements of the array. */\n   public override operator fun iterator(): kotlin.collections.Iterator<UInt> = Iterator(storage)\n\n   private class Iterator(private val array: IntArray) : kotlin.collections.Iterator<UInt> {\n   private var index = 0\n   override fun hasNext() = index < array.size\n   override fun next() = if (index < array.size) array[index++].toUInt() else throw NoSuchElementException(index.toString())\n   }\n\n   override fun contains(element: UInt): Boolean {\n   // TODO: Eliminate this check after KT-30016 gets fixed.\n   // Currently JS BE does not generate special bridge method for this method.\n   @Suppress(\"USELESS_CAST\")\n   if ((element as Any?) !is UInt) return false\n\n   return storage.contains(element.toInt())\n   }\n\n   override fun containsAll(elements: Collection<UInt>): Boolean {\n   return (elements as Collection<*>).all { it is UInt && storage.contains(it.toInt()) }\n   }\n\n   override fun isEmpty(): Boolean = this.storage.size == 0\n}\n\n/**\n * Creates a new array of the specified [size], where each element is calculated by calling the specified\n * [init] function.\n *\n * The function [init] is called for each array element sequentially starting from the first one.\n * It should return the value for an array element given its index.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray(size: Int, init: (Int) -> UInt): UIntArray {\n   return UIntArray(IntArray(size) { index -> init(index).toInt() })\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun uintArrayOf(vararg elements: UInt): UIntArray = elements\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT

EDIT!\n\npackage kotlin\n\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@JvmInline\npublic value class ULongArray\n@PublishedApi\ninternal constructor(@PublishedApi internal val storage: LongArray) : Collection<ULong> {\n\n   /** Creates a new array of the specified [size], with all elements initialized to zero. */\n   public constructor(size: Int) : this(LongArray(size))\n\n   /**\n   * Returns the array element at the given [index]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun get(index: Int): ULong = storage[index].toULong()\n\n   /**\n   * Sets the element at the given [index] to the given [value]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun set(index: Int, value: ULong) {\n   storage[index] = value.toLong()\n   }\n\n   /** Returns the number of elements in the array. */\n   public override val size: Int get() = storage.size\n\n   /** Creates an iterator over the elements of the array. */\n   public override operator fun iterator(): kotlin.collections.Iterator<ULong> = Iterator(storage)\n\n   private class Iterator(private val array: LongArray) : kotlin.collections.Iterator<ULong> {\n   private var index = 0\n   override fun hasNext() = index < array.size\n   override fun next() = if (index < array.size) array[index++].toULong() else throw NoSuchElementException(index.toString())\n   }\n\n   override fun contains(element: ULong): Boolean {\n   // TODO: Eliminate this check after KT-30016 gets fixed.\n   // Currently JS BE does not generate special bridge method for this method.\n   @Suppress(\"USELESS_CAST\")\n   if ((element as Any?) !is ULong) return false\n\n   return storage.contains(element.toLong())\n   }\n\n   override fun containsAll(elements: Collection<ULong>): Boolean {\n   return (elements as Collection<*>).all { it is ULong && storage.contains(it.toLong()) }\n   }\n\n   override fun isEmpty(): Boolean = this.storage.size == 0\n}\n\n/**\n * Creates a new array of the specified [size], where each element is calculated by calling the specified\n * [init] function.\n *\n * The function [init] is called for each array element sequentially starting from the first one.\n * It should return the value for an array element given its index.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray(size: Int, init: (Int) -> ULong): ULongArray {\n   return ULongArray(LongArray(size) { index -> init(index).toLong() })\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ulongArrayOf(vararg elements: ULong): ULongArray = elements\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@JvmInline\npublic value class UShortArray\n@PublishedApi\ninternal constructor(@PublishedApi internal val storage: ShortArray) : Collection<UShort> {\n\n   /** Creates a new array of the specified [size], with all elements initialized to zero. */\n   public constructor(size: Int) : this(ShortArray(size))\n\n   /**\n   * Returns the array element at the given [index]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun get(index: Int): UShort = storage[index].toUShort()\n\n   /**\n   * Sets the element at the given [index] to the given [value]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun set(index: Int, value: UShort) {\n   storage[index] = value.toShort()\n   }\n\n   /** Returns the number of elements in the array. */\n   public override val size: Int get() = storage.size\n\n   /** Creates an iterator over the elements of the array. */\n   public override operator fun iterator(): kotlin.collections.Iterator<UShort> = Iterator(storage)\n\n   private class Iterator(private val array: ShortArray) : kotlin.collections.Iterator<UShort> {\n   private var index = 0\n   override fun hasNext() = index < array.size\n   override fun next() = if (index < array.size) array[index++].toUShort() else throw NoSuchElementException(index.toString())\n   }\n\n   override fun contains(element: UShort): Boolean {\n // TODO: Eliminate this check after KT-30016 gets fixed.\n // Currently JS BE does not generate special bridge method for this method.\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is UShort) return false\n\n return storage.contains(element.toShort())\n }\n\n override fun containsAll(elements: Collection<UShort>): Boolean {\n return (elements as Collection<*>).all { it is UShort && storage.contains(it.toShort()) }\n }\n\n override fun isEmpty(): Boolean = this.storage.size == 0\n}\n\n/**\n * Creates a new array of the specified [size], where each element is calculated by calling the specified\n * [init] function.\n *\n * The function [init] is called for each array element sequentially starting from the first one.\n * It should return the value for an array element given its index.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray(size: Int, init: (Int) -> UShort): UShortArray {\n return UShortArray(ShortArray(size) { index -> init(index).toShort() })\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ushortArrayOf(vararg elements: UShort): UShortArray = elements\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"UArraysKt\")\n@file:kotlin.jvm.JvmPackageName(\"kotlin.collections.unsigned\")\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntArray.component1(): UInt {\n return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.component1(): ULong {\n return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.component1(): UByte {\n return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.component1(): UShort {\n return get(0)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntArray.component2(): UInt {\n return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.component2(): ULong {\n return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.component2(): UByte {\n return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n *

If the size of this array is less than 2, throws an [IndexOutOfBoundsException]
except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.component2(): UShort {\n   return get(1)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntArray.component3(): UInt {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.component3(): ULong {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element*
from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.component3(): UByte {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.component3(): UShort {\n   return get(2)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
operator fun UIntArray.component4(): UInt {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.component4(): ULong {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.component4(): UByte {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline operator fun UShortArray.component4(): UShort {\n   return get(3)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntArray.component5(): UInt {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.component5(): ULong {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.component5(): UByte {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the

behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.component5(): UShort {\n   return get(4)\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun UIntArray.elementAt(index: Int): UInt\n\n/**\n * Returns an element at the given [index] or throws
 an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun ULongArray.elementAt(index: Int): ULong\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun UByteArray.elementAt(index: Int): UByte\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun UShortArray.elementAt(index: Int): UShort\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue]
 function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.elementAtOrElse(index: Int, defaultValue: (Int) -> UInt): UInt {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.elementAtOrElse(index: Int, defaultValue: (Int) -> ULong): ULong {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function
 if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.elementAtOrElse(index: Int, defaultValue: (Int) -> UByte): UByte {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.elementAtOrElse(index: Int, defaultValue: (Int) -> UShort): UShort {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n
 * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.elementAtOrNull(index: Int): UInt? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.elementAtOrNull(index: Int): ULong? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n

```
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.elementAtOrNull(index: Int): UByte? {\n    return this.getOrNull(index)\n}\n\n/**\n
 * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.elementAtOrNull(index: Int): UShort? {\n    return this.getOrNull(index)\n}\n\n/**\n * Returns the
first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.find(predicate: (UInt) -> Boolean): UInt? {\n    return firstOrNull(predicate)\n}\n\n/**\n * Returns the
first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun ULongArray.find(predicate: (ULong) -> Boolean): ULong? {\n    return
firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such
element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.find(predicate: (UByte) -> Boolean): UByte? {\n    return firstOrNull(predicate)\n}\n\n/**\n * Returns
the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
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*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.find(predicate: (UShort) -> Boolean): UShort? {\n    return firstOrNull(predicate)\n}\n\n/**\n *
Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n
 */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.findLast(predicate: (UInt) -> Boolean): UInt? {\n    return lastOrNull(predicate)\n}\n\n/**\n * Returns the
last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
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*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.findLast(predicate: (ULong) -> Boolean): ULong? {\n    return lastOrNull(predicate)\n}\n\n/**\n *
Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
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*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.findLast(predicate: (UByte) -> Boolean): UByte? {\n    return lastOrNull(predicate)\n}\n\n/**\n *
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 the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
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*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.findLast(predicate: (UShort) -> Boolean): UShort? {\n    return lastOrNull(predicate)\n}\n\n/**\n *
Returns the first element.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.first(): UInt {\n    return storage.first().toUInt()\n}\n\n/**\n * Returns the first element.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.first(): ULong {\n    return storage.first().toULong()\n}\n\n/**\n * Returns the first element.\n * \n *
@throws NoSuchElementException if the array is empty.\n
 */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.first(): UByte {\n    return storage.first().toUByte()\n}\n\n/**\n * Returns the first element.\n * \n *
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@throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.first(): UShort {\n   return storage.first().toUShort()\n}\n\n/**\n * Returns the first element matching
the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.first(predicate: (UInt) -> Boolean): UInt {\n   for (element in this) if (predicate(element)) return
element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n *
Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException]
if no such element is found.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.first(predicate: (ULong) -> Boolean): ULong {\n   for (element in this) if (predicate(element)) return
element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n *
Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such
element is found.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.first(predicate: (UByte) -> Boolean): UByte {\n   for (element in this) if (predicate(element)) return
element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n *
Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such
element is found.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UShortArray.first(predicate: (UShort) -> Boolean): UShort {\n   for (element in this) if
(predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the
predicate.\")\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.firstOrNull(): UInt? {\n   return
if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.firstOrNull(): ULong? {\n
return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.firstOrNull(): UByte? {\n
return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.firstOrNull(): UShort? {\n
return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null`
if element was not found.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.firstOrNull(predicate: (UInt) -> Boolean): UInt? {\n   for (element in this) if (predicate(element)) return
element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element
was not found.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.firstOrNull(predicate: (ULong) -> Boolean): ULong? {\n   for (element in this) if
(predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given
[predicate], or `null` if element was not found.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UByteArray.firstOrNull(predicate: (UByte) -> Boolean): UByte? {\n   for (element in this) if
(predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given
[predicate], or `null` if element was not found.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.firstOrNull(predicate: (UShort) -> Boolean): UShort? {\n   for (element in this) if (predicate(element))
return element\n   return null\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the
[defaultValue] function if the [index] is out of bounds of this array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

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UIntArray.getOrElse(index: Int, defaultValue: (Int) -> UInt): UInt {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n
 * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of
bounds of this array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.getOrElse(index: Int, defaultValue: (Int) -> ULong): ULong {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.getOrElse(index: Int, defaultValue: (Int) -> UByte): UByte {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun UShortArray.getOrElse(index: Int, defaultValue: (Int) -> UShort): UShort {\n    return if (index >= 0 &&
index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or
`null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.getOrNull\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.getOrNull(index: Int): UInt? {\n
 return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given
[index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.getOrNull\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.getOrNull(index: Int):
ULong? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an
 element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.getOrNull\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.getOrNull(index: Int): UByte?
{\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the
given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.getOrNull\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.getOrNull(index: Int):
UShort? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns first index of
[element], or -1 if the array does not contain element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.indexOf(element: UInt): Int {\n    return storage.indexOf(element.toInt())\n}\n\n/**\n * Returns
 first index of [element], or -1 if the array does not contain element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.indexOf(element: ULong): Int {\n    return storage.indexOf(element.toLong())\n}\n\n/**\n * Returns
first index of [element], or -1 if the array does not contain element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.indexOf(element: UByte): Int {\n    return storage.indexOf(element.toByte())\n}\n\n/**\n * Returns
first index of [element], or -1 if the array does not contain element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.indexOf(element: UShort): Int {\n    return storage.indexOf(element.toShort())\n}\n\n/**\n * Returns
index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun UIntArray.indexOfFirst(predicate: (UInt) -> Boolean): Int {\n    return storage.indexOfFirst {
predicate(it.toUInt()) }\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the
array does not contain such element.\n
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*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.indexOfFirst(predicate: (ULong) -> Boolean): Int {\n   return storage.indexOfFirst { predicate(it.toULong()) }\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.indexOfFirst(predicate: (UByte) -> Boolean): Int {\n   return storage.indexOfFirst { predicate(it.toUByte()) }\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if
 the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.indexOfFirst(predicate: (UShort) -> Boolean): Int {\n   return storage.indexOfFirst { predicate(it.toUShort()) }\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.indexOfLast(predicate: (UInt) -> Boolean): Int {\n   return storage.indexOfLast { predicate(it.toUInt()) }\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.indexOfLast(predicate: (ULong) -> Boolean): Int {\n   return storage.indexOfLast { predicate(it.toULong()) }\n}\n\n/**\n * Returns
 index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.indexOfLast(predicate: (UByte) -> Boolean): Int {\n   return storage.indexOfLast { predicate(it.toUByte()) }\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.indexOfLast(predicate: (UShort) -> Boolean): Int {\n   return storage.indexOfLast { predicate(it.toUShort()) }\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.last(): UInt {\n   return storage.last().toUInt()\n}\n\n/**\n
 * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.last(): ULong {\n   return storage.last().toULong()\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.last(): UByte {\n   return storage.last().toUByte()\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.last(): UShort {\n   return
 storage.last().toUShort()\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.last(predicate: (UInt) -> Boolean): UInt {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n *

@throws NoSuchElementException if no such element is found.\n * \n * @sample
samples.collections.Collections.Elements.last\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.last(predicate: (ULong) -> Boolean): ULong {\n   for (index in this.indices.reversed())
 {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw
NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last
element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n
* \n * @sample samples.collections.Collections.Elements.last\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.last(predicate: (UByte) -> Boolean): UByte {\n   for (index in this.indices.reversed()) {\n   val
element = this[index]\n   if (predicate(element)) return element\n   }\n   throw
NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last
element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n
* \n * @sample samples.collections.Collections.Elements.last\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun UShortArray.last(predicate: (UShort) -> Boolean): UShort {\n   for (index in this.indices.reversed()) {\n
    val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw
NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns last index
of [element], or -1 if the array does not contain element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.lastIndexOf(element: UInt): Int {\n   return storage.lastIndexOf(element.toInt())\n}\n\n/**\n * Returns
last index of [element], or -1 if the array does not contain element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.lastIndexOf(element: ULong): Int {\n   return storage.lastIndexOf(element.toLong())\n}\n\n/**\n *
Returns last index of [element],
 or -1 if the array does not contain element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.lastIndexOf(element: UByte): Int {\n   return storage.lastIndexOf(element.toByte())\n}\n\n/**\n *
Returns last index of [element], or -1 if the array does not contain element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.lastIndexOf(element: UShort): Int {\n   return storage.lastIndexOf(element.toShort())\n}\n\n/**\n *
Returns the last element, or `null` if the array is empty.\n * \n * @sample
samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
fun UIntArray.lastOrNull(): UInt? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last
element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
 fun ULongArray.lastOrNull(): ULong? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the
last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.lastOrNull(): UByte? {\n
return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n *
\n * @sample samples.collections.Collections.Elements.last\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.lastOrNull(): UShort? {\n
return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element matching the given [predicate], or
`null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.lastOrNull(predicate:
 (UInt) -> Boolean): UInt? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if
(predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given

[predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.lastOrNull(predicate: (ULong) -> Boolean): ULong? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.lastOrNull(predicate:
(UByte) -> Boolean): UByte? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.lastOrNull(predicate: (UShort) -> Boolean): UShort? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.random(): UInt {\n   return random(Random)\n}\n\n/**\n * Returns a random element
from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.random(): ULong {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.random(): UByte {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.random(): UShort {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
fun UIntArray.random(random: Random): UInt {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.random(random: Random): ULong {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.random(random: Random): UByte {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random
element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.random(random: Random): UShort {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.randomOrNull(): UInt? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n

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*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n
@kotlin.internal.InlineOnly\npublic inline fun ULongArray.randomOrNull(): ULong? {\n    return
randomOrNull(Random)\n}\n\n/**\n * Returns
 a random element from this array, or `null` if this array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n
@kotlin.internal.InlineOnly\npublic inline fun UByteArray.randomOrNull(): UByte? {\n    return
randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n
@kotlin.internal.InlineOnly\npublic inline fun UShortArray.randomOrNull(): UShort? {\n    return
randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array using the specified source of
randomness, or `null` if this array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\np
ublic fun UIntArray.randomOrNull(random: Random): UInt? {\n    if (isEmpty())\n        return null\n    return
get(random.nextInt(size))\n}\n\n/**\n * Returns
 a random element from this array using the specified source of randomness, or `null` if this array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\np
ublic fun ULongArray.randomOrNull(random: Random): ULong? {\n    if (isEmpty())\n        return null\n    return
get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of
randomness, or `null` if this array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\np
ublic fun UByteArray.randomOrNull(random: Random): UByte? {\n    if (isEmpty())\n        return null\n    return
get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of
randomness, or `null` if this array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\np
ublic fun UShortArray.randomOrNull(random:
 Random): UShort? {\n    if (isEmpty())\n        return null\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns
the single element, or throws an exception if the array is empty or has more than one element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.single(): UInt {\n    return storage.single().toUInt()\n}\n\n/**\n * Returns the single element, or throws an
exception if the array is empty or has more than one element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.single(): ULong {\n    return storage.single().toULong()\n}\n\n/**\n * Returns the single element, or
throws an exception if the array is empty or has more than one element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.single(): UByte {\n    return storage.single().toUByte()\n}\n\n/**\n * Returns the single
 element, or throws an exception if the array is empty or has more than one element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.single(): UShort {\n    return storage.single().toUShort()\n}\n\n/**\n * Returns the single element
matching the given [predicate], or throws exception if there is no or more than one matching element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.single(predicate: (UInt) -> Boolean): UInt {\n    var single: UInt? = null\n    var found = false\n    for
(element in this) {\n        if (predicate(element)) {\n            if (found) throw IllegalArgumentException(\"Array
contains more than one matching element.\")\n            single = element\n            found = true\n        }\n    }\n    if
(!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n
@Suppress(\"UNCHECKED_CAST\")\n
    return single as UInt\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception
if there is no or more than one matching element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
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ULongArray.single(predicate: (ULong) -> Boolean): ULong {\n var single: ULong? = null\n var found = false\n
for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array
contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if
(!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n
@Suppress(\"UNCHECKED_CAST\")\n return single as ULong\n}\n\n/**\n * Returns the single element
matching the given [predicate], or throws exception if there is no or more than one matching element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UByteArray.single(predicate: (UByte) -> Boolean): UByte {\n var single: UByte? = null\n var found
= false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw
IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n
found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching
the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as UByte\n}\n\n/**\n * Returns the
single element matching the given [predicate], or throws exception if there is no or more than one matching
element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun UShortArray.single(predicate: (UShort) -> Boolean): UShort {\n var single: UShort? = null\n var found =
false\n for (element in this) {\n if (predicate(element)) {\n
if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single
= element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no
element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as
UShort\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.singleOrNull(): UInt? {\n
return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more
than one element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun
ULongArray.singleOrNull(): ULong? {\n return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single
element, or `null` if the array is empty or has more than one element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun
UByteArray.singleOrNull(): UByte? {\n return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single
element, or `null` if the array is empty or has more than one element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.singleOrNull(): UShort? {\n
return if (size == 1) this[0] else null\n}\n\n/**\n * Returns the single element matching the given [predicate], or
`null` if element was not found or more than one element was found.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.singleOrNull(predicate: (UInt) -> Boolean): UInt? {\n var single: UInt? = null\n var found = false\n
for (element in this) {\n if (predicate(element)) {\n if (found) return null\n single = element\n
found = true\n }\n }\n if (!found) return null\n return single\n}\n\n/**\n * Returns the single element
matching the given [predicate], or `null`
if element was not found or more than one element was found.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.singleOrNull(predicate: (ULong) -> Boolean): ULong? {\n var single: ULong? = null\n var found
= false\n for (element in this) {\n if (predicate(element)) {\n if (found) return null\n single =
element\n found = true\n }\n }\n if (!found) return null\n return single\n}\n\n/**\n * Returns the
single element matching the given [predicate], or `null` if element was not found or more than one element was
found.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun UByteArray.singleOrNull(predicate: (UByte) -> Boolean): UByte? {\n var single: UByte? = null\n var found
= false\n for (element in this) {\n if (predicate(element)) {\n if (found) return null\n single =
element\n
found = true\n }\n }\n if (!found) return null\n return single\n}\n\n/**\n * Returns the single
element matching the given [predicate], or `null` if element was not found or more than one element was found.\n

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*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.singleOrNull(predicate: (UShort) -> Boolean): UShort? {\n    var single: UShort? = null\n    var found
= false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single =
element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns a list
containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n *
\n * @sample samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.drop(n: Int): List<UInt>
 {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.drop(n: Int): List<ULong> {\n
  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.drop(n: Int): List<UByte> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n
 * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n]
is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.drop(n: Int): List<UShort> {\n
  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.dropLast(n: Int): List<UInt> {\n
 require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
 IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.dropLast(n: Int):
List<ULong> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.dropLast(n: Int): List<UByte>
{\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
 */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.dropLast(n: Int):
List<UShort> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given
[predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.dropLastWhile(predicate: (UInt) -> Boolean): List<UInt> {\n    for (index in lastIndex downTo 0) {\n
if (!predicate(this[index])) {\n            return take(index + 1)\n        }\n    }\n    return emptyList()\n}\n\n/**\n *
```

Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.dropLastWhile(predicate: (ULong) -> Boolean): List<ULong> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.dropLastWhile(predicate: (UByte) -> Boolean): List<UByte> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.dropLastWhile(predicate: (UShort) -> Boolean): List<UShort> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.dropWhile(predicate: (UInt) -> Boolean): List<UInt> {\n var yielding = false\n val list = ArrayList<UInt>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.dropWhile(predicate: (ULong) -> Boolean): List<ULong> {\n var yielding = false\n val list = ArrayList<ULong>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.dropWhile(predicate: (UByte) -> Boolean): List<UByte> {\n var yielding = false\n val list = ArrayList<UByte>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.dropWhile(predicate: (UShort) -> Boolean): List<UShort> {\n var yielding = false\n val list = ArrayList<UShort>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.filter(predicate: (UInt) -> Boolean): List<UInt> {\n return filterTo(ArrayList<UInt>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.filter(predicate: (ULong) -> Boolean): List<ULong> {\n return filterTo(ArrayList<ULong>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample

samples.collections.Collections.Filtering.filter\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.filter(predicate: (UByte) -> Boolean): List<UByte> {\n   return filterTo(ArrayList<UByte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n
 */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.filter(predicate: (UShort) -> Boolean): List<UShort> {\n   return filterTo(ArrayList<UShort>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.filterIndexed(predicate: (index: Int, UInt) -> Boolean): List<UInt> {\n   return filterIndexedTo(ArrayList<UInt>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation
 on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.filterIndexed(predicate: (index: Int, ULong) -> Boolean): List<ULong> {\n   return filterIndexedTo(ArrayList<ULong>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.filterIndexed(predicate: (index: Int, UByte) -> Boolean): List<UByte> {\n   return filterIndexedTo(ArrayList<UByte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param
 [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.filterIndexed(predicate: (index: Int, UShort) -> Boolean): List<UShort> {\n   return filterIndexedTo(ArrayList<UShort>(), predicate)\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UInt>> UIntArray.filterIndexedTo(destination: C, predicate: (index: Int,
 UInt) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in ULong>> ULongArray.filterIndexedTo(destination: C, predicate: (index: Int, ULong) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of
 an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UByte>> UByteArray.filterIndexedTo(destination: C, predicate: (index: Int, UByte) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UShort>>
 UShortArray.filterIndexedTo(destination: C, predicate: (index: Int, UShort) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.filterNot(predicate: (UInt) -> Boolean): List<UInt> {\n   return filterNotTo(ArrayList<UInt>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.filterNot(predicate: (ULong) -> Boolean): List<ULong> {\n   return filterNotTo(ArrayList<ULong>(), predicate)\n}\n\n/**\n
 * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.filterNot(predicate: (UByte) -> Boolean): List<UByte> {\n   return filterNotTo(ArrayList<UByte>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.filterNot(predicate: (UShort) -> Boolean): List<UShort> {\n   return filterNotTo(ArrayList<UShort>(), predicate)\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun <C : MutableCollection<in UInt>> UIntArray.filterNotTo(destination: C, predicate: (UInt) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in ULong>> ULongArray.filterNotTo(destination: C, predicate: (ULong) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in
 UByte>> UByteArray.filterNotTo(destination: C, predicate: (UByte) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UShort>> UShortArray.filterNotTo(destination: C, predicate: (UShort) -> Boolean): C {\n

for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UInt>> UIntArray.filterTo(destination:
 C, predicate: (UInt) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in ULong>> ULongArray.filterTo(destination: C, predicate: (ULong) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UByte>> UByteArray.filterTo(destination: C, predicate: (UByte) -> Boolean): C {\n   for
 (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UShort>> UShortArray.filterTo(destination: C, predicate: (UShort) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.slice(indices: IntRange): List<UInt> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
 fun ULongArray.slice(indices: IntRange): List<ULong> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.slice(indices: IntRange): List<UByte> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.slice(indices: IntRange): List<UShort> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
 fun UIntArray.slice(indices: Iterable<Int>): List<UInt> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<UInt>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.slice(indices: Iterable<Int>): List<ULong> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<ULong>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.slice(indices: Iterable<Int>): List<UByte> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n
    val list = ArrayList<UByte>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.slice(indices: Iterable<Int>): List<UShort> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list =

ArrayList<UShort>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sliceArray(indices: Collection<Int>): UIntArray {\n   return UIntArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sliceArray(indices: Collection<Int>):
 ULongArray {\n   return ULongArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sliceArray(indices: Collection<Int>): UByteArray {\n   return UByteArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sliceArray(indices: Collection<Int>): UShortArray {\n   return UShortArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sliceArray(indices: IntRange): UIntArray {\n   return UIntArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
 fun ULongArray.sliceArray(indices: IntRange): ULongArray {\n   return ULongArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sliceArray(indices: IntRange): UByteArray {\n   return UByteArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sliceArray(indices: IntRange): UShortArray {\n   return UShortArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.take(n: Int): List<UInt> {\n
    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<UInt>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.take(n: Int): List<ULong> {\n
 require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<ULong>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n
    }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.take(n: Int): List<UByte> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<UByte>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.take(n: Int): List<UShort> {\n

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  require(n
 >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    if (n >= size)
return toList()\n    if (n == 1) return listOf(this[0])\n    var count = 0\n    val list = ArrayList<UShort>(n)\n    for
(item in this) {\n        list.add(item)\n        if (++count == n)\n            break\n    }\n    return list\n}\n\n/**\n * Returns
a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.takeLast(n: Int): List<UInt> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val size =
size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list = ArrayList<UInt>(n)\n
for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n *
 Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n *
@sample samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.takeLast(n: Int): List<ULong>
{\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val
size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list =
ArrayList<ULong>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n *
Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n *
@sample samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.takeLast(n: Int): List<UByte>
{\n    require(n >= 0) { \"Requested element count $n is less than zero.\"
 }\n    if (n == 0) return emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return
listOf(this[size - 1])\n    val list = ArrayList<UByte>(n)\n    for (index in size - n until size)\n
list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.takeLast(n: Int): List<UShort>
{\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val
size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list =
ArrayList<UShort>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n *
Returns a list containing last elements satisfying the given [predicate].\n
 * \n * @sample samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.takeLastWhile(predicate: (UInt) -> Boolean): List<UInt> {\n    for (index in lastIndex downTo 0) {\n
if (!predicate(this[index])) {\n            return drop(index + 1)\n        }\n    }\n    return toList()\n}\n\n/**\n * Returns a
list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.takeLastWhile(predicate: (ULong) -> Boolean): List<ULong> {\n    for (index in lastIndex downTo 0)
{\n        if (!predicate(this[index])) {\n            return drop(index + 1)\n        }\n    }\n    return toList()\n}\n\n/**\n *
Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
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 */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.takeLastWhile(predicate: (UByte) -> Boolean): List<UByte> {\n    for (index in lastIndex downTo 0)
{\n        if (!predicate(this[index])) {\n            return drop(index + 1)\n        }\n    }\n    return toList()\n}\n\n/**\n *
Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.takeLastWhile(predicate: (UShort) -> Boolean): List<UShort> {\n    for (index in lastIndex downTo 0)
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{\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.takeWhile(predicate: (UInt) -> Boolean): List<UInt> {\n   val list = ArrayList<UInt>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.takeWhile(predicate: (ULong) -> Boolean): List<ULong> {\n   val list = ArrayList<ULong>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.takeWhile(predicate: (UByte) -> Boolean): List<UByte> {\n   val list = ArrayList<UByte>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.takeWhile(predicate: (UShort) -> Boolean): List<UShort> {\n   val list = ArrayList<UShort>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Reverses elements in the array in-place.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reverse(): Unit {\n   storage.reverse()\n}\n\n/**\n * Reverses elements in the array in-place.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reverse(): Unit {\n   storage.reverse()\n}\n\n/**\n * Reverses elements in the array in-place.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reverse(): Unit {\n   storage.reverse()\n}\n\n/**\n * Reverses elements in the array in-place.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reverse(): Unit {\n   storage.reverse()\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   storage.reverse(fromIndex, toIndex)\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   storage.reverse(fromIndex, toIndex)\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   storage.reverse(fromIndex, toIndex)\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   storage.reverse(fromIndex, toIndex)\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.reversed(): List<UInt> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.reversed(): List<ULong> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.reversed(): List<UByte> {\n if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.reversed(): List<UShort> {\n if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reversedArray(): UIntArray {\n   return UIntArray(storage.reversedArray())\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reversedArray(): ULongArray {\n   return ULongArray(storage.reversedArray())\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reversedArray(): UByteArray {\n   return UByteArray(storage.reversedArray())\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reversedArray(): UShortArray {\n   return UShortArray(storage.reversedArray())\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.shuffle(): Unit {\n shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.shuffle(): Unit {\n shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.shuffle(): Unit {\n shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.shuffle(random: Random):

Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sorted(): List<UInt> {\n   return copyOf().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sorted(): List<ULong> {\n   return copyOf().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sorted(): List<UByte> {\n   return copyOf().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sorted(): List<UShort> {\n   return copyOf().apply { sort() }.asList()\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sortedArray(): UIntArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sortedArray(): ULongArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sortedArray(): UByteArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sortedArray(): UShortArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sortedArrayDescending(): UIntArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sortedArrayDescending(): ULongArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according
 to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sortedArrayDescending(): UByteArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sortedArrayDescending(): UShortArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sortedDescending(): List<UInt> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending
 according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sortedDescending(): List<ULong> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sortedDescending(): List<UByte> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun
 UShortArray.sortedDescending(): List<UShort> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns an array of type [ByteArray], which is a view of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.asByteArray(): ByteArray {\n   return storage\n}\n\n/**\n * Returns an array of type [IntArray], which is a view of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.asIntArray(): IntArray {\n   return storage\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun UIntArray.asList(): List<UInt>\n\n/**\n * Returns a [List] that wraps the original array.\n
 */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun ULongArray.asList(): List<ULong>\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun UByteArray.asList(): List<UByte>\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun UShortArray.asList(): List<UShort>\n\n/**\n * Returns an array of type [LongArray], which is a view of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.asLongArray(): LongArray {\n   return storage\n}\n\n/**\n * Returns an array of type [ShortArray], which is a view of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun UShortArray.asShortArray(): ShortArray {\n   return storage\n}\n\n/**\n * Returns an array of type [UByteArray], which is a view of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

ByteArray.asUByteArray(): UByteArray {\n   return UByteArray(this)\n}\n\n/**\n * Returns an array of type
[UIntArray], which is a view of this array where each element is an unsigned reinterpretation\n * of the
corresponding element of this array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
IntArray.asUIntArray(): UIntArray {\n   return UIntArray(this)\n}\n\n/**\n * Returns an array of type
[ULongArray], which is a view of this array where each element is an unsigned reinterpretation\n * of the
corresponding element of this
 array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
LongArray.asULongArray(): ULongArray {\n   return ULongArray(this)\n}\n\n/**\n * Returns an array of type
[UShortArray], which is a view of this array where each element is an unsigned reinterpretation\n * of the
corresponding element of this array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ShortArray.asUShortArray(): UShortArray {\n   return UShortArray(this)\n}\n\n/**\n * Returns `true` if the two
specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the
same order.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince =
\"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun UIntArray.contentEquals(other: UIntArray): Boolean {\n
 return this.contentEquals(other)\n}\n\n/**\n
 * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number
of the same elements in the same order.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince =
\"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun ULongArray.contentEquals(other: ULongArray):
Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are
structurally equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n
*/\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince =
\"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun UByteArray.contentEquals(other: UByteArray): Boolean
{\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal
to one another,\n
 * i.e. contain the same number of the same elements in the same order.\n */\n@Deprecated(\"Use Kotlin compiler
1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince =
\"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun UShortArray.contentEquals(other: UShortArray):
Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are
structurally equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun UIntArray?.contentEquals(other:
UIntArray?): Boolean {\n   return this?.storage.contentEquals(other?.storage)\n}\n\n/**\n * Returns `true` if the two
specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the
same order.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun
ULongArray?.contentEquals(other:
 ULongArray?): Boolean {\n   return this?.storage.contentEquals(other?.storage)\n}\n\n/**\n * Returns `true` if the
two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements
in the same order.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun
UByteArray?.contentEquals(other: UByteArray?): Boolean {\n   return
this?.storage.contentEquals(other?.storage)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally*
equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun UShortArray?.contentEquals(other:
UShortArray?): Boolean {\n   return this?.storage.contentEquals(other?.storage)\n}\n\n/**\n * Returns a hash code
based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid

deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince
= \"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.contentHashCode(): Int {\n   return
this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n
*/\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince =
\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.contentHashCode(): Int {\n   return
this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n
*/\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince =
\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.contentHashCode(): Int {\n   return
this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n
*/\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince
= \"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.contentHashCode(): Int {\n   return
this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray?.contentHashCode(): Int {\n
return this?.storage.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it
is [List].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun
ULongArray?.contentHashCode(): Int {\n   return this?.storage.contentHashCode()\n}\n\n/**\n * Returns a hash
code based on the contents of this array as if it is [List].\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray?.contentHashCode(): Int {\n
return this?.storage.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it
is [List].\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray?.contentHashCode(): Int {\n
return this?.storage.contentHashCode()\n}\n\n/**\n * Returns a string representation of the contents of the specified
array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince =
\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.contentToString(): String {\n   return
this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use
Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince =
\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.contentToString(): String {\n
return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as
if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince =
\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.contentToString(): String {\n   return
this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use
Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince =
\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.contentToString(): String {\n   return
this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified
array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray?.contentToString(): String {\n
return this?.joinToString(\", \", \"[\", \"]\") ?: \"null\"\n}\n\n/**\n * Returns a string representation of the contents of

the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray?.contentToString(): String {\n return this?.joinToString(\", \", \"[\", \"]\") ?: \"null\"\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray?.contentToString(): String {\n return this?.joinToString(\", \", \"[\", \"]\") ?: \"null\"\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray?.contentToString(): String {\n return this?.joinToString(\", \", \"[\", \"]\") ?: \"null\"\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.copyInto(destination: UIntArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): UIntArray {\n storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)\n return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.copyInto(destination: ULongArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ULongArray {\n storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)\n return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.copyInto(destination: UByteArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): UByteArray {\n   storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.copyInto(destination: UShortArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): UShortArray {\n   storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.copyOf(): UIntArray {\n   return UIntArray(storage.copyOf())\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.copyOf(): ULongArray {\n   return ULongArray(storage.copyOf())\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.copyOf(): UByteArray {\n   return UByteArray(storage.copyOf())\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.copyOf(): UShortArray {\n   return UShortArray(storage.copyOf())\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.copyOf(newSize: Int): UIntArray {\n   return UIntArray(storage.copyOf(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.copyOf(newSize: Int): ULongArray {\n   return ULongArray(storage.copyOf(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

UByteArray.copyOf(newSize: Int): UByteArray {\n   return UByteArray(storage.copyOf(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the
 given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.copyOf(newSize: Int): UShortArray {\n   return UShortArray(storage.copyOf(newSize))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun UIntArray.copyOfRange(fromIndex: Int, toIndex: Int): UIntArray {\n   return UIntArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.copyOfRange(fromIndex: Int, toIndex: Int): ULongArray {\n   return ULongArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param
 fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.copyOfRange(fromIndex: Int, toIndex: Int): UByteArray {\n   return UByteArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun UShortArray.copyOfRange(fromIndex: Int, toIndex: Int): UShortArray {\n   return UShortArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.fill(element: UInt, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   storage.fill(element.toInt(), fromIndex, toIndex)\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param
 fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.fill(element: ULong, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   storage.fill(element.toLong(), fromIndex, toIndex)\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n *

@param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.fill(element: UByte, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   storage.fill(element.toByte(), fromIndex, toIndex)\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.fill(element: UShort, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   storage.fill(element.toShort(), fromIndex, toIndex)\n}\n\n/**\n * Returns the range of valid indices for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val UIntArray.indices: IntRange\n   get() = storage.indices\n\n/**\n * Returns the range of valid indices for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val ULongArray.indices: IntRange\n   get() = storage.indices\n\n/**\n * Returns the range of valid indices for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val UByteArray.indices: IntRange\n   get() = storage.indices\n\n/**\n * Returns the range of valid indices for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val UShortArray.indices: IntRange\n   get() = storage.indices\n\n/**\n * Returns the last valid index for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val UIntArray.lastIndex: Int\n   get() = storage.lastIndex\n\n/**\n * Returns the last valid index for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val ULongArray.lastIndex: Int\n   get() = storage.lastIndex\n\n/**\n * Returns the last valid index for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val UByteArray.lastIndex: Int\n   get() = storage.lastIndex\n\n/**\n * Returns the last valid index for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val UShortArray.lastIndex: Int\n   get() = storage.lastIndex\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntArray.plus(element: UInt): UIntArray {\n   return UIntArray(storage + element.toInt())\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.plus(element: ULong): ULongArray {\n   return ULongArray(storage + element.toLong())\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.plus(element: UByte): UByteArray {\n   return UByteArray(storage + element.toByte())\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.plus(element: UShort): UShortArray {\n   return UShortArray(storage + element.toShort())\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic operator fun UIntArray.plus(elements: Collection<UInt>): UIntArray {\n   var index = size\n   val result = storage.copyOf(size + elements.size)\n   for (element in elements) result[index++] = element.toInt()\n   return UIntArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic operator fun ULongArray.plus(elements: Collection<ULong>): ULongArray {\n   var index = size\n   val result = storage.copyOf(size + elements.size)\n   for (element in elements) result[index++] = element.toLong()\n   return

ULongArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic operator fun UByteArray.plus(elements: Collection<UByte>): UByteArray {\n   var index = size\n   val result = storage.copyOf(size + elements.size)\n   for (element in elements) result[index++] = element.toByte()\n   return UByteArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic operator fun UShortArray.plus(elements: Collection<UShort>): UShortArray {\n   var index = size\n   val result = storage.copyOf(size + elements.size)\n   for (element in elements) result[index++] = element.toShort()\n   return UShortArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntArray.plus(elements: UIntArray): UIntArray {\n   return UIntArray(storage + elements.storage)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.plus(elements: ULongArray): ULongArray {\n   return ULongArray(storage + elements.storage)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.plus(elements: UByteArray): UByteArray {\n   return UByteArray(storage + elements.storage)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.plus(elements: UShortArray): UShortArray {\n   return UShortArray(storage + elements.storage)\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sort(): Unit {\n   if (size > 1) sortArray(this, 0, size)\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sort(): Unit {\n   if (size > 1) sortArray(this, 0, size)\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sort(): Unit {\n   if (size > 1) sortArray(this, 0, size)\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sort(): Unit {\n   if (size > 1) sortArray(this, 0, size)\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArray(this, fromIndex, toIndex)\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArray(this, fromIndex, toIndex)\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArray(this, fromIndex, toIndex)\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArray(this, fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Returns an array of type [ByteArray], which is a copy of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.toByteArray(): ByteArray {\n   return storage.copyOf()\n}\n\n/**\n * Returns an array of type [IntArray], which is a copy of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.toIntArray(): IntArray {\n   return storage.copyOf()\n}\n\n/**\n * Returns an array of type [LongArray],

which is a copy of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.toLongArray(): LongArray {\n   return storage.copyOf()\n}\n\n/**\n * Returns an array of type [ShortArray], which is a copy of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.toShortArray(): ShortArray {\n   return storage.copyOf()\n}\n\n/**\n * Returns a *typed* object array containing all
 of the elements of this primitive array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.toTypedArray(): Array<UInt> {\n   return Array(size) { index -> this[index] }\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.toTypedArray(): Array<ULong> {\n   return Array(size) { index -> this[index] }\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.toTypedArray(): Array<UByte> {\n   return Array(size) { index -> this[index] }\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.toTypedArray(): Array<UShort> {\n   return Array(size) { index -> this[index] }\n}\n\n/**\n * Returns
 an array of UByte containing all of the elements of this generic array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Array<out UByte>.toUByteArray(): UByteArray {\n   return UByteArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type [UByteArray], which is a copy of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.toUByteArray(): UByteArray {\n   return UByteArray(this.copyOf())\n}\n\n/**\n * Returns an array of UInt containing all of the elements of this generic array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Array<out UInt>.toUIntArray(): UIntArray {\n   return UIntArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type [UIntArray], which is a copy of this array where each element is an unsigned reinterpretation\n * of
 the corresponding element of this array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.toUIntArray(): UIntArray {\n   return UIntArray(this.copyOf())\n}\n\n/**\n * Returns an array of ULong containing all of the elements of this generic array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Array<out ULong>.toULongArray(): ULongArray {\n   return ULongArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type [ULongArray], which is a copy of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.toULongArray(): ULongArray {\n   return ULongArray(this.copyOf())\n}\n\n/**\n * Returns an array of UShort containing all of the elements of this generic array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
 fun Array<out UShort>.toUShortArray(): UShortArray {\n   return UShortArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type [UShortArray], which is a copy of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.toUShortArray(): UShortArray {\n   return UShortArray(this.copyOf())\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to

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each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map
preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Collections.Transformations.associateWith\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UIntArray.associateWith(valueSelector:
 (UInt) -> V): Map<UInt, V> {\n    val result = LinkedHashMap<UInt, V>(mapCapacity(size).coerceAtLeast(16))\n
 return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the
given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two
elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order
of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
ULongArray.associateWith(valueSelector: (ULong) -> V): Map<ULong, V> {\n    val result =
LinkedHashMap<ULong, V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result,
valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n *
produced by
 the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added
to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample
samples.collections.Collections.Transformations.associateWith\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UByteArray.associateWith(valueSelector: (UByte) -> V): Map<UByte, V> {\n    val result =
LinkedHashMap<UByte, V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result,
valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n *
produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one
gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n *
@sample samples.collections.Collections.Transformations.associateWith\n
 */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UShortArray.associateWith(valueSelector: (UShort) -> V): Map<UShort, V> {\n    val result =
LinkedHashMap<UShort, V>(mapCapacity(size).coerceAtLeast(16))\n    return associateWithTo(result,
valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each
element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function
applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n
* @sample samples.collections.Collections.Transformations.associateWithTo\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V, M :
MutableMap<in UInt, in V>> UIntArray.associateWithTo(destination: M, valueSelector: (UInt) -> V): M {\n    for
(element in this) {\n        destination.put(element,
 valueSelector(element))\n    }\n    return destination\n}\n\n/**\n * Populates and returns the [destination] mutable
map with key-value pairs for each element of the given array,\n * where key is the element itself and value is
provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one
overwrites the former value in the map.\n * \n * @sample
samples.collections.Collections.Transformations.associateWithTo\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V, M :
MutableMap<in ULong, in V>> ULongArray.associateWithTo(destination: M, valueSelector: (ULong) -> V): M
{\n    for (element in this) {\n        destination.put(element, valueSelector(element))\n    }\n    return
destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element
of the given array,\n * where key is the element itself and value is provided by the [valueSelector]
 function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the
map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V, M :
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MutableMap<in UByte, in V>> UByteArray.associateWithTo(destination: M, valueSelector: (UByte) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in UShort, in V>> UShortArray.associateWithTo(destination: M, valueSelector: (UShort) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.flatMap(transform: (UInt) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.flatMap(transform: (ULong) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.flatMap(transform: (UByte) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.flatMap(transform: (UShort) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.flatMapIndexed(transform: (index: Int, UInt) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.flatMapIndexed(transform: (index: Int, ULong) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.flatMapIndexed(transform: (index: Int, UByte) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.flatMapIndexed(transform: (index: Int, UShort) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UIntArray.flatMapIndexedTo(destination: C, transform: (index: Int, UInt) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> ULongArray.flatMapIndexedTo(destination: C, transform: (index: Int, ULong) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UByteArray.flatMapIndexedTo(destination: C, transform: (index: Int, UByte) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UShortArray.flatMapIndexedTo(destination: C, transform: (index: Int, UShort) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UIntArray.flatMapTo(destination: C, transform: (UInt) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> ULongArray.flatMapTo(destination: C, transform: (ULong) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UByteArray.flatMapTo(destination: C, transform: (UByte) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UShortArray.flatMapTo(destination: C, transform: (UShort) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K> UIntArray.groupBy(keySelector: (UInt) -> K): Map<K, List<UInt>> {\n   return groupByTo(LinkedHashMap<K, MutableList<UInt>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K> ULongArray.groupBy(keySelector: (ULong) -> K): Map<K, List<ULong>> {\n   return groupByTo(LinkedHashMap<K, MutableList<ULong>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K> UByteArray.groupBy(keySelector: (UByte) -> K): Map<K, List<UByte>> {\n   return groupByTo(LinkedHashMap<K, MutableList<UByte>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K> UShortArray.groupBy(keySelector: (UShort) -> K): Map<K, List<UShort>> {\n   return groupByTo(LinkedHashMap<K, MutableList<UShort>>(), keySelector)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> UIntArray.groupBy(keySelector: (UInt) -> K, valueTransform: (UInt) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> ULongArray.groupBy(keySelector: (ULong) -> K, valueTransform: (ULong) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> UByteArray.groupBy(keySelector: (UByte) -> K, valueTransform: (UByte) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> UShortArray.groupBy(keySelector: (UShort) -> K, valueTransform: (UShort) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M : MutableMap<in K, MutableList<UInt>>> UIntArray.groupByTo(destination: M, keySelector: (UInt) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<UInt>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M : MutableMap<in K, MutableList<ULong>>> ULongArray.groupByTo(destination: M, keySelector: (ULong) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<ULong>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M : MutableMap<in K, MutableList<UByte>>> UByteArray.groupByTo(destination: M, keySelector: (UByte) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<UByte>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M : MutableMap<in K, MutableList<UShort>>> UShortArray.groupByTo(destination: M, keySelector: (UShort) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<UShort>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> UIntArray.groupByTo(destination: M, keySelector: (UInt) -> K, valueTransform: (UInt) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given

 [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> ULongArray.groupByTo(destination: M, keySelector: (ULong) -> K, valueTransform: (ULong) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with

 a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> UByteArray.groupByTo(destination: M, keySelector: (UByte) -> K, valueTransform: (UByte) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n

 */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> UShortArray.groupByTo(destination: M, keySelector: (UShort) -> K, valueTransform: (UShort) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.map(transform: (UInt) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n

 * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.map(transform: (ULong) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.map(transform: (UByte) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

inline fun <R> UShortArray.map(transform: (UShort) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.mapIndexed(transform: (index: Int, UInt) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.mapIndexed(transform: (index: Int, ULong) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.mapIndexed(transform: (index: Int, UByte) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.mapIndexed(transform: (index: Int, UShort) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UIntArray.mapIndexedTo(destination: C, transform: (index: Int, UInt) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> ULongArray.mapIndexedTo(destination: C, transform: (index: Int, ULong) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UByteArray.mapIndexedTo(destination: C, transform: (index: Int, UByte) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UShortArray.mapIndexedTo(destination: C, transform: (index: Int, UShort) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UIntArray.mapTo(destination: C, transform: (UInt) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> ULongArray.mapTo(destination: C, transform: (ULong) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UByteArray.mapTo(destination: C, transform: (UByte) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UShortArray.mapTo(destination: C, transform: (UShort) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.withIndex(): Iterable<IndexedValue<UInt>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.withIndex(): Iterable<IndexedValue<ULong>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.withIndex(): Iterable<IndexedValue<UByte>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.withIndex(): Iterable<IndexedValue<UShort>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.all(predicate: (UInt) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.all(predicate: (ULong) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.all(predicate: (UByte) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.all(predicate: (UShort) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

UIntArray.any(): Boolean {\n   return storage.any()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n

 */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.any(): Boolean {\n   return storage.any()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.any(): Boolean {\n   return storage.any()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.any(): Boolean {\n   return storage.any()\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline

 fun UIntArray.any(predicate: (UInt) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.any(predicate: (ULong) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.any(predicate: (UByte) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element

 matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.any(predicate: (UShort) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.count(predicate: (UInt) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.count(predicate: (ULong) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n

    return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.count(predicate: (UByte) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.count(predicate: (UShort) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,

 and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.fold(initial: R, operation: (acc: R, UInt) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes

current accumulator value and an element, and calculates the next accumulator value.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ULongArray.fold(initial: R, operation: (acc: R, ULong) -> R): R {\n   var accumulator = initial\n   for (element in
this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n
 * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current
accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n *
@param [operation] function that takes current accumulator value and an element, and calculates the next
accumulator value.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UByteArray.fold(initial: R, operation: (acc: R, UByte) -> R): R {\n   var accumulator = initial\n   for (element in
this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value
starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each
element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that
takes current accumulator value and an element, and calculates
 the next accumulator value.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UShortArray.fold(initial: R, operation: (acc: R, UShort) -> R): R {\n   var accumulator = initial\n   for (element in
this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value
starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each
element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n
* @param [operation] function that takes the index of an element, current accumulator value\n * and the element
itself, and calculates the next accumulator value.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.foldIndexed(initial: R, operation: (index: Int, acc: R, UInt) -> R): R {\n   var index = 0\n   var
accumulator = initial\n
    for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n
* Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current
accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value
if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator
value\n * and the element itself, and calculates the next accumulator value.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ULongArray.foldIndexed(initial: R, operation: (index: Int, acc: R, ULong) -> R): R {\n   var index = 0\n   var
accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to
right\n
 * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified
[initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current
accumulator value\n * and the element itself, and calculates the next accumulator value.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UByteArray.foldIndexed(initial: R, operation: (index: Int, acc: R, UByte) -> R): R {\n   var index = 0\n   var
accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to
right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the
specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index
 of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UShortArray.foldIndexed(initial: R, operation: (index: Int, acc: R, UShort) -> R): R {\n   var index = 0\n   var
accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return

accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.foldRight(initial: R, operation: (UInt, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.foldRight(initial: R, operation: (ULong, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n *
to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.foldRight(initial: R, operation: (UByte, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun <R> UShortArray.foldRight(initial: R, operation: (UShort, acc: R) -> R): R {\n   var index = lastIndex\n
var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n
return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.foldRightIndexed(initial: R, operation: (index: Int, UInt, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator =
initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n
return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.foldRightIndexed(initial: R, operation: (index: Int, ULong, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates
value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator

value, and calculates the next accumulator value.\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.foldRightIndexed(initial: R, operation: (index: Int, UByte, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n

 * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.foldRightIndexed(initial: R, operation: (index: Int, UShort, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Performs the given [action] on each element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.forEach(action: (UInt) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

 inline fun ULongArray.forEach(action: (ULong) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.forEach(action: (UByte) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.forEach(action: (UShort) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline

 fun UIntArray.forEachIndexed(action: (index: Int, UInt) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.forEachIndexed(action: (index: Int, ULong) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.forEachIndexed(action: (index: Int,

 UByte) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.forEachIndexed(action: (index: Int, UShort) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Returns the largest element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow-U\")\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun UIntArray.max(): UInt {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max =

e\n   }\n   return max\n}\n\n/**\n * Returns the largest element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow-U\")\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun ULongArray.max(): ULong {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow-U\")\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun UByteArray.max(): UByte {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element.\n * \n * @throws
NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxOrThrow-U\")\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun UShortArray.max(): UShort {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxByOrThrow-U\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> UIntArray.maxBy(selector: (UInt) -> R): UInt {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex
== 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxByOrThrow-U\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> ULongArray.maxBy(selector: (ULong) -> R): ULong {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n
val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxByOrThrow-U\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> UByteArray.maxBy(selector: (UByte) -> R): UByte {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n
* Returns the first element yielding the largest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxByOrThrow-

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U\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\n@Suppress(\"CONFLICTING_OVERLOADS
\")\npublic inline fun <R : Comparable<R>> UShortArray.maxBy(selector: (UShort) -> R): UShort {\n    if
(isEmpty()) throw NoSuchElementException()\n    var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if
(lastIndex == 0) return maxElem\n    var maxValue = selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e =
this[i]\n        val v = selector(e)\n        if (maxValue < v) {\n            maxElem = e\n            maxValue = v\n        }\n
}\n    return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or
`null` if there are no elements.\n
 * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UIntArray.maxByOrNull(selector: (UInt) -> R): UInt? {\n    if (isEmpty()) return null\n    var
maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxValue =
selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxValue < v)
{\n            maxElem = e\n            maxValue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the first
element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.maxByOrNull\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> ULongArray.maxByOrNull(selector: (ULong) -> R): ULong?
 {\n    if (isEmpty()) return null\n    var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0)
return maxElem\n    var maxValue = selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v
= selector(e)\n        if (maxValue < v) {\n            maxElem = e\n            maxValue = v\n        }\n    }\n    return
maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are
no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UByteArray.maxByOrNull(selector: (UByte) -> R): UByte? {\n    if (isEmpty()) return null\n
var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxValue =
selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val
 v = selector(e)\n        if (maxValue < v) {\n            maxElem = e\n            maxValue = v\n        }\n    }\n    return
maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are
no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UShortArray.maxByOrNull(selector: (UShort) -> R): UShort? {\n    if (isEmpty()) return null\n
var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxValue =
selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxValue < v)
{\n            maxElem = e\n            maxValue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the largest
value among all values produced by [selector] function\n * applied to each
 element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.maxOf(selector: (UInt) -> Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n
var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue =
maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector]
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NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
```

selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.maxOf(selector: (UByte) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values 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 [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.maxOfWith(comparator: Comparator<in R>, selector: (UShort) -> R): R {\n   if (isEmpty()) throw

NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (UInt) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (ULong) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (UByte) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (UShort) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.maxOrNull(): UInt? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.maxOrNull(): ULong? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.maxOrNull(): UByte? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.maxOrNull(): UShort? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxWithOrThrow-U\")\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun

UIntArray.maxWith(comparator: Comparator<in UInt>): UInt {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxWithOrThrow-U\")\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun ULongArray.maxWith(comparator: Comparator<in ULong>): ULong {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxWithOrThrow-U\")\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun UByteArray.maxWith(comparator: Comparator<in UByte>): UByte {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"maxWithOrThrow-U\")\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun UShortArray.maxWith(comparator: Comparator<in UShort>): UShort {\n   if (isEmpty()) throw NoSuchElementException()\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.maxWithOrNull(comparator: Comparator<in UInt>): UInt? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.maxWithOrNull(comparator: Comparator<in ULong>): ULong? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.maxWithOrNull(comparator: Comparator<in UByte>): UByte? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.maxWithOrNull(comparator: Comparator<in UShort>): UShort? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the smallest element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow-U\")\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun UIntArray.min(): UInt {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow-U\")\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun ULongArray.min(): ULong

{\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow-U\")\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun UByteArray.min(): UByte {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minOrThrow-U\")\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun UShortArray.min(): UShort {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow-U\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> UIntArray.minBy(selector: (UInt) -> R): UInt {\n   if (isEmpty()) throw NoSuchElementException()\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the

first element yielding the smallest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow-U\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> ULongArray.minBy(selector: (ULong) -> R): ULong {\n   if (isEmpty()) throw NoSuchElementException()\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n

* \n * @sample samples.collections.Collections.Aggregates.minBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow-U\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic inline fun <R : Comparable<R>> UByteArray.minBy(selector: (UByte) -> R): UByte {\n   if (isEmpty()) throw NoSuchElementException()\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minByOrThrow-U\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic

inline fun <R : Comparable<R>> UShortArray.minBy(selector: (UShort) -> R): UShort {\n   if (isEmpty()) throw NoSuchElementException()\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UIntArray.minByOrNull(selector: (UInt) -> R): UInt? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ULongArray.minByOrNull(selector: (ULong) -> R): ULong? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UByteArray.minByOrNull(selector: (UByte) -> R): UByte? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UShortArray.minByOrNull(selector: (UShort) -> R): UShort? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.minOf(selector: (UInt) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.minOf(selector: (ULong) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.minOf(selector: (UByte) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.minOf(selector: (UShort) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.minOf(selector: (UInt) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.minOf(selector: (ULong) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.minOf(selector: (UByte) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.minOf(selector: (UShort) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UIntArray.minOf(selector: (UInt) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v =

selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ULongArray.minOf(selector: (ULong) -> R): R {\n   if (isEmpty())
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{\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UShortArray.minOfOrNull(selector: (UShort) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.minOfWith(comparator: Comparator<in R>, selector: (UInt) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.minOfWith(comparator: Comparator<in R>, selector: (ULong) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.minOfWith(comparator: Comparator<in R>, selector: (UByte) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.minOfWith(comparator: Comparator<in R>, selector: (UShort) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>

UIntArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (UInt) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (ULong) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (UByte) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (UShort) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.minOrNull(): UInt? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.minOrNull(): ULong? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.minOrNull(): UByte? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.minOrNull(): UShort? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minWithOrThrow-U\")\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun UIntArray.minWith(comparator: Comparator<in UInt>): UInt {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minWithOrThrow-

U\")\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun ULongArray.minWith(comparator: Comparator<in ULong>): ULong {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minWithOrThrow-U\")\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun UByteArray.minWith(comparator: Comparator<in UByte>): UByte {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator].\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.7\")\n@kotlin.jvm.JvmName(\"minWithOrThrow-U\")\n@ExperimentalUnsignedTypes\n@Suppress(\"CONFLICTING_OVERLOADS\")\npublic fun UShortArray.minWith(comparator: Comparator<in UShort>): UShort {\n   if (isEmpty()) throw NoSuchElementException()\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.minWithOrNull(comparator: Comparator<in UInt>): UInt? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.minWithOrNull(comparator: Comparator<in ULong>): ULong? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.minWithOrNull(comparator: Comparator<in UByte>): UByte? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.minWithOrNull(comparator: Comparator<in UShort>): UShort? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

inline fun UShortArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.none(predicate: (UInt) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.none(predicate: (ULong) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n
 * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.none(predicate: (UByte) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.none(predicate: (UShort) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.onEach(action: (UInt) -> Unit): UIntArray {\n   return apply { for (element
 in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.onEach(action: (ULong) -> Unit): ULongArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.onEach(action: (UByte) -> Unit): UByteArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.onEach(action: (UShort) -> Unit): UShortArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n
 * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.onEachIndexed(action: (index: Int, UInt) -> Unit): UIntArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.onEachIndexed(action: (index: Int, ULong) -> Unit): ULongArray {\n   return apply { forEachIndexed(action)
 }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.onEachIndexed(action: (index: Int, UByte) -> Unit): UByteArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n

*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.onEachIndexed(action: (index: Int, UShort) -> Unit): UShortArray {\n   return apply { forEachIndexed(action)

}\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reduce(operation: (acc: UInt, UInt) -> UInt): UInt {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reduce(operation: (acc: ULong, ULong) -> ULong): ULong {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting

with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reduce(operation: (acc: UByte, UByte) -> UByte): UByte {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element

and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reduce(operation: (acc: UShort, UShort) -> UShort): UShort {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation]

from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

UIntArray.reduceIndexed(operation: (index: Int, acc: UInt, UInt) -> UInt): UInt {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n
 * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reduceIndexed(operation: (index: Int, acc: ULong, ULong) -> ULong): ULong {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index,
 accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reduceIndexed(operation: (index: Int, acc: UByte, UByte) -> UByte): UByte {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator
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UIntArray.reduceRightIndexedOrNull(operation: (index: Int, UInt, acc: UInt) -> UInt): UInt? {\n   var index =
lastIndex\n   if (index < 0) return null\n   var accumulator = get(index--)\n   while (index >= 0) {\n
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UShort? {\n   var index = lastIndex\n   if (index < 0) return null\n   var accumulator = get(index--)\n   while (index
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@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reduceRightOrNull(operation: (ULong, acc: ULong) ->

ULong): ULong? {\n   var index = lastIndex\n   if (index < 0) return null\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator
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inline fun <R> UIntArray.scan(initial: R, operation: (acc: R, UInt) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n @kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.scan(initial: R, operation: (acc: R, ULong) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n

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R, ULong) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.scanIndexed(initial: R, operation: (index: Int, acc: R, UByte) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.scanIndexed(initial: R, operation: (index: Int, acc: R, UShort) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumBy(selector: (UInt) -> UInt): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumBy(selector: (ULong) -> UInt): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumBy(selector: (UByte) -> UInt): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumBy(selector: (UShort) -> UInt): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumByDouble(selector: (UInt) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince =

\"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumByDouble(selector: (ULong) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumByDouble(selector: (UByte) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumByDouble(selector: (UShort) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumOf(selector: (UInt) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n
    }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumOf(selector: (ULong) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
 UByteArray.sumOf(selector: (UByte) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumOf(selector: (UShort) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun UIntArray.sumOf(selector: (UInt) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n
 sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumOf(selector:

(ULong) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumOf(selector: (UByte) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumOf(selector: (UShort) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumOf(selector: (UInt) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumOf(selector: (ULong) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumOf(selector: (UByte) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumOf(selector: (UShort) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumOf(selector: (UInt) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inline

Only\npublic
inline fun ULongArray.sumOf(selector: (ULong) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumOf(selector: (UByte) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumOf(selector: (UShort) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic
inline fun UIntArray.sumOf(selector: (UInt) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumOf(selector: (ULong) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumOf(selector: (UByte) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline
fun UShortArray.sumOf(selector: (UShort) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UIntArray.zip(other: Array<out R>): List<Pair<UInt, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> ULongArray.zip(other: Array<out R>): List<Pair<ULong, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UByteArray.zip(other: Array<out R>): List<Pair<UByte, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UShortArray.zip(other: Array<out R>): List<Pair<UShort, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> UIntArray.zip(other: Array<out R>, transform: (a: UInt, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> ULongArray.zip(other: Array<out R>, transform: (a: ULong, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> UByteArray.zip(other: Array<out R>, transform: (a: UByte, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> UShortArray.zip(other: Array<out R>, transform: (a: UShort, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UIntArray.zip(other: Iterable<R>): List<Pair<UInt, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> ULongArray.zip(other: Iterable<R>): List<Pair<ULong, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs

built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UByteArray.zip(other: Iterable<R>): List<Pair<UByte, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UShortArray.zip(other: Iterable<R>): List<Pair<UShort, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> UIntArray.zip(other: Iterable<R>, transform: (a: UInt, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> ULongArray.zip(other: Iterable<R>, transform: (a: ULong, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> UByteArray.zip(other: Iterable<R>, transform: (a: UByte, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> UShortArray.zip(other: Iterable<R>, transform: (a: UShort, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun UIntArray.zip(other: UIntArray): List<Pair<UInt, UInt>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun ULongArray.zip(other: ULongArray):

```
List<Pair<ULong, ULong>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built
from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the
shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun UByteArray.zip(other: UByteArray):
List<Pair<UByte, UByte>> {\n    return zip(other) { t1,
 t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with
the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun UShortArray.zip(other: UShortArray):
List<Pair<UShort, UShort>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built
from the elements of `this` array and the [other] array with the same index\n * using the provided [transform]
function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UIntArray.zip(other: UIntArray, transform: (a: UInt, b: UInt) -> V): List<V> {\n    val size = minOf(size,
 other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i], other[i]))\n
}\n    return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned
list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
ULongArray.zip(other: ULongArray, transform: (a: ULong, b: ULong) -> V): List<V> {\n    val size = minOf(size,
other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i], other[i]))\n
}\n    return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the
 provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest
array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UByteArray.zip(other: UByteArray, transform: (a: UByte, b: UByte) -> V): List<V> {\n    val size = minOf(size,
other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i], other[i]))\n
}\n    return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned
list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun <V> UShortArray.zip(other: UShortArray, transform: (a: UShort, b: UShort) -> V): List<V> {\n    val
size = minOf(size, other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n
list.add(transform(this[i], other[i]))\n    }\n    return list\n}\n\n/**\n * Returns the sum of all elements in the array.\n
*/\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedT
ypes::class)\npublic fun Array<out UInt>.sum(): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum
+= element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n
*/\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsigned
Types::class)\npublic fun Array<out ULong>.sum(): ULong {\n    var sum: ULong = 0uL\n    for (element in this)
{\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n
*/\n@kotlin.jvm.JvmName(\"sumOfUByte\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsigned
Types::class)\npublic
 fun Array<out UByte>.sum(): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum += element\n
}\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n
```

*/\n@kotlin.jvm.JvmName(\"sumOfUShort\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Array<out UShort>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sum(): UInt {\n   return storage.sum().toUInt()\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sum(): ULong {\n   return storage.sum().toULong()\n}\n\n/**\n

 * Returns the sum of all elements in the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sum(): UInt {\n   return sumOf { it.toUInt() }\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sum(): UInt {\n   return sumOf { it.toUInt() }\n}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"UCollectionsKt\")\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\nimport kotlin.ranges.contains\nimport

 kotlin.ranges.reversed\n\n/**\n * Returns an array of UByte containing all of the elements of this collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Collection<UByte>.toUByteArray(): UByteArray {\n   val result = UByteArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of UInt containing all of the elements of this collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Collection<UInt>.toUIntArray(): UIntArray {\n   val result = UIntArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of ULong containing all of the elements of this collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Collection<ULong>.toULongArray(): ULongArray {\n   val result = ULongArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of UShort containing all of the elements of this collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Collection<UShort>.toUShortArray(): UShortArray {\n   val result = UShortArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Iterable<UInt>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Iterable<ULong>.sum(): ULong {\n   var sum: ULong = 0uL\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfUByte\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Iterable<UByte>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfUShort\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Iterable<UShort>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"UComparisonsKt\")\n\npackage kotlin.comparisons\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun maxOf(a: UInt, b: UInt): UInt {\n   return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun maxOf(a: ULong, b: ULong): ULong {\n   return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun maxOf(a: UByte, b: UByte): UByte {\n   return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun maxOf(a: UShort, b: UShort): UShort {\n   return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun maxOf(a: UInt, b: UInt, c: UInt): UInt {\n   return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun maxOf(a: ULong, b: ULong, c: ULong): ULong {\n   return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun maxOf(a: UByte, b: UByte, c: UByte): UByte {\n   return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun maxOf(a: UShort, b: UShort, c: UShort): UShort {\n   return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun maxOf(a: UInt, vararg other: UInt): UInt {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun maxOf(a: ULong, vararg other: ULong): ULong {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun maxOf(a: UByte, vararg other: UByte): UByte {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun maxOf(a: UShort, vararg other: UShort): UShort {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun minOf(a: UInt, b: UInt): UInt {\n   return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun minOf(a: ULong, b: ULong): ULong {\n   return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun minOf(a: UByte, b: UByte): UByte {\n   return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun minOf(a: UShort, b: UShort): UShort {\n   return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun minOf(a: UInt, b: UInt, c: UInt): UInt {\n   return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun minOf(a: ULong, b: ULong, c: ULong): ULong {\n   return minOf(a, minOf(b, c))\n}\n\n/**\n *

Returns the smaller of three values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun minOf(a: UByte, b: UByte, c: UByte): UByte {\n   return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun minOf(a: UShort, b: UShort, c: UShort): UShort {\n   return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: UInt, vararg other: UInt): UInt {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: ULong, vararg other: ULong): ULong {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: UByte, vararg other: UByte): UByte {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: UShort, vararg other: UShort): UShort {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"URangesKt\")\n\npackage kotlin.ranges\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n * Returns the first element.\n * \n * @throws NoSuchElementException if the progression is empty.\n */\n@SinceKotlin(\"1.7\")\npublic fun UIntProgression.first(): UInt {\n   if (isEmpty())\n   throw NoSuchElementException(\"Progression $this is empty.\")\n   return this.first\n}\n\n/**\n * Returns the first element.\n * \n * @throws NoSuchElementException if the progression is empty.\n */\n@SinceKotlin(\"1.7\")\npublic fun ULongProgression.first(): ULong {\n   if (isEmpty())\n   throw NoSuchElementException(\"Progression $this is empty.\")\n   return this.first\n}\n\n/**\n * Returns the first element, or `null` if the progression is empty.\n */\n@SinceKotlin(\"1.7\")\npublic fun UIntProgression.firstOrNull(): UInt? {\n   return if (isEmpty()) null else this.first\n}\n\n/**\n * Returns the first element, or `null` if the progression is empty.\n */\n@SinceKotlin(\"1.7\")\npublic fun ULongProgression.firstOrNull(): ULong? {\n   return if (isEmpty()) null else this.first\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the progression is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.7\")\npublic fun UIntProgression.last(): UInt {\n   if (isEmpty())\n   throw NoSuchElementException(\"Progression $this is empty.\")\n   return this.last\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the progression is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.7\")\npublic fun ULongProgression.last(): ULong {\n   if (isEmpty())\n   throw NoSuchElementException(\"Progression $this is empty.\")\n   return this.last\n}\n\n/**\n * Returns the last element, or `null` if the progression is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.7\")\npublic fun UIntProgression.lastOrNull(): UInt? {\n   return if (isEmpty()) null else this.last\n}\n\n/**\n * Returns the last element, or `null` if the progression is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.7\")\npublic fun ULongProgression.lastOrNull(): ULong? {\n   return if (isEmpty()) null else this.last\n}\n\n/**\n * Returns a random element from this range.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntRange.random(): UInt {\n   return random(Random)\n}\n\n/**\n * Returns a random element from

this range.\n * \n * @throws IllegalArgumentException if this range is empty.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\
npublic inline fun ULongRange.random(): ULong {\n   return random(Random)\n}\n\n/**\n * Returns a random
element from this range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if
this range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic
fun UIntRange.random(random: Random): UInt {\n   try {\n   return random.nextUInt(this)\n   } catch(e:
IllegalArgumentException) {\n   throw NoSuchElementException(e.message)\n   }\n}\n\n/**\n * Returns a
random element from this range using the specified source of randomness.\n * \n * @throws
IllegalArgumentException if this range is empty.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
ULongRange.random(random: Random):
ULong {\n   try {\n   return random.nextULong(this)\n   } catch(e: IllegalArgumentException) {\n   throw
NoSuchElementException(e.message)\n   }\n}\n\n/**\n * Returns a random element from this range, or `null` if this
range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class,
ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntRange.randomOrNull():
UInt? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range, or `null` if this
range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class,
ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULongRange.randomOrNull():
ULong? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range using the
specified source of randomness, or `null` if this range is empty.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class,
ExperimentalUnsignedTypes::class)\npublic
fun UIntRange.randomOrNull(random: Random): UInt? {\n   if (isEmpty())\n   return null\n   return
random.nextUInt(this)\n}\n\n/**\n * Returns a random element from this range using the specified source of
randomness, or `null` if this range is empty.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class,
ExperimentalUnsignedTypes::class)\npublic fun ULongRange.randomOrNull(random: Random): ULong? {\n   if
(isEmpty())\n   return null\n   return random.nextULong(this)\n}\n\n/**\n * Returns `true` if this range contains
the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\
npublic inline operator fun UIntRange.contains(element: UInt?): Boolean {\n   return element != null &&
contains(element)\n}\n\n/**\n * Returns `true` if this range contains the specified [element].\n * \n *
Always returns `false` if the [element] is `null`.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\
npublic inline operator fun ULongRange.contains(element: ULong?): Boolean {\n   return element != null &&
contains(element)\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun
UIntRange.contains(value: UByte): Boolean {\n   return contains(value.toUInt())\n}\n\n/**\n * Checks if the
specified [value] belongs to this range.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun
ULongRange.contains(value: UByte): Boolean {\n   return contains(value.toULong())\n}\n\n/**\n * Checks if the
specified [value] belongs to this range.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun
ULongRange.contains(value: UInt): Boolean
{\n   return contains(value.toULong())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun
UIntRange.contains(value: ULong): Boolean {\n   return (value shr UInt.SIZE_BITS) == 0uL &&
contains(value.toUInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n

*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun UIntRange.contains(value: UShort): Boolean {\n   return contains(value.toUInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun ULongRange.contains(value: UShort): Boolean {\n   return contains(value.toULong())\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this`
 value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UByte.downTo(to: UByte): UIntProgression {\n   return UIntProgression.fromClosedRange(this.toUInt(), to.toUInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UInt.downTo(to: UInt): UIntProgression {\n   return UIntProgression.fromClosedRange(this, to, -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned
 progression is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun ULong.downTo(to: ULong): ULongProgression {\n   return ULongProgression.fromClosedRange(this, to, -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UShort.downTo(to: UShort): UIntProgression {\n   return UIntProgression.fromClosedRange(this.toUInt(), to.toUInt(), -1)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the same step.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UIntProgression.reversed(): UIntProgression {\n   return UIntProgression.fromClosedRange(last,
 first, -step)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the same step.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun ULongProgression.reversed(): ULongProgression {\n   return ULongProgression.fromClosedRange(last, first, -step)\n}\n\n/**\n * Returns a progression that goes over the same range with the given step.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UIntProgression.step(step: Int): UIntProgression {\n   checkStepIsPositive(step > 0, step)\n   return UIntProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/**\n * Returns a progression that goes over the same range with the given step.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun ULongProgression.step(step: Long): ULongProgression {\n   checkStepIsPositive(step > 0, step)\n   return
 ULongProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UByte.until(to: UByte): UIntRange {\n   if (to <= UByte.MIN_VALUE) return UIntRange.EMPTY\n   return this.toUInt() .. (to - 1u).toUInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UInt.until(to: UInt): UIntRange {\n   if (to <= UInt.MIN_VALUE) return UIntRange.EMPTY\n   return this .. (to - 1u).toUInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified

[to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun ULong.until(to: ULong): ULongRange {\n   if (to <= ULong.MIN_VALUE) return ULongRange.EMPTY\n   return this .. (to - 1u).toULong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UShort.until(to: UShort): UIntRange {\n   if (to <= UShort.MIN_VALUE) return UIntRange.EMPTY\n   return this.toUInt() .. (to - 1u).toUInt()\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UInt.coerceAtLeast(minimumValue: UInt): UInt {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun ULong.coerceAtLeast(minimumValue: ULong): ULong {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UByte.coerceAtLeast(minimumValue: UByte): UByte {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UShort.coerceAtLeast(minimumValue: UShort): UShort {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMostUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UInt.coerceAtMost(maximumValue: UInt): UInt {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMostUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun ULong.coerceAtMost(maximumValue: ULong): ULong {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMostUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UByte.coerceAtMost(maximumValue: UByte): UByte {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMostUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UShort.coerceAtMost(maximumValue: UShort): UShort {\n   return if (this > maximumValue) maximumValue

else this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UInt.coerceIn(minimumValue:
 UInt, maximumValue: UInt): UInt {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun ULong.coerceIn(minimumValue: ULong, maximumValue: ULong): ULong {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n
    if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UByte.coerceIn(minimumValue: UByte, maximumValue: UByte): UByte {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n
 * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UShort.coerceIn(minimumValue: UShort, maximumValue: UShort): UShort {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n * @return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n
 */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UInt.coerceIn(range: ClosedRange<UInt>): UInt {\n   if (range is ClosedFloatingPointRange) {\n   return this.coerceIn<UInt>(range)\n   }\n   if (range.isEmpty()) throw IllegalArgumentException(\"Cannot coerce value to an empty range: $range.\")\n   return when {\n   this < range.start -> range.start\n   this > range.endInclusive -> range.endInclusive\n   else -> this\n   }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n * @return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun

ULong.coerceIn(range: ClosedRange<ULong>): ULong {\n   if (range is ClosedFloatingPointRange) {\n   return this.coerceIn<ULong>(range)\n   }\n   if (range.isEmpty()) throw IllegalArgumentException(\"Cannot coerce value to an empty range: $range.\")\n   return when {\n   this < range.start -> range.start\n   this > range.endInclusive -> range.endInclusive\n   else -> this\n   }\n}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"USequencesKt\")\n\npackage kotlin.sequences\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Sequence<UInt>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Sequence<ULong>.sum(): ULong {\n   var sum: ULong = 0uL\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfUByte\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Sequence<UByte>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfUShort\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Sequence<UShort>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n\npublic expect open class Error : Throwable {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class Exception : Throwable {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class RuntimeException : Exception {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class IllegalArgumentException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class IllegalStateException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class IndexOutOfBoundsException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n}\n\npublic expect open class ConcurrentModificationException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n   @Deprecated(\"The constructor is not supported on all platforms and will be removed from kotlin-stdlib-common soon.\", level = DeprecationLevel.ERROR)\n   constructor(message: String?, cause: Throwable?)\n   @Deprecated(\"The constructor is not supported on all platforms and will be removed from kotlin-stdlib-common soon.\", level = DeprecationLevel.ERROR)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class UnsupportedOperationException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class NumberFormatException : IllegalArgumentException {\n   constructor()\n   constructor(message: String?)\n}\n\npublic expect open class NullPointerException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n}\n\npublic expect

open class ClassCastException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n}\n\npublic expect open class AssertionError : Error {\n   constructor()\n   constructor(message: Any?)\n}\n\npublic expect open class NoSuchElementException
 : RuntimeException {\n   constructor()\n   constructor(message: String?)\n}\n\n@SinceKotlin(\"1.3\")\npublic expect open class ArithmeticException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n}\n\n@Deprecated(\"This exception type is not supposed to be thrown or caught in common code and will be removed from kotlin-stdlib-common soon.\", level = DeprecationLevel.ERROR)\npublic expect open class NoWhenBranchMatchedException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\n@Deprecated(\"This exception type is not supposed to be thrown or caught in common code and will be removed from kotlin-stdlib-common soon.\", level = DeprecationLevel.ERROR)\npublic expect class UninitializedPropertyAccessException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n
    constructor(cause: Throwable?)\n}\n\n/**\n * Thrown after invocation of a function or property that was expected to return `Nothing`, but returned something instead.\n */\n@SinceKotlin(\"1.4\")\n@PublishedApi\ninternal class KotlinNothingValueException : RuntimeException {\n   constructor() : super()\n   constructor(message: String?) : super(message)\n   constructor(message: String?, cause: Throwable?) : super(message, cause)\n   constructor(cause: Throwable?) : super(cause)\n}\n\n\n/**\n * Returns the detailed description of this throwable with its stack trace.\n *\n * The detailed description includes:\n * - the short description (see [Throwable.toString]) of this throwable;\n * - the complete stack trace;\n * - detailed descriptions of the exceptions that were [suppressed][suppressedExceptions] in order to deliver this exception;\n * - the detailed description of each throwable in the [Throwable.cause] chain.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun Throwable.stackTraceToString():
 String\n\n/**\n * Prints the [detailed description][Throwable.stackTraceToString] of this throwable to the standard output or standard error output.\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\")\npublic expect fun Throwable.printStackTrace(): Unit\n\n/**\n * When supported by the platform, adds the specified exception to the list of exceptions that were\n * suppressed in order to deliver this exception.\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\")\npublic expect fun Throwable.addSuppressed(exception: Throwable)\n\n/**\n * Returns a list of all exceptions that were suppressed in order to deliver this exception.\n *\n * The list can be empty:\n * - if no exceptions were suppressed;\n * - if the platform doesn't support suppressed exceptions;\n * - if this [Throwable] instance has disabled the suppression.\n */\n@SinceKotlin(\"1.4\")\npublic expect val Throwable.suppressedExceptions: List<Throwable>\n","/*\n * Copyright
 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\nimport kotlin.annotation.AnnotationTarget.*\n\n/**\n * Gives a declaration (a function, a property or a class) specific name in JavaScript.\n */\n@Target(CLASS, FUNCTION, PROPERTY, CONSTRUCTOR, PROPERTY_GETTER, PROPERTY_SETTER)\n@OptionalExpectation\npublic expect annotation class JsName(val name: String)\n\n/**\n * Marks experimental JS export annotations.\n *\n * Note that behavior of these annotations will likely be changed in the future.\n *\n * Usages of such annotations will be reported as warnings unless an explicit opt-in with\n * the [OptIn] annotation, e.g. `@OptIn(ExperimentalJsExport::class)`,\n * or with the `-opt-in=kotlin.js.ExperimentalJsExport` compiler option is given.\n */\n@RequiresOptIn(level = RequiresOptIn.Level.WARNING)\n@MustBeDocumented\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.4\")\npublic
 annotation class ExperimentalJsExport\n\n/**\n * Exports top-level declaration on JS platform.\n *\n * Compiled module exposes declarations that are marked with this annotation without name mangling.\n *\n * This annotation can be applied to either files or top-level declarations.\n *\n * It is currently prohibited to export the following kinds

of declarations:\n *\n *   * `expect` declarations\n *   * inline functions with reified type parameters\n *   * suspend functions\n *   * secondary constructors without `@JsName`\n *   * extension properties\n *   * enum classes\n *   * annotation classes\n *\n * Signatures of exported declarations must only contain \"exportable\" types:\n *\n *   * `dynamic`, `Any`, `String`, `Boolean`, `Byte`, `Short`, `Int`, `Float`, `Double`\n *   * `BooleanArray`, `ByteArray`, `ShortArray`, `IntArray`, `FloatArray`, `DoubleArray`\n *   * `Array<exportable-type>`\n *   * Function types with exportable parameters and return types\n *   * `external` or `@JsExport` classes and interfaces\n *   * Nullable counterparts of types above\n *   * Unit return type. Must not be nullable\n *\n * This annotation is experimental, meaning that restrictions mentioned above are subject to change.\n */\n@ExperimentalJsExport\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\n@SinceKotlin(\"1.4\")\n@OptionalExpectation\npublic expect annotation class JsExport()","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.io\n\n\n/** Prints the line separator to the standard output stream. */\npublic expect fun println()\n\n/** Prints the given [message] and the line separator to the standard output stream. */\npublic expect fun println(message: Any?)\n\n/** Prints the given [message] to the standard output stream. */\npublic expect fun print(message: Any?)\n\n/**\n * Reads a line of input from the standard input stream and returns it,\n * or throws a [RuntimeException] if EOF has already been reached when [readln] is called.\n *\n * LF or CRLF is treated as the line terminator. Line terminator is not included in the returned string.\n *\n * Currently this function is not supported in Kotlin/JS and throws [UnsupportedOperationException].\n */\n@SinceKotlin(\"1.6\")\npublic expect fun readln(): String\n\n/**\n * Reads a line of input from the standard input stream and returns it,\n * or return `null` if EOF has already been reached when [readlnOrNull] is called.\n *\n * LF or CRLF is treated as the line terminator. Line terminator is not included in the returned string.\n *\n * Currently this function is not supported in Kotlin/JS and throws [UnsupportedOperationException].\n */\n@SinceKotlin(\"1.6\")\npublic expect fun readlnOrNull(): String?\n\ninternal class ReadAfterEOFException(message: String?) : RuntimeException(message)\n\n\ninternal expect interface Serializable\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\nimport kotlin.internal.PlatformDependent\n\n/**\n * Classes that inherit from this interface can be represented as a sequence of elements that can\n * be iterated over.\n * @param T the type of element being iterated over. The iterator is covariant in its element type.\n */\npublic interface Iterable<out T> {\n   /**\n   * Returns an iterator over the elements of this object.\n   */\n   public operator fun iterator(): Iterator<T>\n}\n\n/**\n * Classes that inherit from this interface can be represented as a sequence of elements that can\n * be iterated over and that supports removing elements during iteration.\n * @param T the type of element being iterated over. The mutable iterator is invariant in its element type.\n */\npublic interface MutableIterable<out T> : Iterable<T> {\n   /**\n   * Returns an iterator over the elements of this sequence that supports removing elements during iteration.\n   */\n   override fun iterator(): MutableIterator<T>\n}\n\n/**\n * A generic collection of elements. Methods in this interface support only read-only access to the collection;\n * read/write access is supported through the [MutableCollection] interface.\n * @param E the type of elements contained in the collection. The collection is covariant in its element type.\n */\npublic interface Collection<out E> : Iterable<E> {\n   // Query Operations\n   /**\n   * Returns the size of the collection.\n   */\n   public val size: Int\n\n   /**\n   * Returns `true` if the collection is empty (contains no elements), `false` otherwise.\n   */\n   public fun isEmpty(): Boolean\n\n   /**\n   * Checks if the specified element is contained in this collection.\n   */\n   public operator fun contains(element: @UnsafeVariance E): Boolean\n\n   override fun iterator(): Iterator<E>\n\n   // Bulk Operations\n   /**\n   * Checks if all elements in the specified collection are contained in this collection.\n   */\n   public fun containsAll(elements: Collection<@UnsafeVariance E>): Boolean\n}\n\n/**\n * A generic collection of elements that supports adding and removing elements.\n *\n * @param E the type of elements contained in the collection. The mutable collection is

invariant in its element type.\n */\npublic interface MutableCollection<E> : Collection<E>, MutableIterable<E> {\n // Query Operations\n override fun iterator(): MutableIterator<E>\n\n // Modification Operations\n /**\n * Adds the specified element to the collection.\n *\n * @return `true` if the element has been added, `false` if the collection does not support duplicates\n * and the element is already contained
in the collection.\n */\n public fun add(element: E): Boolean\n\n /**\n * Removes a single instance of the specified element from this\n * collection, if it is present.\n *\n * @return `true` if the element has been successfully removed; `false` if it was not present in the collection.\n */\n public fun remove(element: E): Boolean\n\n // Bulk Modification Operations\n /**\n * Adds all of the elements of the specified collection to this collection.\n *\n * @return `true` if any of the specified elements was added to the collection, `false` if the collection was not modified.\n */\n public fun addAll(elements: Collection<E>): Boolean\n\n /**\n * Removes all of this collection's elements that are also contained in the specified collection.\n *\n * @return `true` if any of the specified elements was removed from the collection, `false` if the collection was not modified.\n */\n public fun removeAll(elements:
Collection<E>): Boolean\n\n /**\n * Retains only the elements in this collection that are contained in the specified collection.\n *\n * @return `true` if any element was removed from the collection, `false` if the collection was not modified.\n */\n public fun retainAll(elements: Collection<E>): Boolean\n\n /**\n * Removes all elements from this collection.\n */\n public fun clear(): Unit\n}\n\n/**\n * A generic ordered collection of elements. Methods in this interface support only read-only access to the list;\n * read/write access is supported through the [MutableList] interface.\n * @param E the type of elements contained in the list. The list is covariant in its element type.\n */\npublic interface List<out E> : Collection<E> {\n // Query Operations\n\n override val size: Int\n override fun isEmpty(): Boolean\n override fun contains(element: @UnsafeVariance E): Boolean\n override fun iterator(): Iterator<E>\n\n // Bulk Operations\n
override fun containsAll(elements: Collection<@UnsafeVariance E>): Boolean\n\n // Positional Access Operations\n /**\n * Returns the element at the specified index in the list.\n */\n public operator fun get(index: Int): E\n\n // Search Operations\n /**\n * Returns the index of the first occurrence of the specified element in the list, or -1 if the specified\n * element is not contained in the list.\n */\n public fun indexOf(element: @UnsafeVariance E): Int\n\n /**\n * Returns the index of the last occurrence of the specified element in the list, or -1 if the specified\n * element is not contained in the list.\n */\n public fun lastIndexOf(element: @UnsafeVariance E): Int\n\n // List Iterators\n /**\n * Returns a list iterator over the elements in this list (in proper sequence).\n */\n public fun listIterator(): ListIterator<E>\n\n /**\n * Returns a list iterator over the elements in this list
(in proper sequence), starting at the specified [index].\n */\n public fun listIterator(index: Int): ListIterator<E>\n\n // View\n /**\n * Returns a view of the portion of this list between the specified [fromIndex] (inclusive) and [toIndex] (exclusive).\n * The returned list is backed by this list, so non-structural changes in the returned list are reflected in this list, and vice-versa.\n *\n * Structural changes in the base list make the behavior of the view undefined.\n */\n public fun subList(fromIndex: Int, toIndex: Int): List<E>\n}\n\n/**\n * A generic ordered collection of elements that supports adding and removing elements.\n * @param E the type of elements contained in the list. The mutable list is invariant in its element type.\n */\npublic interface MutableList<E> : List<E>, MutableCollection<E> {\n // Modification Operations\n /**\n * Adds the specified element to the end of this list.\n *\n * @return `true` because the
list is always modified as the result of this operation.\n */\n override fun add(element: E): Boolean\n\n override fun remove(element: E): Boolean\n\n // Bulk Modification Operations\n /**\n * Adds all of the elements of the specified collection to the end of this list.\n *\n * The elements are appended in the order they appear in the [elements] collection.\n *\n * @return `true` if the list was changed as the result of the operation.\n */\n override fun addAll(elements: Collection<E>): Boolean\n\n /**\n * Inserts all of the elements of the specified collection [elements] into this list at the specified [index].\n *\n * @return `true` if the list was changed as the result of the operation.\n */\n public fun addAll(index: Int, elements: Collection<E>): Boolean\n\n override fun removeAll(elements: Collection<E>): Boolean\n override fun retainAll(elements:

Collection<E>): Boolean\n   override fun clear(): Unit\n\n   // Positional Access Operations\n   /**\n   * Replaces the element at the specified position in this list with the specified element.\n   *\n   * @return the element previously at the specified position.\n   */\n   public operator fun set(index: Int, element: E): E\n\n   /**\n   * Inserts an element into the list at the specified [index].\n   */\n   public fun add(index: Int, element: E): Unit\n\n   /**\n   * Removes an element at the specified [index] from the list.\n   *\n   * @return the element that has been removed.\n   */\n   public fun removeAt(index: Int): E\n\n   // List Iterators\n   override fun listIterator(): MutableListIterator<E>\n\n   override fun listIterator(index: Int): MutableListIterator<E>\n\n   // View\n   override fun subList(fromIndex: Int, toIndex: Int): MutableList<E>\n}\n\n/**\n * A generic unordered collection of elements that does not support duplicate elements.\n * Methods in this interface support only read-only access to

the set;\n * read/write access is supported through the [MutableSet] interface.\n * @param E the type of elements contained in the set. The set is covariant in its element type.\n */\npublic interface Set<out E> : Collection<E> {\n   // Query Operations\n\n   override val size: Int\n   override fun isEmpty(): Boolean\n   override fun contains(element: @UnsafeVariance E): Boolean\n   override fun iterator(): Iterator<E>\n\n   // Bulk Operations\n   override fun containsAll(elements: Collection<@UnsafeVariance E>): Boolean\n}\n\n/**\n * A generic unordered collection of elements that does not support duplicate elements, and supports\n * adding and removing elements.\n * @param E the type of elements contained in the set. The mutable set is invariant in its element type.\n */\npublic interface MutableSet<E> : Set<E>, MutableCollection<E> {\n   // Query Operations\n   override fun iterator(): MutableIterator<E>\n\n   // Modification Operations\n\n   /**\n   * Adds the specified

element to the set.\n   *\n   * @return `true` if the element has been added, `false` if the element is already contained in the set.\n   */\n   override fun add(element: E): Boolean\n\n   override fun remove(element: E): Boolean\n\n   // Bulk Modification Operations\n\n   override fun addAll(elements: Collection<E>): Boolean\n   override fun removeAll(elements: Collection<E>): Boolean\n   override fun retainAll(elements: Collection<E>): Boolean\n   override fun clear(): Unit\n}\n\n/**\n * A collection that holds pairs of objects (keys and values) and supports efficiently retrieving\n * the value corresponding to each key. Map keys are unique; the map holds only one value for each key.\n * Methods in this interface support only read-only access to the map; read-write access is supported through\n * the [MutableMap] interface.\n * @param K the type of map keys. The map is invariant in its key type, as it\n *   can accept key as a parameter (of [containsKey] for example)

and return it in [keys] set.\n * @param V the type of map values. The map is covariant in its value type.\n */\npublic interface Map<K, out V> {\n   // Query Operations\n   /**\n   * Returns the number of key/value pairs in the map.\n   */\n   public val size: Int\n\n   /**\n   * Returns `true` if the map is empty (contains no elements), `false` otherwise.\n   */\n   public fun isEmpty(): Boolean\n\n   /**\n   * Returns `true` if the map contains the specified [key].\n   */\n   public fun containsKey(key: K): Boolean\n\n   /**\n   * Returns `true` if the map maps one or more keys to the specified [value].\n   */\n   public fun containsValue(value: @UnsafeVariance V): Boolean\n\n   /**\n   * Returns the value corresponding to the given [key], or `null` if such a key is not present in the map.\n   */\n   public operator fun get(key: K): V?\n\n   /**\n   * Returns the value corresponding to the given [key], or [defaultValue] if such a key is not present

in the map.\n   *\n   * @since JDK 1.8\n   */\n   @SinceKotlin(\"1.1\")\n   @PlatformDependent\n   public fun getOrDefault(key: K, defaultValue: @UnsafeVariance V): V {\n   // See default implementation in JDK sources\n   throw NotImplementedError()\n   }\n\n   // Views\n   /**\n   * Returns a read-only [Set] of all keys in this map.\n   */\n   public val keys: Set<K>\n\n   /**\n   * Returns a read-only [Collection] of all values in this map. Note that this collection may contain duplicate values.\n   */\n   public val values: Collection<V>\n\n   /**\n   * Returns a read-only [Set] of all key/value pairs in this map.\n   */\n   public val entries: Set<Map.Entry<K, V>>\n\n   /**\n   * Represents a key/value pair held by a [Map].\n   */\n   public interface Entry<out K, out V> {\n   /**\n   * Returns the key of this key/value pair.\n   */\n   public val key: K\n\n   /**\n   * Returns the value of this key/value

pair.\n   */\n   public val value: V\n   }\n}\n\n/**\n * A modifiable collection that holds pairs of objects (keys and values) and supports efficiently retrieving\n * the value corresponding to each key. Map keys are unique;

the map holds only one value for each key.\n * @param K the type of map keys. The map is invariant in its key type.\n * @param V the type of map values. The mutable map is invariant in its value type.\n */\npublic interface MutableMap<K, V> : Map<K, V> {\n   // Modification Operations\n   /**\n   * Associates the specified [value] with the specified [key] in the map.\n   *\n   * @return the previous value associated with the key, or `null` if the key was not present in the map.\n   */\n   public fun put(key: K, value: V): V?\n\n   /**\n   * Removes the specified key and its corresponding value from this map.\n   *\n   * @return the previous value associated with the key, or `null` if the key was not present in the map.\n   */\n

public fun remove(key: K): V?\n\n   /**\n   * Removes the entry for the specified key only if it is mapped to the specified value.\n   *\n   * @return true if entry was removed\n   */\n   @SinceKotlin(\"1.1\")\n   @PlatformDependent\n   public fun remove(key: K, value: V): Boolean {\n   // See default implementation in JDK sources\n   return true\n   }\n\n   // Bulk Modification Operations\n   /**\n   * Updates this map with key/value pairs from the specified map [from].\n   */\n   public fun putAll(from: Map<out K, V>): Unit\n\n   /**\n   * Removes all elements from this map.\n   */\n   public fun clear(): Unit\n\n   // Views\n   /**\n   * Returns a [MutableSet] of all keys in this map.\n   */\n   override val keys: MutableSet<K>\n\n   /**\n   * Returns a [MutableCollection] of all values in this map. Note that this collection may contain duplicate values.\n   */\n   override val values: MutableCollection<V>\n\n   /**\n   * Returns

a [MutableSet] of all key/value pairs in this map.\n   */\n   override val entries: MutableSet<MutableMap.MutableEntry<K, V>>\n\n   /**\n   * Represents a key/value pair held by a [MutableMap].\n   */\n   public interface MutableEntry<K, V> : Map.Entry<K, V> {\n   /**\n   * Changes the value associated with the key of this entry.\n   *\n   * @return the previous value corresponding to the key.\n   */\n   public fun setValue(newValue: V): V\n   }\n}\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.collections\n\n/** An iterator over a sequence of values of type `Byte`. */\npublic abstract class ByteIterator : Iterator<Byte> {\n   override final fun next() = nextByte()\n\n   /** Returns the next value in the sequence

without boxing. */\n   public abstract fun nextByte(): Byte\n}\n\n/** An iterator over a sequence of values of type `Char`. */\npublic abstract class CharIterator : Iterator<Char> {\n   override final fun next() = nextChar()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextChar(): Char\n}\n\n/** An iterator over a sequence of values of type `Short`. */\npublic abstract class ShortIterator : Iterator<Short> {\n   override final fun next() = nextShort()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextShort(): Short\n}\n\n/** An iterator over a sequence of values of type `Int`. */\npublic abstract class IntIterator : Iterator<Int> {\n   override final fun next() = nextInt()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextInt(): Int\n}\n\n/** An iterator over a sequence of values of type `Long`. */\npublic abstract class LongIterator : Iterator<Long>

{\n   override final fun next() = nextLong()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextLong(): Long\n}\n\n/** An iterator over a sequence of values of type `Float`. */\npublic abstract class FloatIterator : Iterator<Float> {\n   override final fun next() = nextFloat()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextFloat(): Float\n}\n\n/** An iterator over a sequence of values of type `Double`. */\npublic abstract class DoubleIterator : Iterator<Double> {\n   override final fun next() = nextDouble()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextDouble(): Double\n}\n\n/** An iterator over a sequence of values of type `Boolean`. */\npublic abstract class BooleanIterator : Iterator<Boolean> {\n   override final fun next() = nextBoolean()\n\n   /** Returns the next value in the sequence without boxing. */\n   public

abstract fun nextBoolean(): Boolean\n}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.ranges\n\n/**\n * An iterator over a progression of values of type `Char`.\n * @property step the number by which the value is incremented on each step.\n */\ninternal class CharProgressionIterator(first: Char, last: Char, val step: Int) :

CharIterator() {\n   private val finalElement: Int = last.code\n   private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n   private var next: Int = if (hasNext) first.code else finalElement\n\n   override fun hasNext(): Boolean = hasNext\n\n   override fun nextChar(): Char {\n   val value = next\n   if (value == finalElement) {\n   if (!hasNext) throw kotlin.NoSuchElementException()\n   hasNext = false\n   }\n   else {\n   next += step\n   }\n   return value.toChar()\n   }\n}\n\n/**\n * An iterator over a progression of values of type `Int`.\n * @property step the number by which the value is incremented on each step.\n */\ninternal class IntProgressionIterator(first: Int, last: Int, val step: Int) : IntIterator() {\n   private val finalElement: Int = last\n   private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n   private var next: Int = if (hasNext) first else finalElement\n\n   override fun hasNext(): Boolean = hasNext\n\n   override fun nextInt(): Int {\n   val value = next\n   if (value == finalElement) {\n   if (!hasNext) throw kotlin.NoSuchElementException()\n   hasNext = false\n   }\n   else {\n   next += step\n   }\n   return value\n   }\n}\n\n/**\n * An iterator over a progression of values of type `Long`.\n * @property step the number by
 which the value is incremented on each step.\n */\ninternal class LongProgressionIterator(first: Long, last: Long, val step: Long) : LongIterator() {\n   private val finalElement: Long = last\n   private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n   private var next: Long = if (hasNext) first else finalElement\n\n   override fun hasNext(): Boolean = hasNext\n\n   override fun nextLong(): Long {\n   val value = next\n   if (value == finalElement) {\n   if (!hasNext) throw kotlin.NoSuchElementException()\n   hasNext = false\n   }\n   else {\n   next += step\n   }\n   return value\n   }\n}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.ranges\n\nimport kotlin.internal.getProgressionLastElement\n\n/**\n
 * A progression of values of type `Char`.\n */\npublic open class CharProgression\n   internal constructor\n   (\n   start: Char,\n   endInclusive: Char,\n   step: Int\n   ) : Iterable<Char> {\n   init {\n   if (step == 0) throw kotlin.IllegalArgumentException(\"Step must be non-zero.\")\n   if (step == Int.MIN_VALUE) throw kotlin.IllegalArgumentException(\"Step must be greater than Int.MIN_VALUE to avoid overflow on negation.\")\n   }\n\n   /**\n   * The first element in the progression.\n   */\n   public val first: Char = start\n\n   /**\n   * The last element in the progression.\n   */\n   public val last: Char = getProgressionLastElement(start.code, endInclusive.code, step).toChar()\n\n   /**\n   * The step of the progression.\n   */\n   public val step: Int = step\n\n   override fun iterator(): CharIterator = CharProgressionIterator(first, last, step)\n\n   /**\n   * Checks if the progression
 is empty.\n   *\n   * Progression with a positive step is empty if its first element is greater than the last element.\n   * Progression with a negative step is empty if its first element is less than the last element.\n   */\n   public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n   override fun equals(other: Any?): Boolean =\n   other is CharProgression && (isEmpty() && other.isEmpty() ||\n   first == other.first && last == other.last && step == other.step)\n\n   override fun hashCode(): Int =\n   if (isEmpty()) -1 else (31 * (31 * first.code + last.code) + step)\n\n   override fun toString(): String = if (step > 0) \"$first..$last step $step\" else \"$first downTo $last step ${-step}\"\n\n   companion object {\n   /**\n   * Creates CharProgression within the specified bounds of a closed range.\n   *\n   * The progression starts with the [rangeStart] value and goes toward the [rangeEnd] value not
 excluding it, with the specified [step].\n   * In order to go backwards the [step] must be negative.\n   *\n   * [step] must be greater than `Int.MIN_VALUE` and not equal to zero.\n   */\n   public fun fromClosedRange(rangeStart: Char, rangeEnd: Char, step: Int): CharProgression = CharProgression(rangeStart, rangeEnd, step)\n   }\n}\n\n/**\n * A progression of values of type `Int`.\n */\npublic open class IntProgression\n   internal constructor\n   (\n   start: Int,\n   endInclusive: Int,\n   step: Int\n   ) : Iterable<Int> {\n   init {\n   if (step == 0) throw kotlin.IllegalArgumentException(\"Step must be non-zero.\")\n   if (step == Int.MIN_VALUE) throw kotlin.IllegalArgumentException(\"Step must be greater than Int.MIN_VALUE to avoid overflow on negation.\")\n   }\n\n   /**\n   * The first element in the progression.\n   */\n   public val first: Int =

start\n\n /**\n * The last element in the progression.\n
*/\n public val last: Int = getProgressionLastElement(start, endInclusive, step)\n\n /**\n * The step of the progression.\n */\n public val step: Int = step\n\n override fun iterator(): IntIterator = IntProgressionIterator(first, last, step)\n\n /**\n * Checks if the progression is empty.\n *\n * Progression with a positive step is empty if its first element is greater than the last element.\n * Progression with a negative step is empty if its first element is less than the last element.\n */\n public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n override fun equals(other: Any?): Boolean =\n other is IntProgression && (isEmpty() && other.isEmpty() ||\n first == other.first && last == other.last && step == other.step)\n\n override fun hashCode(): Int =\n if (isEmpty()) -1 else (31 * (31 * first + last) + step)\n\n override fun toString(): String = if (step > 0) \"$first..$last
step $step\" else \"$first downTo $last step ${-step}\"\n\n companion object {\n /**\n * Creates IntProgression within the specified bounds of a closed range.\n *\n * The progression starts with the [rangeStart] value and goes toward the [rangeEnd] value not excluding it, with the specified [step].\n * In order to go backwards the [step] must be negative.\n *\n * [step] must be greater than `Int.MIN_VALUE` and not equal to zero.\n */\n public fun fromClosedRange(rangeStart: Int, rangeEnd: Int, step: Int): IntProgression = IntProgression(rangeStart, rangeEnd, step)\n }\n}\n\n/**\n * A progression of values of type `Long`.\n */\npublic open class LongProgression\n internal constructor\n (\n start: Long,\n endInclusive: Long,\n step: Long\n) : Iterable<Long> {\n init {\n if (step == 0L) throw kotlin.IllegalArgumentException(\"Step must be non-zero.\")\n
if (step == Long.MIN_VALUE) throw kotlin.IllegalArgumentException(\"Step must be greater than Long.MIN_VALUE to avoid overflow on negation.\")\n }\n\n /**\n * The first element in the progression.\n */\n public val first: Long = start\n\n /**\n * The last element in the progression.\n */\n public val last: Long = getProgressionLastElement(start, endInclusive, step)\n\n /**\n * The step of the progression.\n */\n public val step: Long = step\n\n override fun iterator(): LongIterator = LongProgressionIterator(first, last, step)\n\n /**\n * Checks if the progression is empty.\n *\n * Progression with a positive step is empty if its first element is greater than the last element.\n * Progression with a negative step is empty if its first element is less than the last element.\n */\n public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n override fun equals(other: Any?):
Boolean =\n other is LongProgression && (isEmpty() && other.isEmpty() ||\n first == other.first && last == other.last && step == other.step)\n\n override fun hashCode(): Int =\n if (isEmpty()) -1 else (31 * (31 * (first xor (first ushr 32)) + (last xor (last ushr 32))) + (step xor (step ushr 32))).toInt()\n\n override fun toString(): String = if (step > 0) \"$first..$last step $step\" else \"$first downTo $last step ${-step}\"\n\n companion object {\n /**\n * Creates LongProgression within the specified bounds of a closed range.\n *\n * The progression starts with the [rangeStart] value and goes toward the [rangeEnd] value not excluding it, with the specified [step].\n * In order to go backwards the [step] must be negative.\n *\n * [step] must be greater than `Long.MIN_VALUE` and not equal to zero.\n */\n public fun fromClosedRange(rangeStart: Long, rangeEnd: Long, step: Long): LongProgression
= LongProgression(rangeStart, rangeEnd, step)\n }\n}\n\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.ranges\n\n/**\n * Represents a range of values (for example, numbers or characters).\n * See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/ranges.html) for more information.\n */\npublic interface ClosedRange<T: Comparable<T>> {\n /**\n * The minimum value in the range.\n */\n public val start: T\n\n /**\n * The maximum value in the range (inclusive).\n */\n public val endInclusive: T\n\n /**\n * Checks whether the specified [value] belongs to the range.\n */\n public operator fun contains(value: T): Boolean = value >= start && value <= endInclusive\n\n /**\n * Checks whether the range is empty.\n *\n * The range

is empty if its start value is greater than the end value.\n */\n public fun isEmpty(): Boolean = start > endInclusive\n}\n","/*\n * Copyright 2010-2015 JetBrains s.r.o.\n *\n * Licensed under the Apache License, Version 2.0 (the \"License\");\n * you may not use this file except in compliance with the License.\n * You may obtain a copy of the License at\n *\n * http://www.apache.org/licenses/LICENSE-2.0\n *\n * Unless required by applicable law or agreed to in writing, software\n * distributed under the License is distributed on an \"AS IS\" BASIS,\n * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.\n * See the License for the specific language governing permissions and\n * limitations under the License.\n */\n\npackage kotlin\n\n/**\n * The type with only one value: the `Unit` object. This type corresponds to the `void` type in Java.\n */\npublic object Unit {\n override fun toString() = \"kotlin.Unit\"\n}\n","/*\n * Copyright 2010-2015 JetBrains s.r.o.\n *\n * Licensed under the Apache License, Version 2.0 (the \"License\");\n * you may not use this file except in compliance with the License.\n * You may obtain a copy of the License at\n *\n * http://www.apache.org/licenses/LICENSE-2.0\n *\n * Unless required by applicable law or agreed to in writing, software\n * distributed under the License is distributed on an \"AS IS\" BASIS,\n * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.\n * See the License for the specific language governing permissions and\n * limitations under the License.\n */\n\npackage kotlin.annotation\n\nimport kotlin.annotation.AnnotationTarget.*\n\n/**\n * Contains the list of code elements which are the possible annotation targets\n */\npublic enum class AnnotationTarget {\n /** Class, interface or object, annotation class is also included */\n CLASS,\n /** Annotation class only */\n ANNOTATION_CLASS,\n /** Generic type parameter */\n TYPE_PARAMETER,\n /** Property */\n PROPERTY,\n /** Field, including property's backing field */\n FIELD,\n /** Local variable */\n LOCAL_VARIABLE,\n /** Value parameter of a function or a constructor */\n VALUE_PARAMETER,\n /** Constructor only (primary or secondary) */\n CONSTRUCTOR,\n /** Function (constructors are not included) */\n FUNCTION,\n /** Property getter only */\n PROPERTY_GETTER,\n /** Property setter only */\n PROPERTY_SETTER,\n /** Type usage */\n TYPE,\n /** Any expression */\n EXPRESSION,\n /** File */\n FILE,\n /** Type alias */\n @SinceKotlin(\"1.1\")\n TYPEALIAS\n}\n\n/**\n * Contains the list of possible annotation's retentions.\n *\n * Determines how an annotation is stored in binary output.\n */\npublic enum class AnnotationRetention {\n /** Annotation isn't stored in binary output */\n SOURCE,\n /** Annotation is stored in binary output, but invisible for reflection */\n BINARY,\n /** Annotation is stored in binary output and visible for reflection (default retention) */\n RUNTIME\n}\n\n/**\n * This meta-annotation indicates the kinds of code elements which are possible targets of an annotation.\n *\n * If the target meta-annotation is not present on an annotation declaration, the annotation is applicable to the following elements:\n * [CLASS], [PROPERTY], [FIELD], [LOCAL_VARIABLE], [VALUE_PARAMETER], [CONSTRUCTOR], [FUNCTION], [PROPERTY_GETTER], [PROPERTY_SETTER].\n *\n * @property allowedTargets list of allowed annotation targets\n */\n@Target(AnnotationTarget.ANNOTATION_CLASS)\n@MustBeDocumented\npublic annotation class Target(vararg val allowedTargets: AnnotationTarget)\n\n/**\n * This meta-annotation determines whether an annotation is stored in binary output and visible for reflection. By default, both are true.\n *\n * @property value necessary annotation retention (RUNTIME, BINARY or SOURCE)\n */\n@Target(AnnotationTarget.ANNOTATION_CLASS)\npublic annotation class Retention(val value: AnnotationRetention = AnnotationRetention.RUNTIME)\n\n/**\n * This meta-annotation determines that an annotation is applicable twice or more on a single code element\n */\n@Target(AnnotationTarget.ANNOTATION_CLASS)\npublic annotation class Repeatable\n\n/**\n * This meta-annotation determines that an annotation is a part of public API and therefore should be included in the generated\n * documentation for the element to which the annotation is applied.\n */\n@Target(AnnotationTarget.ANNOTATION_CLASS)\npublic annotation class MustBeDocumented\n","/*\n * Copyright 2010-2016 JetBrains s.r.o.\n *\n * Licensed under the Apache License, Version 2.0 (the \"License\");\n * you may not use this file except in compliance with the License.\n * You may obtain a copy of the License at\n *\n * http://www.apache.org/licenses/LICENSE-2.0\n *\n * Unless required by applicable law or agreed to in writing, software\n * distributed under the License is distributed on an \"AS IS\" BASIS,\n * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.\n * See the License for the specific language governing permissions and\n * limitations under the License.\n */\n\npackage kotlin.internal\n\n/**\n * Specifies that the corresponding type parameter is not used for unsafe operations such as casts or 'is' checks\n * That means it's completely safe to use generic types as argument for such parameter.\n */\n@Target(AnnotationTarget.TYPE_PARAMETER)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class PureReifiable\n\n/**\n * Specifies that the corresponding built-in method exists depending on platform.\n * Current implementation for JVM looks whether method with same JVM descriptor exists in the module JDK.\n * For example MutableMap.remove(K, V) available only if corresponding\n * method 'java/util/Map.remove(Ljava/lang/Object;Ljava/lang/Object;)Z' is defined in JDK (i.e. for major versions >= 8)\n */\n@Target(AnnotationTarget.FUNCTION)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class PlatformDependent\n\n/**\n * When applied to a function or property, enables a compiler optimization that evaluates that function or property\n * at compile-time and replaces calls to it with the computed result.\n */\n@Target(AnnotationTarget.CONSTRUCTOR, AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY)\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.7\")\ninternal annotation class IntrinsicConstEvaluation\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.internal\n\n// a mod b (in arithmetical sense)\nprivate fun mod(a: Int, b: Int): Int {\n   val mod = a % b\n   return if (mod >= 0) mod else mod + b\n}\n\nprivate fun mod(a: Long, b: Long): Long {\n   val mod = a % b\n   return if (mod >= 0) mod else mod + b\n}\n\n// (a - b) mod c\nprivate fun differenceModulo(a: Int, b: Int, c: Int): Int {\n   return mod(mod(a, c) - mod(b, c), c)\n}\n\nprivate fun differenceModulo(a: Long, b: Long, c: Long): Long {\n   return mod(mod(a, c) - mod(b, c), c)\n}\n\n/**\n * Calculates the final element of a bounded arithmetic progression, i.e. the last element of the progression which is in the range\n * from [start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative\n * [step].\n *\n * No validation on passed parameters is performed. The given parameters should satisfy the condition:\n *\n * - either `step > 0` and `start <= end`,\n * - or `step < 0` and `start >= end`.\n *\n * @param start first element of the progression\n * @param end ending bound for the progression\n * @param step increment, or difference of successive elements in the progression\n * @return the final element of the progression\n * @suppress\n */\n@PublishedApi\ninternal fun getProgressionLastElement(start: Int, end: Int, step: Int): Int = when {\n   step > 0 -> if (start >= end) end else end - differenceModulo(end, start, step)\n   step < 0 -> if (start <= end) end else end + differenceModulo(start, end, -step)\n   else -> throw kotlin.IllegalArgumentException(\"Step is zero.\")\n}\n\n/**\n * Calculates the final element of a bounded arithmetic progression, i.e. the last element of the progression which is in the range\n * from [start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative\n * [step].\n *\n * No validation on passed parameters is performed. The given parameters should satisfy the condition:\n *\n * - either `step > 0` and `start <= end`,\n * - or `step < 0` and `start >= end`.\n *\n * @param start first element of the progression\n * @param end ending bound for the progression\n * @param step increment, or difference of successive elements in the progression\n * @return the final element of the progression\n * @suppress\n */\n@PublishedApi\ninternal fun getProgressionLastElement(start: Long, end: Long, step: Long): Long = when {\n   step > 0 -> if (start >= end) end else end - differenceModulo(end, start, step)\n   step < 0 -> if (start <= end) end else end + differenceModulo(start, end, -step)\n   else -> throw kotlin.IllegalArgumentException(\"Step is zero.\")\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@JsName(\"arrayIterator\")\ninternal fun arrayIterator(array: dynamic, type: String?) = when (type) {\n   null -> {\n   val arr: Array<dynamic> = array\n   object : Iterator<dynamic> {\n   var index = 0\n   override fun hasNext() = index < arr.size\n   override fun next() = if (index < arr.size) arr[index++] else throw NoSuchElementException(\"$index\")\n   }\n   }\n   \"BooleanArray\" -> booleanArrayIterator(array)\n

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    \"ByteArray\" -> byteArrayIterator(array)\n    \"ShortArray\" -> shortArrayIterator(array)\n    \"CharArray\" ->
charArrayIterator(array)\n    \"IntArray\" -> intArrayIterator(array)\n    \"LongArray\" -> longArrayIterator(array)\n
\"FloatArray\" -> floatArrayIterator(array)\n    \"DoubleArray\" -> doubleArrayIterator(array)\n    else -> throw
IllegalStateException(\"Unsupported type argument for arrayIterator:
$type\")\n}\n\n@JsName(\"booleanArrayIterator\")\ninternal fun booleanArrayIterator(array: BooleanArray) =
object : BooleanIterator() {\n    var index = 0\n    override fun hasNext() = index < array.size\n    override fun
nextBoolean() = if (index < array.size) array[index++] else throw
NoSuchElementException(\"$index\")\n}\n\n@JsName(\"byteArrayIterator\")\ninternal fun byteArrayIterator(array:
ByteArray) = object : ByteIterator() {\n    var index = 0\n    override fun hasNext() = index < array.size\n    override
fun nextByte() = if (index < array.size) array[index++]
 else throw NoSuchElementException(\"$index\")\n}\n\n@JsName(\"shortArrayIterator\")\ninternal fun
shortArrayIterator(array: ShortArray) = object : ShortIterator() {\n    var index = 0\n    override fun hasNext() =
index < array.size\n    override fun nextShort() = if (index < array.size) array[index++] else throw
NoSuchElementException(\"$index\")\n}\n\n@JsName(\"charArrayIterator\")\ninternal fun charArrayIterator(array:
CharArray) = object : CharIterator() {\n    var index = 0\n    override fun hasNext() = index < array.size\n    override
fun nextChar() = if (index < array.size) array[index++] else throw
NoSuchElementException(\"$index\")\n}\n\n@JsName(\"intArrayIterator\")\ninternal fun intArrayIterator(array:
IntArray) = object : IntIterator() {\n    var index = 0\n    override fun hasNext() = index < array.size\n    override fun
nextInt() = if (index < array.size) array[index++] else throw
NoSuchElementException(\"$index\")\n}\n\n@JsName(\"floatArrayIterator\")\ninternal fun
 floatArrayIterator(array: FloatArray) = object : FloatIterator() {\n    var index = 0\n    override fun hasNext() =
index < array.size\n    override fun nextFloat() = if (index < array.size) array[index++] else throw
NoSuchElementException(\"$index\")\n}\n\n@JsName(\"doubleArrayIterator\")\ninternal fun
doubleArrayIterator(array: DoubleArray) = object : DoubleIterator() {\n    var index = 0\n    override fun hasNext()
= index < array.size\n    override fun nextDouble() = if (index < array.size) array[index++] else throw
NoSuchElementException(\"$index\")\n}\n\n@JsName(\"longArrayIterator\")\ninternal fun longArrayIterator(array:
LongArray) = object : LongIterator() {\n    var index = 0\n    override fun hasNext() = index < array.size\n
override fun nextLong() = if (index < array.size) array[index++] else throw
NoSuchElementException(\"$index\")\n}\n\n@JsName(\"PropertyMetadata\")\ninternal class
PropertyMetadata(@JsName(\"callableName\") val name:
String)\n\n@JsName(\"noWhenBranchMatched\")\ninternal
 fun noWhenBranchMatched(): Nothing = throw
NoWhenBranchMatchedException()\n\n@JsName(\"subSequence\")\ninternal fun subSequence(c: CharSequence,
startIndex: Int, endIndex: Int): CharSequence {\n    if (c is String) {\n        return c.substring(startIndex, endIndex)\n
 } else {\n        return c.asDynamic().`subSequence_vux9f0$`(startIndex, endIndex)\n
}\n}\n\n@JsName(\"captureStack\")\ninternal fun captureStack(@Suppress(\"UNUSED_PARAMETER\")
baseClass: JsClass<in Throwable>, instance: Throwable) {\n    if (js(\"Error\").captureStackTrace) {\n        // Using
uncropped stack traces due to KT-37563.\n        // Precise stack traces are implemented in JS IR compiler and
stdlib\n        js(\"Error\").captureStackTrace(instance);\n    } else {\n        instance.asDynamic().stack = js(\"new
Error()\").stack;\n    }\n}\n\n@JsName(\"newThrowable\")\ninternal fun newThrowable(message: String?, cause:
Throwable?): Throwable {\n    val throwable = js(\"new Error()\")\n
    throwable.message = if (jsTypeOf(message) == \"undefined\") {\n        if (cause != null) cause.toString() else
null\n    } else {\n        message\n    }\n    throwable.cause = cause\n    throwable.name = \"Throwable\"\n    return
throwable\n}\n\n@JsName(\"BoxedChar\")\ninternal class BoxedChar(val c: Int) : Comparable<Int> {\n    override
fun equals(other: Any?): Boolean {\n        return other is BoxedChar && c == other.c\n    }\n\n    override fun
hashCode(): Int {\n        return c\n    }\n\n    override fun toString(): String {\n        return
js(\"this.c\").unsafeCast<Char>().toString()\n    }\n\n    override fun compareTo(other: Int): Int {\n        return
js(\"this.c - other\").unsafeCast<Int>()\n    }\n\n    @JsName(\"valueOf\")\n    public fun valueOf(): Int {\n
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return c\n   }\n}\n\n@kotlin.internal.InlineOnly\ninternal inline fun <T> concat(args: Array<T>): T {\n   val typed = js(\"Array\")(args.size)\n   for (i in args.indices) {\n   val arr = args[i]\n   if (arr !is Array<*>) {\n   typed[i] = js(\"[]\").slice.call(arr)\n   } else {\n   typed[i] = arr\n   }\n   }\n   return js(\"[]\").concat.apply(js(\"[]\"), typed);\n}\n\n/** Concat regular Array's and TypedArray's into an Array.\n */\n@PublishedApi\n@JsName(\"arrayConcat\")\n@Suppress(\"UNUSED_PARAMETER\")\ninternal fun <T> arrayConcat(a: T, b: T): T {\n   return concat(js(\"arguments\"))\n}\n\n/** Concat primitive arrays. Main use: prepare vararg arguments.\n * For compatibility with 1.1.0 the arguments may be a mixture of Array's and TypedArray's.\n *\n * If the first argument is TypedArray (Byte-, Short-, Char-, Int-, Float-, and DoubleArray) returns a TypedArray, otherwise an Array.\n * If the first argument has the $type$ property (Boolean-, Char-, and LongArray) copy its value to result.$type$.\n * If the first argument is a regular Array without the $type$ property default to arrayConcat.\n */\n@PublishedApi\n@JsName(\"primitiveArrayConcat\")\n@Suppress(\"UNUSED_PARAMETER\")\ninternal fun <T> primitiveArrayConcat(a: T, b: T): T {\n   val args: Array<T> = js(\"arguments\")\n   if (a is Array<*> && a.asDynamic().`$type$` === undefined) {\n   return concat(args)\n   } else {\n   var size = 0\n   for (i in args.indices) {\n   size += args[i].asDynamic().length as Int\n   }\n   val result = js(\"new a.constructor(size)\")\n   kotlin.copyArrayType(a, result)\n   size = 0\n   for (i in args.indices) {\n   val arr = args[i].asDynamic()\n   for (j in 0 until arr.length) {\n   result[size++] = arr[j]\n   }\n   }\n   return result\n   }\n}\n\n@JsName(\"booleanArrayOf\")\ninternal fun booleanArrayOf() = withType(\"BooleanArray\", js(\"[].slice.call(arguments)\"))\n\n@JsName(\"charArrayOf\")\ninternal fun charArrayOf() = withType(\"CharArray\", js(\"new Uint16Array(arguments)\"))\n\n@JsName(\"longArrayOf\")\ninternal fun longArrayOf() = withType(\"LongArray\", js(\"[].slice.call(arguments)\"))\n\n@JsName(\"withType\")\n@kotlin.internal.InlineOnly\ninternal inline fun withType(type: String, array: dynamic): dynamic {\n   array.`$type$` = type\n   return array\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n * Function corresponding to JavaScript's `typeof` operator\n */\n@kotlin.internal.InlineOnly\n@Suppress(\"UNUSED_PARAMETER\")\npublic inline fun jsTypeOf(a: Any?): String = js(\"typeof a\")\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:Suppress(\"UNUSED_PARAMETER\", \"NOTHING_TO_INLINE\")\n\npackage kotlin\n\n/**\n * Returns an empty array of the specified type [T].\n */\npublic inline fun <T> emptyArray(): Array<T> = js(\"[]\")\n\n@library\npublic fun <T> arrayOf(vararg elements: T): Array<T> = definedExternally\n\n@library\npublic fun doubleArrayOf(vararg elements: Double): DoubleArray = definedExternally\n\n@library\npublic fun floatArrayOf(vararg elements: Float): FloatArray = definedExternally\n\n@library\npublic fun longArrayOf(vararg elements: Long): LongArray = definedExternally\n\n@library\npublic fun intArrayOf(vararg elements: Int): IntArray = definedExternally\n\n@library\npublic fun charArrayOf(vararg elements: Char): CharArray = definedExternally\n\n@library\npublic fun shortArrayOf(vararg elements: Short): ShortArray = definedExternally\n\n@library\npublic fun byteArrayOf(vararg elements: Byte): ByteArray = definedExternally\n\n@library\npublic fun booleanArrayOf(vararg elements: Boolean): BooleanArray = definedExternally\n\n/**\n * Creates a new instance of the [Lazy] that uses the specified initialization function [initializer].\n */\npublic actual fun <T> lazy(initializer: () -> T): Lazy<T> = UnsafeLazyImpl(initializer)\n\n/**\n * Creates a new instance of the [Lazy] that uses the specified initialization function [initializer].\n *\n * The [mode] parameter is ignored. */\npublic actual fun <T> lazy(mode: LazyThreadSafetyMode, initializer: () -> T): Lazy<T> = UnsafeLazyImpl(initializer)\n\n/**\n * Creates a new instance of the [Lazy] that uses the specified initialization function [initializer].\n *\n * The [lock] parameter is ignored.\n */\npublic actual fun <T> lazy(lock: Any?, initializer: () -> T): Lazy<T> =

UnsafeLazyImpl(initializer)\n\n\ninternal fun fillFrom(src: dynamic, dst: dynamic): dynamic {\n   val srcLen: Int = src.length\n   val dstLen: Int = dst.length\n   var index: Int = 0\n   while (index < srcLen && index < dstLen) dst[index] = src[index++]\n   return dst\n}\n\n\ninternal fun arrayCopyResize(source: dynamic, newSize: Int, defaultValue: Any?): dynamic {\n   val result = source.slice(0, newSize)\n   copyArrayType(source, result)\n   var index: Int = source.length\n   if (newSize > index) {\n   result.length = newSize\n   while (index < newSize) result[index++] = defaultValue\n   }\n   return result\n}\n\ninternal fun <T> arrayPlusCollection(array: dynamic, collection: Collection<T>): dynamic {\n   val result = array.slice()\n   result.length += collection.size\n   copyArrayType(array, result)\n   var index: Int = array.length\n   for (element in collection) result[index++] = element\n   return result\n}\n\ninternal fun <T> fillFromCollection(dst: dynamic, startIndex: Int, collection: Collection<T>): dynamic {\n   var index = startIndex\n   for (element in collection) dst[index++] = element\n   return dst\n}\n\ninternal inline fun copyArrayType(from: dynamic, to: dynamic) {\n   if (from.`$type$` !== undefined) {\n   to.`$type$` = from.`$type$`\n   }\n}\n\ninternal inline fun jsIsType(obj: dynamic, jsClass: dynamic) = js(\"Kotlin\").isType(obj, jsClass)","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n/**\n * Creates a Char with the specified [code].\n *\n * @sample samples.text.Chars.charFromCode\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun Char(code: UShort): Char {\n   return code.toInt().toChar()\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\nimport kotlin.coroutines.intrinsics.COROUTINE_SUSPENDED\n\n@SinceKotlin(\"1.3\")\n@JsName(\"CoroutineImpl\")\ninternal abstract class CoroutineImpl(private val resultContinuation: Continuation<Any?>) : Continuation<Any?> {\n   protected var state = 0\n   protected var exceptionState = 0\n   protected var result: Any? = null\n   protected var exception: Throwable? = null\n   protected var finallyPath: Array<Int>? = null\n\n   public override val context: CoroutineContext = resultContinuation.context\n\n   private var intercepted_: Continuation<Any?>? = null\n\n   public fun intercepted(): Continuation<Any?> =\n   intercepted_\n   ?: (context[ContinuationInterceptor]?.interceptContinuation(this) ?: this)\n   .also { intercepted_ = it }\n\n   override fun resumeWith(result: Result<Any?>) {\n   var current = this\n   var currentResult: Any? = result.getOrNull()\n   var currentException: Throwable? = result.exceptionOrNull()\n\n   // This loop unrolls recursion in current.resumeWith(param) to make saner and shorter stack traces on resume\n   while (true) {\n   with(current) {\n   val completion = resultContinuation\n\n   // Set result and exception fields in the current continuation\n   if (currentException == null) {\n   this.result = currentResult\n   } else {\n   state = exceptionState\n   exception = currentException\n   }\n\n   try {\n   val outcome = doResume()\n   if (outcome === COROUTINE_SUSPENDED) return\n   currentResult = outcome\n   currentException = null\n   } catch (exception: dynamic) { // Catch all exceptions\n   currentResult = null\n   currentException = exception.unsafeCast<Throwable>()\n   }\n\n   releaseIntercepted() // this state machine instance is terminating\n\n   if (completion is CoroutineImpl) {\n   // unrolling recursion via loop\n   current = completion\n   } else {\n   // top-level completion reached -- invoke and return\n   currentException?.let {\n   completion.resumeWithException(it)\n   } ?: completion.resume(currentResult)\n   return\n   }\n   }\n   }\n   }\n\n   private fun releaseIntercepted() {\n   val intercepted = intercepted_\n   if (intercepted != null && intercepted !== this) {\n   context[ContinuationInterceptor]!!.releaseInterceptedContinuation(intercepted)\n   }\n   this.intercepted_ = CompletedContinuation // just in case\n   }\n\n   protected abstract fun doResume(): Any?\n}\n\ninternal object CompletedContinuation : Continuation<Any?> {\n   override val context: CoroutineContext\n   get() = error(\"This continuation is already complete\")\n\n   override fun resumeWith(result: Result<Any?>) {\n

error(\"This continuation
 is already complete\")\n   }\n\n   override fun toString(): String = \"This continuation is already
complete\"\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n *
Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:Suppress(\"UNCHECKED_CAST\", \"RedundantVisibilityModifier\")\n\npackage kotlin\n\nimport
kotlin.contracts.*\nimport kotlin.internal.InlineOnly\nimport kotlin.jvm.JvmField\nimport
kotlin.jvm.JvmInline\nimport kotlin.jvm.JvmName\n\n/**\n * A discriminated union that encapsulates a successful
outcome with a value of type [T]\n * or a failure with an arbitrary [Throwable] exception.\n
*/\n@SinceKotlin(\"1.3\")\n@JvmInline\npublic value class Result<out T> @PublishedApi internal constructor(\n
@PublishedApi\n   internal val value: Any?\n) : Serializable {\n   // discovery\n\n   /**\n   * Returns `true` if this
instance represents a successful outcome.\n
     * In this case [isFailure] returns `false`.\n   */\n   public val isSuccess: Boolean get() = value !is Failure\n\n
/**\n   * Returns `true` if this instance represents a failed outcome.\n   * In this case [isSuccess] returns `false`.\n
 */\n   public val isFailure: Boolean get() = value is Failure\n\n   // value & exception retrieval\n\n   /**\n   *
Returns the encapsulated value if this instance represents [success][Result.isSuccess] or `null`\n   * if it is
[failure][Result.isFailure].\n   *\n   * This function is a shorthand for `getOrElse { null }` (see [getOrElse]) or\n
* `fold(onSuccess = { it }, onFailure = { null })` (see [fold]).\n   */\n   @InlineOnly\n   public inline fun
getOrNull(): T? =\n   when {\n   isFailure -> null\n   else -> value as T\n   }\n\n   /**\n   *
Returns the encapsulated [Throwable] exception if this instance represents [failure][isFailure] or `null`\n   * if it is
[success][isSuccess].\n
     *\n   * This function is a shorthand for `fold(onSuccess = { null }, onFailure = { it })` (see [fold]).\n   */\n
public fun exceptionOrNull(): Throwable? =\n   when (value) {\n   is Failure -> value.exception\n
else -> null\n   }\n\n   /**\n   * Returns a string `Success(v)` if this instance represents
[success][Result.isSuccess]\n   * where `v` is a string representation of the value or a string `Failure(x)` if\n   * it
is [failure][isFailure] where `x` is a string representation of the exception.\n   */\n   public override fun toString():
String =\n   when (value) {\n   is Failure -> value.toString() // \"Failure($exception)\"\n   else ->
\"Success($value)\"\n   }\n\n   // companion with constructors\n\n   /**\n   * Companion object for [Result]
class that contains its constructor functions\n   * [success] and [failure].\n   */\n   public companion object {\n
/**\n   * Returns
 an instance that encapsulates the given [value] as successful value.\n   */\n
@Suppress(\"INAPPLICABLE_JVM_NAME\")\n   @InlineOnly\n   @JvmName(\"success\")\n   public
inline fun <T> success(value: T): Result<T> =\n   Result(value)\n\n   /**\n   * Returns an instance that
encapsulates the given [Throwable] [exception] as failure.\n   */\n
@Suppress(\"INAPPLICABLE_JVM_NAME\")\n   @InlineOnly\n   @JvmName(\"failure\")\n   public
inline fun <T> failure(exception: Throwable): Result<T> =\n   Result(createFailure(exception))\n   }\n\n
internal class Failure(\n   @JvmField\n   val exception: Throwable\n   ) : Serializable {\n   override fun
equals(other: Any?): Boolean = other is Failure && exception == other.exception\n   override fun hashCode():
Int = exception.hashCode()\n   override fun toString(): String = \"Failure($exception)\"\n   }\n}\n\n/**\n *
Creates an instance of
 internal marker [Result.Failure] class to\n * make sure that this class is not exposed in ABI.\n
*/\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal fun createFailure(exception: Throwable): Any =\n
Result.Failure(exception)\n\n/**\n * Throws exception if the result is failure. This internal function minimizes\n *
inlined bytecode for [getOrThrow] and makes sure that in the future we can\n * add some exception-augmenting
logic here (if needed).\n */\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal fun Result<*>.throwOnFailure() {\n
if (value is Result.Failure) throw value.exception\n}\n\n/**\n * Calls the specified function [block] and returns its
encapsulated result if invocation was successful,\n * catching any [Throwable] exception that was thrown from the
[block] function execution and encapsulating it as a failure.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic
inline fun <R> runCatching(block: () -> R): Result<R> {\n   return try {\n   Result.success(block())\n   }

catch (e: Throwable) {\n   Result.failure(e)\n   }\n}\n\n/**\n * Calls the specified function [block] with `this` value as its receiver and returns its encapsulated result if invocation was successful,\n * catching any [Throwable] exception that was thrown from the [block] function execution and encapsulating it as a failure.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <T, R> T.runCatching(block: T.() -> R): Result<R> {\n   return try {\n   Result.success(block())\n   } catch (e: Throwable) {\n   Result.failure(e)\n   }\n}\n\n// -- extensions ---\n\n/**\n * Returns the encapsulated value if this instance represents [success][Result.isSuccess] or throws the encapsulated [Throwable] exception\n * if it is [failure][Result.isFailure].\n *\n * This function is a shorthand for `getOrElse { throw it }` (see [getOrElse]).\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <T> Result<T>.getOrThrow(): T {\n   throwOnFailure()\n   return value as T\n}\n\n/**\n

* Returns the encapsulated value if this instance represents [success][Result.isSuccess] or the\n * result of [onFailure] function for the encapsulated [Throwable] exception if it is [failure][Result.isFailure].\n *\n * Note, that this function rethrows any [Throwable] exception thrown by [onFailure] function.\n *\n * This function is a shorthand for `fold(onSuccess = { it }, onFailure = onFailure)` (see [fold]).\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T : R> Result<T>.getOrElse(onFailure: (exception: Throwable) -> R): R {\n   contract {\n   callsInPlace(onFailure, InvocationKind.AT_MOST_ONCE)\n   }\n   return when (val exception = exceptionOrNull()) {\n   null -> value as T\n   else -> onFailure(exception)\n   }\n}\n\n/**\n * Returns the encapsulated value if this instance represents [success][Result.isSuccess] or the\n * [defaultValue] if it is [failure][Result.isFailure].\n *\n * This function is a shorthand for `getOrElse { defaultValue }` (see [getOrElse]).\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T : R> Result<T>.getOrDefault(defaultValue: R): R {\n   if (isFailure) return defaultValue\n   return value as T\n}\n\n/**\n * Returns the result of [onSuccess] for the encapsulated value if this instance represents [success][Result.isSuccess]\n * or the result of [onFailure] function for the encapsulated [Throwable] exception if it is [failure][Result.isFailure].\n *\n * Note, that this function rethrows any [Throwable] exception thrown by [onSuccess] or by [onFailure] function.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T> Result<T>.fold(\n   onSuccess: (value: T) -> R,\n   onFailure: (exception: Throwable) -> R\n): R {\n   contract {\n   callsInPlace(onSuccess, InvocationKind.AT_MOST_ONCE)\n   callsInPlace(onFailure, InvocationKind.AT_MOST_ONCE)\n   }\n   return when (val exception = exceptionOrNull()) {\n   null -> onSuccess(value as T)\n

else -> onFailure(exception)\n   }\n}\n\n// transformation\n\n/**\n * Returns the encapsulated result of the given [transform] function applied to the encapsulated value\n * if this instance represents [success][Result.isSuccess] or the\n * original encapsulated [Throwable] exception if it is [failure][Result.isFailure].\n *\n * Note, that this function rethrows any [Throwable] exception thrown by [transform] function.\n * See [mapCatching] for an alternative that encapsulates exceptions.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T> Result<T>.map(transform: (value: T) -> R): Result<R> {\n   contract {\n   callsInPlace(transform, InvocationKind.AT_MOST_ONCE)\n   }\n   return when {\n   isSuccess -> Result.success(transform(value as T))\n   else -> Result(value)\n   }\n}\n\n/**\n * Returns the encapsulated result of the given [transform] function applied to the encapsulated value\n * if this instance represents [success][Result.isSuccess] or the\n

* original encapsulated [Throwable] exception if it is [failure][Result.isFailure].\n *\n * This function catches any [Throwable] exception thrown by [transform] function and encapsulates it as a failure.\n * See [map] for an alternative that rethrows exceptions from `transform` function.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T> Result<T>.mapCatching(transform: (value: T) -> R): Result<R> {\n   return when {\n   isSuccess -> runCatching { transform(value as T) }\n   else -> Result(value)\n   }\n}\n\n/**\n * Returns the encapsulated result of the given [transform] function applied to the encapsulated [Throwable] exception\n * if this instance represents [failure][Result.isFailure] or the\n * original encapsulated value if it is [success][Result.isSuccess].\n *\n * Note, that this function rethrows any [Throwable] exception thrown by [transform] function.\n * See [recoverCatching] for an alternative that encapsulates exceptions.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic

inline fun <R, T : R> Result<T>.recover(transform: (exception: Throwable) -> R): Result<R> {\n   contract {\n   callsInPlace(transform, InvocationKind.AT_MOST_ONCE)\n   }\n   return when (val exception = exceptionOrNull()) {\n   null -> this\n   else -> Result.success(transform(exception))\n   }\n}\n\n/**\n * Returns the encapsulated result of the given [transform] function applied to the encapsulated [Throwable] exception\n * if this instance represents [failure][Result.isFailure] or the\n * original encapsulated value if it is [success][Result.isSuccess].\n *\n * This function catches any [Throwable] exception thrown by [transform] function and encapsulates it as a failure.\n * See [recover] for an alternative that rethrows exceptions.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T : R> Result<T>.recoverCatching(transform: (exception: Throwable) -> R): Result<R> {\n   return when (val exception = exceptionOrNull()) {\n   null -> this\n   else -> runCatching { transform(exception) }\n   }\n}\n\n// \"peek\" onto value/exception and pipe\n\n/**\n * Performs the given [action] on the encapsulated [Throwable] exception if this instance represents [failure][Result.isFailure].\n * Returns the original `Result` unchanged.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <T> Result<T>.onFailure(action: (exception: Throwable) -> Unit): Result<T> {\n   contract {\n   callsInPlace(action, InvocationKind.AT_MOST_ONCE)\n   }\n   exceptionOrNull()?.let { action(it) }\n   return this\n}\n\n/**\n * Performs the given [action] on the encapsulated value if this instance represents [success][Result.isSuccess].\n * Returns the original `Result` unchanged.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <T> Result<T>.onSuccess(action: (value: T) -> Unit): Result<T> {\n   contract {\n   callsInPlace(action, InvocationKind.AT_MOST_ONCE)\n   }\n   if (isSuccess) action(value as T)\n   return this\n}\n\n// -------------------\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\nimport kotlin.contracts.*\nimport kotlin.coroutines.intrinsics.*\nimport kotlin.internal.InlineOnly\n\n/**\n * Interface representing a continuation after a suspension point that returns a value of type `T`.\n */\n@SinceKotlin(\"1.3\")\npublic interface Continuation<in T> {\n   /**\n   * The context of the coroutine that corresponds to this continuation.\n   */\n   public val context: CoroutineContext\n\n   /**\n   * Resumes the execution of the corresponding coroutine passing a successful or failed [result] as the\n   * return value of the last suspension point.\n   */\n   public fun resumeWith(result: Result<T>)\n}\n\n/**\n * Classes and interfaces marked with this annotation are restricted when used as receivers for extension\n * `suspend` functions. These `suspend` extensions can only invoke other member or extension `suspend` functions on this particular\n * receiver and are restricted from calling arbitrary suspension functions.\n */\n@SinceKotlin(\"1.3\")\n@Target(AnnotationTarget.CLASS)\n@Retention(AnnotationRetention.BINARY)\npublic annotation class RestrictsSuspension\n\n/**\n * Resumes the execution of the corresponding coroutine passing [value] as the return value of the last suspension point.\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic inline fun <T> Continuation<T>.resume(value: T): Unit =\n   resumeWith(Result.success(value))\n\n/**\n * Resumes the execution of the corresponding coroutine so that the [exception] is re-thrown right after the\n * last suspension point.\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic inline fun <T> Continuation<T>.resumeWithException(exception: Throwable): Unit =\n   resumeWith(Result.failure(exception))\n\n\n/**\n * Creates a [Continuation] instance with the given [context] and implementation of [resumeWith] method.\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic inline fun <T> Continuation(\n   context: CoroutineContext,\n   crossinline resumeWith: (Result<T>) -> Unit\n): Continuation<T> =\n   object : Continuation<T> {\n   override val context: CoroutineContext\n   get() = context\n\n   override fun resumeWith(result: Result<T>) =\n   resumeWith(result)\n   }\n\n/**\n * Creates a coroutine without a receiver and with result type [T].\n * This function creates a new, fresh instance of suspendable computation every time it is invoked.\n *\n * To start executing the created coroutine, invoke `resume(Unit)` on the returned [Continuation] instance.\n * The [completion] continuation is invoked when the coroutine completes with a result or an exception.\n * Subsequent invocation of any resume function on the resulting continuation will produce an [IllegalStateException].\n

*/\n@SinceKotlin(\"1.3\")\n@Suppress(\"UNCHECKED_CAST\")\npublic fun <T> (suspend () -> T).createCoroutine(\n   completion: Continuation<T>\n): Continuation<Unit> =\n SafeContinuation(createCoroutineUnintercepted(completion).intercepted(), COROUTINE_SUSPENDED)\n\n/**\n * Creates a coroutine with receiver type [R] and result type [T].\n * This function creates a new, fresh instance of suspendable computation every time it is invoked.\n *\n * To start executing the created coroutine, invoke `resume(Unit)` on the returned [Continuation] instance.\n * The [completion] continuation is invoked when the coroutine completes with a result or an exception.\n * Subsequent invocation of any resume function on the resulting continuation will produce an [IllegalStateException].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"UNCHECKED_CAST\")\npublic fun <R, T> (suspend R.() -> T).createCoroutine(\n   receiver: R,\n   completion: Continuation<T>\n): Continuation<Unit> =\n SafeContinuation(createCoroutineUnintercepted(receiver,

completion).intercepted(), COROUTINE_SUSPENDED)\n\n/**\n * Starts a coroutine without a receiver and with result type [T].\n * This function creates and starts a new, fresh instance of suspendable computation every time it is invoked.\n * The [completion] continuation is invoked when the coroutine completes with a result or an exception.\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"UNCHECKED_CAST\")\npublic fun <T> (suspend () -> T).startCoroutine(\n   completion: Continuation<T>\n) {\n createCoroutineUnintercepted(completion).intercepted().resume(Unit)\n}\n\n/**\n * Starts a coroutine with receiver type [R] and result type [T].\n * This function creates and starts a new, fresh instance of suspendable computation every time it is invoked.\n * The [completion] continuation is invoked when the coroutine completes with a result or an exception.\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"UNCHECKED_CAST\")\npublic fun <R, T> (suspend R.() ->

T).startCoroutine(\n   receiver: R,\n   completion: Continuation<T>\n) {\n createCoroutineUnintercepted(receiver, completion).intercepted().resume(Unit)\n}\n\n/**\n * Obtains the current continuation instance inside suspend functions and suspends\n * the currently running coroutine.\n *\n * In this function both [Continuation.resume] and [Continuation.resumeWithException] can be used either synchronously in\n * the same stack-frame where the suspension function is run or asynchronously later in the same thread or\n * from a different thread of execution. Subsequent invocation of any resume function will produce an [IllegalStateException].\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic suspend inline fun <T> suspendCoroutine(crossinline block: (Continuation<T>) -> Unit): T {\n   contract { callsInPlace(block, InvocationKind.EXACTLY_ONCE) }\n   return suspendCoroutineUninterceptedOrReturn { c: Continuation<T> ->\n   val safe = SafeContinuation(c.intercepted())\n   block(safe)\n   safe.getOrThrow()\n   }\n}\n\n/**\n * Returns the context of the current coroutine.\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"WRONG_MODIFIER_TARGET\")\n@InlineOnly\npublic suspend inline val coroutineContext: CoroutineContext\n   get() {\n   throw NotImplementedError(\"Implemented as intrinsic\")\n   }\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines.intrinsics\n\nimport kotlin.coroutines.*\nimport kotlin.internal.InlineOnly\n\n/**\n * Starts an unintercepted coroutine without a receiver and with result type [T] and executes it until its first suspension.\n * Returns the result of the coroutine or throws its exception if it does not suspend or [COROUTINE_SUSPENDED] if it suspends.\n * In the latter case, the [completion] continuation is invoked when the coroutine completes

with a result or an exception.\n *\n * The coroutine is started directly in the invoker's thread without going through the [ContinuationInterceptor] that might\n * be present in the completion's [CoroutineContext]. It is the invoker's responsibility to ensure that a proper invocation\n * context is established.\n *\n * This function is designed to be used from inside of [suspendCoroutineUninterceptedOrReturn] to resume the execution of the suspended\n * coroutine using a reference to the suspending function.\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic actual inline fun <T> (suspend () -> T).startCoroutineUninterceptedOrReturn(\n   completion: Continuation<T>\n): Any? = this.asDynamic()(completion, false)\n\n/**\n * Starts an unintercepted coroutine with receiver type [R] and result type [T] and executes it until its first suspension.\n * Returns the result of the coroutine or throws its exception if it does not suspend or [COROUTINE_SUSPENDED] if it suspends.\n * In the latter case, the [completion] continuation is invoked when the coroutine completes with a result or an exception.\n *\n * The coroutine is started directly in the invoker's thread without going through the [ContinuationInterceptor] that might\n * be present in the completion's [CoroutineContext]. It is the invoker's responsibility to ensure that a proper invocation\n * context is established.\n *\n * This function is designed to be used from inside of [suspendCoroutineUninterceptedOrReturn] to resume the execution of the suspended\n * coroutine using a reference to the suspending function.\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic actual inline fun <R, T> (suspend R.() -> T).startCoroutineUninterceptedOrReturn(\n receiver: R,\n completion: Continuation<T>\n): Any? = this.asDynamic()(receiver, completion, false)\n\n@InlineOnly\ninternal actual inline fun <R, P, T> (suspend R.(P) -> T).startCoroutineUninterceptedOrReturn(\n receiver: R,\n param: P,\n completion: Continuation<T>\n): Any? = this.asDynamic()(receiver, param, completion, false)\n\n/**\n * Creates unintercepted coroutine without receiver and with result type [T].\n * This function creates a new, fresh instance of suspendable computation every time it is invoked.\n *\n * To start executing the created coroutine, invoke `resume(Unit)` on the returned [Continuation] instance.\n * The [completion] continuation is invoked when coroutine completes with result or exception.\n *\n * This function returns unintercepted continuation.\n * Invocation of `resume(Unit)` starts coroutine immediately in the invoker's call stack without going through the\n * [ContinuationInterceptor] that might be present in the completion's [CoroutineContext].\n * It is the invoker's responsibility to ensure that a proper invocation context is established.\n * Note that [completion] of this function may get invoked in an arbitrary context.\n *\n * [Continuation.intercepted] can be used to acquire the intercepted continuation.\n * Invocation of `resume(Unit)` on intercepted continuation guarantees that execution of\n * both the coroutine and [completion] happens in the invocation context established by\n * [ContinuationInterceptor].\n *\n * Repeated invocation of any resume function on the resulting continuation corrupts the\n * state machine of the coroutine and may result in arbitrary behaviour or exception.\n */\n@SinceKotlin(\"1.3\")\npublic actual fun <T> (suspend () -> T).createCoroutineUnintercepted(\n completion: Continuation<T>\n): Continuation<Unit> =\n // Kotlin/JS suspend lambdas have an extra parameter `suspended`\n if (this.asDynamic().length == 2) {\n // When `suspended` is true the continuation is created, but not executed\n this.asDynamic()(completion, true)\n } else {\n createCoroutineFromSuspendFunction(completion) {\n this.asDynamic()(completion)\n }\n }\n\n/**\n * Creates unintercepted coroutine with receiver type [R] and result type [T].\n * This function creates a new, fresh instance of suspendable computation every time it is invoked.\n *\n * To start executing the created coroutine, invoke `resume(Unit)` on the returned [Continuation] instance.\n * The [completion] continuation is invoked when coroutine completes with result or exception.\n *\n * This function returns unintercepted continuation.\n * Invocation of `resume(Unit)` starts coroutine immediately in the invoker's call stack without going through the\n * [ContinuationInterceptor] that might be present in the completion's [CoroutineContext].\n * It is the invoker's responsibility to ensure that a proper invocation context is established.\n * Note that [completion] of this function may get invoked in an arbitrary context.\n *\n * [Continuation.intercepted] can be used to acquire the intercepted continuation.\n * Invocation of `resume(Unit)` on intercepted continuation guarantees that execution of\n * both the coroutine and [completion] happens in the invocation context established by\n * [ContinuationInterceptor].\n *\n * Repeated invocation of any resume function on the resulting continuation corrupts the\n * state machine of the coroutine and may result in arbitrary behaviour or exception.\n */\n@SinceKotlin(\"1.3\")\npublic actual fun <R, T> (suspend R.() -> T).createCoroutineUnintercepted(\n receiver: R,\n completion: Continuation<T>\n): Continuation<Unit> =\n // Kotlin/JS suspend lambdas have an extra parameter `suspended`\n if (this.asDynamic().length == 3) {\n // When `suspended` is true the continuation is created, but not executed\n this.asDynamic()(receiver, completion, true)\n } else {\n createCoroutineFromSuspendFunction(completion) {\n this.asDynamic()(receiver, completion)\n }\n }\n\n/**\n * Intercepts this continuation with [ContinuationInterceptor].\n *\n * This function shall be used on the immediate result of [createCoroutineUnintercepted] or [suspendCoroutineUninterceptedOrReturn],\n

* in which case it checks for [ContinuationInterceptor] in the continuation's [context][Continuation.context],\n * invokes [ContinuationInterceptor.interceptContinuation], caches and returns the result.\n *\n * If this function is invoked on other [Continuation] instances it returns `this` continuation unchanged.\n */\n@SinceKotlin(\"1.3\")\npublic actual fun <T> Continuation<T>.intercepted(): Continuation<T> =\n   (this as? CoroutineImpl)?.intercepted() ?: this\n\n\nprivate inline fun <T> createCoroutineFromSuspendFunction(\n   completion: Continuation<T>,\n   crossinline block: () -> Any?\n): Continuation<Unit> {\n   @Suppress(\"UNCHECKED_CAST\")\n   return object : CoroutineImpl(completion as Continuation<Any?>) {\n   override fun doResume(): Any? {\n   exception?.let { throw it }\n   return block()\n   }\n   }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n// Mirrors signature from JS IR BE\n// Used for js.translator/testData/box/number/mulInt32.kt\n@library\n@JsName(\"imulEmulated\")\n@Suppress(\"UNUSED_PARAMETER\")\ninternal fun imul(x: Int, y: Int): Int = definedExternally\n\n@Suppress(\"NOTHING_TO_INLINE\")\ninternal inline fun isArrayish(o: dynamic) = js(\"Kotlin\").isArrayish(o)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n// NOTE: Do not author your exceptions as they are written in this file, instead use this template:\n/*\npublic open class MyException : Exception {\n   constructor() : super()\n   constructor(message: String?) : super(message)\n   constructor(message: String?, cause: Throwable?) : super(message,

cause)\n   constructor(cause: Throwable?) : super(cause)\n}\n*/\n\n\n// TODO: remove primary constructors, make all secondary KT-22055\n\n@Suppress(\"USELESS_ELVIS_RIGHT_IS_NULL\")\npublic actual open class Error actual constructor(message: String?, cause: Throwable?) : Throwable(message, cause ?: null) {\n   actual constructor() : this(null, null)\n   actual constructor(message: String?) : this(message, null)\n   actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\n@Suppress(\"USELESS_ELVIS_RIGHT_IS_NULL\")\npublic actual open class Exception actual constructor(message: String?, cause: Throwable?) : Throwable(message, cause ?: null) {\n   actual constructor() : this(null, null)\n   actual constructor(message: String?) : this(message, null)\n   actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\npublic actual open class RuntimeException actual constructor(message: String?, cause: Throwable?) : Exception(message, cause) {\n   actual constructor()

: this(null, null)\n   actual constructor(message: String?) : this(message, null)\n   actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\npublic actual open class IllegalArgumentException actual constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\n   actual constructor() : this(null, null)\n   actual constructor(message: String?) : this(message, null)\n   actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\npublic actual open class IllegalStateException actual constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\n   actual constructor() : this(null, null)\n   actual constructor(message: String?) : this(message, null)\n   actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\npublic actual open class IndexOutOfBoundsException actual constructor(message: String?) : RuntimeException(message) {\n   actual constructor() : this(null)\n}\n\npublic actual open class

ConcurrentModificationException actual constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\n   actual constructor() : this(null, null)\n   actual constructor(message: String?) : this(message, null)\n   actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\npublic actual open class UnsupportedOperationException actual constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\n   actual constructor() : this(null, null)\n   actual constructor(message: String?) : this(message, null)\n   actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\n\npublic actual open class NumberFormatException actual constructor(message: String?) : IllegalArgumentException(message) {\n   actual constructor() : this(null)\n}\n\n\npublic actual open class

NullPointerException actual constructor(message: String?) : RuntimeException(message) {\n   actual constructor() : this(null)\n}\n\npublic actual open class ClassCastException
 actual constructor(message: String?) : RuntimeException(message) {\n   actual constructor() : this(null)\n}\n\npublic actual open class AssertionError\n@SinceKotlin(\"1.4\")\nconstructor(message: String?, cause: Throwable?) : Error(message, cause) {\n   actual constructor() : this(null)\n   constructor(message: String?) : this(message, null)\n   actual constructor(message: Any?) : this(message.toString(), message as? Throwable)\n}\n\npublic actual open class NoSuchElementException actual constructor(message: String?) : RuntimeException(message) {\n   actual constructor() : this(null)\n}\n\n@SinceKotlin(\"1.3\")\npublic actual open class ArithmeticException actual constructor(message: String?) : RuntimeException(message) {\n   actual constructor() : this(null)\n}\n\npublic actual open class NoWhenBranchMatchedException actual constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\n   actual constructor() : this(null, null)\n   actual
 constructor(message: String?) : this(message, null)\n   actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\npublic actual open class UninitializedPropertyAccessException actual constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\n   actual constructor() : this(null, null)\n   actual constructor(message: String?) : this(message, null)\n   actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. Use of this source code is governed by the Apache 2.0 license\n * that can be found in the license/LICENSE.txt file.\n */\n\n\n@file:Suppress(\"UNUSED_PARAMETER\")\n\npackage kotlin.js\n\n@kotlin.internal.InlineOnly\ninternal inline fun jsDeleteProperty(obj: Any, property: Any) {\n   js(\"delete obj[property]\")\n}\n\n@kotlin.internal.InlineOnly\ninternal inline fun jsBitwiseOr(lhs: Any?, rhs: Any?): Int =\n   js(\"lhs | rhs\").unsafeCast<Int>()","/*\n * Copyright 2010-2018 JetBrains
 s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.math\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n *\n * If [sign] is `NaN` the sign of the result is undefined.\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Double.withSign(sign: Double): Double {\n   val thisSignBit = js(\"Kotlin\").doubleSignBit(this).unsafeCast<Int>()\n   val newSignBit = js(\"Kotlin\").doubleSignBit(sign).unsafeCast<Int>()\n   return if (thisSignBit == newSignBit) this else -this\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n\n/**\n * Returns a bit representation of the specified floating-point value as [Long]\n * according to the IEEE 754 floating-point
 \"double format\" bit layout.\n */\n@SinceKotlin(\"1.2\")\n@library(\"doubleToBits\")\npublic actual fun Double.toBits(): Long = definedExternally\n\n/**\n * Returns a bit representation of the specified floating-point value as [Long]\n * according to the IEEE 754 floating-point \"double format\" bit layout,\n * preserving `NaN` values exact layout.\n */\n@SinceKotlin(\"1.2\")\n@library(\"doubleToRawBits\")\npublic actual fun Double.toRawBits(): Long = definedExternally\n\n/**\n * Returns the [Double] value corresponding to a given bit representation.\n */\n@SinceKotlin(\"1.2\")\n@kotlin.internal.InlineOnly\npublic actual inline fun Double.Companion.fromBits(bits: Long): Double = js(\"Kotlin\").doubleFromBits(bits).unsafeCast<Double>()\n\n/**\n * Returns a bit representation of the specified floating-point value as [Int]\n * according to the IEEE 754 floating-point \"single format\" bit layout.\n *\n * Note that in Kotlin/JS [Float] range is wider than \"single format\" bit layout
 can represent,\n * so some [Float] values may overflow, underflow or loose their accuracy after conversion to bits and back.\n */\n@SinceKotlin(\"1.2\")\n@library(\"floatToBits\")\npublic actual fun Float.toBits(): Int = definedExternally\n\n/**\n * Returns a bit representation of the specified floating-point value as [Int]\n * according to the IEEE 754 floating-point \"single format\" bit layout,\n * preserving `NaN` values exact layout.\n *\n * Note that in Kotlin/JS [Float] range is wider than \"single format\" bit layout can represent,\n * so some [Float] values may overflow, underflow or loose their accuracy after conversion to bits and back.\n

*/\n@SinceKotlin(\"1.2\")\n@library(\"floatToRawBits\")\npublic actual fun Float.toRawBits(): Int =
definedExternally\n\n/**\n * Returns the [Float] value corresponding to a given bit representation.\n
*/\n@SinceKotlin(\"1.2\")\n@kotlin.internal.InlineOnly\npublic actual inline fun Float.Companion.fromBits(bits:
Int): Float =
js(\"Kotlin\").floatFromBits(bits).unsafeCast<Float>()\n\n\n@Suppress(\"NOTHING_TO_INLINE\")\ninternal
inline fun Long(low: Int, high: Int) = js(\"Kotlin\").Long.fromBits(low, high).unsafeCast<Long>()\ninternal inline
val Long.low: Int get() = this.asDynamic().getLowBits().unsafeCast<Int>()\ninternal inline val Long.high: Int get()
= this.asDynamic().getHighBits().unsafeCast<Int>()\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\nimport kotlin.reflect.KClass\n\n@PublishedApi\ninternal fun <T :
Annotation> KClass<*>.findAssociatedObject(@Suppress(\"UNUSED_PARAMETER\") annotationClass:
KClass<T>): Any? {\n   // This API is not supported in js-v1. Return `null` to be source-compatible with js-ir.\n
return null\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n *
Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.text\n\n/**\n * Returns a string representation of this [Long] value in the specified [radix].\n *\n * @throws
IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n
*/\n@SinceKotlin(\"1.2\")\npublic actual fun Long.toString(radix: Int): String =
asDynamic().toString(checkRadix(radix))","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage
kotlin.js\n\n@PublishedApi\n@Suppress(\"NOTHING_TO_INLINE\")\n@JsPolyfill(\"\"\"\nif (typeof
Array.prototype.fill === \"undefined\") {\n   // Polyfill from https://developer.mozilla.org/en-
US/docs/Web/JavaScript/Reference/Global_Objects/Array/fill#Polyfill\n   Object.defineProperty(Array.prototype,
'fill', {\n   value: function
(value) {\n   // Steps 1-2.\n   if (this == null) {\n   throw new TypeError('this is null or not
defined');\n   }\n\n   var O = Object(this);\n\n   // Steps 3-5.\n   var len = O.length >>> 0;\n\n
// Steps 6-7.\n   var start = arguments[1];\n   var relativeStart = start >> 0;\n\n   // Step 8.\n
var k = relativeStart < 0 ?\n   Math.max(len + relativeStart, 0) :\n   Math.min(relativeStart,
len);\n\n   // Steps 9-10.\n   var end = arguments[2];\n   var relativeEnd = end === undefined ?\n
len : end >> 0;\n\n   // Step 11.\n   var finalValue = relativeEnd < 0 ?\n
Math.max(len + relativeEnd, 0) :\n   Math.min(relativeEnd, len);\n\n   // Step 12.\n
while (k < finalValue) {\n   O[k] = value;\n
k++;\n   }\n\n   // Step 13.\n   return O;\n   }\n   });\n}\n\n[Int8Array, Int16Array,
Uint16Array, Int32Array, Float32Array, Float64Array].forEach(function (TypedArray) {\n   if (typeof
TypedArray.prototype.fill === \"undefined\") {\n   Object.defineProperty(TypedArray.prototype, 'fill', {\n
value: Array.prototype.fill\n   });\n   }\n})\n\"\"\")\ninternal inline fun Any.nativeFill(element: Any?, fromIndex:
Int, toIndex: Int): Unit {\n   asDynamic().fill(element, fromIndex, toIndex)\n}\n","/*\n * Copyright 2010-2021
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.js\n\n@PublishedApi\n@Suppress(\"NOTHING_TO_INLINE\")\n@JsPolyfill(\"\"\"\n[Int8Array,
Int16Array, Uint16Array, Int32Array, Float32Array, Float64Array].forEach(function (TypedArray) {\n   if (typeof
TypedArray.prototype.sort === \"undefined\") {\n   Object.defineProperty(TypedArray.prototype, 'sort', {\n
value: function(compareFunction) {\n   compareFunction = compareFunction || function (a, b) {\n
if (a < b) return -1;\n   if (a > b) return 1;\n   if (a === b) {\n   if (a !== 0) return
0;\n   var ia = 1 / a;\n   return ia === 1 / b ? 0 : (ia < 0 ? -1 : 1);\n   }\n
return a !== a ? (b !== b ? 0 : 1) : -1\n   }\n   return Array.prototype.sort.call(this, compareFunction
|| totalOrderComparator);\n   }\n   });\n   }\n})\n\"\"\")\ninternal inline fun Any.nativeSort(noinline

comparison: (a: dynamic, b: dynamic) -> Int = js(\"undefined\")): Unit {\n   asDynamic().sort(comparison)\n}","/*\n
* Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n
 * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n//
See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\n// 1343 ranges totally\nprivate object
Category {\n   val decodedRangeStart: IntArray\n   val decodedRangeCategory: IntArray\n   \n   init {\n   val
toBase64 = \"ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789+/\"\n   val
fromBase64 = IntArray(128)\n   for (i in toBase64.indices) {\n   fromBase64[toBase64[i].code] = i\n
}\n   \n   // rangeStartDiff.length = 1482\n   val rangeStartDiff =
\"gBCFEDCKCDCaDDaDBhBCEEDDDDDEDXBHYBH5BRwBGDCHDCIDFHDCHFDCDEIRTEE7BGHDDJl
CBbSEMOFGERwDEDDDDECEFCRBJhBFDCYFFCCzBvBjBBFC3BOhDBmBDGpBDDCtBBJIbEECLGDFC
LDCgBBKVKEDiDDHCFECECKCEODBebC5CLBOKhBJDDDDWEBHFCFCPBZDEL1BVBSLPBgBB2BDB
DICFBHKCCKCPDBHEDWBHEDDDDEDEDIBDGDCKCCGDDDCGECCWBFMDDCDEDDCHDDHKDDBK
DBHFCWBFGFDBDDFEDBPDDKCHBGDCHEDWBFGFDCEDEDBHDDGDCKCGJEGDBFDDFDDDDDME
FDBFDCGBOKDFDFDCGFCXBQDDDDDBEGEDFDDKHBHDDGFCXBKBFCEFCFCHCHECCKDNCCHFC
oBEDECFDDDDHDCCKJBGDCSDYBJEHBFDDEBIGKDCMuBFHEBGBIBKCkBFBFBXEIFJDFDGCKCEgB
BDPEDGKKGECIBkBEOBDFFLBkBBIBEFFEClBrBCEBEGDBKGGDDDDDCHDENDCFEKDDlBDDFrBCD
pKBECGEECpBBEChBBECGEECPB5BBECjCCDJUDQKG2CCGDsTCRBaCDrCDDIHNBEDLSDCJSCMLFC
CM0BDHGFLBFDDKGKGEFDDBKGjBB1BHFChBDFmCKfDDDDDDCGDCFDKeCFLsBEaGKBDiBXDDD1
BDGDEIGJEKGKGHBGCMF/BEBvBCEDDFHEKHKJJDDeDDGDKsBFEDCIEkBIICCDFKDDKeGCJHrBCDI
IDBNBHEBEFDBFsB/BNBiBlB6BBF1EIiDJIGCGCIIIIGCGCIIIIOCIIIIIIDFEDDBFEDDDDEBDIFDDFEDBLF
GCEEICFBJCDEDCLDKBFBKCCGDDKDDNDgBQNEBDMPFFDEDEBFFHECEBEEDFBEDDQjBCEDEFFC
CJHBeEEfsIIEUCHCxCBeZoBGlCZLV8BuCW3FBJB2BIvDB4HOesBFCfKQgIjEW/BEgBCiIwBVCGnBCgBBp
DvBBuBEDBHEFGCCjDCGEDCFCFlBDDF4BHCOBXJHBHBHBHBHBHBHBHBgBCECGHGEDIFBKCEDM
EtBaB5CM2GaMEDDCKCGFCJEDFDDDC2CDDDB6CDCFrBB+CDEKgBkBMQfBKeIBPgBKnBPgKguGgC9
vUDVB3jBD3BJoBGCsIBDQKCUuBDDKCcCCmCKCGIXJCNC/BBHGKDECEVFBEMCEEBqBDDGDFDXD
CEBDGEG0BEICyBQCICKGSGDEBKcICXLCLBdDDBvBDECCDNCKECFCJKFBpBFEDCJDBICCKCEQBG
DDByBEDCEFBYDCLEDDCKGCGCGJHBHBrBBEJDEwCjBIDCKGk9KMXExBEggCgoGuLCqDmBHMFFC
KBNBFBIsDQRrLCQgCC2BoBMCCQGEGQDCQDDDDFDGDECEEFBnEEBFEDCKCDCaDDaDBFCKBtBCf
DGCGCFEDDDDCECKDC\"\n
        val diff = decodeVarLenBase64(rangeStartDiff, fromBase64, 1342)\n   val start = IntArray(diff.size + 1)\n
   for (i in diff.indices) {\n   start[i + 1] = start[i] + diff[i]\n   }\n   decodedRangeStart = start\n   \n
// rangeCategory.length = 2033\n   val rangeCategory =
\"PsY44a41W54UYJYZYB14W7XC15WZPsYa84bl9Zw8b85Lr7C44brlerrYBZBCZCiBiBiBhCiiBhChiBhiCBhh
ChiCihBhChCChiBhChiClBCFhjCiBiBihDhiBhCCihBiBBhCCFCEbEbEb7EbGhCk7BixRkiCi4BRbh4BhRhCBR
BCiiBBCiBChiZBCBCiBcGHhChCiBRBxxEYC40Rx8c6RGUm4GRFRFYRQZ44acG4wRYFEFGJYllGFlYGwc
GmkEmcGFJFl8cYxwFGFGRFGFRJFGkkcYkxRm6aFGEGmmEmEGRYRFGxxYFRFRFRGQGIFmIFIGIooGF
GFGYJ4EFmoIRFlxRlxRFRFxlRxlFllRxmFIGxxIoxRomFRIRxlFlmGRJFaL86F4mRxmGoRFRFRFRFllRxGIGR
xmGxmGmxRxGRFlRRJmmFllGYRmmIRFllRlRFRFllRFxxGFIGmmRoxImxRFRllGmxRJ4aRFGxmIoRFlxRlxR
FRFllRFxxGlImoGmmRxoIxoIGRmmIRxlFlmGRJ8FLRxmFFRFllRllRxxFlRlxRxlFRFRFRooGRIooRomRxFRIR
JLc8aRmoIoGFllRlRFRFRlmGmoIooRGRGRxmGFRllGmxRJRYL8lGooYFllRlRFRFRFRmlIIxGooRGRIRlxFG
RJxlFRGIFllRlRFlmGIGxIooRomF8xRxxFllILFGRJLcFxmIoRFRFRFxlRFRxxGxxIooGmmRRIRJxxIoYRFllGG
RaFEGYJYRxlFRFRFlRFllGGlxRFxEGRJRFRFcY84c8mGcJL8G1WIFRFRGIGmmYFGRGRcGc88RYcYRFIGI
GmmIomGFJYFooGmlFllGmmFIFIFGFmoIGIomFJIm8cBhRRxxBC4ECFRFRFlRFRFRFRFRFRFlRFRFRFRFR
FRGYLRFcRBRCxxUF8YFMF1WRFYKFRFRFGRFGYRFGRFllRlRGRFmmIGIooGGY44E46FmxRJRLRY44
U44GmmQRJRFEFRFGFlGRFRFxmGmoIooGmoIoxRxxIoGIGRxxcx4YJFRFRFRFRJLRcFmmIomRx4YFoGG
mRomIGIGmxRJRJRYEYRGmmHRGIFmIGmIIooGFRJYcGcRmmIFomGmmIomGmlFJFmoGooGGIRYFIGIG
RYJRFJFEYCRBRBYRGYGIGFGFllGomGFRCECECEGRGhCCiBCBCRBRCBCBCRBRCxBCBCRCDCDCD

CiiRBj7CbCiiRBj7b7iCiiRxiCBRbCBbxxCiiRBj7bRMQUY9+V9+VYtOQMY9eY43X44Z1WY54XYMQRQrER
LZ12ELZ12RERaRGHGHGR88B88BihBhiChhC8hcZBc8BB8CBCFi8cihBZBC8Z8CLKhCKr8cRZcZc88ZcZc85
Z8ZcZc1WcZc1WcZcZcZcRcRLcLcZcZcZcZc1WLcZ1WZ1WZcZ1WZ1WZ1WZcZcZcRcRcBRCixBBCiBBihC
CEBhCCchCGhCRY44LCiRRxxCFRkYRGFRFRFRFRFRFRFRFRFRGY9eY49eY44U49e49e1WYEYUY04VY
48cRcRcRcRcRs4Y48ElK1Wc1W12U2cKGooUE88KqqEl4c8RFxxGm7bkkFUF4kEkFRFRFx8cLcFcRFcRLcLc
LcLcLcFcFRFEFRcRFEYFEYFJFRhClmHnnYG4EhCEGFKGYRbEbhCCiBECiBhCk7bhClBihCiBBCBhCRhiBh
hCCRhiFkkCFlGllGllGFooGmIcGRL88aRFYRIFIGRYJRGFYl4FGJFGYFGIRYFRGIFmoIGIGIYxEJRYFmEFJ
FRFGmoImoIGRFGFmIRJRYFEFcloGIFmlGmlFGFlmGFRllEYFomGo4YlkEoGRFRFRFRFRFRCbECk7bRCFo
oG4oGRJRFRFRFRTSFRFRCRCRlGFZFRFRlxFFbRF2VRFRFRF6cRGY41WRG40UX1W44V24Y44X33Y44R
44U1WY50Z5R46YRFRFxxQY44a41W54UYJYZYB14W7XC15WZ12YYFEFEFRFRFRFlxRllRxxa65b86axcZc
RQcR\"\n

decodedRangeCategory = decodeVarLenBase64(rangeCategory, fromBase64, 1343)\n   }\n}\n\nprivate fun categoryValueFrom(code: Int, ch: Int): Int {\n   return when {\n   code < 0x20 -> code\n   code < 0x400 -> if ((ch and 1) == 1) code shr 5 else code and 0x1f\n   else ->\n   when (ch % 3) {\n   2 -> code shr 10\n   1 -> (code

shr 5) and 0x1f\n   else -> code and 0x1f\n   }\n   }\n}\n\n/**\n * Returns the Unicode general category of this character as an Int.\n */\ninternal fun Char.getCategoryValue(): Int {\n   val ch = this.code\n\n   val index = binarySearchRange(Category.decodedRangeStart, ch)\n   val start = Category.decodedRangeStart[index]\n   val code = Category.decodedRangeCategory[index]\n   val value = categoryValueFrom(code, ch - start)\n\n   return if (value == 17) CharCategory.UNASSIGNED.value else value\n}\n\ninternal fun decodeVarLenBase64(base64: String, fromBase64: IntArray, resultLength: Int): IntArray {\n   val result = IntArray(resultLength)\n   var index = 0\n   var int = 0\n   var shift = 0\n   for (char in base64) {\n   val sixBit = fromBase64[char.code]\n   int = int or ((sixBit and 0x1f) shl shift)\n   if (sixBit < 0x20) {\n   result[index++] = int\n   int = 0\n   shift = 0\n   } else {\n   shift

+= 5\n   }\n   }\n   return result\n}\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.js.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Reverses elements in the list in-place.\n */\npublic actual fun <T> MutableList<T>.reverse(): Unit {\n   val midPoint = (size / 2) - 1\n   if (midPoint < 0) return\n   var reverseIndex = lastIndex\n   for (index in 0..midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n

* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\n// 37 ranges totally\nprivate object Digit {\n   internal val rangeStart = intArrayOf(\n   0x0030, 0x0660, 0x06f0, 0x07c0, 0x0966, 0x09e6, 0x0a66, 0x0ae6, 0x0b66, 0x0be6, 0x0c66, 0x0ce6, 0x0d66, 0x0de6, 0x0e50, 0x0ed0, 0x0f20, 0x1040, 0x1090, 0x17e0, \n   0x1810, 0x1946, 0x19d0, 0x1a80, 0x1a90, 0x1b50, 0x1bb0, 0x1c40, 0x1c50, 0xa620, 0xa8d0, 0xa900, 0xa9d0, 0xa9f0, 0xaa50, 0xabf0, 0xff10, \n   )\n}\n\n/**\n * Returns the index of the largest element in [array] smaller or equal to the specified [needle],\n * or -1 if [needle] is smaller than the smallest element in [array].\n */\ninternal fun binarySearchRange(array: IntArray, needle: Int): Int {\n   var bottom = 0\n

var top = array.size - 1\n   var middle = -1\n   var value = 0\n   while (bottom <= top) {\n   middle = (bottom + top) / 2\n   value = array[middle]\n   if (needle > value)\n   bottom = middle + 1\n   else if (needle == value)\n   return middle\n   else\n   top = middle - 1\n   }\n   return middle - (if (needle < value) 1 else 0)\n}\n\n/**\n * Returns an integer from 0..9 indicating the digit this character represents,\n * or -1 if this character is not a digit.\n */\ninternal fun Char.digitToIntImpl(): Int {\n   val ch = this.code\n   val index = binarySearchRange(Digit.rangeStart, ch)\n   val diff = ch - Digit.rangeStart[index]\n   return if (diff < 10) diff else -

```
1\n}\n\n/**\n * Returns `true` if this character is a digit.\n */\ninternal fun Char.isDigitImpl(): Boolean {\n    return
digitToIntImpl() >= 0\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source
 code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\n// 222 ranges totally\nprivate object Letter {\n
val decodedRangeStart: IntArray\n    val decodedRangeLength: IntArray\n    val decodedRangeCategory: IntArray\n
  \n    init {\n        val toBase64 =
\"ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789+/\"\n        val fromBase64 =
IntArray(128)\n        for (i in toBase64.indices) {\n            fromBase64[toBase64[i].code] = i\n        }\n        \n        //
rangeStartDiff.length = 356\n        val rangeStartDiff =
\"hCgBpCQGYHZH5BRpBPPPPPPRMP5BPPlCPP6BkEPPPPcPXPzBvBrB3BOiDoBHwD+E3DauCnFmBmB2D
6E1BlBTiBmBlBP5BhBiBrBvBjBqBnBPRtBiCmCtBlB0BmB5BiB7BmBgEmChBZgCoEoGVpBSfRhBPqKQ2B
wBYoFgB4CJuTiEvBuCuDrF5DgEgFlJ1DgFmBQtBsBRGsB+BPiBlD1EIjDPRPPPQPPPPPGQSQS/DxENVNU+
B9zCwBwBPPCkDPNnBPqDYY1R8B7FkFgTgwGgwUwmBgKwBuBScmEP/BPPPPPPrBP8B7F1B/ErBqC6B7B
iBmBfQsBUwCw/KwqIwLwETPcPjQgJxFgBlBsD\"\n
        val diff = decodeVarLenBase64(rangeStartDiff, fromBase64, 222)\n        val start = IntArray(diff.size)\n
for (i in diff.indices) {\n            if (i == 0) start[i] = diff[i]\n            else start[i] = start[i - 1] + diff[i]\n        }\n
decodedRangeStart = start\n        \n        // rangeLength.length = 328\n        val rangeLength =
\"aaMBXHYH5BRpBPPPPPPRMP5BPPlCPPzBDOOPPcPXPzBvBjB3BOhDmBBpB7DoDYxB+EiBP1DoExBkB
QhBekBPmBgBhBctBiBMWOOXhCsBpBkBUV3Ba4BkB0DlCgBXgBtD4FSdBfPhBPpKP0BvBXjEQ2CGsT8Dh
BtCqDpFvD1D3E0IrD2EkBJrBDOBsB+BPiBlB1EIjDPPPPPPPPPPPGPPMNLsBNPNPKCvBvBPPCkDPBmBPh
DXXgD4B6FzEgDguG9vUtkB9JcuBSckEP/BPPPPPPBPf4FrBjEhBpC3B5BKaWPrBOwCk/KsCuLqDHPbPxPsFt
EaaqDL\"\n        decodedRangeLength = decodeVarLenBase64(rangeLength, fromBase64, 222)\n        \n        //
rangeCategory.length = 959\n        val rangeCategory =
\"GFjgggUHGGFFZZZmzpz5qB6s6020B60ptltB6smt2sB60mz22B1+vv+8BZZ5s2850BW5q1ymtB506smzBF3q1
q1qB1q1q1+Bgii4wDTm74g3KiggxqM60q1q1Bq1o1q1BF1qlrqrBZ2q5wprBGFZWWZGHFsjiooLowgmOowjkw
CkgoiIk7ligGogiioBkwkiYkzj2oNoi+sbkwj04DghhkQ8wgiYkgoioDsgnkwC4gikQ//v+85BkwvoIsgoyI4yguI0whiw
Eowri4CoghsJowgqYowgm4DkwgsY/nwnzPowhmYkg6wI8yggZswikwHgxgmIoxgqYkwgk4DkxgmIkgoioBsgsso
BgzgyI8g9gL8g9kI0wgwJoxgkoC0wgioFkw/wI0w53iF4gioYowjmgBHGq1qkgwBF1q1q8qBHwghuIwghyKk0go
QkwgoQk3goQHGFHkyg0pBgxj6IoinkxDswno7Ikwhz9Bo0gioB8z48Rwli0xN0mpjoX8w78pDwltoqKHFGGwwg
sIHFH3q1q16BFHWFZ1q10q1B2qlwq1B1q10q1B2q1yq1B6q1gq1Biq1qhxBir1qp1Bqt1q1qB1g1q1+B//3q16B///q
1qBH/qlqq9Bholqq9B1i00a1q10qD1op1HkwmigEigiy6Cptogq1Bixo1kDq7/j00B2qgoBWGFm1lz50B6s5q1+BG
WhggzhwBFFhgk4//Bo2jigE8wguI8wguI8wgugUog1qoB4qjmIwwi2KgkYHHH4lBgiFWkgIWoghssMmz5smrBZ
3q1y50B5sm7gzBtz1smzB5smz50BqzqtmzB5sgzqzBF2/9//5BowgoIwmnkzPkwgk4C8ys65BkgoqI0wgy6FghquZo
2giY0ghiIsgh24B4ghsQ8QF/v1q1OFs0O8iCHHF1qggz/B8wg6Iznv+//B08QgohsjK0QGFk7hsQ4gB\"\n
        decodedRangeCategory = decodeVarLenBase64(rangeCategory,
 fromBase64, 222)\n    }\n}\n\n/**\n * Returns `true` if this character is a letter.\n */\ninternal fun
Char.isLetterImpl(): Boolean {\n    return getLetterType() != 0\n}\n\n/**\n * Returns `true` if this character is a
lower case letter, or it has contributory property `Other_Lowercase`.\n */\ninternal fun Char.isLowerCaseImpl():
Boolean {\n    return getLetterType() == 1 || code.isOtherLowercase()\n}\n\n/**\n * Returns `true` if this character is
an upper case letter, or it has contributory property `Other_Uppercase`.\n */\ninternal fun Char.isUpperCaseImpl():
Boolean {\n    return getLetterType() == 2 || code.isOtherUppercase()\n}\n\n/**\n * Returns\n *   - `1` if the
character is a lower case letter,\n *   - `2` if the character is an upper case letter,\n *   - `3` if the character is a letter
but not a lower or upper case letter,\n *   - `0` otherwise.\n */\nprivate fun Char.getLetterType(): Int {\n    val ch =
this.code\n    val index = binarySearchRange(Letter.decodedRangeStart,
 ch)\n\n    val rangeStart = Letter.decodedRangeStart[index]\n    val rangeEnd = rangeStart +
Letter.decodedRangeLength[index] - 1\n    val code = Letter.decodedRangeCategory[index]\n\n    if (ch > rangeEnd)
```

{\n return 0\n }\n\n val lastTwoBits = code and 0x3\n\n if (lastTwoBits == 0) { // gap pattern\n var shift = 2\n var threshold = rangeStart\n for (i in 0..1) {\n threshold += (code shr shift) and 0x7f\n if (threshold > ch) {\n return 3\n }\n shift += 7\n threshold += (code shr shift) and 0x7f\n if (threshold > ch) {\n return 0\n }\n shift += 7\n }\n return 3\n }\n\n if (code <= 0x7) {\n return lastTwoBits\n }\n\n val distance = (ch - rangeStart)\n val shift = if (code <= 0x1F) distance % 2 else distance\n return (code shr (2 * shift)) and 0x3\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nprivate object OtherLowercase {\n internal val otherLowerStart = intArrayOf(\n 0x00aa, 0x00ba, 0x02b0, 0x02c0, 0x02e0, 0x0345, 0x037a, 0x1d2c, 0x1d78, 0x1d9b, 0x2071, 0x207f, 0x2090, 0x2170, 0x24d0, 0x2c7c, 0xa69c, 0xa770, 0xa7f8, 0xab5c, \n)\n internal val otherLowerLength = intArrayOf(\n 1, 1, 9, 2, 5, 1, 1, 63, 1, 37, 1, 1, 13, 16, 26, 2, 2, 1, 2, 4, \n)\n}\n\ninternal fun Int.isOtherLowercase(): Boolean {\n val index = binarySearchRange(OtherLowercase.otherLowerStart, this)\n return index >= 0 && this < OtherLowercase.otherLowerStart[index] + OtherLowercase.otherLowerLength[index]\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\ninternal fun Int.isOtherUppercase(): Boolean {\n return this in 0x2160..0x216f\n || this in 0x24b6..0x24cf\n}\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.js.*\n\n/**\n * Returns a character at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this char sequence.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun CharSequence.elementAt(index: Int): Char {\n return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, length: $length}\") }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\n// 4 ranges totally\ninternal fun Char.titlecaseCharImpl(): Char {\n val code = this.code\n // Letters repeating <Lu, Lt, Ll> sequence and code of the Lt is a multiple of 3, e.g. <\u01c4, \u01c5, \u01c6>\n if (code in 0x01c4..0x01cc || code in 0x01f1..0x01f3) {\n return (3 * ((code + 1) / 3)).toChar()\n }\n // Lower case letters whose title case mapping equivalent is equal to the original letter\n if (code in 0x10d0..0x10fa || code in 0x10fd..0x10ff) {\n return this\n }\n return uppercaseChar()\n}","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.js.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun UIntArray.elementAt(index: Int): UInt {\n return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun ULongArray.elementAt(index: Int): ULong {\n return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun UByteArray.elementAt(index: Int): UByte {\n return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun UShortArray.elementAt(index: Int): UShort {\n return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun UIntArray.asList(): List<UInt> {\n return object : AbstractList<UInt>(), RandomAccess {\n override val size: Int get() = this@asList.size\n override fun isEmpty(): Boolean = this@asList.isEmpty()\n override fun contains(element: UInt): Boolean = this@asList.contains(element)\n override fun get(index: Int): UInt {\n AbstractList.checkElementIndex(index, size)\n return this@asList[index]\n }\n override fun indexOf(element: UInt): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is UInt) return -1\n return this@asList.indexOf(element)\n }\n override fun lastIndexOf(element: UInt): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is UInt) return -1\n return this@asList.lastIndexOf(element)\n }\n }\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun ULongArray.asList(): List<ULong> {\n return object : AbstractList<ULong>(), RandomAccess {\n override val size: Int get() = this@asList.size\n override fun isEmpty(): Boolean = this@asList.isEmpty()\n override fun contains(element: ULong): Boolean = this@asList.contains(element)\n override fun get(index: Int): ULong {\n AbstractList.checkElementIndex(index, size)\n return this@asList[index]\n }\n override fun indexOf(element: ULong): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is ULong) return -1\n return this@asList.indexOf(element)\n }\n override fun lastIndexOf(element: ULong): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is ULong) return -1\n return this@asList.lastIndexOf(element)\n }\n }\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun UByteArray.asList(): List<UByte> {\n return object : AbstractList<UByte>(), RandomAccess {\n override val size: Int get() = this@asList.size\n override fun isEmpty(): Boolean = this@asList.isEmpty()\n override fun contains(element: UByte): Boolean = this@asList.contains(element)\n override fun get(index: Int): UByte {\n AbstractList.checkElementIndex(index, size)\n return this@asList[index]\n }\n override fun indexOf(element: UByte): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is UByte) return -1\n return this@asList.indexOf(element)\n }\n override fun lastIndexOf(element: UByte): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is UByte) return -1\n return this@asList.lastIndexOf(element)\n }\n }\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun UShortArray.asList(): List<UShort> {\n return object : AbstractList<UShort>(), RandomAccess {\n override val size: Int get() = this@asList.size\n override fun isEmpty(): Boolean = this@asList.isEmpty()\n override fun contains(element: UShort): Boolean = this@asList.contains(element)\n override fun get(index: Int): UShort {\n AbstractList.checkElementIndex(index, size)\n return this@asList[index]\n }\n override fun indexOf(element: UShort): Int {\n

@Suppress(\"USELESS_CAST\")\n   if ((element as Any?) !is UShort) return -1\n   return this@asList.indexOf(element)\n   }\n   override fun lastIndexOf(element: UShort): Int {\n   @Suppress(\"USELESS_CAST\")\n   if ((element as Any?) !is UShort) return -1\n   return this@asList.lastIndexOf(element)\n   }\n }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\n// 9 ranges totally\n/**\n * Returns `true` if this character is a whitespace.\n */\ninternal fun Char.isWhitespaceImpl(): Boolean {\n val ch = this.code\n return ch in 0x0009..0x000d\n || ch in 0x001c..0x0020\n || ch == 0x00a0\n || ch > 0x1000 && (\n   ch == 0x1680\n || ch in 0x2000..0x200a\n || ch == 0x2028\n || ch == 0x2029\n || ch == 0x202f\n || ch == 0x205f\n || ch == 0x3000\n   )\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n\npublic actual fun interface Comparator<T> {\n @JsName(\"compare\")\n public actual fun compare(a: T, b: T): Int\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\nimport kotlin.annotation.AnnotationTarget.*\n\n@Target(FUNCTION)\n@Deprecated(\"Use inline extension function with body using dynamic\")\npublic annotation class nativeGetter\n\n@Target(FUNCTION)\n@Deprecated(\"Use inline extension function with body using dynamic\")\npublic annotation class nativeSetter\n\n@Target(FUNCTION)\n@Deprecated(\"Use inline extension function with body using dynamic\")\npublic annotation class nativeInvoke\n\n@Target(CLASS, FUNCTION, PROPERTY)\ninternal annotation class library(public val name: String = \"\")\n\n@Target(CLASS)\ninternal annotation class marker\n\n/**\n * Gives a declaration (a function, a property or a class) specific name in JavaScript.\n *\n * This may be useful in the following cases:\n *\n * * There are two functions for which the compiler gives same name in JavaScript, you can\n *   mark one with `@JsName(...)` to prevent the compiler from reporting error.\n * * You are writing a JavaScript library in Kotlin. The compiler produces mangled names\n *   for functions with parameters, which is unnatural for usual JavaScript developer.\n *   You can put `@JsName(...)` on functions you want to be available from JavaScript.\n * * For some reason you want to rename declaration, e.g. there's common term in JavaScript\n *   for a concept provided by the declaration, which in uncommon in Kotlin.\n *\n * Example:\n *\n * ``` kotlin\n * class Person(val name: String) {\n *   fun hello() {\n *   println(\"Hello $name!\")\n *   }\n *\n *   @JsName(\"helloWithGreeting\")\n *   fun hello(greeting: String) {\n *   println(\"$greeting $name!\")\n *   }\n * }\n * ```\n *\n * @property name the name which compiler uses both for declaration itself and for all references to the declaration.\n *   It's required to denote a valid JavaScript identifier.\n *\n */\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, FUNCTION, PROPERTY, CONSTRUCTOR, PROPERTY_GETTER, PROPERTY_SETTER)\npublic actual annotation class JsName(actual val name: String)\n\n/**\n * Denotes an `external` declaration that must be imported from native JavaScript library.\n *\n * The compiler produces the code relevant for the target module system, for example, in case of CommonJS,\n * it will import the declaration via the `require(...)` function.\n *\n * The annotation can be used on top-level external declarations (classes, properties, functions) and files.\n * In case of file (which can't be `external`) the following rule applies: all the declarations in\n * the file must be `external`. By applying `@JsModule(...)` on a file you tell the compiler to import a JavaScript object\n * that contain all the declarations from the file.\n *\n * Example:\n *\n * ``` kotlin\n * @JsModule(\"jquery\")\n * external abstract class JQuery() {\n *   // some declarations here\n * }\n *\n * @JsModule(\"jquery\")\n * external fun JQuery(element: Element): JQuery\n * ```\n *\n * @property import name of a module to import declaration from.\n *   It is not interpreted by the Kotlin compiler, it's passed as is directly to the target module system.\n *\n * @see JsNonModule\n */\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS,

```
PROPERTY, FUNCTION, FILE)\npublic annotation class JsModule(val import: String)\n\n/**\n * Denotes an
`external` declaration that can be used without module system.\n *\n * By default, an `external` declaration is
available regardless your target module system.\n * However, by applying [JsModule] annotation you can make a
declaration unavailable to *plain* module system.\n * Some JavaScript libraries are distributed both as a standalone
downloadable piece of JavaScript and as a module available\n * as an npm package.\n * To tell the Kotlin compiler
to accept both cases, you can augment [JsModule] with the `@JsNonModule` annotation.\n *\n * For example:\n *\n
 * ``` kotlin\n * @JsModule(\"jquery\")\n * @JsNonModule\n * @JsName(\"$\")\n * external abstract class
JQuery() {\n *     // some declarations here\n * }\n *\n * @JsModule(\"jquery\")\n * @JsNonModule\n *
@JsName(\"$\")\n * external fun JQuery(element: Element): JQuery\n * ```\n *\n * @see JsModule\n
*/\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\npublic
annotation class JsNonModule\n\n/**\n * Adds prefix to `external` declarations in a source file.\n *\n * JavaScript
does not have concept of packages (namespaces). They are usually emulated by nested objects.\n * The compiler
turns references to `external` declarations either to plain unprefixed names (in case of *plain* modules)\n * or to
plain imports.\n * However, if a JavaScript library provides its declarations in packages, you won't be satisfied with
this.\n * You can tell the compiler to generate additional prefix before references to `external` declarations using the
`@JsQualifier(...)`\n
 * annotation.\n *\n * Note that a file marked with the `@JsQualifier(...)` annotation can't contain non-`external`
declarations.\n *\n * Example:\n *\n * ```\n * @file:JsQualifier(\"my.jsPackageName\")\n * package
some.kotlinPackage\n *\n * external fun foo(x: Int)\n *\n * external fun bar(): String\n * ```\n *\n * @property value
the qualifier to add to the declarations in the generated code.\n *           It must be a sequence of valid JavaScript
identifiers separated by the `.` character.\n *           Examples of valid qualifiers are: `foo`, `bar.Baz`, `_.$0.f`.\n *\n *
@see JsModule\n */\n@Retention(AnnotationRetention.BINARY)\n@Target(AnnotationTarget.FILE)\npublic
annotation class JsQualifier(val value: String)\n\n/**\n * Exports top-level declaration on JS platform.\n *\n *
Compiled module exposes declarations that are marked with this annotation without name mangling.\n *\n * This
annotation can be applied to either files or top-level declarations.\n *\n * It is currently prohibited
 to export the following kinds of declarations:\n *\n *   * `expect` declarations\n *   * inline functions with reified
type parameters\n *   * suspend functions\n *   * secondary constructors without `@JsName`\n *   * extension
properties\n *   * enum classes\n *   * annotation classes\n *\n * Signatures of exported declarations must only
contain \"exportable\" types:\n *\n *   * `dynamic`, `Any`, `String`, `Boolean`, `Byte`, `Short`, `Int`, `Float`,
`Double`\n *   * `BooleanArray`, `ByteArray`, `ShortArray`, `IntArray`, `FloatArray`, `DoubleArray`\n *   *
`Array<exportable-type>`\n *   * Function types with exportable parameters and return types\n *   * `external` or
`@JsExport` classes and interfaces\n *   * Nullable counterparts of types above\n *   * Unit return type. Must not be
nullable\n *\n * This annotation is experimental, meaning that restrictions mentioned above are subject to change.\n
*/\n@ExperimentalJsExport\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS,
 PROPERTY, FUNCTION, FILE)\n@SinceKotlin(\"1.3\")\npublic actual annotation class JsExport\n\n/**\n *
Forces a top-level property to be initialized eagerly, opposed to lazily on the first access to file and/or property.\n
*/\n@ExperimentalStdlibApi\n@Retention(AnnotationRetention.BINARY)\n@Target(AnnotationTarget.PROPER
TY)\n@SinceKotlin(\"1.6\")\n@Deprecated(\"This annotation is a temporal migration assistance and may be
removed in the future releases, please consider filing an issue about the case where it is needed\")\npublic annotation
class EagerInitialization\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.jvm\n\n// these are used in common generated code in stdlib\n\n//
TODO: find how to deprecate these
ones\n\n@Target(AnnotationTarget.FIELD)\n@Retention(AnnotationRetention.SOURCE)\npublic actual
 annotation class Volatile\n\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY_GETTER,
AnnotationTarget.PROPERTY_SETTER)\n@Retention(AnnotationRetention.SOURCE)\npublic actual annotation
class Synchronized\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
```

license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the [MutableCollection] interface.\n *\n * @param E the type of elements contained in the collection. The collection is invariant in its element type.\n */\npublic actual abstract class AbstractMutableCollection<E> protected actual constructor() : AbstractCollection<E>(), MutableCollection<E> {\n\n   actual abstract override fun add(element: E): Boolean\n\n   actual override fun remove(element: E): Boolean {\n   checkIsMutable()\n   val iterator = iterator()\n   while (iterator.hasNext()) {\n   if (iterator.next() == element) {\n   iterator.remove()\n   return true\n   }\n   }\n   return false\n   }\n\n   actual override fun addAll(elements: Collection<E>): Boolean {\n   checkIsMutable()\n   var modified = false\n   for (element in elements) {\n   if (add(element)) modified = true\n   }\n   return modified\n   }\n\n   actual override fun removeAll(elements: Collection<E>): Boolean {\n   checkIsMutable()\n   return (this as MutableIterable<E>).removeAll { it in elements }\n   }\n\n   actual override fun retainAll(elements: Collection<E>): Boolean {\n   checkIsMutable()\n   return (this as MutableIterable<E>).removeAll { it !in elements }\n   }\n\n   actual override fun clear(): Unit {\n   checkIsMutable()\n   val iterator = this.iterator()\n   while (iterator.hasNext()) {\n   iterator.next()\n   iterator.remove()\n   }\n   }\n\n   @Deprecated(\"Provided so that subclasses inherit this function\", level = DeprecationLevel.HIDDEN)\n   @JsName(\"toJSON\")\n   protected fun toJSON(): Any = this.toArray()\n\n\n   /**\n   * This method is called every time when a mutating method is called on this mutable collection.\n   * Mutable collections that are built (frozen) must throw `UnsupportedOperationException`.\n   */\n   internal open fun checkIsMutable(): Unit { }\n}\n\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/*\n * Based on GWT AbstractList\n * Copyright 2007 Google Inc.\n*/\n\n\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the [MutableList] interface.\n *\n * @param E the type of elements contained in the list. The list is invariant in its element type.\n */\npublic actual abstract class AbstractMutableList<E> protected actual constructor() : AbstractMutableCollection<E>(), MutableList<E> {\n   protected var modCount: Int = 0\n\n   abstract override fun add(index: Int, element: E): Unit\n   abstract override fun removeAt(index: Int): E\n   abstract override fun set(index: Int, element: E): E\n\n   /**\n   * Adds the specified element to the end of this list.\n   *\n   * @return `true` because the list is always modified as the result of this operation.\n   */\n   actual override fun add(element: E): Boolean {\n   checkIsMutable()\n   add(size, element)\n   return true\n   }\n\n   actual override fun addAll(index: Int, elements: Collection<E>): Boolean {\n   AbstractList.checkPositionIndex(index, size)\n\n   checkIsMutable()\n   var _index = index\n   var changed = false\n   for (e in elements) {\n   add(_index++, e)\n   changed = true\n   }\n   return changed\n   }\n\n   actual override fun clear() {\n   checkIsMutable()\n   removeRange(0, size)\n   }\n\n   actual override fun removeAll(elements: Collection<E>): Boolean {\n   checkIsMutable()\n   return removeAll { it in elements }\n   }\n\n   actual override fun retainAll(elements: Collection<E>): Boolean {\n   checkIsMutable()\n   return removeAll { it !in elements }\n   }\n\n\n   actual override fun iterator(): MutableIterator<E> = IteratorImpl()\n\n   actual override fun contains(element: E): Boolean = indexOf(element) >= 0\n\n   actual override fun indexOf(element: E): Int {\n   for (index in 0..lastIndex) {\n   if (get(index) == element) {\n   return index\n   }\n   }\n   return -1\n   }\n\n   actual override fun lastIndexOf(element: E): Int {\n   for (index in lastIndex downTo 0) {\n   if (get(index) == element) {\n   return index\n   }\n   }\n   return -1\n   }\n\n   actual override fun listIterator(): MutableListIterator<E> = listIterator(0)\n   actual override fun listIterator(index: Int): MutableListIterator<E> = ListIteratorImpl(index)\n\n\n   actual override fun subList(fromIndex: Int, toIndex: Int): MutableList<E> = SubList(this, fromIndex, toIndex)\n\n   /**\n   * Removes the range of elements from this list starting from [fromIndex] and ending with but not including [toIndex].\n   */\n   protected open fun removeRange(fromIndex: Int, toIndex: Int) {\n   val iterator = listIterator(fromIndex)\n repeat(toIndex - fromIndex) {\n   iterator.next()\n   iterator.remove()\n   }\n   }\n\n   /**\n   * Compares this list with another list instance with the ordered structural equality.\n   *\n   * @return true, if [other] instance is a [List] of the same size, which contains the same elements in the same order.\n   */\n   override fun equals(other: Any?): Boolean {\n   if (other

=== this) return true\n   if (other !is List<*>) return false\n\n   return AbstractList.orderedEquals(this, other)\n   }\n\n   /**\n   * Returns the hash code value for this list.\n   */\n   override fun hashCode(): Int = AbstractList.orderedHashCode(this)\n\n\n   private open inner class IteratorImpl : MutableIterator<E> {\n   /** the index of the item that will be returned on the next call to [next]`()` */\n   protected var index = 0\n   /** the index of the item that was returned on the previous call to [next]`()`\n   * or [ListIterator.previous]`()` (for `ListIterator`),\n   * -1 if no such item exists\n   */\n   protected var last = -1\n\n   override fun hasNext(): Boolean = index < size\n\n   override fun next(): E {\n   if (!hasNext()) throw NoSuchElementException()\n   last = index++\n   return get(last)\n   }\n\n   override fun remove() {\n   check(last != -1) { \"Call

next() or previous() before removing element from the iterator.\" }\n\n   removeAt(last)\n   index = last\n   last = -1\n   }\n   }\n\n   /**\n   * Implementation of `MutableListIterator` for abstract lists.\n   */\n   private inner class ListIteratorImpl(index: Int) : IteratorImpl(), MutableListIterator<E> {\n\n   init {\n   AbstractList.checkPositionIndex(index, this@AbstractMutableList.size)\n   this.index = index\n   }\n\n   override fun hasPrevious(): Boolean = index > 0\n\n   override fun nextIndex(): Int = index\n\n   override fun previous(): E {\n   if (!hasPrevious()) throw NoSuchElementException()\n\n   last = --index\n   return get(last)\n   }\n\n   override fun previousIndex(): Int = index - 1\n\n   override fun add(element: E) {\n   add(index, element)\n   index++\n   last = -1\n   }\n\n   override fun set(element:

E) {\n   check(last != -1) { \"Call next() or previous() before updating element value with the iterator.\" }\n   set(last, element)\n   }\n   }\n\n   private class SubList<E>(private val list: AbstractMutableList<E>, private val fromIndex: Int, toIndex: Int) : AbstractMutableList<E>(), RandomAccess {\n   private var _size: Int = 0\n\n   init {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, list.size)\n   this._size = toIndex - fromIndex\n   }\n\n   override fun add(index: Int, element: E) {\n   AbstractList.checkPositionIndex(index, _size)\n\n   list.add(fromIndex + index, element)\n   _size++\n   }\n\n   override fun get(index: Int): E {\n   AbstractList.checkElementIndex(index, _size)\n\n   return list[fromIndex + index]\n   }\n\n   override fun removeAt(index: Int): E {\n   AbstractList.checkElementIndex(index, _size)\n\n

val result = list.removeAt(fromIndex + index)\n   _size--\n   return result\n   }\n\n   override fun set(index: Int, element: E): E {\n   AbstractList.checkElementIndex(index, _size)\n\n   return list.set(fromIndex + index, element)\n   }\n\n   override val size: Int get() = _size\n\n   internal override fun checkIsMutable(): Unit = list.checkIsMutable()\n   }\n\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/*\n * Based on GWT AbstractMap\n * Copyright 2007 Google Inc.\n */\n\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the [MutableMap] interface.\n *\n * The implementor is required to implement [entries] property, which should return mutable set of map entries, and [put] function.\n *\n * @param K the type of map keys.

The map is invariant in its key type.\n * @param V the type of map values. The map is invariant in its value type.\n */\npublic actual abstract class AbstractMutableMap<K, V> protected actual constructor() : AbstractMap<K, V>(), MutableMap<K, V> {\n\n   /**\n   * A mutable [Map.Entry] shared by several [Map] implementations.\n   */\n   internal open class SimpleEntry<K, V>(override val key: K, value: V) : MutableMap.MutableEntry<K, V> {\n   constructor(entry: Map.Entry<K, V>) : this(entry.key, entry.value)\n\n   private var _value = value\n\n   override val value: V get() = _value\n\n   override fun setValue(newValue: V): V {\n   // Should check if the map containing this entry is mutable.\n   // However, to not increase entry memory footprint it might be worthwhile not to check it here and\n   // force subclasses that implement `build()` (freezing) operation to implement their own `MutableEntry`.\n//   this@AbstractMutableMap.checkIsMutable()\n

val oldValue = this._value\n this._value = newValue\n return oldValue\n }\n\n override fun hashCode(): Int = entryHashCode(this)\n override fun toString(): String = entryToString(this)\n override fun equals(other: Any?): Boolean = entryEquals(this, other)\n\n }\n\n // intermediate abstract class to workaround KT-43321\n internal abstract class AbstractEntrySet<E : Map.Entry<K, V>, K, V> : AbstractMutableSet<E>() {\n final override fun contains(element: E): Boolean = containsEntry(element)\n abstract fun containsEntry(element: Map.Entry<K, V>): Boolean\n final override fun remove(element: E): Boolean = removeEntry(element)\n abstract fun removeEntry(element: Map.Entry<K, V>): Boolean\n }\n\n actual override fun clear() {\n entries.clear()\n }\n\n private var _keys: MutableSet<K>? = null\n actual override val keys: MutableSet<K>\n get() {\n
 if (_keys == null) {\n _keys = object : AbstractMutableSet<K>() {\n override fun add(element: K): Boolean = throw UnsupportedOperationException(\"Add is not supported on keys\")\n override fun clear() {\n this@AbstractMutableMap.clear()\n }\n\n override operator fun contains(element: K): Boolean = containsKey(element)\n\n override operator fun iterator(): MutableIterator<K> {\n val entryIterator = entries.iterator()\n return object : MutableIterator<K> {\n override fun hasNext(): Boolean = entryIterator.hasNext()\n override fun next(): K = entryIterator.next().key\n override fun remove() = entryIterator.remove()\n }\n }\n\n override fun remove(element: K): Boolean {\n checkIsMutable()\n if (containsKey(element)) {\n this@AbstractMutableMap.remove(element)\n return true\n }\n return false\n }\n\n override val size: Int get() = this@AbstractMutableMap.size\n\n override fun checkIsMutable(): Unit = this@AbstractMutableMap.checkIsMutable()\n }\n }\n return _keys!!\n }\n\n actual abstract override fun put(key: K, value: V): V?\n\n actual override fun putAll(from: Map<out K, V>) {\n checkIsMutable()\n for ((key, value) in from) {\n put(key, value)\n }\n }\n\n private var _values: MutableCollection<V>? = null\n actual override val values: MutableCollection<V>\n get() {\n if (_values == null) {\n _values = object : AbstractMutableCollection<V>()
 {\n override fun add(element: V): Boolean = throw UnsupportedOperationException(\"Add is not supported on values\")\n override fun clear() = this@AbstractMutableMap.clear()\n\n override operator fun contains(element: V): Boolean = containsValue(element)\n\n override operator fun iterator(): MutableIterator<V> {\n val entryIterator = entries.iterator()\n return object : MutableIterator<V> {\n override fun hasNext(): Boolean = entryIterator.hasNext()\n override fun next(): V = entryIterator.next().value\n override fun remove() = entryIterator.remove()\n }\n }\n\n override val size: Int get() = this@AbstractMutableMap.size\n\n override fun checkIsMutable(): Unit = this@AbstractMutableMap.checkIsMutable()\n
 }\n }\n return _values!!\n }\n\n actual override fun remove(key: K): V? {\n checkIsMutable()\n val iter = entries.iterator()\n while (iter.hasNext()) {\n val entry = iter.next()\n val k = entry.key\n if (key == k) {\n val value = entry.value\n iter.remove()\n return value\n }\n }\n return null\n }\n\n\n /**\n * This method is called every time when a mutating method is called on this mutable map.\n * Mutable maps that are built (frozen) must throw `UnsupportedOperationException`.\n */\n internal open fun checkIsMutable(): Unit {}\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.collections\n\n/**\n *
 Provides a skeletal implementation of the [MutableSet] interface.\n *\n * @param E the type of elements contained in the set. The set is invariant in its element type.\n */\npublic actual abstract class AbstractMutableSet<E> protected actual constructor() : AbstractMutableCollection<E>(), MutableSet<E> {\n\n /**\n * Compares this set with another set instance with the unordered structural equality.\n *\n * @return `true`, if [other] instance is

a [Set] of the same size, all elements of which are contained in this set.\n */\n override fun equals(other: Any?): Boolean {\n if (other === this) return true\n if (other !is Set<*>) return false\n return AbstractSet.setEquals(this, other)\n }\n\n /**\n * Returns the hash code value for this set.\n */\n override fun hashCode(): Int = AbstractSet.unorderedHashCode(this)\n\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source

code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n/**\n * Provides a [MutableList] implementation, which uses a resizable array as its backing storage.\n *\n * This implementation doesn't provide a way to manage capacity, as backing JS array is resizeable itself.\n * There is no speed advantage to pre-allocating array sizes in JavaScript, so this implementation does not include any of the\n * capacity and \"growth increment\" concepts.\n */\npublic actual open class ArrayList<E> internal constructor(private var array: Array<Any?>) : AbstractMutableList<E>(), MutableList<E>, RandomAccess {\n private var isReadOnly: Boolean = false\n\n /**\n * Creates an empty [ArrayList].\n */\n public actual constructor() : this(emptyArray()) {}\n\n /**\n * Creates an empty [ArrayList].\n * @param initialCapacity initial capacity (ignored)\n */\n public actual constructor(initialCapacity:

Int) : this(emptyArray()) {}\n\n /**\n * Creates an [ArrayList] filled from the [elements] collection.\n */\n public actual constructor(elements: Collection<E>) : this(elements.toTypedArray<Any?>()) {}\n\n @PublishedApi\n internal fun build(): List<E> {\n checkIsMutable()\n isReadOnly = true\n return this\n }\n\n /** Does nothing in this ArrayList implementation. */\n public actual fun trimToSize() {}\n\n /** Does nothing in this ArrayList implementation. */\n public actual fun ensureCapacity(minCapacity: Int) {}\n\n actual override val size: Int get() = array.size\n @Suppress(\"UNCHECKED_CAST\")\n actual override fun get(index: Int): E = array[rangeCheck(index)] as E\n actual override fun set(index: Int, element: E): E {\n checkIsMutable()\n rangeCheck(index)\n @Suppress(\"UNCHECKED_CAST\")\n return array[index].apply { array[index] = element } as E\n }\n\n actual override fun add(element:

E): Boolean {\n checkIsMutable()\n array.asDynamic().push(element)\n modCount++\n return true\n }\n\n actual override fun add(index: Int, element: E): Unit {\n checkIsMutable()\n array.asDynamic().splice(insertionRangeCheck(index), 0, element)\n modCount++\n }\n\n actual override fun addAll(elements: Collection<E>): Boolean {\n checkIsMutable()\n if (elements.isEmpty()) return false\n\n array += elements.toTypedArray<Any?>()\n modCount++\n return true\n }\n\n actual override fun addAll(index: Int, elements: Collection<E>): Boolean {\n checkIsMutable()\n insertionRangeCheck(index)\n\n if (index == size) return addAll(elements)\n if (elements.isEmpty()) return false\n when (index) {\n size -> return addAll(elements)\n 0 -> array = elements.toTypedArray<Any?>() + array\n else -> array = array.copyOfRange(0, index).asDynamic().concat(elements.toTypedArray<Any?>(),

array.copyOfRange(index, size))\n }\n\n modCount++\n return true\n }\n\n actual override fun removeAt(index: Int): E {\n checkIsMutable()\n rangeCheck(index)\n modCount++\n return if (index == lastIndex)\n array.asDynamic().pop()\n else\n array.asDynamic().splice(index, 1)[0]\n }\n\n actual override fun remove(element: E): Boolean {\n checkIsMutable()\n for (index in array.indices) {\n if (array[index] == element) {\n array.asDynamic().splice(index, 1)\n modCount++\n return true\n }\n }\n return false\n }\n\n override fun removeRange(fromIndex: Int, toIndex: Int) {\n checkIsMutable()\n modCount++\n array.asDynamic().splice(fromIndex, toIndex - fromIndex)\n }\n\n actual override fun clear() {\n checkIsMutable()\n

array = emptyArray()\n modCount++\n }\n\n\n actual override fun indexOf(element: E): Int = array.indexOf(element)\n\n actual override fun lastIndexOf(element: E): Int = array.lastIndexOf(element)\n\n override fun toString() = arrayToString(array)\n\n @Suppress(\"UNCHECKED_CAST\")\n override fun <T> toArray(array: Array<T>): Array<T> {\n if (array.size < size) {\n return toArray() as Array<T>\n }\n\n (this.array as Array<T>).copyInto(array)\n\n if (array.size > size) {\n array[size] = null as T // null-terminate\n }\n\n return array\n }\n\n override fun toArray(): Array<Any?> {\n return js(\"[]\").slice.call(array)\n }\n\n\n internal override fun checkIsMutable() {\n if (isReadOnly) throw

UnsupportedOperationException()\n }\n\n private fun rangeCheck(index: Int) = index.apply {\n AbstractList.checkElementIndex(index, size)\n }\n\n private fun insertionRangeCheck(index: Int) = index.apply {\n AbstractList.checkPositionIndex(index, size)\n }\n}","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\ninternal fun <T> sortArrayWith(array: Array<out T>, comparison: (T, T) -> Int) {\n if (getStableSortingIsSupported()) {\n array.asDynamic().sort(comparison)\n } else {\n mergeSort(array.unsafeCast<Array<T>>(), 0, array.lastIndex, Comparator(comparison))\n }\n}\n\ninternal fun <T> sortArrayWith(array: Array<out T>, comparator: Comparator<in T>) {\n if (getStableSortingIsSupported()) {\n val comparison = { a: T, b: T -> comparator.compare(a, b) }\n array.asDynamic().sort(comparison)\n } else {\n mergeSort(array.unsafeCast<Array<T>>(), 0, array.lastIndex, comparator)\n }\n}\n\ninternal fun <T> sortArrayWith(array: Array<out T>, fromIndex: Int, toIndex: Int, comparator: Comparator<in T>) {\n if (fromIndex < toIndex - 1) {\n mergeSort(array.unsafeCast<Array<T>>(), fromIndex, toIndex - 1, comparator)\n }\n}\n\ninternal fun <T : Comparable<T>> sortArray(array: Array<out T>) {\n if (getStableSortingIsSupported()) {\n val comparison = { a: T, b: T -> a.compareTo(b) }\n array.asDynamic().sort(comparison)\n } else {\n mergeSort(array.unsafeCast<Array<T>>(), 0, array.lastIndex, naturalOrder())\n }\n}\n\nprivate var _stableSortingIsSupported: Boolean? = null\nprivate fun getStableSortingIsSupported(): Boolean {\n _stableSortingIsSupported?.let { return it }\n _stableSortingIsSupported = false\n\n val array = js(\"[]\").unsafeCast<Array<Int>>()\n // known implementations may use stable sort for arrays of up to 512 elements\n // so we create slightly more elements to test stability\n for (index in 0 until 600) array.asDynamic().push(index)\n val comparison = { a: Int, b: Int -> (a and 3) - (b and 3) }\n array.asDynamic().sort(comparison)\n for (index in 1 until array.size) {\n val a = array[index - 1]\n val b = array[index]\n if ((a and 3) == (b and 3) && a >= b) return false\n }\n _stableSortingIsSupported = true\n return true\n}\n\n\nprivate fun <T> mergeSort(array: Array<T>, start: Int, endInclusive: Int, comparator: Comparator<in T>) {\n val buffer = arrayOfNulls<Any?>(array.size).unsafeCast<Array<T>>()\n val result = mergeSort(array, buffer, start, endInclusive, comparator)\n if (result !== array) {\n for (i in start..endInclusive) array[i] = result[i]\n }\n}\n\n// Both start and end are inclusive indices.\nprivate fun <T> mergeSort(array: Array<T>, buffer: Array<T>, start: Int, end: Int, comparator: Comparator<in T>): Array<T> {\n if (start == end) {\n return array\n }\n\n val median = (start + end) / 2\n val left = mergeSort(array, buffer, start, median, comparator)\n val right = mergeSort(array, buffer, median + 1, end, comparator)\n\n val target = if (left === buffer) array else buffer\n\n // Merge.\n var leftIndex = start\n var rightIndex = median + 1\n for (i in start..end) {\n when {\n leftIndex <= median && rightIndex <= end -> {\n val leftValue = left[leftIndex]\n val rightValue = right[rightIndex]\n\n if (comparator.compare(leftValue, rightValue) <= 0) {\n target[i] = leftValue\n leftIndex++\n } else {\n target[i] = rightValue\n rightIndex++\n }\n }\n leftIndex <= median -> {\n target[i] = left[leftIndex]\n leftIndex++\n }\n else /* rightIndex <= end */ -> {\n target[i] = right[rightIndex]\n rightIndex++\n Unit // TODO: Fix KT-31506\n }\n }\n }\n\n return target\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n\n@OptIn(ExperimentalUnsignedTypes::class)\n@SinceKotlin(\"1.3\")\n@kotlin.js.JsName(\"contentDeepHashCodeImpl\")\ninternal fun <T> Array<out T>?.contentDeepHashCodeImpl(): Int {\n if (this == null) return 0\n var result = 1\n for (element in this) {\n val elementHash = when {\n element == null -> 0\n isArrayish(element) -> (element.unsafeCast<Array<*>>()).contentDeepHashCodeImpl()\n\n element is UByteArray -> element.contentHashCode()\n element is UShortArray -> element.contentHashCode()\n element is UIntArray -> element.contentHashCode()\n element is ULongArray

-> element.contentHashCode()\n\n else -> element.hashCode()\n }\n\n result = 31 * result + elementHash\n }\n return result\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\ninternal interface EqualityComparator {\n /**\n * Subclasses must override to return a value indicating\n * whether or not two keys or values are equal.\n */\n abstract fun equals(value1: Any?, value2: Any?): Boolean\n\n /**\n * Subclasses must override to return the hash code of a given key.\n */\n abstract fun getHashCode(value: Any?): Int\n\n\n object HashCode : EqualityComparator {\n override fun equals(value1: Any?, value2: Any?): Boolean = value1 == value2\n\n override fun getHashCode(value: Any?): Int = value?.hashCode()
?: 0\n }\n}","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/*\n * Based on GWT AbstractHashMap\n * Copyright 2008 Google Inc.\n */\n\npackage kotlin.collections\n\nimport kotlin.collections.MutableMap.MutableEntry\n\n/**\n * Hash table based implementation of the [MutableMap] interface.\n *\n * This implementation makes no guarantees regarding the order of enumeration of [keys], [values] and [entries] collections.\n */\n// Classes that extend HashMap and implement `build()` (freezing) operation\n// have to make sure mutating methods check `checkIsMutable`.\npublic actual open class HashMap<K, V> : AbstractMutableMap<K, V>, MutableMap<K, V> {\n\n private inner class EntrySet : AbstractEntrySet<MutableEntry<K, V>, K, V>() {\n\n override fun add(element: MutableEntry<K, V>): Boolean = throw UnsupportedOperationException(\"Add
is not supported on entries\")\n override fun clear() {\n this@HashMap.clear()\n }\n\n override fun containsEntry(element: Map.Entry<K, V>): Boolean = this@HashMap.containsEntry(element)\n\n override operator fun iterator(): MutableIterator<MutableEntry<K, V>> = internalMap.iterator()\n\n override fun removeEntry(element: Map.Entry<K, V>): Boolean {\n if (contains(element)) {\n this@HashMap.remove(element.key)\n return true\n }\n return false\n }\n\n override val size: Int get() = this@HashMap.size\n }\n\n\n /**\n * Internal implementation of the map: either string-based or hashcode-based.\n */\n private val internalMap: InternalMap<K, V>\n\n private val equality: EqualityComparator\n\n internal constructor(internalMap: InternalMap<K, V>) : super() {\n this.internalMap = internalMap\n this.equality
= internalMap.equality\n }\n\n /**\n * Constructs an empty [HashMap] instance.\n */\n actual constructor() : this(InternalHashCodeMap(EqualityComparator.HashCode))\n\n /**\n * Constructs an empty [HashMap] instance.\n *\n * @param initialCapacity the initial capacity (ignored)\n * @param loadFactor the load factor (ignored)\n *\n * @throws IllegalArgumentException if the initial capacity or load factor are negative\n */\n actual constructor(initialCapacity: Int, loadFactor: Float) : this() {\n // This implementation of HashMap has no need of load factors or capacities.\n require(initialCapacity >= 0) { \"Negative initial capacity: $initialCapacity\" }\n require(loadFactor >= 0) { \"Non-positive load factor: $loadFactor\" }\n }\n\n actual constructor(initialCapacity: Int) : this(initialCapacity, 0.0f)\n\n\n /**\n * Constructs an instance of [HashMap] filled with the contents of the specified [original]
map.\n */\n actual constructor(original: Map<out K, V>) : this() {\n this.putAll(original)\n }\n\n actual override fun clear() {\n internalMap.clear()\n// structureChanged(this)\n }\n\n actual override fun containsKey(key: K): Boolean = internalMap.contains(key)\n\n actual override fun containsValue(value: V): Boolean = internalMap.any { equality.equals(it.value, value) }\n\n private var _entries: MutableSet<MutableMap.MutableEntry<K, V>>? = null\n actual override val entries: MutableSet<MutableMap.MutableEntry<K, V>>\n get() {\n if (_entries == null) {\n _entries = createEntrySet()\n }\n return _entries!!\n }\n\n internal open fun createEntrySet(): MutableSet<MutableMap.MutableEntry<K, V>> = EntrySet()\n\n actual override operator fun get(key: K): V? = internalMap.get(key)\n\n actual override fun put(key: K, value: V): V? = internalMap.put(key, value)\n\n actual override fun remove(key: K): V? = internalMap.remove(key)\n\n actual override val size: Int get() = internalMap.size\n\n}\n\n/**\n * Constructs the specialized implementation of [HashMap] with [String] keys, which

stores the keys as properties of\n * JS object without hashing them.\n */\npublic fun <V> stringMapOf(vararg pairs: Pair<String, V>): HashMap<String, V> {\n   return HashMap<String, V>(InternalStringMap(EqualityComparator.HashCode)).apply { putAll(pairs) }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n/*\n * Based on GWT HashSet\n * Copyright 2008 Google Inc.\n */\n\npackage kotlin.collections\n\n/**\n * The implementation of the [MutableSet] interface, backed by a [HashMap] instance.\n */\n// Classes that extend HashSet and implement `build()` (freezing) operation\n// have to make sure mutating

methods check `checkIsMutable`.\npublic actual open class HashSet<E> : AbstractMutableSet<E>, MutableSet<E> {\n\n   internal val map: HashMap<E, Any>\n\n   /**\n   * Constructs a new empty [HashSet].\n   */\n   actual constructor() {\n   map = HashMap<E, Any>()\n   }\n\n   /**\n   * Constructs a new [HashSet] filled with the elements of the specified collection.\n   */\n   actual constructor(elements: Collection<E>) {\n   map = HashMap<E, Any>(elements.size)\n   addAll(elements)\n   }\n\n   /**\n   * Constructs a new empty [HashSet].\n   *\n   * @param initialCapacity the initial capacity (ignored)\n   * @param loadFactor   the load factor (ignored)\n   *\n   * @throws IllegalArgumentException if the initial capacity or load factor are negative\n   */\n   actual constructor(initialCapacity: Int, loadFactor: Float) {\n   map = HashMap<E, Any>(initialCapacity, loadFactor)\n   }\n\n   actual constructor(initialCapacity: Int) : this(initialCapacity,

0.0f)\n\n   /**\n   * Protected constructor to specify the underlying map. This is used by\n   * LinkedHashSet.\n\n   * @param map underlying map to use.\n   */\n   internal constructor(map: HashMap<E, Any>) {\n   this.map = map\n   }\n\n   actual override fun add(element: E): Boolean {\n   val old = map.put(element, this)\n   return old == null\n   }\n\n   actual override fun clear() {\n   map.clear()\n   }\n\n//   public override fun clone(): Any {\n//   return HashSet<E>(this)\n//   }\n\n   actual override operator fun contains(element: E): Boolean = map.containsKey(element)\n\n   actual override fun isEmpty(): Boolean = map.isEmpty()\n\n   actual override fun iterator(): MutableIterator<E> = map.keys.iterator()\n\n   actual override fun remove(element: E): Boolean = map.remove(element) != null\n\n   actual override val size: Int get() = map.size\n\n}\n\n/**\n * Creates a new instance of the specialized implementation

of [HashSet] with the specified [String] elements,\n * which elements the keys as properties of JS object without hashing them.\n */\npublic fun stringSetOf(vararg elements: String): HashSet<String> {\n   return HashSet(stringMapOf<Any>()).apply { addAll(elements) }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n/*\n * Based on GWT InternalHashCodeMap\n * Copyright 2008 Google Inc.\n */\n\npackage kotlin.collections\n\nimport kotlin.collections.MutableMap.MutableEntry\nimport kotlin.collections.AbstractMutableMap.SimpleEntry\n\n/**\n * A simple wrapper around JavaScriptObject to provide [java.util.Map]-like semantics for any\n * key type.\n *\n *\n * Implementation notes:\n *\n *\n * A key's hashCode is the index in backingMap which should contain that key. Since several keys may\n * have the same hash, each value

in hashCodeMap is actually an array containing all entries whose\n * keys share the same hash.\n */\ninternal class InternalHashCodeMap<K, V>(override val equality: EqualityComparator) : InternalMap<K, V> {\n\n   private var backingMap: dynamic = createJsMap()\n   override var size: Int = 0\n   private set\n\n   override fun put(key: K, value: V): V? {\n   val hashCode = equality.getHashCode(key)\n   val chainOrEntry = getChainOrEntryOrNull(hashCode)\n   if (chainOrEntry == null) {\n   // This is a new chain, put it to the map.\n   backingMap[hashCode] = SimpleEntry(key, value)\n   } else {\n   if (chainOrEntry !is Array<*>) {\n   // It is an entry\n   val entry: SimpleEntry<K, V> = chainOrEntry\n   if (equality.equals(entry.key, key)) {\n   return entry.setValue(value)\n   } else {\n   backingMap[hashCode] = arrayOf(entry, SimpleEntry(key, value))\n

size++\n   return null\n   }\n   } else {\n   // Chain already exists, perhaps key also exists.\n   val chain: Array<MutableEntry<K, V>> = chainOrEntry\n   val entry = chain.findEntryInChain(key)\n   if (entry != null) {\n   return entry.setValue(value)\n   }\n

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            chain.asDynamic().push(SimpleEntry(key, value))\n            }\n        }\n        size++\n//
structureChanged(host)\n        return null\n    }\n\n    override fun remove(key: K): V? {\n        val hashCode =
equality.getHashCode(key)\n        val chainOrEntry = getChainOrEntryOrNull(hashCode) ?: return null\n        if
(chainOrEntry !is Array<*>) {\n            val entry: MutableEntry<K, V> = chainOrEntry\n            if
(equality.equals(entry.key, key)) {\n                jsDeleteProperty(backingMap, hashCode)\n                size--\n
return entry.value\n
          } else {\n                return null\n            }\n        } else {\n            val chain: Array<MutableEntry<K, V>> =
chainOrEntry\n            for (index in chain.indices) {\n                val entry = chain[index]\n                if
(equality.equals(key, entry.key)) {\n                    if (chain.size == 1) {\n                        chain.asDynamic().length =
0\n                        // remove the whole array\n                        jsDeleteProperty(backingMap, hashCode)\n
} else {\n                        // splice out the entry we're removing\n                        chain.asDynamic().splice(index, 1)\n
               }\n                    size--\n//                structureChanged(host)\n                    return entry.value\n                }\n
        }\n        }\n        return null\n    }\n\n    override fun clear() {\n        backingMap = createJsMap()\n        size =
0\n    }\n\n    override fun contains(key: K):
 Boolean = getEntry(key) != null\n\n    override fun get(key: K): V? = getEntry(key)?.value\n\n    private fun
getEntry(key: K): MutableEntry<K, V>? {\n        val chainOrEntry =
getChainOrEntryOrNull(equality.getHashCode(key)) ?: return null\n        if (chainOrEntry !is Array<*>) {\n
val entry: MutableEntry<K, V> = chainOrEntry\n            if (equality.equals(entry.key, key)) {\n                return
entry\n            } else {\n                return null\n            }\n        } else {\n            val chain: Array<MutableEntry<K,
V>> = chainOrEntry\n            return chain.findEntryInChain(key)\n        }\n    }\n\n    private fun
Array<MutableEntry<K, V>>.findEntryInChain(key: K): MutableEntry<K, V>? =\n        firstOrNull { entry ->
equality.equals(entry.key, key) }\n\n    override fun iterator(): MutableIterator<MutableEntry<K, V>> {\n\n
return object : MutableIterator<MutableEntry<K, V>> {\n            var state = -1 // -1 not ready, 0 - ready, 1 -
done\n\n
          val keys: Array<String> = js(\"Object\").keys(backingMap)\n            var keyIndex = -1\n\n            var
chainOrEntry: dynamic = null\n            var isChain = false\n            var itemIndex = -1\n            var lastEntry:
MutableEntry<K, V>? = null\n\n            private fun computeNext(): Int {\n                if (chainOrEntry != null &&
isChain) {\n                    val chainSize: Int = chainOrEntry.unsafeCast<Array<MutableEntry<K, V>>>().size\n
        if (++itemIndex < chainSize)\n                        return 0\n                }\n\n                if (++keyIndex < keys.size)
{\n                    chainOrEntry = backingMap[keys[keyIndex]]\n                    isChain = chainOrEntry is Array<*>\n
            itemIndex = 0\n                    return 0\n                } else {\n                    chainOrEntry = null\n
return 1\n                }\n            }\n\n            override fun hasNext(): Boolean {\n
          if (state == -1)\n                    state = computeNext()\n                return state == 0\n            }\n\n
override fun next(): MutableEntry<K, V> {\n                if (!hasNext()) throw NoSuchElementException()\n
val lastEntry = if (isChain) {\n                    chainOrEntry.unsafeCast<Array<MutableEntry<K, V>>>()[itemIndex]\n
            } else {\n                    chainOrEntry.unsafeCast<MutableEntry<K, V>>()\n                }\n
this.lastEntry = lastEntry\n                state = -1\n                return lastEntry\n            }\n\n            override fun
remove() {\n                checkNotNull(lastEntry)\n                this@InternalHashCodeMap.remove(lastEntry!!.key)\n
          lastEntry = null\n                // the chain being iterated just got modified by InternalHashCodeMap.remove\n
         itemIndex--\n            }\n        }\n    }\n\n    private fun getChainOrEntryOrNull(hashCode: Int): dynamic
 {\n        val chainOrEntry = backingMap[hashCode]\n        return if (chainOrEntry === undefined) null else
chainOrEntry\n    }\n\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n/**\n * The common interface of
[InternalStringMap] and [InternalHashCodeMap].\n */\ninternal interface InternalMap<K, V> :
MutableIterable<MutableMap.MutableEntry<K, V>> {\n    val equality: EqualityComparator\n    val size: Int\n
operator fun contains(key: K): Boolean\n    operator fun get(key: K): V?\n\n    fun put(key: K, value: V): V?\n    fun
remove(key: K): V?\n    fun clear(): Unit\n\n    fun createJsMap(): dynamic {\n        val result =
```

js(\"Object.create(null)\")\n // force to switch object representation to dictionary mode\n result[\"foo\"] = 1\n jsDeleteProperty(result, \"foo\")\n return result\n }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n/*\n * Based on GWT InternalStringMap\n * Copyright 2008 Google Inc.\n */\npackage kotlin.collections\n\nimport kotlin.collections.MutableMap.MutableEntry\n\n/**\n * A simple wrapper around JavaScript Map for key type is string.\n *\n * Though this map is instantiated only with K=String, the K type is not fixed to String statically,\n * because we want to have it erased to Any? in order not to generate type-safe override bridges for\n * [get], [contains], [remove] etc, if they ever are generated.\n */\ninternal class InternalStringMap<K, V>(override val equality: EqualityComparator) : InternalMap<K, V> {\n\n private var backingMap: dynamic = createJsMap()\n override var size: Int = 0\n private set\n\n// /**\n// * A mod count to track 'value' replacements in map to ensure that the 'value' that we have in the\n// * iterator entry is guaranteed to be still correct.\n// * This is to optimize for the common scenario where the values are not modified during\n// * iterations where the entries are never stale.\n// */\n// private var valueMod: Int = 0\n\n override operator fun contains(key: K): Boolean {\n if (key !is String) return false\n return backingMap[key] !== undefined\n }\n\n override operator fun get(key: K): V? {\n if (key !is String) return null\n val value = backingMap[key]\n return if (value !== undefined) value.unsafeCast<V>() else null\n }\n\n\n override fun put(key: K, value: V): V? {\n require(key is String)\n val oldValue = backingMap[key]\n backingMap[key] = value\n\n if (oldValue === undefined) {\n size++\n// structureChanged(host)\n return null\n } else {\n// valueMod++\n return oldValue.unsafeCast<V>()\n }\n }\n\n override fun remove(key: K): V? {\n if (key !is String) return null\n val value = backingMap[key]\n if (value !== undefined) {\n jsDeleteProperty(backingMap, key)\n size--\n// structureChanged(host)\n return value.unsafeCast<V>()\n } else {\n// valueMod++\n return null\n }\n }\n\n\n override fun clear() {\n backingMap = createJsMap()\n size = 0\n }\n\n\n override fun iterator(): MutableIterator<MutableEntry<K, V>> {\n return object : MutableIterator<MutableEntry<K, V>> {\n private val keys: Array<String> = js(\"Object\").keys(backingMap)\n private val iterator = keys.iterator()\n private var lastKey: String? = null\n\n override fun hasNext(): Boolean = iterator.hasNext()\n\n override fun next(): MutableEntry<K, V> {\n val key = iterator.next()\n lastKey = key\n @Suppress(\"UNCHECKED_CAST\")\n return newMapEntry(key as K)\n }\n\n override fun remove() {\n @Suppress(\"UNCHECKED_CAST\")\n this@InternalStringMap.remove(checkNotNull(lastKey) as K)\n }\n }\n }\n\n private fun newMapEntry(key: K): MutableEntry<K, V> = object : MutableEntry<K, V> {\n override val key: K get() = key\n override val value: V get() = this@InternalStringMap[key].unsafeCast<V>()\n\n override fun setValue(newValue: V): V = this@InternalStringMap.put(key, newValue).unsafeCast<V>()\n\n override fun hashCode(): Int = AbstractMap.entryHashCode(this)\n override fun toString(): String = AbstractMap.entryToString(this)\n override fun equals(other: Any?): Boolean = AbstractMap.entryEquals(this, other)\n }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/*\n * Based on GWT LinkedHashMap\n * Copyright 2008 Google Inc.\n */\npackage kotlin.collections\n\nimport kotlin.collections.MutableMap.MutableEntry\n\n/**\n * Hash table based implementation of the [MutableMap] interface, which additionally preserves the insertion order\n * of entries during the iteration.\n *\n * The insertion order is preserved by maintaining a doubly-linked list of all of its entries.\n */\npublic actual open class LinkedHashMap<K, V> : HashMap<K, V>, MutableMap<K, V> {\n\n /**\n * The entry we use includes next/prev pointers for a doubly-linked circular\n * list with a head node. This reduces the special cases we have to deal with\n * in the list operations.\n\n * Note that we duplicate the key from the underlying hash map so we

can find\n   * the eldest
entry. The alternative would have been to modify HashMap so more\n   * of the code was directly usable here, but this would have added some\n   * overhead to HashMap, or to reimplement most of the HashMap code here with\n   * small modifications. Paying a small storage cost only if you use\n   * LinkedHashMap and minimizing code size seemed like a better tradeoff\n   */\n   private inner class ChainEntry<K, V>(key: K, value: V) : AbstractMutableMap.SimpleEntry<K, V>(key, value) {\n   internal var next: ChainEntry<K, V>? = null\n   internal var prev: ChainEntry<K, V>? = null\n\n   override fun setValue(newValue: V): V {\n   this@LinkedHashMap.checkIsMutable()\n   return super.setValue(newValue)\n   }\n   }\n\n   private inner class EntrySet : AbstractEntrySet<MutableEntry<K, V>, K, V>() {\n\n   private inner class EntryIterator : MutableIterator<MutableEntry<K, V>> {\n   // The last entry that was returned from this iterator.\n   private var last: ChainEntry<K, V>? = null\n\n   // The next entry to return from this iterator.\n   private var next: ChainEntry<K, V>? = null\n\n   init {\n   next = head\n//   recordLastKnownStructure(map, this)\n   }\n\n   override fun hasNext(): Boolean {\n   return next !== null\n   }\n\n   override fun next(): MutableEntry<K, V> {\n//   checkStructuralChange(map, this)\n   if (!hasNext()) throw NoSuchElementException()\n\n   val current = next!!\n   last = current\n   next = current.next.takeIf { it !== head }\n   return current\n   }\n\n   override fun remove() {\n   check(last != null)\n   this@EntrySet.checkIsMutable()\n//   checkStructuralChange(map, this)\n\n   last!!.remove()\n   map.remove(last!!.key)\n//
recordLastKnownStructure(map, this)\n   last = null\n   }\n   }\n\n   override fun add(element: MutableEntry<K, V>): Boolean = throw UnsupportedOperationException(\"Add is not supported on entries\")\n   override fun clear() {\n   this@LinkedHashMap.clear()\n   }\n\n   override fun containsEntry(element: Map.Entry<K, V>): Boolean = this@LinkedHashMap.containsEntry(element)\n\n   override operator fun iterator(): MutableIterator<MutableEntry<K, V>> = EntryIterator()\n\n   override fun removeEntry(element: Map.Entry<K, V>): Boolean {\n   checkIsMutable()\n   if (contains(element)) {\n   this@LinkedHashMap.remove(element.key)\n   return true\n   }\n   return false\n   }\n\n   override val size: Int get() = this@LinkedHashMap.size\n\n   override fun checkIsMutable(): Unit = this@LinkedHashMap.checkIsMutable()\n   }\n\n\n
/*\n   * The head of the insert order chain, which is a doubly-linked circular\n   * list.\n   *\n   * The most recently inserted node is at the end of the chain, ie.\n   * chain.prev.\n   */\n   private var head: ChainEntry<K, V>? = null\n\n   /**\n   * Add this node to the end of the chain.\n   */\n   private fun ChainEntry<K, V>.addToEnd() {\n   // This entry is not in the list.\n   check(next == null && prev == null)\n\n   val _head = head\n   if (_head == null) {\n   head = this\n   next = this\n   prev = this\n   } else {\n   // Chain is valid.\n   val _tail = checkNotNull(_head.prev)\n   // Update me.\n   prev = _tail\n   next = _head\n   // Update my new siblings: current head and old tail\n   _head.prev = this\n   _tail.next = this\n   }\n   }\n\n   /**\n   * Remove this node from the chain it is a part of.\n   */\n   private fun ChainEntry<K,
V>.remove() {\n   if (this.next === this) {\n   // if this is single element, remove head\n   head = null\n   } else {\n   if (head === this) {\n   // if this is first element, move head to next\n   head = next\n   }\n   next!!.prev = prev\n   prev!!.next = next\n   }\n   next = null\n   prev = null\n   }\n\n   /*\n   * The hashmap that keeps track of our entries and the chain. Note that we\n   * duplicate the key here to eliminate changes to HashMap and minimize the\n   * code here, at the expense of additional space.\n   */\n   private val map: HashMap<K, ChainEntry<K, V>>\n\n   private var isReadOnly: Boolean = false\n\n   /**\n   * Constructs an empty [LinkedHashMap] instance.\n   */\n   actual constructor() : super() {\n   map = HashMap<K, ChainEntry<K, V>>()\n   }\n\n   internal constructor(backingMap: HashMap<K, Any>) : super() {\n   @Suppress(\"UNCHECKED_CAST\")
// expected to work due to erasure\n   map = backingMap as HashMap<K, ChainEntry<K, V>>\n   }\n\n   /**\n   * Constructs an empty [LinkedHashMap] instance.\n   *\n   * @param initialCapacity the initial capacity

(ignored)\n * @param loadFactor the load factor (ignored)\n *\n * @throws IllegalArgumentException if the initial capacity or load factor are negative\n */\n actual constructor(initialCapacity: Int, loadFactor: Float) : super(initialCapacity, loadFactor) {\n map = HashMap<K, ChainEntry<K, V>>()\n }\n\n actual constructor(initialCapacity: Int) : this(initialCapacity, 0.0f)\n\n /**\n * Constructs an instance of [LinkedHashMap] filled with the contents of the specified [original] map.\n */\n actual constructor(original: Map<out K, V>) {\n map = HashMap<K, ChainEntry<K, V>>()\n this.putAll(original)\n }\n\n @PublishedApi\n internal fun build(): Map<K, V> {\n checkIsMutable()\n isReadOnly = true\n return this\n }\n\n actual override fun clear() {\n checkIsMutable()\n map.clear()\n head = null\n }\n\n\n// override fun clone(): Any {\n// return LinkedHashMap(this)\n// }\n\n\n actual override fun containsKey(key: K): Boolean = map.containsKey(key)\n\n actual override fun containsValue(value: V): Boolean {\n var node: ChainEntry<K, V> = head ?: return false\n do {\n if (node.value == value) {\n return true\n }\n node = node.next!!\n } while (node !== head)\n return false\n }\n\n\n internal override fun createEntrySet(): MutableSet<MutableMap.MutableEntry<K, V>> = EntrySet()\n\n actual override operator fun get(key: K): V? = map.get(key)?.value\n\n actual override fun put(key: K, value: V): V? {\n checkIsMutable()\n\n val old = map.get(key)\n if (old == null) {\n val newEntry = ChainEntry(key, value)\n map.put(key, newEntry)\n newEntry.addToEnd()\n return null\n } else {\n return old.setValue(value)\n }\n }\n\n actual override fun remove(key: K): V? {\n checkIsMutable()\n\n val entry = map.remove(key)\n if (entry != null) {\n entry.remove()\n return entry.value\n }\n return null\n }\n\n actual override val size: Int get() = map.size\n\n internal override fun checkIsMutable() {\n if (isReadOnly) throw UnsupportedOperationException()\n }\n}\n\n/**\n * Constructs the specialized implementation of [LinkedHashMap] with [String] keys, which stores the keys as properties of\n * JS object without hashing them.\n */\npublic fun <V> linkedStringMapOf(vararg pairs: Pair<String, V>): LinkedHashMap<String, V> {\n return LinkedHashMap<String, V>(stringMapOf<Any>()).apply { putAll(pairs) }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n/*\n * Based on GWT LinkedHashSet\n * Copyright 2008 Google Inc.\n */\n\npackage kotlin.collections\n\n/**\n * The implementation of the [MutableSet] interface, backed by a [LinkedHashMap] instance.\n *\n * This implementation preserves the insertion order of elements during the iteration.\n */\npublic actual open class LinkedHashSet<E> : HashSet<E>, MutableSet<E> {\n\n internal constructor(map: LinkedHashMap<E, Any>) : super(map)\n\n /**\n * Constructs a new empty [LinkedHashSet].\n */\n actual constructor() : super(LinkedHashMap<E, Any>())\n\n /**\n * Constructs a new [LinkedHashSet] filled with the elements of the specified collection.\n */\n actual constructor(elements: Collection<E>) : super(LinkedHashMap<E, Any>()) {\n addAll(elements)\n }\n\n /**\n * Constructs a new empty [LinkedHashSet].\n *\n * @param initialCapacity the initial capacity (ignored)\n * @param loadFactor the load factor (ignored)\n *\n * @throws IllegalArgumentException if the initial capacity or load factor are negative\n */\n actual constructor(initialCapacity: Int, loadFactor: Float) : super(LinkedHashMap<E, Any>(initialCapacity, loadFactor))\n\n actual constructor(initialCapacity: Int) : this(initialCapacity, 0.0f)\n\n @PublishedApi\n internal fun build(): Set<E> {\n (map as LinkedHashMap<E, Any>).build()\n return this\n }\n\n internal override fun checkIsMutable(): Unit = map.checkIsMutable()\n\n// public override fun clone(): Any {\n// return LinkedHashSet(this)\n// }\n\n}\n\n/**\n * Creates a new instance of the specialized implementation of [LinkedHashSet] with the specified [String] elements,\n * which elements the keys as properties of JS object without hashing them.\n */\npublic fun linkedStringSetOf(vararg elements: String): LinkedHashSet<String> {\n return LinkedHashSet(linkedStringMapOf<Any>()).apply { addAll(elements) }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.contracts.*\n\n\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@Deprecated(\"Synchronization on any object is not supported in Kotlin/JS\", ReplaceWith(\"run(block)\"))\n@kotlin.internal.InlineOnly\n@Suppress(\"UNUSED_PARAMETER\")\npublic inline fun <R> synchronized(lock: Any, block: () -> R): R {\n contract {\n callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n }\n return block()\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.io\n\ninternal abstract class BaseOutput {\n open fun println() {\n print(\"\\n\")\n }\n\n open fun println(message: Any?) {\n print(message)\n println()\n }\n\n abstract fun print(message: Any?)\n\n open fun flush() {}\n}\n\n/** JsName used to make the declaration available outside of module to test it */\n@JsName(\"NodeJsOutput\")\ninternal class NodeJsOutput(val outputStream: dynamic) : BaseOutput() {\n override fun print(message: Any?) {\n // TODO: Using local variable because of bug in block decomposition lowering in IR backend\n val messageString = String(message)\n outputStream.write(messageString)\n }\n}\n\n/** JsName used to make the declaration available outside of module to test it */\n@JsName(\"OutputToConsoleLog\")\ninternal class OutputToConsoleLog : BaseOutput() {\n override fun print(message: Any?) {\n console.log(message)\n }\n\n override fun println(message: Any?) {\n console.log(message)\n }\n\n override fun println() {\n console.log(\"\")\n }\n}\n\n/** JsName used to make the declaration available outside of module to test it and use at try.kotl.in */\n@JsName(\"BufferedOutput\")\ninternal open class BufferedOutput : BaseOutput() {\n var buffer = \"\"\n\n override fun print(message: Any?) {\n buffer += String(message)\n }\n\n override fun flush() {\n buffer = \"\"\n }\n}\n\n/** JsName used to make the declaration available outside of module to test it */\n@JsName(\"BufferedOutputToConsoleLog\")\ninternal class BufferedOutputToConsoleLog : BufferedOutput() {\n override fun print(message: Any?) {\n var s = String(message)\n val i = s.nativeLastIndexOf(\"\\n\", 0)\n if (i >= 0) {\n buffer += s.substring(0, i)\n flush()\n s = s.substring(i + 1)\n }\n buffer += s\n }\n\n override fun flush() {\n console.log(buffer)\n buffer = \"\"\n }\n}\n\n/** JsName used to make the declaration available outside of module to test it and use at try.kotl.in */\n@JsName(\"output\")\ninternal var output = run {\n val isNode: Boolean = js(\"typeof process !== 'undefined' && process.versions && !!process.versions.node\")\n if (isNode) NodeJsOutput(js(\"process.stdout\")) else BufferedOutputToConsoleLog()\n}\n\n@kotlin.internal.InlineOnly\nprivate inline fun String(value: Any?): String = js(\"String\")(value)\n\n/** Prints the line separator to the standard output stream. */\npublic actual fun println() {\n output.println()\n}\n\n/** Prints the given [message] and the line separator to the standard output stream. */\npublic actual fun println(message: Any?) {\n output.println(message)\n}\n\n/** Prints the given [message] to the standard output stream. */\npublic actual fun print(message: Any?) {\n output.print(message)\n}\n\n@SinceKotlin(\"1.6\")\npublic actual fun readln(): String = throw UnsupportedOperationException(\"readln is not supported in Kotlin/JS\")\n\n@SinceKotlin(\"1.6\")\npublic actual fun readlnOrNull(): String? = throw UnsupportedOperationException(\"readlnOrNull is not supported in Kotlin/JS\")","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\nimport kotlin.coroutines.intrinsics.CoroutineSingletons.*\nimport kotlin.coroutines.intrinsics.COROUTINE_SUSPENDED\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal actual class SafeContinuation<in T>\ninternal actual constructor(\n private val delegate: Continuation<T>,\n initialResult: Any?\n) : Continuation<T> {\n @PublishedApi\n internal actual constructor(delegate: Continuation<T>) : this(delegate, UNDECIDED)\n\n public actual override val context: CoroutineContext\n get() = delegate.context\n\n private var result: Any? = initialResult\n\n public actual override fun resumeWith(result: Result<T>) {\n val cur = this.result\n when {\n cur === UNDECIDED -> {\n this.result = result.value\n }\n cur === COROUTINE_SUSPENDED -> {\n this.result = RESUMED\n delegate.resumeWith(result)\n }\n else -> throw IllegalStateException(\"Already resumed\")\n }\n }\n\n @PublishedApi\n internal actual fun getOrThrow(): Any? {\n if (result === UNDECIDED) {\n result = COROUTINE_SUSPENDED\n return COROUTINE_SUSPENDED\n }\n val result = this.result\n return when {\n result === RESUMED -> COROUTINE_SUSPENDED // already called continuation, indicate COROUTINE_SUSPENDED upstream\n result is Result.Failure -> throw result.exception\n else -> result // either COROUTINE_SUSPENDED or data\n }\n }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines.cancellation\n\n\n@SinceKotlin(\"1.4\")\npublic actual open class CancellationException : IllegalStateException {\n actual constructor() : super()\n actual constructor(message: String?) : super(message)\n constructor(message: String?, cause: Throwable?) : super(message, cause)\n constructor(cause: Throwable?) : super(cause)\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines.js.internal\n\nimport kotlin.coroutines.Continuation\nimport kotlin.coroutines.EmptyCoroutineContext\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal val EmptyContinuation = Continuation<Any?>(EmptyCoroutineContext) { result ->\n result.getOrThrow()\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n * Exposes the [Date API](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Date) to Kotlin.\n */\n@Suppress(\"NOT_DOCUMENTED\")\npublic external class Date() {\n public constructor(milliseconds: Number)\n\n public constructor(dateString: String)\n\n public constructor(year: Int, month: Int)\n\n public constructor(year: Int, month: Int, day: Int)\n\n public constructor(year: Int, month: Int, day: Int, hour: Int)\n\n public constructor(year: Int, month: Int, day: Int, hour: Int, minute: Int)\n\n public constructor(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int)\n\n public constructor(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int, millisecond: Number)\n\n public fun getDate(): Int\n\n public fun getDay(): Int\n\n public fun getFullYear(): Int\n\n public fun getHours(): Int\n\n public fun getMilliseconds(): Int\n\n public fun getMinutes(): Int\n\n public fun getMonth(): Int\n\n public fun getSeconds(): Int\n\n public fun getTime(): Double\n\n public fun getTimezoneOffset(): Int\n\n public fun getUTCDate(): Int\n\n public fun getUTCDay(): Int\n\n public fun getUTCFullYear(): Int\n\n public fun getUTCHours(): Int\n\n public fun getUTCMilliseconds(): Int\n\n public fun getUTCMinutes(): Int\n\n public fun getUTCMonth(): Int\n\n public fun getUTCSeconds(): Int\n\n public fun toDateString(): String\n\n public fun toISOString(): String\n\n public fun toJSON(): Json\n\n public fun toLocaleDateString(locales: Array<String> = definedExternally, options: LocaleOptions = definedExternally): String\n\n public fun toLocaleDateString(locales: String, options: LocaleOptions = definedExternally): String\n\n public fun toLocaleString(locales: Array<String> = definedExternally, options: LocaleOptions = definedExternally): String\n\n public fun toLocaleString(locales: String, options: LocaleOptions = definedExternally): String\n\n public fun toLocaleTimeString(locales: Array<String> = definedExternally, options: LocaleOptions = definedExternally): String\n\n public fun toLocaleTimeString(locales: String, options: LocaleOptions = definedExternally): String\n\n public fun toTimeString(): String\n\n public fun toUTCString(): String\n\n public companion object {\n public fun now(): Double\n\n public fun parse(dateString: String): Double\n\n public fun UTC(year: Int, month: Int): Double\n\n public fun UTC(year: Int, month: Int, day: Int): Double\n\n public fun UTC(year: Int, month: Int, day: Int, hour: Int): Double\n\n public fun UTC(year: Int, month: Int, day: Int, hour: Int, minute: Int): Double\n\n public fun UTC(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int): Double\n\n public fun UTC(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int, millisecond: Number): Double\n }\n\n public interface LocaleOptions {\n public var localeMatcher: String?\n\n public var timeZone: String?\n\n public var hour12: Boolean?\n\n   public var formatMatcher: String?\n\n   public var weekday: String?\n\n public var era: String?\n\n   public var year: String?\n\n   public var month: String?\n\n   public var day: String?\n\n   public var hour: String?\n\n   public var minute: String?\n\n   public var second: String?\n\n   public var timeZoneName: String?\n   }\n}\n\npublic inline fun dateLocaleOptions(init: Date.LocaleOptions.() -> Unit): Date.LocaleOptions {\n   val result = js(\"new Object()\").unsafeCast<Date.LocaleOptions>()\n   init(result)\n   return result\n}","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.dom\n\nimport org.w3c.dom.Document\nimport org.w3c.dom.Element\nimport kotlin.internal.LowPriorityInOverloadResolution\nimport kotlinx.dom.appendElement as newAppendElement\nimport kotlinx.dom.createElement as newCreateElement\n\n/**\n * Creates a new element with the specified [name].\n *\n * The element is initialized with the specified [init] function.\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to another package, use 'kotlinx.dom.createElement' instead.\",\n   replaceWith = ReplaceWith(\"this.createElement(name, init)\", \"kotlinx.dom.createElement\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic inline fun Document.createElement(name: String, noinline init: Element.() -> Unit): Element = this.newCreateElement(name, init)\n\n/**\n * Appends a newly created element with the specified [name] to this element.\n *\n * The element is initialized with the specified [init] function.\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to another package, use 'kotlinx.dom.appendElement' instead.\",\n   replaceWith = ReplaceWith(\"this.appendElement(name, init)\", \"kotlinx.dom.appendElement\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic inline fun Element.appendElement(name: String, noinline init: Element.() -> Unit): Element = this.newAppendElement(name, init)\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.dom\n\nimport org.w3c.dom.Element\nimport kotlin.internal.LowPriorityInOverloadResolution\nimport kotlinx.dom.addClass as newAddClass\nimport kotlinx.dom.hasClass as newHasClass\nimport kotlinx.dom.removeClass as newRemoveClass\n\n/** Returns true if the element has the given CSS class style in its 'class' attribute */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to another package, use 'kotlinx.dom.hasClass' instead.\",\n   replaceWith = ReplaceWith(\"this.hasClass(cssClass)\", \"kotlinx.dom.hasClass\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\ninline fun Element.hasClass(cssClass: String): Boolean = this.newHasClass(cssClass)\n\n/**\n * Adds CSS class to element. Has no effect if all specified classes are already in class attribute of the element\n *\n * @return true if at least one class has been added\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to another package, use 'kotlinx.dom.addClass' instead.\",\n   replaceWith = ReplaceWith(\"this.addClass(cssClasses)\", \"kotlinx.dom.addClass\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\ninline fun Element.addClass(vararg cssClasses: String): Boolean = this.newAddClass(*cssClasses)\n\n/**\n * Removes all [cssClasses] from element. Has no effect if all specified classes are missing in class attribute of the element\n *\n * @return true if at least one class has been removed\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to another package, use 'kotlinx.dom.removeClass' instead.\",\n   replaceWith = ReplaceWith(\"this.removeClass(cssClasses)\", \"kotlinx.dom.removeClass\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\ninline fun Element.removeClass(vararg cssClasses: String): Boolean = this.newRemoveClass(*cssClasses)","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.dom\n\nimport org.w3c.dom.Element\nimport org.w3c.dom.Node\nimport kotlin.internal.LowPriorityInOverloadResolution\nimport kotlinx.dom.isElement as newIsElement\nimport

kotlinx.dom.isText as newIsText\n\n/**\n * Gets a value indicating whether this node is a TEXT_NODE or a
CDATA_SECTION_NODE.\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API
is moved to another package, use 'kotlinx.dom.isText' instead.\",\n   replaceWith = ReplaceWith(\"this.isText\",
\"kotlinx.dom.isText\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic val
Node.isText: Boolean\n   inline get() = this.newIsText\n\n/**\n * Gets a value indicating whether this node is an
[Element].\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to
another package, use 'kotlinx.dom.isElement'
instead.\",\n   replaceWith = ReplaceWith(\"this.isElement\",
\"kotlinx.dom.isElement\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic val
Node.isElement: Boolean\n   inline get() = this.newIsElement\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n */\n\npackage org.w3c.dom.events\n\npublic fun
EventListener(handler: (Event) -> Unit): EventListener = EventListenerHandler(handler)\n\nprivate class
EventListenerHandler(private val handler: (Event) -> Unit) : EventListener {\n   public override fun
handleEvent(event: Event) {\n   handler(event)\n   }\n\n   public override fun toString(): String =
\"EventListenerHandler($handler)\"\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache
2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage org.w3c.dom\n\npublic external
interface ItemArrayLike<out T> {\n   val length: Int\n   fun item(index: Int): T?\n}\n\n/**\n * Returns the view of
this `ItemArrayLike<T>` collection as `List<T>`\n */\npublic fun <T> ItemArrayLike<T>.asList(): List<T> =
object : AbstractList<T>() {\n   override val size: Int get() = this@asList.length\n\n   override fun get(index: Int): T
= when (index) {\n   in 0..lastIndex -> this@asList.item(index).unsafeCast<T>()\n   else -> throw
IndexOutOfBoundsException(\"index $index is not in range [0..$lastIndex]\")\n   }\n}","/*\n * Copyright 2010-
2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.dom\n\nimport
org.w3c.dom.Element\nimport org.w3c.dom.Node\nimport
kotlin.internal.LowPriorityInOverloadResolution\nimport
kotlinx.dom.appendText as newAppendText\nimport kotlinx.dom.clear as newClear\n\n/** Removes all the
children from this node. */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is
moved to another package, use 'kotlinx.dom.clear' instead.\",\n   replaceWith = ReplaceWith(\"this.clear()\",
\"kotlinx.dom.clear\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic inline fun
Node.clear() = this.newClear()\n\n/**\n * Creates text node and append it to the element.\n *\n * @return this
element\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to another
package, use 'kotlinx.dom.appendText' instead.\",\n   replaceWith = ReplaceWith(\"this.appendText(text)\",
\"kotlinx.dom.appendText\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\ninline fun
Element.appendText(text: String): Element = this.newAppendText(text)\n","/*\n * Copyright 2010-2018 JetBrains
s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n * Reinterprets this value as a value
of the [dynamic type](/docs/reference/dynamic-type.html).\n */\n@kotlin.internal.InlineOnly\npublic inline fun
Any?.asDynamic(): dynamic = this\n\n/**\n * Reinterprets this value as a value of the specified type [T] without any
actual type checking.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Any?.unsafeCast():
@kotlin.internal.NoInfer T = this.asDynamic()\n\n/**\n * Reinterprets this `dynamic` value as a value of the
specified type [T] without any actual type checking.\n
*/\n@kotlin.internal.DynamicExtension\n@JsName(\"unsafeCastDynamic\")\n@kotlin.internal.InlineOnly\npublic
inline fun <T> dynamic.unsafeCast(): @kotlin.internal.NoInfer T = this\n\n/**\n * Allows to iterate this `dynamic`
object in the following cases:\n * - when it has an `iterator`

function,\n * - when it is an array\n * - when it is an instance of [kotlin.collections.Iterable]\n */\n@kotlin.internal.DynamicExtension\npublic operator fun dynamic.iterator(): Iterator<dynamic> {\n   val r: Any? = this\n\n   return when {\n   this[\"iterator\"] != null ->\n   this[\"iterator\"]()\n   isArrayish(r) ->\n   r.unsafeCast<Array<*>>().iterator()\n\n   else ->\n   (r as Iterable<*>).iterator()\n   }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// a package is omitted to get declarations directly under the module\n\n@JsName(\"throwNPE\")\ninternal fun throwNPE(message: String) {\n   throw NullPointerException(message)\n}\n\n@JsName(\"throwCCE\")\ninternal fun throwCCE() {\n   throw ClassCastException(\"Illegal cast\")\n}\n\n@JsName(\"throwISE\")\ninternal

fun throwISE(message: String) {\n   throw IllegalStateException(message)\n}\n\n@JsName(\"throwUPAE\")\ninternal fun throwUPAE(propertyName: String) {\n   throw UninitializedPropertyAccessException(\"lateinit property ${propertyName} has not been initialized\")\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.collections\n\n/**\n * Groups elements from the [Grouping] source by key and counts elements in each group.\n *\n * @return a [Map] associating the key of each group with the count of elements in the group.\n *\n * @sample samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin(\"1.1\")\npublic actual fun <T, K> Grouping<T, K>.eachCount(): Map<K, Int> =\n   fold(0) { acc, _ -> acc + 1 }\n\n/*\n/**\n * Groups elements from the [Grouping] source by key and sums values provided by

the [valueSelector] function for elements in each group.\n *\n * @return a [Map] associating the key of each group with the count of element in the group.\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K> Grouping<T, K>.eachSumOf(valueSelector: (T) -> Int): Map<K, Int> =\n   fold(0) { acc, e -> acc + valueSelector(e) }\n*/","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"GroupingKt\")\n@file:kotlin.jvm.JvmMultifileClass\n\npackage kotlin.collections\n\n/**\n * Represents a source of elements with a [keyOf] function, which can be applied to each element to get its key.\n *\n * A [Grouping] structure serves as an intermediate step in group-and-fold operations:\n * they group elements by their keys and then fold each group with some aggregating operation.\n *\n * It is created by attaching

`keySelector: (T) -> K` function to a source of elements.\n * To get an instance of [Grouping] use one of `groupingBy` extension functions:\n * - [Iterable.groupingBy]\n * - [Sequence.groupingBy]\n * - [Array.groupingBy]\n * - [CharSequence.groupingBy]\n *\n * For the list of group-and-fold operations available, see the [extension functions](#extension-functions) for `Grouping`.\n */\n@SinceKotlin(\"1.1\")\npublic interface Grouping<T, out K> {\n   /** Returns an [Iterator] over the elements of the source of this grouping. */\n   fun sourceIterator(): Iterator<T>\n   /** Extracts the key of an [element]. */\n   fun keyOf(element: T): K\n}\n\n/**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current element as arguments, and stores the results in a new map.\n *\n * The key for each element is provided by the [Grouping.keyOf] function.\n *\n * @param operation

function is invoked on each element with the following parameters:\n * - `key`: the key of the group this element belongs to;\n * - `accumulator`: the current value of the accumulator of the group, can be `null` if it's the first `element` encountered in the group;\n * - `element`: the element from the source being aggregated;\n * - `first`: indicates whether it's the first `element` encountered in the group.\n *\n * @return a [Map] associating the key of each group with the result of aggregation of the group elements.\n * @sample samples.collections.Grouping.aggregateByRadix\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, R> Grouping<T, K>.aggregate(\n   operation: (key: K, accumulator: R?, element: T, first: Boolean) -> R\n): Map<K, R> {\n   return aggregateTo(mutableMapOf<K, R>(), operation)\n}\n\n/**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value

and the current element as arguments,\n * and stores the results in the given [destination] map.\n *\n * The key for each element is provided by the [Grouping.keyOf] function.\n *\n * @param operation a function that is invoked on each element with the following parameters:\n * - `key`: the key of the group this element belongs to;\n * - `accumulator`: the current value of the accumulator of the group, can be `null` if it's the first `element` encountered in the group;\n * - `element`: the element from the source being aggregated;\n * - `first`: indicates whether it's the first `element` encountered in the group.\n *\n * If the [destination] map already has a value corresponding to some key,\n * then the elements being aggregated for that key are never considered as `first`.\n *\n * @return the [destination] map associating the key of each group with the result of aggregation of the group elements.\n * @sample samples.collections.Grouping.aggregateByRadixTo\n */\n@SinceKotlin(\"1.1\")\npublic

inline fun <T, K, R, M : MutableMap<in K, R>> Grouping<T, K>.aggregateTo(\n   destination: M,\n   operation: (key: K, accumulator: R?, element: T, first: Boolean) -> R\n): M {\n   for (e in this.sourceIterator()) {\n   val key = keyOf(e)\n   val accumulator = destination[key]\n   destination[key] = operation(key, accumulator, e, accumulator == null && !destination.containsKey(key))\n   }\n   return destination\n}\n\n/**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current element as arguments, and stores the results in a new map.\n * An initial value of accumulator is provided by [initialValueSelector] function.\n *\n * @param initialValueSelector a function that provides an initial value of accumulator for each group.\n * It's invoked with parameters:\n * - `key`: the key of the group;\n * - `element`: the first element

being encountered in that group.\n *\n * @param operation a function that is invoked on each element with the following parameters:\n * - `key`: the key of the group this element belongs to;\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being accumulated.\n *\n * @return a [Map] associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.foldByEvenLengthWithComputedInitialValue\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, R> Grouping<T, K>.fold(\n   initialValueSelector: (key: K, element: T) -> R,\n   operation: (key: K, accumulator: R, element: T) -> R\n): Map<K, R> =\n   @Suppress(\"UNCHECKED_CAST\")\n   aggregate { key, acc, e, first -> operation(key, if (first) initialValueSelector(key, e) else acc as R, e) }\n\n/**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n

* passing the previously accumulated value and the current element as arguments,\n * and stores the results in the given [destination] map.\n * An initial value of accumulator is provided by [initialValueSelector] function.\n *\n * @param initialValueSelector a function that provides an initial value of accumulator for each group.\n * It's invoked with parameters:\n * - `key`: the key of the group;\n * - `element`: the first element being encountered in that group.\n *\n * If the [destination] map already has a value corresponding to some key, that value is used as an initial value of\n * the accumulator for that group and the [initialValueSelector] function is not called for that group.\n *\n * @param operation a function that is invoked on each element with the following parameters:\n * - `key`: the key of the group this element belongs to;\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being accumulated.\n

*\n * @return the [destination] map associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.foldByEvenLengthWithComputedInitialValueTo\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, R, M : MutableMap<in K, R>> Grouping<T, K>.foldTo(\n   destination: M,\n   initialValueSelector: (key: K, element: T) -> R,\n   operation: (key: K, accumulator: R, element: T) -> R\n): M =\n   @Suppress(\"UNCHECKED_CAST\")\n   aggregateTo(destination) { key, acc, e, first -> operation(key, if (first) initialValueSelector(key, e) else acc as R, e) }\n\n\n/**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current element as arguments, and stores the results in a new map.\n * An initial value of accumulator is the same [initialValue] for each group.\n *\n * @param operation a function that is invoked

on each element with the following parameters:\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being accumulated.\n *\n * @return a [Map] associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.foldByEvenLengthWithConstantInitialValue\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, R> Grouping<T, K>.fold(\n   initialValue: R,\n   operation: (accumulator: R, element: T) -> R\n): Map<K, R> =\n   @Suppress(\"UNCHECKED_CAST\")\n   aggregate { _, acc, e, first -> operation(if (first) initialValue else acc as R, e) }\n\n/**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current element as arguments,\n * and stores the results in the given [destination] map.\n * An initial value of accumulator is the same [initialValue]
for each group.\n *\n * If the [destination] map already has a value corresponding to the key of some group,\n * that value is used as an initial value of the accumulator for that group.\n *\n * @param operation a function that is invoked on each element with the following parameters:\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being accumulated.\n *\n * @return the [destination] map associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.foldByEvenLengthWithConstantInitialValueTo\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, R, M : MutableMap<in K, R>> Grouping<T, K>.foldTo(\n   destination: M,\n   initialValue: R,\n   operation: (accumulator: R, element: T) -> R\n): M =\n   @Suppress(\"UNCHECKED_CAST\")\n   aggregateTo(destination) { _, acc, e, first -> operation(if (first) initialValue else acc as R, e) }\n\n\n/**\n *
Groups elements from the [Grouping] source by key and applies the reducing [operation] to the elements of each group\n * sequentially starting from the second element of the group,\n * passing the previously accumulated value and the current element as arguments,\n * and stores the results in a new map.\n * An initial value of accumulator is the first element of the group.\n *\n * @param operation a function that is invoked on each subsequent element of the group with the following parameters:\n * - `key`: the key of the group this element belongs to;\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being accumulated.\n *\n * @return a [Map] associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.reduceByMaxVowels\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <S, T : S, K> Grouping<T, K>.reduce(\n   operation: (key: K, accumulator: S, element:
T) -> S\n): Map<K, S> =\n   aggregate { key, acc, e, first ->\n   @Suppress(\"UNCHECKED_CAST\")\n   if (first) e else operation(key, acc as S, e)\n   }\n\n/**\n * Groups elements from the [Grouping] source by key and applies the reducing [operation] to the elements of each group\n * sequentially starting from the second element of the group,\n * passing the previously accumulated value and the current element as arguments,\n * and stores the results in the given [destination] map.\n * An initial value of accumulator is the first element of the group.\n *\n * If the [destination] map already has a value corresponding to the key of some group,\n * that value is used as an initial value of the accumulator for that group and the first element of that group is also\n * subjected to the [operation].\n\n * @param operation a function that is invoked on each subsequent element of the group with the following parameters:\n * - `accumulator`: the current value of the accumulator of
the group;\n * - `element`: the element from the source being folded;\n *\n * @return the [destination] map associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.reduceByMaxVowelsTo\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <S, T : S, K, M : MutableMap<in K, S>> Grouping<T, K>.reduceTo(\n   destination: M,\n   operation: (key: K, accumulator: S, element: T) -> S\n): M =\n   aggregateTo(destination) { key, acc, e, first ->\n   @Suppress(\"UNCHECKED_CAST\")\n   if (first) e else operation(key, acc as S, e)\n   }\n\n\n/**\n * Groups elements from the [Grouping] source by key and counts elements in each group to the given [destination] map.\n *\n * If the [destination] map already has a value corresponding to the key of some group,\n * that value is used as an initial value of the counter for that group.\n *\n * @return the [destination] map associating the key of each group with the count of elements

in the group.\n *\n * @sample samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin(\"1.1\")\npublic fun <T, K, M : MutableMap<in K, Int>> Grouping<T, K>.eachCountTo(destination: M): M =\n   foldTo(destination, 0) { acc, _ -> acc + 1 }\n\n/*\n/**\n * Groups elements from the [Grouping] source by key and sums values provided by the [valueSelector] function for elements in each group\n * to the given [destination] map.\n *\n *\n * If the [destination] map already has a value corresponding to the key of some group,\n * that value is used as an initial value of the sum for that group.\n *\n * @return the [destination] map associating the key of each group with the sum of elements in the group.\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, M : MutableMap<in K, Int>> Grouping<T, K>.eachSumOfTo(destination: M, valueSelector: (T) -> Int): M =\n   foldTo(destination, 0) { acc, e -> acc + valueSelector(e)}\n*/\n\n\n/*\n// TODO: sum by long and by double overloads\n\npublic inline fun <T, K, M : MutableMap<in K, Long>> Grouping<T, K>.sumEachByLongTo(destination: M, valueSelector: (T) -> Long): M =\n   foldTo(destination, 0L) { acc, e -> acc + valueSelector(e)}\n\npublic inline fun <T, K> Grouping<T, K>.sumEachByLong(valueSelector: (T) -> Long): Map<K, Long> =\n   fold(0L) { acc, e -> acc + valueSelector(e)}\n\npublic inline fun <T, K, M : MutableMap<in K, Double>> Grouping<T, K>.sumEachByDoubleTo(destination: M, valueSelector: (T) -> Double): M =\n   foldTo(destination, 0.0) { acc, e -> acc + valueSelector(e)}\n\npublic inline fun <T, K> Grouping<T, K>.sumEachByDouble(valueSelector: (T) -> Double): Map<K, Double> =\n   fold(0.0) { acc, e -> acc + valueSelector(e)}\n*/\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n@Retention(AnnotationRetention.BINARY)\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY)\ninternal annotation class JsPolyfill(val implementation: String)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n * An interface for indexing access to a collection of key-value pairs, where type of key is [String] and type of value is [Any?][Any].\n */\npublic external interface Json {\n   /**\n   * Calls to the function will be translated to indexing operation (square brackets) on the receiver with [propertyName] as the argument.\n   *\n   * E.g. for next code:\n   * ```kotlin\n   * fun test(j: Json, p: String) = j[\"prop\"] + j.get(p)\n   * ```\n   *\n   * will be generated:\n   * ```js\n   * function test(j, p) {\n   *   return j[\"prop\"] + j[p];\n   * }\n   * ```\n   */\n   operator fun get(propertyName: String): Any?\n\n   /**\n   * Calls of the function will be translated to an assignment of [value] to the receiver indexed (with square brackets/index operation) with [propertyName].\n   *\n   * E.g. for the following code:\n   * ```kotlin\n   * fun test(j: Json, p: String, newValue: Any) {\n   *   j[\"prop\"] = 1\n   *   j.set(p, newValue)\n   * }\n   * ```\n   *\n   * will be generated:\n   * ```js\n   * function test(j, p, newValue) {\n   *   j[\"prop\"] = 1;\n   *   j[p] = newValue;\n   * }\n   * }\n   * ```\n   */\n   operator fun set(propertyName: String, value: Any?): Unit\n}\n\n/**\n * Returns a simple JavaScript object (as [Json]) using provided key-value pairs as names and values of its properties.\n */\npublic fun json(vararg pairs: Pair<String, Any?>): Json {\n   val res: dynamic = js(\"({})\")\n   for ((name, value) in pairs) {\n   res[name] = value\n   }\n   return res\n}\n\n/**\n * Adds key-value pairs from [other] to [this].\n * Returns the original receiver.\n */\npublic fun Json.add(other: Json): Json {\n   val keys: Array<String> = js(\"Object\").keys(other)\n   for (key in keys) {\n   if (other.asDynamic().hasOwnProperty(key)) {\n   this[key] = other[key];\n   }\n   }\n   return this\n}\n\n/**\n * Exposes the JavaScript [JSON object](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/JSON) to Kotlin.\n */\n@Suppress(\"NOT_DOCUMENTED\")\npublic external object JSON {\n   public fun stringify(o: Any?): String\n   public fun stringify(o: Any?, replacer: ((key: String, value: Any?) -> Any?)): String\n   public fun stringify(o: Any?, replacer: ((key: String, value: Any?) -> Any?)? = definedExternally, space: Int): String\n   public fun stringify(o: Any?, replacer: ((key: String, value: Any?) -> Any?)? = definedExternally, space: String): String\n   public fun stringify(o: Any?, replacer: Array<String>): String\n public fun stringify(o: Any?, replacer: Array<String>, space: Int): String\n   public fun stringify(o: Any?, replacer: Array<String>, space: String): String\n\n   public fun <T> parse(text: String): T\n   public fun <T> parse(text: String, reviver: ((key: String, value: Any?) -> Any?)): T\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.math\n\n\nimport kotlin.internal.InlineOnly\nimport kotlin.js.JsMath as nativeMath\n\n\n// region ================ Double Math ==\n\n/** Computes the sine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `sin(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sin(x: Double): Double = nativeMath.sin(x)\n\n/** Computes the cosine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `cos(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun cos(x: Double): Double = nativeMath.cos(x)\n\n/** Computes the tangent of the angle [x] given in radians.\n *\n * Special cases:\n *   - `tan(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun tan(x: Double): Double = nativeMath.tan(x)\n\n/**\n * Computes the arc sine of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `asin(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun asin(x: Double): Double = nativeMath.asin(x)\n\n/**\n * Computes the arc cosine of the value [x];\n * the returned value is an angle in the range from `0.0` to `PI` radians.\n *\n * Special cases:\n *   - `acos(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun acos(x: Double): Double = nativeMath.acos(x)\n\n/**\n * Computes the arc tangent of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `atan(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun atan(x: Double): Double = nativeMath.atan(x)\n\n/**\n * Returns the angle `theta` of the polar coordinates `(r, theta)` that correspond\n * to the rectangular coordinates `(x, y)` by computing the arc tangent of the value [y] / [x];\n * the returned value is an angle in the range from `-PI` to `PI` radians.\n *\n * Special cases:\n *   - `atan2(0.0, 0.0)` is `0.0`\n *   - `atan2(0.0, x)` is `0.0` for `x > 0` and `PI` for `x < 0`\n *   - `atan2(-0.0, x)` is `-0.0` for 'x > 0` and `-PI` for `x < 0`\n *   - `atan2(y, +Inf)` is `0.0` for `0 < y < +Inf` and `-0.0` for '-Inf < y < 0`\n *   - `atan2(y, -Inf)` is `PI` for `0 < y < +Inf` and `-PI` for `-Inf < y < 0`\n *   - `atan2(y, 0.0)` is `PI/2` for `y > 0` and `-PI/2` for `y < 0`\n *   - `atan2(+Inf, x)` is `PI/2` for finite `x`y\n *   - `atan2(-Inf, x)` is `-PI/2` for finite `x`\n *   - `atan2(NaN, x)` and `atan2(y, NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun atan2(y: Double, x: Double): Double = nativeMath.atan2(y, x)\n\n/**\n * Computes the hyperbolic sine of the value [x].\n *\n * Special cases:\n *   - `sinh(NaN)` is `NaN`\n *   - `sinh(+Inf)` is `+Inf`\n *   - `sinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sinh(x: Double): Double = nativeSinh(x)\n\n/**\n * Computes the hyperbolic cosine of the value [x].\n *\n * Special cases:\n *   - `cosh(NaN)` is `NaN`\n *   - `cosh(+Inf|-Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun cosh(x: Double): Double = nativeCosh(x)\n\n/**\n * Computes the hyperbolic tangent of the value [x].\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(+Inf)` is `1.0`\n *   - `tanh(-Inf)` is `-1.0`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun tanh(x: Double): Double = nativeTanh(x)\n\n/**\n * Computes the inverse hyperbolic sine of the value [x].\n *\n * The returned value is `y` such that `sinh(y) == x`.\n *\n * Special cases:\n *   - `asinh(NaN)` is `NaN`\n *   - `asinh(+Inf)` is `+Inf`\n *   - `asinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun asinh(x: Double): Double = nativeAsinh(x)\n\n/**\n * Computes the inverse hyperbolic cosine of the value [x].\n *\n * The returned value is positive `y` such that `cosh(y) == x`.\n *\n * Special cases:\n *   - `acosh(NaN)` is `NaN`\n *   - `acosh(x)` is `NaN` when `x < 1`\n *   - `acosh(+Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun acosh(x: Double): Double = nativeAcosh(x)\n\n/**\n * Computes the inverse hyperbolic tangent of the value [x].\n *\n * The returned value is `y` such that `tanh(y) == x`.\n

*\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(x)` is `NaN` when `x > 1` or `x < -1`\n *   - `tanh(1.0)` is `+Inf`\n *   - `tanh(-1.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun atanh(x: Double): Double = nativeAtanh(x)\n\n/**\n * Computes `sqrt(x^2 + y^2)` without intermediate overflow or underflow.\n *\n * Special cases:\n *   - returns `+Inf` if any of arguments is infinite\n *   - returns `NaN` if any of arguments is `NaN` and the other is not infinite\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun hypot(x: Double, y: Double): Double = nativeHypot(x, y)\n\n/**\n * Computes the positive square root of the value [x].\n *\n * Special cases:\n *   - `sqrt(x)` is `NaN` when `x < 0` or `x` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sqrt(x: Double): Double = nativeMath.sqrt(x)\n\n/**\n * Computes Euler's number `e` raised to the power of the value [x].\n *\n * Special cases:\n *   - `exp(NaN)`

is `NaN`\n *   - `exp(+Inf)` is `+Inf`\n *   - `exp(-Inf)` is `0.0`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun exp(x: Double): Double = nativeMath.exp(x)\n\n/**\n * Computes `exp(x) - 1`.\n *\n * This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `expm1(NaN)` is `NaN`\n *   - `expm1(+Inf)` is `+Inf`\n *   - `expm1(-Inf)` is `-1.0`\n *\n * @see [exp] function.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun expm1(x: Double): Double = nativeExpm1(x)\n\n/**\n * Computes the logarithm of the value [x] to the given [base].\n *\n * Special cases:\n *   - `log(x, b)` is `NaN` if either `x` or `b` are `NaN`\n *   - `log(x, b)` is `NaN` when `x < 0` or `b <= 0` or `b == 1.0`\n *   - `log(+Inf, +Inf)` is `NaN`\n *   - `log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1`\n *   - `log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b > 1`\n *\n * See also logarithm functions for

common fixed bases: [ln], [log10] and [log2].\n */\n@SinceKotlin(\"1.2\")\npublic actual fun log(x: Double, base: Double): Double {\n   if (base <= 0.0 || base == 1.0) return Double.NaN\n   return nativeMath.log(x) / nativeMath.log(base)\n}\n\n/**\n * Computes the natural logarithm (base `E`) of the value [x].\n *\n * Special cases:\n *   - `ln(NaN)` is `NaN`\n *   - `ln(x)` is `NaN` when `x < 0.0`\n *   - `ln(+Inf)` is `+Inf`\n *   - `ln(0.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun ln(x: Double): Double = nativeMath.log(x)\n\n/**\n * Computes the common logarithm (base 10) of the value [x].\n *\n * @see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun log10(x: Double): Double = nativeLog10(x)\n\n/**\n * Computes the binary logarithm (base 2) of the value [x].\n *\n * @see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun log2(x: Double): Double

= nativeLog2(x)\n\n/**\n * Computes `ln(x + 1)`.\n *\n * This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `ln1p(NaN)` is `NaN`\n *   - `ln1p(x)` is `NaN` where `x < -1.0`\n *   - `ln1p(-1.0)` is `-Inf`\n *   - `ln1p(+Inf)` is `+Inf`\n *\n * @see [ln] function\n * @see [expm1] function\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun ln1p(x: Double): Double = nativeLog1p(x)\n\n/**\n * Rounds the given value [x] to an integer towards positive infinity.\n\n * @return the smallest double value that is greater than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `ceil(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun ceil(x: Double): Double = nativeMath.ceil(x)\n\n/**\n * Rounds the given value [x] to an integer towards negative infinity.\n\n * @return the largest

double value that is smaller than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `floor(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun floor(x: Double): Double = nativeMath.floor(x)\n\n/**\n * Rounds the given value [x] to an integer towards zero.\n *\n * @return the value [x] having its fractional part truncated.\n *\n * Special cases:\n *   - `truncate(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun truncate(x: Double): Double = nativeTrunc(x)\n\n/**\n * Rounds the given value [x] towards the closest integer with ties rounded towards even integer.\n *\n * Special cases:\n *   - `round(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic actual fun round(x: Double):

Double {\n   if (x % 0.5 != 0.0) {\n   return nativeMath.round(x)\n   }\n   val floor = floor(x)\n   return if (floor % 2 == 0.0) floor else ceil(x)\n}\n\n/**\n * Returns the absolute value of the given value [x].\n *\n * Special cases:\n *   - `abs(NaN)` is `NaN`\n *\n * @see absoluteValue extension property for [Double]\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun abs(x: Double): Double = nativeMath.abs(x)\n\n/**\n * Returns the sign of the given value [x]:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `sign(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sign(x: Double): Double = nativeSign(x)\n\n\n/**\n * Returns the smaller of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun min(a: Double, b: Double): Double = nativeMath.min(a, b)\n\n/**\n

* Returns the greater of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun max(a: Double, b: Double): Double = nativeMath.max(a, b)\n\n// extensions\n\n/**\n * Raises this value to the power [x].\n *\n * Special cases:\n *   - `b.pow(0.0)` is `1.0`\n *   - `b.pow(1.0) == b`\n *   - `b.pow(NaN)` is `NaN`\n *   - `NaN.pow(x)` is `NaN` for `x != 0.0`\n *   - `b.pow(Inf)` is `NaN` for `abs(b) == 1.0`\n *   - `b.pow(x)` is `NaN` for `b < 0` and `x` is finite and not an integer\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Double.pow(x: Double): Double = nativeMath.pow(this, x)\n\n/**\n * Raises this value to the integer power [n].\n *\n * See the other overload of [pow] for details.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Double.pow(n: Int): Double = nativeMath.pow(this, n.toDouble())\n\n/**\n * Returns the absolute value of this value.\n *\n * Special

cases:\n *   - `NaN.absoluteValue` is `NaN`\n *\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline val Double.absoluteValue: Double get() = nativeMath.abs(this)\n\n/**\n * Returns the sign of this value:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `NaN.sign` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline val Double.sign: Double get() = nativeSign(this)\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Double.withSign(sign: Int): Double = this.withSign(sign.toDouble())\n\n/**\n * Returns the ulp (unit in the last place) of this value.\n *\n * An ulp is a positive distance between this value and the next nearest [Double] value larger in magnitude.\n *\n * Special Cases:\n *   - `NaN.ulp` is `NaN`\n *   - `x.ulp` is `+Inf` when `x`

is `+Inf` or `-Inf`\n *   - `0.0.ulp` is `Double.MIN_VALUE`\n */\n@SinceKotlin(\"1.2\")\npublic actual val Double.ulp: Double get() = when {\n   this < 0 -> (-this).ulp\n   this.isNaN() || this == Double.POSITIVE_INFINITY -> this\n   this == Double.MAX_VALUE -> this - this.nextDown()\n   else -> this.nextUp() - this\n}\n\n/**\n * Returns the [Double] value nearest to this value in direction of positive infinity.\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Double.nextUp(): Double = when {\n   this.isNaN() || this == Double.POSITIVE_INFINITY -> this\n   this == 0.0 -> Double.MIN_VALUE\n   else -> Double.fromBits(this.toRawBits() + if (this > 0) 1 else -1)\n}\n\n/**\n * Returns the [Double] value nearest to this value in direction of negative infinity.\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Double.nextDown(): Double = when {\n   this.isNaN() || this == Double.NEGATIVE_INFINITY -> this\n   this == 0.0 -> -Double.MIN_VALUE\n   else -> Double.fromBits(this.toRawBits() +

if (this > 0) -1 else 1)\n}\n\n\n/**\n * Returns the [Double] value nearest to this value in direction from this value towards the value [to].\n *\n * Special cases:\n *   - `x.nextTowards(y)` is `NaN` if either `x` or `y` are `NaN`\n *   - `x.nextTowards(x) == x`\n *\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Double.nextTowards(to: Double): Double = when {\n   this.isNaN() || to.isNaN() -> Double.NaN\n   to == this -> to\n   to > this -> this.nextUp()\n   else /* to < this */ -> this.nextDown()\n}\n\n\n/**\n * Rounds this [Double] value to the nearest integer and converts the result to [Int].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToInt() == Int.MAX_VALUE` when `x > Int.MAX_VALUE`\n *   - `x.roundToInt() == Int.MIN_VALUE` when `x < Int.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Double.roundToInt(): Int = when {\n   isNaN() -> throw

IllegalArgumentException(\"Cannot
round NaN value.\")\n   this > Int.MAX_VALUE -> Int.MAX_VALUE\n   this < Int.MIN_VALUE -> Int.MIN_VALUE\n   else -> nativeMath.round(this).toInt()\n}\n\n/**\n * Rounds this [Double] value to the nearest integer and converts the result to [Long].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToLong() == Long.MAX_VALUE` when `x > Long.MAX_VALUE`\n *   - `x.roundToLong() == Long.MIN_VALUE` when `x < Long.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Double.roundToLong(): Long = when {\n   isNaN() -> throw IllegalArgumentException(\"Cannot round NaN value.\")\n   this > Long.MAX_VALUE -> Long.MAX_VALUE\n   this < Long.MIN_VALUE -> Long.MIN_VALUE\n   else -> nativeMath.round(this).toLong()\n}\n\n// endregion\n\n\n\n// region ================ Float Math ==\n\n/** Computes the sine of the angle [x] given in radians.\n
*\n * Special cases:\n *   - `sin(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sin(x: Float): Float = nativeMath.sin(x.toDouble()).toFloat()\n\n/** Computes the cosine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `cos(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun cos(x: Float): Float = nativeMath.cos(x.toDouble()).toFloat()\n\n/** Computes the tangent of the angle [x] given in radians.\n *\n * Special cases:\n *   - `tan(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun tan(x: Float): Float = nativeMath.tan(x.toDouble()).toFloat()\n\n/**\n * Computes the arc sine of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `asin(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun asin(x: Float): Float
= nativeMath.asin(x.toDouble()).toFloat()\n\n/**\n * Computes the arc cosine of the value [x];\n * the returned value is an angle in the range from `0.0` to `PI` radians.\n *\n * Special cases:\n *   - `acos(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun acos(x: Float): Float = nativeMath.acos(x.toDouble()).toFloat()\n\n/**\n * Computes the arc tangent of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `atan(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun atan(x: Float): Float = nativeMath.atan(x.toDouble()).toFloat()\n\n/**\n * Returns the angle `theta` of the polar coordinates `(r, theta)` that correspond\n * to the rectangular coordinates `(x, y)` by computing the arc tangent of the value [y] / [x];\n * the returned value is an angle in the range from `-PI` to `PI` radians.\n *\n * Special cases:\n *
- `atan2(0.0, 0.0)` is `0.0`\n *   - `atan2(0.0, x)` is `0.0` for `x > 0` and `PI` for `x < 0`\n *   - `atan2(-0.0, x)` is `-0.0` for 'x > 0` and `-PI` for `x < 0`\n *   - `atan2(y, +Inf)` is `0.0` for `0 < y < +Inf` and `-0.0` for '-Inf < y < 0`\n *   - `atan2(y, -Inf)` is `PI` for `0 < y < +Inf` and `-PI` for `-Inf < y < 0`\n *   - `atan2(y, 0.0)` is `PI/2` for `y > 0` and `-PI/2` for `y < 0`\n *   - `atan2(+Inf, x)` is `PI/2` for finite `x`y\n *   - `atan2(-Inf, x)` is `-PI/2` for finite `x`\n *   - `atan2(NaN, x)` and `atan2(y, NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun atan2(y: Float, x: Float): Float = nativeMath.atan2(y.toDouble(), x.toDouble()).toFloat()\n\n/**\n * Computes the hyperbolic sine of the value [x].\n *\n * Special cases:\n *   - `sinh(NaN)` is `NaN`\n *   - `sinh(+Inf)` is `+Inf`\n *   - `sinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sinh(x: Float): Float = nativeSinh(x.toDouble()).toFloat()\n\n/**\n
* Computes the hyperbolic cosine of the value [x].\n *\n * Special cases:\n *   - `cosh(NaN)` is `NaN`\n *   - `cosh(+Inf|-Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun cosh(x: Float): Float = nativeCosh(x.toDouble()).toFloat()\n\n/**\n * Computes the hyperbolic tangent of the value [x].\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(+Inf)` is `1.0`\n *   - `tanh(-Inf)` is `-1.0`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun tanh(x: Float): Float = nativeTanh(x.toDouble()).toFloat()\n\n/**\n * Computes the inverse hyperbolic sine of the value [x].\n *\n * The returned value is `y` such that `sinh(y) == x`.\n *\n * Special cases:\n *   - `asinh(NaN)` is `NaN`\n *   - `asinh(+Inf)` is `+Inf`\n *   - `asinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline

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fun asinh(x: Float): Float = nativeAsinh(x.toDouble()).toFloat()\n\n/**\n * Computes the inverse hyperbolic cosine
 of the value [x].\n *\n * The returned value is positive `y` such that `cosh(y) == x`.\n *\n * Special cases:\n *   -
`acosh(NaN)` is `NaN`\n *   - `acosh(x)` is `NaN` when `x < 1`\n *   - `acosh(+Inf)` is `+Inf`\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun acosh(x: Float): Float =
nativeAcosh(x.toDouble()).toFloat()\n\n/**\n * Computes the inverse hyperbolic tangent of the value [x].\n *\n *
The returned value is `y` such that `tanh(y) == x`.\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(x)`
is `NaN` when `x > 1` or `x < -1`\n *   - `tanh(1.0)` is `+Inf`\n *   - `tanh(-1.0)` is `-Inf`\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun atanh(x: Float): Float =
nativeAtanh(x.toDouble()).toFloat()\n\n/**\n * Computes `sqrt(x^2 + y^2)` without intermediate overflow or
underflow.\n *\n * Special cases:\n *   - returns `+Inf` if any of arguments is infinite\n *   - returns `NaN` if any of
arguments is `NaN` and the other is not infinite\n
 */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun hypot(x: Float, y: Float): Float =
nativeHypot(x.toDouble(), y.toDouble()).toFloat()\n\n/**\n * Computes the positive square root of the value [x].\n
*\n * Special cases:\n *   - `sqrt(x)` is `NaN` when `x < 0` or `x` is `NaN`\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sqrt(x: Float): Float =
nativeMath.sqrt(x.toDouble()).toFloat()\n\n/**\n * Computes Euler's number `e` raised to the power of the value
[x].\n *\n * Special cases:\n *   - `exp(NaN)` is `NaN`\n *   - `exp(+Inf)` is `+Inf`\n *   - `exp(-Inf)` is `0.0`\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun exp(x: Float): Float =
nativeMath.exp(x.toDouble()).toFloat()\n\n/**\n * Computes `exp(x) - 1`.\n *\n * This function can be implemented
to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `expm1(NaN)` is `NaN`\n *   -
`expm1(+Inf)` is `+Inf`\n *   - `expm1(-Inf)` is `-1.0`\n *\n * @see
 [exp] function.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun expm1(x: Float): Float =
nativeExpm1(x.toDouble()).toFloat()\n\n/**\n * Computes the logarithm of the value [x] to the given [base].\n *\n *
Special cases:\n *   - `log(x, b)` is `NaN` if either `x` or `b` are `NaN`\n *   - `log(x, b)` is `NaN` when `x < 0` or `b
<= 0` or `b == 1.0`\n *   - `log(+Inf, +Inf)` is `NaN`\n *   - `log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1`\n
*   - `log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b > 1`\n *\n * See also logarithm functions for common fixed
bases: [ln], [log10] and [log2].\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun log(x: Float,
base: Float): Float = log(x.toDouble(), base.toDouble()).toFloat()\n\n/**\n * Computes the natural logarithm (base
`E`) of the value [x].\n *\n * Special cases:\n *   - `ln(NaN)` is `NaN`\n *   - `ln(x)` is `NaN` when `x < 0.0`\n *   -
`ln(+Inf)` is `+Inf`\n *   - `ln(0.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic
 actual inline fun ln(x: Float): Float = nativeMath.log(x.toDouble()).toFloat()\n\n/**\n * Computes the common
logarithm (base 10) of the value [x].\n *\n * @see [ln] function for special cases.\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun log10(x: Float): Float =
nativeLog10(x.toDouble()).toFloat()\n\n/**\n * Computes the binary logarithm (base 2) of the value [x].\n *\n *
@see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun log2(x:
Float): Float = nativeLog2(x.toDouble()).toFloat()\n\n/**\n * Computes `ln(a + 1)`.\n *\n * This function can be
implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `ln1p(NaN)` is `NaN`\n *
 - `ln1p(x)` is `NaN` where `x < -1.0`\n *   - `ln1p(-1.0)` is `-Inf`\n *   - `ln1p(+Inf)` is `+Inf`\n *\n * @see [ln]
function\n * @see [expm1] function\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline
 fun ln1p(x: Float): Float = nativeLog1p(x.toDouble()).toFloat()\n\n/**\n * Rounds the given value [x] to an integer
towards positive infinity.\n\n * @return the smallest Float value that is greater than or equal to the given value [x]
and is a mathematical integer.\n *\n * Special cases:\n *   - `ceil(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or
already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun ceil(x: Float):
Float = nativeMath.ceil(x.toDouble()).toFloat()\n\n/**\n * Rounds the given value [x] to an integer towards negative
infinity.\n\n * @return the largest Float value that is smaller than or equal to the given value [x] and is a
mathematical integer.\n *\n * Special cases:\n *   - `floor(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a
mathematical integer.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun floor(x: Float): Float =
nativeMath.floor(x.toDouble()).toFloat()\n\n/**\n * Rounds the
```

given value [x] to an integer towards zero.\n *\n * @return the value [x] having its fractional part truncated.\n *\n * Special cases:\n *   - `truncate(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun truncate(x: Float): Float = truncate(x.toDouble()).toFloat()\n\n/**\n * Rounds the given value [x] towards the closest integer with ties rounded towards even integer.\n *\n * Special cases:\n *   - `round(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun round(x: Float): Float = round(x.toDouble()).toFloat()\n\n\n/**\n * Returns the absolute value of the given value [x].\n *\n * Special cases:\n *   - `abs(NaN)` is `NaN`\n *\n * @see absoluteValue extension property for [Float]\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun abs(x: Float): Float = nativeMath.abs(x.toDouble()).toFloat()\n\n/**\n

* Returns the sign of the given value [x]:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `sign(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sign(x: Float): Float = nativeSign(x.toDouble()).toFloat()\n\n\n\n/**\n * Returns the smaller of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun min(a: Float, b: Float): Float = nativeMath.min(a, b)\n\n/**\n * Returns the greater of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun max(a: Float, b: Float): Float = nativeMath.max(a, b)\n\n// extensions\n\n\n/**\n * Raises this value to the power [x].\n *\n * Special cases:\n *   - `b.pow(0.0)` is `1.0`\n *   - `b.pow(1.0) == b`\n *   - `b.pow(NaN)` is `NaN`\n *

- `NaN.pow(x)` is `NaN` for `x != 0.0`\n *   - `b.pow(Inf)` is `NaN` for `abs(b) == 1.0`\n *   - `b.pow(x)` is `NaN` for `b < 0` and `x` is finite and not an integer\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Float.pow(x: Float): Float = nativeMath.pow(this.toDouble(), x.toDouble()).toFloat()\n\n/**\n * Raises this value to the integer power [n].\n *\n * See the other overload of [pow] for details.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Float.pow(n: Int): Float = nativeMath.pow(this.toDouble(), n.toDouble()).toFloat()\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n *   - `NaN.absoluteValue` is `NaN`\n *\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline val Float.absoluteValue: Float get() = nativeMath.abs(this.toDouble()).toFloat()\n\n/**\n * Returns the sign of this value:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the

value is positive\n *\n * Special case:\n *   - `NaN.sign` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline val Float.sign: Float get() = nativeSign(this.toDouble()).toFloat()\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n *\n * If [sign] is `NaN` the sign of the result is undefined.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Float.withSign(sign: Float): Float = this.toDouble().withSign(sign.toDouble()).toFloat()\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Float.withSign(sign: Int): Float = this.toDouble().withSign(sign.toDouble()).toFloat()\n\n\n/**\n * Rounds this [Float] value to the nearest integer and converts the result to [Int].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToInt() == Int.MAX_VALUE` when `x > Int.MAX_VALUE`\n *   - `x.roundToInt() == Int.MIN_VALUE`

when `x < Int.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Float.roundToInt(): Int = toDouble().roundToInt()\n\n/**\n * Rounds this [Float] value to the nearest integer and converts the result to [Long].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToLong() == Long.MAX_VALUE` when `x > Long.MAX_VALUE`\n *   - `x.roundToLong() == Long.MIN_VALUE` when `x < Long.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Float.roundToLong(): Long = toDouble().roundToLong()\n\n\n// endregion\n\n// region ================ Integer Math ==\n\n\n/**\n * Returns the absolute value of the given value

[n].\n *\n * Special cases:\n *   - `abs(Int.MIN_VALUE)` is `Int.MIN_VALUE` due to an overflow\n *\n * @see absoluteValue extension property for [Int]\n */\n// TODO: remove manual 'or' when KT-19290 is fixed\n@SinceKotlin(\"1.2\")\npublic actual fun abs(n: Int): Int = if (n < 0) (-n or 0) else n\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun min(a: Int, b: Int): Int = nativeMath.min(a, b)\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun max(a: Int, b: Int): Int = nativeMath.max(a, b)\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n *   - `Int.MIN_VALUE.absoluteValue` is `Int.MIN_VALUE` due to an overflow\n *\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline val Int.absoluteValue: Int get() = abs(this)\n\n/**\n * Returns the sign of this value:\n *   - `-1` if the value is negative,\n *   - `0` if the value is zero,\n *   - `1` if the value is positive\n */\n@SinceKotlin(\"1.2\")\npublic actual val Int.sign: Int get() = when {\n   this < 0 -> -1\n   this > 0 -> 1\n   else -> 0\n}\n\n\n\n/**\n * Returns the absolute value of the given value [n].\n *\n * Special cases:\n *   - `abs(Long.MIN_VALUE)` is `Long.MIN_VALUE` due to an overflow\n *\n * @see absoluteValue extension property for [Long]\n */\n@SinceKotlin(\"1.2\")\npublic actual fun abs(n: Long): Long = if (n < 0) -n else n\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.2\")\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun min(a: Long, b: Long): Long = if (a <= b) a else b\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.2\")\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun max(a: Long, b: Long): Long = if (a >= b) a else b\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n *   - `Long.MIN_VALUE.absoluteValue` is `Long.MIN_VALUE` due to an overflow\n *\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline val Long.absoluteValue: Long get() = abs(this)\n\n/**\n * Returns the sign of this value:\n *   - `-1` if the value is negative,\n *   - `0` if the value is zero,\n *   - `1` if the value is positive\n */\n@SinceKotlin(\"1.2\")\npublic actual val Long.sign: Int get() = when {\n   this < 0 -> -1\n   this > 0 -> 1\n   else -> 0\n}\n\n\n// endregion\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n/**\n * Returns `true` if the specified number is a\n * Not-a-Number (NaN) value, `false` otherwise.\n */\npublic actual fun Double.isNaN(): Boolean = this != this\n\n/**\n * Returns `true` if the specified number is a\n * Not-a-Number (NaN) value, `false` otherwise.\n */\npublic actual fun Float.isNaN(): Boolean = this != this\n\n/**\n * Returns `true` if this value is infinitely large in magnitude.\n */\npublic actual fun Double.isInfinite(): Boolean = this == Double.POSITIVE_INFINITY || this == Double.NEGATIVE_INFINITY\n\n/**\n * Returns `true` if this value is infinitely large in magnitude.\n */\npublic actual fun Float.isInfinite(): Boolean = this == Float.POSITIVE_INFINITY || this == Float.NEGATIVE_INFINITY\n\n/**\n * Returns `true` if the argument is a finite floating-point value; returns `false` otherwise (for `NaN` and infinity arguments).\n */\npublic actual fun Double.isFinite(): Boolean = !isInfinite() && !isNaN()\n\n/**\n * Returns `true` if the argument is a finite floating-point value; returns `false` otherwise (for `NaN` and infinity arguments).\n */\npublic actual fun Float.isFinite(): Boolean = !isInfinite() && !isNaN()\n\n\n/**\n * Counts the number of set bits in the binary representation of this [Int] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Int.countOneBits(): Int {\n   // Hacker's Delight 5-1 algorithm\n   var v = this\n   v = (v and 0x55555555) + (v.ushr(1) and 0x55555555)\n   v = (v and 0x33333333) + (v.ushr(2) and 0x33333333)\n   v = (v and 0x0F0F0F0F) + (v.ushr(4) and 0x0F0F0F0F)\n   v = (v and 0x00FF00FF) + (v.ushr(8) and 0x00FF00FF)\n   v = (v and 0x0000FFFF) + (v.ushr(16))\n   return v\n}\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Int] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun Int.countLeadingZeroBits(): Int = nativeClz32(this)\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Int] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Int.countTrailingZeroBits(): Int =\n   // Hacker's Delight 5-4 algorithm for expressing countTrailingZeroBits with

countLeadingZeroBits\n   Int.SIZE_BITS - (this or -this).inv().countLeadingZeroBits()\n\n/**\n
 * Returns a number having a single bit set in the position of the most significant set bit of this [Int] number,\n * or zero, if this number is zero.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Int.takeHighestOneBit(): Int =\n   if (this == 0) 0 else 1.shl(Int.SIZE_BITS - 1 - countLeadingZeroBits())\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Int] number,\n * or zero, if this number is zero.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Int.takeLowestOneBit(): Int =\n   // Hacker's Delight 2-1 algorithm for isolating rightmost 1-bit\n   this and -this\n\n/**\n * Rotates the binary representation of this [Int] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n
 *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Int.SIZE_BITS] (32) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 32)`\n
*/\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Int.rotateLeft(bitCount: Int): Int =\n   shl(bitCount) or ushr(Int.SIZE_BITS - bitCount)\n\n\n/**\n * Rotates the binary representation of this [Int] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Int.SIZE_BITS] (32) returns the same number,
 or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 32)`\n
*/\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Int.rotateRight(bitCount: Int): Int =\n   shl(Int.SIZE_BITS - bitCount) or ushr(bitCount)\n\n\n/**\n * Counts the number of set bits in the binary representation of this [Long] number.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Long.countOneBits(): Int =\n   high.countOneBits() + low.countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Long] number.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Long.countLeadingZeroBits(): Int =\n   when (val high = this.high) {\n   0 -> Int.SIZE_BITS + low.countLeadingZeroBits()\n   else -> high.countLeadingZeroBits()\n   }\n\n/**\n * Counts the number of consecutive least significant bits
 that are zero in the binary representation of this [Long] number.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Long.countTrailingZeroBits(): Int =\n   when (val low = this.low) {\n   0 -> Int.SIZE_BITS + high.countTrailingZeroBits()\n   else -> low.countTrailingZeroBits()\n   }\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [Long] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Long.takeHighestOneBit(): Long =\n   when (val high = this.high) {\n   0 -> Long(low.takeHighestOneBit(), 0)\n   else -> Long(0, high.takeHighestOneBit())\n   }\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Long] number,\n * or zero, if this number is zero.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic
 actual fun Long.takeLowestOneBit(): Long =\n   when (val low = this.low) {\n   0 -> Long(0, high.takeLowestOneBit())\n   else -> Long(low.takeLowestOneBit(), 0)\n   }\n\n/**\n * Rotates the binary representation of this [Long] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-

n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Long.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 64)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Long.rotateLeft(bitCount: Int): Long {\n   if ((bitCount and 31) != 0) {\n   val low = this.low\n   val high = this.high\n val newLow = low.shl(bitCount) or high.ushr(-bitCount)\n   val newHigh = high.shl(bitCount) or low.ushr(-bitCount)\n   return if ((bitCount and 32) == 0) Long(newLow, newHigh) else Long(newHigh, newLow)\n   } else {\n   return if ((bitCount and 32) == 0) this else Long(high, low)\n   }\n}\n\n\n/**\n * Rotates the binary representation of this [Long] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Long.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 64)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun Long.rotateRight(bitCount: Int): Long = rotateLeft(-bitCount)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\nimport kotlin.internal.LowPriorityInOverloadResolution\n\n/**\n * Exposes the JavaScript [Promise object](https://developer.mozilla.org/en/docs/Web/JavaScript/Reference/Global_Objects/Promise) to Kotlin.\n */\n@Suppress(\"NOT_DOCUMENTED\")\npublic open external class Promise<out T>(executor: (resolve: (T) -> Unit, reject: (Throwable) -> Unit) -> Unit) {\n   @LowPriorityInOverloadResolution\n   public open fun <S> then(onFulfilled: ((T) -> S)?): Promise<S>\n\n   @LowPriorityInOverloadResolution\n   public open fun <S> then(onFulfilled: ((T) -> S)?, onRejected: ((Throwable) -> S)?): Promise<S>\n\n   public open fun <S> catch(onRejected: (Throwable) -> S): Promise<S>\n\n   public open fun finally(onFinally: () -> Unit): Promise<T>\n\n   companion object {\n   public fun <S> all(promise: Array<out Promise<S>>): Promise<Array<out S>>\n\n   public fun <S> race(promise: Array<out Promise<S>>): Promise<S>\n\n   public fun reject(e: Throwable): Promise<Nothing>\n\n   public fun <S> resolve(e: S): Promise<S>\n   public fun <S> resolve(e: Promise<S>): Promise<S>\n   }\n}\n\n// It's workaround for KT-19672 since we can fix it properly until KT-11265 isn't fixed.\ninline fun <T, S> Promise<Promise<T>>.then(\n   noinline onFulfilled: ((T) -> S)?\n): Promise<S> {\n   return this.unsafeCast<Promise<T>>().then(onFulfilled)\n}\n\ninline fun <T, S> Promise<Promise<T>>.then(\n   noinline onFulfilled: ((T) -> S)?,\n   noinline onRejected: ((Throwable) -> S)?\n): Promise<S> {\n   return this.unsafeCast<Promise<T>>().then(onFulfilled, onRejected)\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.random\n\nimport kotlin.math.pow\n\ninternal actual fun defaultPlatformRandom(): Random =\n   Random(js(\"(Math.random() * Math.pow(2, 32)) | 0\").unsafeCast<Int>())\n\n\nprivate val INV_2_26: Double = 2.0.pow(-26)\nprivate val INV_2_53: Double = 2.0.pow(-53)\ninternal actual fun doubleFromParts(hi26: Int, low27: Int): Double =\n   hi26 * INV_2_26 + low27 * INV_2_53","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect\n\nimport findAssociatedObject\n\n/**\n * The experimental marker for associated objects API.\n *\n * Any usage of a declaration annotated with `@ExperimentalAssociatedObjects` must be accepted either by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalAssociatedObjects::class)`,\n * or by using the compiler argument `-opt-in=kotlin.reflect.ExperimentalAssociatedObjects`.\n */\n@RequiresOptIn(level = RequiresOptIn.Level.ERROR)\n@Retention(value = AnnotationRetention.BINARY)\npublic annotation class

ExperimentalAssociatedObjects\n\n/**\n * Makes the annotated annotation class an associated object key.\n *\n * An associated object key annotation should have single [KClass] parameter.\n * When applied to a class with reference to an object declaration as an argument, it binds\n * the object to the class, making this binding discoverable at runtime using [findAssociatedObject].\n */\n@ExperimentalAssociatedObjects\n@Retention(AnnotationRetention.BINARY)\n@Target(AnnotationTarget.ANNOTATION_CLASS)\npublic annotation class AssociatedObjectKey\n\n/**\n * If [T] is an @[AssociatedObjectKey]-annotated annotation class and [this] class is annotated with @[T] (`S::class`),\n * returns object `S`.\n *\n * Otherwise
 returns `null`.\n */\n@ExperimentalAssociatedObjects\npublic inline fun <reified T : Annotation> KClass<*>.findAssociatedObject(): Any? =\n   this.findAssociatedObject(T::class)","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\nimport getKClass\nimport kotlin.reflect.KClass\nimport kotlin.reflect.js.internal.KClassImpl\n\n/**\n * Represents the constructor of a class. Instances of `JsClass` can be passed to JavaScript APIs that expect a constructor reference.\n */\nexternal interface JsClass<T : Any> {\n   /**\n   * Returns the unqualified name of the class represented by this instance.\n   */\n   val name: String\n}\n\n/**\n * Obtains a constructor reference for the given `KClass`.\n */\nval <T : Any> KClass<T>.js: JsClass<T>\n   get() = (this as KClassImpl<T>).jClass\n\n/**\n * Obtains a `KClass` instance for the given constructor reference.\n */\nval <T : Any> JsClass<T>.kotlin: KClass<T>\n   get() = getKClass(this)\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect.js.internal\n\nimport kotlin.reflect.*\n\ninternal abstract class KClassImpl<T : Any>(\n   internal open val jClass: JsClass<T>\n) : KClass<T> {\n\n   override val qualifiedName: String?\n   get() = TODO()\n\n   override fun equals(other: Any?): Boolean {\n   return other is KClassImpl<*> && jClass == other.jClass\n   }\n\n   // TODO: use FQN\n   override fun hashCode(): Int = simpleName?.hashCode() ?: 0\n\n   override fun toString(): String {\n   // TODO: use FQN\n   return \"class $simpleName\"\n   }\n}\n\ninternal class SimpleKClassImpl<T : Any>(jClass: JsClass<T>) : KClassImpl<T>(jClass)
 {\n   override val simpleName: String? = jClass.asDynamic().`$metadata$`?.simpleName.unsafeCast<String?>()\n\n   override fun isInstance(value: Any?): Boolean {\n   return jsIsType(value, jClass)\n   }\n}\n\ninternal class PrimitiveKClassImpl<T : Any>(\n   jClass: JsClass<T>,\n   private val givenSimpleName: String,\n   private val isInstanceFunction: (Any?) -> Boolean\n) : KClassImpl<T>(jClass) {\n   override fun equals(other: Any?): Boolean {\n   if (other !is PrimitiveKClassImpl<*>) return false\n   return super.equals(other) && givenSimpleName == other.givenSimpleName\n   }\n\n   override val simpleName: String? get() = givenSimpleName\n\n   override fun isInstance(value: Any?): Boolean {\n   return isInstanceFunction(value)\n   }\n}\n\ninternal object NothingKClassImpl : KClassImpl<Nothing>(js(\"Object\")) {\n   override val simpleName: String = \"Nothing\"\n\n   override fun isInstance(value: Any?): Boolean = false\n\n   override val jClass: JsClass<Nothing>\n
        get() = throw UnsupportedOperationException(\"There's no native JS class for Nothing type\")\n\n   override fun equals(other: Any?): Boolean = other === this\n\n   override fun hashCode(): Int = 0\n}\n\ninternal class ErrorKClass : KClass<Nothing> {\n   override val simpleName: String? get() = error(\"Unknown simpleName for ErrorKClass\")\n   override val qualifiedName: String? get() = error(\"Unknown qualifiedName for ErrorKClass\")\n\n   override fun isInstance(value: Any?): Boolean = error(\"Can's check isInstance on ErrorKClass\")\n\n   override fun equals(other: Any?): Boolean = other === this\n\n   override fun hashCode(): Int = 0\n}","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect\n\ninternal actual inline val KClass<*>.qualifiedOrSimpleName: String?\n   get()

= simpleName","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// a package is omitted to get declarations directly under the module\n\n// TODO: Remove once JsReflectionAPICallChecker supports more reflection types\n@file:Suppress(\"Unsupported\")\n\nimport kotlin.reflect.*\nimport kotlin.reflect.js.internal.*\n\n@JsName(\"createKType\")\ninternal fun createKType(\n classifier: KClassifier,\n arguments: Array<KTypeProjection>,\n isMarkedNullable: Boolean\n) =\n KTypeImpl(classifier, arguments.asList(), isMarkedNullable)\n\n@JsName(\"createDynamicKType\")\ninternal fun createDynamicKType(): KType = DynamicKType\n\n@JsName(\"markKTypeNullable\")\ninternal fun markKTypeNullable(kType: KType) = KTypeImpl(kType.classifier!!, kType.arguments, true)\n\n@JsName(\"createKTypeParameter\")\ninternal fun createKTypeParameter(\n name: String,\n upperBounds: Array<KType>,\n variance: String\n): KTypeParameter {\n val kVariance = when (variance) {\n \"in\" -> KVariance.IN\n \"out\" -> KVariance.OUT\n else -> KVariance.INVARIANT\n }\n\n return KTypeParameterImpl(name, upperBounds.asList(), kVariance, false)\n}\n\n@JsName(\"getStarKTypeProjection\")\ninternal fun getStarKTypeProjection(): KTypeProjection =\n KTypeProjection.STAR\n\n@JsName(\"createCovariantKTypeProjection\")\ninternal fun createCovariantKTypeProjection(type: KType): KTypeProjection =\n KTypeProjection.covariant(type)\n\n@JsName(\"createInvariantKTypeProjection\")\ninternal fun createInvariantKTypeProjection(type: KType): KTypeProjection =\n KTypeProjection.invariant(type)\n\n@JsName(\"createContravariantKTypeProjection\")\ninternal fun createContravariantKTypeProjection(type: KType): KTypeProjection =\n KTypeProjection.contravariant(type)\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect.js.internal\n\nimport kotlin.reflect.*\n\ninternal class KTypeImpl(\n override val classifier: KClassifier,\n override val arguments: List<KTypeProjection>,\n override val isMarkedNullable: Boolean\n) : KType {\n override fun equals(other: Any?): Boolean =\n other is KTypeImpl &&\n classifier == other.classifier && arguments == other.arguments && isMarkedNullable == other.isMarkedNullable\n\n override fun hashCode(): Int =\n (classifier.hashCode() * 31 + arguments.hashCode()) * 31 + isMarkedNullable.hashCode()\n\n override fun toString(): String {\n val kClass = (classifier as? KClass<*>)\n val classifierName = when {\n kClass == null -> classifier.toString()\n kClass.simpleName != null -> kClass.simpleName\n else -> \"(non-denotable type)\"\n }\n\n val args =\n if (arguments.isEmpty()) \"\"\n else arguments.joinToString(\", \", \"<\", \">\")\n val nullable = if (isMarkedNullable) \"?\" else \"\"\n\n return classifierName + args + nullable\n }\n}\n\ninternal object DynamicKType : KType {\n override val classifier: KClassifier? = null\n override val arguments: List<KTypeProjection> = emptyList()\n override val isMarkedNullable: Boolean = false\n override fun toString(): String = \"dynamic\"\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect.js.internal\n\nimport kotlin.reflect.*\n\ninternal data class KTypeParameterImpl(\n override val name: String,\n override val upperBounds: List<KType>,\n override val variance: KVariance,\n override val isReified: Boolean\n) : KTypeParameter {\n override fun toString(): String = name\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect.js.internal\n\nimport kotlin.js.JsClass\n\n@JsName(\"PrimitiveClasses\")\ninternal object PrimitiveClasses {\n @JsName(\"anyClass\")\n val anyClass = PrimitiveKClassImpl(js(\"Object\").unsafeCast<JsClass<Any>>(), \"Any\", { it is Any })\n\n @JsName(\"numberClass\")\n val numberClass = PrimitiveKClassImpl(js(\"Number\").unsafeCast<JsClass<Number>>(), \"Number\", { it is Number })\n\n @JsName(\"nothingClass\")\n val nothingClass = NothingKClassImpl\n\n @JsName(\"booleanClass\")\n val

```
booleanClass = PrimitiveKClassImpl(js(\"Boolean\").unsafeCast<JsClass<Boolean>>(), \"Boolean\", { it is Boolean
})\n\n    @JsName(\"byteClass\")\n
    val byteClass = PrimitiveKClassImpl(js(\"Number\").unsafeCast<JsClass<Byte>>(), \"Byte\", { it is Byte })\n\n
@JsName(\"shortClass\")\n    val shortClass = PrimitiveKClassImpl(js(\"Number\").unsafeCast<JsClass<Short>>(),
\"Short\", { it is Short })\n\n    @JsName(\"intClass\")\n    val intClass =
PrimitiveKClassImpl(js(\"Number\").unsafeCast<JsClass<Int>>(), \"Int\", { it is Int })\n\n
@JsName(\"floatClass\")\n    val floatClass = PrimitiveKClassImpl(js(\"Number\").unsafeCast<JsClass<Float>>(),
\"Float\", { it is Float })\n\n    @JsName(\"doubleClass\")\n    val doubleClass =
PrimitiveKClassImpl(js(\"Number\").unsafeCast<JsClass<Double>>(), \"Double\", { it is Double })\n\n
@JsName(\"arrayClass\")\n    val arrayClass =
PrimitiveKClassImpl(js(\"Array\").unsafeCast<JsClass<Array<*>>>(), \"Array\", { it is Array<*> })\n\n
@JsName(\"stringClass\")\n    val stringClass = PrimitiveKClassImpl(js(\"String\").unsafeCast<JsClass<String>>(),
\"String\", { it is String })\n\n
   @JsName(\"throwableClass\")\n    val throwableClass =
PrimitiveKClassImpl(js(\"Error\").unsafeCast<JsClass<Throwable>>(), \"Throwable\", { it is Throwable })\n\n
@JsName(\"booleanArrayClass\")\n    val booleanArrayClass =
PrimitiveKClassImpl(js(\"Array\").unsafeCast<JsClass<BooleanArray>>(), \"BooleanArray\", { it is BooleanArray
})\n\n    @JsName(\"charArrayClass\")\n    val charArrayClass =
PrimitiveKClassImpl(js(\"Uint16Array\").unsafeCast<JsClass<CharArray>>(), \"CharArray\", { it is CharArray
})\n\n    @JsName(\"byteArrayClass\")\n    val byteArrayClass =
PrimitiveKClassImpl(js(\"Int8Array\").unsafeCast<JsClass<ByteArray>>(), \"ByteArray\", { it is ByteArray })\n\n
@JsName(\"shortArrayClass\")\n    val shortArrayClass =
PrimitiveKClassImpl(js(\"Int16Array\").unsafeCast<JsClass<ShortArray>>(), \"ShortArray\", { it is ShortArray
})\n\n    @JsName(\"intArrayClass\")\n    val intArrayClass =
PrimitiveKClassImpl(js(\"Int32Array\").unsafeCast<JsClass<IntArray>>(), \"IntArray\",
 { it is IntArray })\n\n    @JsName(\"longArrayClass\")\n    val longArrayClass =
PrimitiveKClassImpl(js(\"Array\").unsafeCast<JsClass<LongArray>>(), \"LongArray\", { it is LongArray })\n\n
@JsName(\"floatArrayClass\")\n    val floatArrayClass =
PrimitiveKClassImpl(js(\"Float32Array\").unsafeCast<JsClass<FloatArray>>(), \"FloatArray\", { it is FloatArray
})\n\n    @JsName(\"doubleArrayClass\")\n    val doubleArrayClass =
PrimitiveKClassImpl(js(\"Float64Array\").unsafeCast<JsClass<DoubleArray>>(), \"DoubleArray\", { it is
DoubleArray })\n\n    @JsName(\"functionClass\")\n    fun functionClass(arity: Int): KClassImpl<Any> {\n
return functionClasses.get(arity) ?: run {\n            val result =
PrimitiveKClassImpl(js(\"Function\").unsafeCast<JsClass<Any>>(), \"Function$arity\",\n
 { jsTypeOf(it) === \"function\" && it.asDynamic().length === arity })\n            functionClasses.asDynamic()[arity]
= result\n            result\n        }\n
    }\n}\n\nprivate val functionClasses = arrayOfNulls<KClassImpl<Any>>(0)","/*\n * Copyright 2010-2020
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// a package is omitted to get
declarations directly under the module\n\nimport kotlin.reflect.*\nimport
kotlin.reflect.js.internal.*\n\n@JsName(\"getKClass\")\ninternal fun <T : Any> getKClass(jClass: Any /*
JsClass<T> | Array<JsClass<T>> */): KClass<T> {\n    return if (js(\"Array\").isArray(jClass)) {\n
getKClassM(jClass.unsafeCast<Array<JsClass<T>>>())\n    } else {\n
getKClass1(jClass.unsafeCast<JsClass<T>>())\n    }\n}\n\n@JsName(\"getKClassM\")\ninternal fun <T : Any>
getKClassM(jClasses: Array<JsClass<T>>): KClass<T> = when (jClasses.size) {\n    1 ->
getKClass1(jClasses[0])\n    0 -> NothingKClassImpl.unsafeCast<KClass<T>>()\n    else ->
ErrorKClass().unsafeCast<KClass<T>>()\n}\n\n@JsName(\"getKClassFromExpression\")\ninternal
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 fun <T : Any> getKClassFromExpression(e: T): KClass<T> =\n    when (jsTypeOf(e)) {\n        \"string\" ->
PrimitiveClasses.stringClass\n        \"number\" -> if (jsBitwiseOr(e, 0).asDynamic() === e)
PrimitiveClasses.intClass else PrimitiveClasses.doubleClass\n        \"boolean\" -> PrimitiveClasses.booleanClass\n
   \"function\" -> PrimitiveClasses.functionClass(e.asDynamic().length)\n        else -> {\n            when {\n                e
is BooleanArray -> PrimitiveClasses.booleanArrayClass\n                e is CharArray ->
PrimitiveClasses.charArrayClass\n                e is ByteArray -> PrimitiveClasses.byteArrayClass\n                e is
ShortArray -> PrimitiveClasses.shortArrayClass\n                e is IntArray -> PrimitiveClasses.intArrayClass\n
   e is LongArray -> PrimitiveClasses.longArrayClass\n                e is FloatArray ->
PrimitiveClasses.floatArrayClass\n                e is DoubleArray -> PrimitiveClasses.doubleArrayClass\n
               e is KClass<*> -> KClass::class\n                e is Array<*> -> PrimitiveClasses.arrayClass\n                else -
> {\n                    val constructor = js(\"Object\").getPrototypeOf(e).constructor\n                    when {\n
constructor === js(\"Object\") -> PrimitiveClasses.anyClass\n                        constructor === js(\"Error\") ->
PrimitiveClasses.throwableClass\n                        else -> {\n                            val jsClass: JsClass<T> =
constructor\n                            getKClass1(jsClass)\n                        }\n                    }\n                }\n            }\n
}\n    }.unsafeCast<KClass<T>>()\n\n@JsName(\"getKClass1\")\ninternal fun <T : Any> getKClass1(jClass:
JsClass<T>): KClass<T> {\n    if (jClass === js(\"String\")) return
PrimitiveClasses.stringClass.unsafeCast<KClass<T>>()\n\n    val metadata = jClass.asDynamic().`$metadata$`\n\n
return if (metadata
 != null) {\n        if (metadata.`$kClass$` == null) {\n            val kClass = SimpleKClassImpl(jClass)\n
metadata.`$kClass$` = kClass\n            kClass\n        } else {\n            metadata.`$kClass$`\n        }\n    } else {\n
SimpleKClassImpl(jClass)\n    }\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n * Exposes the JavaScript [RegExp
object](https://developer.mozilla.org/en/docs/Web/JavaScript/Reference/Global_Objects/RegExp) to Kotlin.\n
*/\n@Suppress(\"NOT_DOCUMENTED\")\npublic external class RegExp(pattern: String, flags: String? =
definedExternally) {\n\n    public fun test(str: String): Boolean\n\n    public fun exec(str: String): RegExpMatch?\n\n
  public override fun toString(): String\n\n    /**\n     * The lastIndex is a read/write integer property
 of regular expressions that specifies the index at which to start the next match.\n     */\n    public var lastIndex:
Int\n\n    public val global: Boolean\n    public val ignoreCase: Boolean\n    public val multiline:
Boolean\n}\n\n/**\n * Resets the regular expression so that subsequent [RegExp.test] and [RegExp.exec] calls will
match starting with the beginning of the input string.\n */\npublic fun RegExp.reset() {\n    lastIndex = 0\n}\n\n//
TODO: Inherit from array or introduce asArray() extension\n/**\n * Represents the return value of
[RegExp.exec].\n */\n@Suppress(\"NOT_DOCUMENTED\")\npublic external interface RegExpMatch {\n    public
val index: Int\n    public val input: String\n    public val length: Int\n}\n\n/**\n * Returns the entire text matched by
[RegExp.exec] if the [index] parameter is 0, or the text matched by the capturing parenthesis\n * at the given
index.\n */\npublic inline operator fun RegExpMatch.get(index: Int): String? = asDynamic()[index]\n\n/**\n *
Converts
 the result of [RegExp.exec] to an array where the first element contains the entire matched text and each
subsequent\n * element is the text matched by each capturing parenthesis.\n */\npublic inline fun
RegExpMatch.asArray(): Array<out String?> = unsafeCast<Array<out String?>>()\n","/*\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.sequences\n\ninternal
actual class ConstrainedOnceSequence<T> actual constructor(sequence: Sequence<T>) : Sequence<T> {\n    private
var sequenceRef: Sequence<T>? = sequence\n\n    actual override fun iterator(): Iterator<T> {\n        val sequence =
sequenceRef ?: throw IllegalStateException(\"This sequence can be consumed only once.\")\n        sequenceRef =
null\n        return sequence.iterator()\n    }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin
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Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n@SinceKotlin(\"1.5\")\npublic actual enum class CharCategory(internal val value: Int, public actual val code: String) {\n   /**\n   * General category \"Cn\" in the Unicode specification.\n   */\n   UNASSIGNED(0, \"Cn\"),\n\n   /**\n   * General category \"Lu\" in the Unicode specification.\n   */\n   UPPERCASE_LETTER(1, \"Lu\"),\n\n   /**\n   * General category \"Ll\" in the Unicode specification.\n   */\n   LOWERCASE_LETTER(2, \"Ll\"),\n\n   /**\n   * General category \"Lt\" in the Unicode specification.\n   */\n   TITLECASE_LETTER(3, \"Lt\"),\n\n   /**\n   * General category \"Lm\" in the Unicode specification.\n   */\n   MODIFIER_LETTER(4, \"Lm\"),\n\n   /**\n   * General category \"Lo\" in the Unicode specification.\n   */\n   OTHER_LETTER(5, \"Lo\"),\n\n   /**\n   * General category \"Mn\" in the Unicode specification.\n   */\n   NON_SPACING_MARK(6, \"Mn\"),\n\n   /**\n   * General category \"Me\" in the Unicode specification.\n   */\n   ENCLOSING_MARK(7, \"Me\"),\n\n   /**\n   * General category \"Mc\" in the Unicode specification.\n   */\n   COMBINING_SPACING_MARK(8, \"Mc\"),\n\n   /**\n   * General category \"Nd\" in the Unicode specification.\n   */\n   DECIMAL_DIGIT_NUMBER(9, \"Nd\"),\n\n   /**\n   * General category \"Nl\" in the Unicode specification.\n   */\n   LETTER_NUMBER(10, \"Nl\"),\n\n   /**\n   * General category \"No\" in the Unicode specification.\n   */\n   OTHER_NUMBER(11, \"No\"),\n\n   /**\n   * General category \"Zs\" in the Unicode specification.\n   */\n   SPACE_SEPARATOR(12, \"Zs\"),\n\n   /**\n   * General category \"Zl\" in the Unicode specification.\n   */\n   LINE_SEPARATOR(13, \"Zl\"),\n\n   /**\n   * General category \"Zp\" in the Unicode specification.\n   */\n   PARAGRAPH_SEPARATOR(14, \"Zp\"),\n\n   /**\n   * General category \"Cc\" in the Unicode specification.\n   */\n   CONTROL(15, \"Cc\"),\n\n   /**\n   * General category \"Cf\" in the Unicode specification.\n   */\n   FORMAT(16, \"Cf\"),\n\n   /**\n   * General category \"Co\" in the Unicode specification.\n   */\n   PRIVATE_USE(18, \"Co\"),\n\n   /**\n   * General category \"Cs\" in the Unicode specification.\n   */\n   SURROGATE(19, \"Cs\"),\n\n   /**\n   * General category \"Pd\" in the Unicode specification.\n   */\n   DASH_PUNCTUATION(20, \"Pd\"),\n\n   /**\n   * General category \"Ps\" in the Unicode specification.\n   */\n   START_PUNCTUATION(21, \"Ps\"),\n\n   /**\n   * General category \"Pe\" in the Unicode specification.\n   */\n   END_PUNCTUATION(22, \"Pe\"),\n\n   /**\n   * General category \"Pc\" in the Unicode specification.\n   */\n   CONNECTOR_PUNCTUATION(23, \"Pc\"),\n\n   /**\n   * General category \"Po\" in the Unicode specification.\n   */\n   OTHER_PUNCTUATION(24, \"Po\"),\n\n   /**\n   * General category \"Sm\" in the Unicode specification.\n   */\n   MATH_SYMBOL(25, \"Sm\"),\n\n   /**\n   * General category \"Sc\" in the Unicode specification.\n   */\n   CURRENCY_SYMBOL(26, \"Sc\"),\n\n   /**\n   * General category \"Sk\" in the Unicode specification.\n   */\n   MODIFIER_SYMBOL(27, \"Sk\"),\n\n   /**\n   * General category \"So\" in the Unicode specification.\n   */\n   OTHER_SYMBOL(28, \"So\"),\n\n   /**\n   * General category \"Pi\" in the Unicode specification.\n   */\n   INITIAL_QUOTE_PUNCTUATION(29, \"Pi\"),\n\n   /**\n   * General category \"Pf\" in the Unicode specification.\n   */\n   FINAL_QUOTE_PUNCTUATION(30, \"Pf\");\n\n   /**\n   * Returns `true` if [char] character belongs to this category.\n   */\n   public actual operator fun contains(char: Char): Boolean = char.getCategoryValue() == this.value\n\n   companion object {\n   internal fun valueOf(category: Int): CharCategory =\n   when (category) {\n   in 0..16 -> values()[category]\n   in 18..30 -> values()[category - 1]\n   else -> throw IllegalArgumentException(\"Category #$category is not defined.\")\n   }\n   }\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/**\n * The exception thrown when a character encoding or decoding error occurs.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual open class CharacterCodingException(message: String?) : Exception(message) {\n   actual constructor() : this(null)\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/**\n * A mutable sequence of characters.\n *\n * String builder can be used to efficiently perform multiple string manipulation operations.\n */\npublic actual

class StringBuilder actual constructor(content: String) : Appendable, CharSequence {\n /**\n * Constructs an empty string builder with the specified initial [capacity].\n *\n * In Kotlin/JS implementation of StringBuilder the initial capacity has no effect on the further performance of operations.\n */\n actual constructor(capacity: Int) : this() {\n }\n\n /** Constructs a string builder that contains the same characters as the specified [content] char sequence. */\n actual constructor(content: CharSequence) : this(content.toString()) {}\n\n /** Constructs an empty string builder. */\n actual constructor() : this(\"\")\n\n private var string: String = if (content !== undefined) content else \"\"\n\n actual override
 val length: Int\n get() = string.asDynamic().length\n\n actual override fun get(index: Int): Char =\n string.getOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, length: $length}\") }\n\n actual override fun subSequence(startIndex: Int, endIndex: Int): CharSequence = string.substring(startIndex, endIndex)\n\n actual override fun append(value: Char): StringBuilder {\n string += value\n return this\n }\n\n actual override fun append(value: CharSequence?): StringBuilder {\n string += value.toString()\n return this\n }\n\n actual override fun append(value: CharSequence?, startIndex: Int, endIndex: Int): StringBuilder =\n this.appendRange(value ?: \"null\", startIndex, endIndex)\n\n /**\n * Reverses the contents of this string builder and returns this instance.\n *\n * Surrogate pairs included in this string builder are treated as single characters.\n * Therefore, the order of the high-low
 surrogates is never reversed.\n *\n * Note that the reverse operation may produce new surrogate pairs that were unpaired low-surrogates and high-surrogates before the operation.\n * For example, reversing `\"\\uDC00\\uD800\"` produces `\"\\uD800\\uDC00\"` which is a valid surrogate pair.\n */\n actual fun reverse(): StringBuilder {\n var reversed = \"\"\n var index = string.length - 1\n while (index >= 0) {\n val low = string[index--]\n if (low.isLowSurrogate() && index >= 0) {\n val high = string[index--]\n if (high.isHighSurrogate()) {\n reversed = reversed + high + low\n } else {\n reversed = reversed + low + high\n }\n } else {\n reversed += low\n }\n }\n string = reversed\n return this\n }\n\n /**\n * Appends the string representation of the specified object
 [value] to this string builder and returns this instance.\n *\n * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n * and then that string was appended to this string builder.\n */\n actual fun append(value: Any?): StringBuilder {\n string += value.toString()\n return this\n }\n\n /**\n * Appends the string representation of the specified boolean [value] to this string builder and returns this instance.\n *\n * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n * and then that string was appended to this string builder.\n */\n @SinceKotlin(\"1.3\")\n actual fun append(value: Boolean): StringBuilder {\n string += value\n return this\n }\n\n /**\n * Appends characters in the specified character array [value] to this string builder and returns this instance.\n *\n * Characters
 are appended in order, starting at the index 0.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n actual fun append(value: CharArray): StringBuilder {\n string += value.concatToString()\n return this\n }\n\n @Deprecated(\"Provided for binary compatibility.\", level = DeprecationLevel.HIDDEN)\n fun append(value: String): StringBuilder = append(value)\n\n /**\n * Appends the specified string [value] to this string builder and returns this instance.\n *\n * If [value] is `null`, then the four characters `\"null\"` are appended.\n */\n @SinceKotlin(\"1.3\")\n actual fun append(value: String?): StringBuilder {\n this.string += value ?: \"null\"\n return this\n }\n\n /**\n * Returns the current capacity of this string builder.\n *\n * The capacity is the maximum length this string builder can have before an allocation occurs.\n *\n * In Kotlin/JS implementation
 of StringBuilder the value returned from this method may not indicate the actual size of the backing storage.\n */\n @SinceKotlin(\"1.3\")\n// @ExperimentalStdlibApi\n @Deprecated(\"Obtaining StringBuilder capacity is not supported in JS and common code.\", level = DeprecationLevel.ERROR)\n actual fun capacity(): Int = length\n\n /**\n * Ensures that the capacity of this string builder is at least equal to the specified [minimumCapacity].\n *\n * If the current capacity is less than the [minimumCapacity], a new backing storage

is allocated with greater capacity.\n   * Otherwise, this method takes no action and simply returns.\n   *\n   * In Kotlin/JS implementation of StringBuilder the size of the backing storage is not extended to comply the given [minimumCapacity],\n   * thus calling this method has no effect on the further performance of operations.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun ensureCapacity(minimumCapacity: Int) {\n   }\n\n   /**\n   * Returns the index within this string builder of the first occurrence of the specified [string].\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun indexOf(string: String): Int = this.string.asDynamic().indexOf(string)\n\n   /**\n   * Returns the index within this string builder of the first occurrence of the specified [string],\n   * starting at the specified [startIndex].\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder starting at the specified [startIndex].\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun indexOf(string: String, startIndex: Int): Int = this.string.asDynamic().indexOf(string, startIndex)\n\n   /**\n   * Returns the index within this string
builder of the last occurrence of the specified [string].\n   * The last occurrence of empty string `\"\"` is considered to be at the index equal to `this.length`.\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun lastIndexOf(string: String): Int = this.string.asDynamic().lastIndexOf(string)\n\n   /**\n   * Returns the index within this string builder of the last occurrence of the specified [string],\n   * starting from the specified [startIndex] toward the beginning.\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder starting at the specified [startIndex].\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun lastIndexOf(string: String, startIndex: Int): Int {\n   if (string.isEmpty() && startIndex < 0) return -1\n   return this.string.asDynamic().lastIndexOf(string, startIndex)\n   }\n\n   /**\n   * Inserts the string representation of the specified boolean [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n   * and then that string was inserted into this string builder at the specified [index].\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun insert(index: Int, value: Boolean): StringBuilder {\n   AbstractList.checkPositionIndex(index, length)\n\n   string = string.substring(0, index) + value + string.substring(index)\n   return this\n   }\n\n   /**\n   * Inserts the specified character [value] into this string builder at the specified [index] and
returns this instance.\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun insert(index: Int, value: Char): StringBuilder {\n   AbstractList.checkPositionIndex(index, length)\n\n   string = string.substring(0, index) + value + string.substring(index)\n   return this\n   }\n\n   /**\n   * Inserts characters in the specified character array [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The inserted characters go in same order as in the [value] character array, starting at [index].\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun insert(index: Int, value: CharArray): StringBuilder {\n   AbstractList.checkPositionIndex(index, length)\n\n   string = string.substring(0, index) + value.concatToString() + string.substring(index)\n   return this\n   }\n\n   /**\n   * Inserts characters in the specified character sequence [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The inserted characters go in the same order as in the [value] character sequence, starting at [index].\n   *\n   * @param index the position in this string builder to insert at.\n   * @param value the character sequence from which characters are inserted. If [value] is `null`, then the four characters `\"null\"` are inserted.\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of

this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n
actual fun insert(index: Int, value: CharSequence?): StringBuilder
{\n   AbstractList.checkPositionIndex(index, length)\n\n   string = string.substring(0, index) +
value.toString() + string.substring(index)\n   return this\n   }\n\n   /**\n   * Inserts the string representation of
the specified object [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The
overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n   * and then
that string was inserted into this string builder at the specified [index].\n   *\n   * @throws
IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n
@SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun insert(index: Int, value:
Any?): StringBuilder {\n   AbstractList.checkPositionIndex(index, length)\n\n   string = string.substring(0,
index) + value.toString() + string.substring(index)\n
        return this\n   }\n\n   @Deprecated(\"Provided for binary compatibility.\", level =
DeprecationLevel.HIDDEN)\n   fun insert(index: Int, value: String): StringBuilder = insert(index, value)\n\n   /**\n
   * Inserts the string [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * If
[value] is `null`, then the four characters `\"null\"` are inserted.\n   *\n   * @throws IndexOutOfBoundsException
if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n
@WasExperimental(ExperimentalStdlibApi::class)\n   actual fun insert(index: Int, value: String?): StringBuilder
{\n   AbstractList.checkPositionIndex(index, length)\n\n   val toInsert = value ?: \"null\"\n   this.string =
this.string.substring(0, index) + toInsert + this.string.substring(index)\n   return this\n   }\n\n   /**\n   * Sets
the length of this string builder to the specified [newLength].\n
     *\n   * If the [newLength] is less than the current length, it is changed to the specified [newLength].\n   *
Otherwise, null characters '\\u0000' are appended to this string builder until its length is less than the [newLength].\n
   *\n   * Note that in Kotlin/JS [set] operator function has non-constant execution time complexity.\n   *
Therefore, increasing length of this string builder and then updating each character by index may slow down your
program.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] if [newLength] is less
than zero.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun
setLength(newLength: Int) {\n   if (newLength < 0) {\n   throw IllegalArgumentException(\"Negative new
length: $newLength.\")\n   }\n\n   if (newLength <= length) {\n   string = string.substring(0,
newLength)\n   } else {\n   for (i in length
 until newLength) {\n   string += '\\u0000'\n   }\n   }\n   }\n\n   /**\n   * Returns a new [String]
that contains characters in this string builder at [startIndex] (inclusive) and up to the [length] (exclusive).\n   *\n
* @throws IndexOutOfBoundsException if [startIndex] is less than zero or greater than the length of this string
builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun
substring(startIndex: Int): String {\n   AbstractList.checkPositionIndex(startIndex, length)\n\n   return
string.substring(startIndex)\n   }\n\n   /**\n   * Returns a new [String] that contains characters in this string builder
at [startIndex] (inclusive) and up to the [endIndex] (exclusive).\n   *\n   * @throws IndexOutOfBoundsException
or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when
`startIndex > endIndex`.\n   */\n   @SinceKotlin(\"1.4\")\n
    @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun substring(startIndex: Int, endIndex: Int): String
{\n   AbstractList.checkBoundsIndexes(startIndex, endIndex, length)\n\n   return string.substring(startIndex,
endIndex)\n   }\n\n   /**\n   * Attempts to reduce storage used for this string builder.\n   *\n   * If the backing
storage of this string builder is larger than necessary to hold its current contents,\n   * then it may be resized to
become more space efficient.\n   * Calling this method may, but is not required to, affect the value of the [capacity]
property.\n   *\n   * In Kotlin/JS implementation of StringBuilder the size of the backing storage is always equal
to the length of the string builder.\n   */\n   @SinceKotlin(\"1.4\")\n
@WasExperimental(ExperimentalStdlibApi::class)\n   actual fun trimToSize() {\n   }\n\n   override fun toString():
String = string\n\n   /**\n   * Clears the content of this string

builder making it empty and returns this instance.\n *\n * @sample samples.text.Strings.clearStringBuilder\n */\n @SinceKotlin(\"1.3\")\n public fun clear(): StringBuilder {\n string = \"\"\n return this\n }\n\n /**\n * Sets the character at the specified [index] to the specified [value].\n *\n * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n public operator fun set(index: Int, value: Char) {\n AbstractList.checkElementIndex(index, length)\n\n string = string.substring(0, index) + value + string.substring(index + 1)\n }\n\n /**\n * Replaces characters in the specified range of this string builder with characters in the specified string [value] and returns this instance.\n *\n * @param startIndex the beginning (inclusive) of the range to replace.\n * @param endIndex

the end (exclusive) of the range to replace.\n * @param value the string to replace with.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] if [startIndex] is less than zero, greater than the length of this string builder, or `startIndex > endIndex`.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n public fun setRange(startIndex: Int, endIndex: Int, value: String): StringBuilder {\n checkReplaceRange(startIndex, endIndex, length)\n\n this.string = this.string.substring(0, startIndex) + value + this.string.substring(endIndex)\n return this\n }\n\n private fun checkReplaceRange(startIndex: Int, endIndex: Int, length: Int) {\n if (startIndex < 0 || startIndex > length) {\n throw IndexOutOfBoundsException(\"startIndex: $startIndex, length: $length\")\n }\n if (startIndex > endIndex) {\n throw IllegalArgumentException(\"startIndex($startIndex) >

endIndex($endIndex)\")\n }\n }\n\n /**\n * Removes the character at the specified [index] from this string builder and returns this instance.\n *\n * If the `Char` at the specified [index] is part of a supplementary code point, this method does not remove the entire supplementary character.\n *\n * @param index the index of `Char` to remove.\n *\n * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n public fun deleteAt(index: Int): StringBuilder {\n AbstractList.checkElementIndex(index, length)\n\n string = string.substring(0, index) + string.substring(index + 1)\n return this\n }\n\n /**\n * Removes characters in the specified range from this string builder and returns this instance.\n *\n * @param startIndex the beginning (inclusive) of the range to remove.\n * @param endIndex

the end (exclusive) of the range to remove.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n public fun deleteRange(startIndex: Int, endIndex: Int): StringBuilder {\n checkReplaceRange(startIndex, endIndex, length)\n\n string = string.substring(0, startIndex) + string.substring(endIndex)\n return this\n }\n\n /**\n * Copies characters from this string builder into the [destination] character array.\n *\n * @param destination the array to copy to.\n * @param destinationOffset the position in the array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the range to copy, 0 by default.\n * @param endIndex the end (exclusive) of the range to copy, length of this string builder by default.\n

*\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n */\n @SinceKotlin(\"1.4\")\n @WasExperimental(ExperimentalStdlibApi::class)\n public fun toCharArray(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = this.length) {\n AbstractList.checkBoundsIndexes(startIndex, endIndex, length)\n AbstractList.checkBoundsIndexes(destinationOffset, destinationOffset + endIndex - startIndex, destination.size)\n\n var dstIndex = destinationOffset\n for (index in startIndex until endIndex) {\n destination[dstIndex++] = string[index]\n }\n }\n\n /**\n

* Appends characters in a subarray of the specified character array [value] to this string builder and returns this instance.\n *\n * Characters are appended in order, starting at specified [startIndex].\n *\n * @param value

the array from which characters are appended.\n   * @param startIndex the beginning (inclusive) of the subarray to append.\n   * @param endIndex the end (exclusive) of the subarray to append.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   public fun appendRange(value: CharArray, startIndex: Int, endIndex: Int): StringBuilder {\n   string += value.concatToString(startIndex, endIndex)\n   return this\n   }\n\n   /**\n   * Appends a subsequence of the specified character sequence [value] to this string builder and returns this instance.\n   *\n   * @param value the character sequence from which a subsequence is appended.\n   * @param startIndex the beginning (inclusive) of the subsequence to append.\n   * @param endIndex the end (exclusive) of the subsequence to append.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   public fun appendRange(value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder {\n   val stringCsq = value.toString()\n   AbstractList.checkBoundsIndexes(startIndex, endIndex, stringCsq.length)\n\n   string += stringCsq.substring(startIndex, endIndex)\n   return this\n   }\n\n   /**\n   * Inserts characters in a subarray of the specified character array [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The inserted characters go in same order as in the [value] array, starting at [index].\n   *\n   * @param index the position in this string builder to insert at.\n   * @param value the array from which characters are inserted.\n   * @param startIndex the beginning (inclusive) of the subarray to insert.\n   * @param endIndex the end (exclusive) of the subarray to insert.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   public fun insertRange(index: Int, value: CharArray, startIndex: Int, endIndex: Int): StringBuilder {\n   AbstractList.checkPositionIndex(index, this.length)\n\n   string = string.substring(0, index) + value.concatToString(startIndex, endIndex) + string.substring(index)\n   return this\n   }\n\n   /**\n   * Inserts characters in a subsequence of the specified character sequence [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The inserted characters go in the same order as in the [value] character sequence, starting at [index].\n   *\n   * @param index the position in this string builder to insert at.\n   * @param value the character sequence from which a subsequence is inserted.\n   * @param startIndex the beginning (inclusive) of the subsequence to insert.\n   * @param endIndex the end (exclusive) of the subsequence to insert.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   public fun insertRange(index: Int, value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder {\n   AbstractList.checkPositionIndex(index, length)\n\n   val stringCsq = value.toString()\n   AbstractList.checkBoundsIndexes(startIndex, endIndex, stringCsq.length)\n\n   string = string.substring(0, index) + stringCsq.substring(startIndex, endIndex) + string.substring(index)\n   return this\n   }\n}\n\n\n/**\n * Clears the content of this string builder making it empty and returns this instance.\n *\n * @sample samples.text.Strings.clearStringBuilder\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.clear(): StringBuilder = this.clear()\n\n/**\n * Sets the character at the specified [index] to the specified [value].\n *\n * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n

*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline operator fun StringBuilder.set(index: Int, value: Char) = this.set(index, value)\n\n/**\n * Replaces characters in the specified range of this string builder with characters in the specified string [value] and returns this instance.\n *\n * @param startIndex the beginning (inclusive) of the range to replace.\n * @param endIndex the end (exclusive) of the range to replace.\n * @param value the string to replace with.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] if [startIndex] is less than zero, greater than the length of this string builder, or `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\",

\"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.setRange(startIndex: Int, endIndex: Int, value: String): StringBuilder =\n   this.setRange(startIndex, endIndex, value)\n\n/**\n * Removes the character at the specified [index] from this string builder and returns this instance.\n *\n * If the `Char` at the specified [index] is part of a supplementary code point, this method does not remove the entire supplementary character.\n *\n * @param index the index of `Char` to remove.\n *\n * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.deleteAt(index: Int): StringBuilder = this.deleteAt(index)\n\n/**\n * Removes characters in the specified range from this string builder and returns this instance.\n *\n * @param startIndex the

beginning (inclusive) of the range to remove.\n * @param endIndex the end (exclusive) of the range to remove.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.deleteRange(startIndex: Int, endIndex: Int): StringBuilder = this.deleteRange(startIndex, endIndex)\n\n/**\n * Copies characters from this string builder into the [destination] character array.\n *\n * @param destination the array to copy to.\n * @param destinationOffset the position in the array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the range to copy, 0 by default.\n * @param endIndex the end (exclusive) of the range to copy, length of this string builder by default.\n *\n * @throws IndexOutOfBoundsException

or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\", \"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun StringBuilder.toCharArray(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = this.length) =\n   this.toCharArray(destination, destinationOffset, startIndex, endIndex)\n\n/**\n * Appends characters in a subarray of the specified character array [value] to this string builder and returns this instance.\n *\n * Characters are appended in order, starting at specified [startIndex].\n

*\n * @param value the array from which characters are appended.\n * @param startIndex the beginning (inclusive) of the subarray to append.\n * @param endIndex the end (exclusive) of the subarray to append.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun

StringBuilder.appendRange(value: CharArray, startIndex: Int, endIndex: Int): StringBuilder =\n this.appendRange(value, startIndex, endIndex)\n\n/**\n * Appends a subsequence of the specified character sequence [value] to this string builder and returns this instance.\n *\n * @param value the character sequence from which a subsequence is appended.\n * @param startIndex the beginning (inclusive) of the subsequence to append.\n * @param endIndex the end (exclusive) of the subsequence to append.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.appendRange(value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder =\n this.appendRange(value, startIndex, endIndex)\n\n/**\n * Inserts characters in a subarray of the specified character array [value] into this string builder at the specified [index] and returns this instance.\n *\n * The inserted characters go in same order as in the [value] array, starting at [index].\n *\n * @param index the position in this string builder to insert at.\n * @param value the array from which characters are inserted.\n * @param startIndex the beginning (inclusive) of the subarray to insert.\n * @param endIndex the end (exclusive) of the subarray to insert.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.insertRange(index: Int, value: CharArray, startIndex: Int, endIndex: Int): StringBuilder =\n this.insertRange(index, value, startIndex, endIndex)\n\n/**\n * Inserts characters in a subsequence of the specified character sequence [value] into this string builder at the specified [index] and returns this instance.\n *\n * The inserted characters go in the same order as in the [value] character sequence, starting at [index].\n *\n * @param index the position in this string builder to insert at.\n * @param value the character sequence from which a subsequence is inserted.\n * @param startIndex the beginning (inclusive) of the subsequence to insert.\n * @param endIndex the end (exclusive) of the subsequence to insert.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.insertRange(index: Int, value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder =\n this.insertRange(index, value, startIndex, endIndex)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n\n/**\n * Returns `true` if the content of this string is equal to the word \"true\", ignoring case, and `false` otherwise.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@kotlin.internal.InlineOnly\npublic actual inline fun String.toBoolean(): Boolean = this.toBoolean()\n\n/**\n * Returns `true` if this string is not `null` and its content is equal to the word \"true\", ignoring case, and `false` otherwise.\n *\n * There are also strict versions of the function available on non-nullable String, [toBooleanStrict] and [toBooleanStrictOrNull].\n */\n@SinceKotlin(\"1.4\")\npublic actual fun String?.toBoolean(): Boolean = this != null && this.lowercase() == \"true\"\n\n/**\n * Parses the string as a signed [Byte] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\npublic actual fun String.toByte(): Byte = toByteOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a signed [Byte] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws

IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\npublic actual fun String.toByte(radix: Int): Byte = toByteOrNull(radix) ?: numberFormatError(this)\n\n\n/**\n * Parses the string as a [Short] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\npublic actual fun String.toShort(): Short = toShortOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a [Short] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\npublic actual fun String.toShort(radix: Int): Short = toShortOrNull(radix) ?: numberFormatError(this)\n\n/**\n * Parses the string as an [Int] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\npublic actual fun String.toInt(): Int = toIntOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as an [Int] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\npublic actual fun String.toInt(radix: Int): Int = toIntOrNull(radix) ?: numberFormatError(this)\n\n/**\n * Parses the string as a [Long] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\npublic actual fun String.toLong(): Long = toLongOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a [Long] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\npublic actual fun String.toLong(radix: Int): Long = toLongOrNull(radix) ?: numberFormatError(this)\n\n/**\n * Parses the string as a [Double] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\npublic actual fun String.toDouble(): Double = (+(this.asDynamic())).unsafeCast<Double>().also {\n   if (it.isNaN() && !this.isNaN() || it == 0.0 && this.isBlank())\n   numberFormatError(this)\n}\n\n/**\n * Parses the string as a [Float] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun String.toFloat(): Float = toDouble().unsafeCast<Float>()\n\n/**\n * Parses the string as a [Double] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\npublic actual fun String.toDoubleOrNull(): Double? = (+(this.asDynamic())).unsafeCast<Double>().takeIf {\n   !(it.isNaN() && !this.isNaN() || it == 0.0 && this.isBlank())\n}\n\n/**\n * Parses the string as a [Float] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun String.toFloatOrNull(): Float? = toDoubleOrNull().unsafeCast<Float?>()\n\n/**\n * Returns a string representation of this [Byte] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n */\n@SinceKotlin(\"1.2\")\n@kotlin.internal.InlineOnly\npublic actual inline fun Byte.toString(radix: Int): String = this.toInt().toString(radix)\n\n/**\n * Returns a string representation of this [Short] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n */\n@SinceKotlin(\"1.2\")\n@kotlin.internal.InlineOnly\npublic actual inline fun Short.toString(radix: Int): String = this.toInt().toString(radix)\n\n/**\n * Returns a string representation of this [Int] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Int.toString(radix: Int): String = asDynamic().toString(checkRadix(radix))\n\nprivate fun String.isNaN(): Boolean = when (this.lowercase()) {\n   \"nan\", \"+nan\", \"-nan\" -> true\n   else -> false\n}\n\n/**\n * Checks whether the given [radix] is valid radix for string to number and number to string conversion.\n */\n@PublishedApi\ninternal actual fun checkRadix(radix: Int): Int {\n   if (radix !in 2..36) {\n   throw IllegalArgumentException(\"radix $radix was not in valid range 2..36\")\n   }\n   return radix\n}\n\ninternal actual fun digitOf(char: Char, radix: Int): Int = when {\n   char >= '0' && char <= '9' -> char - '0'\n   char >= 'A' && char <= 'Z' -> char - 'A' + 10\n   char >= 'a' && char <= 'z' -> char - 'a' + 10\n   char < '\\u0080' -> -1\n   char >= '\\uFF21' && char <= '\\uFF3A' -> char -

'\\uFF21' + 10 // full-width latin capital letter\n   char >= '\\uFF41' && char <= '\\uFF5A' -> char - '\\uFF41' + 10 // full-width latin small letter\n   else -> char.digitToIntImpl()\n}.let { if (it >= radix) -1 else it }\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\nimport kotlin.js.RegExp\n\n/**\n
 * Provides enumeration values to use to set regular expression options.\n */\npublic actual enum class RegexOption(val value: String) {\n   /** Enables case-insensitive matching. */\n   IGNORE_CASE(\"i\"),\n   /** Enables multiline mode.\n   *\n   * In multiline mode the expressions `^` and `$` match just after or just before,\n
 * respectively, a line terminator or the end of the input sequence. */\n   MULTILINE(\"m\")\n}\n\nprivate fun Iterable<RegexOption>.toFlags(prepend: String): String = joinToString(\"\", prefix = prepend) { it.value }\n\n\n/**\n * Represents the results from a single capturing group within a [MatchResult] of [Regex].\n *\n * @param value The value of captured group.\n */\npublic actual data class MatchGroup(actual val value: String)\n\n\n/**\n * Returns a named group with the specified [name].\n *\n * @return An instance of [MatchGroup] if the group with the specified [name] was matched or `null` otherwise.\n * @throws IllegalArgumentException
 if there is no group with the specified [name] defined in the regex pattern.\n * @throws UnsupportedOperationException if this match group collection doesn't support getting match groups by name,\n * for example, when it's not supported by the current platform.\n */\n@SinceKotlin(\"1.7\")\npublic operator fun MatchGroupCollection.get(name: String): MatchGroup? {\n   val namedGroups = this as? MatchNamedGroupCollection\n   ?: throw UnsupportedOperationException(\"Retrieving groups by name is not supported on this platform.\")\n\n   return namedGroups[name]\n}\n\n\n/**\n * Represents a compiled regular expression.\n * Provides functions to match strings in text with a pattern, replace the found occurrences and split text around matches.\n *\n * For pattern syntax reference see [MDN RegExp](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/RegExp#Special_characters_meaning_in_regular_expressions)\n * and [http://www.w3schools.com/jsref/jsref_obj_regexp.asp](https://www.w3schools.com/jsref/jsref_obj_regexp.asp).\n
 *\n * Note that `RegExp` objects under the hood are constructed with [the \"u\" flag](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/RegExp/unicode)\n * that enables Unicode-related features in regular expressions. This also makes the pattern syntax more strict,\n * for example, prohibiting unnecessary escape sequences.\n *\n * @constructor Creates a regular expression from the specified [pattern] string and the specified set of [options].\n */\npublic actual class Regex actual constructor(pattern: String, options: Set<RegexOption>) {\n\n   /** Creates a regular expression from the specified [pattern] string and the specified single [option]. */\n   public actual constructor(pattern: String, option: RegexOption) : this(pattern, setOf(option))\n\n   /** Creates a regular expression from the specified [pattern] string and the default options. */\n   public actual constructor(pattern:
 String) : this(pattern, emptySet())\n\n\n   /** The pattern string of this regular expression. */\n   public actual val pattern: String = pattern\n   /** The set of options that were used to create this regular expression. */\n   public actual val options: Set<RegexOption> = options.toSet()\n   private val nativePattern: RegExp = RegExp(pattern, options.toFlags(\"gu\"))\n   private var nativeStickyPattern: RegExp? = null\n   private fun initStickyPattern(): RegExp =\n   nativeStickyPattern ?: RegExp(pattern, options.toFlags(\"yu\")).also { nativeStickyPattern = it }\n\n
  private var nativeMatchesEntirePattern: RegExp? = null\n   private fun initMatchesEntirePattern(): RegExp =\n
 nativeMatchesEntirePattern ?: run {\n   if (pattern.startsWith('^') && pattern.endsWith('$'))\n nativePattern\n   else\n   return RegExp(\"^${pattern.trimStart('^').trimEnd('$')}$\", options.toFlags(\"gu\"))\n   }.also { nativeMatchesEntirePattern
 = it }\n\n\n   /** Indicates whether the regular expression matches the entire [input]. */\n   public actual infix fun matches(input: CharSequence): Boolean {\n   nativePattern.reset()\n   val match = nativePattern.exec(input.toString())\n   return match != null && match.index == 0 && nativePattern.lastIndex == input.length\n   }\n\n   /** Indicates whether the regular expression can find at least one match in the specified

[input]. */\n public actual fun containsMatchIn(input: CharSequence): Boolean {\n nativePattern.reset()\n return nativePattern.test(input.toString())\n }\n\n @SinceKotlin(\"1.7\")\n @WasExperimental(ExperimentalStdlibApi::class)\n public actual fun matchesAt(input: CharSequence, index: Int): Boolean {\n if (index < 0 || index > input.length) {\n throw IndexOutOfBoundsException(\"index out of bounds: $index, input length: ${input.length}\")\n }\n val pattern = initStickyPattern()\n pattern.lastIndex = index\n return pattern.test(input.toString())\n }\n\n /**\n * Returns the first match of a regular expression in the [input], beginning at the specified [startIndex].\n *\n * @param startIndex An index to start search with, by default 0. Must be not less than zero and not greater than `input.length()`\n * @return An instance of [MatchResult] if match was found or `null` otherwise.\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or greater than the length of the [input] char sequence.\n * @sample samples.text.Regexps.find\n */\n @Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\n public actual fun find(input: CharSequence, startIndex: Int = 0): MatchResult? {\n if (startIndex < 0 || startIndex > input.length) {\n throw IndexOutOfBoundsException(\"Start index out of bounds: $startIndex, input length: ${input.length}\")\n }\n return nativePattern.findNext(input.toString(),

startIndex, nativePattern)\n }\n\n /**\n * Returns a sequence of all occurrences of a regular expression within the [input] string, beginning at the specified [startIndex].\n *\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or greater than the length of the [input] char sequence.\n *\n * @sample samples.text.Regexps.findAll\n */\n @Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\n public actual fun findAll(input: CharSequence, startIndex: Int = 0): Sequence<MatchResult> {\n if (startIndex < 0 || startIndex > input.length) {\n throw IndexOutOfBoundsException(\"Start index out of bounds: $startIndex, input length: ${input.length}\")\n }\n return generateSequence({ find(input, startIndex) }, { match -> match.next() })\n }\n\n /**\n * Attempts to match the entire [input] CharSequence against the pattern.\n *\n * @return An instance of [MatchResult] if the

entire input matches or `null` otherwise.\n */\n public actual fun matchEntire(input: CharSequence): MatchResult? =\n initMatchesEntirePattern().findNext(input.toString(), 0, nativePattern)\n\n @SinceKotlin(\"1.7\")\n @WasExperimental(ExperimentalStdlibApi::class)\n public actual fun matchAt(input: CharSequence, index: Int): MatchResult? {\n if (index < 0 || index > input.length) {\n throw IndexOutOfBoundsException(\"index out of bounds: $index, input length: ${input.length}\")\n }\n return initStickyPattern().findNext(input.toString(), index, nativePattern)\n }\n\n\n /**\n * Replaces all occurrences of this regular expression in the specified [input] string with specified [replacement] expression.\n *\n * The replacement string may contain references to the captured groups during a match. Occurrences of `${name}` or `$index`\n * in the replacement string will be substituted with the subsequences corresponding

to the captured groups with the specified name or index.\n * In case of `$index`, the first digit after '$' is always treated as a part of group reference. Subsequent digits are incorporated\n * into `index` only if they would form a valid group reference. Only the digits '0'..'9' are considered as potential components\n * of the group reference. Note that indexes of captured groups start from 1, and the group with index 0 is the whole match.\n * In case of `${name}`, the `name` can consist of latin letters 'a'..'z' and 'A'..'Z', or digits '0'..'9'. The first character must be\n * a letter.\n *\n * Backslash character '\\' can be used to include the succeeding character as a literal in the replacement string, e.g, `\\$` or `\\\\`.\n * [Regex.escapeReplacement] can be used if [replacement] have to be treated as a literal string.\n *\n * @param input the char sequence to find matches of this regular expression in\n * @param replacement the expression

to replace found matches with\n * @return the result of replacing each occurrence of this regular expression in [input] with the result of evaluating the [replacement] expression\n * @throws RuntimeException if [replacement] expression is malformed, or capturing group with specified `name` or `index` does not exist\n */\n public actual fun replace(input: CharSequence, replacement: String): String {\n if (!replacement.contains('\\\\') && !replacement.contains('$')) {\n return input.toString().nativeReplace(nativePattern, replacement)\n

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}\n        return replace(input) { substituteGroupRefs(it, replacement) }\n    }\n\n    /**\n     * Replaces all
occurrences of this regular expression in the specified [input] string with the result of\n     * the given function
[transform] that takes [MatchResult] and returns a string to be used as a\n     * replacement for that match.\n     */\n
public actual fun replace(input: CharSequence, transform:
 (MatchResult) -> CharSequence): String {\n        var match = find(input)\n        if (match == null) return
input.toString()\n\n        var lastStart = 0\n        val length = input.length\n        val sb = StringBuilder(length)\n
do {\n            val foundMatch = match!!\n            sb.append(input, lastStart, foundMatch.range.start)\n
sb.append(transform(foundMatch))\n            lastStart = foundMatch.range.endInclusive + 1\n            match =
foundMatch.next()\n        } while (lastStart < length && match != null)\n\n        if (lastStart < length) {\n
sb.append(input, lastStart, length)\n        }\n\n        return sb.toString()\n    }\n\n    /**\n     * Replaces the first
occurrence of this regular expression in the specified [input] string with specified [replacement] expression.\n     *\n
  * The replacement string may contain references to the captured groups during a match. Occurrences of `${name}`
or `$index`\n     * in the replacement string
 will be substituted with the subsequences corresponding to the captured groups with the specified name or index.\n
 * In case of `$index`, the first digit after '$' is always treated as a part of group reference. Subsequent digits are
incorporated\n     * into `index` only if they would form a valid group reference. Only the digits '0'..'9' are considered
as potential components\n     * of the group reference. Note that indexes of captured groups start from 1, and the
group with index 0 is the whole match.\n     * In case of `${name}`, the `name` can consist of latin letters 'a'..'z' and
'A'..'Z', or digits '0'..'9'. The first character must be\n     * a letter.\n     *\n     * Backslash character '\\' can be used to
include the succeeding character as a literal in the replacement string, e.g, `\\$` or `\\\\`.\n     *
[Regex.escapeReplacement] can be used if [replacement] have to be treated as a literal string.\n     *\n     * @param
input the char sequence to find a match of
 this regular expression in\n     * @param replacement the expression to replace the found match with\n     * @return
the result of replacing the first occurrence of this regular expression in [input] with the result of evaluating the
[replacement] expression\n     * @throws RuntimeException if [replacement] expression is malformed, or capturing
group with specified `name` or `index` does not exist\n     */\n    public actual fun replaceFirst(input: CharSequence,
replacement: String): String {\n        if (!replacement.contains('\\\\') && !replacement.contains('$')) {\n            val
nonGlobalOptions = options.toFlags(\"u\")\n            return input.toString().nativeReplace(RegExp(pattern,
nonGlobalOptions), replacement)\n        }\n\n        val match = find(input) ?: return input.toString()\n\n        return
buildString {\n            append(input.substring(0, match.range.first))\n            append(substituteGroupRefs(match,
replacement))\n            append(input.substring(match.range.last
 + 1, input.length))\n        }\n    }\n\n    /**\n     * Splits the [input] CharSequence to a list of strings around matches
of this regular expression.\n     *\n     * @param limit Non-negative value specifying the maximum number of
substrings the string can be split to.\n     * Zero by default means no limit is set.\n     */\n
@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\n    public actual fun split(input:
CharSequence, limit: Int = 0): List<String> {\n        requireNonNegativeLimit(limit)\n        val matches =
findAll(input).let { if (limit == 0) it else it.take(limit - 1) }\n        val result = mutableListOf<String>()\n        var
lastStart = 0\n\n        for (match in matches) {\n            result.add(input.subSequence(lastStart,
match.range.start).toString())\n            lastStart = match.range.endInclusive + 1\n        }\n
result.add(input.subSequence(lastStart, input.length).toString())\n        return result\n    }\n\n    /**\n     * Splits the
 [input] CharSequence to a sequence of strings around matches of this regular expression.\n     *\n     * @param limit
Non-negative value specifying the maximum number of substrings the string can be split to.\n     * Zero by default
means no limit is set.\n     * @sample samples.text.Regexps.splitToSequence\n     */\n    @SinceKotlin(\"1.6\")\n
@WasExperimental(ExperimentalStdlibApi::class)\n
@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\n    public actual fun
splitToSequence(input: CharSequence, limit: Int = 0): Sequence<String> {\n
requireNonNegativeLimit(limit)\n\n        return sequence {\n            var match = find(input)\n            if (match ==
null || limit == 1) {\n                yield(input.toString())\n                return@sequence\n            }\n\n            var
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nextStart = 0\n           var splitCount = 0\n\n           do {\n               val foundMatch = match!!\n
yield(input.substring(nextStart, foundMatch.range.first))\n
               nextStart = foundMatch.range.endInclusive + 1\n               match = foundMatch.next()\n           } while
(++splitCount != limit - 1 && match != null)\n\n           yield(input.substring(nextStart, input.length))\n       }\n
}\n\n\n    /**\n     * Returns the string representation of this regular expression, namely the [pattern] of this regular
expression.\n     *\n     * Note that another regular expression constructed from the same pattern string may have
different [options]\n     * and may match strings differently.\n     */\n    public override fun toString(): String =
nativePattern.toString()\n\n    actual companion object {\n        /**\n         * Returns a regular expression that
matches the specified [literal] string literally.\n         * No characters of that string will have special meaning when
searching for an occurrence of the regular expression.\n         */\n        public actual fun fromLiteral(literal: String):
Regex = Regex(escape(literal))\n\n
       /**\n         * Returns a regular expression pattern string that matches the specified [literal] string literally.\n
* No characters of that string will have special meaning when searching for an occurrence of the regular
expression.\n         */\n        public actual fun escape(literal: String): String = literal.nativeReplace(patternEscape,
\"\\\\$&\")\n\n        /**\n         * Returns a literal replacement expression for the specified [literal] string.\n         * No
characters of that string will have special meaning when it is used as a replacement string in [Regex.replace]
function.\n         */\n        public actual fun escapeReplacement(literal: String): String =
literal.nativeReplace(replacementEscape, \"\\\\$&\")\n\n        private val patternEscape =
RegExp(\"\"\"[\\\\^$*+?.()|[\\]{}]\"\"\", \"g\")\n        private val replacementEscape = RegExp(\"\"\"[\\\\$]\"\"\",
\"g\")\n\n        internal fun nativeEscapeReplacement(literal: String): String =
literal.nativeReplace(nativeReplacementEscape,
 \"$$$$\")\n        private val nativeReplacementEscape = RegExp(\"\"\"\\$\"\"\", \"g\")\n    }\n}\n\n\n\nprivate fun
RegExp.findNext(input: String, from: Int, nextPattern: RegExp): MatchResult? {\n    this.lastIndex = from\n    val
match = exec(input)\n    if (match == null) return null\n    val range = match.index..lastIndex - 1\n\n    return object :
MatchResult {\n        override val range: IntRange = range\n        override val value: String\n            get() =
match[0]!!\n\n        override val groups: MatchGroupCollection = object : MatchNamedGroupCollection,
AbstractCollection<MatchGroup?>() {\n            override val size: Int get() = match.length\n            override fun
iterator(): Iterator<MatchGroup?> = indices.asSequence().map { this[it] }.iterator()\n            override fun get(index:
Int): MatchGroup? = match[index]?.let { MatchGroup(it) }\n\n            override fun get(name: String): MatchGroup?
{\n                // An object
 of named capturing groups whose keys are the names and values are the capturing groups\n                // or undefined
if no named capturing groups were defined.\n                val groups = match.asDynamic().groups\n                    ?:
throw IllegalArgumentException(\"Capturing group with name {$name} does not exist. No named capturing group
was defined in Regex\")\n\n                // If the match was successful but the group specified failed to match any part
of the input sequence,\n                // the associated value is 'undefined'. Value for a non-existent key is also
'undefined'. Thus, explicitly check if the key exists.\n                if (!hasOwnPrototypeProperty(groups, name))\n
         throw IllegalArgumentException(\"Capturing group with name {$name} does not exist\")\n\n                val
value = groups[name]\n                return if (value == undefined) null else MatchGroup(value as String)\n            }\n
    }\n\n        private fun hasOwnPrototypeProperty(o:
 Any?, name: String): Boolean {\n            return js(\"Object\").prototype.hasOwnProperty.call(o,
name).unsafeCast<Boolean>()\n        }\n\n\n        private var groupValues_: List<String>? = null\n\n        override
val groupValues: List<String>\n            get() {\n                if (groupValues_ == null) {\n                    groupValues_ =
object : AbstractList<String>() {\n                        override val size: Int get() = match.length\n                        override
fun get(index: Int): String = match[index] ?: \"\"\n                    }\n                }\n                return groupValues_!!\n
    }\n\n        override fun next(): MatchResult? =\n            nextPattern.findNext(input, if (range.isEmpty())
advanceToNextCharacter(range.start) else range.endInclusive + 1, nextPattern)\n\n        private fun
advanceToNextCharacter(index: Int): Int {\n            if (index < input.lastIndex) {\n                val code1 =
input.asDynamic().charCodeAt(index).unsafeCast<Int>()\n
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        if (code1 in 0xD800..0xDBFF) {\n            val code2 = input.asDynamic().charCodeAt(index +
1).unsafeCast<Int>()\n            if (code2 in 0xDC00..0xDFFF) {\n                return index + 2\n
}\n            }\n        }\n        return index + 1\n    }\n  }\n}\n\n// The same code from K/N
Regex.kt\nprivate fun substituteGroupRefs(match: MatchResult, replacement: String): String {\n    var index = 0\n
val result = StringBuilder()\n\n    while (index < replacement.length) {\n        val char = replacement[index++]\n
if (char == '\\\\') {\n            if (index == replacement.length)\n                throw IllegalArgumentException(\"The Char
to be escaped is missing\")\n\n            result.append(replacement[index++])\n        } else if (char == '$') {\n            if
(index == replacement.length)\n                throw IllegalArgumentException(\"Capturing group index
 is missing\")\n\n            if (replacement[index] == '{') {\n                val endIndex =
replacement.readGroupName(++index)\n\n                if (index == endIndex)\n                    throw
IllegalArgumentException(\"Named capturing group reference should have a non-empty name\")\n                if
(endIndex == replacement.length || replacement[endIndex] != '}')\n                    throw
IllegalArgumentException(\"Named capturing group reference is missing trailing '}'\")\n\n                val groupName
= replacement.substring(index, endIndex)\n\n                result.append(match.groups[groupName]?.value ?: \"\")\n
        index = endIndex + 1    // skip past '}'\n            } else {\n                if (replacement[index] !in '0'..'9')\n
  throw IllegalArgumentException(\"Invalid capturing group reference\")\n\n                val groups = match.groups\n
          val endIndex = replacement.readGroupIndex(index, groups.size)\n
    val groupIndex = replacement.substring(index, endIndex).toInt()\n\n                if (groupIndex >= groups.size)\n
           throw IndexOutOfBoundsException(\"Group with index $groupIndex does not exist\")\n\n
result.append(groups[groupIndex]?.value ?: \"\")\n                index = endIndex\n            }\n        } else {\n
result.append(char)\n        }\n    }\n    return result.toString()\n}\n\n// The name must be a legal JavaScript identifier.
See https://262.ecma-international.org/5.1/#sec-7.6\n// Don't try to validate the referenced group name as it may be
time-consuming.\n// If the name is invalid, it won't be found in `match.groups` anyway and will throw.\n// Group
names in the target Regex are validated at creation time.\nprivate fun String.readGroupName(startIndex: Int): Int {\n
  var index = startIndex\n    while (index < length) {\n        if (this[index] == '}') {\n            break\n        } else {\n
    index++\n        }\n
    }\n    return index\n}\n\nprivate fun String.readGroupIndex(startIndex: Int, groupCount: Int): Int {\n    // at least
one digit after '$' is always captured\n    var index = startIndex + 1\n    var groupIndex = this[startIndex] - '0'\n\n    //
capture the largest valid group index\n    while (index < length && this[index] in '0'..'9') {\n        val newGroupIndex
= (groupIndex * 10) + (this[index] - '0')\n        if (newGroupIndex in 0 until groupCount) {\n            groupIndex =
newGroupIndex\n            index++\n        } else {\n            break\n        }\n    }\n    return index\n}","/*\n * Copyright
2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n@file:Suppress(\"EXTENSI
ON_SHADOWED_BY_MEMBER\")\n\npackage kotlin.text\n\nimport kotlin.contracts.*\n\n/**\n
 * A mutable sequence of characters.\n *\n * String builder can be used to efficiently perform multiple string
manipulation operations.\n */\nexpect class StringBuilder : Appendable, CharSequence {\n    /** Constructs an
empty string builder. */\n    constructor()\n\n    /** Constructs an empty string builder with the specified initial
[capacity]. */\n    constructor(capacity: Int)\n\n    /** Constructs a string builder that contains the same characters as
the specified [content] char sequence. */\n    constructor(content: CharSequence)\n\n    /** Constructs a string
builder that contains the same characters as the specified [content] string. */\n    @SinceKotlin(\"1.3\")\n//
@ExperimentalStdlibApi\n    constructor(content: String)\n\n    override val length: Int\n\n    override operator fun
get(index: Int): Char\n\n    override fun subSequence(startIndex: Int, endIndex: Int): CharSequence\n\n    override
fun append(value: Char): StringBuilder\n    override fun append(value: CharSequence?):
 StringBuilder\n    override fun append(value: CharSequence?, startIndex: Int, endIndex: Int): StringBuilder\n\n
/**\n     * Reverses the contents of this string builder and returns this instance.\n     *\n     * Surrogate pairs included
in this string builder are treated as single characters.\n     * Therefore, the order of the high-low surrogates is never
reversed.\n     *\n     * Note that the reverse operation may produce new surrogate pairs that were unpaired low-
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surrogates and high-surrogates before the operation.\n   * For example, reversing `\"\\uDC00\\uD800\"` produces `\"\\uD800\\uDC00\"` which is a valid surrogate pair.\n   */\n   fun reverse(): StringBuilder\n\n   /**\n   * Appends the string representation of the specified object [value] to this string builder and returns this instance.\n   *\n   * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n   * and then that string was appended

to this string builder.\n   */\n   fun append(value: Any?): StringBuilder\n\n   /**\n   * Appends the string representation of the specified boolean [value] to this string builder and returns this instance.\n   *\n   * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n   * and then that string was appended to this string builder.\n   */\n   @SinceKotlin(\"1.3\")\n   fun append(value: Boolean): StringBuilder\n\n   /**\n   * Appends characters in the specified character array [value] to this string builder and returns this instance.\n   *\n   * Characters are appended in order, starting at the index 0.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun append(value: CharArray): StringBuilder\n\n   /**\n   * Appends the specified string [value] to this string builder and returns this instance.\n   *\n   * If [value] is `null`, then the four characters `\"null\"`

are appended.\n   */\n   @SinceKotlin(\"1.3\")\n   fun append(value: String?): StringBuilder\n\n   /**\n   * Returns the current capacity of this string builder.\n   *\n   * The capacity is the maximum length this string builder can have before an allocation occurs.\n   */\n   @SinceKotlin(\"1.3\")\n//   @ExperimentalStdlibApi\n   @Deprecated(\"Obtaining StringBuilder capacity is not supported in JS and common code.\", level = DeprecationLevel.ERROR)\n   fun capacity(): Int\n\n   /**\n   * Ensures that the capacity of this string builder is at least equal to the specified [minimumCapacity].\n   *\n   * If the current capacity is less than the [minimumCapacity], a new backing storage is allocated with greater capacity.\n   * Otherwise, this method takes no action and simply returns.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun ensureCapacity(minimumCapacity: Int)\n\n   /**\n   * Returns the index

within this string builder of the first occurrence of the specified [string].\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun indexOf(string: String): Int\n\n   /**\n   * Returns the index within this string builder of the first occurrence of the specified [string],\n   * starting at the specified [startIndex].\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder starting at the specified [startIndex].\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun indexOf(string: String, startIndex: Int): Int\n\n   /**\n   * Returns the index within this string builder of the last occurrence of the specified [string].\n   * The last occurrence of empty string `\"\"` is considered to be at the index equal to `this.length`.\n   *\n   * Returns `-1` if the specified

[string] does not occur in this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun lastIndexOf(string: String): Int\n\n   /**\n   * Returns the index within this string builder of the last occurrence of the specified [string],\n   * starting from the specified [startIndex] toward the beginning.\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder starting at the specified [startIndex].\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun lastIndexOf(string: String, startIndex: Int): Int\n\n   /**\n   * Inserts the string representation of the specified boolean [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n   * and then that string was inserted into this string builder

at the specified [index].\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun insert(index: Int, value: Boolean): StringBuilder\n\n   /**\n   * Inserts the specified character [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun insert(index: Int, value: Char): StringBuilder\n\n   /**\n   * Inserts characters in the specified character array [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The inserted characters go in same order as in the [value] character array, starting at [index].\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun insert(index: Int, value: CharArray): StringBuilder\n\n   /**\n   * Inserts characters in the specified character sequence [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The inserted characters go in the same order as in the [value] character sequence, starting at [index].\n   *\n   * @param index the position in this string builder to insert at.\n   * @param value the character sequence from which characters are inserted. If [value] is `null`, then the four characters `\"null\"` are inserted.\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun insert(index: Int, value: CharSequence?): StringBuilder\n\n   /**\n   * Inserts the string representation of the specified object [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n   * and then that string was inserted into this string builder at the specified [index].\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun insert(index: Int, value: Any?): StringBuilder\n\n   /**\n   * Inserts the string [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * If [value] is `null`, then the four characters `\"null\"` are inserted.\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun insert(index: Int, value: String?): StringBuilder\n\n   /**\n   * Sets the length of this string builder to the specified [newLength].\n   *\n   * If the [newLength] is less than the current length, it is changed to the specified [newLength].\n   * Otherwise, null characters '\\u0000' are appended to this string builder until its length is less than the [newLength].\n   *\n   * Note that in Kotlin/JS [set] operator function has non-constant execution time complexity.\n   * Therefore, increasing length of this string builder and then updating each character by index may slow down your program.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] if [newLength] is less than zero.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun setLength(newLength: Int)\n\n   /**\n   * Returns a new [String] that contains characters in this string builder at [startIndex] (inclusive) and up to the [length] (exclusive).\n   *\n   * @throws IndexOutOfBoundsException if [startIndex] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun substring(startIndex: Int): String\n\n   /**\n   * Returns a new [String] that contains characters in this string builder at [startIndex] (inclusive) and up to the [endIndex] (exclusive).\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun substring(startIndex: Int, endIndex: Int): String\n\n   /**\n   * Attempts to reduce storage used for this string builder.\n   *\n   * If the backing storage of this string builder is larger than necessary to hold its current contents,\n   * then it may be resized to become more space efficient.\n   * Calling this method may, but is not required to, affect the value of the [capacity] property.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun trimToSize()\n}\n\n\n/**\n * Clears the content of this string builder making it empty and returns this instance.\n *\n * @sample samples.text.Strings.clearStringBuilder\n */\n@SinceKotlin(\"1.3\")\npublic expect fun StringBuilder.clear(): StringBuilder\n\n/**\n * Sets the character at the specified [index] to the specified [value].\n *\n * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect operator fun

StringBuilder.set(index: Int, value: Char)\n\n/**\n * Replaces characters in the specified
range of this string builder with characters in the specified string [value] and returns this instance.\n *\n * @param startIndex the beginning (inclusive) of the range to replace.\n * @param endIndex the end (exclusive) of the range to replace.\n * @param value the string to replace with.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] if [startIndex] is less than zero, greater than the length of this string builder, or `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.setRange(startIndex: Int, endIndex: Int, value: String): StringBuilder\n\n/**\n * Removes the character at the specified [index] from this string builder and returns this instance.\n *\n * If the `Char` at the specified [index] is part of a supplementary code point, this method does not remove the entire supplementary character.\n *\n * @param index the index of `Char` to remove.\n *\n * @throws IndexOutOfBoundsException
if [index] is out of bounds of this string builder.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.deleteAt(index: Int): StringBuilder\n\n/**\n * Removes characters in the specified range from this string builder and returns this instance.\n *\n * @param startIndex the beginning (inclusive) of the range to remove.\n * @param endIndex the end (exclusive) of the range to remove.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.deleteRange(startIndex: Int, endIndex: Int): StringBuilder\n\n/**\n * Copies characters from this string builder into the [destination] character array.\n *\n * @param destination the array to copy to.\n * @param destinationOffset the position in the array to copy to,
0 by default.\n * @param startIndex the beginning (inclusive) of the range to copy, 0 by default.\n * @param endIndex the end (exclusive) of the range to copy, length of this string builder by default.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.toCharArray(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = this.length)\n\n/**\n * Appends characters in a subarray of the specified character array [value] to this string builder and returns this instance.\n *\n * Characters are appended in order,
starting at specified [startIndex].\n *\n * @param value the array from which characters are appended.\n * @param startIndex the beginning (inclusive) of the subarray to append.\n * @param endIndex the end (exclusive) of the subarray to append.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.appendRange(value: CharArray, startIndex: Int, endIndex: Int): StringBuilder\n\n/**\n * Appends a subsequence of the specified character sequence [value] to this string builder and returns this instance.\n *\n * @param value the character sequence from which a subsequence is appended.\n * @param startIndex the beginning (inclusive) of the subsequence to append.\n * @param endIndex the end (exclusive) of the subsequence to append.\n *\n * @throws IndexOutOfBoundsException
or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.appendRange(value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder\n\n/**\n * Inserts characters in a subarray of the specified character array [value] into this string builder at the specified [index] and returns this instance.\n *\n * The inserted characters go in same order as in the [value] array, starting at [index].\n *\n * @param index the position in this string builder to insert at.\n * @param value the array from which characters

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are inserted.\n * @param startIndex the beginning (inclusive) of the subarray to insert.\n * @param endIndex the
end (exclusive) of the subarray to insert.\n *\n * @throws IndexOutOfBoundsException or
[IllegalArgumentException] when [startIndex] or [endIndex] is out
 of range of the [value] array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if
[index] is less than zero or greater than the length of this string builder.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
StringBuilder.insertRange(index: Int, value: CharArray, startIndex: Int, endIndex: Int): StringBuilder\n\n/**\n *
Inserts characters in a subsequence of the specified character sequence [value] into this string builder at the specified
[index] and returns this instance.\n *\n * The inserted characters go in the same order as in the [value] character
sequence, starting at [index].\n *\n * @param index the position in this string builder to insert at.\n * @param value
the character sequence from which a subsequence is inserted.\n * @param startIndex the beginning (inclusive) of the
subsequence to insert.\n * @param endIndex the end (exclusive) of the subsequence to insert.\n *\n * @throws
IndexOutOfBoundsException
 or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence
indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if [index] is less than zero or
greater than the length of this string builder.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun
StringBuilder.insertRange(index: Int, value: CharSequence, startIndex: Int, endIndex: Int):
StringBuilder\n\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\")\n@Deprecated(\"Use
append(value: Any?) instead\", ReplaceWith(\"append(value = obj)\"),
DeprecationLevel.WARNING)\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.append(obj: Any?):
StringBuilder = this.append(obj)\n\n/**\n * Builds new string by populating newly created [StringBuilder] using
provided [builderAction]\n * and then converting it to [String].\n */\n@kotlin.internal.InlineOnly\npublic inline fun
buildString(builderAction: StringBuilder.() -> Unit):
 String {\n    contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n    return
StringBuilder().apply(builderAction).toString()\n}\n\n/**\n * Builds new string by populating newly created
[StringBuilder] initialized with the given [capacity]\n * using provided [builderAction] and then converting it to
[String].\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun buildString(capacity: Int,
builderAction: StringBuilder.() -> Unit): String {\n    contract { callsInPlace(builderAction,
InvocationKind.EXACTLY_ONCE) }\n    return
StringBuilder(capacity).apply(builderAction).toString()\n}\n\n/**\n * Appends all arguments to the given
StringBuilder.\n */\npublic fun StringBuilder.append(vararg value: String?): StringBuilder {\n    for (item in
value)\n        append(item)\n    return this\n}\n\n/**\n * Appends all arguments to the given StringBuilder.\n
*/\npublic fun StringBuilder.append(vararg value: Any?): StringBuilder {\n    for (item in value)\n
        append(item)\n    return this\n}\n\n/** Appends a line feed character (`\\n`) to this StringBuilder.
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine():
StringBuilder = append('\\n')\n\n/** Appends [value] to this [StringBuilder], followed by a line feed character
(`\\n`). */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(value:
CharSequence?): StringBuilder = append(value).appendLine()\n\n/** Appends [value] to this [StringBuilder],
followed by a line feed character (`\\n`). */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun
StringBuilder.appendLine(value: String?): StringBuilder = append(value).appendLine()\n\n/** Appends [value] to
this [StringBuilder], followed by a line feed character (`\\n`).
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(value: Any?):
StringBuilder = append(value).appendLine()\n\n/**
 Appends [value] to this [StringBuilder], followed by a line feed character (`\\n`).
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(value:
CharArray): StringBuilder = append(value).appendLine()\n\n/** Appends [value] to this [StringBuilder], followed
by a line feed character (`\\n`). */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun
```

StringBuilder.appendLine(value: Char): StringBuilder = append(value).appendLine()\n\n/** Appends [value] to this [StringBuilder], followed by a line feed character (`\\n`). */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(value: Boolean): StringBuilder = append(value).appendLine()\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\nimport kotlin.js.RegExp\n\n@kotlin.internal.InlineOnly\ninternal actual inline fun String.nativeIndexOf(ch: Char, fromIndex: Int): Int = nativeIndexOf(ch.toString(), fromIndex)\n\n@kotlin.internal.InlineOnly\ninternal actual inline fun String.nativeLastIndexOf(ch: Char, fromIndex: Int): Int = nativeLastIndexOf(ch.toString(), fromIndex)\n\n/**\n * Returns `true` if this string starts with the specified prefix.\n */\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun String.startsWith(prefix: String, ignoreCase: Boolean = false): Boolean {\n   if (!ignoreCase)\n   return nativeStartsWith(prefix, 0)\n   else\n   return regionMatches(0, prefix, 0, prefix.length, ignoreCase)\n}\n\n/**\n * Returns `true` if a substring of this string starting at the specified offset [startIndex] starts with the specified prefix.\n */\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun String.startsWith(prefix: String, startIndex: Int, ignoreCase: Boolean = false): Boolean {\n   if (!ignoreCase)\n   return nativeStartsWith(prefix, startIndex)\n   else\n   return regionMatches(startIndex, prefix, 0, prefix.length, ignoreCase)\n}\n\n/**\n * Returns `true` if this string ends with the specified suffix.\n */\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun String.endsWith(suffix: String, ignoreCase: Boolean = false): Boolean {\n   if (!ignoreCase)\n   return nativeEndsWith(suffix)\n   else\n   return regionMatches(length - suffix.length, suffix, 0, suffix.length, ignoreCase)\n}\n\n@Deprecated(\"Use Regex.matches() instead\", ReplaceWith(\"regex.toRegex().matches(this)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\npublic fun String.matches(regex: String): Boolean {\n   @Suppress(\"DEPRECATION\")\n   val result = this.match(regex)\n   return result != null && result.size != 0\n}\n\n/**\n * Returns `true` if this string is empty or consists solely of whitespace characters.\n *\n * @sample samples.text.Strings.stringIsBlank\n */\npublic actual fun CharSequence.isBlank(): Boolean = length == 0 || indices.all { this[it].isWhitespace() }\n\n/**\n * Returns `true` if this string is equal to [other], optionally ignoring character case.\n *\n * Two strings are considered to be equal if they have the same length and the same character at the same index.\n * If [ignoreCase] is true, the result of `Char.uppercaseChar().lowercaseChar()` on each character is compared.\n *\n * @param ignoreCase `true` to ignore character case when comparing strings. By default `false`.\n */\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun String?.equals(other: String?, ignoreCase: Boolean = false): Boolean {\n   if (this == null) return other == null\n   if (other == null) return false\n   if (!ignoreCase) return this == other\n\n   if (this.length != other.length) return false\n\n   for (index in 0 until this.length) {\n   val thisChar = this[index]\n   val otherChar = other[index]\n   if (!thisChar.equals(otherChar, ignoreCase)) {\n   return false\n   }\n   }\n\n   return true\n}\n\n\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun CharSequence.regionMatches(thisOffset: Int, other: CharSequence, otherOffset: Int, length: Int, ignoreCase: Boolean = false): Boolean =\n   regionMatchesImpl(thisOffset, other, otherOffset, length, ignoreCase)\n\n\n/**\n * Returns a copy of this string having its first letter titlecased using the rules of the default locale,\n * or the original string if it's empty or already starts with a title case letter.\n *\n * The title case of a character is usually the same as its upper case with several exceptions.\n * The particular list of characters with the special title case form depends on the underlying platform.\n *\n * @sample samples.text.Strings.capitalize\n */\n@Deprecated(\"Use replaceFirstChar instead.\", ReplaceWith(\"replaceFirstChar { if (it.isLowerCase()) it.titlecase() else it.toString() }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic actual fun String.capitalize(): String {\n   return if (isNotEmpty()) substring(0, 1).uppercase() + substring(1) else this\n}\n\n/**\n * Returns a copy of this string having its first letter lowercased using the rules of the default locale,\n * or the original string if it's empty or already starts with a lower case letter.\n *\n * @sample samples.text.Strings.decapitalize\n

*/\n@Deprecated(\"Use replaceFirstChar instead.\", ReplaceWith(\"replaceFirstChar { it.lowercase() }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic actual fun String.decapitalize(): String {\n return if (isNotEmpty()) substring(0, 1).lowercase() + substring(1) else this\n}\n\n/**\n * Returns a string containing this char sequence repeated [n] times.\n * @throws [IllegalArgumentException] when n < 0.\n * @sample samples.text.Strings.repeat\n */\npublic actual fun CharSequence.repeat(n: Int): String {\n require(n >= 0) { \"Count 'n' must be non-negative, but was $n.\" }\n return when (n) {\n 0 -> \"\"\n 1 -> this.toString()\n else -> {\n var result = \"\"\n if (!isEmpty()) {\n var s = this.toString()\n var count = n\n while (true) {\n if ((count and 1) == 1) {\n result += s\n }\n count = count ushr 1\n if (count == 0) {\n break\n }\n s += s\n }\n }\n return result\n }\n }\n}\n\n/**\n * Returns a new string obtained by replacing all occurrences of the [oldValue] substring in this string\n * with the specified [newValue] string.\n *\n * @sample samples.text.Strings.replace\n */\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun String.replace(oldValue: String, newValue: String,
ignoreCase: Boolean = false): String =\n nativeReplace(RegExp(Regex.escape(oldValue), if (ignoreCase) \"gui\" else \"gu\"), Regex.nativeEscapeReplacement(newValue))\n\n/**\n * Returns a new string with all occurrences of [oldChar] replaced with [newChar].\n *\n * @sample samples.text.Strings.replace\n */\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun String.replace(oldChar: Char, newChar: Char, ignoreCase: Boolean = false): String =\n nativeReplace(RegExp(Regex.escape(oldChar.toString()), if (ignoreCase) \"gui\" else \"gu\"), newChar.toString())\n\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun String.replaceFirst(oldValue: String, newValue: String, ignoreCase: Boolean = false): String =\n nativeReplace(RegExp(Regex.escape(oldValue), if (ignoreCase) \"ui\" else \"u\"), Regex.nativeEscapeReplacement(newValue))\n\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun String.replaceFirst(oldChar: Char, newChar:
Char, ignoreCase: Boolean = false): String =\n nativeReplace(RegExp(Regex.escape(oldChar.toString()), if (ignoreCase) \"ui\" else \"u\"), newChar.toString())\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/** Returns the negative [size] if [throwOnMalformed] is false, throws [CharacterCodingException] otherwise. */\nprivate fun malformed(size: Int, index: Int, throwOnMalformed: Boolean): Int {\n if (throwOnMalformed) throw CharacterCodingException(\"Malformed sequence starting at ${index - 1}\")\n return -size\n}\n\n/**\n * Returns code point corresponding to UTF-16 surrogate pair,\n * where the first of the pair is the [high] and the second is in the [string] at the [index].\n * Returns zero if the pair is malformed and [throwOnMalformed] is false.\n *\n * @throws CharacterCodingException
if the pair is malformed and [throwOnMalformed] is true.\n */\nprivate fun codePointFromSurrogate(string: String, high: Int, index: Int, endIndex: Int, throwOnMalformed: Boolean): Int {\n if (high !in 0xD800..0xDBFF || index >= endIndex) {\n return malformed(0, index, throwOnMalformed)\n }\n val low = string[index].code\n if (low !in 0xDC00..0xDFFF) {\n return malformed(0, index, throwOnMalformed)\n }\n return 0x10000 + ((high and 0x3FF) shl 10) or (low and 0x3FF)\n}\n\n/**\n * Returns code point corresponding to UTF-8 sequence of two bytes,\n * where the first byte of the sequence is the [byte1] and the second byte is in the [bytes] array at the [index].\n * Returns zero if the sequence is malformed and [throwOnMalformed] is false.\n *\n * @throws CharacterCodingException if the sequence of two bytes is malformed and [throwOnMalformed] is true.\n */\nprivate fun codePointFrom2(bytes: ByteArray, byte1: Int, index: Int, endIndex: Int, throwOnMalformed:
Boolean): Int {\n if (byte1 and 0x1E == 0 || index >= endIndex) {\n return malformed(0, index, throwOnMalformed)\n }\n val byte2 = bytes[index].toInt()\n if (byte2 and 0xC0 != 0x80) {\n return malformed(0, index, throwOnMalformed)\n }\n return (byte1 shl 6) xor byte2 xor 0xF80\n}\n\n/**\n * Returns code point corresponding to UTF-8 sequence of three bytes,\n * where the first byte of the sequence is the [byte1]

and the others are in the [bytes] array starting from the [index].\n * Returns a non-positive value indicating number of bytes from [bytes] included in malformed sequence\n * if the sequence is malformed and [throwOnMalformed] is false.\n *\n * @throws CharacterCodingException if the sequence of three bytes is malformed and [throwOnMalformed] is true.\n */\nprivate fun codePointFrom3(bytes: ByteArray, byte1: Int, index: Int, endIndex: Int, throwOnMalformed: Boolean): Int {\n   if (index >= endIndex) {\n   return malformed(0, index, throwOnMalformed)\n   }\n\n   val byte2 = bytes[index].toInt()\n   if (byte1 and 0xF == 0) {\n   if (byte2 and 0xE0 != 0xA0) {\n   // Non-shortest form\n   return malformed(0, index, throwOnMalformed)\n   }\n   } else if (byte1 and 0xF == 0xD) {\n   if (byte2 and 0xE0 != 0x80) {\n   // Surrogate code point\n   return malformed(0, index, throwOnMalformed)\n   }\n   } else if (byte2 and 0xC0 != 0x80) {\n   return malformed(0, index, throwOnMalformed)\n   }\n\n   if (index + 1 == endIndex) {\n   return malformed(1, index, throwOnMalformed)\n   }\n   val byte3 = bytes[index + 1].toInt()\n   if (byte3 and 0xC0 != 0x80) {\n   return malformed(1, index, throwOnMalformed)\n   }\n\n   return (byte1 shl 12) xor (byte2 shl 6) xor byte3 xor -0x1E080\n}\n\n/**\n * Returns code point corresponding to UTF-8 sequence of four bytes,\n * where the first byte of the sequence is the [byte1] and the others are in the [bytes] array starting from the [index].\n * Returns a non-positive value indicating number of bytes from [bytes] included in malformed sequence\n * if the sequence is malformed and [throwOnMalformed] is false.\n *\n * @throws CharacterCodingException if the sequence of four bytes is malformed and [throwOnMalformed] is true.\n */\nprivate fun codePointFrom4(bytes: ByteArray, byte1: Int, index: Int, endIndex: Int, throwOnMalformed: Boolean): Int {\n   if (index >= endIndex) {\n   malformed(0, index, throwOnMalformed)\n   }\n\n   val byte2 = bytes[index].toInt()\n   if (byte1 and 0xF == 0x0) {\n   if (byte2 and 0xF0 <= 0x80) {\n   // Non-shortest form\n   return malformed(0, index, throwOnMalformed)\n   }\n   } else if (byte1 and 0xF == 0x4) {\n   if (byte2 and 0xF0 != 0x80) {\n   // Out of Unicode code points domain (larger than U+10FFFF)\n   return malformed(0, index, throwOnMalformed)\n   }\n   } else if (byte1 and 0xF > 0x4) {\n   return malformed(0, index, throwOnMalformed)\n   } else if (byte2 and 0xC0 != 0x80) {\n   return malformed(0, index, throwOnMalformed)\n   }\n\n   if (index + 1 == endIndex) {\n   return malformed(1, index, throwOnMalformed)\n   }\n   val byte3 = bytes[index + 1].toInt()\n   if (byte3 and 0xC0 != 0x80) {\n   return malformed(1, index, throwOnMalformed)\n   }\n\n   if (index + 2 == endIndex) {\n   return malformed(2, index, throwOnMalformed)\n   }\n   val byte4 = bytes[index + 2].toInt()\n   if (byte4 and 0xC0 != 0x80) {\n   return malformed(2, index, throwOnMalformed)\n   }\n   return (byte1 shl 18) xor (byte2 shl 12) xor (byte3 shl 6) xor byte4 xor 0x381F80\n}\n\n/**\n * Maximum number of bytes needed to encode a single char.\n *\n * Code points in `0..0x7F` are encoded in a single byte.\n * Code points in `0x80..0x7FF` are encoded in two bytes.\n * Code points in `0x800..0xD7FF` or in `0xE000..0xFFFF` are encoded in three bytes.\n * Surrogate code points in `0xD800..0xDFFF` are not Unicode scalar values, therefore aren't encoded.\n * Code points in `0x10000..0x10FFFF` are represented by a pair of surrogate `Char`s and are encoded in four bytes.\n */\nprivate const val MAX_BYTES_PER_CHAR = 3\n\n/**\n * The byte sequence a malformed UTF-16 char sequence is replaced by.\n */\nprivate val REPLACEMENT_BYTE_SEQUENCE: ByteArray = byteArrayOf(0xEF.toByte(), 0xBF.toByte(), 0xBD.toByte())\n\n/**\n * Encodes the [string] using UTF-8 and returns the resulting [ByteArray].\n *\n * @param string the string to encode.\n * @param startIndex the start offset (inclusive) of the substring to encode.\n * @param endIndex the end offset (exclusive) of the substring to encode.\n * @param throwOnMalformed whether to throw on malformed char sequence or replace by the [REPLACEMENT_BYTE_SEQUENCE].\n *\n * @throws CharacterCodingException if the char sequence is malformed and [throwOnMalformed] is true.\n */\ninternal fun encodeUtf8(string: String, startIndex: Int, endIndex: Int, throwOnMalformed: Boolean): ByteArray {\n   require(startIndex >= 0 && endIndex <= string.length && startIndex <= endIndex)\n\n   val bytes = ByteArray((endIndex - startIndex) * MAX_BYTES_PER_CHAR)\n   var byteIndex = 0\n   var charIndex = startIndex\n\n   while (charIndex < endIndex) {\n   val code = string[charIndex++].code\n   when {\n   code < 0x80 ->\n   bytes[byteIndex++] = code.toByte()\n   code < 0x800 -> {\n   bytes[byteIndex++] = ((code shr 6) or

0xC0).toByte()\n bytes[byteIndex++] = ((code and 0x3F) or 0x80).toByte()\n }\n code < 0xD800 || code >= 0xE000 -> {\n bytes[byteIndex++] = ((code shr 12) or 0xE0).toByte()\n bytes[byteIndex++] = (((code shr 6) and 0x3F) or 0x80).toByte()\n bytes[byteIndex++] = ((code and 0x3F) or 0x80).toByte()\n }\n else -> { // Surrogate char value\n val codePoint = codePointFromSurrogate(string, code, charIndex, endIndex, throwOnMalformed)\n if (codePoint <= 0) {\n bytes[byteIndex++] = REPLACEMENT_BYTE_SEQUENCE[0]\n bytes[byteIndex++] = REPLACEMENT_BYTE_SEQUENCE[1]\n bytes[byteIndex++] = REPLACEMENT_BYTE_SEQUENCE[2]\n } else {\n bytes[byteIndex++] = ((codePoint shr 18) or 0xF0).toByte()\n bytes[byteIndex++] = (((codePoint shr 12) and 0x3F) or 0x80).toByte()\n bytes[byteIndex++] = (((codePoint shr 6) and 0x3F) or 0x80).toByte()\n bytes[byteIndex++] = ((codePoint and 0x3F) or 0x80).toByte()\n charIndex++\n }\n }\n }\n }\n\n return if (bytes.size == byteIndex) bytes else bytes.copyOf(byteIndex)\n}\n\n/**\n * The character a malformed UTF-8 byte sequence is replaced by.\n */\nprivate const val REPLACEMENT_CHAR = '\\uFFFD'\n\n/**\n * Decodes the UTF-8 [bytes] array and returns the resulting [String].\n *\n * @param bytes the byte array to decode.\n * @param startIndex the start offset (inclusive) of the array to be decoded.\n * @param endIndex the end offset (exclusive) of the array to be encoded.\n * @param throwOnMalformed whether to throw on malformed byte sequence or replace by the [REPLACEMENT_CHAR].\n *\n * @throws CharacterCodingException if the array is malformed UTF-8 byte sequence and [throwOnMalformed] is true.\n */\ninternal fun decodeUtf8(bytes: ByteArray, startIndex: Int, endIndex: Int, throwOnMalformed: Boolean): String {\n require(startIndex >= 0 && endIndex <= bytes.size && startIndex <= endIndex)\n\n var byteIndex = startIndex\n val stringBuilder = StringBuilder()\n\n while (byteIndex < endIndex) {\n val byte = bytes[byteIndex++].toInt()\n when {\n byte >= 0 ->\n stringBuilder.append(byte.toChar())\n byte shr 5 == -2 -> {\n val code = codePointFrom2(bytes, byte, byteIndex, endIndex, throwOnMalformed)\n if (code <= 0) {\n stringBuilder.append(REPLACEMENT_CHAR)\n byteIndex += -code\n } else {\n stringBuilder.append(code.toChar())\n byteIndex += 1\n }\n }\n byte shr 4 == -2 -> {\n val code = codePointFrom3(bytes, byte, byteIndex, endIndex, throwOnMalformed)\n if (code <= 0) {\n stringBuilder.append(REPLACEMENT_CHAR)\n byteIndex += -code\n } else {\n stringBuilder.append(code.toChar())\n byteIndex += 2\n }\n }\n byte shr 3 == -2 -> {\n val code = codePointFrom4(bytes, byte, byteIndex, endIndex, throwOnMalformed)\n if (code <= 0) {\n stringBuilder.append(REPLACEMENT_CHAR)\n byteIndex += -code\n } else {\n val high = (code - 0x10000) shr 10 or 0xD800\n val low = (code and 0x3FF) or 0xDC00\n stringBuilder.append(high.toChar())\n stringBuilder.append(low.toChar())\n byteIndex += 3\n }\n }\n else -> {\n malformed(0, byteIndex, throwOnMalformed)\n stringBuilder.append(REPLACEMENT_CHAR)\n }\n }\n }\n\n return stringBuilder.toString()\n}","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n/**\n * Returns the detailed description of this throwable with its stack trace.\n *\n * The detailed description includes:\n * - the short description (see [Throwable.toString]) of this throwable;\n * - the complete stack trace;\n * - detailed descriptions of the exceptions that were [suppressed][suppressedExceptions] in order to deliver this exception;\n * - the detailed description of each throwable in the [Throwable.cause] chain.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun Throwable.stackTraceToString(): String = ExceptionTraceBuilder().buildFor(this)\n\n/**\n * Prints the [detailed description][Throwable.stackTraceToString] of this throwable to console error output.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun Throwable.printStackTrace() {\n console.error(this.stackTraceToString())\n}\n\n/**\n * Adds the specified exception to the list of exceptions that were\n * suppressed in order to deliver this exception.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun

```
Throwable.addSuppressed(exception: Throwable) {\n    if (this !== exception) {\n        val suppressed =
this.asDynamic()._suppressed.unsafeCast<MutableList<Throwable>?>()\n
        if (suppressed == null) {\n            this.asDynamic()._suppressed = mutableListOf(exception)\n        } else {\n
      suppressed.add(exception)\n        }\n    }\n}\n\n/**\n * Returns a list of all exceptions that were suppressed in
order to deliver this exception.\n */\n@SinceKotlin(\"1.4\")\npublic actual val Throwable.suppressedExceptions:
List<Throwable>\n    get() {\n        return this.asDynamic()._suppressed?.unsafeCast<List<Throwable>>() ?:
emptyList()\n    }\n\n\nprivate class ExceptionTraceBuilder {\n    private val target = StringBuilder()\n    private val
visited = arrayOf<Throwable>()\n    private var topStack: String = \"\"\n    private var topStackStart: Int = 0\n\n
fun buildFor(exception: Throwable): String {\n        exception.dumpFullTrace(\"\", \"\")\n        return
target.toString()\n    }\n\n    private fun hasSeen(exception: Throwable): Boolean = visited.any { it === exception
}\n\n    private fun Throwable.dumpFullTrace(indent:
 String, qualifier: String) {\n        this.dumpSelfTrace(indent, qualifier) || return\n\n        var cause = this.cause\n
while (cause != null) {\n            cause.dumpSelfTrace(indent, \"Caused by: \") || return\n            cause =
cause.cause\n        }\n    }\n\n    private fun Throwable.dumpSelfTrace(indent: String, qualifier: String): Boolean {\n
     target.append(indent).append(qualifier)\n        val shortInfo = this.toString()\n        if (hasSeen(this)) {\n
target.append(\"[CIRCULAR REFERENCE, SEE ABOVE: \").append(shortInfo).append(\"]\\n\")\n            return
false\n        }\n        visited.asDynamic().push(this)\n\n        var stack = this.asDynamic().stack as String?\n        if
(stack != null) {\n            val stackStart = stack.indexOf(shortInfo).let { if (it < 0) 0 else it + shortInfo.length }\n
   if (stackStart == 0) target.append(shortInfo).append(\"\\n\")\n            if (topStack.isEmpty()) {\n                topStack
= stack\n
              topStackStart = stackStart\n            } else {\n                stack = dropCommonFrames(stack, stackStart)\n
     }\n            if (indent.isNotEmpty()) {\n                // indent stack, but avoid indenting exception message lines\n
         val messageLines = if (stackStart == 0) 0 else 1 + shortInfo.count { c -> c == '\\n' }\n
stack.lineSequence().forEachIndexed { index: Int, line: String ->\n                    if (index >= messageLines)
target.append(indent)\n                    target.append(line).append(\"\\n\")\n                }\n            } else {\n
target.append(stack).append(\"\\n\")\n            }\n        } else {\n            target.append(shortInfo).append(\"\\n\")\n
}\n\n        val suppressed = suppressedExceptions\n        if (suppressed.isNotEmpty()) {\n            val
suppressedIndent = indent + \"    \"\n            for (s in suppressed) {\n                s.dumpFullTrace(suppressedIndent,
\"Suppressed:
 \")\n            }\n        }\n        return true\n    }\n\n    private fun dropCommonFrames(stack: String, stackStart: Int):
String {\n        var commonFrames: Int = 0\n        var lastBreak: Int = 0\n        var preLastBreak: Int = 0\n        for
(pos in 0 until minOf(topStack.length - topStackStart, stack.length - stackStart)) {\n            val c =
stack[stack.lastIndex - pos]\n            if (c != topStack[topStack.lastIndex - pos]) break\n            if (c == '\\n') {\n
      commonFrames += 1\n                preLastBreak = lastBreak\n                lastBreak = pos\n            }\n        }\n
if (commonFrames <= 1) return stack\n        while (preLastBreak > 0 && stack[stack.lastIndex - (preLastBreak - 1)]
== ' ')\n            preLastBreak -= 1\n\n        // leave 1 common frame to ease matching with the top exception stack\n
    return stack.dropLast(preLastBreak) + \"... and ${commonFrames - 1} more common stack frames skipped\"\n
}\n}","/*\n
 * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.time\n\nimport kotlin.js.json\nimport kotlin.math.*\n\ninternal actual inline val durationAssertionsEnabled:
Boolean get() = true\n\ninternal actual fun formatToExactDecimals(value: Double, decimals: Int): String {\n    val
rounded = if (decimals == 0) {\n        value\n    } else {\n        val pow = 10.0.pow(decimals)\n
JsMath.round(abs(value) * pow) / pow * sign(value)\n    }\n    return if (abs(rounded) < 1e21) {\n        // toFixed
switches to scientific format after 1e21\n        rounded.asDynamic().toFixed(decimals).unsafeCast<String>()\n    }
else {\n        // toPrecision outputs the specified number of digits, but only for positive numbers\n        val positive =
abs(rounded)\n        val positiveString = positive.asDynamic().toPrecision(ceil(log10(positive))
```

+ decimals).unsafeCast<String>()\n   if (rounded < 0) \"-$positiveString\" else positiveString\n }\n}\n\ninternal actual fun formatUpToDecimals(value: Double, decimals: Int): String {\n   return value.asDynamic().toLocaleString(\"en-us\", json(\"maximumFractionDigits\" to decimals)).unsafeCast<String>()\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\npublic actual enum class DurationUnit(internal val scale: Double) {\n   /**\n   * Time unit representing one nanosecond, which is 1/1000 of a microsecond.\n   */\n   NANOSECONDS(1e0),\n   /**\n   * Time unit representing one microsecond, which is 1/1000 of a millisecond.\n   */\n   MICROSECONDS(1e3),\n   /**\n   * Time unit representing one millisecond, which is 1/1000 of a second.\n   */\n   MILLISECONDS(1e6),\n   /**\n   * Time unit representing one second.\n   */\n   SECONDS(1e9),\n   /**\n   * Time unit representing one minute.\n   */\n   MINUTES(60e9),\n   /**\n   * Time unit representing one hour.\n   */\n   HOURS(3600e9),\n   /**\n   * Time unit representing one day, which is always equal to 24 hours.\n   */\n   DAYS(86400e9);\n}\n\n@SinceKotlin(\"1.3\")\ninternal actual fun convertDurationUnit(value: Double, sourceUnit: DurationUnit, targetUnit: DurationUnit): Double {\n   val sourceCompareTarget = sourceUnit.scale.compareTo(targetUnit.scale)\n   return when {\n sourceCompareTarget > 0 -> value * (sourceUnit.scale / targetUnit.scale)\n   sourceCompareTarget < 0 -> value / (targetUnit.scale / sourceUnit.scale)\n   else -> value\n   }\n}\n\n@SinceKotlin(\"1.5\")\ninternal actual fun convertDurationUnitOverflow(value: Long, sourceUnit: DurationUnit, targetUnit: DurationUnit): Long {\n   val sourceCompareTarget = sourceUnit.scale.compareTo(targetUnit.scale)\n   return when {\n sourceCompareTarget > 0 -> value * (sourceUnit.scale / targetUnit.scale).toLong()\n   sourceCompareTarget < 0 -> value / (targetUnit.scale / sourceUnit.scale).toLong()\n   else -> value\n }\n}\n\n@SinceKotlin(\"1.5\")\ninternal actual fun convertDurationUnit(value: Long, sourceUnit: DurationUnit, targetUnit: DurationUnit): Long {\n   val sourceCompareTarget = sourceUnit.scale.compareTo(targetUnit.scale)\n return when {\n   sourceCompareTarget > 0 -> {\n   val scale = (sourceUnit.scale / targetUnit.scale).toLong()\n   val result = value * scale\n   when {\n   result / scale == value -> result\n   value > 0 -> Long.MAX_VALUE\n   else -> Long.MIN_VALUE\n   }\n   }\n sourceCompareTarget < 0 -> value / (targetUnit.scale / sourceUnit.scale).toLong()\n   else -> value\n   }\n}\n\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\nimport org.w3c.performance.GlobalPerformance\nimport org.w3c.performance.Performance\nimport kotlin.math.truncate\nimport kotlin.time.Duration.Companion.milliseconds\nimport kotlin.time.TimeSource.Monotonic.ValueTimeMark\n\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\") // visibility\ninternal actual typealias ValueTimeMarkReading = Any\n\n@ExperimentalTime\ninternal interface DefaultTimeSource : TimeSource {\n   override fun markNow(): ValueTimeMark\n   fun elapsedFrom(timeMark: ValueTimeMark): Duration\n   fun adjustReading(timeMark: ValueTimeMark, duration: Duration): ValueTimeMark\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\ninternal actual object MonotonicTimeSource : DefaultTimeSource, TimeSource { // TODO: interface should not be required here\n\n   private val actualSource: DefaultTimeSource = run {\n   val isNode: Boolean = js(\"typeof process !== 'undefined' && process.versions && !!process.versions.node\")\n\n   if (isNode)\n HrTimeSource(js(\"process\").unsafeCast<Process>())\n   else\n js(\"self\").unsafeCast<GlobalPerformance?>()?.performance?.let(::PerformanceTimeSource)\n   ?: DateNowTimeSource\n\n   }\n\n   actual override fun markNow(): ValueTimeMark = actualSource.markNow()\n actual override fun elapsedFrom(timeMark: ValueTimeMark): Duration = actualSource.elapsedFrom(timeMark)\n actual override fun adjustReading(timeMark: ValueTimeMark, duration: Duration): ValueTimeMark =\n actualSource.adjustReading(timeMark, duration)\n}\n\ninternal external interface Process {\n   fun hrtime(time: Array<Double> = definedExternally): Array<Double>\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\ninternal

class HrTimeSource(private val process: Process)
 : DefaultTimeSource {\n\n   override fun markNow(): ValueTimeMark = ValueTimeMark(process.hrtime())\n
override fun elapsedFrom(timeMark: ValueTimeMark): Duration =\n   @Suppress(\"UNCHECKED_CAST\")\n
     process.hrtime(timeMark.reading as Array<Double>)\n   .let { (seconds, nanos) ->
seconds.toDuration(DurationUnit.SECONDS) + nanos.toDuration(DurationUnit.NANOSECONDS) }\n\n
override fun adjustReading(timeMark: ValueTimeMark, duration: Duration): ValueTimeMark =\n
@Suppress(\"UNCHECKED_CAST\")\n   (timeMark.reading as Array<Double>).let { (seconds, nanos) ->\n
   duration.toComponents { _, addNanos ->\n   arrayOf<Double>(sumCheckNaN(seconds +
truncate(duration.toDouble(DurationUnit.SECONDS))), nanos + addNanos)\n   }\n
}.let(TimeSource.Monotonic::ValueTimeMark)\n\n\n   override fun toString(): String =
\"TimeSource(process.hrtime())\"\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\ninternal class
PerformanceTimeSource(val
 performance: Performance) :\n   DefaultTimeSource { // AbstractDoubleTimeSource(unit =
DurationUnit.MILLISECONDS) {\n   private fun read(): Double = performance.now()\n\n   override fun
markNow(): ValueTimeMark = ValueTimeMark(read())\n   override fun elapsedFrom(timeMark:
ValueTimeMark): Duration = (read() - timeMark.reading as Double).milliseconds\n   override fun
adjustReading(timeMark: ValueTimeMark, duration: Duration): ValueTimeMark =\n
ValueTimeMark(sumCheckNaN(timeMark.reading as Double +
duration.toDouble(DurationUnit.MILLISECONDS)))\n\n   override fun toString(): String =
\"TimeSource(self.performance.now())\"\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\ninternal object
DateNowTimeSource : DefaultTimeSource {\n   private fun read(): Double = kotlin.js.Date.now()\n\n   override
fun markNow(): ValueTimeMark = ValueTimeMark(read())\n   override fun elapsedFrom(timeMark:
ValueTimeMark): Duration = (read() - timeMark.reading as Double).milliseconds\n
    override fun adjustReading(timeMark: ValueTimeMark, duration: Duration): ValueTimeMark =\n
ValueTimeMark(sumCheckNaN(timeMark.reading as Double +
duration.toDouble(DurationUnit.MILLISECONDS)))\n\n   override fun toString(): String =
\"TimeSource(Date.now())\"\n}\n\nprivate fun sumCheckNaN(value: Double): Double = value.also { if (it.isNaN())
throw IllegalArgumentException(\"Summing infinities of different signs\") }","/*\n * Copyright 2010-2020
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlinx.dom\n\nimport
org.w3c.dom.*\nimport kotlin.contracts.*\n\n/**\n * Creates a new element with the specified [name].\n *\n * The
element is initialized with the specified [init] function.\n */\n@SinceKotlin(\"1.4\")\npublic fun
Document.createElement(name: String, init: Element.() -> Unit): Element {\n   contract { callsInPlace(init,
 InvocationKind.EXACTLY_ONCE) }\n   return createElement(name).apply(init)\n}\n\n/**\n * Appends a newly
created element with the specified [name] to this element.\n *\n * The element is initialized with the specified [init]
function.\n */\n@SinceKotlin(\"1.4\")\npublic fun Element.appendElement(name: String, init: Element.() -> Unit):
Element {\n   contract { callsInPlace(init, InvocationKind.EXACTLY_ONCE) }\n   return
ownerDocument!!.createElement(name, init).also { appendChild(it) }\n}\n\n","/*\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlinx.dom\n\nimport
org.w3c.dom.*\n\n/** Returns true if the element has the given CSS class style in its 'class' attribute
*/\n@SinceKotlin(\"1.4\")\nfun Element.hasClass(cssClass: String): Boolean =
className.matches(\"\"\"(^|.*\\s+)$cssClass($|\\s+.*)\"\"\".toRegex())\n\n/**\n
 * Adds CSS class to element. Has no effect if all specified classes are already in class attribute of the element\n *\n
* @return true if at least one class has been added\n */\n@SinceKotlin(\"1.4\")\nfun Element.addClass(vararg
cssClasses: String): Boolean {\n   val missingClasses = cssClasses.filterNot { hasClass(it) }\n   if
(missingClasses.isNotEmpty()) {\n   val presentClasses = className.trim()\n   className = buildString {\n
      append(presentClasses)\n   if (!presentClasses.isEmpty()) {\n   append(\" \")\n   }\n

missingClasses.joinTo(this, \" \")\n }\n return true\n }\n\n return false\n}\n\n/**\n * Removes all [cssClasses] from element. Has no effect if all specified classes are missing in class attribute of the element\n *\n * @return true if at least one class has been removed\n */\n@SinceKotlin(\"1.4\")\nfun Element.removeClass(vararg cssClasses: String): Boolean {\n if (cssClasses.any { hasClass(it) }) {\n val toBeRemoved = cssClasses.toSet()\n className = className.trim().split(\"\\\\s+\".toRegex()).filter { it !in toBeRemoved }.joinToString(\" \")\n return true\n }\n\n return false\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n\npackage kotlin.text\n\n/**\n * Converts the string into a regular expression [Regex] with the default options.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.toRegex(): Regex = Regex(this)\n\n/**\n * Converts the string into a regular expression [Regex] with the specified single [option].\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.toRegex(option: RegexOption): Regex = Regex(this, option)\n\n/**\n * Converts the string into a regular expression [Regex] with the specified set of [options].\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.toRegex(options: Set<RegexOption>): Regex = Regex(this, options)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlinx.dom\n\nimport org.w3c.dom.*\n\n/**\n * Gets a value indicating whether this node is a TEXT_NODE or a CDATA_SECTION_NODE.\n */\n@SinceKotlin(\"1.4\")\npublic val Node.isText: Boolean\n get() = nodeType == Node.TEXT_NODE || nodeType == Node.CDATA_SECTION_NODE\n\n/**\n * Gets a value indicating whether this node is an [Element].\n */\n@SinceKotlin(\"1.4\")\npublic val Node.isElement: Boolean\n get() = nodeType == Node.ELEMENT_NODE\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlinx.dom\n\nimport org.w3c.dom.*\n\n/** Removes all the children from this node. */\n@SinceKotlin(\"1.4\")\npublic fun Node.clear() {\n while (hasChildNodes()) {\n removeChild(firstChild!!)\n }\n}\n\n/**\n * Creates text node and append it to the element.\n *\n * @return this element\n */\n@SinceKotlin(\"1.4\")\nfun Element.appendText(text: String): Element {\n appendChild(ownerDocument!!.createTextNode(text))\n return this\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage org.w3c.dom\n\n@Deprecated(\"Use UnionMessagePortOrWindowProxy instead.\", ReplaceWith(\"UnionMessagePortOrWindowProxy\"))\ntypealias UnionMessagePortOrWindow = UnionMessagePortOrWindowProxy\n\n@Deprecated(\"Use `as` instead.\", ReplaceWith(\"`as`\"))\nvar HTMLLinkElement.as_\n get() = `as`\n set(value) {\n `as` = value\n }\n\n@Deprecated(\"Use `is` instead.\", ReplaceWith(\"`is`\"))\nvar ElementCreationOptions.is_\n get() = `is`\n set(value) {\n `is` = value\n }","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.khronos.webgl\n\nimport kotlin.js.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\npublic external interface WebGLContextAttributes {\n var alpha: Boolean? /* = true */\n get() = definedExternally\n set(value) = definedExternally\n var depth: Boolean? /* = true */\n get() = definedExternally\n set(value) = definedExternally\n var stencil: Boolean? /* = false */\n get() = definedExternally\n set(value) = definedExternally\n var antialias: Boolean? /* = true */\n get() = definedExternally\n set(value) = definedExternally\n var premultipliedAlpha: Boolean? /* = true */\n get() = definedExternally\n set(value) = definedExternally\n var preserveDrawingBuffer: Boolean? /* = false */\n get() = definedExternally\n set(value) = definedExternally\n var preferLowPowerToHighPerformance: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var failIfMajorPerformanceCaveat: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun WebGLContextAttributes(alpha: Boolean? = true, depth: Boolean? = true, stencil: Boolean? = false, antialias: Boolean? = true, premultipliedAlpha: Boolean? = true, preserveDrawingBuffer: Boolean? = false, preferLowPowerToHighPerformance: Boolean? = false, failIfMajorPerformanceCaveat: Boolean? = false): WebGLContextAttributes {\n   val o = js(\"({})\")\n   o[\"alpha\"] = alpha\n   o[\"depth\"] = depth\n   o[\"stencil\"] = stencil\n   o[\"antialias\"] = antialias\n   o[\"premultipliedAlpha\"] = premultipliedAlpha\n   o[\"preserveDrawingBuffer\"] = preserveDrawingBuffer\n   o[\"preferLowPowerToHighPerformance\"] = preferLowPowerToHighPerformance\n   o[\"failIfMajorPerformanceCaveat\"] = failIfMajorPerformanceCaveat\n   return o\n}\n\npublic external abstract class WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLBuffer](https://developer.mozilla.org/en/docs/Web/API/WebGLBuffer) to Kotlin\n */\npublic external abstract class WebGLBuffer : WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLFramebuffer](https://developer.mozilla.org/en/docs/Web/API/WebGLFramebuffer) to Kotlin\n */\npublic external abstract class WebGLFramebuffer : WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLProgram](https://developer.mozilla.org/en/docs/Web/API/WebGLProgram) to Kotlin\n */\npublic external abstract class WebGLProgram : WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLRenderbuffer](https://developer.mozilla.org/en/docs/Web/API/WebGLRenderbuffer) to Kotlin\n */\npublic external abstract class WebGLRenderbuffer : WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLShader](https://developer.mozilla.org/en/docs/Web/API/WebGLShader) to Kotlin\n */\npublic external abstract class WebGLShader : WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLTexture](https://developer.mozilla.org/en/docs/Web/API/WebGLTexture) to Kotlin\n */\npublic external abstract class WebGLTexture : WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLUniformLocation](https://developer.mozilla.org/en/docs/Web/API/WebGLUniformLocation) to Kotlin\n */\npublic external abstract class WebGLUniformLocation\n\n/**\n * Exposes the JavaScript [WebGLActiveInfo](https://developer.mozilla.org/en/docs/Web/API/WebGLActiveInfo) to Kotlin\n */\npublic external abstract class WebGLActiveInfo {\n   open val size: Int\n   open val type: Int\n   open val name: String\n}\n\n/**\n * Exposes the JavaScript [WebGLShaderPrecisionFormat](https://developer.mozilla.org/en/docs/Web/API/WebGLShaderPrecisionFormat) to Kotlin\n */\npublic external abstract class WebGLShaderPrecisionFormat {\n   open val rangeMin: Int\n   open val rangeMax: Int\n   open val precision: Int\n}\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface WebGLRenderingContextBase {\n   val canvas: HTMLCanvasElement\n   val drawingBufferWidth: Int\n   val drawingBufferHeight: Int\n   fun getContextAttributes(): WebGLContextAttributes?\n   fun isContextLost(): Boolean\n   fun getSupportedExtensions(): Array<String>?\n   fun getExtension(name: String): dynamic\n   fun activeTexture(texture: Int)\n   fun attachShader(program: WebGLProgram?, shader: WebGLShader?)\n   fun bindAttribLocation(program: WebGLProgram?, index: Int, name: String)\n   fun bindBuffer(target: Int, buffer: WebGLBuffer?)\n   fun bindFramebuffer(target: Int, framebuffer: WebGLFramebuffer?)\n   fun bindRenderbuffer(target: Int, renderbuffer: WebGLRenderbuffer?)\n   fun bindTexture(target: Int, texture: WebGLTexture?)\n   fun blendColor(red: Float, green: Float, blue: Float, alpha: Float)\n   fun blendEquation(mode: Int)\n   fun blendEquationSeparate(modeRGB: Int, modeAlpha: Int)\n   fun blendFunc(sfactor: Int, dfactor: Int)\n   fun blendFuncSeparate(srcRGB: Int, dstRGB: Int, srcAlpha: Int, dstAlpha: Int)\n   fun bufferData(target: Int, size: Int, usage: Int)\n   fun bufferData(target: Int, data: BufferDataSource?, usage: Int)\n   fun bufferSubData(target: Int, offset: Int, data: BufferDataSource?)\n   fun checkFramebufferStatus(target: Int): Int\n   fun clear(mask: Int)\n   fun clearColor(red: Float, green: Float, blue: Float, alpha: Float)\n   fun clearDepth(depth:

Float)\n   fun clearStencil(s: Int)\n   fun colorMask(red: Boolean, green: Boolean, blue: Boolean, alpha: Boolean)\n   fun compileShader(shader: WebGLShader?)\n   fun compressedTexImage2D(target: Int, level: Int, internalformat: Int, width: Int, height: Int, border: Int, data: ArrayBufferView)\n   fun compressedTexSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int, width: Int, height: Int, format: Int, data: ArrayBufferView)\n   fun copyTexImage2D(target: Int, level: Int, internalformat: Int, x: Int, y: Int, width: Int, height: Int, border: Int)\n   fun copyTexSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int, x: Int, y: Int, width: Int, height: Int)\n   fun createBuffer(): WebGLBuffer?\n   fun createFramebuffer(): WebGLFramebuffer?\n   fun createProgram(): WebGLProgram?\n   fun createRenderbuffer(): WebGLRenderbuffer?\n   fun createShader(type: Int): WebGLShader?\n   fun createTexture(): WebGLTexture?\n   fun cullFace(mode: Int)\n   fun

deleteBuffer(buffer: WebGLBuffer?)\n   fun deleteFramebuffer(framebuffer: WebGLFramebuffer?)\n   fun deleteProgram(program: WebGLProgram?)\n   fun deleteRenderbuffer(renderbuffer: WebGLRenderbuffer?)\n   fun deleteShader(shader: WebGLShader?)\n   fun deleteTexture(texture: WebGLTexture?)\n   fun depthFunc(func: Int)\n   fun depthMask(flag: Boolean)\n   fun depthRange(zNear: Float, zFar: Float)\n   fun detachShader(program: WebGLProgram?, shader: WebGLShader?)\n   fun disable(cap: Int)\n   fun disableVertexAttribArray(index: Int)\n   fun drawArrays(mode: Int, first: Int, count: Int)\n   fun drawElements(mode: Int, count: Int, type: Int, offset: Int)\n   fun enable(cap: Int)\n   fun enableVertexAttribArray(index: Int)\n   fun finish()\n   fun flush()\n   fun framebufferRenderbuffer(target: Int, attachment: Int, renderbuffertarget: Int, renderbuffer: WebGLRenderbuffer?)\n   fun framebufferTexture2D(target: Int, attachment: Int, textarget: Int, texture: WebGLTexture?, level: Int)\n   fun frontFace(mode: Int)\n   fun generateMipmap(target: Int)\n   fun getActiveAttrib(program: WebGLProgram?, index: Int): WebGLActiveInfo?\n   fun getActiveUniform(program: WebGLProgram?, index: Int): WebGLActiveInfo?\n   fun getAttachedShaders(program: WebGLProgram?): Array<WebGLShader>?\n   fun getAttribLocation(program: WebGLProgram?, name: String): Int\n   fun getBufferParameter(target: Int, pname: Int): Any?\n   fun getParameter(pname: Int): Any?\n   fun getError(): Int\n   fun getFramebufferAttachmentParameter(target: Int, attachment: Int, pname: Int): Any?\n   fun getProgramParameter(program: WebGLProgram?, pname: Int): Any?\n   fun getProgramInfoLog(program: WebGLProgram?): String?\n   fun getRenderbufferParameter(target: Int, pname: Int): Any?\n   fun getShaderParameter(shader: WebGLShader?, pname: Int): Any?\n   fun getShaderPrecisionFormat(shadertype: Int, precisiontype: Int): WebGLShaderPrecisionFormat?\n   fun getShaderInfoLog(shader: WebGLShader?): String?\n   fun getShaderSource(shader: WebGLShader?): String?\n   fun getTexParameter(target: Int, pname: Int): Any?\n   fun getUniform(program: WebGLProgram?, location: WebGLUniformLocation?): Any?\n   fun getUniformLocation(program: WebGLProgram?, name: String): WebGLUniformLocation?\n   fun getVertexAttrib(index: Int, pname: Int): Any?\n   fun getVertexAttribOffset(index: Int, pname: Int): Int\n   fun hint(target: Int, mode: Int)\n   fun isBuffer(buffer: WebGLBuffer?): Boolean\n   fun isEnabled(cap: Int): Boolean\n   fun isFramebuffer(framebuffer: WebGLFramebuffer?): Boolean\n   fun isProgram(program: WebGLProgram?): Boolean\n   fun isRenderbuffer(renderbuffer: WebGLRenderbuffer?): Boolean\n   fun isShader(shader: WebGLShader?): Boolean\n   fun isTexture(texture: WebGLTexture?): Boolean\n   fun lineWidth(width: Float)\n   fun linkProgram(program: WebGLProgram?)\n   fun pixelStorei(pname: Int, param: Int)\n   fun polygonOffset(factor: Float, units: Float)\n

fun readPixels(x: Int, y: Int, width: Int, height: Int, format: Int, type: Int, pixels: ArrayBufferView?)\n   fun renderbufferStorage(target: Int, internalformat: Int, width: Int, height: Int)\n   fun sampleCoverage(value: Float, invert: Boolean)\n   fun scissor(x: Int, y: Int, width: Int, height: Int)\n   fun shaderSource(shader: WebGLShader?, source: String)\n   fun stencilFunc(func: Int, ref: Int, mask: Int)\n   fun stencilFuncSeparate(face: Int, func: Int, ref: Int, mask: Int)\n   fun stencilMask(mask: Int)\n   fun stencilMaskSeparate(face: Int, mask: Int)\n   fun stencilOp(fail: Int, zfail: Int, zpass: Int)\n   fun stencilOpSeparate(face: Int, fail: Int, zfail: Int, zpass: Int)\n   fun texImage2D(target: Int, level: Int, internalformat: Int, width: Int, height: Int, border: Int, format: Int, type: Int, pixels: ArrayBufferView?)\n   fun texImage2D(target: Int, level: Int, internalformat: Int, format: Int, type: Int, source: TexImageSource?)\n   fun texParameterf(target:

Int, pname: Int, param: Float)\n   fun texParameteri(target: Int, pname: Int, param: Int)\n   fun texSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int, width: Int, height: Int, format: Int, type: Int, pixels: ArrayBufferView?)\n   fun texSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int, format: Int, type: Int, source: TexImageSource?)\n   fun uniform1f(location: WebGLUniformLocation?, x: Float)\n   fun uniform1fv(location: WebGLUniformLocation?, v: Float32Array)\n   fun uniform1fv(location: WebGLUniformLocation?, v: Array<Float>)\n   fun uniform1i(location: WebGLUniformLocation?, x: Int)\n   fun uniform1iv(location: WebGLUniformLocation?, v: Int32Array)\n   fun uniform1iv(location: WebGLUniformLocation?, v: Array<Int>)\n   fun uniform2f(location: WebGLUniformLocation?, x: Float, y: Float)\n   fun uniform2fv(location: WebGLUniformLocation?, v: Float32Array)\n   fun uniform2fv(location: WebGLUniformLocation?, v: Array<Float>)\n   fun uniform2i(location: WebGLUniformLocation?, x: Int, y: Int)\n   fun uniform2iv(location: WebGLUniformLocation?, v: Int32Array)\n   fun uniform2iv(location: WebGLUniformLocation?, v: Array<Int>)\n   fun uniform3f(location: WebGLUniformLocation?, x: Float, y: Float, z: Float)\n   fun uniform3fv(location: WebGLUniformLocation?, v: Float32Array)\n   fun uniform3fv(location: WebGLUniformLocation?, v: Array<Float>)\n   fun uniform3i(location: WebGLUniformLocation?, x: Int, y: Int, z: Int)\n   fun uniform3iv(location: WebGLUniformLocation?, v: Int32Array)\n   fun uniform3iv(location: WebGLUniformLocation?, v: Array<Int>)\n   fun uniform4f(location: WebGLUniformLocation?, x: Float, y: Float, z: Float, w: Float)\n   fun uniform4fv(location: WebGLUniformLocation?, v: Float32Array)\n   fun uniform4fv(location: WebGLUniformLocation?, v: Array<Float>)\n   fun uniform4i(location: WebGLUniformLocation?, x: Int, y: Int, z: Int, w: Int)\n   fun uniform4iv(location: WebGLUniformLocation?, v: Int32Array)\n   fun uniform4iv(location: WebGLUniformLocation?, v: Array<Int>)\n   fun uniformMatrix2fv(location: WebGLUniformLocation?, transpose: Boolean, value: Float32Array)\n   fun uniformMatrix2fv(location: WebGLUniformLocation?, transpose: Boolean, value: Array<Float>)\n   fun uniformMatrix3fv(location: WebGLUniformLocation?, transpose: Boolean, value: Float32Array)\n   fun uniformMatrix3fv(location: WebGLUniformLocation?, transpose: Boolean, value: Array<Float>)\n   fun uniformMatrix4fv(location: WebGLUniformLocation?, transpose: Boolean, value: Float32Array)\n   fun uniformMatrix4fv(location: WebGLUniformLocation?, transpose: Boolean, value: Array<Float>)\n   fun useProgram(program: WebGLProgram?)\n   fun validateProgram(program: WebGLProgram?)\n   fun vertexAttrib1f(index: Int, x: Float)\n   fun vertexAttrib1fv(index: Int, values: dynamic)\n   fun vertexAttrib2f(index: Int, x: Float, y: Float)\n   fun vertexAttrib2fv(index: Int, values: dynamic)\n   fun vertexAttrib3f(index: Int, x: Float, y: Float, z: Float)\n   fun vertexAttrib3fv(index: Int, values: dynamic)\n   fun vertexAttrib4f(index: Int, x: Float, y: Float, z: Float, w: Float)\n   fun vertexAttrib4fv(index: Int, values: dynamic)\n   fun vertexAttribPointer(index: Int, size: Int, type: Int, normalized: Boolean, stride: Int, offset: Int)\n   fun viewport(x: Int, y: Int, width: Int, height: Int)\n\n   companion object {\n   val DEPTH_BUFFER_BIT: Int\n   val STENCIL_BUFFER_BIT: Int\n   val COLOR_BUFFER_BIT: Int\n   val POINTS: Int\n   val LINES: Int\n   val LINE_LOOP: Int\n   val LINE_STRIP: Int\n   val TRIANGLES: Int\n   val TRIANGLE_STRIP: Int\n   val TRIANGLE_FAN: Int\n   val ZERO: Int\n   val ONE: Int\n   val SRC_COLOR: Int\n   val ONE_MINUS_SRC_COLOR: Int\n   val SRC_ALPHA: Int\n   val ONE_MINUS_SRC_ALPHA: Int\n   val DST_ALPHA: Int\n   val ONE_MINUS_DST_ALPHA: Int\n   val DST_COLOR: Int\n   val ONE_MINUS_DST_COLOR: Int\n   val SRC_ALPHA_SATURATE: Int\n   val FUNC_ADD: Int\n   val BLEND_EQUATION: Int\n   val BLEND_EQUATION_RGB: Int\n   val BLEND_EQUATION_ALPHA: Int\n   val FUNC_SUBTRACT: Int\n   val FUNC_REVERSE_SUBTRACT: Int\n   val BLEND_DST_RGB: Int\n   val BLEND_SRC_RGB: Int\n   val BLEND_DST_ALPHA: Int\n   val BLEND_SRC_ALPHA: Int\n   val CONSTANT_COLOR: Int\n   val ONE_MINUS_CONSTANT_COLOR: Int\n   val CONSTANT_ALPHA: Int\n   val ONE_MINUS_CONSTANT_ALPHA: Int\n   val BLEND_COLOR: Int\n   val ARRAY_BUFFER: Int\n   val ELEMENT_ARRAY_BUFFER: Int\n   val ARRAY_BUFFER_BINDING: Int\n   val ELEMENT_ARRAY_BUFFER_BINDING: Int\n   val STREAM_DRAW: Int\n   val STATIC_DRAW: Int\n val DYNAMIC_DRAW: Int\n   val BUFFER_SIZE: Int\n   val BUFFER_USAGE: Int\n   val CURRENT_VERTEX_ATTRIB: Int\n   val FRONT: Int\n   val BACK: Int\n   val FRONT_AND_BACK: Int\n   val CULL_FACE: Int\n   val BLEND: Int\n   val DITHER: Int\n   val STENCIL_TEST: Int\n   val DEPTH_TEST: Int\n   val SCISSOR_TEST: Int\n   val POLYGON_OFFSET_FILL: Int\n   val SAMPLE_ALPHA_TO_COVERAGE: Int\n   val SAMPLE_COVERAGE: Int\n   val NO_ERROR: Int\n   val INVALID_ENUM: Int\n   val INVALID_VALUE: Int\n   val INVALID_OPERATION: Int\n   val OUT_OF_MEMORY: Int\n   val CW: Int\n   val CCW: Int\n   val LINE_WIDTH: Int\n   val ALIASED_POINT_SIZE_RANGE: Int\n   val ALIASED_LINE_WIDTH_RANGE: Int\n   val CULL_FACE_MODE: Int\n   val FRONT_FACE: Int\n   val DEPTH_RANGE: Int\n   val DEPTH_WRITEMASK: Int\n   val DEPTH_CLEAR_VALUE: Int\n   val DEPTH_FUNC: Int\n   val STENCIL_CLEAR_VALUE: Int\n   val STENCIL_FUNC: Int\n   val STENCIL_FAIL: Int\n   val STENCIL_PASS_DEPTH_FAIL: Int\n   val STENCIL_PASS_DEPTH_PASS: Int\n   val STENCIL_REF: Int\n   val STENCIL_VALUE_MASK: Int\n   val STENCIL_WRITEMASK: Int\n   val STENCIL_BACK_FUNC: Int\n   val STENCIL_BACK_FAIL: Int\n   val STENCIL_BACK_PASS_DEPTH_FAIL: Int\n   val STENCIL_BACK_PASS_DEPTH_PASS: Int\n   val STENCIL_BACK_REF: Int\n   val STENCIL_BACK_VALUE_MASK: Int\n   val STENCIL_BACK_WRITEMASK: Int\n   val VIEWPORT: Int\n   val SCISSOR_BOX: Int\n   val COLOR_CLEAR_VALUE: Int\n   val COLOR_WRITEMASK: Int\n   val UNPACK_ALIGNMENT: Int\n   val PACK_ALIGNMENT: Int\n   val MAX_TEXTURE_SIZE: Int\n   val MAX_VIEWPORT_DIMS: Int\n   val SUBPIXEL_BITS: Int\n   val RED_BITS: Int\n   val GREEN_BITS: Int\n   val BLUE_BITS: Int\n   val ALPHA_BITS: Int\n   val DEPTH_BITS: Int\n   val STENCIL_BITS: Int\n   val POLYGON_OFFSET_UNITS: Int\n   val POLYGON_OFFSET_FACTOR: Int\n   val TEXTURE_BINDING_2D: Int\n   val SAMPLE_BUFFERS: Int\n   val SAMPLES: Int\n   val SAMPLE_COVERAGE_VALUE: Int\n   val SAMPLE_COVERAGE_INVERT: Int\n   val COMPRESSED_TEXTURE_FORMATS: Int\n   val DONT_CARE: Int\n   val FASTEST: Int\n   val NICEST: Int\n   val GENERATE_MIPMAP_HINT: Int\n   val BYTE: Int\n   val UNSIGNED_BYTE: Int\n   val SHORT: Int\n   val UNSIGNED_SHORT: Int\n   val INT: Int\n   val UNSIGNED_INT: Int\n   val FLOAT: Int\n   val DEPTH_COMPONENT: Int\n   val ALPHA: Int\n   val RGB: Int\n   val RGBA: Int\n   val LUMINANCE: Int\n   val LUMINANCE_ALPHA: Int\n   val UNSIGNED_SHORT_4_4_4_4: Int\n   val UNSIGNED_SHORT_5_5_5_1: Int\n   val UNSIGNED_SHORT_5_6_5: Int\n   val FRAGMENT_SHADER: Int\n   val VERTEX_SHADER: Int\n   val MAX_VERTEX_ATTRIBS: Int\n   val MAX_VERTEX_UNIFORM_VECTORS: Int\n   val MAX_VARYING_VECTORS: Int\n   val MAX_COMBINED_TEXTURE_IMAGE_UNITS: Int\n   val MAX_VERTEX_TEXTURE_IMAGE_UNITS: Int\n   val MAX_TEXTURE_IMAGE_UNITS: Int\n   val MAX_FRAGMENT_UNIFORM_VECTORS: Int\n   val SHADER_TYPE: Int\n   val DELETE_STATUS: Int\n   val LINK_STATUS: Int\n   val VALIDATE_STATUS: Int\n   val ATTACHED_SHADERS: Int\n   val ACTIVE_UNIFORMS: Int\n   val ACTIVE_ATTRIBUTES: Int\n   val SHADING_LANGUAGE_VERSION: Int\n   val CURRENT_PROGRAM: Int\n   val NEVER: Int\n   val LESS: Int\n   val EQUAL: Int\n   val LEQUAL: Int\n   val GREATER: Int\n   val NOTEQUAL: Int\n   val GEQUAL: Int\n   val ALWAYS: Int\n   val KEEP: Int\n   val REPLACE: Int\n   val INCR: Int\n   val DECR: Int\n   val INVERT: Int\n   val INCR_WRAP: Int\n   val DECR_WRAP: Int\n   val VENDOR: Int\n   val RENDERER: Int\n   val VERSION: Int\n   val NEAREST: Int\n   val LINEAR: Int\n   val NEAREST_MIPMAP_NEAREST: Int\n   val LINEAR_MIPMAP_NEAREST: Int\n   val NEAREST_MIPMAP_LINEAR: Int\n   val LINEAR_MIPMAP_LINEAR: Int\n   val TEXTURE_MAG_FILTER: Int\n   val TEXTURE_MIN_FILTER: Int\n   val TEXTURE_WRAP_S: Int\n   val TEXTURE_WRAP_T: Int\n   val TEXTURE_2D: Int\n   val TEXTURE: Int\n   val

TEXTURE_CUBE_MAP: Int\n   val TEXTURE_BINDING_CUBE_MAP: Int\n   val TEXTURE_CUBE_MAP_POSITIVE_X: Int\n   val TEXTURE_CUBE_MAP_NEGATIVE_X: Int\n   val TEXTURE_CUBE_MAP_POSITIVE_Y: Int\n   val TEXTURE_CUBE_MAP_NEGATIVE_Y: Int\n   val TEXTURE_CUBE_MAP_POSITIVE_Z: Int\n   val TEXTURE_CUBE_MAP_NEGATIVE_Z: Int\n   val MAX_CUBE_MAP_TEXTURE_SIZE: Int\n   val TEXTURE0: Int\n   val TEXTURE1: Int\n   val TEXTURE2: Int\n   val TEXTURE3: Int\n   val TEXTURE4: Int\n   val TEXTURE5: Int\n   val TEXTURE6: Int\n   val TEXTURE7: Int\n   val TEXTURE8: Int\n   val TEXTURE9: Int\n   val TEXTURE10: Int\n   val TEXTURE11: Int\n   val TEXTURE12: Int\n   val TEXTURE13: Int\n   val TEXTURE14: Int\n   val TEXTURE15: Int\n   val TEXTURE16: Int\n   val TEXTURE17: Int\n   val TEXTURE18: Int\n   val TEXTURE19: Int\n   val TEXTURE20: Int\n   val TEXTURE21: Int\n   val TEXTURE22: Int\n   val TEXTURE23: Int\n   val TEXTURE24: Int\n   val TEXTURE25: Int\n   val TEXTURE26: Int\n   val TEXTURE27: Int\n   val TEXTURE28: Int\n   val TEXTURE29: Int\n   val TEXTURE30: Int\n   val TEXTURE31: Int\n   val ACTIVE_TEXTURE: Int\n   val REPEAT: Int\n   val CLAMP_TO_EDGE: Int\n   val MIRRORED_REPEAT: Int\n   val FLOAT_VEC2: Int\n   val FLOAT_VEC3: Int\n   val FLOAT_VEC4: Int\n   val INT_VEC2: Int\n   val INT_VEC3: Int\n   val INT_VEC4: Int\n   val BOOL: Int\n   val BOOL_VEC2: Int\n   val BOOL_VEC3: Int\n   val BOOL_VEC4: Int\n   val FLOAT_MAT2: Int\n   val FLOAT_MAT3: Int\n   val FLOAT_MAT4: Int\n   val SAMPLER_2D: Int\n   val SAMPLER_CUBE: Int\n   val VERTEX_ATTRIB_ARRAY_ENABLED: Int\n   val VERTEX_ATTRIB_ARRAY_SIZE: Int\n   val VERTEX_ATTRIB_ARRAY_STRIDE: Int\n   val VERTEX_ATTRIB_ARRAY_TYPE: Int\n   val VERTEX_ATTRIB_ARRAY_NORMALIZED: Int\n   val VERTEX_ATTRIB_ARRAY_POINTER: Int\n   val VERTEX_ATTRIB_ARRAY_BUFFER_BINDING: Int\n   val IMPLEMENTATION_COLOR_READ_TYPE: Int\n   val IMPLEMENTATION_COLOR_READ_FORMAT: Int\n   val COMPILE_STATUS: Int\n   val LOW_FLOAT: Int\n   val MEDIUM_FLOAT: Int\n   val HIGH_FLOAT: Int\n   val LOW_INT: Int\n   val MEDIUM_INT: Int\n   val HIGH_INT: Int\n   val FRAMEBUFFER: Int\n   val RENDERBUFFER: Int\n   val RGBA4: Int\n   val RGB5_A1: Int\n   val RGB565: Int\n   val DEPTH_COMPONENT16: Int\n   val STENCIL_INDEX: Int\n   val STENCIL_INDEX8: Int\n   val DEPTH_STENCIL: Int\n   val RENDERBUFFER_WIDTH: Int\n   val RENDERBUFFER_HEIGHT: Int\n   val RENDERBUFFER_INTERNAL_FORMAT: Int\n   val RENDERBUFFER_RED_SIZE: Int\n   val RENDERBUFFER_GREEN_SIZE: Int\n   val RENDERBUFFER_BLUE_SIZE: Int\n   val RENDERBUFFER_ALPHA_SIZE: Int\n   val RENDERBUFFER_DEPTH_SIZE: Int\n   val RENDERBUFFER_STENCIL_SIZE: Int\n   val FRAMEBUFFER_ATTACHMENT_OBJECT_TYPE: Int\n   val FRAMEBUFFER_ATTACHMENT_OBJECT_NAME: Int\n   val FRAMEBUFFER_ATTACHMENT_TEXTURE_LEVEL: Int\n   val FRAMEBUFFER_ATTACHMENT_TEXTURE_CUBE_MAP_FACE: Int\n   val COLOR_ATTACHMENT0: Int\n   val DEPTH_ATTACHMENT: Int\n   val STENCIL_ATTACHMENT: Int\n   val DEPTH_STENCIL_ATTACHMENT: Int\n   val NONE: Int\n   val FRAMEBUFFER_COMPLETE: Int\n   val FRAMEBUFFER_INCOMPLETE_ATTACHMENT: Int\n   val FRAMEBUFFER_INCOMPLETE_MISSING_ATTACHMENT: Int\n   val FRAMEBUFFER_INCOMPLETE_DIMENSIONS: Int\n   val FRAMEBUFFER_UNSUPPORTED: Int\n   val FRAMEBUFFER_BINDING: Int\n   val RENDERBUFFER_BINDING: Int\n   val MAX_RENDERBUFFER_SIZE: Int\n   val INVALID_FRAMEBUFFER_OPERATION: Int\n   val UNPACK_FLIP_Y_WEBGL: Int\n   val UNPACK_PREMULTIPLY_ALPHA_WEBGL: Int\n   val CONTEXT_LOST_WEBGL: Int\n   val UNPACK_COLORSPACE_CONVERSION_WEBGL: Int\n   val BROWSER_DEFAULT_WEBGL: Int\n   }\n}\n\n/**\n * Exposes the JavaScript [WebGLRenderingContext](https://developer.mozilla.org/en/docs/Web/API/WebGLRenderingContext) to Kotlin\n

*/\npublic external abstract class WebGLRenderingContext : WebGLRenderingContextBase, RenderingContext {\n
companion object {\n val DEPTH_BUFFER_BIT: Int\n val STENCIL_BUFFER_BIT: Int\n val
COLOR_BUFFER_BIT: Int\n val POINTS: Int\n val LINES: Int\n val LINE_LOOP: Int\n val
LINE_STRIP: Int\n val TRIANGLES: Int\n val TRIANGLE_STRIP: Int\n val TRIANGLE_FAN:
Int\n
val ZERO: Int\n val ONE: Int\n val SRC_COLOR: Int\n val ONE_MINUS_SRC_COLOR: Int\n
val SRC_ALPHA: Int\n val ONE_MINUS_SRC_ALPHA: Int\n val DST_ALPHA: Int\n val
ONE_MINUS_DST_ALPHA: Int\n val DST_COLOR: Int\n val ONE_MINUS_DST_COLOR: Int\n
val SRC_ALPHA_SATURATE: Int\n val FUNC_ADD: Int\n val BLEND_EQUATION: Int\n val
BLEND_EQUATION_RGB: Int\n val BLEND_EQUATION_ALPHA: Int\n val FUNC_SUBTRACT:
Int\n val FUNC_REVERSE_SUBTRACT: Int\n val BLEND_DST_RGB: Int\n val
BLEND_SRC_RGB: Int\n val BLEND_DST_ALPHA: Int\n val BLEND_SRC_ALPHA: Int\n val
CONSTANT_COLOR: Int\n val ONE_MINUS_CONSTANT_COLOR: Int\n val CONSTANT_ALPHA:
Int\n val ONE_MINUS_CONSTANT_ALPHA: Int\n val BLEND_COLOR: Int\n val
ARRAY_BUFFER: Int\n val ELEMENT_ARRAY_BUFFER: Int\n val ARRAY_BUFFER_BINDING:
Int\n val ELEMENT_ARRAY_BUFFER_BINDING:
Int\n val STREAM_DRAW: Int\n val STATIC_DRAW: Int\n val DYNAMIC_DRAW: Int\n val
BUFFER_SIZE: Int\n val BUFFER_USAGE: Int\n val CURRENT_VERTEX_ATTRIB: Int\n val
FRONT: Int\n val BACK: Int\n val FRONT_AND_BACK: Int\n val CULL_FACE: Int\n val
BLEND: Int\n val DITHER: Int\n val STENCIL_TEST: Int\n val DEPTH_TEST: Int\n val
SCISSOR_TEST: Int\n val POLYGON_OFFSET_FILL: Int\n val SAMPLE_ALPHA_TO_COVERAGE:
Int\n val SAMPLE_COVERAGE: Int\n val NO_ERROR: Int\n val INVALID_ENUM: Int\n val
INVALID_VALUE: Int\n val INVALID_OPERATION: Int\n val OUT_OF_MEMORY: Int\n val CW:
Int\n val CCW: Int\n val LINE_WIDTH: Int\n val ALIASED_POINT_SIZE_RANGE: Int\n val
ALIASED_LINE_WIDTH_RANGE: Int\n val CULL_FACE_MODE: Int\n val FRONT_FACE: Int\n
val DEPTH_RANGE: Int\n val DEPTH_WRITEMASK:
Int\n val DEPTH_CLEAR_VALUE: Int\n val DEPTH_FUNC: Int\n val STENCIL_CLEAR_VALUE:
Int\n val STENCIL_FUNC: Int\n val STENCIL_FAIL: Int\n val STENCIL_PASS_DEPTH_FAIL:
Int\n val STENCIL_PASS_DEPTH_PASS: Int\n val STENCIL_REF: Int\n val
STENCIL_VALUE_MASK: Int\n val STENCIL_WRITEMASK: Int\n val STENCIL_BACK_FUNC:
Int\n val STENCIL_BACK_FAIL: Int\n val STENCIL_BACK_PASS_DEPTH_FAIL: Int\n val
STENCIL_BACK_PASS_DEPTH_PASS: Int\n val STENCIL_BACK_REF: Int\n val
STENCIL_BACK_VALUE_MASK: Int\n val STENCIL_BACK_WRITEMASK: Int\n val VIEWPORT:
Int\n val SCISSOR_BOX: Int\n val COLOR_CLEAR_VALUE: Int\n val COLOR_WRITEMASK:
Int\n val UNPACK_ALIGNMENT: Int\n val PACK_ALIGNMENT: Int\n val
MAX_TEXTURE_SIZE: Int\n val MAX_VIEWPORT_DIMS: Int\n val SUBPIXEL_BITS: Int\n val
RED_BITS: Int\n val GREEN_BITS:
Int\n val BLUE_BITS: Int\n val ALPHA_BITS: Int\n val DEPTH_BITS: Int\n val
STENCIL_BITS: Int\n val POLYGON_OFFSET_UNITS: Int\n val POLYGON_OFFSET_FACTOR: Int\n
val TEXTURE_BINDING_2D: Int\n val SAMPLE_BUFFERS: Int\n val SAMPLES: Int\n val
SAMPLE_COVERAGE_VALUE: Int\n val SAMPLE_COVERAGE_INVERT: Int\n val
COMPRESSED_TEXTURE_FORMATS: Int\n val DONT_CARE: Int\n val FASTEST: Int\n val
NICEST: Int\n val GENERATE_MIPMAP_HINT: Int\n val BYTE: Int\n val UNSIGNED_BYTE:
Int\n val SHORT: Int\n val UNSIGNED_SHORT: Int\n val INT: Int\n val UNSIGNED_INT: Int\n
val FLOAT: Int\n val DEPTH_COMPONENT: Int\n val ALPHA: Int\n val RGB: Int\n val
RGBA: Int\n val LUMINANCE: Int\n val LUMINANCE_ALPHA: Int\n val
UNSIGNED_SHORT_4_4_4_4: Int\n val UNSIGNED_SHORT_5_5_5_1: Int\n val
UNSIGNED_SHORT_5_6_5:

Int\n val FRAGMENT_SHADER: Int\n val VERTEX_SHADER: Int\n val MAX_VERTEX_ATTRIBS: Int\n val MAX_VERTEX_UNIFORM_VECTORS: Int\n val MAX_VARYING_VECTORS: Int\n val MAX_COMBINED_TEXTURE_IMAGE_UNITS: Int\n val MAX_VERTEX_TEXTURE_IMAGE_UNITS: Int\n val MAX_TEXTURE_IMAGE_UNITS: Int\n val MAX_FRAGMENT_UNIFORM_VECTORS: Int\n val SHADER_TYPE: Int\n val DELETE_STATUS: Int\n val LINK_STATUS: Int\n val VALIDATE_STATUS: Int\n val ATTACHED_SHADERS: Int\n val ACTIVE_UNIFORMS: Int\n val ACTIVE_ATTRIBUTES: Int\n val SHADING_LANGUAGE_VERSION: Int\n val CURRENT_PROGRAM: Int\n val NEVER: Int\n val LESS: Int\n val EQUAL: Int\n val LEQUAL: Int\n val GREATER: Int\n val NOTEQUAL: Int\n val GEQUAL: Int\n val ALWAYS: Int\n val KEEP: Int\n val REPLACE: Int\n val INCR: Int\n val DECR: Int\n

val INVERT: Int\n val INCR_WRAP: Int\n val DECR_WRAP: Int\n val VENDOR: Int\n val RENDERER: Int\n val VERSION: Int\n val NEAREST: Int\n val LINEAR: Int\n val NEAREST_MIPMAP_NEAREST: Int\n val LINEAR_MIPMAP_NEAREST: Int\n val NEAREST_MIPMAP_LINEAR: Int\n val LINEAR_MIPMAP_LINEAR: Int\n val TEXTURE_MAG_FILTER: Int\n val TEXTURE_MIN_FILTER: Int\n val TEXTURE_WRAP_S: Int\n val TEXTURE_WRAP_T: Int\n val TEXTURE_2D: Int\n val TEXTURE: Int\n val TEXTURE_CUBE_MAP: Int\n val TEXTURE_BINDING_CUBE_MAP: Int\n val TEXTURE_CUBE_MAP_POSITIVE_X: Int\n val TEXTURE_CUBE_MAP_NEGATIVE_X: Int\n val TEXTURE_CUBE_MAP_POSITIVE_Y: Int\n val TEXTURE_CUBE_MAP_NEGATIVE_Y: Int\n val TEXTURE_CUBE_MAP_POSITIVE_Z: Int\n val TEXTURE_CUBE_MAP_NEGATIVE_Z: Int\n val MAX_CUBE_MAP_TEXTURE_SIZE: Int\n val TEXTURE0: Int\n val TEXTURE1: Int\n val TEXTURE2: Int\n val TEXTURE3: Int\n val TEXTURE4: Int\n val TEXTURE5: Int\n val TEXTURE6: Int\n val TEXTURE7: Int\n val TEXTURE8: Int\n val TEXTURE9: Int\n val TEXTURE10: Int\n val TEXTURE11: Int\n val TEXTURE12: Int\n val TEXTURE13: Int\n val TEXTURE14: Int\n val TEXTURE15: Int\n val TEXTURE16: Int\n val TEXTURE17: Int\n val TEXTURE18: Int\n val TEXTURE19: Int\n val TEXTURE20: Int\n val TEXTURE21: Int\n val TEXTURE22: Int\n val TEXTURE23: Int\n val TEXTURE24: Int\n val TEXTURE25: Int\n val TEXTURE26: Int\n val TEXTURE27: Int\n val TEXTURE28: Int\n val TEXTURE29: Int\n val TEXTURE30: Int\n val TEXTURE31: Int\n val ACTIVE_TEXTURE: Int\n val REPEAT: Int\n val CLAMP_TO_EDGE: Int\n val MIRRORED_REPEAT: Int\n val FLOAT_VEC2: Int\n

val FLOAT_VEC3: Int\n val FLOAT_VEC4: Int\n val INT_VEC2: Int\n val INT_VEC3: Int\n val INT_VEC4: Int\n val BOOL: Int\n val BOOL_VEC2: Int\n val BOOL_VEC3: Int\n val BOOL_VEC4: Int\n val FLOAT_MAT2: Int\n val FLOAT_MAT3: Int\n val FLOAT_MAT4: Int\n val SAMPLER_2D: Int\n val SAMPLER_CUBE: Int\n val VERTEX_ATTRIB_ARRAY_ENABLED: Int\n val VERTEX_ATTRIB_ARRAY_SIZE: Int\n val VERTEX_ATTRIB_ARRAY_STRIDE: Int\n val VERTEX_ATTRIB_ARRAY_TYPE: Int\n val VERTEX_ATTRIB_ARRAY_NORMALIZED: Int\n val VERTEX_ATTRIB_ARRAY_POINTER: Int\n val VERTEX_ATTRIB_ARRAY_BUFFER_BINDING: Int\n val IMPLEMENTATION_COLOR_READ_TYPE: Int\n val IMPLEMENTATION_COLOR_READ_FORMAT: Int\n val COMPILE_STATUS: Int\n val LOW_FLOAT: Int\n val MEDIUM_FLOAT: Int\n val HIGH_FLOAT: Int\n val LOW_INT: Int\n val MEDIUM_INT: Int\n

val HIGH_INT: Int\n val FRAMEBUFFER: Int\n val RENDERBUFFER: Int\n val RGBA4: Int\n val RGB5_A1: Int\n val RGB565: Int\n val DEPTH_COMPONENT16: Int\n val STENCIL_INDEX: Int\n val STENCIL_INDEX8: Int\n val DEPTH_STENCIL: Int\n val RENDERBUFFER_WIDTH: Int\n val RENDERBUFFER_HEIGHT: Int\n val RENDERBUFFER_INTERNAL_FORMAT: Int\n val RENDERBUFFER_RED_SIZE: Int\n val RENDERBUFFER_GREEN_SIZE: Int\n val

RENDERBUFFER_BLUE_SIZE: Int\n   val RENDERBUFFER_ALPHA_SIZE: Int\n   val RENDERBUFFER_DEPTH_SIZE: Int\n   val RENDERBUFFER_STENCIL_SIZE: Int\n   val FRAMEBUFFER_ATTACHMENT_OBJECT_TYPE: Int\n   val FRAMEBUFFER_ATTACHMENT_OBJECT_NAME: Int\n   val FRAMEBUFFER_ATTACHMENT_TEXTURE_LEVEL: Int\n   val FRAMEBUFFER_ATTACHMENT_TEXTURE_CUBE_MAP_FACE: Int\n   val COLOR_ATTACHMENT0: Int\n   val DEPTH_ATTACHMENT: Int\n   val STENCIL_ATTACHMENT: Int\n   val DEPTH_STENCIL_ATTACHMENT: Int\n   val NONE: Int\n   val FRAMEBUFFER_COMPLETE: Int\n   val FRAMEBUFFER_INCOMPLETE_ATTACHMENT: Int\n   val FRAMEBUFFER_INCOMPLETE_MISSING_ATTACHMENT: Int\n   val FRAMEBUFFER_INCOMPLETE_DIMENSIONS: Int\n   val FRAMEBUFFER_UNSUPPORTED: Int\n   val FRAMEBUFFER_BINDING: Int\n   val RENDERBUFFER_BINDING: Int\n   val MAX_RENDERBUFFER_SIZE: Int\n   val INVALID_FRAMEBUFFER_OPERATION: Int\n   val UNPACK_FLIP_Y_WEBGL: Int\n   val UNPACK_PREMULTIPLY_ALPHA_WEBGL: Int\n   val CONTEXT_LOST_WEBGL: Int\n   val UNPACK_COLORSPACE_CONVERSION_WEBGL: Int\n   val BROWSER_DEFAULT_WEBGL: Int\n   }\n}\n\n/**\n * Exposes the JavaScript [WebGLContextEvent](https://developer.mozilla.org/en/docs/Web/API/WebGLContextEvent) to Kotlin\n */\npublic external open class WebGLContextEvent(type: String, eventInit: WebGLContextEventInit = definedExternally) : Event {\n   open val statusMessage: String\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface WebGLContextEventInit : EventInit {\n   var statusMessage: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun WebGLContextEventInit(statusMessage: String? = \"\", bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): WebGLContextEventInit {\n   val o = js(\"({})\")\n   o[\"statusMessage\"] = statusMessage\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [ArrayBuffer](https://developer.mozilla.org/en/docs/Web/API/ArrayBuffer) to Kotlin\n */\npublic external open class ArrayBuffer(length: Int) : BufferDataSource {\n   open val byteLength: Int\n   fun slice(begin: Int, end: Int = definedExternally): ArrayBuffer\n\n   companion object {\n   fun isView(value: Any?): Boolean\n   }\n}\n\n/**\n * Exposes the JavaScript [ArrayBufferView](https://developer.mozilla.org/en/docs/Web/API/ArrayBufferView) to Kotlin\n */\npublic external interface ArrayBufferView : BufferDataSource {\n   val buffer: ArrayBuffer\n   val byteOffset: Int\n   val byteLength: Int\n}\n\n/**\n * Exposes the JavaScript [Int8Array](https://developer.mozilla.org/en/docs/Web/API/Int8Array) to Kotlin\n */\npublic external open class Int8Array : ArrayBufferView {\n   constructor(length: Int)\n   constructor(array: Int8Array)\n   constructor(array: Array<Byte>)\n   constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n   open val length: Int\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n   override val byteLength: Int\n   fun set(array: Int8Array, offset: Int = definedExternally)\n   fun set(array: Array<Byte>, offset: Int = definedExternally)\n   fun subarray(start: Int, end: Int): Int8Array\n\n   companion object {\n   val BYTES_PER_ELEMENT: Int\n   }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int8Array.get(index: Int): Byte = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int8Array.set(index: Int, value: Byte) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Uint8Array](https://developer.mozilla.org/en/docs/Web/API/Uint8Array) to Kotlin\n */\npublic external open class

```
Uint8Array : ArrayBufferView {\n    constructor(length: Int)\n    constructor(array: Uint8Array)\n
constructor(array: Array<Byte>)\n    constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length:
Int = definedExternally)\n    open val length: Int\n    override
 val buffer: ArrayBuffer\n    override val byteOffset: Int\n    override val byteLength: Int\n    fun set(array:
Uint8Array, offset: Int = definedExternally)\n    fun set(array: Array<Byte>, offset: Int = definedExternally)\n    fun
subarray(start: Int, end: Int): Uint8Array\n\n    companion object {\n        val BYTES_PER_ELEMENT: Int\n
}\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint8Array.get(index: Int):
Byte = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint8Array.set(index: Int,
value: Byte) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript
[Uint8ClampedArray](https://developer.mozilla.org/en/docs/Web/API/Uint8ClampedArray) to Kotlin\n */\npublic
external open class Uint8ClampedArray : ArrayBufferView {\n    constructor(length: Int)\n    constructor(array:
Uint8ClampedArray)\n    constructor(array:
 Array<Byte>)\n    constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int =
definedExternally)\n    open val length: Int\n    override val buffer: ArrayBuffer\n    override val byteOffset: Int\n
override val byteLength: Int\n    fun set(array: Uint8ClampedArray, offset: Int = definedExternally)\n    fun
set(array: Array<Byte>, offset: Int = definedExternally)\n    fun subarray(start: Int, end: Int):
Uint8ClampedArray\n\n    companion object {\n        val BYTES_PER_ELEMENT: Int\n
}\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
Uint8ClampedArray.get(index: Int): Byte = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
Uint8ClampedArray.set(index: Int, value: Byte) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript
[Int16Array](https://developer.mozilla.org/en/docs/Web/API/Int16Array)
 to Kotlin\n */\npublic external open class Int16Array : ArrayBufferView {\n    constructor(length: Int)\n
constructor(array: Int16Array)\n    constructor(array: Array<Short>)\n    constructor(buffer: ArrayBuffer,
byteOffset: Int = definedExternally, length: Int = definedExternally)\n    open val length: Int\n    override val buffer:
ArrayBuffer\n    override val byteOffset: Int\n    override val byteLength: Int\n    fun set(array: Int16Array, offset:
Int = definedExternally)\n    fun set(array: Array<Short>, offset: Int = definedExternally)\n    fun subarray(start: Int,
end: Int): Int16Array\n\n    companion object {\n        val BYTES_PER_ELEMENT: Int\n
}\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int16Array.get(index: Int):
Short = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int16Array.set(index: Int,
value:
 Short) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript
[Uint16Array](https://developer.mozilla.org/en/docs/Web/API/Uint16Array) to Kotlin\n */\npublic external open
class Uint16Array : ArrayBufferView {\n    constructor(length: Int)\n    constructor(array: Uint16Array)\n
constructor(array: Array<Short>)\n    constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length:
Int = definedExternally)\n    open val length: Int\n    override val buffer: ArrayBuffer\n    override val byteOffset:
Int\n    override val byteLength: Int\n    fun set(array: Uint16Array, offset: Int = definedExternally)\n    fun set(array:
Array<Short>, offset: Int = definedExternally)\n    fun subarray(start: Int, end: Int): Uint16Array\n\n    companion
object {\n        val BYTES_PER_ELEMENT: Int\n    }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint16Array.get(index: Int):
Short = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
 \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint16Array.set(index: Int,
value: Short) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript
```

[Int32Array](https://developer.mozilla.org/en/docs/Web/API/Int32Array) to Kotlin\n */\npublic external open class Int32Array : ArrayBufferView {\n   constructor(length: Int)\n   constructor(array: Int32Array)\n   constructor(array: Array<Int>)\n   constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n   open val length: Int\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n   override val byteLength: Int\n   fun set(array: Int32Array, offset: Int = definedExternally)\n   fun set(array: Array<Int>, offset: Int = definedExternally)\n   fun subarray(start: Int, end: Int): Int32Array\n\n   companion object {\n   val BYTES_PER_ELEMENT: Int\n   }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int32Array.get(index: Int): Int = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int32Array.set(index: Int, value: Int) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Uint32Array](https://developer.mozilla.org/en/docs/Web/API/Uint32Array) to Kotlin\n */\npublic external open class Uint32Array : ArrayBufferView {\n   constructor(length: Int)\n   constructor(array: Uint32Array)\n   constructor(array: Array<Int>)\n   constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n   open val length: Int\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n   override val byteLength: Int\n   fun set(array: Uint32Array, offset: Int = definedExternally)\n   fun set(array: Array<Int>, offset: Int = definedExternally)\n   fun subarray(start: Int, end: Int): Uint32Array\n\n   companion object {\n   val BYTES_PER_ELEMENT: Int\n   }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint32Array.get(index: Int): Int = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint32Array.set(index: Int, value: Int) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Float32Array](https://developer.mozilla.org/en/docs/Web/API/Float32Array) to Kotlin\n */\npublic external open class Float32Array : ArrayBufferView {\n   constructor(length: Int)\n   constructor(array: Float32Array)\n   constructor(array: Array<Float>)\n   constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n   open val length: Int\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n   override val byteLength: Int\n   fun set(array: Float32Array, offset: Int = definedExternally)\n   fun set(array: Array<Float>, offset: Int = definedExternally)\n   fun subarray(start: Int, end: Int): Float32Array\n\n   companion object {\n   val BYTES_PER_ELEMENT: Int\n   }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Float32Array.get(index: Int): Float = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Float32Array.set(index: Int, value: Float) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Float64Array](https://developer.mozilla.org/en/docs/Web/API/Float64Array) to Kotlin\n */\npublic external open class Float64Array : ArrayBufferView {\n   constructor(length: Int)\n   constructor(array: Float64Array)\n   constructor(array: Array<Double>)\n   constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n   open val length: Int\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n   override val byteLength: Int\n   fun set(array: Float64Array, offset: Int = definedExternally)\n   fun set(array: Array<Double>, offset: Int = definedExternally)\n   fun subarray(start: Int, end: Int): Float64Array\n\n   companion object {\n   val BYTES_PER_ELEMENT: Int\n   }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Float64Array.get(index: Int): Double = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Float64Array.set(index: Int, value: Double) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [DataView](https://developer.mozilla.org/en/docs/Web/API/DataView) to Kotlin\n */\npublic external open class

DataView(buffer: ArrayBuffer, byteOffset: Int = definedExternally, byteLength: Int = definedExternally) : ArrayBufferView {\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n   override val byteLength: Int\n   fun getInt8(byteOffset: Int): Byte\n   fun getUint8(byteOffset: Int): Byte\n   fun getInt16(byteOffset: Int, littleEndian: Boolean = definedExternally): Short\n   fun getUint16(byteOffset: Int, littleEndian: Boolean = definedExternally): Short\n   fun getInt32(byteOffset: Int, littleEndian: Boolean = definedExternally): Int\n   fun getUint32(byteOffset: Int, littleEndian: Boolean = definedExternally): Int\n   fun getFloat32(byteOffset: Int, littleEndian: Boolean = definedExternally): Float\n   fun getFloat64(byteOffset: Int, littleEndian: Boolean = definedExternally): Double\n   fun setInt8(byteOffset: Int, value: Byte)\n   fun setUint8(byteOffset: Int, value: Byte)\n   fun setInt16(byteOffset: Int, value: Short, littleEndian: Boolean = definedExternally)\n   fun setUint16(byteOffset: Int, value: Short, littleEndian: Boolean = definedExternally)\n   fun setInt32(byteOffset: Int, value: Int, littleEndian: Boolean = definedExternally)\n   fun setUint32(byteOffset: Int, value: Int, littleEndian: Boolean = definedExternally)\n   fun setFloat32(byteOffset: Int, value: Float, littleEndian: Boolean = definedExternally)\n   fun setFloat64(byteOffset: Int, value: Double, littleEndian: Boolean = definedExternally)\n}\n\npublic external interface BufferDataSource\n\npublic external interface TexImageSource","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.clipboard\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\npublic external interface ClipboardEventInit : EventInit {\n   var clipboardData: DataTransfer? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ClipboardEventInit(clipboardData: DataTransfer? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ClipboardEventInit {\n   val o = js(\"({})\")\n   o[\"clipboardData\"] = clipboardData\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [ClipboardEvent](https://developer.mozilla.org/en/docs/Web/API/ClipboardEvent) to Kotlin\n */\npublic external open class ClipboardEvent(type: String, eventInitDict: ClipboardEventInit = definedExternally) : Event {\n   open val clipboardData: DataTransfer?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [Clipboard](https://developer.mozilla.org/en/docs/Web/API/Clipboard) to Kotlin\n */\npublic external abstract class Clipboard : EventTarget {\n   fun read(): Promise<DataTransfer>\n   fun readText(): Promise<String>\n   fun write(data: DataTransfer): Promise<Unit>\n   fun writeText(data: String): Promise<Unit>\n}\n\npublic external interface ClipboardPermissionDescriptor {\n   var allowWithoutGesture: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ClipboardPermissionDescriptor(allowWithoutGesture: Boolean? = false): ClipboardPermissionDescriptor {\n   val o = js(\"({})\")\n   o[\"allowWithoutGesture\"] = allowWithoutGesture\n   return o\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.css\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\n\npublic external abstract class MediaList : ItemArrayLike<String> {\n   open var mediaText: String\n   fun appendMedium(medium: String)\n   fun deleteMedium(medium: String)\n   override fun item(index: Int): String?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun MediaList.get(index: Int): String? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript

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[StyleSheet](https://developer.mozilla.org/en/docs/Web/API/StyleSheet) to Kotlin\n */\npublic external abstract
class StyleSheet {\n    open val type: String\n    open val href: String?\n    open val ownerNode:
UnionElementOrProcessingInstruction?\n    open val parentStyleSheet:
 StyleSheet?\n    open val title: String?\n    open val media: MediaList\n    open var disabled: Boolean\n}\n\n/**\n *
Exposes the JavaScript [CSSStyleSheet](https://developer.mozilla.org/en/docs/Web/API/CSSStyleSheet) to Kotlin\n
*/\npublic external abstract class CSSStyleSheet : StyleSheet {\n    open val ownerRule: CSSRule?\n    open val
cssRules: CSSRuleList\n    fun insertRule(rule: String, index: Int): Int\n    fun deleteRule(index: Int)\n}\n\n/**\n *
Exposes the JavaScript [StyleSheetList](https://developer.mozilla.org/en/docs/Web/API/StyleSheetList) to Kotlin\n
*/\npublic external abstract class StyleSheetList : ItemArrayLike<StyleSheet> {\n    override fun item(index: Int):
StyleSheet?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun StyleSheetList.get(index: Int):
StyleSheet? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript
[LinkStyle](https://developer.mozilla.org/en/docs/Web/API/LinkStyle)
 to Kotlin\n */\npublic external interface LinkStyle {\n    val sheet: StyleSheet?\n        get() =
definedExternally\n}\n\n/**\n * Exposes the JavaScript
[CSSRuleList](https://developer.mozilla.org/en/docs/Web/API/CSSRuleList) to Kotlin\n */\npublic external abstract
class CSSRuleList : ItemArrayLike<CSSRule> {\n    override fun item(index: Int):
CSSRule?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun CSSRuleList.get(index: Int):
CSSRule? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript
[CSSRule](https://developer.mozilla.org/en/docs/Web/API/CSSRule) to Kotlin\n */\npublic external abstract class
CSSRule {\n    open val type: Short\n    open var cssText: String\n    open val parentRule: CSSRule?\n    open val
parentStyleSheet: CSSStyleSheet?\n\n    companion object {\n        val STYLE_RULE: Short\n        val
CHARSET_RULE: Short\n        val IMPORT_RULE: Short\n        val MEDIA_RULE: Short\n        val
FONT_FACE_RULE:
 Short\n        val PAGE_RULE: Short\n        val MARGIN_RULE: Short\n        val NAMESPACE_RULE: Short\n
}\n}\n\n/**\n * Exposes the JavaScript
[CSSStyleRule](https://developer.mozilla.org/en/docs/Web/API/CSSStyleRule) to Kotlin\n */\npublic external
abstract class CSSStyleRule : CSSRule {\n    open var selectorText: String\n    open val style:
CSSStyleDeclaration\n\n    companion object {\n        val STYLE_RULE: Short\n        val CHARSET_RULE:
Short\n        val IMPORT_RULE: Short\n        val MEDIA_RULE: Short\n        val FONT_FACE_RULE: Short\n
   val PAGE_RULE: Short\n        val MARGIN_RULE: Short\n        val NAMESPACE_RULE: Short\n
}\n}\n\npublic external abstract class CSSImportRule : CSSRule {\n    open val href: String\n    open val media:
MediaList\n    open val styleSheet: CSSStyleSheet\n\n    companion object {\n        val STYLE_RULE: Short\n
val CHARSET_RULE: Short\n        val IMPORT_RULE: Short\n        val MEDIA_RULE: Short\n        val
 FONT_FACE_RULE: Short\n        val PAGE_RULE: Short\n        val MARGIN_RULE: Short\n        val
NAMESPACE_RULE: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[CSSGroupingRule](https://developer.mozilla.org/en/docs/Web/API/CSSGroupingRule) to Kotlin\n */\npublic
external abstract class CSSGroupingRule : CSSRule {\n    open val cssRules: CSSRuleList\n    fun insertRule(rule:
String, index: Int): Int\n    fun deleteRule(index: Int)\n\n    companion object {\n        val STYLE_RULE: Short\n
 val CHARSET_RULE: Short\n        val IMPORT_RULE: Short\n        val MEDIA_RULE: Short\n        val
FONT_FACE_RULE: Short\n        val PAGE_RULE: Short\n        val MARGIN_RULE: Short\n        val
NAMESPACE_RULE: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[CSSMediaRule](https://developer.mozilla.org/en/docs/Web/API/CSSMediaRule) to Kotlin\n */\npublic external
abstract class CSSMediaRule : CSSGroupingRule {\n    open val media: MediaList\n\n    companion object {\n
val STYLE_RULE:
 Short\n        val CHARSET_RULE: Short\n        val IMPORT_RULE: Short\n        val MEDIA_RULE: Short\n
val FONT_FACE_RULE: Short\n        val PAGE_RULE: Short\n        val MARGIN_RULE: Short\n        val
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NAMESPACE_RULE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [CSSPageRule](https://developer.mozilla.org/en/docs/Web/API/CSSPageRule) to Kotlin\n */\npublic external abstract class CSSPageRule : CSSGroupingRule {\n   open var selectorText: String\n   open val style: CSSStyleDeclaration\n\n   companion object {\n   val STYLE_RULE: Short\n   val CHARSET_RULE: Short\n   val IMPORT_RULE: Short\n   val MEDIA_RULE: Short\n   val FONT_FACE_RULE: Short\n   val PAGE_RULE: Short\n   val MARGIN_RULE: Short\n   val NAMESPACE_RULE: Short\n   }\n}\n\npublic external abstract class CSSMarginRule : CSSRule {\n   open val name: String\n   open val style: CSSStyleDeclaration\n\n   companion object {\n   val STYLE_RULE: Short\n   val CHARSET_RULE: Short\n   val IMPORT_RULE: Short\n   val MEDIA_RULE: Short\n   val FONT_FACE_RULE: Short\n   val PAGE_RULE: Short\n   val MARGIN_RULE: Short\n   val NAMESPACE_RULE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [CSSNamespaceRule](https://developer.mozilla.org/en/docs/Web/API/CSSNamespaceRule) to Kotlin\n */\npublic external abstract class CSSNamespaceRule : CSSRule {\n   open val namespaceURI: String\n   open val prefix: String\n\n   companion object {\n   val STYLE_RULE: Short\n   val CHARSET_RULE: Short\n   val IMPORT_RULE: Short\n   val MEDIA_RULE: Short\n   val FONT_FACE_RULE: Short\n   val PAGE_RULE: Short\n   val MARGIN_RULE: Short\n   val NAMESPACE_RULE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [CSSStyleDeclaration](https://developer.mozilla.org/en/docs/Web/API/CSSStyleDeclaration) to Kotlin\n */\npublic external abstract class CSSStyleDeclaration : ItemArrayLike<String> {\n   open var cssText: String\n   open val parentRule: CSSRule?\n   open var cssFloat: String\n   open var alignContent: String\n   open var alignItems: String\n   open var alignSelf: String\n   open var animation: String\n   open var animationDelay: String\n   open var animationDirection: String\n   open var animationDuration: String\n   open var animationFillMode: String\n   open var animationIterationCount: String\n   open var animationName: String\n   open var animationPlayState: String\n   open var animationTimingFunction: String\n   open var backfaceVisibility: String\n   open var background: String\n   open var backgroundAttachment: String\n   open var backgroundClip: String\n   open var backgroundColor: String\n   open var backgroundImage: String\n   open var backgroundOrigin: String\n   open var backgroundPosition: String\n   open var backgroundRepeat: String\n   open var backgroundSize: String\n   open var border: String\n   open var borderBottom: String\n   open var borderBottomColor: String\n   open var borderBottomLeftRadius: String\n   open var borderBottomRightRadius: String\n   open var borderBottomStyle: String\n   open var borderBottomWidth: String\n   open var borderCollapse: String\n   open var borderColor: String\n   open var borderImage: String\n   open var borderImageOutset: String\n   open var borderImageRepeat: String\n   open var borderImageSlice: String\n   open var borderImageSource: String\n   open var borderImageWidth: String\n   open var borderLeft: String\n   open var borderLeftColor: String\n   open var borderLeftStyle: String\n   open var borderLeftWidth: String\n   open var borderRadius: String\n   open var borderRight: String\n   open var borderRightColor: String\n   open var borderRightStyle: String\n   open var borderRightWidth: String\n   open var borderSpacing: String\n   open var borderStyle: String\n   open var borderTop: String\n   open var borderTopColor: String\n   open var borderTopLeftRadius: String\n   open var borderTopRightRadius: String\n   open var borderTopStyle: String\n   open var borderTopWidth: String\n   open var borderWidth: String\n   open var bottom: String\n   open var boxDecorationBreak: String\n   open var boxShadow: String\n   open var boxSizing: String\n   open var breakAfter: String\n   open var breakBefore: String\n   open var breakInside: String\n   open var captionSide: String\n   open var clear: String\n   open var clip: String\n   open var color: String\n   open var columnCount: String\n   open var columnFill: String\n   open var columnGap: String\n   open var columnRule: String\n   open var columnRuleColor: String\n   open var columnRuleStyle: String\n   open var columnRuleWidth: String\n   open var columnSpan: String\n   open var columnWidth: String\n   open var columns: String\n   open var content: String\n   open var counterIncrement: String\n   open var counterReset: String\n   open var cursor: String\n   open var direction: String\n   open var display: String\n   open var emptyCells: String\n   open var filter: String\n   open var flex: String\n   open var flexBasis: String\n   open var flexDirection: String\n   open var flexFlow: String\n open var flexGrow: String\n open var flexShrink: String\n open var flexWrap: String\n open var font: String\n open var fontFamily: String\n open var fontFeatureSettings: String\n open var fontKerning: String\n open var fontLanguageOverride: String\n open var fontSize: String\n open var fontSizeAdjust: String\n open var fontStretch: String\n open var fontStyle: String\n open var fontSynthesis: String\n open var fontVariant: String\n open var fontVariantAlternates: String\n open var fontVariantCaps: String\n open var fontVariantEastAsian: String\n open var fontVariantLigatures: String\n open var fontVariantNumeric: String\n open var fontVariantPosition: String\n open var fontWeight: String\n open var hangingPunctuation: String\n open var height: String\n open var hyphens: String\n open var imageOrientation: String\n open var imageRendering: String\n open var imageResolution: String\n open var imeMode: String\n open var justifyContent: String\n open var left: String\n open var letterSpacing: String\n open var lineBreak: String\n open var lineHeight: String\n open var listStyle: String\n open var listStyleImage: String\n open var listStylePosition: String\n open var listStyleType: String\n open var margin: String\n open var marginBottom: String\n open var marginLeft: String\n open var marginRight: String\n open var marginTop: String\n open var mark: String\n open var markAfter: String\n open var markBefore: String\n open var marks: String\n open var marqueeDirection: String\n open var marqueePlayCount: String\n open var marqueeSpeed: String\n open var marqueeStyle: String\n open var mask: String\n open var maskType: String\n open var maxHeight: String\n open var maxWidth: String\n open var minHeight: String\n open var minWidth: String\n open var navDown: String\n open var navIndex: String\n open var navLeft: String\n open var navRight: String\n open var navUp: String\n open var objectFit: String\n open var objectPosition: String\n open var opacity: String\n open var order: String\n open var orphans: String\n open var outline: String\n open var outlineColor: String\n open var outlineOffset: String\n open var outlineStyle: String\n open var outlineWidth: String\n open var overflowWrap: String\n open var overflowX: String\n open var overflowY: String\n open var padding: String\n open var paddingBottom: String\n open var paddingLeft: String\n open var paddingRight: String\n open var paddingTop: String\n open var pageBreakAfter: String\n open var pageBreakBefore: String\n open var pageBreakInside: String\n open var perspective: String\n open var perspectiveOrigin: String\n open var phonemes: String\n open var position: String\n open var quotes: String\n open var resize: String\n open var rest: String\n open var restAfter: String\n open var restBefore: String\n open var right: String\n open var tabSize: String\n open var tableLayout: String\n open var textAlign: String\n open var textAlignLast: String\n open var textCombineUpright: String\n open var textDecoration: String\n open var textDecorationColor: String\n open var textDecorationLine: String\n open var textDecorationStyle: String\n open var textIndent: String\n open var textJustify: String\n open var textOrientation: String\n open var textOverflow: String\n open var textShadow: String\n open var textTransform: String\n open var textUnderlinePosition: String\n open var top: String\n open var transform: String\n open var transformOrigin: String\n open var transformStyle: String\n open var transition: String\n open var transitionDelay: String\n open var transitionDuration: String\n open var transitionProperty: String\n open var transitionTimingFunction: String\n open var unicodeBidi: String\n open var verticalAlign: String\n open var visibility: String\n open var voiceBalance: String\n open var voiceDuration: String\n open var voicePitch: String\n open var voicePitchRange: String\n open var voiceRate: String\n open var voiceStress: String\n open var voiceVolume: String\n open var whiteSpace: String\n open var widows: String\n open var width: String\n open var wordBreak: String\n open var wordSpacing: String\n open var wordWrap: String\n open var writingMode: String\n open var zIndex: String\n open var _dashed_attribute: String\n open var _camel_cased_attribute: String\n open var _webkit_cased_attribute: String\n fun getPropertyValue(property: String): String\n fun getPropertyPriority(property: String): String\n fun setProperty(property: String, value: String, priority: String = definedExternally)\n fun setPropertyValue(property: String, value: String)\n fun setPropertyPriority(property: String, priority: String)\n fun removeProperty(property: String): String\n override fun item(index: Int): String\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",

\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun CSSStyleDeclaration.get(index: Int): String? = asDynamic()[index]\n\npublic external interface ElementCSSInlineStyle {\n   val style: CSSStyleDeclaration\n}\n\n/**\n * Exposes the JavaScript [CSS](https://developer.mozilla.org/en/docs/Web/API/CSS) to Kotlin\n */\npublic external abstract class CSS {\n companion object {\n   fun escape(ident: String): String\n   }\n}\n\npublic external interface UnionElementOrProcessingInstruction","/*\n * Copyright
 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.encryptedmedia\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\n/**\n * Exposes the JavaScript [MediaKeySystemConfiguration](https://developer.mozilla.org/en/docs/Web/API/MediaKeySystemConfiguration) to Kotlin\n */\npublic external interface MediaKeySystemConfiguration {\n   var label: String? /* = \"\" */\n get() = definedExternally\n   set(value) = definedExternally\n   var initDataTypes: Array<String>? /* = arrayOf() */\n   get() = definedExternally\n   set(value) = definedExternally\n   var audioCapabilities: Array<MediaKeySystemMediaCapability>? /* = arrayOf() */\n   get() = definedExternally\n   set(value) = definedExternally\n   var videoCapabilities: Array<MediaKeySystemMediaCapability>? /* = arrayOf() */\n   get() = definedExternally\n   set(value) = definedExternally\n   var distinctiveIdentifier: MediaKeysRequirement? /* = MediaKeysRequirement.OPTIONAL */\n   get() = definedExternally\n set(value) = definedExternally\n   var persistentState: MediaKeysRequirement? /* = MediaKeysRequirement.OPTIONAL */\n   get() = definedExternally\n   set(value) = definedExternally\n var sessionTypes: Array<String>?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaKeySystemConfiguration(label: String? = \"\", initDataTypes: Array<String>? = arrayOf(), audioCapabilities: Array<MediaKeySystemMediaCapability>? = arrayOf(), videoCapabilities: Array<MediaKeySystemMediaCapability>? = arrayOf(),
 distinctiveIdentifier: MediaKeysRequirement? = MediaKeysRequirement.OPTIONAL, persistentState: MediaKeysRequirement? = MediaKeysRequirement.OPTIONAL, sessionTypes: Array<String>? = undefined): MediaKeySystemConfiguration {\n   val o = js(\"({})\")\n   o[\"label\"] = label\n   o[\"initDataTypes\"] = initDataTypes\n   o[\"audioCapabilities\"] = audioCapabilities\n   o[\"videoCapabilities\"] = videoCapabilities\n o[\"distinctiveIdentifier\"] = distinctiveIdentifier\n   o[\"persistentState\"] = persistentState\n   o[\"sessionTypes\"] = sessionTypes\n   return o\n}\n\npublic external interface MediaKeySystemMediaCapability {\n   var contentType: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var robustness: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaKeySystemMediaCapability(contentType:
 String? = \"\", robustness: String? = \"\"): MediaKeySystemMediaCapability {\n   val o = js(\"({})\")\n o[\"contentType\"] = contentType\n   o[\"robustness\"] = robustness\n   return o\n}\n\n/**\n * Exposes the JavaScript [MediaKeySystemAccess](https://developer.mozilla.org/en/docs/Web/API/MediaKeySystemAccess) to Kotlin\n */\npublic external abstract class MediaKeySystemAccess {\n   open val keySystem: String\n   fun getConfiguration(): MediaKeySystemConfiguration\n   fun createMediaKeys(): Promise<MediaKeys>\n}\n\n/**\n * Exposes the JavaScript [MediaKeys](https://developer.mozilla.org/en/docs/Web/API/MediaKeys) to Kotlin\n */\npublic external abstract class MediaKeys {\n   fun createSession(sessionType: MediaKeySessionType = definedExternally): MediaKeySession\n   fun setServerCertificate(serverCertificate: dynamic): Promise<Boolean>\n}\n\n/**\n * Exposes the JavaScript [MediaKeySession](https://developer.mozilla.org/en/docs/Web/API/MediaKeySession)

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 to Kotlin\n */\npublic external abstract class MediaKeySession : EventTarget {\n    open val sessionId: String\n
open val expiration: Double\n    open val closed: Promise<Unit>\n    open val keyStatuses: MediaKeyStatusMap\n
open var onkeystatuseschange: ((Event) -> dynamic)?\n    open var onmessage: ((MessageEvent) -> dynamic)?\n
fun generateRequest(initDataType: String, initData: dynamic): Promise<Unit>\n    fun load(sessionId: String):
Promise<Boolean>\n    fun update(response: dynamic): Promise<Unit>\n    fun close(): Promise<Unit>\n    fun
remove(): Promise<Unit>\n}\n\n/**\n * Exposes the JavaScript
[MediaKeyStatusMap](https://developer.mozilla.org/en/docs/Web/API/MediaKeyStatusMap) to Kotlin\n */\npublic
external abstract class MediaKeyStatusMap {\n    open val size: Int\n    fun has(keyId: dynamic): Boolean\n    fun
get(keyId: dynamic): Any?\n}\n\n/**\n * Exposes the JavaScript
[MediaKeyMessageEvent](https://developer.mozilla.org/en/docs/Web/API/MediaKeyMessageEvent)
 to Kotlin\n */\npublic external open class MediaKeyMessageEvent(type: String, eventInitDict:
MediaKeyMessageEventInit) : Event {\n    open val messageType: MediaKeyMessageType\n    open val message:
ArrayBuffer\n\n    companion object {\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val
AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface
MediaKeyMessageEventInit : EventInit {\n    var messageType: MediaKeyMessageType?\n    var message:
ArrayBuffer?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun
MediaKeyMessageEventInit(messageType: MediaKeyMessageType?, message: ArrayBuffer?, bubbles: Boolean? =
false, cancelable: Boolean? = false, composed: Boolean? = false): MediaKeyMessageEventInit {\n    val o =
js(\"({})\")\n    o[\"messageType\"] = messageType\n    o[\"message\"] = message\n    o[\"bubbles\"] = bubbles\n
o[\"cancelable\"] = cancelable\n    o[\"composed\"]
 = composed\n    return o\n}\n\npublic external open class MediaEncryptedEvent(type: String, eventInitDict:
MediaEncryptedEventInit = definedExternally) : Event {\n    open val initDataType: String\n    open val initData:
ArrayBuffer?\n\n    companion object {\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val
AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface
MediaEncryptedEventInit : EventInit {\n    var initDataType: String? /* = \"\" */\n        get() = definedExternally\n
  set(value) = definedExternally\n    var initData: ArrayBuffer? /* = null */\n        get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun
MediaEncryptedEventInit(initDataType: String? = \"\", initData: ArrayBuffer? = null, bubbles: Boolean? = false,
cancelable: Boolean? = false, composed: Boolean? = false): MediaEncryptedEventInit
 {\n    val o = js(\"({})\")\n    o[\"initDataType\"] = initDataType\n    o[\"initData\"] = initData\n    o[\"bubbles\"] =
bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return o\n}\n\n/* please, don't
implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface MediaKeysRequirement {\n    companion object\n}\n\npublic inline val
MediaKeysRequirement.Companion.REQUIRED: MediaKeysRequirement get() =
\"required\".asDynamic().unsafeCast<MediaKeysRequirement>()\n\npublic inline val
MediaKeysRequirement.Companion.OPTIONAL: MediaKeysRequirement get() =
\"optional\".asDynamic().unsafeCast<MediaKeysRequirement>()\n\npublic inline val
MediaKeysRequirement.Companion.NOT_ALLOWED: MediaKeysRequirement get() = \"not-
allowed\".asDynamic().unsafeCast<MediaKeysRequirement>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic
 external interface MediaKeySessionType {\n    companion object\n}\n\npublic inline val
MediaKeySessionType.Companion.TEMPORARY: MediaKeySessionType get() =
\"temporary\".asDynamic().unsafeCast<MediaKeySessionType>()\n\npublic inline val
MediaKeySessionType.Companion.PERSISTENT_LICENSE: MediaKeySessionType get() = \"persistent-
license\".asDynamic().unsafeCast<MediaKeySessionType>()\n\n/* please, don't implement this interface!
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/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface MediaKeyStatus {\n   companion object\n}\n\npublic inline val MediaKeyStatus.Companion.USABLE: MediaKeyStatus get() = \"usable\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val MediaKeyStatus.Companion.EXPIRED: MediaKeyStatus get() = \"expired\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val MediaKeyStatus.Companion.RELEASED: MediaKeyStatus get() = \"released\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val MediaKeyStatus.Companion.OUTPUT_RESTRICTED: MediaKeyStatus get() = \"output-restricted\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val MediaKeyStatus.Companion.OUTPUT_DOWNSCALED: MediaKeyStatus get() = \"output-downscaled\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val MediaKeyStatus.Companion.STATUS_PENDING: MediaKeyStatus get() = \"status-pending\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val MediaKeyStatus.Companion.INTERNAL_ERROR: MediaKeyStatus get() = \"internal-error\".asDynamic().unsafeCast<MediaKeyStatus>()\n\n/ please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface MediaKeyMessageType {\n   companion object\n}\n\npublic inline val MediaKeyMessageType.Companion.LICENSE_REQUEST: MediaKeyMessageType get() = \"license-request\".asDynamic().unsafeCast<MediaKeyMessageType>()\n\npublic inline val MediaKeyMessageType.Companion.LICENSE_RENEWAL: MediaKeyMessageType get() = \"license-renewal\".asDynamic().unsafeCast<MediaKeyMessageType>()\n\npublic inline val MediaKeyMessageType.Companion.LICENSE_RELEASE: MediaKeyMessageType get() = \"license-release\".asDynamic().unsafeCast<MediaKeyMessageType>()\n\npublic inline val MediaKeyMessageType.Companion.INDIVIDUALIZATION_REQUEST: MediaKeyMessageType get() = \"individualization-request\".asDynamic().unsafeCast<MediaKeyMessageType>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.events\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\n\n/**\n * Exposes the JavaScript [UIEvent](https://developer.mozilla.org/en/docs/Web/API/UIEvent) to Kotlin\n */\npublic external open class UIEvent(type: String, eventInitDict: UIEventInit = definedExternally) : Event {\n   open val view: Window?\n   open val detail: Int\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface UIEventInit : EventInit {\n   var view: Window? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var detail: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun UIEventInit(view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): UIEventInit {\n   val o = js(\"({})\")\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [FocusEvent](https://developer.mozilla.org/en/docs/Web/API/FocusEvent) to Kotlin\n */\npublic external open class FocusEvent(type: String, eventInitDict: FocusEventInit = definedExternally) : UIEvent {\n   open val relatedTarget: EventTarget?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface FocusEventInit : UIEventInit {\n   var relatedTarget: EventTarget? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",

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\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun FocusEventInit(relatedTarget:
EventTarget? = null, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? =
false, composed: Boolean? = false): FocusEventInit {\n    val o = js(\"({})\")\n    o[\"relatedTarget\"] =
relatedTarget\n
    o[\"view\"] = view\n    o[\"detail\"] = detail\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n
o[\"composed\"] = composed\n    return o\n}\n\n/**\n * Exposes the JavaScript
[MouseEvent](https://developer.mozilla.org/en/docs/Web/API/MouseEvent) to Kotlin\n */\npublic external open
class MouseEvent(type: String, eventInitDict: MouseEventInit = definedExternally) : UIEvent,
UnionElementOrMouseEvent {\n    open val screenX: Int\n    open val screenY: Int\n    open val clientX: Int\n
open val clientY: Int\n    open val ctrlKey: Boolean\n    open val shiftKey: Boolean\n    open val altKey: Boolean\n
open val metaKey: Boolean\n    open val button: Short\n    open val buttons: Short\n    open val relatedTarget:
EventTarget?\n    open val region: String?\n    open val pageX: Double\n    open val pageY: Double\n    open val x:
Double\n    open val y: Double\n    open val offsetX: Double\n    open val offsetY: Double\n    fun
getModifierState(keyArg: String):
 Boolean\n\n    companion object {\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val
AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface MouseEventInit :
EventModifierInit {\n    var screenX: Int? /* = 0 */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var screenY: Int? /* = 0 */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var clientX: Int? /* = 0 */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var clientY: Int? /* = 0 */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var button: Short? /* = 0 */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var buttons: Short? /* = 0 */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var relatedTarget: EventTarget? /* = null */\n        get() = definedExternally\n        set(value)
= definedExternally\n
    var region: String? /* = null */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MouseEventInit(screenX: Int? = 0,
screenY: Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0, buttons: Short? = 0, relatedTarget:
EventTarget? = null, region: String? = null, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean?
= false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false,
modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false,
modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false,
modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0,
bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean?
 = false): MouseEventInit {\n    val o = js(\"({})\")\n    o[\"screenX\"] = screenX\n    o[\"screenY\"] = screenY\n
o[\"clientX\"] = clientX\n    o[\"clientY\"] = clientY\n    o[\"button\"] = button\n    o[\"buttons\"] = buttons\n
o[\"relatedTarget\"] = relatedTarget\n    o[\"region\"] = region\n    o[\"ctrlKey\"] = ctrlKey\n    o[\"shiftKey\"] =
shiftKey\n    o[\"altKey\"] = altKey\n    o[\"metaKey\"] = metaKey\n    o[\"modifierAltGraph\"] =
modifierAltGraph\n    o[\"modifierCapsLock\"] = modifierCapsLock\n    o[\"modifierFn\"] = modifierFn\n
o[\"modifierFnLock\"] = modifierFnLock\n    o[\"modifierHyper\"] = modifierHyper\n    o[\"modifierNumLock\"] =
modifierNumLock\n    o[\"modifierScrollLock\"] = modifierScrollLock\n    o[\"modifierSuper\"] = modifierSuper\n
 o[\"modifierSymbol\"] = modifierSymbol\n    o[\"modifierSymbolLock\"] = modifierSymbolLock\n    o[\"view\"] =
view\n    o[\"detail\"] = detail\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n
 o[\"composed\"] = composed\n    return o\n}\n\npublic external interface EventModifierInit : UIEventInit {\n    var
ctrlKey: Boolean? /* = false */\n        get() = definedExternally\n        set(value) = definedExternally\n    var
shiftKey: Boolean? /* = false */\n        get() = definedExternally\n        set(value) = definedExternally\n    var
altKey: Boolean? /* = false */\n        get() = definedExternally\n        set(value) = definedExternally\n    var
metaKey: Boolean? /* = false */\n        get() = definedExternally\n        set(value) = definedExternally\n    var
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modifierAltGraph: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var modifierCapsLock: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var modifierFn: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var modifierFnLock: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var modifierHyper: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var modifierNumLock: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var modifierScrollLock: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var modifierSuper: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var modifierSymbol: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var modifierSymbolLock: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun EventModifierInit(ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): EventModifierInit {\n   val o = js(\"({})\")\n   o[\"ctrlKey\"] = ctrlKey\n   o[\"shiftKey\"] = shiftKey\n   o[\"altKey\"] = altKey\n   o[\"metaKey\"] = metaKey\n   o[\"modifierAltGraph\"] = modifierAltGraph\n   o[\"modifierCapsLock\"] = modifierCapsLock\n   o[\"modifierFn\"] = modifierFn\n   o[\"modifierFnLock\"] = modifierFnLock\n   o[\"modifierHyper\"] = modifierHyper\n   o[\"modifierNumLock\"] = modifierNumLock\n   o[\"modifierScrollLock\"] = modifierScrollLock\n   o[\"modifierSuper\"] = modifierSuper\n   o[\"modifierSymbol\"] = modifierSymbol\n   o[\"modifierSymbolLock\"] = modifierSymbolLock\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [WheelEvent](https://developer.mozilla.org/en/docs/Web/API/WheelEvent) to Kotlin\n */\npublic external open class WheelEvent(type: String, eventInitDict: WheelEventInit = definedExternally) : MouseEvent {\n   open val deltaX: Double\n   open val deltaY: Double\n   open val deltaZ: Double\n   open val deltaMode: Int\n\n   companion object {\n   val DOM_DELTA_PIXEL: Int\n   val DOM_DELTA_LINE: Int\n   val DOM_DELTA_PAGE: Int\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface WheelEventInit : MouseEventInit {\n   var deltaX: Double? /* = 0.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var deltaY: Double? /* = 0.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var deltaZ: Double? /* = 0.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var deltaMode: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun WheelEventInit(deltaX: Double? = 0.0, deltaY: Double? = 0.0, deltaZ: Double? = 0.0, deltaMode: Int? = 0, screenX: Int? = 0, screenY: Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0, buttons: Short? = 0, relatedTarget: EventTarget? = null, region: String? = null, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): WheelEventInit {\n   val o = js(\"({})\")\n   o[\"deltaX\"] = deltaX\n   o[\"deltaY\"] = deltaY\n   o[\"deltaZ\"] = deltaZ\n   o[\"deltaMode\"] =

deltaMode\n   o[\"screenX\"] = screenX\n   o[\"screenY\"] = screenY\n   o[\"clientX\"] = clientX\n   o[\"clientY\"] = clientY\n   o[\"button\"] = button\n   o[\"buttons\"] = buttons\n   o[\"relatedTarget\"] = relatedTarget\n   o[\"region\"] = region\n   o[\"ctrlKey\"] = ctrlKey\n   o[\"shiftKey\"] = shiftKey\n   o[\"altKey\"] = altKey\n   o[\"metaKey\"] = metaKey\n   o[\"modifierAltGraph\"] = modifierAltGraph\n   o[\"modifierCapsLock\"] = modifierCapsLock\n   o[\"modifierFn\"] = modifierFn\n   o[\"modifierFnLock\"] = modifierFnLock\n   o[\"modifierHyper\"] = modifierHyper\n   o[\"modifierNumLock\"] = modifierNumLock\n   o[\"modifierScrollLock\"] = modifierScrollLock\n   o[\"modifierSuper\"] = modifierSuper\n   o[\"modifierSymbol\"] = modifierSymbol\n   o[\"modifierSymbolLock\"] = modifierSymbolLock\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [InputEvent](https://developer.mozilla.org/en/docs/Web/API/InputEvent) to Kotlin\n */\npublic external open class InputEvent(type: String, eventInitDict: InputEventInit = definedExternally) : UIEvent {\n   open val data: String\n   open val isComposing: Boolean\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface InputEventInit : UIEventInit {\n   var data: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var isComposing: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun InputEventInit(data: String? = \"\", isComposing: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): InputEventInit {\n   val o = js(\"({})\")\n   o[\"data\"] = data\n   o[\"isComposing\"] = isComposing\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [KeyboardEvent](https://developer.mozilla.org/en/docs/Web/API/KeyboardEvent) to Kotlin\n */\npublic external open class KeyboardEvent(type: String, eventInitDict: KeyboardEventInit = definedExternally) : UIEvent {\n   open val key: String\n   open val code: String\n   open val location: Int\n   open val ctrlKey: Boolean\n   open val shiftKey: Boolean\n   open val altKey: Boolean\n   open val metaKey: Boolean\n   open val repeat: Boolean\n   open val isComposing: Boolean\n   open val charCode: Int\n   open val keyCode: Int\n   open val which: Int\n   fun getModifierState(keyArg: String): Boolean\n\n   companion object {\n   val DOM_KEY_LOCATION_STANDARD: Int\n   val DOM_KEY_LOCATION_LEFT: Int\n   val DOM_KEY_LOCATION_RIGHT: Int\n   val DOM_KEY_LOCATION_NUMPAD: Int\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface KeyboardEventInit : EventModifierInit {\n   var key: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var code: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var location: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var repeat: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var isComposing: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun KeyboardEventInit(key: String? = \"\", code: String? = \"\", location: Int? = 0, repeat: Boolean? = false, isComposing: Boolean? = false, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): KeyboardEventInit {\n   val o = js(\"({})\")\n   o[\"key\"] = key\n   o[\"code\"] = code\n   o[\"location\"] = location\n   o[\"repeat\"] = repeat\n   o[\"isComposing\"] = isComposing\n   o[\"ctrlKey\"] = ctrlKey\n o[\"shiftKey\"] = shiftKey\n   o[\"altKey\"] = altKey\n   o[\"metaKey\"] = metaKey\n   o[\"modifierAltGraph\"] = modifierAltGraph\n   o[\"modifierCapsLock\"] = modifierCapsLock\n   o[\"modifierFn\"] = modifierFn\n   o[\"modifierFnLock\"] = modifierFnLock\n   o[\"modifierHyper\"] = modifierHyper\n   o[\"modifierNumLock\"] = modifierNumLock\n   o[\"modifierScrollLock\"] = modifierScrollLock\n   o[\"modifierSuper\"] = modifierSuper\n   o[\"modifierSymbol\"] = modifierSymbol\n   o[\"modifierSymbolLock\"] = modifierSymbolLock\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [CompositionEvent](https://developer.mozilla.org/en/docs/Web/API/CompositionEvent) to Kotlin\n */\npublic external open class CompositionEvent(type: String, eventInitDict: CompositionEventInit = definedExternally) : UIEvent {\n   open val data: String\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface CompositionEventInit : UIEventInit {\n   var data: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CompositionEventInit(data: String? = \"\", view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): CompositionEventInit {\n   val o = js(\"({})\")\n   o[\"data\"] = data\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [Event](https://developer.mozilla.org/en/docs/Web/API/Event) to Kotlin\n */\npublic external open class Event(type: String, eventInitDict: EventInit = definedExternally) {\n   open val type: String\n   open val target: EventTarget?\n   open val currentTarget: EventTarget?\n   open val eventPhase: Short\n   open val bubbles: Boolean\n   open val cancelable: Boolean\n   open val defaultPrevented: Boolean\n   open val composed: Boolean\n   open val isTrusted: Boolean\n   open val timeStamp: Number\n   fun composedPath(): Array<EventTarget>\n   fun stopPropagation()\n   fun stopImmediatePropagation()\n   fun preventDefault()\n   fun initEvent(type: String, bubbles: Boolean, cancelable: Boolean)\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [EventTarget](https://developer.mozilla.org/en/docs/Web/API/EventTarget) to Kotlin\n */\npublic external abstract class EventTarget {\n   fun addEventListener(type: String, callback: EventListener?, options: dynamic = definedExternally)\n   fun addEventListener(type: String, callback: ((Event) -> Unit)?, options: dynamic = definedExternally)\n   fun removeEventListener(type: String, callback: EventListener?, options: dynamic = definedExternally)\n   fun removeEventListener(type: String, callback: ((Event) -> Unit)?, options: dynamic = definedExternally)\n   fun dispatchEvent(event: Event): Boolean\n}\n\n/**\n * Exposes the JavaScript [EventListener](https://developer.mozilla.org/en/docs/Web/API/EventListener) to Kotlin\n */\npublic external interface EventListener {\n   fun handleEvent(event: Event)\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.clipboard.*\nimport org.w3c.dom.css.*\nimport org.w3c.dom.encryptedmedia.*\nimport org.w3c.dom.events.*\nimport org.w3c.dom.mediacapture.*\nimport org.w3c.dom.mediasource.*\nimport org.w3c.dom.pointerevents.*\nimport org.w3c.dom.svg.*\nimport org.w3c.fetch.*\nimport org.w3c.files.*\nimport org.w3c.performance.*\nimport org.w3c.workers.*\nimport org.w3c.xhr.*\n\npublic external abstract class HTMLAllCollection {\n   open val length: Int\n   fun item(nameOrIndex: String = definedExternally): UnionElementOrHTMLCollection?\n   fun namedItem(name: String): UnionElementOrHTMLCollection?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLAllCollection.get(index: Int): Element? =

asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLAllCollection.get(name: String): UnionElementOrHTMLCollection? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript [HTMLFormControlsCollection](https://developer.mozilla.org/en/docs/Web/API/HTMLFormControlsCollection) to Kotlin\n */\npublic external abstract class HTMLFormControlsCollection : HTMLCollection\n\n/**\n * Exposes the JavaScript [RadioNodeList](https://developer.mozilla.org/en/docs/Web/API/RadioNodeList) to Kotlin\n */\npublic external abstract class RadioNodeList : NodeList, UnionElementOrRadioNodeList {\n open var value: String\n}\n\n/**\n * Exposes the JavaScript [HTMLOptionsCollection](https://developer.mozilla.org/en/docs/Web/API/HTMLOptionsCollection) to Kotlin\n */\npublic external abstract class HTMLOptionsCollection : HTMLCollection {\n override var length: Int\n open var selectedIndex: Int\n fun add(element: UnionHTMLOptGroupElementOrHTMLOptionElement, before: dynamic = definedExternally)\n fun remove(index: Int)\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLOptionsCollection.set(index: Int, option: HTMLOptionElement?) { asDynamic()[index] = option }\n\n/**\n * Exposes the JavaScript [HTMLElement](https://developer.mozilla.org/en/docs/Web/API/HTMLElement) to Kotlin\n */\npublic external abstract class HTMLElement : Element, GlobalEventHandlers, DocumentAndElementEventHandlers, ElementContentEditable, ElementCSSInlineStyle {\n open var title: String\n open var lang: String\n open var translate: Boolean\n open var dir: String\n open val dataset: DOMStringMap\n open var hidden: Boolean\n open var tabIndex: Int\n open var accessKey: String\n open val accessKeyLabel: String\n open var draggable: Boolean\n open val dropzone: DOMTokenList\n open var contextMenu: HTMLMenuElement?\n open var spellcheck: Boolean\n open var innerText: String\n open val offsetParent: Element?\n open val offsetTop: Int\n open val offsetLeft: Int\n open val offsetWidth: Int\n open val offsetHeight: Int\n fun click()\n fun focus()\n fun blur()\n fun forceSpellCheck()\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLUnknownElement](https://developer.mozilla.org/en/docs/Web/API/HTMLUnknownElement) to Kotlin\n */\npublic external abstract class HTMLUnknownElement : HTMLElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [DOMStringMap](https://developer.mozilla.org/en/docs/Web/API/DOMStringMap) to Kotlin\n */\npublic external abstract class DOMStringMap\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun DOMStringMap.get(name:

String): String? = asDynamic()[name]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun DOMStringMap.set(name: String, value: String) { asDynamic()[name] = value }\n\n/**\n * Exposes the JavaScript [HTMLHtmlElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHtmlElement) to Kotlin\n */\npublic external abstract class HTMLHtmlElement : HTMLElement {\n open var version: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLHeadElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHeadElement) to Kotlin\n */\npublic external abstract class HTMLHeadElement : HTMLElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLTitleElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTitleElement) to Kotlin\n */\npublic external abstract class HTMLTitleElement : HTMLElement {\n open var text: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLBaseElement](https://developer.mozilla.org/en/docs/Web/API/HTMLBaseElement) to Kotlin\n */\npublic external abstract class HTMLBaseElement : HTMLElement {\n open var href: String\n open var target: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript

[HTMLLinkElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLinkElement) to Kotlin\n */\npublic external abstract class HTMLLinkElement : HTMLElement, LinkStyle {\n   open var href: String\n   open var crossOrigin: String?\n   open var rel: String\n   open var `as`: RequestDestination\n   open val relList: DOMTokenList\n   open var media: String\n   open var nonce: String\n   open var hreflang: String\n   open var type: String\n   open val sizes: DOMTokenList\n   open var referrerPolicy: String\n   open var charset: String\n   open var rev: String\n   open var target: String\n   open var scope: String\n   open var workerType: WorkerType\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLMetaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMetaElement) to Kotlin\n */\npublic external abstract class HTMLMetaElement : HTMLElement {\n   open var name: String\n   open var httpEquiv: String\n   open var content: String\n   open var scheme: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLStyleElement](https://developer.mozilla.org/en/docs/Web/API/HTMLStyleElement) to Kotlin\n */\npublic external abstract class HTMLStyleElement : HTMLElement, LinkStyle {\n   open var media: String\n   open var nonce: String\n   open var type: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLBodyElement](https://developer.mozilla.org/en/docs/Web/API/HTMLBodyElement) to Kotlin\n */\npublic external abstract class HTMLBodyElement : HTMLElement, WindowEventHandlers {\n   open var text: String\n   open var link: String\n   open var vLink: String\n   open var aLink: String\n   open var bgColor: String\n   open var background: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val

COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLHeadingElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHeadingElement) to Kotlin\n */\npublic external abstract class HTMLHeadingElement : HTMLElement {\n open var align: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLParagraphElement](https://developer.mozilla.org/en/docs/Web/API/HTMLParagraphElement) to Kotlin\n */\npublic external abstract class HTMLParagraphElement : HTMLElement {\n open var align: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLHRElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHRElement) to Kotlin\n */\npublic external abstract class HTMLHRElement : HTMLElement {\n open var align: String\n open var color: String\n open var noShade: Boolean\n open var size: String\n open var width: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLPreElement](https://developer.mozilla.org/en/docs/Web/API/HTMLPreElement) to Kotlin\n */\npublic external abstract class HTMLPreElement : HTMLElement {\n open var width: Int\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val

COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLQuoteElement](https://developer.mozilla.org/en/docs/Web/API/HTMLQuoteElement) to Kotlin\n */\npublic external abstract class HTMLQuoteElement : HTMLElement {\n   open var cite: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLOListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOListElement) to Kotlin\n */\npublic external abstract class HTMLOListElement : HTMLElement {\n   open var reversed: Boolean\n   open var start: Int\n   open var type: String\n   open var compact: Boolean\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLUListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLUListElement) to Kotlin\n */\npublic external abstract class HTMLUListElement : HTMLElement {\n   open var compact: Boolean\n   open var type: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLLIElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLIElement) to Kotlin\n */\npublic external abstract class HTMLLIElement : HTMLElement {\n   open var value: Int\n   open var type: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLDListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDListElement) to Kotlin\n */\npublic external abstract class HTMLDListElement : HTMLElement {\n   open var compact: Boolean\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLDivElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDivElement) to Kotlin\n */\npublic external abstract class HTMLDivElement : HTMLElement {\n   open var align: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLAnchorElement](https://developer.mozilla.org/en/docs/Web/API/HTMLAnchorElement) to Kotlin\n */\npublic external abstract class HTMLAnchorElement : HTMLElement, HTMLHyperlinkElementUtils {\n   open var target: String\n   open var download: String\n   open var ping: String\n   open var rel: String\n   open val relList: DOMTokenList\n   open var hreflang: String\n   open var type: String\n   open var text: String\n   open var referrerPolicy: String\n   open var coords: String\n   open var charset: String\n   open var name: String\n   open var rev: String\n   open var shape: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLDataElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDataElement) to Kotlin\n */\npublic external abstract class HTMLDataElement : HTMLElement {\n   open var value: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTimeElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTimeElement) to Kotlin\n */\npublic external abstract class HTMLTimeElement : HTMLElement {\n   open var dateTime: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLSpanElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSpanElement) to Kotlin\n */\npublic external abstract class HTMLSpanElement : HTMLElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLBRElement](https://developer.mozilla.org/en/docs/Web/API/HTMLBRElement) to Kotlin\n */\npublic external abstract class HTMLBRElement : HTMLElement {\n   open var clear: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLHyperlinkElementUtils](https://developer.mozilla.org/en/docs/Web/API/HTMLHyperlinkElementUtils) to Kotlin\n */\npublic external interface HTMLHyperlinkElementUtils {\n   var href: String\n   val origin: String\n   var protocol: String\n   var username: String\n   var password: String\n   var host: String\n   var hostname: String\n   var port: String\n   var pathname: String\n   var search: String\n   var hash: String\n}\n\n/**\n * Exposes the JavaScript [HTMLModElement](https://developer.mozilla.org/en/docs/Web/API/HTMLModElement) to Kotlin\n */\npublic external abstract class HTMLModElement : HTMLElement {\n   open var cite: String\n   open var dateTime: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val

DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLPictureElement](https://developer.mozilla.org/en/docs/Web/API/HTMLPictureElement) to Kotlin\n */\npublic external abstract class HTMLPictureElement : HTMLElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLSourceElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSourceElement) to Kotlin\n */\npublic external abstract class HTMLSourceElement : HTMLElement {\n   open var src: String\n   open var type: String\n   open var srcset: String\n   open var sizes: String\n   open var media: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLImageElement](https://developer.mozilla.org/en/docs/Web/API/HTMLImageElement) to Kotlin\n */\npublic external abstract class HTMLImageElement : HTMLElement, HTMLOrSVGImageElement, TexImageSource {\n   open var alt: String\n   open var src: String\n   open var srcset: String\n   open var sizes: String\n   open var crossOrigin: String?\n   open var useMap: String\n   open var isMap: Boolean\n   open var width: Int\n   open var height: Int\n   open val naturalWidth: Int\n   open val naturalHeight: Int\n   open val complete: Boolean\n   open val currentSrc: String\n   open var referrerPolicy: String\n   open var name: String\n   open var lowsrc: String\n   open var align: String\n   open var hspace: Int\n   open var vspace: Int\n   open var longDesc: String\n   open var border: String\n   open val x: Int\n   open val y: Int\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLIFrameElement](https://developer.mozilla.org/en/docs/Web/API/HTMLIFrameElement) to Kotlin\n

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abstract class HTMLIFrameElement : HTMLElement {\n   open var src: String\n   open var srcdoc: String\n   open var name: String\n   open val sandbox: DOMTokenList\n   open var allowFullscreen: Boolean\n   open var allowUserMedia: Boolean\n   open var width: String\n   open var height: String\n   open var referrerPolicy: String\n   open val contentDocument: Document?\n   open val contentWindow: Window?\n   open var align: String\n   open var scrolling: String\n   open var frameBorder: String\n   open var longDesc: String\n   open var marginHeight: String\n   open var marginWidth: String\n   fun getSVGDocument(): Document?\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n

val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLEmbedElement](https://developer.mozilla.org/en/docs/Web/API/HTMLEmbedElement) to Kotlin\n */\npublic external abstract class HTMLEmbedElement : HTMLElement {\n   open var src: String\n   open var type: String\n   open var width: String\n   open var height: String\n   open var align: String\n   open var name: String\n   fun getSVGDocument(): Document?\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n

val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLObjectElement](https://developer.mozilla.org/en/docs/Web/API/HTMLObjectElement) to Kotlin\n */\npublic external abstract class HTMLObjectElement : HTMLElement {\n   open var data: String\n   open var type: String\n   open var typeMustMatch: Boolean\n   open var name: String\n   open var useMap: String\n   open val form: HTMLFormElement?\n

open var width: String\n   open var height: String\n   open val contentDocument: Document?\n   open val contentWindow: Window?\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   open var align: String\n   open var archive: String\n   open var code: String\n   open var declare: Boolean\n   open var hspace: Int\n   open var standby: String\n   open var vspace: Int\n   open var codeBase: String\n   open var codeType: String\n   open var border: String\n   fun getSVGDocument(): Document?\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE:

Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLParamElement](https://developer.mozilla.org/en/docs/Web/API/HTMLParamElement) to Kotlin\n */\npublic external abstract class HTMLParamElement : HTMLElement {\n   open var name: String\n   open var value: String\n   open var type: String\n   open var valueType: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLVideoElement](https://developer.mozilla.org/en/docs/Web/API/HTMLVideoElement) to Kotlin\n */\npublic external abstract class HTMLVideoElement : HTMLMediaElement, CanvasImageSource, TexImageSource {\n   open var width: Int\n   open var height: Int\n   open val videoWidth: Int\n   open val videoHeight: Int\n   open var poster: String\n   open var playsInline: Boolean\n\n   companion object {\n   val NETWORK_EMPTY: Short\n   val NETWORK_IDLE: Short\n   val NETWORK_LOADING: Short\n   val NETWORK_NO_SOURCE: Short\n   val HAVE_NOTHING: Short\n   val HAVE_METADATA: Short\n   val HAVE_CURRENT_DATA: Short\n   val HAVE_FUTURE_DATA: Short\n   val HAVE_ENOUGH_DATA: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLAudioElement](https://developer.mozilla.org/en/docs/Web/API/HTMLAudioElement) to Kotlin\n */\npublic external abstract class HTMLAudioElement : HTMLMediaElement {\n   companion object {\n   val NETWORK_EMPTY: Short\n   val NETWORK_IDLE: Short\n   val NETWORK_LOADING: Short\n   val NETWORK_NO_SOURCE: Short\n   val HAVE_NOTHING: Short\n   val HAVE_METADATA: Short\n   val HAVE_CURRENT_DATA: Short\n   val HAVE_FUTURE_DATA: Short\n   val HAVE_ENOUGH_DATA: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTrackElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTrackElement) to Kotlin\n */\npublic external abstract class HTMLTrackElement : HTMLElement {\n   open var kind: String\n   open var src: String\n   open var srclang: String\n   open var label: String\n   open var default: Boolean\n   open val readyState: Short\n open val track: TextTrack\n\n companion object {\n val NONE: Short\n val LOADING: Short\n val LOADED: Short\n val ERROR: Short\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLMediaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMediaElement) to Kotlin\n */\npublic external abstract class HTMLMediaElement : HTMLElement {\n open val error: MediaError?\n open var src: String\n open var srcObject: MediaProvider?\n open val currentSrc: String\n open var crossOrigin: String?\n open val networkState: Short\n open var preload: String\n open val buffered: TimeRanges\n open val readyState: Short\n open val seeking: Boolean\n open var currentTime: Double\n open val duration: Double\n open val paused: Boolean\n open var defaultPlaybackRate: Double\n open var playbackRate: Double\n open val played: TimeRanges\n open val seekable: TimeRanges\n open val ended: Boolean\n open var autoplay: Boolean\n open var loop: Boolean\n open var controls: Boolean\n open var volume: Double\n open var muted: Boolean\n open var defaultMuted: Boolean\n open val audioTracks: AudioTrackList\n open val videoTracks: VideoTrackList\n open val textTracks: TextTrackList\n open val mediaKeys: MediaKeys?\n open var onencrypted: ((Event) -> dynamic)?\n open var onwaitingforkey: ((Event) -> dynamic)?\n fun load()\n fun canPlayType(type: String): CanPlayTypeResult\n fun fastSeek(time: Double)\n fun getStartDate(): dynamic\n fun play(): Promise<Unit>\n fun pause()\n fun addTextTrack(kind: TextTrackKind, label: String = definedExternally, language: String = definedExternally): TextTrack\n fun setMediaKeys(mediaKeys: MediaKeys?): Promise<Unit>\n\n companion object {\n val NETWORK_EMPTY: Short\n val NETWORK_IDLE: Short\n val NETWORK_LOADING: Short\n val NETWORK_NO_SOURCE: Short\n val HAVE_NOTHING: Short\n val HAVE_METADATA: Short\n val HAVE_CURRENT_DATA: Short\n val HAVE_FUTURE_DATA: Short\n val HAVE_ENOUGH_DATA: Short\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [MediaError](https://developer.mozilla.org/en/docs/Web/API/MediaError) to Kotlin\n */\npublic external abstract class MediaError {\n open val code: Short\n\n companion object {\n val MEDIA_ERR_ABORTED: Short\n val MEDIA_ERR_NETWORK: Short\n val MEDIA_ERR_DECODE: Short\n val MEDIA_ERR_SRC_NOT_SUPPORTED: Short\n }\n}\n\n/**\n * Exposes the JavaScript [AudioTrackList](https://developer.mozilla.org/en/docs/Web/API/AudioTrackList) to Kotlin\n */\npublic external abstract class AudioTrackList : EventTarget {\n open val length: Int\n open var onchange: ((Event) -> dynamic)?\n open var onaddtrack: ((TrackEvent) -> dynamic)?\n open var onremovetrack: ((TrackEvent) -> dynamic)?\n fun getTrackById(id: String): AudioTrack?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",

\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun AudioTrackList.get(index: Int): AudioTrack? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [AudioTrack](https://developer.mozilla.org/en/docs/Web/API/AudioTrack) to Kotlin\n */\npublic external abstract class AudioTrack : UnionAudioTrackOrTextTrackOrVideoTrack {\n   open val id: String\n   open val kind: String\n   open val label: String\n   open val language: String\n   open var enabled: Boolean\n   open val sourceBuffer: SourceBuffer?\n}\n\n/**\n * Exposes the JavaScript [VideoTrackList](https://developer.mozilla.org/en/docs/Web/API/VideoTrackList) to Kotlin\n */\npublic external abstract class VideoTrackList : EventTarget {\n   open val length: Int\n   open val selectedIndex: Int\n   open var onchange: ((Event) -> dynamic)?\n   open var onaddtrack: ((TrackEvent) -> dynamic)?\n   open var onremovetrack: ((TrackEvent) -> dynamic)?\n   fun getTrackById(id: String): VideoTrack?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun VideoTrackList.get(index: Int): VideoTrack? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [VideoTrack](https://developer.mozilla.org/en/docs/Web/API/VideoTrack) to Kotlin\n */\npublic external abstract class VideoTrack : UnionAudioTrackOrTextTrackOrVideoTrack {\n   open val id: String\n   open val kind: String\n   open val label: String\n   open val language: String\n   open var selected: Boolean\n   open val sourceBuffer: SourceBuffer?\n}\n\npublic external abstract class TextTrackList : EventTarget {\n   open val length: Int\n   open var onchange: ((Event) -> dynamic)?\n   open var onaddtrack: ((TrackEvent) -> dynamic)?\n   open var onremovetrack: ((TrackEvent) -> dynamic)?\n   fun getTrackById(id: String): TextTrack?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun TextTrackList.get(index: Int): TextTrack? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [TextTrack](https://developer.mozilla.org/en/docs/Web/API/TextTrack) to Kotlin\n */\npublic external abstract class TextTrack : EventTarget, UnionAudioTrackOrTextTrackOrVideoTrack {\n   open val kind: TextTrackKind\n   open val label: String\n   open val language: String\n   open val id: String\n   open val inBandMetadataTrackDispatchType: String\n   open var mode: TextTrackMode\n   open val cues: TextTrackCueList?\n   open val activeCues: TextTrackCueList?\n   open var oncuechange: ((Event) -> dynamic)?\n   open val sourceBuffer: SourceBuffer?\n   fun addCue(cue: TextTrackCue)\n   fun removeCue(cue: TextTrackCue)\n}\n\npublic external abstract class TextTrackCueList {\n   open val length: Int\n   fun getCueById(id: String): TextTrackCue?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun TextTrackCueList.get(index: Int): TextTrackCue? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [TextTrackCue](https://developer.mozilla.org/en/docs/Web/API/TextTrackCue) to Kotlin\n */\npublic external abstract class TextTrackCue : EventTarget {\n   open val track: TextTrack?\n   open var id: String\n   open var startTime: Double\n   open var endTime: Double\n   open var pauseOnExit: Boolean\n   open var onenter: ((Event) -> dynamic)?\n   open var onexit: ((Event) -> dynamic)?\n}\n\n/**\n * Exposes the JavaScript [TimeRanges](https://developer.mozilla.org/en/docs/Web/API/TimeRanges) to Kotlin\n */\npublic external abstract class TimeRanges {\n   open val length: Int\n   fun start(index: Int): Double\n   fun end(index: Int): Double\n}\n\n/**\n * Exposes the JavaScript [TrackEvent](https://developer.mozilla.org/en/docs/Web/API/TrackEvent) to Kotlin\n */\npublic external open class TrackEvent(type: String, eventInitDict: TrackEventInit = definedExternally) : Event {\n   open val track: UnionAudioTrackOrTextTrackOrVideoTrack?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface TrackEventInit : EventInit {\n   var track: UnionAudioTrackOrTextTrackOrVideoTrack? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun TrackEventInit(track:

UnionAudioTrackOrTextTrackOrVideoTrack? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): TrackEventInit {\n   val o = js(\"({})\")\n   o[\"track\"] = track\n   o[\"bubbles\"] = bubbles\n

    o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [HTMLMapElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMapElement) to Kotlin\n */\npublic external abstract class HTMLMapElement : HTMLElement {\n   open var name: String\n   open val areas: HTMLCollection\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLAreaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLAreaElement) to Kotlin\n */\npublic external abstract class HTMLAreaElement : HTMLElement, HTMLHyperlinkElementUtils {\n   open var alt: String\n   open var coords: String\n   open var shape: String\n   open var target: String\n   open var download: String\n   open var ping: String\n   open var rel: String\n   open val relList: DOMTokenList\n   open var referrerPolicy: String\n   open var noHref: Boolean\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n

        val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTableElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableElement) to Kotlin\n */\npublic external abstract class HTMLTableElement : HTMLElement {\n   open var caption: HTMLTableCaptionElement?\n   open var tHead: HTMLTableSectionElement?\n   open var tFoot: HTMLTableSectionElement?\n   open val tBodies: HTMLCollection\n   open val rows: HTMLCollection\n   open var align: String\n   open var border: String\n   open var frame: String\n   open var rules: String\n   open var summary: String\n   open var width:

 String\n   open var bgColor: String\n   open var cellPadding: String\n   open var cellSpacing: String\n   fun createCaption(): HTMLTableCaptionElement\n   fun deleteCaption()\n   fun createTHead(): HTMLTableSectionElement\n   fun deleteTHead()\n   fun createTFoot(): HTMLTableSectionElement\n   fun deleteTFoot()\n   fun createTBody(): HTMLTableSectionElement\n   fun insertRow(index: Int = definedExternally): HTMLTableRowElement\n   fun deleteRow(index: Int)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTableCaptionElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableCaptionElement) to Kotlin\n */\npublic external abstract class HTMLTableCaptionElement : HTMLElement {\n   open var align: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTableColElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableColElement) to Kotlin\n */\npublic external abstract class HTMLTableColElement : HTMLElement {\n   open var span: Int\n   open var align: String\n   open var ch: String\n   open var chOff: String\n   open var vAlign: String\n   open var width: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTableSectionElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableSectionElement) to Kotlin\n */\npublic external abstract class HTMLTableSectionElement : HTMLElement {\n   open val rows: HTMLCollection\n   open var align: String\n   open var ch: String\n   open var chOff: String\n   open var vAlign: String\n   fun insertRow(index: Int = definedExternally): HTMLElement\n   fun deleteRow(index: Int)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTableRowElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableRowElement) to Kotlin\n */\npublic external abstract class HTMLTableRowElement : HTMLElement {\n   open val rowIndex: Int\n   open val sectionRowIndex: Int\n   open val cells: HTMLCollection\n   open var align: String\n   open var ch: String\n   open var chOff: String\n   open var vAlign: String\n   open var bgColor: String\n   fun insertCell(index: Int = definedExternally): HTMLElement\n   fun deleteCell(index: Int)\n\n companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTableCellElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableCellElement) to Kotlin\n */\npublic external abstract class HTMLTableCellElement : HTMLElement {\n   open var colSpan: Int\n   open var rowSpan: Int\n   open var headers: String\n   open val cellIndex: Int\n   open var scope: String\n   open var abbr: String\n   open var align: String\n   open var axis: String\n   open var height: String\n   open var width: String\n   open var ch: String\n   open var chOff: String\n   open var noWrap: Boolean\n   open var vAlign: String\n   open var bgColor: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLFormElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFormElement) to Kotlin\n */\npublic external abstract class HTMLFormElement : HTMLElement {\n   open var acceptCharset: String\n   open var action: String\n   open var autocomplete: String\n   open var enctype: String\n   open var encoding: String\n   open var method: String\n   open var name: String\n   open var noValidate: Boolean\n   open var target: String\n   open val elements: HTMLFormControlsCollection\n   open val length: Int\n   fun submit()\n   fun reset()\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLFormElement.get(index: Int): Element? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLFormElement.get(name: String): UnionElementOrRadioNodeList? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript [HTMLLabelElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLabelElement) to Kotlin\n */\npublic external abstract class HTMLLabelElement : HTMLElement {\n   open val form:

HTMLFormElement?\n   open var htmlFor: String\n   open val control: HTMLElement?\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLInputElement](https://developer.mozilla.org/en/docs/Web/API/HTMLInputElement) to Kotlin\n */\npublic external abstract class HTMLInputElement : HTMLElement {\n   open var accept: String\n   open var alt: String\n   open var autocomplete: String\n   open var autofocus: Boolean\n   open var defaultChecked: Boolean\n   open var checked: Boolean\n   open var dirName: String\n   open var disabled: Boolean\n   open val form: HTMLFormElement?\n   open val files: FileList?\n   open var formAction: String\n   open var formEnctype: String\n   open var formMethod: String\n   open var formNoValidate: Boolean\n   open var formTarget: String\n   open var height: Int\n   open var indeterminate: Boolean\n   open var inputMode: String\n   open val list: HTMLElement?\n   open var max: String\n   open var maxLength: Int\n   open var min: String\n   open var minLength: Int\n   open var multiple: Boolean\n   open var name: String\n   open var pattern: String\n   open var placeholder: String\n   open var readOnly: Boolean\n   open var required: Boolean\n   open var size: Int\n   open var src: String\n   open var step: String\n   open var type: String\n   open var defaultValue: String\n   open var value: String\n   open var valueAsDate: dynamic\n   open var valueAsNumber: Double\n   open var width: Int\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   open val labels: NodeList\n   open var selectionStart: Int?\n   open var selectionEnd: Int?\n   open var selectionDirection: String?\n   open var align: String\n   open var useMap: String\n   fun stepUp(n: Int = definedExternally)\n   fun stepDown(n: Int = definedExternally)\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n   fun select()\n   fun setRangeText(replacement: String)\n   fun setRangeText(replacement: String, start: Int, end: Int, selectionMode: SelectionMode = definedExternally)\n   fun setSelectionRange(start: Int, end: Int, direction: String = definedExternally)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLButtonElement](https://developer.mozilla.org/en/docs/Web/API/HTMLButtonElement) to Kotlin\n */\npublic external abstract class HTMLButtonElement : HTMLElement {\n   open var autofocus: Boolean\n   open var disabled: Boolean\n   open val form: HTMLFormElement?\n   open var formAction: String\n   open var formEnctype: String\n   open var formMethod: String\n   open var formNoValidate: Boolean\n   open var formTarget: String\n   open var name: String\n   open var type: String\n   open var value: String\n   open var menu: HTMLMenuElement?\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   open val labels:

NodeList\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLSelectElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSelectElement) to Kotlin\n */\npublic external abstract class HTMLSelectElement : HTMLElement, ItemArrayLike<Element> {\n   open var autocomplete: String\n   open var autofocus: Boolean\n   open var disabled: Boolean\n   open val form: HTMLFormElement?\n   open var multiple: Boolean\n   open var name: String\n   open var required: Boolean\n   open var size: Int\n   open val type: String\n   open val options: HTMLOptionsCollection\n   override var length: Int\n   open val selectedOptions: HTMLCollection\n   open var selectedIndex: Int\n   open var value: String\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   open val labels: NodeList\n   fun namedItem(name: String): HTMLOptionElement?\n   fun add(element: UnionHTMLOptGroupElementOrHTMLOptionElement, before: dynamic = definedExternally)\n   fun remove(index: Int)\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n   override fun item(index: Int): Element?\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLSelectElement.get(index: Int): Element? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLSelectElement.set(index: Int, option: HTMLOptionElement?) { asDynamic()[index] = option }\n\n/**\n * Exposes the JavaScript [HTMLDataListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDataListElement) to Kotlin\n */\npublic external abstract class HTMLDataListElement : HTMLElement {\n   open val options: HTMLCollection\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLOptGroupElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOptGroupElement) to Kotlin\n */\npublic external abstract class HTMLOptGroupElement : HTMLElement, UnionHTMLOptGroupElementOrHTMLOptionElement {\n   open var disabled: Boolean\n   open var label: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n

val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLOptionElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOptionElement) to Kotlin\n */\npublic external abstract class HTMLOptionElement : HTMLElement, UnionHTMLOptGroupElementOrHTMLOptionElement {\n   open var disabled: Boolean\n   open val form: HTMLFormElement?\n   open var label: String\n   open var defaultSelected: Boolean\n   open var selected: Boolean\n   open var value: String\n   open var text: String\n   open val index: Int\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTextAreaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTextAreaElement) to Kotlin\n */\npublic external abstract class HTMLTextAreaElement : HTMLElement {\n   open var autocomplete: String\n   open var autofocus: Boolean\n   open var cols: Int\n   open var dirName: String\n   open var disabled: Boolean\n   open val form: HTMLFormElement?\n   open var inputMode: String\n   open var maxLength: Int\n   open var minLength: Int\n   open var name: String\n   open var placeholder: String\n   open var readOnly: Boolean\n   open var required: Boolean\n   open var rows: Int\n   open var wrap: String\n   open val type: String\n   open var defaultValue: String\n   open var value: String\n   open val textLength: Int\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   open val labels: NodeList\n   open var selectionStart: Int?\n   open var selectionEnd: Int?\n   open var selectionDirection: String?\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n   fun select()\n   fun setRangeText(replacement: String)\n   fun setRangeText(replacement: String, start: Int, end: Int, selectionMode: SelectionMode = definedExternally)\n   fun setSelectionRange(start: Int, end: Int, direction: String = definedExternally)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLKeygenElement](https://developer.mozilla.org/en/docs/Web/API/HTMLKeygenElement) to Kotlin\n */\npublic

external abstract class HTMLKeygenElement : HTMLElement {\n   open var autofocus: Boolean\n   open var challenge: String\n   open var disabled: Boolean\n   open val form: HTMLFormElement?\n   open var keytype: String\n   open var name: String\n   open val type: String\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   open val labels: NodeList\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLOutputElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOutputElement) to Kotlin\n */\npublic external abstract class HTMLOutputElement : HTMLElement {\n   open val htmlFor: DOMTokenList\n   open val form: HTMLFormElement?\n   open var name: String\n   open val type: String\n   open var defaultValue: String\n   open var value: String\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   open val labels: NodeList\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLProgressElement](https://developer.mozilla.org/en/docs/Web/API/HTMLProgressElement) to Kotlin\n */\npublic external abstract class HTMLProgressElement : HTMLElement {\n   open var value: Double\n   open var max:

Double\n   open val position: Double\n   open val labels: NodeList\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLMeterElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMeterElement) to Kotlin\n */\npublic external abstract class HTMLMeterElement : HTMLElement {\n   open var value: Double\n   open var min: Double\n   open var max: Double\n   open var low: Double\n   open var high: Double\n   open var optimum: Double\n   open val labels: NodeList\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLFieldSetElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFieldSetElement) to Kotlin\n */\npublic external abstract class HTMLFieldSetElement : HTMLElement {\n   open var disabled: Boolean\n   open val form: HTMLFormElement?\n   open var name: String\n   open val type: String\n   open val elements: HTMLCollection\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLLegendElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLegendElement) to Kotlin\n */\npublic external abstract class HTMLLegendElement : HTMLElement {\n   open val form: HTMLFormElement?\n   open var align: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [ValidityState](https://developer.mozilla.org/en/docs/Web/API/ValidityState) to Kotlin\n */\npublic external abstract class ValidityState {\n   open val valueMissing: Boolean\n   open val typeMismatch: Boolean\n   open val patternMismatch: Boolean\n   open val tooLong: Boolean\n   open val tooShort: Boolean\n   open val rangeUnderflow: Boolean\n   open val rangeOverflow: Boolean\n   open val stepMismatch: Boolean\n   open val badInput: Boolean\n   open val customError: Boolean\n   open val valid: Boolean\n}\n\n/**\n * Exposes the JavaScript [HTMLDetailsElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDetailsElement) to Kotlin\n

/\npublic external abstract class HTMLDetailsElement : HTMLElement {\n   open var open: Boolean\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external abstract class HTMLMenuElement : HTMLElement {\n   open var type: String\n   open var label: String\n   open var compact: Boolean\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external abstract class HTMLMenuItemElement : HTMLElement {\n   open var type: String\n   open var label: String\n   open var icon: String\n   open var disabled: Boolean\n   open var checked: Boolean\n   open var radiogroup: String\n   open var default: Boolean\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external open class RelatedEvent(type: String, eventInitDict: RelatedEventInit = definedExternally) : Event {\n   open val relatedTarget: EventTarget?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface RelatedEventInit : EventInit {\n   var relatedTarget: EventTarget? / = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun RelatedEventInit(relatedTarget: EventTarget? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): RelatedEventInit {\n   val o = js(\"({})\")\n   o[\"relatedTarget\"] = relatedTarget\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n
 * Exposes the JavaScript [HTMLDialogElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDialogElement) to Kotlin\n
*/\npublic external abstract class HTMLDialogElement : HTMLElement {\n   open var open: Boolean\n   open var returnValue: String\n   fun show(anchor: UnionElementOrMouseEvent = definedExternally)\n   fun showModal(anchor: UnionElementOrMouseEvent = definedExternally)\n   fun close(returnValue: String =

definedExternally)\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLScriptElement](https://developer.mozilla.org/en/docs/Web/API/HTMLScriptElement) to Kotlin\n */\npublic external abstract class HTMLScriptElement : HTMLElement, HTMLOrSVGScriptElement {\n open var src: String\n open var type: String\n open var charset: String\n open var async: Boolean\n open var defer: Boolean\n open var crossOrigin: String?\n open var text: String\n open var nonce: String\n open var event: String\n open var htmlFor: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLTemplateElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTemplateElement) to Kotlin\n */\npublic external abstract class HTMLTemplateElement : HTMLElement {\n open val content: DocumentFragment\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLSlotElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSlotElement) to Kotlin\n */\npublic external abstract class HTMLSlotElement : HTMLElement {\n open var name: String\n fun assignedNodes(options: AssignedNodesOptions = definedExternally): Array<Node>\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external interface

AssignedNodesOptions {\n   var flatten: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun AssignedNodesOptions(flatten: Boolean? = false): AssignedNodesOptions {\n   val o = js(\"({})\")\n   o[\"flatten\"] = flatten\n   return o\n}\n\n/**\n * Exposes the JavaScript [HTMLCanvasElement](https://developer.mozilla.org/en/docs/Web/API/HTMLCanvasElement) to Kotlin\n */\npublic external abstract class HTMLCanvasElement : HTMLElement, CanvasImageSource, TexImageSource {\n   open var width: Int\n   open var height: Int\n   fun getContext(contextId: String, vararg arguments: Any?): RenderingContext?\n   fun toDataURL(type: String = definedExternally, quality: Any? = definedExternally): String\n   fun toBlob(_callback: (Blob?) -> Unit, type: String = definedExternally, quality: Any? = definedExternally)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external interface CanvasRenderingContext2DSettings {\n   var alpha: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CanvasRenderingContext2DSettings(alpha: Boolean? = true): CanvasRenderingContext2DSettings {\n   val o = js(\"({})\")\n   o[\"alpha\"] = alpha\n   return o\n}\n\n/**\n * Exposes the JavaScript [CanvasRenderingContext2D](https://developer.mozilla.org/en/docs/Web/API/CanvasRenderingContext2D) to Kotlin\n */\npublic external abstract class CanvasRenderingContext2D : CanvasState, CanvasTransform, CanvasCompositing, CanvasImageSmoothing, CanvasFillStrokeStyles, CanvasShadowStyles, CanvasFilters, CanvasRect, CanvasDrawPath, CanvasUserInterface, CanvasText, CanvasDrawImage, CanvasHitRegion, CanvasImageData, CanvasPathDrawingStyles, CanvasTextDrawingStyles, CanvasPath, RenderingContext {\n   open val canvas: HTMLCanvasElement\n}\n\npublic external interface CanvasState {\n   fun save()\n   fun restore()\n}\n\npublic external interface CanvasTransform {\n   fun scale(x: Double, y: Double)\n   fun rotate(angle: Double)\n   fun translate(x: Double, y: Double)\n   fun transform(a: Double, b: Double, c: Double, d: Double, e: Double, f: Double)\n   fun getTransform(): DOMMatrix\n   fun setTransform(a: Double, b: Double, c: Double, d: Double, e: Double, f: Double)\n   fun setTransform(transform: dynamic = definedExternally)\n   fun resetTransform()\n}\n\npublic external interface CanvasCompositing {\n   var globalAlpha: Double\n   var globalCompositeOperation: String\n}\n\npublic external interface CanvasImageSmoothing {\n   var imageSmoothingEnabled: Boolean\n   var imageSmoothingQuality: ImageSmoothingQuality\n}\n\npublic external interface CanvasFillStrokeStyles {\n   var strokeStyle: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var fillStyle: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   fun createLinearGradient(x0: Double, y0: Double, x1: Double, y1: Double): CanvasGradient\n   fun createRadialGradient(x0: Double, y0: Double, r0: Double, x1: Double, y1: Double, r1: Double): CanvasGradient\n   fun createPattern(image: CanvasImageSource, repetition: String): CanvasPattern?\n}\n\npublic external interface CanvasShadowStyles {\n   var shadowOffsetX: Double\n   var shadowOffsetY: Double\n   var shadowBlur: Double\n   var shadowColor: String\n}\n\npublic external interface CanvasFilters {\n   var filter: String\n}\n\npublic external interface CanvasRect {\n   fun clearRect(x: Double, y: Double, w: Double, h: Double)\n   fun fillRect(x: Double, y: Double, w: Double, h: Double)\n   fun strokeRect(x: Double, y: Double, w: Double, h: Double)\n}\n\npublic external interface CanvasDrawPath {\n   fun beginPath()\n   fun fill(fillRule: CanvasFillRule = definedExternally)\n   fun fill(path: Path2D, fillRule: CanvasFillRule = definedExternally)\n   fun stroke()\n   fun stroke(path: Path2D)\n   fun clip(fillRule: CanvasFillRule = definedExternally)\n   fun clip(path: Path2D, fillRule: CanvasFillRule = definedExternally)\n   fun resetClip()\n   fun isPointInPath(x: Double, y: Double, fillRule: CanvasFillRule = definedExternally): Boolean\n   fun isPointInPath(path: Path2D, x: Double, y: Double, fillRule: CanvasFillRule = definedExternally): Boolean\n   fun isPointInStroke(x: Double, y: Double): Boolean\n   fun isPointInStroke(path: Path2D, x: Double, y: Double): Boolean\n}\n\npublic external interface CanvasUserInterface {\n   fun drawFocusIfNeeded(element: Element)\n   fun drawFocusIfNeeded(path: Path2D, element: Element)\n   fun scrollPathIntoView()\n   fun scrollPathIntoView(path: Path2D)\n}\n\npublic external interface CanvasText {\n   fun fillText(text: String, x: Double, y: Double, maxWidth: Double = definedExternally)\n   fun strokeText(text: String, x: Double, y: Double, maxWidth: Double = definedExternally)\n   fun measureText(text: String): TextMetrics\n}\n\npublic external interface CanvasDrawImage {\n   fun drawImage(image: CanvasImageSource, dx: Double, dy: Double)\n   fun drawImage(image: CanvasImageSource, dx: Double, dy: Double, dw: Double, dh: Double)\n   fun drawImage(image: CanvasImageSource, sx: Double, sy: Double, sw: Double, sh: Double, dx: Double, dy: Double, dw: Double, dh: Double)\n}\n\npublic external interface CanvasHitRegion {\n   fun addHitRegion(options: HitRegionOptions = definedExternally)\n   fun removeHitRegion(id: String)\n   fun clearHitRegions()\n}\n\npublic external interface CanvasImageData {\n   fun createImageData(sw: Double, sh: Double): ImageData\n   fun createImageData(imagedata: ImageData): ImageData\n   fun getImageData(sx: Double, sy: Double, sw: Double, sh: Double): ImageData\n   fun putImageData(imagedata: ImageData, dx: Double, dy: Double)\n   fun putImageData(imagedata: ImageData, dx: Double, dy: Double, dirtyX: Double, dirtyY: Double, dirtyWidth: Double, dirtyHeight: Double)\n}\n\npublic external interface CanvasPathDrawingStyles {\n   var lineWidth: Double\n   var lineCap: CanvasLineCap\n   var lineJoin: CanvasLineJoin\n   var miterLimit: Double\n   var lineDashOffset: Double\n   fun setLineDash(segments: Array<Double>)\n   fun getLineDash(): Array<Double>\n}\n\npublic external interface CanvasTextDrawingStyles {\n   var font: String\n   var textAlign: CanvasTextAlign\n   var textBaseline: CanvasTextBaseline\n   var direction: CanvasDirection\n}\n\npublic external interface CanvasPath {\n   fun closePath()\n   fun moveTo(x: Double, y: Double)\n   fun lineTo(x: Double, y: Double)\n   fun quadraticCurveTo(cpx: Double, cpy: Double, x: Double, y: Double)\n   fun bezierCurveTo(cp1x: Double, cp1y: Double, cp2x: Double, cp2y: Double, x: Double, y: Double)\n   fun arcTo(x1: Double, y1: Double, x2: Double, y2: Double, radius: Double)\n   fun arcTo(x1: Double, y1: Double, x2: Double, y2: Double, radiusX: Double, radiusY: Double, rotation: Double)\n   fun rect(x: Double, y: Double, w: Double, h: Double)\n   fun arc(x: Double, y: Double, radius: Double, startAngle: Double, endAngle: Double, anticlockwise: Boolean = definedExternally)\n   fun ellipse(x: Double, y: Double, radiusX: Double, radiusY: Double, rotation: Double, startAngle: Double, endAngle: Double, anticlockwise: Boolean = definedExternally)\n}\n\n/**\n * Exposes the JavaScript [CanvasGradient](https://developer.mozilla.org/en/docs/Web/API/CanvasGradient) to Kotlin\n */\npublic external abstract class CanvasGradient {\n   fun addColorStop(offset: Double, color: String)\n}\n\n/**\n * Exposes the JavaScript [CanvasPattern](https://developer.mozilla.org/en/docs/Web/API/CanvasPattern) to Kotlin\n */\npublic external abstract class CanvasPattern {\n   fun setTransform(transform: dynamic = definedExternally)\n}\n\n/**\n * Exposes the JavaScript [TextMetrics](https://developer.mozilla.org/en/docs/Web/API/TextMetrics) to Kotlin\n */\npublic external abstract class TextMetrics {\n   open val width: Double\n   open val actualBoundingBoxLeft: Double\n   open val actualBoundingBoxRight: Double\n   open val fontBoundingBoxAscent: Double\n   open val fontBoundingBoxDescent: Double\n   open val actualBoundingBoxAscent: Double\n   open val actualBoundingBoxDescent: Double\n   open val emHeightAscent: Double\n   open val emHeightDescent: Double\n   open val hangingBaseline: Double\n   open val alphabeticBaseline: Double\n   open val ideographicBaseline: Double\n}\n\npublic external interface HitRegionOptions {\n   var path: Path2D? /* = null */\n   get() = definedExternally\n   set(value) =

definedExternally\n var fillRule: CanvasFillRule? /* = CanvasFillRule.NONZERO */\n get() = definedExternally\n set(value) = definedExternally\n var id: String? /* = \"\" */\n get() = definedExternally\n set(value) = definedExternally\n var parentID: String? /* = null */\n get() = definedExternally\n set(value) = definedExternally\n var cursor: String? /* = \"inherit\" */\n get() = definedExternally\n set(value) = definedExternally\n var control: Element? /* = null */\n get() = definedExternally\n set(value) = definedExternally\n var label: String? /* = null */\n get() = definedExternally\n set(value) = definedExternally\n var role: String? /* = null */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun HitRegionOptions(path: Path2D? = null, fillRule: CanvasFillRule? = CanvasFillRule.NONZERO, id: String? = \"\", parentID: String? = null, cursor: String? = \"inherit\", control: Element? = null, label: String? = null, role: String? = null): HitRegionOptions {\n val o = js(\"({})\")\n o[\"path\"] = path\n o[\"fillRule\"] = fillRule\n o[\"id\"] = id\n o[\"parentID\"] = parentID\n o[\"cursor\"] = cursor\n o[\"control\"] = control\n o[\"label\"] = label\n o[\"role\"] = role\n return o\n}\n\n/**\n * Exposes the JavaScript [ImageData](https://developer.mozilla.org/en/docs/Web/API/ImageData) to Kotlin\n */\npublic external open class ImageData : ImageBitmapSource, TexImageSource {\n constructor(sw: Int, sh: Int)\n constructor(data: Uint8ClampedArray, sw: Int, sh: Int = definedExternally)\n open val width: Int\n open val height: Int\n open val data: Uint8ClampedArray\n}\n\n/**\n * Exposes the JavaScript [Path2D](https://developer.mozilla.org/en/docs/Web/API/Path2D) to Kotlin\n */\npublic external open class Path2D() : CanvasPath {\n constructor(path: Path2D)\n constructor(paths: Array<Path2D>, fillRule: CanvasFillRule = definedExternally)\n constructor(d: String)\n fun addPath(path: Path2D, transform: dynamic = definedExternally)\n override fun closePath()\n override fun moveTo(x: Double, y: Double)\n override fun lineTo(x: Double, y: Double)\n override fun quadraticCurveTo(cpx: Double, cpy: Double, x: Double, y: Double)\n override fun bezierCurveTo(cp1x: Double, cp1y: Double, cp2x: Double, cp2y: Double, x: Double, y: Double)\n override fun arcTo(x1: Double, y1: Double, x2: Double, y2: Double, radius: Double)\n override fun arcTo(x1: Double, y1: Double, x2: Double, y2: Double, radiusX: Double, radiusY: Double, rotation: Double)\n override fun rect(x: Double, y: Double, w: Double, h: Double)\n override fun arc(x: Double, y: Double, radius: Double, startAngle: Double, endAngle: Double, anticlockwise: Boolean /* = definedExternally */)\n override fun ellipse(x: Double, y: Double, radiusX: Double, radiusY: Double, rotation: Double, startAngle: Double, endAngle: Double, anticlockwise: Boolean /* = definedExternally */)\n}\n\n/**\n * Exposes the JavaScript [ImageBitmapRenderingContext](https://developer.mozilla.org/en/docs/Web/API/ImageBitmapRenderingContext) to Kotlin\n */\npublic external abstract class ImageBitmapRenderingContext {\n open val canvas: HTMLCanvasElement\n fun transferFromImageBitmap(bitmap: ImageBitmap?)\n}\n\npublic external interface ImageBitmapRenderingContextSettings {\n var alpha: Boolean? /* = true */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ImageBitmapRenderingContextSettings(alpha: Boolean? = true): ImageBitmapRenderingContextSettings {\n val o = js(\"({})\")\n o[\"alpha\"] = alpha\n return o\n}\n\n/**\n * Exposes the JavaScript [CustomElementRegistry](https://developer.mozilla.org/en/docs/Web/API/CustomElementRegistry) to Kotlin\n */\npublic external abstract class CustomElementRegistry {\n fun define(name: String, constructor: () -> dynamic, options: ElementDefinitionOptions = definedExternally)\n fun get(name: String): Any?\n fun whenDefined(name: String): Promise<Unit>\n}\n\npublic external interface ElementDefinitionOptions {\n var extends: String?\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ElementDefinitionOptions(extends: String? = undefined): ElementDefinitionOptions {\n val o = js(\"({})\")\n o[\"extends\"] = extends\n return o\n}\n\npublic external interface ElementContentEditable {\n   var contentEditable: String\n   val isContentEditable: Boolean\n}\n\n/**\n * Exposes the JavaScript [DataTransfer](https://developer.mozilla.org/en/docs/Web/API/DataTransfer) to Kotlin\n */\npublic external abstract class DataTransfer {\n   open var dropEffect: String\n   open var effectAllowed: String\n   open val items: DataTransferItemList\n   open val types: Array<out String>\n   open val files: FileList\n   fun setDragImage(image: Element, x: Int, y: Int)\n   fun getData(format: String): String\n   fun setData(format: String, data: String)\n   fun clearData(format: String = definedExternally)\n}\n\n/**\n * Exposes the JavaScript [DataTransferItemList](https://developer.mozilla.org/en/docs/Web/API/DataTransferItemList) to Kotlin\n */\npublic external abstract class DataTransferItemList {\n   open val length: Int\n   fun add(data: String, type: String): DataTransferItem?\n   fun add(data: File): DataTransferItem?\n

fun remove(index: Int)\n   fun clear()\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun DataTransferItemList.get(index: Int): DataTransferItem? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [DataTransferItem](https://developer.mozilla.org/en/docs/Web/API/DataTransferItem) to Kotlin\n */\npublic external abstract class DataTransferItem {\n   open val kind: String\n   open val type: String\n   fun getAsString(_callback: ((String) -> Unit)?)\n   fun getAsFile(): File?\n}\n\n/**\n * Exposes the JavaScript [DragEvent](https://developer.mozilla.org/en/docs/Web/API/DragEvent) to Kotlin\n */\npublic external open class DragEvent(type: String, eventInitDict: DragEventInit = definedExternally) : MouseEvent {\n   open val dataTransfer: DataTransfer?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic

external interface DragEventInit : MouseEventInit {\n   var dataTransfer: DataTransfer? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun DragEventInit(dataTransfer: DataTransfer? = null, screenX: Int? = 0, screenY: Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0, buttons: Short? = 0, relatedTarget: EventTarget? = null, region: String? = null, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail:

Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): DragEventInit {\n   val o = js(\"({})\")\n   o[\"dataTransfer\"] = dataTransfer\n   o[\"screenX\"] = screenX\n   o[\"screenY\"] = screenY\n   o[\"clientX\"] = clientX\n   o[\"clientY\"] = clientY\n   o[\"button\"] = button\n   o[\"buttons\"] = buttons\n   o[\"relatedTarget\"] = relatedTarget\n   o[\"region\"] = region\n   o[\"ctrlKey\"] = ctrlKey\n   o[\"shiftKey\"] = shiftKey\n   o[\"altKey\"] = altKey\n   o[\"metaKey\"] = metaKey\n   o[\"modifierAltGraph\"] = modifierAltGraph\n   o[\"modifierCapsLock\"] = modifierCapsLock\n   o[\"modifierFn\"] = modifierFn\n   o[\"modifierFnLock\"] = modifierFnLock\n   o[\"modifierHyper\"] = modifierHyper\n   o[\"modifierNumLock\"] = modifierNumLock\n   o[\"modifierScrollLock\"] = modifierScrollLock\n   o[\"modifierSuper\"] = modifierSuper\n

o[\"modifierSymbol\"] = modifierSymbol\n   o[\"modifierSymbolLock\"] = modifierSymbolLock\n

o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [Window](https://developer.mozilla.org/en/docs/Web/API/Window) to Kotlin\n */\npublic external abstract class Window : EventTarget, GlobalEventHandlers, WindowEventHandlers, WindowOrWorkerGlobalScope, WindowSessionStorage, WindowLocalStorage, GlobalPerformance, UnionMessagePortOrWindowProxy {\n   open val window: Window\n   open val self: Window\n   open val document: Document\n   open var name: String\n   open val location: Location\n   open val history: History\n   open val customElements: CustomElementRegistry\n   open val locationbar: BarProp\n   open val menubar: BarProp\n   open val personalbar: BarProp\n   open val scrollbars: BarProp\n   open val statusbar: BarProp\n   open val toolbar: BarProp\n   open var status: String\n

```
open val closed: Boolean\n    open
 val frames: Window\n    open val length: Int\n    open val top: Window\n    open var opener: Any?\n    open val
parent: Window\n    open val frameElement: Element?\n    open val navigator: Navigator\n    open val
applicationCache: ApplicationCache\n    open val external: External\n    open val screen: Screen\n    open val
innerWidth: Int\n    open val innerHeight: Int\n    open val scrollX: Double\n    open val pageXOffset: Double\n
open val scrollY: Double\n    open val pageYOffset: Double\n    open val screenX: Int\n    open val screenY: Int\n
open val outerWidth: Int\n    open val outerHeight: Int\n    open val devicePixelRatio: Double\n    fun close()\n    fun
stop()\n    fun focus()\n    fun blur()\n    fun open(url: String = definedExternally, target: String = definedExternally,
features: String = definedExternally): Window?\n    fun alert()\n    fun alert(message: String)\n    fun
confirm(message: String = definedExternally): Boolean\n    fun prompt(message: String = definedExternally,
 default: String = definedExternally): String?\n    fun print()\n    fun requestAnimationFrame(callback: (Double) ->
Unit): Int\n    fun cancelAnimationFrame(handle: Int)\n    fun postMessage(message: Any?, targetOrigin: String,
transfer: Array<dynamic> = definedExternally)\n    fun captureEvents()\n    fun releaseEvents()\n    fun
matchMedia(query: String): MediaQueryList\n    fun moveTo(x: Int, y: Int)\n    fun moveBy(x: Int, y: Int)\n    fun
resizeTo(x: Int, y: Int)\n    fun resizeBy(x: Int, y: Int)\n    fun scroll(options: ScrollToOptions = definedExternally)\n
  fun scroll(x: Double, y: Double)\n    fun scrollTo(options: ScrollToOptions = definedExternally)\n    fun
scrollTo(x: Double, y: Double)\n    fun scrollBy(options: ScrollToOptions = definedExternally)\n    fun scrollBy(x:
Double, y: Double)\n    fun getComputedStyle(elt: Element, pseudoElt: String? = definedExternally):
CSSStyleDeclaration\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic
 inline operator fun Window.get(name: String): dynamic = asDynamic()[name]\n\npublic external abstract class
BarProp {\n    open val visible: Boolean\n}\n\n/**\n * Exposes the JavaScript
[History](https://developer.mozilla.org/en/docs/Web/API/History) to Kotlin\n */\npublic external abstract class
History {\n    open val length: Int\n    open var scrollRestoration: ScrollRestoration\n    open val state: Any?\n    fun
go(delta: Int = definedExternally)\n    fun back()\n    fun forward()\n    fun pushState(data: Any?, title: String, url:
String? = definedExternally)\n    fun replaceState(data: Any?, title: String, url: String? =
definedExternally)\n}\n\n/**\n * Exposes the JavaScript
[Location](https://developer.mozilla.org/en/docs/Web/API/Location) to Kotlin\n */\npublic external abstract class
Location {\n    open var href: String\n    open val origin: String\n    open var protocol: String\n    open var host:
String\n    open var hostname: String\n    open
 var port: String\n    open var pathname: String\n    open var search: String\n    open var hash: String\n    open val
ancestorOrigins: Array<out String>\n    fun assign(url: String)\n    fun replace(url: String)\n    fun
reload()\n}\n\n/**\n * Exposes the JavaScript
[PopStateEvent](https://developer.mozilla.org/en/docs/Web/API/PopStateEvent) to Kotlin\n */\npublic external
open class PopStateEvent(type: String, eventInitDict: PopStateEventInit = definedExternally) : Event {\n    open val
state: Any?\n\n    companion object {\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val
AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface PopStateEventInit
: EventInit {\n    var state: Any? /* = null */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun PopStateEventInit(state: Any? = null,
bubbles: Boolean?
 = false, cancelable: Boolean? = false, composed: Boolean? = false): PopStateEventInit {\n    val o = js(\"({})\")\n
o[\"state\"] = state\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] =
composed\n    return o\n}\n\n/**\n * Exposes the JavaScript
[HashChangeEvent](https://developer.mozilla.org/en/docs/Web/API/HashChangeEvent) to Kotlin\n */\npublic
external open class HashChangeEvent(type: String, eventInitDict: HashChangeEventInit = definedExternally) :
Event {\n    open val oldURL: String\n    open val newURL: String\n\n    companion object {\n        val NONE:
Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE:
```

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Short\n    }\n}\n\npublic external interface HashChangeEventInit : EventInit {\n    var oldURL: String? /* = \"\" */\n
     get() = definedExternally\n        set(value) = definedExternally\n    var newURL: String? /* = \"\" */\n        get() =
definedExternally\n        set(value)
 = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun HashChangeEventInit(oldURL:
String? = \"\", newURL: String? = \"\", bubbles: Boolean? = false, cancelable: Boolean? = false, composed:
Boolean? = false): HashChangeEventInit {\n    val o = js(\"({})\")\n    o[\"oldURL\"] = oldURL\n    o[\"newURL\"]
= newURL\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n
return o\n}\n\n/**\n * Exposes the JavaScript
[PageTransitionEvent](https://developer.mozilla.org/en/docs/Web/API/PageTransitionEvent) to Kotlin\n */\npublic
external open class PageTransitionEvent(type: String, eventInitDict: PageTransitionEventInit = definedExternally) :
Event {\n    open val persisted: Boolean\n\n    companion object {\n        val NONE: Short\n        val
CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n
}\n}\n\npublic external interface
 PageTransitionEventInit : EventInit {\n    var persisted: Boolean? /* = false */\n        get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun PageTransitionEventInit(persisted:
Boolean? = false, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false):
PageTransitionEventInit {\n    val o = js(\"({})\")\n    o[\"persisted\"] = persisted\n    o[\"bubbles\"] = bubbles\n
o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return o\n}\n\n/**\n * Exposes the JavaScript
[BeforeUnloadEvent](https://developer.mozilla.org/en/docs/Web/API/BeforeUnloadEvent) to Kotlin\n */\npublic
external open class BeforeUnloadEvent : Event {\n    var returnValue: String\n\n    companion object {\n        val
NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val
BUBBLING_PHASE: Short\n    }\n}\n\npublic
 external abstract class ApplicationCache : EventTarget {\n    open val status: Short\n    open var onchecking:
((Event) -> dynamic)?\n    open var onerror: ((Event) -> dynamic)?\n    open var onnoupdate: ((Event) ->
dynamic)?\n    open var ondownloading: ((Event) -> dynamic)?\n    open var onprogress: ((ProgressEvent) ->
dynamic)?\n    open var onupdateready: ((Event) -> dynamic)?\n    open var oncached: ((Event) -> dynamic)?\n
open var onobsolete: ((Event) -> dynamic)?\n    fun update()\n    fun abort()\n    fun swapCache()\n\n    companion
object {\n        val UNCACHED: Short\n        val IDLE: Short\n        val CHECKING: Short\n        val
DOWNLOADING: Short\n        val UPDATEREADY: Short\n        val OBSOLETE: Short\n    }\n}\n\n/**\n *
Exposes the JavaScript [NavigatorOnLine](https://developer.mozilla.org/en/docs/Web/API/NavigatorOnLine) to
Kotlin\n */\npublic external interface NavigatorOnLine {\n    val onLine: Boolean\n}\n\n/**\n * Exposes the
JavaScript [ErrorEvent](https://developer.mozilla.org/en/docs/Web/API/ErrorEvent)
 to Kotlin\n */\npublic external open class ErrorEvent(type: String, eventInitDict: ErrorEventInit =
definedExternally) : Event {\n    open val message: String\n    open val filename: String\n    open val lineno: Int\n
open val colno: Int\n    open val error: Any?\n\n    companion object {\n        val NONE: Short\n        val
CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n
}\n}\n\npublic external interface ErrorEventInit : EventInit {\n    var message: String? /* = \"\" */\n        get() =
definedExternally\n        set(value) = definedExternally\n    var filename: String? /* = \"\" */\n        get() =
definedExternally\n        set(value) = definedExternally\n    var lineno: Int? /* = 0 */\n        get() =
definedExternally\n        set(value) = definedExternally\n    var colno: Int? /* = 0 */\n        get() =
definedExternally\n        set(value) = definedExternally\n    var error: Any?
 /* = null */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ErrorEventInit(message: String? = \"\",
filename: String? = \"\", lineno: Int? = 0, colno: Int? = 0, error: Any? = null, bubbles: Boolean? = false, cancelable:
Boolean? = false, composed: Boolean? = false): ErrorEventInit {\n    val o = js(\"({})\")\n    o[\"message\"] =
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message\n    o[\"filename\"] = filename\n    o[\"lineno\"] = lineno\n    o[\"colno\"] = colno\n    o[\"error\"] = error\n
o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return
o\n}\n\n/**\n * Exposes the JavaScript
[PromiseRejectionEvent](https://developer.mozilla.org/en/docs/Web/API/PromiseRejectionEvent) to Kotlin\n
*/\npublic external open class PromiseRejectionEvent(type: String, eventInitDict: PromiseRejectionEventInit) :
Event {\n    open val promise: Promise<Any?>\n
    open val reason: Any?\n\n    companion object {\n        val NONE: Short\n        val CAPTURING_PHASE:
Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface
PromiseRejectionEventInit : EventInit {\n    var promise: Promise<Any?>?\n    var reason: Any?\n        get() =
definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun PromiseRejectionEventInit(promise:
Promise<Any?>?, reason: Any? = undefined, bubbles: Boolean? = false, cancelable: Boolean? = false, composed:
Boolean? = false): PromiseRejectionEventInit {\n    val o = js(\"({})\")\n    o[\"promise\"] = promise\n
o[\"reason\"] = reason\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] =
composed\n    return o\n}\n\n/**\n * Exposes the JavaScript
[GlobalEventHandlers](https://developer.mozilla.org/en/docs/Web/API/GlobalEventHandlers)
 to Kotlin\n */\npublic external interface GlobalEventHandlers {\n    var onabort: ((Event) -> dynamic)?\n        get()
= definedExternally\n        set(value) = definedExternally\n    var onblur: ((FocusEvent) -> dynamic)?\n        get() =
definedExternally\n        set(value) = definedExternally\n    var oncancel: ((Event) -> dynamic)?\n        get() =
definedExternally\n        set(value) = definedExternally\n    var oncanplay: ((Event) -> dynamic)?\n        get() =
definedExternally\n        set(value) = definedExternally\n    var oncanplaythrough: ((Event) -> dynamic)?\n        get()
= definedExternally\n        set(value) = definedExternally\n    var onchange: ((Event) -> dynamic)?\n        get() =
definedExternally\n        set(value) = definedExternally\n    var onclick: ((MouseEvent) -> dynamic)?\n        get() =
definedExternally\n        set(value) = definedExternally\n    var onclose: ((Event) -> dynamic)?\n        get() =
definedExternally\n        set(value)
 = definedExternally\n    var oncontextmenu: ((MouseEvent) -> dynamic)?\n        get() = definedExternally\n
set(value) = definedExternally\n    var oncuechange: ((Event) -> dynamic)?\n        get() = definedExternally\n
set(value) = definedExternally\n    var ondblclick: ((MouseEvent) -> dynamic)?\n        get() = definedExternally\n
  set(value) = definedExternally\n    var ondrag: ((DragEvent) -> dynamic)?\n        get() = definedExternally\n
set(value) = definedExternally\n    var ondragend: ((DragEvent) -> dynamic)?\n        get() = definedExternally\n
set(value) = definedExternally\n    var ondragenter: ((DragEvent) -> dynamic)?\n        get() = definedExternally\n
 set(value) = definedExternally\n    var ondragexit: ((DragEvent) -> dynamic)?\n        get() = definedExternally\n
set(value) = definedExternally\n    var ondragleave: ((DragEvent) -> dynamic)?\n        get() = definedExternally\n
 set(value) = definedExternally\n
    var ondragover: ((DragEvent) -> dynamic)?\n        get() = definedExternally\n        set(value) =
definedExternally\n    var ondragstart: ((DragEvent) -> dynamic)?\n        get() = definedExternally\n        set(value)
= definedExternally\n    var ondrop: ((DragEvent) -> dynamic)?\n        get() = definedExternally\n        set(value) =
definedExternally\n    var ondurationchange: ((Event) -> dynamic)?\n        get() = definedExternally\n        set(value)
= definedExternally\n    var onemptied: ((Event) -> dynamic)?\n        get() = definedExternally\n        set(value) =
definedExternally\n    var onended: ((Event) -> dynamic)?\n        get() = definedExternally\n        set(value) =
definedExternally\n    var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n        get() = definedExternally\n
     set(value) = definedExternally\n    var onfocus: ((FocusEvent) -> dynamic)?\n        get() = definedExternally\n
 set(value) = definedExternally\n    var oninput: ((InputEvent)
 -> dynamic)?\n        get() = definedExternally\n        set(value) = definedExternally\n    var oninvalid: ((Event) ->
dynamic)?\n        get() = definedExternally\n        set(value) = definedExternally\n    var onkeydown:
((KeyboardEvent) -> dynamic)?\n        get() = definedExternally\n        set(value) = definedExternally\n    var
onkeypress: ((KeyboardEvent) -> dynamic)?\n        get() = definedExternally\n        set(value) = definedExternally\n
 var onkeyup: ((KeyboardEvent) -> dynamic)?\n        get() = definedExternally\n        set(value) =
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definedExternally\n var onload: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onloadeddata: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onloadedmetadata: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onloadend: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onloadstart: ((ProgressEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onmousedown: ((MouseEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onmouseenter: ((MouseEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onmouseleave: ((MouseEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onmousemove: ((MouseEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onmouseout: ((MouseEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onmouseover: ((MouseEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onmouseup: ((MouseEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onwheel: ((WheelEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onpause: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onplay: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onplaying: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onprogress: ((ProgressEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onratechange: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onreset: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onresize: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onscroll: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onseeked: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onseeking: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onselect: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onshow: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onstalled: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onsubmit: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onsuspend: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var ontimeupdate: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var ontoggle: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onvolumechange: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onwaiting: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var ongotpointercapture: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onlostpointercapture: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onpointerdown: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onpointermove: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onpointerup: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onpointercancel: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onpointerover: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onpointerout: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onpointerenter: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onpointerleave: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n}\n\n/**\n * Exposes the JavaScript [WindowEventHandlers](https://developer.mozilla.org/en/docs/Web/API/WindowEventHandlers) to Kotlin\n

*/\npublic external interface WindowEventHandlers {\n   var onafterprint: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onbeforeprint: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onbeforeunload: ((BeforeUnloadEvent) -> String?)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onhashchange: ((HashChangeEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onlanguagechange: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onmessage: ((MessageEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onoffline: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ononline: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onpagehide: ((PageTransitionEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onpageshow: ((PageTransitionEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onpopstate: ((PopStateEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onrejectionhandled: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onstorage: ((StorageEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onunhandledrejection: ((PromiseRejectionEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onunload: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\npublic external interface DocumentAndElementEventHandlers {\n   var oncopy: ((ClipboardEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var oncut: ((ClipboardEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onpaste: ((ClipboardEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n/**\n * Exposes the JavaScript [WindowOrWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/WindowOrWorkerGlobalScope) to Kotlin\n */\npublic external interface WindowOrWorkerGlobalScope {\n   val origin: String\n   val caches: CacheStorage\n   fun btoa(data: String): String\n   fun atob(data: String): String\n   fun setTimeout(handler: dynamic, timeout: Int = definedExternally, vararg arguments: Any?): Int\n   fun clearTimeout(handle: Int = definedExternally)\n   fun setInterval(handler: dynamic, timeout: Int = definedExternally, vararg arguments: Any?): Int\n   fun clearInterval(handle: Int = definedExternally)\n   fun createImageBitmap(image: ImageBitmapSource, options: ImageBitmapOptions = definedExternally): Promise<ImageBitmap>\n   fun createImageBitmap(image: ImageBitmapSource, sx: Int, sy: Int, sw: Int, sh: Int, options: ImageBitmapOptions = definedExternally): Promise<ImageBitmap>\n   fun fetch(input: dynamic, init: RequestInit = definedExternally): Promise<Response>\n}\n\n/**\n * Exposes the JavaScript [Navigator](https://developer.mozilla.org/en/docs/Web/API/Navigator) to Kotlin\n */\npublic external abstract class Navigator : NavigatorID, NavigatorLanguage, NavigatorOnLine, NavigatorContentUtils, NavigatorCookies, NavigatorPlugins, NavigatorConcurrentHardware {\n   open val clipboard: Clipboard\n   open val mediaDevices: MediaDevices\n   open val maxTouchPoints: Int\n   open val serviceWorker: ServiceWorkerContainer\n   fun requestMediaKeySystemAccess(keySystem: String, supportedConfigurations: Array<MediaKeySystemConfiguration>): Promise<MediaKeySystemAccess>\n   fun getUserMedia(constraints: MediaStreamConstraints, successCallback: (MediaStream) -> Unit, errorCallback: (dynamic) -> Unit)\n   fun vibrate(pattern: dynamic): Boolean\n}\n\n/**\n * Exposes the JavaScript [NavigatorID](https://developer.mozilla.org/en/docs/Web/API/NavigatorID) to Kotlin\n */\npublic external interface NavigatorID {\n   val appCodeName: String\n   val appName: String\n   val appVersion: String\n   val platform: String\n   val product: String\n   val productSub: String\n   val userAgent: String\n   val vendor: String\n   val vendorSub: String\n   val oscpu: String\n   fun taintEnabled(): Boolean\n}\n\n/**\n * Exposes the JavaScript [NavigatorLanguage](https://developer.mozilla.org/en/docs/Web/API/NavigatorLanguage) to Kotlin\n */\npublic external interface NavigatorLanguage {\n   val language: String\n   val languages: Array<out String>\n}\n\npublic

external interface NavigatorContentUtils {\n   fun registerProtocolHandler(scheme: String, url: String, title: String)\n   fun registerContentHandler(mimeType: String, url: String, title: String)\n   fun isProtocolHandlerRegistered(scheme: String, url: String): String\n   fun isContentHandlerRegistered(mimeType: String, url: String): String\n   fun unregisterProtocolHandler(scheme: String, url: String)\n   fun unregisterContentHandler(mimeType: String, url: String)\n}\n\npublic external interface NavigatorCookies {\n   val cookieEnabled: Boolean\n}\n\n/**\n * Exposes the JavaScript [NavigatorPlugins](https://developer.mozilla.org/en/docs/Web/API/NavigatorPlugins) to Kotlin\n */\npublic external interface NavigatorPlugins {\n   val plugins: PluginArray\n   val mimeTypes: MimeTypeArray\n   fun javaEnabled(): Boolean\n}\n\n/**\n * Exposes the JavaScript [PluginArray](https://developer.mozilla.org/en/docs/Web/API/PluginArray) to Kotlin\n */\npublic external abstract class PluginArray : ItemArrayLike<Plugin> {\n   fun refresh(reload: Boolean = definedExternally)\n   override fun item(index: Int): Plugin?\n   fun namedItem(name: String): Plugin?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun PluginArray.get(index: Int): Plugin? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun PluginArray.get(name: String): Plugin? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript [MimeTypeArray](https://developer.mozilla.org/en/docs/Web/API/MimeTypeArray) to Kotlin\n */\npublic external abstract class MimeTypeArray : ItemArrayLike<MimeType> {\n   override fun item(index: Int): MimeType?\n   fun namedItem(name: String): MimeType?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun MimeTypeArray.get(index: Int): MimeType? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun MimeTypeArray.get(name: String): MimeType? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript [Plugin](https://developer.mozilla.org/en/docs/Web/API/Plugin) to Kotlin\n */\npublic external abstract class Plugin : ItemArrayLike<MimeType> {\n   open val name: String\n   open val description: String\n   open val filename: String\n   override fun item(index: Int): MimeType?\n   fun namedItem(name: String): MimeType?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Plugin.get(index: Int): MimeType? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Plugin.get(name: String): MimeType? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript [MimeType](https://developer.mozilla.org/en/docs/Web/API/MimeType) to Kotlin\n */\npublic external abstract class MimeType {\n   open val type: String\n   open val description: String\n   open val suffixes: String\n   open val enabledPlugin: Plugin\n}\n\n/**\n * Exposes the JavaScript [ImageBitmap](https://developer.mozilla.org/en/docs/Web/API/ImageBitmap) to Kotlin\n */\npublic external abstract class ImageBitmap : CanvasImageSource, TexImageSource {\n   open val width: Int\n   open val height: Int\n   fun close()\n}\n\npublic external interface ImageBitmapOptions {\n   var imageOrientation: ImageOrientation? /* = ImageOrientation.NONE */\n   get() = definedExternally\n   set(value) = definedExternally\n   var premultiplyAlpha: PremultiplyAlpha? /* = PremultiplyAlpha.DEFAULT */\n   get() = definedExternally\n   set(value) = definedExternally\n   var colorSpaceConversion: ColorSpaceConversion? /* = ColorSpaceConversion.DEFAULT */\n   get() = definedExternally\n   set(value) = definedExternally\n   var resizeWidth: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n   var resizeHeight: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n   var resizeQuality: ResizeQuality? /* = ResizeQuality.LOW */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun

ImageBitmapOptions(imageOrientation: ImageOrientation? = ImageOrientation.NONE, premultiplyAlpha: PremultiplyAlpha? = PremultiplyAlpha.DEFAULT, colorSpaceConversion: ColorSpaceConversion? = ColorSpaceConversion.DEFAULT, resizeWidth: Int? = undefined, resizeHeight: Int? = undefined, resizeQuality: ResizeQuality? = ResizeQuality.LOW): ImageBitmapOptions {\n   val o = js(\"({})\")\n   o[\"imageOrientation\"] = imageOrientation\n   o[\"premultiplyAlpha\"] = premultiplyAlpha\n   o[\"colorSpaceConversion\"] = colorSpaceConversion\n   o[\"resizeWidth\"] = resizeWidth\n   o[\"resizeHeight\"] = resizeHeight\n   o[\"resizeQuality\"] = resizeQuality\n   return o\n}\n\n/**\n * Exposes the JavaScript [MessageEvent](https://developer.mozilla.org/en/docs/Web/API/MessageEvent) to Kotlin\n */\npublic external open class MessageEvent(type:
String, eventInitDict: MessageEventInit = definedExternally) : Event {\n   open val data: Any?\n   open val origin: String\n   open val lastEventId: String\n   open val source: UnionMessagePortOrWindowProxy?\n   open val ports: Array<out MessagePort>\n   fun initMessageEvent(type: String, bubbles: Boolean, cancelable: Boolean, data: Any?, origin: String, lastEventId: String, source: UnionMessagePortOrWindowProxy?, ports: Array<MessagePort>)\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface MessageEventInit : EventInit {\n   var data: Any? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var origin: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var lastEventId: String? /* = \"\" */\n   get() = definedExternally\n   set(value)
= definedExternally\n   var source: UnionMessagePortOrWindowProxy? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var ports: Array<MessagePort>? /* = arrayOf() */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MessageEventInit(data: Any? = null, origin: String? = \"\", lastEventId: String? = \"\", source: UnionMessagePortOrWindowProxy? = null, ports: Array<MessagePort>? = arrayOf(), bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): MessageEventInit {\n   val o = js(\"({})\")\n   o[\"data\"] = data\n   o[\"origin\"] = origin\n   o[\"lastEventId\"] = lastEventId\n   o[\"source\"] = source\n   o[\"ports\"] = ports\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [EventSource](https://developer.mozilla.org/en/docs/Web/API/EventSource)
to Kotlin\n */\npublic external open class EventSource(url: String, eventSourceInitDict: EventSourceInit = definedExternally) : EventTarget {\n   open val url: String\n   open val withCredentials: Boolean\n   open val readyState: Short\n   var onopen: ((Event) -> dynamic)?\n   var onmessage: ((MessageEvent) -> dynamic)?\n   var onerror: ((Event) -> dynamic)?\n   fun close()\n\n   companion object {\n   val CONNECTING: Short\n   val OPEN: Short\n   val CLOSED: Short\n   }\n}\n\npublic external interface EventSourceInit {\n   var withCredentials: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun EventSourceInit(withCredentials: Boolean? = false): EventSourceInit {\n   val o = js(\"({})\")\n   o[\"withCredentials\"] = withCredentials\n   return o\n}\n\n/**\n * Exposes the JavaScript [WebSocket](https://developer.mozilla.org/en/docs/Web/API/WebSocket) to Kotlin\n */\npublic external open class WebSocket(url: String, protocols: dynamic = definedExternally) : EventTarget {\n   open val url: String\n   open val readyState: Short\n   open val bufferedAmount: Number\n   var onopen: ((Event) -> dynamic)?\n   var onerror: ((Event) -> dynamic)?\n   var onclose: ((Event) -> dynamic)?\n   open val extensions: String\n   open val protocol: String\n   var onmessage: ((MessageEvent) -> dynamic)?\n   var binaryType: BinaryType\n   fun close(code: Short = definedExternally, reason: String = definedExternally)\n   fun send(data: String)\n   fun send(data: Blob)\n   fun send(data: ArrayBuffer)\n   fun send(data: ArrayBufferView)\n\n   companion object {\n   val CONNECTING: Short\n   val OPEN: Short\n   val CLOSING: Short\n   val CLOSED: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [CloseEvent](https://developer.mozilla.org/en/docs/Web/API/CloseEvent)

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 to Kotlin\n */\npublic external open class CloseEvent(type: String, eventInitDict: CloseEventInit =
definedExternally) : Event {\n    open val wasClean: Boolean\n    open val code: Short\n    open val reason:
String\n\n    companion object {\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val
AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface CloseEventInit :
EventInit {\n    var wasClean: Boolean? /* = false */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var code: Short? /* = 0 */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var reason: String? /* = \"\" */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CloseEventInit(wasClean: Boolean? =
false, code: Short? =
 0, reason: String? = \"\", bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false):
CloseEventInit {\n    val o = js(\"({})\")\n    o[\"wasClean\"] = wasClean\n    o[\"code\"] = code\n    o[\"reason\"] =
reason\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return
o\n}\n\n/**\n * Exposes the JavaScript
[MessageChannel](https://developer.mozilla.org/en/docs/Web/API/MessageChannel) to Kotlin\n */\npublic external
open class MessageChannel {\n    open val port1: MessagePort\n    open val port2: MessagePort\n}\n\n/**\n *
Exposes the JavaScript [MessagePort](https://developer.mozilla.org/en/docs/Web/API/MessagePort) to Kotlin\n
*/\npublic external abstract class MessagePort : EventTarget, UnionMessagePortOrWindowProxy,
UnionMessagePortOrServiceWorker, UnionClientOrMessagePortOrServiceWorker {\n    open var onmessage:
((MessageEvent) -> dynamic)?\n    fun postMessage(message: Any?, transfer: Array<dynamic>
 = definedExternally)\n    fun start()\n    fun close()\n}\n\n/**\n * Exposes the JavaScript
[BroadcastChannel](https://developer.mozilla.org/en/docs/Web/API/BroadcastChannel) to Kotlin\n */\npublic
external open class BroadcastChannel(name: String) : EventTarget {\n    open val name: String\n    var onmessage:
((MessageEvent) -> dynamic)?\n    fun postMessage(message: Any?)\n    fun close()\n}\n\n/**\n * Exposes the
JavaScript [WorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/WorkerGlobalScope) to Kotlin\n
*/\npublic external abstract class WorkerGlobalScope : EventTarget, WindowOrWorkerGlobalScope,
GlobalPerformance {\n    open val self: WorkerGlobalScope\n    open val location: WorkerLocation\n    open val
navigator: WorkerNavigator\n    open var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n    open var
onlanguagechange: ((Event) -> dynamic)?\n    open var onoffline: ((Event) -> dynamic)?\n    open var ononline:
((Event) -> dynamic)?\n    open var onrejectionhandled:
 ((Event) -> dynamic)?\n    open var onunhandledrejection: ((PromiseRejectionEvent) -> dynamic)?\n    fun
importScripts(vararg urls: String)\n}\n\n/**\n * Exposes the JavaScript
[DedicatedWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/DedicatedWorkerGlobalScope) to
Kotlin\n */\npublic external abstract class DedicatedWorkerGlobalScope : WorkerGlobalScope {\n    open var
onmessage: ((MessageEvent) -> dynamic)?\n    fun postMessage(message: Any?, transfer: Array<dynamic> =
definedExternally)\n    fun close()\n}\n\n/**\n * Exposes the JavaScript
[SharedWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/SharedWorkerGlobalScope) to
Kotlin\n */\npublic external abstract class SharedWorkerGlobalScope : WorkerGlobalScope {\n    open val name:
String\n    open val applicationCache: ApplicationCache\n    open var onconnect: ((Event) -> dynamic)?\n    fun
close()\n}\n\n/**\n * Exposes the JavaScript
[AbstractWorker](https://developer.mozilla.org/en/docs/Web/API/AbstractWorker)
 to Kotlin\n */\npublic external interface AbstractWorker {\n    var onerror: ((Event) -> dynamic)?\n        get() =
definedExternally\n        set(value) = definedExternally\n}\n\n/**\n * Exposes the JavaScript
[Worker](https://developer.mozilla.org/en/docs/Web/API/Worker) to Kotlin\n */\npublic external open class
Worker(scriptURL: String, options: WorkerOptions = definedExternally) : EventTarget, AbstractWorker {\n    var
onmessage: ((MessageEvent) -> dynamic)?\n    override var onerror: ((Event) -> dynamic)?\n    fun terminate()\n
fun postMessage(message: Any?, transfer: Array<dynamic> = definedExternally)\n}\n\npublic external interface
WorkerOptions {\n    var type: WorkerType? /* = WorkerType.CLASSIC */\n        get() = definedExternally\n
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set(value) = definedExternally\n   var credentials: RequestCredentials? /* = RequestCredentials.OMIT */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun WorkerOptions(type: WorkerType? = WorkerType.CLASSIC, credentials: RequestCredentials? = RequestCredentials.OMIT): WorkerOptions {\n   val o = js(\"({})\")\n   o[\"type\"] = type\n   o[\"credentials\"] = credentials\n   return o\n}\n\n/**\n * Exposes the JavaScript [SharedWorker](https://developer.mozilla.org/en/docs/Web/API/SharedWorker) to Kotlin\n */\npublic external open class SharedWorker(scriptURL: String, name: String = definedExternally, options: WorkerOptions = definedExternally) : EventTarget, AbstractWorker {\n   open val port: MessagePort\n   override var onerror: ((Event) -> dynamic)?\n}\n\n/**\n * Exposes the JavaScript [NavigatorConcurrentHardware](https://developer.mozilla.org/en/docs/Web/API/NavigatorConcurrentHardware) to Kotlin\n */\npublic external interface NavigatorConcurrentHardware {\n   val hardwareConcurrency: Number\n}\n\n/**\n * Exposes the JavaScript [WorkerNavigator](https://developer.mozilla.org/en/docs/Web/API/WorkerNavigator) to Kotlin\n */\npublic external abstract class WorkerNavigator : NavigatorID, NavigatorLanguage, NavigatorOnLine, NavigatorConcurrentHardware {\n   open val serviceWorker: ServiceWorkerContainer\n}\n\n/**\n * Exposes the JavaScript [WorkerLocation](https://developer.mozilla.org/en/docs/Web/API/WorkerLocation) to Kotlin\n */\npublic external abstract class WorkerLocation {\n   open val href: String\n   open val origin: String\n   open val protocol: String\n   open val host: String\n   open val hostname: String\n   open val port: String\n   open val pathname: String\n   open val search: String\n   open val hash: String\n}\n\n/**\n * Exposes the JavaScript [Storage](https://developer.mozilla.org/en/docs/Web/API/Storage) to Kotlin\n */\npublic external abstract class Storage {\n   open val length: Int\n   fun key(index: Int): String?\n   fun removeItem(key: String)\n   fun clear()\n   fun getItem(key: String): String?\n   fun setItem(key: String, value: String)\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Storage.get(key: String): String? = asDynamic()[key]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Storage.set(key: String, value: String) { asDynamic()[key] = value }\n\n/**\n * Exposes the JavaScript [WindowSessionStorage](https://developer.mozilla.org/en/docs/Web/API/WindowSessionStorage) to Kotlin\n */\npublic external interface WindowSessionStorage {\n   val sessionStorage: Storage\n}\n\n/**\n * Exposes the JavaScript [WindowLocalStorage](https://developer.mozilla.org/en/docs/Web/API/WindowLocalStorage) to Kotlin\n */\npublic external interface WindowLocalStorage {\n   val localStorage: Storage\n}\n\n/**\n * Exposes the JavaScript [StorageEvent](https://developer.mozilla.org/en/docs/Web/API/StorageEvent) to Kotlin\n */\npublic external open class StorageEvent(type: String, eventInitDict: StorageEventInit = definedExternally) : Event {\n   open val key: String?\n   open val oldValue: String?\n   open val newValue: String?\n   open val url: String\n   open val storageArea: Storage?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface StorageEventInit : EventInit {\n   var key: String? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var oldValue: String? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var newValue: String? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var url: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var storageArea: Storage? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun StorageEventInit(key: String? = null, oldValue: String? = null, newValue: String? = null, url: String? = \"\", storageArea: Storage? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): StorageEventInit {\n   val o = js(\"({})\")\n   o[\"key\"] = key\n   o[\"oldValue\"] = oldValue\n   o[\"newValue\"] = newValue\n   o[\"url\"] =

url\n o[\"storageArea\"] = storageArea\n o[\"bubbles\"] = bubbles\n o[\"cancelable\"] = cancelable\n o[\"composed\"] = composed\n return o\n}\n\npublic external abstract class HTMLAppletElement : HTMLElement {\n open var align: String\n open var alt: String\n open var archive: String\n open var code: String\n open var codeBase: String\n open var height: String\n open var hspace: Int\n open var name: String\n open var _object: String\n open var vspace: Int\n open var width: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLMarqueeElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMarqueeElement) to Kotlin\n */\npublic external abstract class HTMLMarqueeElement : HTMLElement {\n open var behavior: String\n open var bgColor: String\n open var direction: String\n open var height: String\n open var hspace: Int\n open var loop: Int\n open var scrollAmount: Int\n open var scrollDelay: Int\n open var trueSpeed: Boolean\n open var vspace: Int\n open var width: String\n open var onbounce: ((Event) -> dynamic)?\n open var onfinish: ((Event) -> dynamic)?\n open var onstart: ((Event) -> dynamic)?\n fun start()\n fun stop()\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLFrameSetElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFrameSetElement) to Kotlin\n */\npublic external abstract class HTMLFrameSetElement : HTMLElement, WindowEventHandlers {\n open var cols: String\n open var rows: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external abstract class HTMLFrameElement : HTMLElement {\n open var name: String\n open var scrolling: String\n open var src: String\n open var frameBorder: String\n open var longDesc: String\n open var noResize: Boolean\n open val contentDocument: Document?\n open val contentWindow: Window?\n open var marginHeight: String\n open var marginWidth: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val

ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external abstract class HTMLDirectoryElement : HTMLElement {\n open var compact: Boolean\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLFontElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFontElement) to Kotlin\n */\npublic external abstract class HTMLFontElement : HTMLElement {\n open var color: String\n open var face: String\n open var size: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external interface External {\n fun AddSearchProvider()\n fun IsSearchProviderInstalled()\n}\n\npublic external interface EventInit {\n var bubbles: Boolean? /* = false */\n get() = definedExternally\n set(value) = definedExternally\n var cancelable: Boolean? /* = false */\n get() = definedExternally\n set(value) = definedExternally\n var composed: Boolean? /* = false */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun EventInit(bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): EventInit {\n val o = js(\"({})\")\n o[\"bubbles\"] = bubbles\n o[\"cancelable\"] = cancelable\n o[\"composed\"] = composed\n return o\n}\n\n/**\n * Exposes the JavaScript [CustomEvent](https://developer.mozilla.org/en/docs/Web/API/CustomEvent) to Kotlin\n */\npublic external open class CustomEvent(type: String, eventInitDict: CustomEventInit = definedExternally) : Event {\n open val detail: Any?\n fun initCustomEvent(type: String, bubbles: Boolean, cancelable: Boolean, detail: Any?)\n\n companion object {\n val NONE: Short\n val CAPTURING_PHASE: Short\n val AT_TARGET: Short\n val BUBBLING_PHASE: Short\n }\n}\n\npublic external interface CustomEventInit : EventInit {\n var detail: Any? /* = null */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CustomEventInit(detail: Any? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): CustomEventInit {\n val o = js(\"({})\")\n o[\"detail\"] = detail\n o[\"bubbles\"] = bubbles\n o[\"cancelable\"] = cancelable\n o[\"composed\"] = composed\n   return o\n}\n\npublic external interface EventListenerOptions {\n   var capture: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun EventListenerOptions(capture: Boolean? = false): EventListenerOptions {\n   val o = js(\"({})\")\n   o[\"capture\"] = capture\n   return o\n}\n\npublic external interface AddEventListenerOptions : EventListenerOptions {\n   var passive: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var once: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun AddEventListenerOptions(passive: Boolean? = false, once: Boolean? = false, capture: Boolean? = false): AddEventListenerOptions {\n   val o = js(\"({})\")\n   o[\"passive\"] = passive\n   o[\"once\"] = once\n   o[\"capture\"] = capture\n   return o\n}\n\npublic external interface NonElementParentNode {\n   fun getElementById(elementId: String): Element?\n}\n\n/**\n * Exposes the JavaScript [DocumentOrShadowRoot](https://developer.mozilla.org/en/docs/Web/API/DocumentOrShadowRoot) to Kotlin\n */\npublic external interface DocumentOrShadowRoot {\n   val fullscreenElement: Element?\n   get() = definedExternally\n}\n\n/**\n * Exposes the JavaScript [ParentNode](https://developer.mozilla.org/en/docs/Web/API/ParentNode) to Kotlin\n */\npublic external interface ParentNode {\n   val children: HTMLCollection\n   val firstElementChild: Element?\n   get() = definedExternally\n   val lastElementChild: Element?\n   get() = definedExternally\n   val childElementCount: Int\n   fun prepend(vararg nodes: dynamic)\n   fun append(vararg nodes: dynamic)\n   fun querySelector(selectors: String): Element?\n   fun querySelectorAll(selectors: String): NodeList\n}\n\n/**\n * Exposes the JavaScript [NonDocumentTypeChildNode](https://developer.mozilla.org/en/docs/Web/API/NonDocumentTypeChildNode) to Kotlin\n */\npublic external interface NonDocumentTypeChildNode {\n   val previousElementSibling: Element?\n   get() = definedExternally\n   val nextElementSibling: Element?\n   get() = definedExternally\n}\n\n/**\n * Exposes the JavaScript [ChildNode](https://developer.mozilla.org/en/docs/Web/API/ChildNode) to Kotlin\n */\npublic external interface ChildNode {\n   fun before(vararg nodes: dynamic)\n   fun after(vararg nodes: dynamic)\n   fun replaceWith(vararg nodes: dynamic)\n   fun remove()\n}\n\n/**\n * Exposes the JavaScript [Slotable](https://developer.mozilla.org/en/docs/Web/API/Slotable) to Kotlin\n */\npublic external interface Slotable {\n   val assignedSlot: HTMLSlotElement?\n   get() = definedExternally\n}\n\n/**\n * Exposes the JavaScript [NodeList](https://developer.mozilla.org/en/docs/Web/API/NodeList) to Kotlin\n */\npublic external abstract class NodeList : ItemArrayLike<Node> {\n   override fun item(index: Int): Node?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun NodeList.get(index: Int): Node? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [HTMLCollection](https://developer.mozilla.org/en/docs/Web/API/HTMLCollection) to Kotlin\n */\npublic external abstract class HTMLCollection : ItemArrayLike<Element>, UnionElementOrHTMLCollection {\n   override fun item(index: Int): Element?\n   fun namedItem(name: String): Element?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLCollection.get(index: Int): Element? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLCollection.get(name: String): Element? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript [MutationObserver](https://developer.mozilla.org/en/docs/Web/API/MutationObserver) to Kotlin\n */\npublic external open class MutationObserver(callback: (Array<MutationRecord>, MutationObserver) -> Unit) {\n   fun observe(target: Node, options: MutationObserverInit = definedExternally)\n   fun disconnect()\n   fun takeRecords(): Array<MutationRecord>\n}\n\n/**\n * Exposes the JavaScript [MutationObserverInit](https://developer.mozilla.org/en/docs/Web/API/MutationObserverInit) to Kotlin\n */\npublic external interface MutationObserverInit {\n   var childList: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var attributes: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var characterData: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var subtree: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var attributeOldValue: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var characterDataOldValue: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var attributeFilter: Array<String>?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MutationObserverInit(childList: Boolean? = false, attributes: Boolean? = undefined, characterData: Boolean? = undefined, subtree: Boolean? = false, attributeOldValue: Boolean? = undefined, characterDataOldValue: Boolean? = undefined, attributeFilter: Array<String>? = undefined): MutationObserverInit {\n   val o = js(\"({})\")\n   o[\"childList\"] = childList\n   o[\"attributes\"] = attributes\n   o[\"characterData\"] = characterData\n   o[\"subtree\"] = subtree\n   o[\"attributeOldValue\"] = attributeOldValue\n   o[\"characterDataOldValue\"] = characterDataOldValue\n   o[\"attributeFilter\"] = attributeFilter\n   return o\n}\n\n/**\n * Exposes the JavaScript [MutationRecord](https://developer.mozilla.org/en/docs/Web/API/MutationRecord) to Kotlin\n */\npublic external abstract class MutationRecord {\n   open val type: String\n   open val target: Node\n   open val addedNodes: NodeList\n   open val removedNodes: NodeList\n   open val previousSibling: Node?\n   open val nextSibling: Node?\n   open val attributeName: String?\n   open val attributeNamespace: String?\n   open val oldValue: String?\n}\n\n/**\n * Exposes the JavaScript [Node](https://developer.mozilla.org/en/docs/Web/API/Node) to Kotlin\n */\npublic external abstract class Node : EventTarget {\n   open val nodeType: Short\n   open val nodeName: String\n   open val baseURI: String\n   open val isConnected: Boolean\n   open val ownerDocument: Document?\n   open val parentNode: Node?\n   open val parentElement: Element?\n   open val childNodes: NodeList\n   open val firstChild: Node?\n   open val lastChild: Node?\n   open val previousSibling: Node?\n   open val nextSibling: Node?\n   open var nodeValue: String?\n   open var textContent: String?\n   fun getRootNode(options: GetRootNodeOptions = definedExternally): Node\n   fun hasChildNodes(): Boolean\n   fun normalize()\n   fun cloneNode(deep: Boolean = definedExternally): Node\n   fun isEqualNode(otherNode: Node?): Boolean\n   fun isSameNode(otherNode: Node?): Boolean\n   fun compareDocumentPosition(other: Node): Short\n   fun contains(other: Node?): Boolean\n   fun lookupPrefix(namespace: String?): String?\n   fun lookupNamespaceURI(prefix: String?): String?\n   fun isDefaultNamespace(namespace: String?): Boolean\n   fun insertBefore(node: Node, child: Node?): Node\n   fun appendChild(node: Node): Node\n   fun replaceChild(node: Node, child: Node): Node\n   fun removeChild(child: Node): Node\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external interface GetRootNodeOptions {\n   var composed: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun GetRootNodeOptions(composed:

Boolean? = false): GetRootNodeOptions {\n   val o = js(\"({})\")\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [Document](https://developer.mozilla.org/en/docs/Web/API/Document) to Kotlin\n */\npublic external open class Document : Node, GlobalEventHandlers, DocumentAndElementEventHandlers, NonElementParentNode, DocumentOrShadowRoot, ParentNode, GeometryUtils {\n   open val implementation: DOMImplementation\n   open val URL: String\n   open val documentURI: String\n   open val origin: String\n   open val compatMode: String\n   open val characterSet: String\n   open val charset: String\n   open val inputEncoding: String\n   open val contentType: String\n   open val doctype: DocumentType?\n   open val documentElement: Element?\n   open val location: Location?\n   var domain: String\n   open val referrer: String\n   var cookie: String\n   open val lastModified: String\n   open val readyState: DocumentReadyState\n   var title: String\n   var dir: String\n   var body: HTMLElement?\n   open val head: HTMLHeadElement?\n   open val images: HTMLCollection\n   open val embeds: HTMLCollection\n   open val plugins: HTMLCollection\n   open val links: HTMLCollection\n   open val forms: HTMLCollection\n   open val scripts: HTMLCollection\n   open val currentScript: HTMLOrSVGScriptElement?\n   open val defaultView: Window?\n   open val activeElement: Element?\n   var designMode: String\n   var onreadystatechange: ((Event) -> dynamic)?\n   var fgColor: String\n   var linkColor: String\n   var vlinkColor: String\n   var alinkColor: String\n   var bgColor: String\n   open val anchors: HTMLCollection\n   open val applets: HTMLCollection\n   open val all: HTMLAllCollection\n   open val scrollingElement: Element?\n   open val styleSheets: StyleSheetList\n   open val rootElement: SVGSVGElement?\n   open val fullscreenEnabled: Boolean\n   open val fullscreen: Boolean\n   var onfullscreenchange: ((Event) -> dynamic)?\n   var onfullscreenerror: ((Event) -> dynamic)?\n   override var onabort: ((Event) -> dynamic)?\n   override var onblur: ((FocusEvent) -> dynamic)?\n   override var oncancel: ((Event) -> dynamic)?\n   override var oncanplay: ((Event) -> dynamic)?\n   override var oncanplaythrough: ((Event) -> dynamic)?\n   override var onchange: ((Event) -> dynamic)?\n   override var onclick: ((MouseEvent) -> dynamic)?\n   override var onclose: ((Event) -> dynamic)?\n   override var oncontextmenu: ((MouseEvent) -> dynamic)?\n   override var oncuechange: ((Event) -> dynamic)?\n   override var ondblclick: ((MouseEvent) -> dynamic)?\n   override var ondrag: ((DragEvent) -> dynamic)?\n   override var ondragend: ((DragEvent) -> dynamic)?\n   override var ondragenter: ((DragEvent) -> dynamic)?\n   override var ondragexit: ((DragEvent) -> dynamic)?\n   override var ondragleave: ((DragEvent) -> dynamic)?\n   override var ondragover: ((DragEvent) -> dynamic)?\n   override var ondragstart: ((DragEvent) -> dynamic)?\n   override var ondrop: ((DragEvent) -> dynamic)?\n   override var ondurationchange: ((Event) -> dynamic)?\n   override var onemptied: ((Event) -> dynamic)?\n   override var onended: ((Event) -> dynamic)?\n   override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n   override var onfocus: ((FocusEvent) -> dynamic)?\n   override var oninput: ((InputEvent) -> dynamic)?\n   override var oninvalid: ((Event) -> dynamic)?\n   override var onkeydown: ((KeyboardEvent) -> dynamic)?\n   override var onkeypress: ((KeyboardEvent) -> dynamic)?\n   override var onkeyup: ((KeyboardEvent) -> dynamic)?\n   override var onload: ((Event) -> dynamic)?\n   override var onloadeddata: ((Event) -> dynamic)?\n   override var onloadedmetadata: ((Event) -> dynamic)?\n   override var onloadend: ((Event) -> dynamic)?\n   override var onloadstart: ((ProgressEvent) -> dynamic)?\n   override var onmousedown: ((MouseEvent) -> dynamic)?\n   override var onmouseenter: ((MouseEvent) -> dynamic)?\n   override var onmouseleave: ((MouseEvent) -> dynamic)?\n   override var onmousemove: ((MouseEvent) -> dynamic)?\n   override var onmouseout: ((MouseEvent) -> dynamic)?\n   override var onmouseover: ((MouseEvent) -> dynamic)?\n   override var onmouseup: ((MouseEvent) -> dynamic)?\n   override var onwheel: ((WheelEvent) -> dynamic)?\n   override var onpause: ((Event) -> dynamic)?\n   override var onplay: ((Event) -> dynamic)?\n   override var onplaying: ((Event) -> dynamic)?\n   override var onprogress: ((ProgressEvent) -> dynamic)?\n   override var onratechange: ((Event) -> dynamic)?\n   override var onreset: ((Event) -> dynamic)?\n   override var onresize: ((Event) -> dynamic)?\n   override var onscroll: ((Event) -> dynamic)?\n   override var onseeked: ((Event) -> dynamic)?\n   override var onseeking: ((Event) -> dynamic)?\n override var onselect: ((Event) -> dynamic)?\n   override var onshow: ((Event) -> dynamic)?\n   override var onstalled: ((Event) -> dynamic)?\n   override var onsubmit: ((Event) -> dynamic)?\n   override var onsuspend: ((Event) -> dynamic)?\n   override var ontimeupdate: ((Event) -> dynamic)?\n   override var ontoggle: ((Event) -> dynamic)?\n   override var onvolumechange: ((Event) -> dynamic)?\n   override var onwaiting: ((Event) -> dynamic)?\n   override var ongotpointercapture: ((PointerEvent) -> dynamic)?\n   override var onlostpointercapture: ((PointerEvent) -> dynamic)?\n   override var onpointerdown: ((PointerEvent) -> dynamic)?\n   override var onpointermove: ((PointerEvent) -> dynamic)?\n   override var onpointerup: ((PointerEvent) -> dynamic)?\n   override var onpointercancel: ((PointerEvent) -> dynamic)?\n   override var onpointerover: ((PointerEvent) -> dynamic)?\n   override var onpointerout: ((PointerEvent) -> dynamic)?\n   override var onpointerenter: ((PointerEvent) -> dynamic)?\n   override var onpointerleave: ((PointerEvent) -> dynamic)?\n   override var oncopy: ((ClipboardEvent) -> dynamic)?\n   override var oncut: ((ClipboardEvent) -> dynamic)?\n   override var onpaste: ((ClipboardEvent) -> dynamic)?\n   override val fullscreenElement: Element?\n   override val children: HTMLCollection\n   override val firstElementChild: Element?\n   override val lastElementChild: Element?\n   override val childElementCount: Int\n   fun getElementsByTagName(qualifiedName: String): HTMLCollection\n   fun getElementsByTagNameNS(namespace: String?, localName: String): HTMLCollection\n   fun getElementsByClassName(classNames: String): HTMLCollection\n   fun createElement(localName: String, options: ElementCreationOptions = definedExternally): Element\n   fun createElementNS(namespace: String?, qualifiedName: String, options: ElementCreationOptions = definedExternally): Element\n   fun createDocumentFragment(): DocumentFragment\n   fun createTextNode(data: String): Text\n   fun createCDATASection(data: String): CDATASection\n   fun createComment(data: String): Comment\n   fun createProcessingInstruction(target: String, data: String): ProcessingInstruction\n   fun importNode(node: Node, deep: Boolean = definedExternally): Node\n   fun adoptNode(node: Node): Node\n   fun createAttribute(localName: String): Attr\n   fun createAttributeNS(namespace: String?, qualifiedName: String): Attr\n   fun createEvent(`interface`: String): Event\n   fun createRange(): Range\n   fun createNodeIterator(root: Node, whatToShow: Int = definedExternally, filter: NodeFilter? = definedExternally): NodeIterator\n   fun createNodeIterator(root: Node, whatToShow: Int = definedExternally, filter: ((Node) -> Short)? = definedExternally): NodeIterator\n   fun createTreeWalker(root: Node, whatToShow: Int = definedExternally, filter: NodeFilter? = definedExternally): TreeWalker\n   fun createTreeWalker(root: Node, whatToShow: Int = definedExternally, filter: ((Node) -> Short)? = definedExternally): TreeWalker\n   fun getElementsByName(elementName: String): NodeList\n   fun open(type: String = definedExternally, replace: String = definedExternally): Document\n   fun open(url: String, name: String, features: String): Window\n   fun close()\n   fun write(vararg text: String)\n   fun writeln(vararg text: String)\n   fun hasFocus(): Boolean\n   fun execCommand(commandId: String, showUI: Boolean = definedExternally, value: String = definedExternally): Boolean\n   fun queryCommandEnabled(commandId: String): Boolean\n   fun queryCommandIndeterm(commandId: String): Boolean\n   fun queryCommandState(commandId: String): Boolean\n   fun queryCommandSupported(commandId: String): Boolean\n   fun queryCommandValue(commandId: String): String\n   fun clear()\n   fun captureEvents()\n   fun releaseEvents()\n   fun elementFromPoint(x: Double, y: Double): Element?\n   fun elementsFromPoint(x: Double, y: Double): Array<Element>\n   fun caretPositionFromPoint(x: Double, y: Double): CaretPosition?\n   fun createTouch(view: Window, target: EventTarget, identifier: Int, pageX: Int, pageY: Int, screenX: Int, screenY: Int): Touch\n   fun createTouchList(vararg touches: Touch): TouchList\n   fun exitFullscreen(): Promise<Unit>\n   override fun getElementById(elementId: String): Element?\n   override fun prepend(vararg nodes: dynamic)\n   override fun append(vararg nodes: dynamic)\n   override fun querySelector(selectors: String): Element?\n   override fun querySelectorAll(selectors: String): NodeList\n   override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n   override fun convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun

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convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* =
definedExternally */): DOMQuad\n    override fun convertPointFromNode(point: DOMPointInit, from: dynamic,
options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n\n    companion object {\n        val
ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE:
 Short\n        val NOTATION_NODE: Short\n        val DOCUMENT_POSITION_DISCONNECTED: Short\n
val DOCUMENT_POSITION_PRECEDING: Short\n        val DOCUMENT_POSITION_FOLLOWING: Short\n
   val DOCUMENT_POSITION_CONTAINS: Short\n        val DOCUMENT_POSITION_CONTAINED_BY:
Short\n        val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n
}\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Document.get(name: String):
dynamic = asDynamic()[name]\n\n/**\n * Exposes the JavaScript
[XMLDocument](https://developer.mozilla.org/en/docs/Web/API/XMLDocument) to Kotlin\n */\npublic external
open class XMLDocument : Document {\n    companion object {\n        val ELEMENT_NODE: Short\n        val
ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n
 val COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE:
Short\n        val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
      val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\npublic external interface
ElementCreationOptions {\n    var `is`: String?\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ElementCreationOptions(`is`: String?
= undefined): ElementCreationOptions {\n    val o = js(\"({})\")\n    o[\"is\"] = `is`\n    return o\n}\n\n/**\n *
Exposes the JavaScript
[DOMImplementation](https://developer.mozilla.org/en/docs/Web/API/DOMImplementation)
 to Kotlin\n */\npublic external abstract class DOMImplementation {\n    fun createDocumentType(qualifiedName:
String, publicId: String, systemId: String): DocumentType\n    fun createDocument(namespace: String?,
qualifiedName: String, doctype: DocumentType? = definedExternally): XMLDocument\n    fun
createHTMLDocument(title: String = definedExternally): Document\n    fun hasFeature(): Boolean\n}\n\n/**\n *
Exposes the JavaScript [DocumentType](https://developer.mozilla.org/en/docs/Web/API/DocumentType) to
Kotlin\n */\npublic external abstract class DocumentType : Node, ChildNode {\n    open val name: String\n    open
val publicId: String\n    open val systemId: String\n\n    companion object {\n        val ELEMENT_NODE: Short\n
   val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n
  val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE:
 Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
      val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
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[DocumentFragment](https://developer.mozilla.org/en/docs/Web/API/DocumentFragment) to Kotlin\n */\npublic external open class DocumentFragment : Node, NonElementParentNode, ParentNode {\n   override val children: HTMLCollection\n   override val firstElementChild: Element?\n   override val lastElementChild: Element?\n   override val childElementCount: Int\n   override fun getElementById(elementId: String): Element?\n   override fun prepend(vararg nodes: dynamic)\n   override fun append(vararg nodes: dynamic)\n   override fun querySelector(selectors: String): Element?\n   override fun querySelectorAll(selectors: String): NodeList\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [ShadowRoot](https://developer.mozilla.org/en/docs/Web/API/ShadowRoot) to Kotlin\n */\npublic external open class ShadowRoot : DocumentFragment, DocumentOrShadowRoot {\n   open val mode: ShadowRootMode\n   open val host: Element\n   override val fullscreenElement: Element?\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [Element](https://developer.mozilla.org/en/docs/Web/API/Element) to Kotlin\n */\npublic external abstract class Element : Node, ParentNode, NonDocumentTypeChildNode, ChildNode, Slotable, GeometryUtils, UnionElementOrHTMLCollection, UnionElementOrRadioNodeList, UnionElementOrMouseEvent, UnionElementOrProcessingInstruction {\n   open val namespaceURI: String?\n   open val prefix: String?\n   open val localName: String\n   open val tagName: String\n   open var id: String\n   open var className: String\n   open val classList: DOMTokenList\n   open var slot: String\n   open val attributes: NamedNodeMap\n   open val shadowRoot: ShadowRoot?\n   open var scrollTop: Double\n   open var scrollLeft: Double\n   open val scrollWidth: Int\n   open val scrollHeight: Int\n   open val clientTop: Int\n   open val clientLeft: Int\n   open val clientWidth: Int\n   open val clientHeight: Int\n   open var innerHTML: String\n   open var outerHTML: String\n   fun hasAttributes(): Boolean\n   fun getAttributeNames(): Array<String>\n   fun getAttribute(qualifiedName: String): String?\n   fun getAttributeNS(namespace: String?, localName: String): String?\n   fun setAttribute(qualifiedName: String, value: String)\n   fun setAttributeNS(namespace: String?, qualifiedName: String, value: String)\n   fun removeAttribute(qualifiedName: String)\n   fun removeAttributeNS(namespace: String?, localName: String)\n   fun hasAttribute(qualifiedName: String): Boolean\n   fun hasAttributeNS(namespace: String?, localName: String): Boolean\n   fun getAttributeNode(qualifiedName: String): Attr?\n   fun getAttributeNodeNS(namespace: String?, localName: String): Attr?\n   fun setAttributeNode(attr: Attr): Attr?\n   fun setAttributeNodeNS(attr: Attr): Attr?\n   fun removeAttributeNode(attr: Attr): Attr\n   fun attachShadow(init: ShadowRootInit): ShadowRoot\n   fun closest(selectors: String): Element?\n   fun matches(selectors: String): Boolean\n fun webkitMatchesSelector(selectors: String): Boolean\n fun getElementsByTagName(qualifiedName: String): HTMLCollection\n fun getElementsByTagNameNS(namespace: String?, localName: String): HTMLCollection\n fun getElementsByClassName(classNames: String): HTMLCollection\n fun insertAdjacentElement(where: String, element: Element): Element?\n fun insertAdjacentText(where: String, data: String)\n fun getClientRects(): Array<DOMRect>\n fun getBoundingClientRect(): DOMRect\n fun scrollIntoView()\n fun scrollIntoView(arg: dynamic)\n fun scroll(options: ScrollToOptions = definedExternally)\n fun scroll(x: Double, y: Double)\n fun scrollTo(options: ScrollToOptions = definedExternally)\n fun scrollTo(x: Double, y: Double)\n fun scrollBy(options: ScrollToOptions = definedExternally)\n fun scrollBy(x: Double, y: Double)\n fun insertAdjacentHTML(position: String, text: String)\n fun setPointerCapture(pointerId: Int)\n fun releasePointerCapture(pointerId: Int)\n fun hasPointerCapture(pointerId: Int): Boolean\n fun requestFullscreen(): Promise<Unit>\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external interface ShadowRootInit {\n var mode: ShadowRootMode?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ShadowRootInit(mode: ShadowRootMode?): ShadowRootInit {\n val o = js(\"({})\")\n o[\"mode\"] = mode\n return o\n}\n\n/**\n * Exposes the JavaScript [NamedNodeMap](https://developer.mozilla.org/en/docs/Web/API/NamedNodeMap) to Kotlin\n */\npublic external abstract class NamedNodeMap : ItemArrayLike<Attr> {\n fun getNamedItemNS(namespace: String?, localName: String): Attr?\n fun setNamedItem(attr: Attr): Attr?\n fun setNamedItemNS(attr: Attr): Attr?\n fun removeNamedItem(qualifiedName: String): Attr\n fun removeNamedItemNS(namespace: String?, localName: String): Attr\n override fun item(index: Int): Attr?\n fun getNamedItem(qualifiedName: String): Attr?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun NamedNodeMap.get(index: Int): Attr? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun NamedNodeMap.get(qualifiedName: String): Attr? = asDynamic()[qualifiedName]\n\n/**\n * Exposes the JavaScript [Attr](https://developer.mozilla.org/en/docs/Web/API/Attr) to Kotlin\n */\npublic external abstract class Attr : Node {\n open val namespaceURI: String?\n open val prefix: String?\n open val localName: String\n open val name: String\n open var value: String\n open val ownerElement: Element?\n open val specified: Boolean\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [CharacterData](https://developer.mozilla.org/en/docs/Web/API/CharacterData) to Kotlin\n

*/\npublic external abstract class CharacterData : Node, NonDocumentTypeChildNode, ChildNode {\n   open var data: String\n   open val length: Int\n   fun substringData(offset: Int, count: Int): String\n   fun appendData(data: String)\n   fun insertData(offset: Int, data: String)\n   fun deleteData(offset: Int, count: Int)\n   fun replaceData(offset: Int, count: Int, data: String)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [Text](https://developer.mozilla.org/en/docs/Web/API/Text) to Kotlin\n */\npublic external open class Text(data: String = definedExternally) : CharacterData, Slotable, GeometryUtils {\n   open val wholeText: String\n   override val assignedSlot: HTMLSlotElement?\n   override val previousElementSibling: Element?\n   override val nextElementSibling: Element?\n   fun splitText(offset: Int): Text\n   override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n   override fun convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n   override fun before(vararg nodes: dynamic)\n   override fun after(vararg nodes: dynamic)\n   override fun replaceWith(vararg nodes: dynamic)\n   override fun remove()\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [CDATASection](https://developer.mozilla.org/en/docs/Web/API/CDATASection) to Kotlin\n */\npublic external open class CDATASection : Text {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [ProcessingInstruction](https://developer.mozilla.org/en/docs/Web/API/ProcessingInstruction) to Kotlin\n */\npublic external abstract class ProcessingInstruction : CharacterData, LinkStyle, UnionElementOrProcessingInstruction {\n   open val target: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val

CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [Comment](https://developer.mozilla.org/en/docs/Web/API/Comment) to Kotlin\n */\npublic external open class Comment(data: String = definedExternally) : CharacterData {\n override val previousElementSibling: Element?\n override val nextElementSibling: Element?\n override fun before(vararg nodes: dynamic)\n override fun after(vararg nodes: dynamic)\n override fun replaceWith(vararg nodes: dynamic)\n override fun remove()\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [Range](https://developer.mozilla.org/en/docs/Web/API/Range) to Kotlin\n */\npublic external open class Range {\n open val startContainer: Node\n open val startOffset: Int\n open val endContainer: Node\n open val endOffset: Int\n open val collapsed: Boolean\n open val commonAncestorContainer: Node\n fun setStart(node: Node, offset: Int)\n fun setEnd(node: Node, offset: Int)\n fun setStartBefore(node: Node)\n fun setStartAfter(node: Node)\n fun setEndBefore(node: Node)\n fun setEndAfter(node: Node)\n fun collapse(toStart: Boolean = definedExternally)\n fun selectNode(node: Node)\n fun selectNodeContents(node: Node)\n fun compareBoundaryPoints(how: Short, sourceRange: Range): Short\n fun deleteContents()\n fun extractContents(): DocumentFragment\n fun cloneContents(): DocumentFragment\n fun insertNode(node: Node)\n fun surroundContents(newParent: Node)\n fun cloneRange(): Range\n fun detach()\n fun isPointInRange(node: Node, offset: Int): Boolean\n fun comparePoint(node: Node, offset: Int): Short\n fun intersectsNode(node: Node): Boolean\n fun getClientRects(): Array<DOMRect>\n fun getBoundingClientRect(): DOMRect\n fun createContextualFragment(fragment: String): DocumentFragment\n\n companion object {\n val START_TO_START: Short\n val START_TO_END: Short\n val END_TO_END: Short\n val END_TO_START: Short\n }\n}\n\n/**\n * Exposes the JavaScript [NodeIterator](https://developer.mozilla.org/en/docs/Web/API/NodeIterator) to Kotlin\n */\npublic external abstract class NodeIterator {\n open val root: Node\n open val referenceNode: Node\n open val pointerBeforeReferenceNode: Boolean\n open val whatToShow: Int\n open val filter: NodeFilter?\n fun nextNode(): Node?\n fun previousNode(): Node?\n fun detach()\n}\n\n/**\n * Exposes the JavaScript [TreeWalker](https://developer.mozilla.org/en/docs/Web/API/TreeWalker) to Kotlin\n */\npublic external abstract class TreeWalker {\n open val root: Node\n open val whatToShow: Int\n open val filter: NodeFilter?\n open var currentNode: Node\n fun parentNode(): Node?\n fun firstChild(): Node?\n fun lastChild(): Node?\n fun previousSibling(): Node?\n fun nextSibling(): Node?\n fun previousNode(): Node?\n fun nextNode(): Node?\n}\n\n/**\n * Exposes the JavaScript [NodeFilter](https://developer.mozilla.org/en/docs/Web/API/NodeFilter) to Kotlin\n */\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface NodeFilter {\n

```
fun acceptNode(node: Node): Short\n\n    companion object {\n        val FILTER_ACCEPT: Short\n        val
FILTER_REJECT: Short\n        val FILTER_SKIP: Short\n        val SHOW_ALL: Int\n        val
SHOW_ELEMENT: Int\n        val SHOW_ATTRIBUTE: Int\n        val SHOW_TEXT: Int\n        val
SHOW_CDATA_SECTION: Int\n        val SHOW_ENTITY_REFERENCE: Int\n        val SHOW_ENTITY: Int\n
    val SHOW_PROCESSING_INSTRUCTION: Int\n        val SHOW_COMMENT: Int\n        val
SHOW_DOCUMENT: Int\n        val SHOW_DOCUMENT_TYPE:
 Int\n        val SHOW_DOCUMENT_FRAGMENT: Int\n        val SHOW_NOTATION: Int\n    }\n}\n\n/**\n *
Exposes the JavaScript [DOMTokenList](https://developer.mozilla.org/en/docs/Web/API/DOMTokenList) to
Kotlin\n */\npublic external abstract class DOMTokenList : ItemArrayLike<String> {\n    open var value: String\n
fun contains(token: String): Boolean\n    fun add(vararg tokens: String)\n    fun remove(vararg tokens: String)\n
fun toggle(token: String, force: Boolean = definedExternally): Boolean\n    fun replace(token: String, newToken:
String)\n    fun supports(token: String): Boolean\n    override fun item(index: Int):
String?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun DOMTokenList.get(index:
Int): String? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript
[DOMPointReadOnly](https://developer.mozilla.org/en/docs/Web/API/DOMPointReadOnly) to Kotlin\n */\npublic
external open class DOMPointReadOnly(x:
 Double, y: Double, z: Double, w: Double) {\n    open val x: Double\n    open val y: Double\n    open val z:
Double\n    open val w: Double\n    fun matrixTransform(matrix: DOMMatrixReadOnly): DOMPoint\n}\n\n/**\n *
Exposes the JavaScript [DOMPoint](https://developer.mozilla.org/en/docs/Web/API/DOMPoint) to Kotlin\n
*/\npublic external open class DOMPoint : DOMPointReadOnly {\n    constructor(point: DOMPointInit)\n
constructor(x: Double = definedExternally, y: Double = definedExternally, z: Double = definedExternally, w:
Double = definedExternally)\n    override var x: Double\n    override var y: Double\n    override var z: Double\n
override var w: Double\n}\n\n/**\n * Exposes the JavaScript
[DOMPointInit](https://developer.mozilla.org/en/docs/Web/API/DOMPointInit) to Kotlin\n */\npublic external
interface DOMPointInit {\n    var x: Double? /* = 0.0 */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var y: Double? /* = 0.0 */\n        get()
 = definedExternally\n        set(value) = definedExternally\n    var z: Double? /* = 0.0 */\n        get() =
definedExternally\n        set(value) = definedExternally\n    var w: Double? /* = 1.0 */\n        get() =
definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun DOMPointInit(x: Double? = 0.0, y:
Double? = 0.0, z: Double? = 0.0, w: Double? = 1.0): DOMPointInit {\n    val o = js(\"({})\")\n    o[\"x\"] = x\n
o[\"y\"] = y\n    o[\"z\"] = z\n    o[\"w\"] = w\n    return o\n}\n\n/**\n * Exposes the JavaScript
[DOMRect](https://developer.mozilla.org/en/docs/Web/API/DOMRect) to Kotlin\n */\npublic external open class
DOMRect(x: Double = definedExternally, y: Double = definedExternally, width: Double = definedExternally,
height: Double = definedExternally) : DOMRectReadOnly {\n    override var x: Double\n    override var y: Double\n
  override var width: Double\n    override
 var height: Double\n}\n\n/**\n * Exposes the JavaScript
[DOMRectReadOnly](https://developer.mozilla.org/en/docs/Web/API/DOMRectReadOnly) to Kotlin\n */\npublic
external open class DOMRectReadOnly(x: Double, y: Double, width: Double, height: Double) {\n    open val x:
Double\n    open val y: Double\n    open val width: Double\n    open val height: Double\n    open val top: Double\n
open val right: Double\n    open val bottom: Double\n    open val left: Double\n}\n\npublic external interface
DOMRectInit {\n    var x: Double? /* = 0.0 */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var y: Double? /* = 0.0 */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var width: Double? /* = 0.0 */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var height: Double? /* = 0.0 */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic
```

inline fun DOMRectInit(x: Double? = 0.0, y: Double? = 0.0, width: Double? = 0.0, height: Double? = 0.0): DOMRectInit {\n   val o = js(\"({})\")\n   o[\"x\"] = x\n   o[\"y\"] = y\n   o[\"width\"] = width\n   o[\"height\"] = height\n   return o\n}\n\npublic external interface DOMRectList : ItemArrayLike<DOMRect> {\n   override fun item(index: Int): DOMRect?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun DOMRectList.get(index: Int): DOMRect? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [DOMQuad](https://developer.mozilla.org/en/docs/Web/API/DOMQuad) to Kotlin\n */\npublic external open class DOMQuad {\n   constructor(p1: DOMPointInit = definedExternally, p2: DOMPointInit = definedExternally, p3: DOMPointInit = definedExternally, p4: DOMPointInit = definedExternally)\n   constructor(rect: DOMRectInit)\n   open val p1: DOMPoint\n   open val p2:
DOMPoint\n   open val p3: DOMPoint\n   open val p4: DOMPoint\n   open val bounds: DOMRectReadOnly\n}\n\n/**\n * Exposes the JavaScript [DOMMatrixReadOnly](https://developer.mozilla.org/en/docs/Web/API/DOMMatrixReadOnly) to Kotlin\n */\npublic external open class DOMMatrixReadOnly(numberSequence: Array<Double>) {\n   open val a: Double\n   open val b: Double\n   open val c: Double\n   open val d: Double\n   open val e: Double\n   open val f: Double\n   open val m11: Double\n   open val m12: Double\n   open val m13: Double\n   open val m14: Double\n   open val m21: Double\n   open val m22: Double\n   open val m23: Double\n   open val m24: Double\n   open val m31: Double\n   open val m32: Double\n   open val m33: Double\n   open val m34: Double\n   open val m41: Double\n   open val m42: Double\n   open val m43: Double\n   open val m44: Double\n   open val is2D: Boolean\n   open val isIdentity: Boolean\n   fun translate(tx: Double, ty: Double, tz: Double = definedExternally):
DOMMatrix\n   fun scale(scale: Double, originX: Double = definedExternally, originY: Double = definedExternally): DOMMatrix\n   fun scale3d(scale: Double, originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double = definedExternally): DOMMatrix\n   fun scaleNonUniform(scaleX: Double, scaleY: Double = definedExternally, scaleZ: Double = definedExternally, originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double = definedExternally): DOMMatrix\n   fun rotate(angle: Double, originX: Double = definedExternally, originY: Double = definedExternally): DOMMatrix\n   fun rotateFromVector(x: Double, y: Double): DOMMatrix\n   fun rotateAxisAngle(x: Double, y: Double, z: Double, angle: Double): DOMMatrix\n   fun skewX(sx: Double): DOMMatrix\n   fun skewY(sy: Double): DOMMatrix\n   fun multiply(other: DOMMatrix): DOMMatrix\n   fun flipX(): DOMMatrix\n   fun flipY(): DOMMatrix\n   fun inverse(): DOMMatrix\n
fun transformPoint(point: DOMPointInit = definedExternally): DOMPoint\n   fun toFloat32Array(): Float32Array\n   fun toFloat64Array(): Float64Array\n}\n\n/**\n * Exposes the JavaScript [DOMMatrix](https://developer.mozilla.org/en/docs/Web/API/DOMMatrix) to Kotlin\n */\npublic external open class DOMMatrix() : DOMMatrixReadOnly {\n   constructor(transformList: String)\n   constructor(other: DOMMatrixReadOnly)\n   constructor(array32: Float32Array)\n   constructor(array64: Float64Array)\n   constructor(numberSequence: Array<Double>)\n   override var a: Double\n   override var b: Double\n   override var c: Double\n   override var d: Double\n   override var e: Double\n   override var f: Double\n   override var m11: Double\n   override var m12: Double\n   override var m13: Double\n   override var m14: Double\n   override var m21: Double\n   override var m22: Double\n   override var m23: Double\n   override var m24: Double\n   override var m31: Double\n   override
var m32: Double\n   override var m33: Double\n   override var m34: Double\n   override var m41: Double\n   override var m42: Double\n   override var m43: Double\n   override var m44: Double\n   fun multiplySelf(other: DOMMatrix): DOMMatrix\n   fun preMultiplySelf(other: DOMMatrix): DOMMatrix\n   fun translateSelf(tx: Double, ty: Double, tz: Double = definedExternally): DOMMatrix\n   fun scaleSelf(scale: Double, originX: Double = definedExternally, originY: Double = definedExternally): DOMMatrix\n   fun scale3dSelf(scale: Double, originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double = definedExternally): DOMMatrix\n   fun scaleNonUniformSelf(scaleX: Double, scaleY: Double = definedExternally, scaleZ: Double = definedExternally, originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double =

definedExternally): DOMMatrix\n   fun rotateSelf(angle: Double, originX: Double = definedExternally, originY: Double = definedExternally):
 DOMMatrix\n   fun rotateFromVectorSelf(x: Double, y: Double): DOMMatrix\n   fun rotateAxisAngleSelf(x: Double, y: Double, z: Double, angle: Double): DOMMatrix\n   fun skewXSelf(sx: Double): DOMMatrix\n   fun skewYSelf(sy: Double): DOMMatrix\n   fun invertSelf(): DOMMatrix\n   fun setMatrixValue(transformList: String): DOMMatrix\n}\n\npublic external interface ScrollOptions {\n   var behavior: ScrollBehavior? /* = ScrollBehavior.AUTO */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ScrollOptions(behavior: ScrollBehavior? = ScrollBehavior.AUTO): ScrollOptions {\n   val o = js(\"({})\")\n   o[\"behavior\"] = behavior\n   return o\n}\n\n/**\n * Exposes the JavaScript [ScrollToOptions](https://developer.mozilla.org/en/docs/Web/API/ScrollToOptions) to Kotlin\n */\npublic external interface ScrollToOptions : ScrollOptions {\n
   var left: Double?\n   get() = definedExternally\n   set(value) = definedExternally\n   var top: Double?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ScrollToOptions(left: Double? = undefined, top: Double? = undefined, behavior: ScrollBehavior? = ScrollBehavior.AUTO): ScrollToOptions {\n   val o = js(\"({})\")\n   o[\"left\"] = left\n   o[\"top\"] = top\n   o[\"behavior\"] = behavior\n   return o\n}\n\n/**\n * Exposes the JavaScript [MediaQueryList](https://developer.mozilla.org/en/docs/Web/API/MediaQueryList) to Kotlin\n */\npublic external abstract class MediaQueryList : EventTarget {\n   open val media: String\n   open val matches: Boolean\n   open var onchange: ((Event) -> dynamic)?\n   fun addListener(listener: EventListener?)\n   fun addListener(listener: ((Event) -> Unit)?)\n   fun removeListener(listener: EventListener?)\n
    fun removeListener(listener: ((Event) -> Unit)?)\n}\n\n/**\n * Exposes the JavaScript [MediaQueryListEvent](https://developer.mozilla.org/en/docs/Web/API/MediaQueryListEvent) to Kotlin\n */\npublic external open class MediaQueryListEvent(type: String, eventInitDict: MediaQueryListEventInit = definedExternally) : Event {\n   open val media: String\n   open val matches: Boolean\n\n   companion object {\n
   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface MediaQueryListEventInit : EventInit {\n   var media: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var matches: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaQueryListEventInit(media: String? =
 \"\", matches: Boolean? = false, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): MediaQueryListEventInit {\n   val o = js(\"({})\")\n   o[\"media\"] = media\n   o[\"matches\"] = matches\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [Screen](https://developer.mozilla.org/en/docs/Web/API/Screen) to Kotlin\n */\npublic external abstract class Screen {\n   open val availWidth: Int\n   open val availHeight: Int\n   open val width: Int\n   open val height: Int\n   open val colorDepth: Int\n   open val pixelDepth: Int\n}\n\n/**\n * Exposes the JavaScript [CaretPosition](https://developer.mozilla.org/en/docs/Web/API/CaretPosition) to Kotlin\n */\npublic external abstract class CaretPosition {\n   open val offsetNode: Node\n   open val offset: Int\n   fun getClientRect(): DOMRect?\n}\n\npublic external interface ScrollIntoViewOptions : ScrollOptions
 {\n   var block: ScrollLogicalPosition? /* = ScrollLogicalPosition.CENTER */\n   get() = definedExternally\n
  set(value) = definedExternally\n   var inline: ScrollLogicalPosition? /* = ScrollLogicalPosition.CENTER */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ScrollIntoViewOptions(block: ScrollLogicalPosition? = ScrollLogicalPosition.CENTER, inline: ScrollLogicalPosition? = ScrollLogicalPosition.CENTER, behavior: ScrollBehavior? = ScrollBehavior.AUTO): ScrollIntoViewOptions {\n

val o = js(\"({})\")\n   o[\"block\"] = block\n   o[\"inline\"] = inline\n   o[\"behavior\"] = behavior\n   return o\n}\n\npublic external interface BoxQuadOptions {\n   var box: CSSBoxType? /* = CSSBoxType.BORDER */\n   get() = definedExternally\n   set(value) = definedExternally\n   var relativeTo: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun BoxQuadOptions(box: CSSBoxType? = CSSBoxType.BORDER, relativeTo: dynamic = undefined): BoxQuadOptions {\n   val o = js(\"({})\")\n   o[\"box\"] = box\n   o[\"relativeTo\"] = relativeTo\n   return o\n}\n\npublic external interface ConvertCoordinateOptions {\n   var fromBox: CSSBoxType? /* = CSSBoxType.BORDER */\n   get() = definedExternally\n   set(value) = definedExternally\n   var toBox: CSSBoxType? /* = CSSBoxType.BORDER */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConvertCoordinateOptions(fromBox: CSSBoxType? = CSSBoxType.BORDER, toBox: CSSBoxType? = CSSBoxType.BORDER): ConvertCoordinateOptions {\n   val o = js(\"({})\")\n   o[\"fromBox\"] = fromBox\n   o[\"toBox\"] = toBox\n   return o\n}\n\n/**\n * Exposes the JavaScript [GeometryUtils](https://developer.mozilla.org/en/docs/Web/API/GeometryUtils) to Kotlin\n */\npublic external interface GeometryUtils {\n   fun getBoxQuads(options: BoxQuadOptions = definedExternally): Array<DOMQuad>\n   fun convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions = definedExternally): DOMQuad\n   fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions = definedExternally): DOMQuad\n   fun convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions = definedExternally): DOMPoint\n}\n\n/**\n * Exposes the JavaScript [Touch](https://developer.mozilla.org/en/docs/Web/API/Touch) to Kotlin\n */\npublic external abstract class Touch {\n   open val identifier: Int\n   open val target: EventTarget\n   open val screenX: Int\n   open val screenY: Int\n   open val clientX: Int\n   open val clientY: Int\n   open val pageX: Int\n   open val pageY: Int\n   open val region: String?\n}\n\npublic external abstract class TouchList : ItemArrayLike<Touch> {\n   override fun item(index: Int): Touch?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun TouchList.get(index: Int): Touch? = asDynamic()[index]\n\npublic external open class TouchEvent : UIEvent {\n   open val touches: TouchList\n   open val targetTouches: TouchList\n   open val changedTouches: TouchList\n   open val altKey: Boolean\n   open val metaKey: Boolean\n   open val ctrlKey: Boolean\n   open val shiftKey: Boolean\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [Image](https://developer.mozilla.org/en/docs/Web/API/Image) to Kotlin\n */\npublic external open class Image(width: Int = definedExternally, height: Int = definedExternally) : HTMLImageElement {\n   override var onabort: ((Event) -> dynamic)?\n   override var onblur: ((FocusEvent) -> dynamic)?\n   override var oncancel: ((Event) -> dynamic)?\n   override var oncanplay: ((Event) -> dynamic)?\n   override var oncanplaythrough: ((Event) -> dynamic)?\n   override var onchange: ((Event) -> dynamic)?\n   override var onclick: ((MouseEvent) -> dynamic)?\n   override var onclose: ((Event) -> dynamic)?\n   override var oncontextmenu: ((MouseEvent) -> dynamic)?\n   override var oncuechange: ((Event) -> dynamic)?\n   override var ondblclick: ((MouseEvent) -> dynamic)?\n   override var ondrag: ((DragEvent) -> dynamic)?\n   override var ondragend: ((DragEvent) -> dynamic)?\n   override var ondragenter: ((DragEvent) -> dynamic)?\n   override var ondragexit: ((DragEvent) -> dynamic)?\n   override var ondragleave: ((DragEvent) -> dynamic)?\n   override var ondragover: ((DragEvent) -> dynamic)?\n   override var ondragstart: ((DragEvent) -> dynamic)?\n   override var ondrop: ((DragEvent) -> dynamic)?\n   override var ondurationchange: ((Event) -> dynamic)?\n   override var onemptied: ((Event) -> dynamic)?\n   override var onended: ((Event) -> dynamic)?\n

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override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n    override var onfocus: ((FocusEvent) ->
dynamic)?\n    override var oninput: ((InputEvent) -> dynamic)?\n    override var oninvalid: ((Event) -> dynamic)?\n
  override var onkeydown: ((KeyboardEvent) -> dynamic)?\n    override var onkeypress: ((KeyboardEvent) ->
dynamic)?\n    override var onkeyup: ((KeyboardEvent) -> dynamic)?\n    override var onload: ((Event) ->
dynamic)?\n    override var onloadeddata: ((Event) -> dynamic)?\n    override var onloadedmetadata: ((Event) ->
dynamic)?\n    override var onloadend: ((Event) -> dynamic)?\n    override var onloadstart: ((ProgressEvent) ->
dynamic)?\n    override var onmousedown: ((MouseEvent) -> dynamic)?\n    override var onmouseenter:
((MouseEvent)
 -> dynamic)?\n    override var onmouseleave: ((MouseEvent) -> dynamic)?\n    override var onmousemove:
((MouseEvent) -> dynamic)?\n    override var onmouseout: ((MouseEvent) -> dynamic)?\n    override var
onmouseover: ((MouseEvent) -> dynamic)?\n    override var onmouseup: ((MouseEvent) -> dynamic)?\n    override
var onwheel: ((WheelEvent) -> dynamic)?\n    override var onpause: ((Event) -> dynamic)?\n    override var onplay:
((Event) -> dynamic)?\n    override var onplaying: ((Event) -> dynamic)?\n    override var onprogress:
((ProgressEvent) -> dynamic)?\n    override var onratechange: ((Event) -> dynamic)?\n    override var onreset:
((Event) -> dynamic)?\n    override var onresize: ((Event) -> dynamic)?\n    override var onscroll: ((Event) ->
dynamic)?\n    override var onseeked: ((Event) -> dynamic)?\n    override var onseeking: ((Event) -> dynamic)?\n
override var onselect: ((Event) -> dynamic)?\n    override var onshow: ((Event) -> dynamic)?\n    override var
onstalled:
 ((Event) -> dynamic)?\n    override var onsubmit: ((Event) -> dynamic)?\n    override var onsuspend: ((Event) ->
dynamic)?\n    override var ontimeupdate: ((Event) -> dynamic)?\n    override var ontoggle: ((Event) -> dynamic)?\n
  override var onvolumechange: ((Event) -> dynamic)?\n    override var onwaiting: ((Event) -> dynamic)?\n
override var ongotpointercapture: ((PointerEvent) -> dynamic)?\n    override var onlostpointercapture:
((PointerEvent) -> dynamic)?\n    override var onpointerdown: ((PointerEvent) -> dynamic)?\n    override var
onpointermove: ((PointerEvent) -> dynamic)?\n    override var onpointerup: ((PointerEvent) -> dynamic)?\n
override var onpointercancel: ((PointerEvent) -> dynamic)?\n    override var onpointerover: ((PointerEvent) ->
dynamic)?\n    override var onpointerout: ((PointerEvent) -> dynamic)?\n    override var onpointerenter:
((PointerEvent) -> dynamic)?\n    override var onpointerleave: ((PointerEvent) -> dynamic)?\n    override var
oncopy: ((ClipboardEvent)
 -> dynamic)?\n    override var oncut: ((ClipboardEvent) -> dynamic)?\n    override var onpaste: ((ClipboardEvent) -
> dynamic)?\n    override var contentEditable: String\n    override val isContentEditable: Boolean\n    override val
style: CSSStyleDeclaration\n    override val children: HTMLCollection\n    override val firstElementChild:
Element?\n    override val lastElementChild: Element?\n    override val childElementCount: Int\n    override val
previousElementSibling: Element?\n    override val nextElementSibling: Element?\n    override val assignedSlot:
HTMLSlotElement?\n    override fun prepend(vararg nodes: dynamic)\n    override fun append(vararg nodes:
dynamic)\n    override fun querySelector(selectors: String): Element?\n    override fun querySelectorAll(selectors:
String): NodeList\n    override fun before(vararg nodes: dynamic)\n    override fun after(vararg nodes: dynamic)\n
override fun replaceWith(vararg nodes: dynamic)\n    override fun remove()\n    override
 fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n    override fun
convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally
*/): DOMQuad\n    override fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options:
ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n    override fun convertPointFromNode(point:
DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n\n
companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE: Short\n        val
TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE:
Short\n        val ENTITY_NODE: Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val
COMMENT_NODE: Short\n        val DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n
      val DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
```

DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external open class Audio(src: String = definedExternally) : HTMLAudioElement {\n   override var onabort: ((Event) -> dynamic)?\n   override var onblur: ((FocusEvent) -> dynamic)?\n   override var oncancel: ((Event) -> dynamic)?\n   override var oncanplay: ((Event) -> dynamic)?\n   override var oncanplaythrough: ((Event) -> dynamic)?\n   override var onchange: ((Event) -> dynamic)?\n   override var onclick: ((MouseEvent) -> dynamic)?\n   override var onclose: ((Event) -> dynamic)?\n   override var oncontextmenu: ((MouseEvent) -> dynamic)?\n   override var oncuechange: ((Event) -> dynamic)?\n   override var ondblclick: ((MouseEvent) -> dynamic)?\n   override var ondrag: ((DragEvent) -> dynamic)?\n   override var ondragend: ((DragEvent) -> dynamic)?\n   override var ondragenter: ((DragEvent) -> dynamic)?\n   override var ondragexit: ((DragEvent) -> dynamic)?\n   override var ondragleave: ((DragEvent) -> dynamic)?\n   override var ondragover: ((DragEvent) -> dynamic)?\n   override var ondragstart: ((DragEvent) -> dynamic)?\n   override var ondrop: ((DragEvent) -> dynamic)?\n   override var ondurationchange: ((Event) -> dynamic)?\n   override var onemptied: ((Event) -> dynamic)?\n   override var onended: ((Event) -> dynamic)?\n   override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n   override var onfocus: ((FocusEvent) -> dynamic)?\n   override var oninput: ((InputEvent) -> dynamic)?\n   override var oninvalid: ((Event) -> dynamic)?\n   override var onkeydown: ((KeyboardEvent) -> dynamic)?\n   override var onkeypress: ((KeyboardEvent) -> dynamic)?\n   override var onkeyup: ((KeyboardEvent) -> dynamic)?\n   override var onload: ((Event) -> dynamic)?\n   override var onloadeddata: ((Event) -> dynamic)?\n   override var onloadedmetadata: ((Event) -> dynamic)?\n   override var onloadend: ((Event) -> dynamic)?\n   override var onloadstart: ((ProgressEvent) -> dynamic)?\n   override var onmousedown: ((MouseEvent) -> dynamic)?\n   override var onmouseenter: ((MouseEvent) -> dynamic)?\n   override var onmouseleave: ((MouseEvent) -> dynamic)?\n   override var onmousemove: ((MouseEvent) -> dynamic)?\n   override var onmouseout: ((MouseEvent) -> dynamic)?\n   override var onmouseover: ((MouseEvent) -> dynamic)?\n   override var onmouseup: ((MouseEvent) -> dynamic)?\n   override var onwheel: ((WheelEvent) -> dynamic)?\n   override var onpause: ((Event) -> dynamic)?\n   override var onplay: ((Event) -> dynamic)?\n   override var onplaying: ((Event) -> dynamic)?\n   override var onprogress: ((ProgressEvent) -> dynamic)?\n   override var onratechange: ((Event) -> dynamic)?\n   override var onreset: ((Event) -> dynamic)?\n   override var onresize: ((Event) -> dynamic)?\n   override var onscroll: ((Event) -> dynamic)?\n   override var onseeked: ((Event) -> dynamic)?\n   override var onseeking: ((Event) -> dynamic)?\n   override var onselect: ((Event) -> dynamic)?\n   override var onshow: ((Event) -> dynamic)?\n   override var onstalled: ((Event) -> dynamic)?\n   override var onsubmit: ((Event) -> dynamic)?\n   override var onsuspend: ((Event) -> dynamic)?\n   override var ontimeupdate: ((Event) -> dynamic)?\n   override var ontoggle: ((Event) -> dynamic)?\n   override var onvolumechange: ((Event) -> dynamic)?\n   override var onwaiting: ((Event) -> dynamic)?\n   override var ongotpointercapture: ((PointerEvent) -> dynamic)?\n   override var onlostpointercapture: ((PointerEvent) -> dynamic)?\n   override var onpointerdown: ((PointerEvent) -> dynamic)?\n   override var onpointermove: ((PointerEvent) -> dynamic)?\n   override var onpointerup: ((PointerEvent) -> dynamic)?\n   override var onpointercancel: ((PointerEvent) -> dynamic)?\n   override var onpointerover: ((PointerEvent) -> dynamic)?\n   override var onpointerout: ((PointerEvent) -> dynamic)?\n   override var onpointerenter: ((PointerEvent) -> dynamic)?\n   override var onpointerleave: ((PointerEvent) -> dynamic)?\n   override var oncopy: ((ClipboardEvent) -> dynamic)?\n   override var oncut: ((ClipboardEvent) -> dynamic)?\n   override var onpaste: ((ClipboardEvent) -> dynamic)?\n   override var contentEditable: String\n   override val isContentEditable: Boolean\n   override val style: CSSStyleDeclaration\n   override val children: HTMLCollection\n   override val firstElementChild: Element?\n   override val lastElementChild: Element?\n   override val childElementCount: Int\n   override val previousElementSibling: Element?\n   override val nextElementSibling: Element?\n   override val assignedSlot: HTMLSlotElement?\n   override fun prepend(vararg nodes: dynamic)\n override fun append(vararg nodes: dynamic)\n   override fun querySelector(selectors: String): Element?\n   override fun querySelectorAll(selectors: String): NodeList\n   override fun before(vararg nodes: dynamic)\n   override fun after(vararg nodes: dynamic)\n   override fun replaceWith(vararg nodes: dynamic)\n   override fun remove()\n   override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n   override fun convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n\n   companion object {\n   val NETWORK_EMPTY: Short\n   val NETWORK_IDLE: Short\n   val NETWORK_LOADING: Short\n

val NETWORK_NO_SOURCE: Short\n   val HAVE_NOTHING: Short\n   val HAVE_METADATA: Short\n   val HAVE_CURRENT_DATA: Short\n   val HAVE_FUTURE_DATA: Short\n   val HAVE_ENOUGH_DATA: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [Option](https://developer.mozilla.org/en/docs/Web/API/Option) to Kotlin\n */\npublic external open class Option(text: String = definedExternally, value: String = definedExternally, defaultSelected: Boolean = definedExternally, selected: Boolean = definedExternally) : HTMLOptionElement {\n   override var onabort: ((Event) -> dynamic)?\n   override var onblur: ((FocusEvent) -> dynamic)?\n   override var oncancel: ((Event) -> dynamic)?\n   override var oncanplay: ((Event) -> dynamic)?\n   override var oncanplaythrough: ((Event) -> dynamic)?\n   override var onchange: ((Event) -> dynamic)?\n   override var onclick: ((MouseEvent) -> dynamic)?\n   override var onclose: ((Event) -> dynamic)?\n   override var oncontextmenu: ((MouseEvent) -> dynamic)?\n   override var oncuechange: ((Event) -> dynamic)?\n   override var ondblclick: ((MouseEvent) -> dynamic)?\n   override var ondrag: ((DragEvent) -> dynamic)?\n   override var ondragend: ((DragEvent) -> dynamic)?\n   override

var ondragenter: ((DragEvent) -> dynamic)?\n   override var ondragexit: ((DragEvent) -> dynamic)?\n   override var ondragleave: ((DragEvent) -> dynamic)?\n   override var ondragover: ((DragEvent) -> dynamic)?\n   override var ondragstart: ((DragEvent) -> dynamic)?\n   override var ondrop: ((DragEvent) -> dynamic)?\n   override var ondurationchange: ((Event) -> dynamic)?\n   override var onemptied: ((Event) -> dynamic)?\n   override var onended: ((Event) -> dynamic)?\n   override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n   override var onfocus: ((FocusEvent) -> dynamic)?\n   override var oninput: ((InputEvent) -> dynamic)?\n   override var oninvalid: ((Event) -> dynamic)?\n   override var onkeydown: ((KeyboardEvent) -> dynamic)?\n   override var onkeypress: ((KeyboardEvent) -> dynamic)?\n   override var onkeyup: ((KeyboardEvent) -> dynamic)?\n   override var onload: ((Event) -> dynamic)?\n   override var onloadeddata: ((Event) -> dynamic)?\n

override var onloadedmetadata: ((Event) -> dynamic)?\n   override var onloadend: ((Event) -> dynamic)?\n   override var onloadstart: ((ProgressEvent) -> dynamic)?\n   override var onmousedown: ((MouseEvent) -> dynamic)?\n   override var onmouseenter: ((MouseEvent) -> dynamic)?\n   override var onmouseleave: ((MouseEvent) -> dynamic)?\n   override var onmousemove: ((MouseEvent) -> dynamic)?\n   override var onmouseout: ((MouseEvent) -> dynamic)?\n   override var onmouseover: ((MouseEvent) -> dynamic)?\n   override var onmouseup: ((MouseEvent) -> dynamic)?\n   override var onwheel: ((WheelEvent) -> dynamic)?\n   override var onpause: ((Event) -> dynamic)?\n   override var onplay: ((Event) -> dynamic)?\n   override var onplaying: ((Event) -> dynamic)?\n   override var onprogress: ((ProgressEvent) -> dynamic)?\n   override var onratechange:

((Event) -> dynamic)?\n   override var onreset: ((Event) -> dynamic)?\n   override var onresize: ((Event) -> dynamic)?\n   override
var onscroll: ((Event) -> dynamic)?\n   override var onseeked: ((Event) -> dynamic)?\n   override var onseeking: ((Event) -> dynamic)?\n   override var onselect: ((Event) -> dynamic)?\n   override var onshow: ((Event) -> dynamic)?\n   override var onstalled: ((Event) -> dynamic)?\n   override var onsubmit: ((Event) -> dynamic)?\n   override var onsuspend: ((Event) -> dynamic)?\n   override var ontimeupdate: ((Event) -> dynamic)?\n   override var ontoggle: ((Event) -> dynamic)?\n   override var onvolumechange: ((Event) -> dynamic)?\n   override var onwaiting: ((Event) -> dynamic)?\n   override var ongotpointercapture: ((PointerEvent) -> dynamic)?\n   override var onlostpointercapture: ((PointerEvent) -> dynamic)?\n   override var onpointerdown: ((PointerEvent) -> dynamic)?\n   override var onpointermove: ((PointerEvent) -> dynamic)?\n   override var onpointerup: ((PointerEvent) -> dynamic)?\n   override var onpointercancel: ((PointerEvent) -> dynamic)?\n   override
var onpointerover: ((PointerEvent) -> dynamic)?\n   override var onpointerout: ((PointerEvent) -> dynamic)?\n   override var onpointerenter: ((PointerEvent) -> dynamic)?\n   override var onpointerleave: ((PointerEvent) -> dynamic)?\n   override var oncopy: ((ClipboardEvent) -> dynamic)?\n   override var oncut: ((ClipboardEvent) -> dynamic)?\n   override var onpaste: ((ClipboardEvent) -> dynamic)?\n   override var contentEditable: String\n   override val isContentEditable: Boolean\n   override val style: CSSStyleDeclaration\n   override val children: HTMLCollection\n   override val firstElementChild: Element?\n   override val lastElementChild: Element?\n   override val childElementCount: Int\n   override val previousElementSibling: Element?\n   override val nextElementSibling: Element?\n   override val assignedSlot: HTMLSlotElement?\n   override fun prepend(vararg nodes: dynamic)\n   override fun append(vararg nodes: dynamic)\n   override fun querySelector(selectors:
String): Element?\n   override fun querySelectorAll(selectors: String): NodeList\n   override fun before(vararg nodes: dynamic)\n   override fun after(vararg nodes: dynamic)\n   override fun replaceWith(vararg nodes: dynamic)\n   override fun remove()\n   override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n   override fun convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val
ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external interface UnionElementOrHTMLCollection\n\npublic external interface UnionElementOrRadioNodeList\n\npublic external interface UnionHTMLOptGroupElementOrHTMLOptionElement\n\npublic external interface UnionAudioTrackOrTextTrackOrVideoTrack\n\npublic external interface UnionElementOrMouseEvent\n\npublic external interface UnionMessagePortOrWindowProxy\n\npublic external interface MediaProvider\n\npublic external
interface RenderingContext\n\npublic external interface HTMLOrSVGImageElement : CanvasImageSource\n\npublic external interface CanvasImageSource : ImageBitmapSource\n\npublic external interface ImageBitmapSource\n\npublic external interface HTMLOrSVGScriptElement\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface DocumentReadyState {\n   companion object\n}\n\npublic inline val

DocumentReadyState.Companion.LOADING: DocumentReadyState get() = \"loading\".asDynamic().unsafeCast<DocumentReadyState>()\n\npublic inline val DocumentReadyState.Companion.INTERACTIVE: DocumentReadyState get() = \"interactive\".asDynamic().unsafeCast<DocumentReadyState>()\n\npublic inline val DocumentReadyState.Companion.COMPLETE: DocumentReadyState get() = \"complete\".asDynamic().unsafeCast<DocumentReadyState>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface CanPlayTypeResult {\n   companion object\n}\n\npublic inline val CanPlayTypeResult.Companion.EMPTY: CanPlayTypeResult get() = \"\".asDynamic().unsafeCast<CanPlayTypeResult>()\n\npublic inline val CanPlayTypeResult.Companion.MAYBE: CanPlayTypeResult get() = \"maybe\".asDynamic().unsafeCast<CanPlayTypeResult>()\n\npublic inline val CanPlayTypeResult.Companion.PROBABLY: CanPlayTypeResult get() = \"probably\".asDynamic().unsafeCast<CanPlayTypeResult>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface TextTrackMode {\n   companion object\n}\n\npublic inline val TextTrackMode.Companion.DISABLED: TextTrackMode get() = \"disabled\".asDynamic().unsafeCast<TextTrackMode>()\n\npublic inline val TextTrackMode.Companion.HIDDEN: TextTrackMode get() = \"hidden\".asDynamic().unsafeCast<TextTrackMode>()\n\npublic inline val TextTrackMode.Companion.SHOWING: TextTrackMode get() = \"showing\".asDynamic().unsafeCast<TextTrackMode>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface TextTrackKind {\n   companion object\n}\n\npublic inline val TextTrackKind.Companion.SUBTITLES: TextTrackKind get() = \"subtitles\".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val TextTrackKind.Companion.CAPTIONS: TextTrackKind get() = \"captions\".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val TextTrackKind.Companion.DESCRIPTIONS: TextTrackKind get() = \"descriptions\".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val TextTrackKind.Companion.CHAPTERS: TextTrackKind get() = \"chapters\".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val TextTrackKind.Companion.METADATA: TextTrackKind get() = \"metadata\".asDynamic().unsafeCast<TextTrackKind>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface SelectionMode {\n   companion object\n}\n\npublic inline val SelectionMode.Companion.SELECT: SelectionMode get() = \"select\".asDynamic().unsafeCast<SelectionMode>()\n\npublic inline val SelectionMode.Companion.START: SelectionMode get() = \"start\".asDynamic().unsafeCast<SelectionMode>()\n\npublic inline val SelectionMode.Companion.END: SelectionMode get() = \"end\".asDynamic().unsafeCast<SelectionMode>()\n\npublic inline val SelectionMode.Companion.PRESERVE: SelectionMode get() = \"preserve\".asDynamic().unsafeCast<SelectionMode>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface CanvasFillRule {\n   companion object\n}\n\npublic inline val CanvasFillRule.Companion.NONZERO: CanvasFillRule get() = \"nonzero\".asDynamic().unsafeCast<CanvasFillRule>()\n\npublic inline val CanvasFillRule.Companion.EVENODD: CanvasFillRule get() = \"evenodd\".asDynamic().unsafeCast<CanvasFillRule>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ImageSmoothingQuality {\n   companion object\n}\n\npublic inline val

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ImageSmoothingQuality.Companion.LOW: ImageSmoothingQuality get() =
\"low\".asDynamic().unsafeCast<ImageSmoothingQuality>()\n\npublic inline val
ImageSmoothingQuality.Companion.MEDIUM: ImageSmoothingQuality get() =
\"medium\".asDynamic().unsafeCast<ImageSmoothingQuality>()\n\npublic inline val
ImageSmoothingQuality.Companion.HIGH: ImageSmoothingQuality get() =
\"high\".asDynamic().unsafeCast<ImageSmoothingQuality>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface CanvasLineCap {\n    companion object\n}\n\npublic inline val CanvasLineCap.Companion.BUTT:
CanvasLineCap get() = \"butt\".asDynamic().unsafeCast<CanvasLineCap>()\n\npublic
 inline val CanvasLineCap.Companion.ROUND: CanvasLineCap get() =
\"round\".asDynamic().unsafeCast<CanvasLineCap>()\n\npublic inline val CanvasLineCap.Companion.SQUARE:
CanvasLineCap get() = \"square\".asDynamic().unsafeCast<CanvasLineCap>()\n\n/* please, don't implement this
interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic
external interface CanvasLineJoin {\n    companion object\n}\n\npublic inline val
CanvasLineJoin.Companion.ROUND: CanvasLineJoin get() =
\"round\".asDynamic().unsafeCast<CanvasLineJoin>()\n\npublic inline val CanvasLineJoin.Companion.BEVEL:
CanvasLineJoin get() = \"bevel\".asDynamic().unsafeCast<CanvasLineJoin>()\n\npublic inline val
CanvasLineJoin.Companion.MITER: CanvasLineJoin get() =
\"miter\".asDynamic().unsafeCast<CanvasLineJoin>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface CanvasTextAlign {\n    companion object\n}\n\npublic
 inline val CanvasTextAlign.Companion.START: CanvasTextAlign get() =
\"start\".asDynamic().unsafeCast<CanvasTextAlign>()\n\npublic inline val CanvasTextAlign.Companion.END:
CanvasTextAlign get() = \"end\".asDynamic().unsafeCast<CanvasTextAlign>()\n\npublic inline val
CanvasTextAlign.Companion.LEFT: CanvasTextAlign get() =
\"left\".asDynamic().unsafeCast<CanvasTextAlign>()\n\npublic inline val CanvasTextAlign.Companion.RIGHT:
CanvasTextAlign get() = \"right\".asDynamic().unsafeCast<CanvasTextAlign>()\n\npublic inline val
CanvasTextAlign.Companion.CENTER: CanvasTextAlign get() =
\"center\".asDynamic().unsafeCast<CanvasTextAlign>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface CanvasTextBaseline {\n    companion object\n}\n\npublic inline val CanvasTextBaseline.Companion.TOP:
CanvasTextBaseline get() = \"top\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val
CanvasTextBaseline.Companion.HANGING:
 CanvasTextBaseline get() = \"hanging\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val
CanvasTextBaseline.Companion.MIDDLE: CanvasTextBaseline get() =
\"middle\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val
CanvasTextBaseline.Companion.ALPHABETIC: CanvasTextBaseline get() =
\"alphabetic\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val
CanvasTextBaseline.Companion.IDEOGRAPHIC: CanvasTextBaseline get() =
\"ideographic\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val
CanvasTextBaseline.Companion.BOTTOM: CanvasTextBaseline get() =
\"bottom\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface CanvasDirection {\n    companion object\n}\n\npublic inline val CanvasDirection.Companion.LTR:
CanvasDirection get() = \"ltr\".asDynamic().unsafeCast<CanvasDirection>()\n\npublic
 inline val CanvasDirection.Companion.RTL: CanvasDirection get() =
\"rtl\".asDynamic().unsafeCast<CanvasDirection>()\n\npublic inline val CanvasDirection.Companion.INHERIT:
CanvasDirection get() = \"inherit\".asDynamic().unsafeCast<CanvasDirection>()\n\n/* please, don't implement this
```

interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ScrollRestoration {\n   companion object\n}\n\npublic inline val ScrollRestoration.Companion.AUTO: ScrollRestoration get() = \"auto\".asDynamic().unsafeCast<ScrollRestoration>()\n\npublic inline val ScrollRestoration.Companion.MANUAL: ScrollRestoration get() = \"manual\".asDynamic().unsafeCast<ScrollRestoration>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ImageOrientation {\n   companion object\n}\n\npublic inline val ImageOrientation.Companion.NONE: ImageOrientation get() = \"none\".asDynamic().unsafeCast<ImageOrientation>()\n\npublic inline val ImageOrientation.Companion.FLIPY: ImageOrientation get() = \"flipY\".asDynamic().unsafeCast<ImageOrientation>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface PremultiplyAlpha {\n   companion object\n}\n\npublic inline val PremultiplyAlpha.Companion.NONE: PremultiplyAlpha get() = \"none\".asDynamic().unsafeCast<PremultiplyAlpha>()\n\npublic inline val PremultiplyAlpha.Companion.PREMULTIPLY: PremultiplyAlpha get() = \"premultiply\".asDynamic().unsafeCast<PremultiplyAlpha>()\n\npublic inline val PremultiplyAlpha.Companion.DEFAULT: PremultiplyAlpha get() = \"default\".asDynamic().unsafeCast<PremultiplyAlpha>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ColorSpaceConversion {\n   companion object\n}\n\npublic inline val ColorSpaceConversion.Companion.NONE: ColorSpaceConversion get() = \"none\".asDynamic().unsafeCast<ColorSpaceConversion>()\n\npublic inline val ColorSpaceConversion.Companion.DEFAULT: ColorSpaceConversion get() = \"default\".asDynamic().unsafeCast<ColorSpaceConversion>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ResizeQuality {\n   companion object\n}\n\npublic inline val ResizeQuality.Companion.PIXELATED: ResizeQuality get() = \"pixelated\".asDynamic().unsafeCast<ResizeQuality>()\n\npublic inline val ResizeQuality.Companion.LOW: ResizeQuality get() = \"low\".asDynamic().unsafeCast<ResizeQuality>()\n\npublic inline val ResizeQuality.Companion.MEDIUM: ResizeQuality get() = \"medium\".asDynamic().unsafeCast<ResizeQuality>()\n\npublic inline val ResizeQuality.Companion.HIGH: ResizeQuality get() = \"high\".asDynamic().unsafeCast<ResizeQuality>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface BinaryType {\n   companion object\n}\n\npublic inline val BinaryType.Companion.BLOB: BinaryType get() = \"blob\".asDynamic().unsafeCast<BinaryType>()\n\npublic inline val BinaryType.Companion.ARRAYBUFFER: BinaryType get() = \"arraybuffer\".asDynamic().unsafeCast<BinaryType>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface WorkerType {\n   companion object\n}\n\npublic inline val WorkerType.Companion.CLASSIC: WorkerType get() = \"classic\".asDynamic().unsafeCast<WorkerType>()\n\npublic inline val WorkerType.Companion.MODULE: WorkerType get() = \"module\".asDynamic().unsafeCast<WorkerType>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ShadowRootMode {\n   companion object\n}\n\npublic inline val ShadowRootMode.Companion.OPEN: ShadowRootMode get() = \"open\".asDynamic().unsafeCast<ShadowRootMode>()\n\npublic inline val ShadowRootMode.Companion.CLOSED: ShadowRootMode get() =

\"closed\".asDynamic().unsafeCast<ShadowRootMode>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ScrollBehavior {\n   companion object\n}\n\npublic inline val ScrollBehavior.Companion.AUTO: ScrollBehavior get() = \"auto\".asDynamic().unsafeCast<ScrollBehavior>()\n\npublic inline val ScrollBehavior.Companion.INSTANT: ScrollBehavior get() = \"instant\".asDynamic().unsafeCast<ScrollBehavior>()\n\npublic inline val ScrollBehavior.Companion.SMOOTH: ScrollBehavior get() = \"smooth\".asDynamic().unsafeCast<ScrollBehavior>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ScrollLogicalPosition {\n   companion object\n}\n\npublic inline val ScrollLogicalPosition.Companion.START: ScrollLogicalPosition get() = \"start\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\npublic inline val ScrollLogicalPosition.Companion.CENTER: ScrollLogicalPosition get() = \"center\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\npublic inline val ScrollLogicalPosition.Companion.END: ScrollLogicalPosition get() = \"end\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\npublic inline val ScrollLogicalPosition.Companion.NEAREST: ScrollLogicalPosition get() = \"nearest\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface CSSBoxType {\n   companion object\n}\n\npublic inline val CSSBoxType.Companion.MARGIN: CSSBoxType get() = \"margin\".asDynamic().unsafeCast<CSSBoxType>()\n\npublic inline val CSSBoxType.Companion.BORDER: CSSBoxType get() = \"border\".asDynamic().unsafeCast<CSSBoxType>()\n\npublic inline val CSSBoxType.Companion.PADDING: CSSBoxType get() = \"padding\".asDynamic().unsafeCast<CSSBoxType>()\n\npublic inline val CSSBoxType.Companion.CONTENT: CSSBoxType get() = \"content\".asDynamic().unsafeCast<CSSBoxType>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.fetch\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.files.*\nimport org.w3c.xhr.*\n\n/**\n * Exposes the JavaScript [Headers](https://developer.mozilla.org/en/docs/Web/API/Headers) to Kotlin\n */\npublic external open class Headers(init: dynamic = definedExternally) {\n   fun append(name: String, value: String)\n   fun delete(name: String)\n   fun get(name: String): String?\n   fun has(name: String): Boolean\n   fun set(name: String, value: String)\n}\n\n/**\n * Exposes the JavaScript [Body](https://developer.mozilla.org/en/docs/Web/API/Body) to Kotlin\n */\npublic external interface Body {\n   val bodyUsed: Boolean\n   fun arrayBuffer(): Promise<ArrayBuffer>\n   fun blob(): Promise<Blob>\n   fun formData(): Promise<FormData>\n   fun json(): Promise<Any?>\n   fun text(): Promise<String>\n}\n\n/**\n * Exposes the JavaScript [Request](https://developer.mozilla.org/en/docs/Web/API/Request) to Kotlin\n */\npublic external open class Request(input: dynamic, init: RequestInit = definedExternally) : Body {\n   open val method: String\n   open val url: String\n   open val headers: Headers\n   open val type: RequestType\n   open val destination: RequestDestination\n   open val referrer: String\n   open val referrerPolicy: dynamic\n   open val mode: RequestMode\n   open val credentials: RequestCredentials\n   open val cache: RequestCache\n   open val redirect: RequestRedirect\n   open val integrity: String\n   open val keepalive: Boolean\n   override val bodyUsed: Boolean\n   fun clone(): Request\n   override fun arrayBuffer(): Promise<ArrayBuffer>\n   override fun blob(): Promise<Blob>\n   override fun formData(): Promise<FormData>\n   override fun json(): Promise<Any?>\n   override fun text(): Promise<String>\n}\n\npublic external interface RequestInit {\n   var method: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var headers: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var body: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var referrer: String?\n   get() = definedExternally\n

set(value) = definedExternally\n   var referrerPolicy: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var mode: RequestMode?\n   get() = definedExternally\n
        set(value) = definedExternally\n   var credentials: RequestCredentials?\n   get() = definedExternally\n
set(value) = definedExternally\n   var cache: RequestCache?\n   get() = definedExternally\n   set(value) = definedExternally\n   var redirect: RequestRedirect?\n   get() = definedExternally\n   set(value) = definedExternally\n   var integrity: String?\n   get() = definedExternally\n   set(value) = definedExternally\n
var keepalive: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var window: Any?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun RequestInit(method: String? = undefined, headers: dynamic = undefined, body: dynamic = undefined, referrer: String? = undefined, referrerPolicy: dynamic = undefined, mode: RequestMode? = undefined, credentials:
RequestCredentials? = undefined, cache: RequestCache? = undefined, redirect: RequestRedirect? = undefined, integrity: String? = undefined, keepalive: Boolean? = undefined, window: Any? = undefined): RequestInit {\n   val o = js(\"({})\")\n   o[\"method\"] = method\n   o[\"headers\"] = headers\n   o[\"body\"] = body\n   o[\"referrer\"] = referrer\n   o[\"referrerPolicy\"] = referrerPolicy\n   o[\"mode\"] = mode\n   o[\"credentials\"] = credentials\n
o[\"cache\"] = cache\n   o[\"redirect\"] = redirect\n   o[\"integrity\"] = integrity\n   o[\"keepalive\"] = keepalive\n
o[\"window\"] = window\n   return o\n}\n\n/**\n * Exposes the JavaScript [Response](https://developer.mozilla.org/en/docs/Web/API/Response) to Kotlin\n */\npublic external open class Response(body: dynamic = definedExternally, init: ResponseInit = definedExternally) : Body {\n   open val type: ResponseType\n   open val url: String\n   open val redirected: Boolean\n   open val status: Short\n   open
val ok: Boolean\n   open val statusText: String\n   open val headers: Headers\n   open val body: dynamic\n   open val trailer: Promise<Headers>\n   override val bodyUsed: Boolean\n   fun clone(): Response\n   override fun arrayBuffer(): Promise<ArrayBuffer>\n   override fun blob(): Promise<Blob>\n   override fun formData(): Promise<FormData>\n   override fun json(): Promise<Any?>\n   override fun text(): Promise<String>\n\n
companion object {\n   fun error(): Response\n   fun redirect(url: String, status: Short = definedExternally): Response\n   }\n}\n\npublic external interface ResponseInit {\n   var status: Short? /* = 200 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var statusText: String? /* = \"OK\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var headers: dynamic\n   get() = definedExternally\n
    set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic
inline fun ResponseInit(status: Short? = 200, statusText: String? = \"OK\", headers: dynamic = undefined): ResponseInit {\n   val o = js(\"({})\")\n   o[\"status\"] = status\n   o[\"statusText\"] = statusText\n   o[\"headers\"] = headers\n   return o\n}\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface RequestType {\n   companion object\n}\n\npublic inline val RequestType.Companion.EMPTY: RequestType get() = \"\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.AUDIO: RequestType get() = \"audio\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.FONT: RequestType get() = \"font\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.IMAGE: RequestType get() = \"image\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.SCRIPT:
RequestType get() = \"script\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.STYLE: RequestType get() = \"style\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.TRACK: RequestType get() = \"track\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.VIDEO: RequestType get() = \"video\".asDynamic().unsafeCast<RequestType>()\n\n/* please, don't implement this interface!

*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface RequestDestination {\n   companion object\n}\n\npublic inline val
RequestDestination.Companion.EMPTY: RequestDestination get() =
\"\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.DOCUMENT: RequestDestination get() =
\"document\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.EMBED: RequestDestination get() =
\"embed\".asDynamic().unsafeCast<RequestDestination>()\n\npublic
 inline val RequestDestination.Companion.FONT: RequestDestination get() =
\"font\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.IMAGE: RequestDestination get() =
\"image\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.MANIFEST: RequestDestination get() =
\"manifest\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.MEDIA: RequestDestination get() =
\"media\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.OBJECT: RequestDestination get() =
\"object\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.REPORT: RequestDestination get() =
\"report\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.SCRIPT: RequestDestination get() =
\"script\".asDynamic().unsafeCast<RequestDestination>()\n\npublic
 inline val RequestDestination.Companion.SERVICEWORKER: RequestDestination get() =
\"serviceworker\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.SHAREDWORKER: RequestDestination get() =
\"sharedworker\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.STYLE: RequestDestination get() =
\"style\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.WORKER: RequestDestination get() =
\"worker\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.XSLT: RequestDestination get() =
\"xslt\".asDynamic().unsafeCast<RequestDestination>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface RequestMode {\n   companion object\n}\n\npublic inline val RequestMode.Companion.NAVIGATE:
RequestMode
 get() = \"navigate\".asDynamic().unsafeCast<RequestMode>()\n\npublic inline val
RequestMode.Companion.SAME_ORIGIN: RequestMode get() = \"same-origin\".asDynamic().unsafeCast<RequestMode>()\n\npublic inline val RequestMode.Companion.NO_CORS:
RequestMode get() = \"no-cors\".asDynamic().unsafeCast<RequestMode>()\n\npublic inline val
RequestMode.Companion.CORS: RequestMode get() = \"cors\".asDynamic().unsafeCast<RequestMode>()\n\n/*
please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface RequestCredentials {\n   companion object\n}\n\npublic inline val RequestCredentials.Companion.OMIT:
RequestCredentials get() = \"omit\".asDynamic().unsafeCast<RequestCredentials>()\n\npublic inline val
RequestCredentials.Companion.SAME_ORIGIN: RequestCredentials get() = \"same-origin\".asDynamic().unsafeCast<RequestCredentials>()\n\npublic inline val
RequestCredentials.Companion.INCLUDE: RequestCredentials get() =

\"include\".asDynamic().unsafeCast<RequestCredentials>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface RequestCache {\n   companion object\n}\n\npublic inline val RequestCache.Companion.DEFAULT: RequestCache get() = \"default\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val RequestCache.Companion.NO_STORE: RequestCache get() = \"no-store\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val RequestCache.Companion.RELOAD: RequestCache get() = \"reload\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val RequestCache.Companion.NO_CACHE: RequestCache get() = \"no-cache\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val RequestCache.Companion.FORCE_CACHE: RequestCache get() = \"force-cache\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val RequestCache.Companion.ONLY_IF_CACHED: RequestCache get() = \"only-if-cached\".asDynamic().unsafeCast<RequestCache>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface RequestRedirect {\n   companion object\n}\n\npublic inline val RequestRedirect.Companion.FOLLOW: RequestRedirect get() = \"follow\".asDynamic().unsafeCast<RequestRedirect>()\n\npublic inline val RequestRedirect.Companion.ERROR: RequestRedirect get() = \"error\".asDynamic().unsafeCast<RequestRedirect>()\n\npublic inline val RequestRedirect.Companion.MANUAL: RequestRedirect get() = \"manual\".asDynamic().unsafeCast<RequestRedirect>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ResponseType {\n   companion object\n}\n\npublic inline val ResponseType.Companion.BASIC: ResponseType get() = \"basic\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val ResponseType.Companion.CORS: ResponseType get() = \"cors\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val ResponseType.Companion.DEFAULT: ResponseType get() = \"default\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val ResponseType.Companion.ERROR: ResponseType get() = \"error\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val ResponseType.Companion.OPAQUE: ResponseType get() = \"opaque\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val ResponseType.Companion.OPAQUEREDIRECT: ResponseType get() = \"opaqueredirect\".asDynamic().unsafeCast<ResponseType>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.mediacapture\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\n/**\n * Exposes the JavaScript [MediaStream](https://developer.mozilla.org/en/docs/Web/API/MediaStream) to Kotlin\n */\npublic external open class MediaStream() : EventTarget, MediaProvider {\n   constructor(stream: MediaStream)\n   constructor(tracks: Array<MediaStreamTrack>)\n   open val id: String\n   open val active: Boolean\n   var onaddtrack: ((MediaStreamTrackEvent) -> dynamic)?\n   var onremovetrack: ((MediaStreamTrackEvent) -> dynamic)?\n   fun getAudioTracks(): Array<MediaStreamTrack>\n   fun getVideoTracks(): Array<MediaStreamTrack>\n   fun getTracks(): Array<MediaStreamTrack>\n   fun getTrackById(trackId: String): MediaStreamTrack?\n   fun addTrack(track: MediaStreamTrack)\n   fun removeTrack(track: MediaStreamTrack)\n   fun clone(): MediaStream\n}\n\n/**\n * Exposes the JavaScript [MediaStreamTrack](https://developer.mozilla.org/en/docs/Web/API/MediaStreamTrack) to Kotlin\n */\npublic external abstract class MediaStreamTrack : EventTarget {\n   open val kind: String\n   open val id: String\n   open val label: String\n   open var enabled: Boolean\n   open val muted: Boolean\n   open var onmute: ((Event) -> dynamic)?\n   open var onunmute: ((Event) -> dynamic)?\n   open val readyState:

MediaStreamTrackState\n   open var onended: ((Event) -> dynamic)?\n   open var onoverconstrained: ((Event) -> dynamic)?\n   fun clone(): MediaStreamTrack\n   fun stop()\n   fun getCapabilities(): MediaTrackCapabilities\n   fun getConstraints(): MediaTrackConstraints\n   fun getSettings(): MediaTrackSettings\n   fun applyConstraints(constraints: MediaTrackConstraints = definedExternally): Promise<Unit>\n}\n\n/**\n * Exposes the JavaScript [MediaTrackSupportedConstraints](https://developer.mozilla.org/en/docs/Web/API/MediaTrackSupportedConstraints) to Kotlin\n */\npublic external interface MediaTrackSupportedConstraints {\n   var width: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var height: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var aspectRatio: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var frameRate: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var facingMode: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var resizeMode: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var volume: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var sampleRate: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var sampleSize: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var echoCancellation: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var autoGainControl: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var noiseSuppression: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var latency: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var channelCount: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var deviceId: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var groupId: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaTrackSupportedConstraints(width: Boolean? = true, height: Boolean? = true, aspectRatio: Boolean? = true, frameRate: Boolean? = true, facingMode: Boolean? = true, resizeMode: Boolean? = true, volume: Boolean? = true, sampleRate: Boolean? = true, sampleSize: Boolean? = true, echoCancellation: Boolean? = true, autoGainControl: Boolean? = true, noiseSuppression: Boolean? = true, latency: Boolean? = true, channelCount: Boolean? = true, deviceId: Boolean? = true, groupId: Boolean? = true): MediaTrackSupportedConstraints {\n   val o = js(\"({})\")\n   o[\"width\"] = width\n   o[\"height\"] = height\n   o[\"aspectRatio\"] = aspectRatio\n   o[\"frameRate\"] = frameRate\n   o[\"facingMode\"] = facingMode\n   o[\"resizeMode\"] = resizeMode\n   o[\"volume\"] = volume\n   o[\"sampleRate\"] = sampleRate\n   o[\"sampleSize\"] = sampleSize\n   o[\"echoCancellation\"] = echoCancellation\n   o[\"autoGainControl\"] = autoGainControl\n   o[\"noiseSuppression\"] = noiseSuppression\n   o[\"latency\"] = latency\n   o[\"channelCount\"] = channelCount\n   o[\"deviceId\"] = deviceId\n   o[\"groupId\"] = groupId\n   return o\n}\n\npublic external interface MediaTrackCapabilities {\n   var width: ULongRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var height: ULongRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var aspectRatio: DoubleRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var frameRate: DoubleRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var facingMode: Array<String>?\n   get() = definedExternally\n   set(value) = definedExternally\n   var resizeMode: Array<String>?\n   get() = definedExternally\n   set(value) = definedExternally\n   var volume: DoubleRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var sampleRate: ULongRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var sampleSize: ULongRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var echoCancellation: Array<Boolean>?\n   get() = definedExternally\n   set(value) = definedExternally\n   var autoGainControl: Array<Boolean>?\n   get() = definedExternally\n   set(value) =

definedExternally\n   var noiseSuppression: Array<Boolean>?\n   get() = definedExternally\n   set(value) = definedExternally\n   var latency: DoubleRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var channelCount: ULongRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var deviceId: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var groupId: String?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaTrackCapabilities(width: ULongRange? = undefined, height: ULongRange? = undefined, aspectRatio: DoubleRange? = undefined, frameRate: DoubleRange? = undefined, facingMode: Array<String>? = undefined, resizeMode: Array<String>? = undefined, volume: DoubleRange? = undefined, sampleRate: ULongRange? = undefined, sampleSize: ULongRange? = undefined, echoCancellation: Array<Boolean>? = undefined, autoGainControl: Array<Boolean>? = undefined, noiseSuppression: Array<Boolean>? = undefined, latency: DoubleRange? = undefined, channelCount: ULongRange? = undefined, deviceId: String? = undefined, groupId: String? = undefined): MediaTrackCapabilities {\n   val o = js(\"({})\")\n   o[\"width\"] = width\n   o[\"height\"] = height\n   o[\"aspectRatio\"] = aspectRatio\n   o[\"frameRate\"] = frameRate\n   o[\"facingMode\"] = facingMode\n   o[\"resizeMode\"] = resizeMode\n   o[\"volume\"] = volume\n   o[\"sampleRate\"] = sampleRate\n   o[\"sampleSize\"] = sampleSize\n   o[\"echoCancellation\"] = echoCancellation\n   o[\"autoGainControl\"] = autoGainControl\n   o[\"noiseSuppression\"] = noiseSuppression\n   o[\"latency\"] = latency\n   o[\"channelCount\"] = channelCount\n   o[\"deviceId\"] = deviceId\n   o[\"groupId\"] = groupId\n   return o\n}\n\n/**\n * Exposes the JavaScript [MediaTrackConstraints](https://developer.mozilla.org/en/docs/Web/API/MediaTrackConstraints) to Kotlin\n */\npublic external interface MediaTrackConstraints : MediaTrackConstraintSet {\n   var advanced: Array<MediaTrackConstraintSet>?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaTrackConstraints(advanced: Array<MediaTrackConstraintSet>? = undefined, width: dynamic = undefined, height: dynamic = undefined, aspectRatio: dynamic = undefined, frameRate: dynamic = undefined, facingMode: dynamic = undefined, resizeMode: dynamic = undefined, volume: dynamic = undefined, sampleRate: dynamic = undefined, sampleSize: dynamic = undefined, echoCancellation: dynamic = undefined, autoGainControl: dynamic = undefined, noiseSuppression: dynamic = undefined, latency: dynamic = undefined, channelCount: dynamic = undefined, deviceId: dynamic = undefined, groupId: dynamic = undefined): MediaTrackConstraints {\n   val o = js(\"({})\")\n   o[\"advanced\"] = advanced\n   o[\"width\"] = width\n   o[\"height\"] = height\n   o[\"aspectRatio\"] = aspectRatio\n   o[\"frameRate\"] = frameRate\n   o[\"facingMode\"] = facingMode\n   o[\"resizeMode\"] = resizeMode\n   o[\"volume\"] = volume\n   o[\"sampleRate\"] = sampleRate\n   o[\"sampleSize\"] = sampleSize\n   o[\"echoCancellation\"] = echoCancellation\n   o[\"autoGainControl\"] = autoGainControl\n   o[\"noiseSuppression\"] = noiseSuppression\n   o[\"latency\"] = latency\n   o[\"channelCount\"] = channelCount\n   o[\"deviceId\"] = deviceId\n   o[\"groupId\"] = groupId\n   return o\n}\n\npublic external interface MediaTrackConstraintSet {\n   var width: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var height: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var aspectRatio: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var frameRate: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var facingMode: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var resizeMode: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var volume: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var sampleRate: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var sampleSize: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var echoCancellation: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var

autoGainControl: dynamic\n get() = definedExternally\n set(value) = definedExternally\n var noiseSuppression: dynamic\n get() = definedExternally\n set(value) = definedExternally\n var latency: dynamic\n get() = definedExternally\n set(value) = definedExternally\n var channelCount: dynamic\n get() = definedExternally\n set(value) = definedExternally\n var deviceId: dynamic\n get() = definedExternally\n set(value) = definedExternally\n var groupId: dynamic\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaTrackConstraintSet(width: dynamic = undefined, height: dynamic = undefined, aspectRatio: dynamic = undefined, frameRate: dynamic = undefined, facingMode: dynamic = undefined, resizeMode: dynamic = undefined, volume: dynamic = undefined, sampleRate: dynamic = undefined,
sampleSize: dynamic = undefined, echoCancellation: dynamic = undefined, autoGainControl: dynamic = undefined, noiseSuppression: dynamic = undefined, latency: dynamic = undefined, channelCount: dynamic = undefined, deviceId: dynamic = undefined, groupId: dynamic = undefined): MediaTrackConstraintSet {\n val o = js(\"({})\")\n o[\"width\"] = width\n o[\"height\"] = height\n o[\"aspectRatio\"] = aspectRatio\n o[\"frameRate\"] = frameRate\n o[\"facingMode\"] = facingMode\n o[\"resizeMode\"] = resizeMode\n o[\"volume\"] = volume\n o[\"sampleRate\"] = sampleRate\n o[\"sampleSize\"] = sampleSize\n o[\"echoCancellation\"] = echoCancellation\n o[\"autoGainControl\"] = autoGainControl\n o[\"noiseSuppression\"] = noiseSuppression\n o[\"latency\"] = latency\n o[\"channelCount\"] = channelCount\n o[\"deviceId\"] = deviceId\n o[\"groupId\"] = groupId\n return o\n}\n\n/**\n * Exposes the JavaScript [MediaTrackSettings](https://developer.mozilla.org/en/docs/Web/API/MediaTrackSettings)
to Kotlin\n */\npublic external interface MediaTrackSettings {\n var width: Int?\n get() = definedExternally\n set(value) = definedExternally\n var height: Int?\n get() = definedExternally\n set(value) = definedExternally\n var aspectRatio: Double?\n get() = definedExternally\n set(value) = definedExternally\n var frameRate: Double?\n get() = definedExternally\n set(value) = definedExternally\n var facingMode: String?\n get() = definedExternally\n set(value) = definedExternally\n var resizeMode: String?\n get() = definedExternally\n set(value) = definedExternally\n var volume: Double?\n get() = definedExternally\n set(value) = definedExternally\n var sampleRate: Int?\n get() = definedExternally\n set(value) = definedExternally\n var sampleSize: Int?\n get() = definedExternally\n set(value) =
definedExternally\n var echoCancellation: Boolean?\n get() = definedExternally\n set(value) = definedExternally\n var autoGainControl: Boolean?\n get() = definedExternally\n set(value) = definedExternally\n var noiseSuppression: Boolean?\n get() = definedExternally\n set(value) = definedExternally\n var latency: Double?\n get() = definedExternally\n set(value) = definedExternally\n var channelCount: Int?\n get() = definedExternally\n set(value) = definedExternally\n var deviceId: String?\n get() = definedExternally\n set(value) = definedExternally\n var groupId: String?\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaTrackSettings(width: Int? = undefined, height: Int? = undefined, aspectRatio: Double? = undefined, frameRate: Double? = undefined,
facingMode: String? = undefined, resizeMode: String? = undefined, volume: Double? = undefined, sampleRate: Int? = undefined, sampleSize: Int? = undefined, echoCancellation: Boolean? = undefined, autoGainControl: Boolean? = undefined, noiseSuppression: Boolean? = undefined, latency: Double? = undefined, channelCount: Int? = undefined, deviceId: String? = undefined, groupId: String? = undefined): MediaTrackSettings {\n val o = js(\"({})\")\n o[\"width\"] = width\n o[\"height\"] = height\n o[\"aspectRatio\"] = aspectRatio\n o[\"frameRate\"] = frameRate\n o[\"facingMode\"] = facingMode\n o[\"resizeMode\"] = resizeMode\n o[\"volume\"] = volume\n o[\"sampleRate\"] = sampleRate\n o[\"sampleSize\"] = sampleSize\n o[\"echoCancellation\"] = echoCancellation\n o[\"autoGainControl\"] = autoGainControl\n o[\"noiseSuppression\"] = noiseSuppression\n o[\"latency\"] = latency\n o[\"channelCount\"] = channelCount\n o[\"deviceId\"] = deviceId\n o[\"groupId\"]

= groupId\n   return o\n}\n\n/**\n * Exposes the JavaScript [MediaStreamTrackEvent](https://developer.mozilla.org/en/docs/Web/API/MediaStreamTrackEvent) to Kotlin\n */\npublic external open class MediaStreamTrackEvent(type: String, eventInitDict: MediaStreamTrackEventInit) : Event {\n   open val track: MediaStreamTrack\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface MediaStreamTrackEventInit : EventInit {\n   var track: MediaStreamTrack?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaStreamTrackEventInit(track: MediaStreamTrack?, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): MediaStreamTrackEventInit {\n   val o = js(\"({})\")\n   o[\"track\"] = track\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"]

= composed\n   return o\n}\n\npublic external open class OverconstrainedErrorEvent(type: String, eventInitDict: OverconstrainedErrorEventInit) : Event {\n   open val error: dynamic\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface OverconstrainedErrorEventInit : EventInit {\n   var error: dynamic /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun OverconstrainedErrorEventInit(error: dynamic = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): OverconstrainedErrorEventInit {\n   val o = js(\"({})\")\n   o[\"error\"] = error\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n

* Exposes the JavaScript [MediaDevices](https://developer.mozilla.org/en/docs/Web/API/MediaDevices) to Kotlin\n */\npublic external abstract class MediaDevices : EventTarget {\n   open var ondevicechange: ((Event) -> dynamic)?\n   fun enumerateDevices(): Promise<Array<MediaDeviceInfo>>\n   fun getSupportedConstraints(): MediaTrackSupportedConstraints\n   fun getUserMedia(constraints: MediaStreamConstraints = definedExternally): Promise<MediaStream>\n}\n\n/**\n * Exposes the JavaScript [MediaDeviceInfo](https://developer.mozilla.org/en/docs/Web/API/MediaDeviceInfo) to Kotlin\n */\npublic external abstract class MediaDeviceInfo {\n   open val deviceId: String\n   open val kind: MediaDeviceKind\n   open val label: String\n   open val groupId: String\n   fun toJSON(): dynamic\n}\n\npublic external abstract class InputDeviceInfo : MediaDeviceInfo {\n   fun getCapabilities(): MediaTrackCapabilities\n}\n\n/**\n * Exposes the JavaScript [MediaStreamConstraints](https://developer.mozilla.org/en/docs/Web/API/MediaStreamConstraints)

to Kotlin\n */\npublic external interface MediaStreamConstraints {\n   var video: dynamic /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var audio: dynamic /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaStreamConstraints(video: dynamic = false, audio: dynamic = false): MediaStreamConstraints {\n   val o = js(\"({})\")\n   o[\"video\"] = video\n   o[\"audio\"] = audio\n   return o\n}\n\npublic external interface ConstrainablePattern {\n   var onoverconstrained: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   fun getCapabilities(): Capabilities\n   fun getConstraints(): Constraints\n   fun getSettings(): Settings\n   fun applyConstraints(constraints: Constraints = definedExternally):

Promise<Unit>\n}\n\n/**\n * Exposes the JavaScript [DoubleRange](https://developer.mozilla.org/en/docs/Web/API/DoubleRange) to Kotlin\n */\npublic external interface DoubleRange {\n   var max: Double?\n   get() = definedExternally\n   set(value) = definedExternally\n   var min: Double?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleRange(max: Double? = undefined, min: Double? = undefined): DoubleRange {\n   val o = js(\"({})\")\n   o[\"max\"] = max\n   o[\"min\"] = min\n   return o\n}\n\npublic external interface ConstrainDoubleRange : DoubleRange {\n   var exact: Double?\n

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 get() = definedExternally\n        set(value) = definedExternally\n    var ideal: Double?\n        get() =
definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic
 inline fun ConstrainDoubleRange(exact: Double? = undefined, ideal: Double? = undefined, max: Double? =
undefined, min: Double? = undefined): ConstrainDoubleRange {\n    val o = js(\"({})\")\n    o[\"exact\"] = exact\n
o[\"ideal\"] = ideal\n    o[\"max\"] = max\n    o[\"min\"] = min\n    return o\n}\n\npublic external interface
ULongRange {\n    var max: Int?\n        get() = definedExternally\n        set(value) = definedExternally\n    var min:
Int?\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ULongRange(max: Int? = undefined,
min: Int? = undefined): ULongRange {\n    val o = js(\"({})\")\n    o[\"max\"] = max\n    o[\"min\"] = min\n    return
o\n}\n\npublic external interface ConstrainULongRange : ULongRange {\n    var exact: Int?\n        get() =
definedExternally\n        set(value) = definedExternally\n    var ideal:
 Int?\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstrainULongRange(exact: Int? =
undefined, ideal: Int? = undefined, max: Int? = undefined, min: Int? = undefined): ConstrainULongRange {\n    val o
= js(\"({})\")\n    o[\"exact\"] = exact\n    o[\"ideal\"] = ideal\n    o[\"max\"] = max\n    o[\"min\"] = min\n    return
o\n}\n\n/**\n * Exposes the JavaScript
[ConstrainBooleanParameters](https://developer.mozilla.org/en/docs/Web/API/ConstrainBooleanParameters) to
Kotlin\n */\npublic external interface ConstrainBooleanParameters {\n    var exact: Boolean?\n        get() =
definedExternally\n        set(value) = definedExternally\n    var ideal: Boolean?\n        get() = definedExternally\n
 set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstrainBooleanParameters(exact:
 Boolean? = undefined, ideal: Boolean? = undefined): ConstrainBooleanParameters {\n    val o = js(\"({})\")\n
o[\"exact\"] = exact\n    o[\"ideal\"] = ideal\n    return o\n}\n\n/**\n * Exposes the JavaScript
[ConstrainDOMStringParameters](https://developer.mozilla.org/en/docs/Web/API/ConstrainDOMStringParameters)
to Kotlin\n */\npublic external interface ConstrainDOMStringParameters {\n    var exact: dynamic\n        get() =
definedExternally\n        set(value) = definedExternally\n    var ideal: dynamic\n        get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun
ConstrainDOMStringParameters(exact: dynamic = undefined, ideal: dynamic = undefined):
ConstrainDOMStringParameters {\n    val o = js(\"({})\")\n    o[\"exact\"] = exact\n    o[\"ideal\"] = ideal\n    return
o\n}\n\npublic external interface Capabilities\n\n@Suppress(\"INVISIBLE_REFERENCE\",
 \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun Capabilities(): Capabilities {\n    val o
= js(\"({})\")\n    return o\n}\n\npublic external interface Settings\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun Settings(): Settings {\n    val o =
js(\"({})\")\n    return o\n}\n\npublic external interface ConstraintSet\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstraintSet(): ConstraintSet {\n
val o = js(\"({})\")\n    return o\n}\n\npublic external interface Constraints : ConstraintSet {\n    var advanced:
Array<ConstraintSet>?\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun Constraints(advanced:
Array<ConstraintSet>? = undefined): Constraints {\n    val o = js(\"({})\")\n    o[\"advanced\"]
 = advanced\n    return o\n}\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface MediaStreamTrackState {\n    companion object\n}\n\npublic inline val
MediaStreamTrackState.Companion.LIVE: MediaStreamTrackState get() =
```

\"live\".asDynamic().unsafeCast<MediaStreamTrackState>()\n\npublic inline val MediaStreamTrackState.Companion.ENDED: MediaStreamTrackState get() = \"ended\".asDynamic().unsafeCast<MediaStreamTrackState>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface VideoFacingModeEnum {\n   companion object\n}\n\npublic inline val VideoFacingModeEnum.Companion.USER: VideoFacingModeEnum get() = \"user\".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\npublic inline val VideoFacingModeEnum.Companion.ENVIRONMENT: VideoFacingModeEnum get() = \"environment\".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\npublic inline val VideoFacingModeEnum.Companion.LEFT: VideoFacingModeEnum get() = \"left\".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\npublic inline val VideoFacingModeEnum.Companion.RIGHT: VideoFacingModeEnum get() = \"right\".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface VideoResizeModeEnum {\n   companion object\n}\n\npublic inline val VideoResizeModeEnum.Companion.NONE: VideoResizeModeEnum get() = \"none\".asDynamic().unsafeCast<VideoResizeModeEnum>()\n\npublic inline val VideoResizeModeEnum.Companion.CROP_AND_SCALE: VideoResizeModeEnum get() = \"crop-and-scale\".asDynamic().unsafeCast<VideoResizeModeEnum>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface MediaDeviceKind {\n   companion object\n}\n\npublic inline val MediaDeviceKind.Companion.AUDIOINPUT: MediaDeviceKind get() = \"audioinput\".asDynamic().unsafeCast<MediaDeviceKind>()\n\npublic inline val MediaDeviceKind.Companion.AUDIOOUTPUT: MediaDeviceKind get() = \"audiooutput\".asDynamic().unsafeCast<MediaDeviceKind>()\n\npublic inline val MediaDeviceKind.Companion.VIDEOINPUT: MediaDeviceKind get() = \"videoinput\".asDynamic().unsafeCast<MediaDeviceKind>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.mediasource\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\n/**\n * Exposes the JavaScript [MediaSource](https://developer.mozilla.org/en/docs/Web/API/MediaSource) to Kotlin\n */\npublic external open class MediaSource : EventTarget, MediaProvider {\n   open val sourceBuffers: SourceBufferList\n   open val activeSourceBuffers: SourceBufferList\n   open val readyState: ReadyState\n   var duration: Double\n   var onsourceopen: ((Event) -> dynamic)?\n   var onsourceended: ((Event) -> dynamic)?\n   var onsourceclose: ((Event) -> dynamic)?\n   fun addSourceBuffer(type: String): SourceBuffer\n   fun removeSourceBuffer(sourceBuffer: SourceBuffer)\n   fun endOfStream(error: EndOfStreamError = definedExternally)\n   fun setLiveSeekableRange(start: Double, end: Double)\n   fun clearLiveSeekableRange()\n\n   companion object {\n   fun isTypeSupported(type: String): Boolean\n   }\n}\n\n/**\n * Exposes the JavaScript [SourceBuffer](https://developer.mozilla.org/en/docs/Web/API/SourceBuffer) to Kotlin\n */\npublic external abstract class SourceBuffer : EventTarget {\n   open var mode: AppendMode\n   open val updating: Boolean\n   open val buffered: TimeRanges\n   open var timestampOffset: Double\n   open val audioTracks: AudioTrackList\n   open val videoTracks: VideoTrackList\n   open val textTracks: TextTrackList\n   open var appendWindowStart: Double\n   open var appendWindowEnd: Double\n   open var onupdatestart: ((Event) -> dynamic)?\n   open var onupdate: ((Event) -> dynamic)?\n   open var onupdateend: ((Event) -> dynamic)?\n   open var onerror: ((Event) -> dynamic)?\n   open var onabort: ((Event) -> dynamic)?\n   fun appendBuffer(data: dynamic)\n   fun abort()\n   fun remove(start: Double, end:

Double)\n}\n\n/**\n * Exposes the JavaScript [SourceBufferList](https://developer.mozilla.org/en/docs/Web/API/SourceBufferList) to Kotlin\n */\npublic external abstract class SourceBufferList : EventTarget {\n   open val length: Int\n   open var onaddsourcebuffer: ((Event) -> dynamic)?\n   open var onremovesourcebuffer: ((Event) -> dynamic)?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SourceBufferList.get(index: Int): SourceBuffer? = asDynamic()[index]\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ReadyState {\n   companion object\n}\n\npublic inline val ReadyState.Companion.CLOSED: ReadyState get() = \"closed\".asDynamic().unsafeCast<ReadyState>()\n\npublic inline val ReadyState.Companion.OPEN: ReadyState get() = \"open\".asDynamic().unsafeCast<ReadyState>()\n\npublic inline val ReadyState.Companion.ENDED: ReadyState get() = \"ended\".asDynamic().unsafeCast<ReadyState>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface EndOfStreamError {\n   companion object\n}\n\npublic inline val EndOfStreamError.Companion.NETWORK: EndOfStreamError get() = \"network\".asDynamic().unsafeCast<EndOfStreamError>()\n\npublic inline val EndOfStreamError.Companion.DECODE: EndOfStreamError get() = \"decode\".asDynamic().unsafeCast<EndOfStreamError>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface AppendMode {\n   companion object\n}\n\npublic inline val AppendMode.Companion.SEGMENTS: AppendMode get() = \"segments\".asDynamic().unsafeCast<AppendMode>()\n\npublic inline val AppendMode.Companion.SEQUENCE: AppendMode get() = \"sequence\".asDynamic().unsafeCast<AppendMode>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.pointerevents\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\npublic external interface PointerEventInit : MouseEventInit {\n   var pointerId: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var width: Double? /* = 1.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var height: Double? /* = 1.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var pressure: Float? /* = 0f */\n   get() = definedExternally\n   set(value) = definedExternally\n   var tangentialPressure: Float? /* = 0f */\n   get() = definedExternally\n   set(value) = definedExternally\n   var tiltX: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var tiltY: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var twist: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var pointerType: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var isPrimary: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun PointerEventInit(pointerId: Int? = 0, width: Double? = 1.0, height: Double? = 1.0, pressure: Float? = 0f, tangentialPressure: Float? = 0f, tiltX: Int? = 0, tiltY: Int? = 0, twist: Int? = 0, pointerType: String? = \"\", isPrimary: Boolean? = false, screenX: Int? = 0, screenY: Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0, buttons: Short? = 0, relatedTarget: EventTarget? = null, region: String? = null, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean?

= false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): PointerEventInit {\n   val o = js(\"({})\")\n   o[\"pointerId\"] = pointerId\n   o[\"width\"] = width\n   o[\"height\"] = height\n   o[\"pressure\"] = pressure\n   o[\"tangentialPressure\"] = tangentialPressure\n   o[\"tiltX\"] = tiltX\n   o[\"tiltY\"] = tiltY\n   o[\"twist\"] = twist\n   o[\"pointerType\"] = pointerType\n   o[\"isPrimary\"] = isPrimary\n   o[\"screenX\"] = screenX\n   o[\"screenY\"] = screenY\n   o[\"clientX\"] = clientX\n   o[\"clientY\"] = clientY\n   o[\"button\"] = button\n   o[\"buttons\"] = buttons\n   o[\"relatedTarget\"] = relatedTarget\n   o[\"region\"] = region\n   o[\"ctrlKey\"] = ctrlKey\n   o[\"shiftKey\"] = shiftKey\n   o[\"altKey\"] = altKey\n   o[\"metaKey\"] = metaKey\n   o[\"modifierAltGraph\"]
= modifierAltGraph\n   o[\"modifierCapsLock\"] = modifierCapsLock\n   o[\"modifierFn\"] = modifierFn\n   o[\"modifierFnLock\"] = modifierFnLock\n   o[\"modifierHyper\"] = modifierHyper\n   o[\"modifierNumLock\"] = modifierNumLock\n   o[\"modifierScrollLock\"] = modifierScrollLock\n   o[\"modifierSuper\"] = modifierSuper\n   o[\"modifierSymbol\"] = modifierSymbol\n   o[\"modifierSymbolLock\"] = modifierSymbolLock\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [PointerEvent](https://developer.mozilla.org/en/docs/Web/API/PointerEvent) to Kotlin\n */\npublic external open class PointerEvent(type: String, eventInitDict: PointerEventInit = definedExternally) : MouseEvent {\n   open val pointerId: Int\n   open val width: Double\n   open val height: Double\n   open val pressure: Float\n   open val tangentialPressure: Float\n
open val tiltX: Int\n   open val tiltY: Int\n   open val twist: Int\n   open val pointerType: String\n   open val isPrimary: Boolean\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.svg\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.css.*\n\n/**\n * Exposes the JavaScript [SVGElement](https://developer.mozilla.org/en/docs/Web/API/SVGElement) to Kotlin\n */\npublic external abstract class SVGElement : Element, ElementCSSInlineStyle, GlobalEventHandlers, SVGElementInstance {\n   open val dataset:
DOMStringMap\n   open val ownerSVGElement: SVGSVGElement?\n   open val viewportElement: SVGElement?\n   open var tabIndex: Int\n   fun focus()\n   fun blur()\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external interface SVGBoundingBoxOptions
{\n   var fill: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var stroke: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var markers: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var clipped: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun SVGBoundingBoxOptions(fill: Boolean? = true, stroke: Boolean? = false, markers: Boolean? = false, clipped: Boolean? = false):

SVGBoundingBoxOptions {\n   val o = js(\"({})\")\n   o[\"fill\"] = fill\n   o[\"stroke\"] = stroke\n   o[\"markers\"] = markers\n   o[\"clipped\"] = clipped\n   return o\n}\n\n/**\n * Exposes the JavaScript [SVGGraphicsElement](https://developer.mozilla.org/en/docs/Web/API/SVGGraphicsElement) to Kotlin\n */\npublic external abstract class SVGGraphicsElement : SVGElement, SVGTests {\n   open val transform: SVGAnimatedTransformList\n   fun getBBox(options: SVGBoundingBoxOptions = definedExternally): DOMRect\n   fun getCTM(): DOMMatrix?\n   fun getScreenCTM(): DOMMatrix?\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGGeometryElement](https://developer.mozilla.org/en/docs/Web/API/SVGGeometryElement) to Kotlin\n */\npublic external abstract class SVGGeometryElement : SVGGraphicsElement {\n   open val pathLength: SVGAnimatedNumber\n   fun isPointInFill(point: DOMPoint): Boolean\n   fun isPointInStroke(point: DOMPoint): Boolean\n   fun getTotalLength(): Float\n   fun getPointAtLength(distance: Float): DOMPoint\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGNumber](https://developer.mozilla.org/en/docs/Web/API/SVGNumber) to Kotlin\n */\npublic external abstract class SVGNumber {\n   open var value: Float\n}\n\n/**\n * Exposes the JavaScript [SVGLength](https://developer.mozilla.org/en/docs/Web/API/SVGLength) to Kotlin\n */\npublic external abstract class SVGLength {\n   open val unitType: Short\n   open var value: Float\n   open var valueInSpecifiedUnits: Float\n   open var valueAsString: String\n   fun newValueSpecifiedUnits(unitType: Short, valueInSpecifiedUnits: Float)\n   fun convertToSpecifiedUnits(unitType: Short)\n\n   companion object {\n   val SVG_LENGTHTYPE_UNKNOWN: Short\n   val SVG_LENGTHTYPE_NUMBER: Short\n   val SVG_LENGTHTYPE_PERCENTAGE: Short\n   val SVG_LENGTHTYPE_EMS: Short\n   val SVG_LENGTHTYPE_EXS: Short\n   val SVG_LENGTHTYPE_PX: Short\n   val SVG_LENGTHTYPE_CM: Short\n   val SVG_LENGTHTYPE_MM: Short\n   val SVG_LENGTHTYPE_IN: Short\n   val SVG_LENGTHTYPE_PT: Short\n   val SVG_LENGTHTYPE_PC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGAngle](https://developer.mozilla.org/en/docs/Web/API/SVGAngle) to Kotlin\n */\npublic external abstract class SVGAngle {\n   open val unitType: Short\n   open var value: Float\n   open var valueInSpecifiedUnits: Float\n   open var valueAsString: String\n   fun newValueSpecifiedUnits(unitType: Short, valueInSpecifiedUnits: Float)\n   fun convertToSpecifiedUnits(unitType: Short)\n\n   companion object {\n   val SVG_ANGLETYPE_UNKNOWN: Short\n   val SVG_ANGLETYPE_UNSPECIFIED: Short\n   val SVG_ANGLETYPE_DEG: Short\n   val SVG_ANGLETYPE_RAD: Short\n val SVG_ANGLETYPE_GRAD: Short\n   }\n}\n\npublic external abstract class SVGNameList {\n   open val length: Int\n   open val numberOfItems: Int\n   fun clear()\n   fun initialize(newItem: dynamic): dynamic\n   fun insertItemBefore(newItem: dynamic, index: Int): dynamic\n   fun replaceItem(newItem: dynamic, index: Int): dynamic\n   fun removeItem(index: Int): dynamic\n   fun appendItem(newItem: dynamic): dynamic\n   fun getItem(index: Int): dynamic\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGNameList.get(index: Int): dynamic = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGNameList.set(index: Int, newItem: dynamic) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript [SVGNumberList](https://developer.mozilla.org/en/docs/Web/API/SVGNumberList) to Kotlin\n */\npublic external abstract class SVGNumberList {\n   open val length: Int\n   open val numberOfItems: Int\n   fun clear()\n   fun initialize(newItem: SVGNumber): SVGNumber\n   fun insertItemBefore(newItem: SVGNumber, index: Int): SVGNumber\n   fun replaceItem(newItem: SVGNumber, index: Int): SVGNumber\n   fun removeItem(index: Int): SVGNumber\n   fun appendItem(newItem: SVGNumber): SVGNumber\n   fun getItem(index: Int): SVGNumber\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGNumberList.get(index: Int): SVGNumber? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGNumberList.set(index: Int, newItem: SVGNumber) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript [SVGLengthList](https://developer.mozilla.org/en/docs/Web/API/SVGLengthList) to Kotlin\n */\npublic external abstract class SVGLengthList {\n   open val length: Int\n   open val numberOfItems: Int\n   fun clear()\n   fun initialize(newItem: SVGLength): SVGLength\n   fun insertItemBefore(newItem: SVGLength, index: Int): SVGLength\n   fun replaceItem(newItem: SVGLength, index: Int): SVGLength\n   fun removeItem(index: Int): SVGLength\n   fun appendItem(newItem: SVGLength): SVGLength\n   fun getItem(index: Int): SVGLength\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGLengthList.get(index: Int): SVGLength? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGLengthList.set(index: Int, newItem: SVGLength) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript [SVGAnimatedBoolean](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedBoolean) to Kotlin\n */\npublic external abstract class SVGAnimatedBoolean {\n   open var baseVal: Boolean\n   open val animVal: Boolean\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedEnumeration](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedEnumeration) to Kotlin\n */\npublic external abstract class SVGAnimatedEnumeration {\n   open var baseVal: Short\n   open val animVal: Short\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedInteger](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedInteger) to Kotlin\n */\npublic external abstract class SVGAnimatedInteger {\n   open var baseVal: Int\n   open val animVal: Int\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedNumber](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedNumber) to Kotlin\n */\npublic external abstract class SVGAnimatedNumber {\n   open var baseVal: Float\n   open val animVal: Float\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedLength](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedLength) to Kotlin\n */\npublic external abstract class SVGAnimatedLength {\n   open val baseVal: SVGLength\n   open val animVal: SVGLength\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedAngle](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedAngle) to Kotlin\n */\npublic external abstract class SVGAnimatedAngle {\n   open val baseVal: SVGAngle\n   open val animVal:

SVGAngle\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedString](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedString) to Kotlin\n */\npublic external abstract class SVGAnimatedString {\n   open var baseVal: String\n   open val animVal: String\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedRect](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedRect) to Kotlin\n */\npublic external abstract class SVGAnimatedRect {\n   open val baseVal: DOMRect\n   open val animVal: DOMRectReadOnly\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedNumberList](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedNumberList) to Kotlin\n */\npublic external abstract class SVGAnimatedNumberList {\n   open val baseVal: SVGNumberList\n   open val animVal: SVGNumberList\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedLengthList](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedLengthList) to Kotlin\n */\npublic external abstract class SVGAnimatedLengthList {\n   open val baseVal: SVGLengthList\n   open val animVal: SVGLengthList\n}\n\n/**\n * Exposes the JavaScript [SVGStringList](https://developer.mozilla.org/en/docs/Web/API/SVGStringList) to Kotlin\n */\npublic external abstract class SVGStringList {\n   open val length: Int\n   open val numberOfItems: Int\n   fun clear()\n   fun initialize(newItem: String): String\n   fun insertItemBefore(newItem: String, index: Int): String\n   fun replaceItem(newItem: String, index: Int): String\n   fun removeItem(index: Int): String\n   fun appendItem(newItem: String): String\n   fun getItem(index: Int): String\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGStringList.get(index: Int): String? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGStringList.set(index: Int, newItem: String) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript [SVGUnitTypes](https://developer.mozilla.org/en/docs/Web/API/SVGUnitTypes) to Kotlin\n */\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface SVGUnitTypes {\n   companion object {\n   val SVG_UNIT_TYPE_UNKNOWN: Short\n   val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n   val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGTests](https://developer.mozilla.org/en/docs/Web/API/SVGTests) to Kotlin\n */\npublic external interface SVGTests {\n   val requiredExtensions: SVGStringList\n   val systemLanguage: SVGStringList\n}\n\npublic external interface SVGFitToViewBox {\n   val viewBox: SVGAnimatedRect\n   val preserveAspectRatio: SVGAnimatedPreserveAspectRatio\n}\n\n/**\n * Exposes the JavaScript [SVGZoomAndPan](https://developer.mozilla.org/en/docs/Web/API/SVGZoomAndPan) to Kotlin\n */\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface SVGZoomAndPan {\n   var zoomAndPan: Short\n\n   companion object {\n   val SVG_ZOOMANDPAN_UNKNOWN: Short\n   val SVG_ZOOMANDPAN_DISABLE: Short\n   val SVG_ZOOMANDPAN_MAGNIFY: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGURIReference](https://developer.mozilla.org/en/docs/Web/API/SVGURIReference) to Kotlin\n */\npublic external interface SVGURIReference {\n   val href: SVGAnimatedString\n}\n\n/**\n * Exposes the JavaScript [SVGSVGElement](https://developer.mozilla.org/en/docs/Web/API/SVGSVGElement) to Kotlin\n */\npublic external abstract class SVGSVGElement : SVGGraphicsElement, SVGFitToViewBox, SVGZoomAndPan, WindowEventHandlers {\n   open val x: SVGAnimatedLength\n   open val y: SVGAnimatedLength\n   open val width: SVGAnimatedLength\n   open val height: SVGAnimatedLength\n   open var currentScale: Float\n   open val currentTranslate: DOMPointReadOnly\n   fun getIntersectionList(rect: DOMRectReadOnly, referenceElement: SVGElement?): NodeList\n   fun getEnclosureList(rect: DOMRectReadOnly, referenceElement: SVGElement?): NodeList\n   fun checkIntersection(element: SVGElement, rect: DOMRectReadOnly): Boolean\n   fun checkEnclosure(element: SVGElement, rect: DOMRectReadOnly): Boolean\n   fun deselectAll()\n   fun createSVGNumber():

SVGNumber\n   fun createSVGLength(): SVGLength\n   fun createSVGAngle(): SVGAngle\n   fun createSVGPoint(): DOMPoint\n   fun createSVGMatrix(): DOMMatrix\n   fun createSVGRect(): DOMRect\n   fun createSVGTransform(): SVGTransform\n   fun createSVGTransformFromMatrix(matrix: DOMMatrixReadOnly): SVGTransform\n   fun getElementById(elementId: String): Element\n   fun suspendRedraw(maxWaitMilliseconds: Int): Int\n   fun unsuspendRedraw(suspendHandleID: Int)\n   fun unsuspendRedrawAll()\n

    fun forceRedraw()\n\n   companion object {\n   val SVG_ZOOMANDPAN_UNKNOWN: Short\n   val SVG_ZOOMANDPAN_DISABLE: Short\n   val SVG_ZOOMANDPAN_MAGNIFY: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGGElement](https://developer.mozilla.org/en/docs/Web/API/SVGGElement)

 to Kotlin\n */\npublic external abstract class SVGGElement : SVGGraphicsElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external abstract class SVGUnknownElement : SVGGraphicsElement {\n   companion

 object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGDefsElement](https://developer.mozilla.org/en/docs/Web/API/SVGDefsElement) to Kotlin\n */\npublic external abstract class SVGDefsElement : SVGGraphicsElement {\n   companion object {\n   val

 ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val

DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGDescElement](https://developer.mozilla.org/en/docs/Web/API/SVGDescElement) to Kotlin\n */\npublic external abstract class SVGDescElement : SVGElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGMetadataElement](https://developer.mozilla.org/en/docs/Web/API/SVGMetadataElement) to Kotlin\n */\npublic external abstract class SVGMetadataElement : SVGElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGTitleElement](https://developer.mozilla.org/en/docs/Web/API/SVGTitleElement) to Kotlin\n */\npublic external abstract class SVGTitleElement : SVGElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGSymbolElement](https://developer.mozilla.org/en/docs/Web/API/SVGSymbolElement) to Kotlin\n */\npublic external abstract class SVGSymbolElement : SVGGraphicsElement, SVGFitToViewBox {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript

[SVGUseElement](https://developer.mozilla.org/en/docs/Web/API/SVGUseElement) to Kotlin\n */\npublic external abstract class SVGUseElement : SVGGraphicsElement, SVGURIReference {\n open val x: SVGAnimatedLength\n open val y: SVGAnimatedLength\n open val width: SVGAnimatedLength\n open val height: SVGAnimatedLength\n open val instanceRoot: SVGElement?\n open val animatedInstanceRoot: SVGElement?\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external open class SVGUseElementShadowRoot : ShadowRoot {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external interface SVGElementInstance {\n val correspondingElement: SVGElement?\n get() = definedExternally\n val correspondingUseElement: SVGUseElement?\n get() = definedExternally\n}\n\npublic external open class ShadowAnimation(source: dynamic, newTarget: dynamic) {\n open val sourceAnimation: dynamic\n}\n\n/**\n * Exposes the JavaScript [SVGSwitchElement](https://developer.mozilla.org/en/docs/Web/API/SVGSwitchElement) to Kotlin\n */\npublic external abstract class SVGSwitchElement : SVGGraphicsElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external interface GetSVGDocument {\n fun getSVGDocument(): Document\n}\n\n/**\n * Exposes the JavaScript [SVGStyleElement](https://developer.mozilla.org/en/docs/Web/API/SVGStyleElement) to Kotlin\n */\npublic external abstract class SVGStyleElement : SVGElement, LinkStyle {\n open var type: String\n open var media: String\n open var title: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val

DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGTransform](https://developer.mozilla.org/en/docs/Web/API/SVGTransform) to Kotlin\n */\npublic external abstract class SVGTransform {\n open val type: Short\n open val matrix: DOMMatrix\n open val angle: Float\n fun setMatrix(matrix: DOMMatrixReadOnly)\n fun setTranslate(tx: Float, ty: Float)\n fun setScale(sx: Float, sy: Float)\n fun setRotate(angle: Float, cx: Float, cy: Float)\n fun setSkewX(angle: Float)\n fun setSkewY(angle: Float)\n\n companion object {\n val SVG_TRANSFORM_UNKNOWN: Short\n val SVG_TRANSFORM_MATRIX: Short\n val SVG_TRANSFORM_TRANSLATE: Short\n val SVG_TRANSFORM_SCALE: Short\n val SVG_TRANSFORM_ROTATE: Short\n val SVG_TRANSFORM_SKEWX: Short\n val SVG_TRANSFORM_SKEWY: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGTransformList](https://developer.mozilla.org/en/docs/Web/API/SVGTransformList) to Kotlin\n */\npublic external abstract class SVGTransformList {\n open val length: Int\n open val numberOfItems: Int\n fun clear()\n fun initialize(newItem: SVGTransform): SVGTransform\n fun insertItemBefore(newItem: SVGTransform, index: Int): SVGTransform\n fun replaceItem(newItem: SVGTransform, index: Int): SVGTransform\n fun removeItem(index: Int): SVGTransform\n fun appendItem(newItem: SVGTransform): SVGTransform\n fun createSVGTransformFromMatrix(matrix: DOMMatrixReadOnly): SVGTransform\n fun consolidate(): SVGTransform?\n fun getItem(index: Int): SVGTransform\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGTransformList.get(index: Int): SVGTransform? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGTransformList.set(index: Int, newItem: SVGTransform) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript [SVGAnimatedTransformList](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedTransformList) to Kotlin\n */\npublic external abstract class SVGAnimatedTransformList {\n open val baseVal: SVGTransformList\n open val animVal: SVGTransformList\n}\n\n/**\n * Exposes the JavaScript [SVGPreserveAspectRatio](https://developer.mozilla.org/en/docs/Web/API/SVGPreserveAspectRatio) to Kotlin\n */\npublic external abstract class SVGPreserveAspectRatio {\n open var align: Short\n open var meetOrSlice: Short\n\n companion object {\n val SVG_PRESERVEASPECTRATIO_UNKNOWN: Short\n val SVG_PRESERVEASPECTRATIO_NONE: Short\n val SVG_PRESERVEASPECTRATIO_XMINYMIN: Short\n val SVG_PRESERVEASPECTRATIO_XMIDYMIN: Short\n val SVG_PRESERVEASPECTRATIO_XMAXYMIN: Short\n val SVG_PRESERVEASPECTRATIO_XMINYMID: Short\n val SVG_PRESERVEASPECTRATIO_XMIDYMID: Short\n val SVG_PRESERVEASPECTRATIO_XMAXYMID: Short\n val SVG_PRESERVEASPECTRATIO_XMINYMAX: Short\n val SVG_PRESERVEASPECTRATIO_XMIDYMAX: Short\n val SVG_PRESERVEASPECTRATIO_XMAXYMAX: Short\n val SVG_MEETORSLICE_UNKNOWN: Short\n val SVG_MEETORSLICE_MEET: Short\n val SVG_MEETORSLICE_SLICE: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedPreserveAspectRatio](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedPreserveAspectRatio) to Kotlin\n */\npublic external abstract class SVGAnimatedPreserveAspectRatio {\n open val baseVal: SVGPreserveAspectRatio\n open val animVal: SVGPreserveAspectRatio\n}\n\n/**\n * Exposes the JavaScript [SVGPathElement](https://developer.mozilla.org/en/docs/Web/API/SVGPathElement) to Kotlin\n */\npublic external abstract class SVGPathElement : SVGGeometryElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE:

Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGRectElement](https://developer.mozilla.org/en/docs/Web/API/SVGRectElement) to Kotlin\n */\npublic external abstract class SVGRectElement : SVGGeometryElement {\n   open val x: SVGAnimatedLength\n   open val y: SVGAnimatedLength\n   open val width: SVGAnimatedLength\n   open val height: SVGAnimatedLength\n   open val rx: SVGAnimatedLength\n   open val ry: SVGAnimatedLength\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGCircleElement](https://developer.mozilla.org/en/docs/Web/API/SVGCircleElement) to Kotlin\n */\npublic external abstract class SVGCircleElement : SVGGeometryElement {\n   open val cx: SVGAnimatedLength\n   open val cy: SVGAnimatedLength\n   open val r: SVGAnimatedLength\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGEllipseElement](https://developer.mozilla.org/en/docs/Web/API/SVGEllipseElement) to Kotlin\n */\npublic external abstract class SVGEllipseElement : SVGGeometryElement {\n   open val cx: SVGAnimatedLength\n   open val cy: SVGAnimatedLength\n   open val rx: SVGAnimatedLength\n   open val ry: SVGAnimatedLength\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGLineElement](https://developer.mozilla.org/en/docs/Web/API/SVGLineElement) to Kotlin\n */\npublic external abstract class SVGLineElement : SVGGeometryElement {\n   open val x1:

SVGAnimatedLength\n open val y1: SVGAnimatedLength\n open val x2: SVGAnimatedLength\n open val y2: SVGAnimatedLength\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGMeshElement](https://developer.mozilla.org/en/docs/Web/API/SVGMeshElement) to Kotlin\n */\npublic external abstract class SVGMeshElement : SVGGeometryElement, SVGURIReference {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedPoints](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedPoints) to Kotlin\n */\npublic external interface SVGAnimatedPoints {\n val points: SVGPointList\n val animatedPoints: SVGPointList\n}\n\npublic external abstract class SVGPointList {\n open val length: Int\n open val numberOfItems: Int\n fun clear()\n fun initialize(newItem: DOMPoint): DOMPoint\n fun insertItemBefore(newItem: DOMPoint, index: Int): DOMPoint\n fun replaceItem(newItem: DOMPoint, index: Int): DOMPoint\n fun removeItem(index: Int): DOMPoint\n fun appendItem(newItem: DOMPoint): DOMPoint\n fun getItem(index: Int): DOMPoint\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGPointList.get(index: Int): DOMPoint? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGPointList.set(index: Int, newItem: DOMPoint) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript [SVGPolylineElement](https://developer.mozilla.org/en/docs/Web/API/SVGPolylineElement) to Kotlin\n */\npublic external abstract class SVGPolylineElement : SVGGeometryElement, SVGAnimatedPoints {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGPolygonElement](https://developer.mozilla.org/en/docs/Web/API/SVGPolygonElement) to Kotlin\n */\npublic external abstract class SVGPolygonElement : SVGGeometryElement, SVGAnimatedPoints {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val

TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGTextContentElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextContentElement) to Kotlin\n */\npublic external abstract class SVGTextContentElement : SVGGraphicsElement {\n   open val textLength: SVGAnimatedLength\n   open val lengthAdjust: SVGAnimatedEnumeration\n   fun getNumberOfChars(): Int\n   fun getComputedTextLength(): Float\n   fun getSubStringLength(charnum: Int, nchars: Int): Float\n   fun getStartPositionOfChar(charnum: Int): DOMPoint\n   fun getEndPositionOfChar(charnum: Int): DOMPoint\n   fun getExtentOfChar(charnum: Int): DOMRect\n   fun getRotationOfChar(charnum: Int): Float\n   fun getCharNumAtPosition(point: DOMPoint): Int\n   fun selectSubString(charnum: Int, nchars: Int)\n\n   companion object {\n   val LENGTHADJUST_UNKNOWN: Short\n   val LENGTHADJUST_SPACING: Short\n   val LENGTHADJUST_SPACINGANDGLYPHS: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGTextPositioningElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextPositioningElement) to Kotlin\n */\npublic external abstract class SVGTextPositioningElement : SVGTextContentElement {\n   open val x: SVGAnimatedLengthList\n   open val y: SVGAnimatedLengthList\n   open val dx: SVGAnimatedLengthList\n   open val dy: SVGAnimatedLengthList\n   open val rotate: SVGAnimatedNumberList\n\n   companion object {\n   val LENGTHADJUST_UNKNOWN: Short\n   val LENGTHADJUST_SPACING: Short\n   val LENGTHADJUST_SPACINGANDGLYPHS: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGTextElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextElement) to Kotlin\n */\npublic external abstract class SVGTextElement : SVGTextPositioningElement {\n   companion object {\n   val LENGTHADJUST_UNKNOWN: Short\n   val LENGTHADJUST_SPACING: Short\n   val LENGTHADJUST_SPACINGANDGLYPHS: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE:

Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGTSpanElement](https://developer.mozilla.org/en/docs/Web/API/SVGTSpanElement) to Kotlin\n */\npublic external abstract class SVGTSpanElement : SVGTextPositioningElement {\n companion object {\n val LENGTHADJUST_UNKNOWN: Short\n val LENGTHADJUST_SPACING: Short\n val LENGTHADJUST_SPACINGANDGLYPHS: Short\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGTextPathElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextPathElement) to Kotlin\n */\npublic external abstract class SVGTextPathElement : SVGTextContentElement, SVGURIReference {\n open val startOffset: SVGAnimatedLength\n open val method: SVGAnimatedEnumeration\n open val spacing: SVGAnimatedEnumeration\n\n companion object {\n val TEXTPATH_METHODTYPE_UNKNOWN: Short\n val TEXTPATH_METHODTYPE_ALIGN: Short\n val TEXTPATH_METHODTYPE_STRETCH: Short\n val TEXTPATH_SPACINGTYPE_UNKNOWN: Short\n val TEXTPATH_SPACINGTYPE_AUTO: Short\n val TEXTPATH_SPACINGTYPE_EXACT: Short\n val LENGTHADJUST_UNKNOWN: Short\n val LENGTHADJUST_SPACING: Short\n val LENGTHADJUST_SPACINGANDGLYPHS: Short\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGImageElement](https://developer.mozilla.org/en/docs/Web/API/SVGImageElement) to Kotlin\n */\npublic external abstract class SVGImageElement : SVGGraphicsElement, SVGURIReference, HTMLOrSVGImageElement {\n open val x: SVGAnimatedLength\n open val y: SVGAnimatedLength\n open val width: SVGAnimatedLength\n open val height: SVGAnimatedLength\n open val preserveAspectRatio: SVGAnimatedPreserveAspectRatio\n open var crossOrigin: String?\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val

DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGForeignObjectElement](https://developer.mozilla.org/en/docs/Web/API/SVGForeignObjectElement) to Kotlin\n */\npublic external abstract class SVGForeignObjectElement : SVGGraphicsElement {\n open val x: SVGAnimatedLength\n open val y: SVGAnimatedLength\n open val width: SVGAnimatedLength\n open val height: SVGAnimatedLength\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external abstract class SVGMarkerElement : SVGElement, SVGFitToViewBox {\n open val refX: SVGAnimatedLength\n open val refY: SVGAnimatedLength\n open val markerUnits: SVGAnimatedEnumeration\n open val markerWidth: SVGAnimatedLength\n open val markerHeight: SVGAnimatedLength\n open val orientType: SVGAnimatedEnumeration\n open val orientAngle: SVGAnimatedAngle\n open var orient: String\n fun setOrientToAuto()\n fun setOrientToAngle(angle: SVGAngle)\n\n companion object {\n val SVG_MARKERUNITS_UNKNOWN: Short\n val SVG_MARKERUNITS_USERSPACEONUSE: Short\n val SVG_MARKERUNITS_STROKEWIDTH: Short\n val SVG_MARKER_ORIENT_UNKNOWN: Short\n val SVG_MARKER_ORIENT_AUTO: Short\n val SVG_MARKER_ORIENT_ANGLE: Short\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGSolidcolorElement](https://developer.mozilla.org/en/docs/Web/API/SVGSolidcolorElement) to Kotlin\n */\npublic external abstract class SVGSolidcolorElement : SVGElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val

DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGGradientElement](https://developer.mozilla.org/en/docs/Web/API/SVGGradientElement) to Kotlin\n */\npublic external abstract class SVGGradientElement : SVGElement, SVGURIReference, SVGUnitTypes {\n   open val gradientUnits: SVGAnimatedEnumeration\n   open val gradientTransform: SVGAnimatedTransformList\n   open val spreadMethod: SVGAnimatedEnumeration\n\n   companion object {\n   val SVG_SPREADMETHOD_UNKNOWN: Short\n   val SVG_SPREADMETHOD_PAD: Short\n   val SVG_SPREADMETHOD_REFLECT: Short\n   val SVG_SPREADMETHOD_REPEAT: Short\n   val SVG_UNIT_TYPE_UNKNOWN: Short\n   val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n   val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n
        val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGLinearGradientElement](https://developer.mozilla.org/en/docs/Web/API/SVGLinearGradientElement) to Kotlin\n */\npublic external abstract class SVGLinearGradientElement : SVGGradientElement {\n   open val x1: SVGAnimatedLength\n   open val y1: SVGAnimatedLength\n   open val x2: SVGAnimatedLength\n   open val y2: SVGAnimatedLength\n\n   companion object {\n   val SVG_SPREADMETHOD_UNKNOWN: Short\n   val SVG_SPREADMETHOD_PAD: Short\n   val SVG_SPREADMETHOD_REFLECT: Short\n   val SVG_SPREADMETHOD_REPEAT: Short\n   val SVG_UNIT_TYPE_UNKNOWN: Short\n   val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n   val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGRadialGradientElement](https://developer.mozilla.org/en/docs/Web/API/SVGRadialGradientElement) to Kotlin\n */\npublic external abstract class SVGRadialGradientElement : SVGGradientElement {\n   open val cx: SVGAnimatedLength\n   open val cy: SVGAnimatedLength\n   open val r: SVGAnimatedLength\n   open val fx: SVGAnimatedLength\n   open val fy: SVGAnimatedLength\n   open val fr: SVGAnimatedLength\n\n   companion object {\n   val SVG_SPREADMETHOD_UNKNOWN: Short\n   val SVG_SPREADMETHOD_PAD: Short\n   val SVG_SPREADMETHOD_REFLECT: Short\n   val SVG_SPREADMETHOD_REPEAT: Short\n   val SVG_UNIT_TYPE_UNKNOWN: Short\n   val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n   val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val

DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external abstract class SVGMeshGradientElement : SVGGradientElement {\n   companion object {\n   val SVG_SPREADMETHOD_UNKNOWN: Short\n   val SVG_SPREADMETHOD_PAD: Short\n   val SVG_SPREADMETHOD_REFLECT: Short\n   val SVG_SPREADMETHOD_REPEAT: Short\n   val SVG_UNIT_TYPE_UNKNOWN: Short\n   val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n   val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external abstract class SVGMeshrowElement : SVGElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external abstract class SVGMeshpatchElement : SVGElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGStopElement](https://developer.mozilla.org/en/docs/Web/API/SVGStopElement) to Kotlin\n */\npublic external abstract class SVGStopElement : SVGElement {\n   open val offset: SVGAnimatedNumber\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGPatternElement](https://developer.mozilla.org/en/docs/Web/API/SVGPatternElement) to Kotlin\n */\npublic external abstract class SVGPatternElement : SVGElement, SVGFitToViewBox, SVGURIReference, SVGUnitTypes {\n   open val patternUnits: SVGAnimatedEnumeration\n   open val patternContentUnits: SVGAnimatedEnumeration\n   open val patternTransform: SVGAnimatedTransformList\n   open val x: SVGAnimatedLength\n   open val y: SVGAnimatedLength\n   open val width: SVGAnimatedLength\n   open val height: SVGAnimatedLength\n\n   companion object {\n   val SVG_UNIT_TYPE_UNKNOWN: Short\n   val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n   val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external abstract class SVGHatchElement : SVGElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external abstract class SVGHatchpathElement : SVGElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGCursorElement](https://developer.mozilla.org/en/docs/Web/API/SVGCursorElement) to Kotlin\n */\npublic external abstract class SVGCursorElement : SVGElement, SVGURIReference {\n   open val x: SVGAnimatedLength\n   open val y: SVGAnimatedLength\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGScriptElement](https://developer.mozilla.org/en/docs/Web/API/SVGScriptElement) to Kotlin\n */\npublic external abstract class SVGScriptElement : SVGElement, SVGURIReference, HTMLOrSVGScriptElement {\n   open var type: String\n   open var crossOrigin: String?\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGAElement](https://developer.mozilla.org/en/docs/Web/API/SVGAElement) to Kotlin\n */\npublic external abstract class SVGAElement : SVGGraphicsElement, SVGURIReference {\n   open val target: SVGAnimatedString\n   open val download: SVGAnimatedString\n   open val rel: SVGAnimatedString\n   open val relList: SVGAnimatedString\n   open val hreflang: SVGAnimatedString\n   open val type: SVGAnimatedString\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGViewElement](https://developer.mozilla.org/en/docs/Web/API/SVGViewElement) to Kotlin\n */\npublic external abstract class SVGViewElement : SVGElement, SVGFitToViewBox, SVGZoomAndPan {\n   companion object {\n   val SVG_ZOOMANDPAN_UNKNOWN: Short\n   val SVG_ZOOMANDPAN_DISABLE: Short\n   val SVG_ZOOMANDPAN_MAGNIFY: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.files\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\nimport org.w3c.xhr.*\n\n/**\n * Exposes the JavaScript [Blob](https://developer.mozilla.org/en/docs/Web/API/Blob) to Kotlin\n */\npublic external open class Blob(blobParts: Array<dynamic>

 = definedExternally, options: BlobPropertyBag = definedExternally) : MediaProvider, ImageBitmapSource {\n   open val size: Number\n   open val type: String\n   open val isClosed: Boolean\n   fun slice(start: Int = definedExternally, end: Int = definedExternally, contentType: String = definedExternally): Blob\n   fun close()\n}\n\npublic external interface BlobPropertyBag {\n   var type: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun BlobPropertyBag(type: String? = \"\"): BlobPropertyBag {\n   val o = js(\"({})\")\n   o[\"type\"] = type\n   return o\n}\n\n/**\n * Exposes the JavaScript [File](https://developer.mozilla.org/en/docs/Web/API/File) to Kotlin\n */\npublic external open class File(fileBits: Array<dynamic>, fileName: String, options: FilePropertyBag = definedExternally) : Blob {\n   open val name: String\n   open val lastModified: Int\n}\n\npublic external interface FilePropertyBag : BlobPropertyBag {\n   var lastModified: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun FilePropertyBag(lastModified: Int? = undefined, type: String? = \"\"): FilePropertyBag {\n   val o = js(\"({})\")\n   o[\"lastModified\"] = lastModified\n   o[\"type\"] = type\n   return o\n}\n\n/**\n * Exposes the JavaScript [FileList](https://developer.mozilla.org/en/docs/Web/API/FileList) to Kotlin\n */\npublic external abstract class FileList : ItemArrayLike<File> {\n   override fun item(index: Int): File?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun FileList.get(index: Int): File? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [FileReader](https://developer.mozilla.org/en/docs/Web/API/FileReader) to Kotlin\n */\npublic external open class FileReader : EventTarget {\n   open val readyState: Short\n   open val result: dynamic\n   open val error: dynamic\n   var onloadstart: ((ProgressEvent) -> dynamic)?\n   var onprogress: ((ProgressEvent) -> dynamic)?\n   var onload: ((Event) -> dynamic)?\n   var onabort: ((Event) -> dynamic)?\n   var onerror: ((Event) -> dynamic)?\n   var onloadend: ((Event) -> dynamic)?\n   fun readAsArrayBuffer(blob: Blob)\n   fun readAsBinaryString(blob: Blob)\n   fun readAsText(blob: Blob, label: String = definedExternally)\n   fun readAsDataURL(blob: Blob)\n   fun abort()\n\n   companion object {\n   val EMPTY: Short\n   val LOADING: Short\n   val DONE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [FileReaderSync](https://developer.mozilla.org/en/docs/Web/API/FileReaderSync) to Kotlin\n */\npublic external open class FileReaderSync {\n   fun readAsArrayBuffer(blob: Blob): ArrayBuffer\n   fun readAsBinaryString(blob: Blob): String\n   fun readAsText(blob: Blob, label: String = definedExternally): String\n   fun readAsDataURL(blob: Blob): String\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.notifications\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.events.*\nimport org.w3c.workers.*\n\n/**\n * Exposes the JavaScript [Notification](https://developer.mozilla.org/en/docs/Web/API/Notification) to Kotlin\n */\npublic external open class Notification(title: String, options: NotificationOptions = definedExternally) : EventTarget {\n   var onclick: ((MouseEvent) -> dynamic)?\n   var onerror: ((Event) -> dynamic)?\n   open val title: String\n   open val dir: NotificationDirection\n   open val lang: String\n   open val body: String\n   open val tag: String\n   open val image: String\n   open val icon: String\n   open val badge: String\n   open val sound: String\n   open val vibrate: Array<out Int>\n   open val timestamp: Number\n   open val renotify: Boolean\n   open val silent: Boolean\n   open val noscreen: Boolean\n   open val requireInteraction: Boolean\n   open val sticky: Boolean\n   open val data: Any?\n   open val actions: Array<out NotificationAction>\n   fun close()\n\n   companion object {\n   val permission: NotificationPermission\n   val maxActions: Int\n   fun requestPermission(deprecatedCallback: (NotificationPermission) -> Unit = definedExternally): Promise<NotificationPermission>\n   }\n}\n\npublic external interface NotificationOptions {\n   var dir: NotificationDirection? /* = NotificationDirection.AUTO */\n

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 get() = definedExternally\n        set(value) = definedExternally\n    var lang: String? /* =
 \"\" */\n        get() = definedExternally\n        set(value) = definedExternally\n    var body: String? /* = \"\" */\n
get() = definedExternally\n        set(value) = definedExternally\n    var tag: String? /* = \"\" */\n        get() =
definedExternally\n        set(value) = definedExternally\n    var image: String?\n        get() = definedExternally\n
set(value) = definedExternally\n    var icon: String?\n        get() = definedExternally\n        set(value) =
definedExternally\n    var badge: String?\n        get() = definedExternally\n        set(value) = definedExternally\n
var sound: String?\n        get() = definedExternally\n        set(value) = definedExternally\n    var vibrate: dynamic\n
   get() = definedExternally\n        set(value) = definedExternally\n    var timestamp: Number?\n        get() =
definedExternally\n        set(value) = definedExternally\n    var renotify: Boolean? /* = false */\n        get() =
definedExternally\n        set(value)
 = definedExternally\n    var silent: Boolean? /* = false */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var noscreen: Boolean? /* = false */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var requireInteraction: Boolean? /* = false */\n        get() = definedExternally\n        set(value)
= definedExternally\n    var sticky: Boolean? /* = false */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var data: Any? /* = null */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var actions: Array<NotificationAction>? /* = arrayOf() */\n        get() = definedExternally\n
   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun NotificationOptions(dir:
NotificationDirection? = NotificationDirection.AUTO, lang: String? = \"\", body: String? = \"\", tag: String? = \"\",
image:
 String? = undefined, icon: String? = undefined, badge: String? = undefined, sound: String? = undefined, vibrate:
dynamic = undefined, timestamp: Number? = undefined, renotify: Boolean? = false, silent: Boolean? = false,
noscreen: Boolean? = false, requireInteraction: Boolean? = false, sticky: Boolean? = false, data: Any? = null,
actions: Array<NotificationAction>? = arrayOf()): NotificationOptions {\n    val o = js(\"({})\")\n    o[\"dir\"] = dir\n
  o[\"lang\"] = lang\n    o[\"body\"] = body\n    o[\"tag\"] = tag\n    o[\"image\"] = image\n    o[\"icon\"] = icon\n
o[\"badge\"] = badge\n    o[\"sound\"] = sound\n    o[\"vibrate\"] = vibrate\n    o[\"timestamp\"] = timestamp\n
o[\"renotify\"] = renotify\n    o[\"silent\"] = silent\n    o[\"noscreen\"] = noscreen\n    o[\"requireInteraction\"] =
requireInteraction\n    o[\"sticky\"] = sticky\n    o[\"data\"] = data\n    o[\"actions\"] = actions\n    return
o\n}\n\npublic external interface NotificationAction {\n    var action: String?\n
    var title: String?\n    var icon: String?\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun NotificationAction(action: String?,
title: String?, icon: String? = undefined): NotificationAction {\n    val o = js(\"({})\")\n    o[\"action\"] = action\n
o[\"title\"] = title\n    o[\"icon\"] = icon\n    return o\n}\n\npublic external interface GetNotificationOptions {\n    var
tag: String? /* = \"\" */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun GetNotificationOptions(tag: String? =
\"\"): GetNotificationOptions {\n    val o = js(\"({})\")\n    o[\"tag\"] = tag\n    return o\n}\n\n/**\n * Exposes the
JavaScript [NotificationEvent](https://developer.mozilla.org/en/docs/Web/API/NotificationEvent) to Kotlin\n
 */\npublic external open class NotificationEvent(type: String, eventInitDict: NotificationEventInit) :
ExtendableEvent {\n    open val notification: Notification\n    open val action: String\n\n    companion object {\n
val NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val
BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface NotificationEventInit : ExtendableEventInit {\n
var notification: Notification?\n    var action: String? /* = \"\" */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun NotificationEventInit(notification:
Notification?, action: String? = \"\", bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? =
false): NotificationEventInit {\n    val o = js(\"({})\")\n    o[\"notification\"] = notification\n    o[\"action\"] =
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action\n    o[\"bubbles\"] = bubbles\n
    o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return o\n}\n\n/* please, don't implement this
interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic
external interface NotificationPermission {\n    companion object\n}\n\npublic inline val
NotificationPermission.Companion.DEFAULT: NotificationPermission get() =
\"default\".asDynamic().unsafeCast<NotificationPermission>()\n\npublic inline val
NotificationPermission.Companion.DENIED: NotificationPermission get() =
\"denied\".asDynamic().unsafeCast<NotificationPermission>()\n\npublic inline val
NotificationPermission.Companion.GRANTED: NotificationPermission get() =
\"granted\".asDynamic().unsafeCast<NotificationPermission>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface NotificationDirection {\n    companion object\n}\n\npublic inline val
NotificationDirection.Companion.AUTO: NotificationDirection
 get() = \"auto\".asDynamic().unsafeCast<NotificationDirection>()\n\npublic inline val
NotificationDirection.Companion.LTR: NotificationDirection get() =
\"ltr\".asDynamic().unsafeCast<NotificationDirection>()\n\npublic inline val
NotificationDirection.Companion.RTL: NotificationDirection get() =
\"rtl\".asDynamic().unsafeCast<NotificationDirection>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n//
See github.com/kotlin/dukat for details\n\npackage org.w3c.workers\n\nimport kotlin.js.*\nimport
org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\nimport org.w3c.fetch.*\nimport
org.w3c.notifications.*\n\n/**\n * Exposes the JavaScript
[ServiceWorker](https://developer.mozilla.org/en/docs/Web/API/ServiceWorker) to Kotlin\n */\npublic
 external abstract class ServiceWorker : EventTarget, AbstractWorker, UnionMessagePortOrServiceWorker,
UnionClientOrMessagePortOrServiceWorker {\n    open val scriptURL: String\n    open val state:
ServiceWorkerState\n    open var onstatechange: ((Event) -> dynamic)?\n    fun postMessage(message: Any?,
transfer: Array<dynamic> = definedExternally)\n}\n\n/**\n * Exposes the JavaScript
[ServiceWorkerRegistration](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerRegistration) to
Kotlin\n */\npublic external abstract class ServiceWorkerRegistration : EventTarget {\n    open val installing:
ServiceWorker?\n    open val waiting: ServiceWorker?\n    open val active: ServiceWorker?\n    open val scope:
String\n    open var onupdatefound: ((Event) -> dynamic)?\n    open val APISpace: dynamic\n    fun update():
Promise<Unit>\n    fun unregister(): Promise<Boolean>\n    fun showNotification(title: String, options:
NotificationOptions = definedExternally): Promise<Unit>\n    fun getNotifications(filter:
 GetNotificationOptions = definedExternally): Promise<Array<Notification>>\n    fun methodName():
Promise<dynamic>\n}\n\n/**\n * Exposes the JavaScript
[ServiceWorkerContainer](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerContainer) to Kotlin\n
*/\npublic external abstract class ServiceWorkerContainer : EventTarget {\n    open val controller:
ServiceWorker?\n    open val ready: Promise<ServiceWorkerRegistration>\n    open var oncontrollerchange:
((Event) -> dynamic)?\n    open var onmessage: ((MessageEvent) -> dynamic)?\n    fun register(scriptURL: String,
options: RegistrationOptions = definedExternally): Promise<ServiceWorkerRegistration>\n    fun
getRegistration(clientURL: String = definedExternally): Promise<Any?>\n    fun getRegistrations():
Promise<Array<ServiceWorkerRegistration>>\n    fun startMessages()\n}\n\npublic external interface
RegistrationOptions {\n    var scope: String?\n        get() = definedExternally\n        set(value) = definedExternally\n
    var type: WorkerType? /* = WorkerType.CLASSIC */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun RegistrationOptions(scope: String? =
undefined, type: WorkerType? = WorkerType.CLASSIC): RegistrationOptions {\n    val o = js(\"({})\")\n
```

o[\"scope\"] = scope\n   o[\"type\"] = type\n   return o\n}\n\n/**\n * Exposes the JavaScript [ServiceWorkerMessageEvent](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerMessageEvent) to Kotlin\n */\npublic external open class ServiceWorkerMessageEvent(type: String, eventInitDict: ServiceWorkerMessageEventInit = definedExternally) : Event {\n   open val data: Any?\n   open val origin: String\n   open val lastEventId: String\n   open val source: UnionMessagePortOrServiceWorker?\n   open val ports: Array<out MessagePort>?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface ServiceWorkerMessageEventInit : EventInit {\n   var data: Any?\n   get() = definedExternally\n   set(value) = definedExternally\n   var origin: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var lastEventId: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var source: UnionMessagePortOrServiceWorker?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ports: Array<MessagePort>?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ServiceWorkerMessageEventInit(data: Any? = undefined, origin: String? = undefined, lastEventId: String? = undefined, source: UnionMessagePortOrServiceWorker? = undefined, ports: Array<MessagePort>? = undefined, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ServiceWorkerMessageEventInit {\n   val o = js(\"({})\")\n   o[\"data\"] = data\n   o[\"origin\"] = origin\n   o[\"lastEventId\"] = lastEventId\n   o[\"source\"] = source\n   o[\"ports\"] = ports\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [ServiceWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerGlobalScope) to Kotlin\n */\npublic external abstract class ServiceWorkerGlobalScope : WorkerGlobalScope {\n   open val clients: Clients\n   open val registration: ServiceWorkerRegistration\n   open var oninstall: ((Event) -> dynamic)?\n   open var onactivate: ((Event) -> dynamic)?\n   open var onfetch: ((FetchEvent) -> dynamic)?\n   open var onforeignfetch: ((Event) -> dynamic)?\n   open var onmessage: ((MessageEvent) -> dynamic)?\n   open var onnotificationclick: ((NotificationEvent) -> dynamic)?\n   open var onnotificationclose: ((NotificationEvent) -> dynamic)?\n   open var onfunctionalevent: ((Event) -> dynamic)?\n   fun skipWaiting(): Promise<Unit>\n}\n\n/**\n * Exposes the JavaScript [Client](https://developer.mozilla.org/en/docs/Web/API/Client) to Kotlin\n */\npublic external abstract class Client : UnionClientOrMessagePortOrServiceWorker {\n   open val url: String\n   open val frameType: FrameType\n   open val id: String\n   fun postMessage(message: Any?, transfer: Array<dynamic> = definedExternally)\n}\n\n/**\n * Exposes the JavaScript [WindowClient](https://developer.mozilla.org/en/docs/Web/API/WindowClient) to Kotlin\n */\npublic external abstract class WindowClient : Client {\n   open val visibilityState: dynamic\n   open val focused: Boolean\n   fun focus(): Promise<WindowClient>\n   fun navigate(url: String): Promise<WindowClient>\n}\n\n/**\n * Exposes the JavaScript [Clients](https://developer.mozilla.org/en/docs/Web/API/Clients) to Kotlin\n */\npublic external abstract class Clients {\n   fun get(id: String): Promise<Any?>\n   fun matchAll(options: ClientQueryOptions = definedExternally): Promise<Array<Client>>\n   fun openWindow(url: String): Promise<WindowClient?>\n   fun claim(): Promise<Unit>\n}\n\npublic external interface ClientQueryOptions {\n   var includeUncontrolled: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var type: ClientType? /* = ClientType.WINDOW */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ClientQueryOptions(includeUncontrolled: Boolean? = false, type: ClientType? = ClientType.WINDOW): ClientQueryOptions {\n   val o = js(\"({})\")\n   o[\"includeUncontrolled\"] = includeUncontrolled\n   o[\"type\"] = type\n   return o\n}\n\n/**\n * Exposes the

JavaScript [ExtendableEvent](https://developer.mozilla.org/en/docs/Web/API/ExtendableEvent) to Kotlin\n */\npublic external open class ExtendableEvent(type: String, eventInitDict: ExtendableEventInit = definedExternally) : Event {\n   fun waitUntil(f: Promise<Any?>)\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface ExtendableEventInit : EventInit\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ExtendableEventInit(bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ExtendableEventInit {\n   val o = js(\"({})\")\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [InstallEvent](https://developer.mozilla.org/en/docs/Web/API/InstallEvent) to Kotlin\n */\npublic external open class InstallEvent(type: String, eventInitDict: ExtendableEventInit = definedExternally) : ExtendableEvent {\n   fun registerForeignFetch(options: ForeignFetchOptions)\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface ForeignFetchOptions {\n   var scopes: Array<String>?\n   var origins: Array<String>?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ForeignFetchOptions(scopes: Array<String>?, origins: Array<String>?): ForeignFetchOptions {\n   val o = js(\"({})\")\n   o[\"scopes\"] = scopes\n   o[\"origins\"] = origins\n   return o\n}\n\n/**\n * Exposes the JavaScript [FetchEvent](https://developer.mozilla.org/en/docs/Web/API/FetchEvent) to Kotlin\n */\npublic external open class FetchEvent(type: String, eventInitDict: FetchEventInit) : ExtendableEvent {\n   open val request: Request\n   open val clientId: String?\n   open val isReload: Boolean\n   fun respondWith(r: Promise<Response>)\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface FetchEventInit : ExtendableEventInit {\n   var request: Request?\n   var clientId: String? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var isReload: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun FetchEventInit(request: Request?, clientId: String? = null, isReload: Boolean? = false, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): FetchEventInit {\n   val o = js(\"({})\")\n   o[\"request\"] = request\n   o[\"clientId\"] = clientId\n   o[\"isReload\"] = isReload\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\npublic external open class ForeignFetchEvent(type: String, eventInitDict: ForeignFetchEventInit) : ExtendableEvent {\n   open val request: Request\n   open val origin: String\n   fun respondWith(r: Promise<ForeignFetchResponse>)\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface ForeignFetchEventInit : ExtendableEventInit {\n   var request: Request?\n   var origin: String? /* = \"null\" */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ForeignFetchEventInit(request: Request?, origin: String? = \"null\", bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ForeignFetchEventInit {\n   val o = js(\"({})\")\n   o[\"request\"] = request\n   o[\"origin\"] = origin\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\npublic external interface ForeignFetchResponse {\n   var response: Response?\n   var origin: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var headers: Array<String>?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ForeignFetchResponse(response:

Response?, origin: String? = undefined, headers: Array<String>? = undefined): ForeignFetchResponse {\n   val o = js(\"({})\")\n   o[\"response\"] = response\n   o[\"origin\"] = origin\n   o[\"headers\"] = headers\n   return o\n}\n\n/**\n * Exposes the JavaScript [ExtendableMessageEvent](https://developer.mozilla.org/en/docs/Web/API/ExtendableMessageEvent)
 to Kotlin\n */\npublic external open class ExtendableMessageEvent(type: String, eventInitDict: ExtendableMessageEventInit = definedExternally) : ExtendableEvent {\n   open val data: Any?\n   open val origin: String\n   open val lastEventId: String\n   open val source: UnionClientOrMessagePortOrServiceWorker?\n   open val ports: Array<out MessagePort>?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface ExtendableMessageEventInit : ExtendableEventInit {\n   var data: Any?\n   get() = definedExternally\n   set(value) = definedExternally\n   var origin: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var lastEventId: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var source: UnionClientOrMessagePortOrServiceWorker?\n
        get() = definedExternally\n   set(value) = definedExternally\n   var ports: Array<MessagePort>?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ExtendableMessageEventInit(data: Any? = undefined, origin: String? = undefined, lastEventId: String? = undefined, source: UnionClientOrMessagePortOrServiceWorker? = undefined, ports: Array<MessagePort>? = undefined, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ExtendableMessageEventInit {\n   val o = js(\"({})\")\n   o[\"data\"] = data\n   o[\"origin\"] = origin\n   o[\"lastEventId\"] = lastEventId\n   o[\"source\"] = source\n   o[\"ports\"] = ports\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [Cache](https://developer.mozilla.org/en/docs/Web/API/Cache)
 to Kotlin\n */\npublic external abstract class Cache {\n   fun match(request: dynamic, options: CacheQueryOptions = definedExternally): Promise<Any?>\n   fun matchAll(request: dynamic = definedExternally, options: CacheQueryOptions = definedExternally): Promise<Array<Response>>\n   fun add(request: dynamic): Promise<Unit>\n   fun addAll(requests: Array<dynamic>): Promise<Unit>\n   fun put(request: dynamic, response: Response): Promise<Unit>\n   fun delete(request: dynamic, options: CacheQueryOptions = definedExternally): Promise<Boolean>\n   fun keys(request: dynamic = definedExternally, options: CacheQueryOptions = definedExternally): Promise<Array<Request>>\n}\n\npublic external interface CacheQueryOptions {\n   var ignoreSearch: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var ignoreMethod: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var ignoreVary:
 Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var cacheName: String?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CacheQueryOptions(ignoreSearch: Boolean? = false, ignoreMethod: Boolean? = false, ignoreVary: Boolean? = false, cacheName: String? = undefined): CacheQueryOptions {\n   val o = js(\"({})\")\n   o[\"ignoreSearch\"] = ignoreSearch\n   o[\"ignoreMethod\"] = ignoreMethod\n   o[\"ignoreVary\"] = ignoreVary\n   o[\"cacheName\"] = cacheName\n   return o\n}\n\npublic external interface CacheBatchOperation {\n   var type: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var request: Request?\n   get() = definedExternally\n   set(value) = definedExternally\n   var response: Response?\n   get() = definedExternally\n
    set(value) = definedExternally\n   var options: CacheQueryOptions?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CacheBatchOperation(type: String? = undefined, request: Request? = undefined, response: Response? = undefined, options: CacheQueryOptions? =

undefined): CacheBatchOperation {\n   val o = js(\"({})\")\n   o[\"type\"] = type\n   o[\"request\"] = request\n
o[\"response\"] = response\n   o[\"options\"] = options\n   return o\n}\n\n/**\n * Exposes the JavaScript
[CacheStorage](https://developer.mozilla.org/en/docs/Web/API/CacheStorage) to Kotlin\n */\npublic external
abstract class CacheStorage {\n   fun match(request: dynamic, options: CacheQueryOptions = definedExternally):
Promise<Any?>\n   fun has(cacheName: String): Promise<Boolean>\n   fun open(cacheName: String):
Promise<Cache>\n   fun delete(cacheName: String): Promise<Boolean>\n
    fun keys(): Promise<Array<String>>\n}\n\npublic external open class FunctionalEvent : ExtendableEvent {\n
companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET:
Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface
UnionMessagePortOrServiceWorker\n\npublic external interface
UnionClientOrMessagePortOrServiceWorker\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface ServiceWorkerState {\n   companion object\n}\n\npublic inline val
ServiceWorkerState.Companion.INSTALLING: ServiceWorkerState get() =
\"installing\".asDynamic().unsafeCast<ServiceWorkerState>()\n\npublic inline val
ServiceWorkerState.Companion.INSTALLED: ServiceWorkerState get() =
\"installed\".asDynamic().unsafeCast<ServiceWorkerState>()\n\npublic inline val
ServiceWorkerState.Companion.ACTIVATING: ServiceWorkerState get() =
\"activating\".asDynamic().unsafeCast<ServiceWorkerState>()\n\npublic
inline val ServiceWorkerState.Companion.ACTIVATED: ServiceWorkerState get() =
\"activated\".asDynamic().unsafeCast<ServiceWorkerState>()\n\npublic inline val
ServiceWorkerState.Companion.REDUNDANT: ServiceWorkerState get() =
\"redundant\".asDynamic().unsafeCast<ServiceWorkerState>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface FrameType {\n   companion object\n}\n\npublic inline val FrameType.Companion.AUXILIARY:
FrameType get() = \"auxiliary\".asDynamic().unsafeCast<FrameType>()\n\npublic inline val
FrameType.Companion.TOP_LEVEL: FrameType get() = \"top-
level\".asDynamic().unsafeCast<FrameType>()\n\npublic inline val FrameType.Companion.NESTED: FrameType
get() = \"nested\".asDynamic().unsafeCast<FrameType>()\n\npublic inline val FrameType.Companion.NONE:
FrameType get() = \"none\".asDynamic().unsafeCast<FrameType>()\n\n/* please,
don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface ClientType {\n   companion object\n}\n\npublic inline val ClientType.Companion.WINDOW: ClientType
get() = \"window\".asDynamic().unsafeCast<ClientType>()\n\npublic inline val ClientType.Companion.WORKER:
ClientType get() = \"worker\".asDynamic().unsafeCast<ClientType>()\n\npublic inline val
ClientType.Companion.SHAREDWORKER: ClientType get() =
\"sharedworker\".asDynamic().unsafeCast<ClientType>()\n\npublic inline val ClientType.Companion.ALL:
ClientType get() = \"all\".asDynamic().unsafeCast<ClientType>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT
EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.xhr\n\nimport kotlin.js.*\nimport
org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\nimport org.w3c.files.*\n\n/**\n *
Exposes the JavaScript
[XMLHttpRequestEventTarget](https://developer.mozilla.org/en/docs/Web/API/XMLHttpRequestEventTarget) to
Kotlin\n */\npublic external abstract class XMLHttpRequestEventTarget : EventTarget {\n   open var onloadstart:
((ProgressEvent) -> dynamic)?\n   open var onprogress: ((ProgressEvent) -> dynamic)?\n   open var onabort:
((Event) -> dynamic)?\n   open var onerror: ((Event) -> dynamic)?\n   open var onload: ((Event) -> dynamic)?\n
open var ontimeout: ((Event) -> dynamic)?\n   open var onloadend: ((Event) -> dynamic)?\n}\n\npublic external

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abstract class XMLHttpRequestUpload : XMLHttpRequestEventTarget\n\n/**\n * Exposes the JavaScript
[XMLHttpRequest](https://developer.mozilla.org/en/docs/Web/API/XMLHttpRequest) to Kotlin\n */\npublic
external open class XMLHttpRequest : XMLHttpRequestEventTarget {\n    var onreadystatechange: ((Event) ->
dynamic)?\n
    open val readyState: Short\n    var timeout: Int\n    var withCredentials: Boolean\n    open val upload:
XMLHttpRequestUpload\n    open val responseURL: String\n    open val status: Short\n    open val statusText:
String\n    var responseType: XMLHttpRequestResponseType\n    open val response: Any?\n    open val
responseText: String\n    open val responseXML: Document?\n    fun open(method: String, url: String)\n    fun
open(method: String, url: String, async: Boolean, username: String? = definedExternally, password: String? =
definedExternally)\n    fun setRequestHeader(name: String, value: String)\n    fun send(body: dynamic =
definedExternally)\n    fun abort()\n    fun getResponseHeader(name: String): String?\n    fun
getAllResponseHeaders(): String\n    fun overrideMimeType(mime: String)\n\n    companion object {\n        val
UNSENT: Short\n        val OPENED: Short\n        val HEADERS_RECEIVED: Short\n        val LOADING:
Short\n        val DONE: Short\n    }\n}\n\n/**\n
 * Exposes the JavaScript [FormData](https://developer.mozilla.org/en/docs/Web/API/FormData) to Kotlin\n
*/\npublic external open class FormData(form: HTMLFormElement = definedExternally) {\n    fun append(name:
String, value: String)\n    fun append(name: String, value: Blob, filename: String = definedExternally)\n    fun
delete(name: String)\n    fun get(name: String): dynamic\n    fun getAll(name: String): Array<dynamic>\n    fun
has(name: String): Boolean\n    fun set(name: String, value: String)\n    fun set(name: String, value: Blob, filename:
String = definedExternally)\n}\n\n/**\n * Exposes the JavaScript
[ProgressEvent](https://developer.mozilla.org/en/docs/Web/API/ProgressEvent) to Kotlin\n */\npublic external open
class ProgressEvent(type: String, eventInitDict: ProgressEventInit = definedExternally) : Event {\n    open val
lengthComputable: Boolean\n    open val loaded: Number\n    open val total: Number\n\n    companion object {\n
 val NONE: Short\n        val CAPTURING_PHASE:
 Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface
ProgressEventInit : EventInit {\n    var lengthComputable: Boolean? /* = false */\n        get() = definedExternally\n
    set(value) = definedExternally\n    var loaded: Number? /* = 0 */\n        get() = definedExternally\n        set(value)
= definedExternally\n    var total: Number? /* = 0 */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ProgressEventInit(lengthComputable:
Boolean? = false, loaded: Number? = 0, total: Number? = 0, bubbles: Boolean? = false, cancelable: Boolean? =
false, composed: Boolean? = false): ProgressEventInit {\n    val o = js(\"({})\")\n    o[\"lengthComputable\"] =
lengthComputable\n    o[\"loaded\"] = loaded\n    o[\"total\"] = total\n    o[\"bubbles\"] = bubbles\n
o[\"cancelable\"] = cancelable\n
    o[\"composed\"] = composed\n    return o\n}\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface XMLHttpRequestResponseType {\n    companion object\n}\n\npublic inline val
XMLHttpRequestResponseType.Companion.EMPTY: XMLHttpRequestResponseType get() =
\"\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val
XMLHttpRequestResponseType.Companion.ARRAYBUFFER: XMLHttpRequestResponseType get() =
\"arraybuffer\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val
XMLHttpRequestResponseType.Companion.BLOB: XMLHttpRequestResponseType get() =
\"blob\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val
XMLHttpRequestResponseType.Companion.DOCUMENT: XMLHttpRequestResponseType get() =
\"document\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val
XMLHttpRequestResponseType.Companion.JSON: XMLHttpRequestResponseType
 get() = \"json\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val
XMLHttpRequestResponseType.Companion.TEXT: XMLHttpRequestResponseType get() =
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\"text\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.annotation.AnnotationRetention.BINARY\nimport kotlin.annotation.AnnotationRetention.SOURCE\nimport kotlin.annotation.AnnotationTarget.*\nimport kotlin.internal.RequireKotlin\nimport kotlin.internal.RequireKotlinVersionKind\nimport kotlin.reflect.KClass\n\n/**\n * Signals that the annotated annotation class is a marker of an experimental API.\n *\n * Any declaration annotated with that marker is considered an experimental declaration\n * and its call sites should accept the experimental aspect of it either by using [UseExperimental],\n * or by being annotated with that marker themselves, effectively causing further propagation of that experimental aspect.\n *\n * This class is deprecated in favor of a more general approach provided by [RequiresOptIn]/[OptIn].\n */\n@Target(ANNOTATION_CLASS)\n@Retention(BINARY)\n@SinceKotlin(\"1.2\")\n@RequireKotlin(\"1.2.50\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\n@Deprecated(\"Please use RequiresOptIn instead.\")\npublic annotation class Experimental(val level: Level = Level.ERROR) {\n   /**\n   * Severity of the diagnostic that should be reported on usages of experimental API which did not explicitly accept the experimental aspect\n   * of that API either by using [UseExperimental] or by being annotated with the corresponding marker annotation.\n   */\n   public enum class Level {\n   /** Specifies that a warning should be reported on incorrect usages of this experimental API. */\n   WARNING,\n   /** Specifies that an error should be reported on incorrect usages of this experimental API. */\n   ERROR,\n   }\n}\n\n/**\n * Allows to use experimental API denoted by the given markers in the annotated file, declaration, or expression.\n * If a declaration is annotated with [UseExperimental], its usages are **not** required to opt-in to that experimental API.\n *\n * This class is deprecated in favor of a more general approach provided by [RequiresOptIn]/[OptIn].\n */\n@Target(\n   CLASS, PROPERTY, LOCAL_VARIABLE, VALUE_PARAMETER, CONSTRUCTOR, FUNCTION, PROPERTY_GETTER, PROPERTY_SETTER, EXPRESSION, FILE, TYPEALIAS\n)\n@Retention(SOURCE)\n@SinceKotlin(\"1.2\")\n@RequireKotlin(\"1.2.50\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\n@Deprecated(\"Please use OptIn instead.\", ReplaceWith(\"OptIn(*markerClass)\", \"kotlin.OptIn\"))\npublic annotation class UseExperimental(\n   vararg val markerClass: KClass<out Annotation>\n)\n\n\n@Target(CLASS, PROPERTY, CONSTRUCTOR, FUNCTION, TYPEALIAS)\n@Retention(BINARY)\ninternal annotation class WasExperimental(\n   vararg val markerClass: KClass<out Annotation>\n)\n","package kotlin\n\nimport kotlin.annotation.AnnotationTarget.*\n\n/**\n * This annotation marks the standard library API that is considered experimental and is not subject to the\n * [general compatibility guarantees](https://kotlinlang.org/docs/reference/evolution/components-stability.html) given for the standard library:\n * the behavior of such API may be changed or the API may be removed completely in any further release.\n *\n * > Beware using the annotated API especially if you're developing a library, since your library might become binary incompatible\n * with the future versions of the standard library.\n *\n * Any usage of a declaration annotated with `@ExperimentalStdlibApi` must be accepted either by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalStdlibApi::class)`,\n * or by using the compiler argument `-opt-in=kotlin.ExperimentalStdlibApi`.\n */\n@RequiresOptIn(level = RequiresOptIn.Level.ERROR)\n@Retention(AnnotationRetention.BINARY)\n@Target(\n   CLASS,\n   ANNOTATION_CLASS,\n   PROPERTY,\n   FIELD,\n   LOCAL_VARIABLE,\n   VALUE_PARAMETER,\n   CONSTRUCTOR,\n   FUNCTION,\n   PROPERTY_GETTER,\n   PROPERTY_SETTER,\n   TYPEALIAS\n)\n@MustBeDocumented\n@SinceKotlin(\"1.3\")\npublic annotation class ExperimentalStdlibApi\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.annotation.AnnotationTarget.*\nimport

kotlin.experimental.ExperimentalTypeInference\n\n/**\n * Allows to infer generic type arguments of a function from the calls in the annotated function parameter of that function.\n *\n * When this annotation is placed on a generic function parameter of a function,\n * it enables to infer the type arguments of that generic function from the lambda body passed to that parameter.\n *\n * The calls that affect inference are either members of the receiver type of an annotated function parameter or\n * extensions for that type. The extensions must be themselves annotated with `@BuilderInference`.\n *\n * Example: we declare\n * ```\n * fun <T> sequence(@BuilderInference block: suspend SequenceScope<T>.() -> Unit): Sequence<T>\n * ```\n * and use it like\n * ```\n * val result = sequence { yield(\"result\") }\n * ```\n * Here the type argument of the resulting sequence is inferred to `String` from\n * the argument of the [SequenceScope.yield] function, that is called inside the lambda passed to [sequence].\n *\n * Note: this annotation is experimental, see [ExperimentalTypeInference] on how to opt-in for it.\n */\n@Target(VALUE_PARAMETER, FUNCTION, PROPERTY)\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.3\")\n@ExperimentalTypeInference\npublic annotation class BuilderInference\n\n\n/**\n * Enables overload selection based on the type of the value returned from lambda argument.\n *\n * When two or more function overloads have otherwise the same parameter lists that differ only in the return type\n * of a functional parameter, this annotation enables overload selection by the type of the value returned from\n * the lambda function passed to this functional parameter.\n *\n * Example:\n * ```\n * @OverloadResolutionByLambdaReturnType\n * fun create(intProducer: () -> Int): Int\n *\n * fun create(doubleProducer: () -> Double): Double\n *\n * val newValue = create { 3.14 }\n * ```\n *\n * The annotation being applied to one of overloads allows to resolve this ambiguity by analyzing what value is returned\n * from the lambda function.\n *\n * This annotation is also used to discriminate the annotated overloads in case if overload selection still cannot\n * choose one of them even taking in account the result of lambda parameter analysis. In that case a warning is reported.\n *\n * Note: this annotation is experimental, see [ExperimentalTypeInference] on how to opt-in for it.\n */\n@Target(FUNCTION)\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.4\")\n@ExperimentalTypeInference\npublic annotation class OverloadResolutionByLambdaReturnType","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.annotation.AnnotationTarget.*\nimport kotlin.internal.RequireKotlin\nimport kotlin.internal.RequireKotlinVersionKind\n\n/**\n * The experimental multiplatform support API marker.\n *\n * Any usage of a declaration annotated with `@ExperimentalMultiplatform` must be accepted either by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalMultiplatform::class)`,\n * or by using the compiler argument `-opt-in=kotlin.ExperimentalMultiplatform`.\n */\n@RequiresOptIn\n@MustBeDocumented\n@Target(\n   CLASS,\n   ANNOTATION_CLASS,\n   PROPERTY,\n   FIELD,\n   LOCAL_VARIABLE,\n   VALUE_PARAMETER,\n   CONSTRUCTOR,\n   FUNCTION,\n   PROPERTY_GETTER,\n   PROPERTY_SETTER,\n   TYPEALIAS\n)\n@Retention(AnnotationRetention.BINARY)\n@RequireKotlin(\"1.2.50\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\npublic annotation class ExperimentalMultiplatform\n\n/**\n * Marks an expected annotation class that it isn't required to have actual counterparts in all platforms.\n *\n * This annotation is only applicable to `expect` annotation classes in multi-platform projects and marks that class as \"optional\".\n * Optional expected class is allowed to have no corresponding actual class on the platform. Optional annotations can only be used\n * to annotate something, not as types in signatures. If an optional annotation has no corresponding actual class on a platform,\n * the annotation entries where it's used are simply erased when compiling code on that platform.\n *\n * Note: this annotation is experimental, see [ExperimentalMultiplatform] on how to opt-in for it.\n */\n@Target(ANNOTATION_CLASS)\n@Retention(AnnotationRetention.BINARY)\n@ExperimentalMultiplatform\n@RequireKotlin(\"1.2.50\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\npublic annotation class OptionalExpectation\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming

Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.annotation.AnnotationRetention.BINARY\nimport kotlin.annotation.AnnotationRetention.SOURCE\nimport kotlin.annotation.AnnotationTarget.*\nimport kotlin.internal.RequireKotlin\nimport kotlin.internal.RequireKotlinVersionKind\nimport
kotlin.reflect.KClass\n\n/**\n * Signals that the annotated annotation class is a marker of an API that requires an explicit opt-in.\n *\n * Call sites of any declaration annotated with that marker should opt in to the API either by using [OptIn],\n * or by being annotated with that marker themselves, effectively causing further propagation of the opt-in requirement.\n *\n * This class requires opt-in itself and can only be used with the compiler argument `-opt-in=kotlin.RequiresOptIn`.\n *\n * @property message message to be reported on usages of API without an explicit opt-in, or empty string for the default message.\n *   The default message is: \"This declaration is experimental and its usage should be marked with 'Marker'\n *   or '@OptIn(Marker::class)'\", where `Marker` is the opt-in requirement marker.\n * @property level specifies how usages of API without an explicit opt-in are reported in code.\n */\n@Target(ANNOTATION_CLASS)\n@Retention(BINARY)\n@SinceKotlin(\"1.3\")\n@RequireKotlin(\"1.3.70\",
versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\npublic annotation class RequiresOptIn(\n   val message: String = \"\",\n   val level: Level = Level.ERROR\n) {\n   /**\n   * Severity of the diagnostic that should be reported on usages which did not explicitly opted into\n   * the API either by using [OptIn] or by being annotated with the corresponding marker annotation.\n   */\n   public enum class Level {\n   /** Specifies that a warning should be reported on incorrect usages of this API. */\n   WARNING,\n\n   /** Specifies that an error should be reported on incorrect usages of this API. */\n   ERROR,\n   }\n}\n\n/**\n * Allows to use the API denoted by the given markers in the annotated file, declaration, or expression.\n * If a declaration is annotated with [OptIn], its usages are **not** required to opt in to that API.\n *\n * This class requires opt-in itself
and can only be used with the compiler argument `-opt-in=kotlin.RequiresOptIn`.\n */\n@Target(\n   CLASS, PROPERTY, LOCAL_VARIABLE, VALUE_PARAMETER, CONSTRUCTOR, FUNCTION, PROPERTY_GETTER, PROPERTY_SETTER, EXPRESSION, FILE, TYPEALIAS\n)\n@Retention(SOURCE)\n@SinceKotlin(\"1.3\")\n@RequireKotlin(\"1.3.70\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\npublic annotation class OptIn(\n   vararg val markerClass: KClass<out Annotation>\n)\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.collections\n\nimport kotlin.js.JsName\n\n/**\n * Provides a skeletal implementation of the read-only [Collection] interface.\n *\n * @param E the type of elements contained in the collection. The collection is covariant in its element type.\n */\n@SinceKotlin(\"1.1\")\npublic abstract class AbstractCollection<out
E> protected constructor() : Collection<E> {\n   abstract override val size: Int\n   abstract override fun iterator(): Iterator<E>\n\n   override fun contains(element: @UnsafeVariance E): Boolean = any { it == element }\n\n   override fun containsAll(elements: Collection<@UnsafeVariance E>): Boolean =\n   elements.all { contains(it) } // use when js will support bound refs: elements.all(this::contains)\n\n   override fun isEmpty(): Boolean = size == 0\n\n   override fun toString(): String = joinToString(\", \", \"[\", \"]\") {\n   if (it === this) \"(this Collection)\" else it.toString()\n   }\n\n   /**\n   * Returns new array of type `Array<Any?>` with the elements of this collection.\n   */\n   @JsName(\"toArray\")\n   protected open fun toArray(): Array<Any?> = copyToArrayImpl(this)\n\n   /**\n   * Fills the provided [array] or creates new array of the same type\n   * and fills it with the elements of this collection.\n   */\n   protected open fun <T>
toArray(array: Array<T>): Array<T> = copyToArrayImpl(this, array)\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n\nprivate enum class State {\n   Ready,\n   NotReady,\n   Done,\n   Failed\n}\n\n/**\n * A base class to simplify implementing iterators

so that implementations only have to implement [computeNext]\n * to implement the iterator, calling [done] when the iteration is complete.\n */\npublic abstract class AbstractIterator<T> : Iterator<T> {\n private var state = State.NotReady\n private var nextValue: T? = null\n\n override fun hasNext(): Boolean {\n require(state != State.Failed)\n return when (state) {\n State.Done -> false\n State.Ready -> true\n else -> tryToComputeNext()\n }\n }\n\n override fun next(): T {\n if (!hasNext()) throw NoSuchElementException()\n state = State.NotReady\n @Suppress(\"UNCHECKED_CAST\")\n return nextValue as T\n }\n\n private fun tryToComputeNext(): Boolean {\n state = State.Failed\n computeNext()\n return state == State.Ready\n }\n\n /**\n * Computes the next item in the iterator.\n *\n * This callback method should call one of these two methods:\n *\n * * [setNext] with the next value of the iteration\n * * [done] to indicate there are no more elements\n *\n * Failure to call either method will result in the iteration terminating with a failed state\n */\n abstract protected fun computeNext(): Unit\n\n /**\n * Sets the next value in the iteration, called from the [computeNext] function\n */\n protected fun setNext(value: T): Unit {\n nextValue = value\n state = State.Ready\n }\n\n /**\n * Sets the state to done so that the iteration terminates.\n */\n protected fun done() {\n state = State.Done\n }\n}\n\n\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/*\n * Based on GWT AbstractList\n * Copyright 2007 Google Inc.\n*/\n\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the read-only [List] interface.\n *\n * This class is intended to help implementing read-only lists so it doesn't support concurrent modification tracking.\n *\n * @param E the type of elements contained in the list. The list is covariant in its element type.\n */\n@SinceKotlin(\"1.1\")\npublic abstract class AbstractList<out E> protected constructor() : AbstractCollection<E>(), List<E> {\n abstract override val size: Int\n abstract override fun get(index: Int): E\n\n override fun iterator(): Iterator<E> = IteratorImpl()\n\n override fun indexOf(element: @UnsafeVariance E): Int = indexOfFirst { it == element }\n\n override fun lastIndexOf(element: @UnsafeVariance E): Int = indexOfLast { it == element }\n\n override fun listIterator(): ListIterator<E> = ListIteratorImpl(0)\n\n override fun listIterator(index: Int): ListIterator<E> = ListIteratorImpl(index)\n\n override fun subList(fromIndex: Int, toIndex: Int): List<E> = SubList(this, fromIndex, toIndex)\n\n private class SubList<out E>(private val list: AbstractList<E>, private val fromIndex: Int, toIndex: Int) : AbstractList<E>(), RandomAccess {\n private var _size: Int = 0\n\n init {\n checkRangeIndexes(fromIndex, toIndex, list.size)\n this._size = toIndex - fromIndex\n }\n\n override fun get(index: Int): E {\n checkElementIndex(index, _size)\n\n return list[fromIndex + index]\n }\n\n override val size: Int get() = _size\n }\n\n /**\n * Compares this list with other list instance with the ordered structural equality.\n *\n * @return true, if [other] instance is a [List] of the same size, which contains the same elements in the same order.\n */\n override fun equals(other: Any?): Boolean {\n if (other === this) return true\n if (other !is List<*>) return false\n\n return orderedEquals(this, other)\n }\n\n /**\n * Returns the hash code value for this list.\n */\n override fun hashCode(): Int = orderedHashCode(this)\n\n private open inner class IteratorImpl : Iterator<E> {\n /** the index of the item that will be returned on the next call to [next]`()` */\n protected var index = 0\n\n override fun hasNext(): Boolean = index < size\n\n override fun next(): E {\n if (!hasNext()) throw NoSuchElementException()\n return get(index++)\n }\n }\n\n /**\n * Implementation of [ListIterator] for abstract lists.\n */\n private open inner class ListIteratorImpl(index: Int) : IteratorImpl(), ListIterator<E> {\n\n init {\n checkPositionIndex(index, this@AbstractList.size)\n this.index = index\n }\n\n override fun hasPrevious(): Boolean = index > 0\n\n override fun nextIndex(): Int = index\n\n override fun previous(): E {\n if (!hasPrevious()) throw NoSuchElementException()\n return get(--index)\n }\n\n override fun previousIndex(): Int = index - 1\n }\n\n internal companion object {\n internal fun checkElementIndex(index: Int, size: Int) {\n if (index < 0 || index >= size) {\n throw IndexOutOfBoundsException(\"index: $index, size: $size\")\n }\n }\n\n internal fun checkPositionIndex(index: Int, size: Int) {\n   if (index < 0 || index > size) {\n   throw IndexOutOfBoundsException(\"index: $index, size: $size\")\n   }\n   }\n\n   internal fun checkRangeIndexes(fromIndex: Int, toIndex: Int, size: Int) {\n   if (fromIndex < 0 || toIndex > size) {\n   throw IndexOutOfBoundsException(\"fromIndex: $fromIndex, toIndex: $toIndex, size: $size\")\n   }\n   if (fromIndex > toIndex) {\n   throw IllegalArgumentException(\"fromIndex: $fromIndex > toIndex: $toIndex\")\n   }\n   }\n\n   internal fun checkBoundsIndexes(startIndex: Int, endIndex: Int, size: Int) {\n   if (startIndex < 0 || endIndex > size) {\n   throw IndexOutOfBoundsException(\"startIndex: $startIndex, endIndex: $endIndex, size: $size\")\n   }\n   if (startIndex > endIndex) {\n   throw IllegalArgumentException(\"startIndex: $startIndex > endIndex: $endIndex\")\n   }\n   }\n\n   internal fun orderedHashCode(c: Collection<*>): Int {\n   var hashCode = 1\n   for (e in c) {\n   hashCode = 31 * hashCode + (e?.hashCode() ?: 0)\n   }\n   return hashCode\n   }\n\n   internal fun orderedEquals(c: Collection<*>, other: Collection<*>): Boolean {\n   if (c.size != other.size) return false\n\n   val otherIterator = other.iterator()\n   for (elem in c) {\n   val elemOther = otherIterator.next()\n   if (elem != elemOther) {\n   return false\n   }\n   }\n   return true\n   }\n   }\n}","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/*\n * Based on GWT AbstractMap\n * Copyright 2007 Google Inc.\n */\n\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the read-only [Map] interface.\n *\n * The implementor is required to implement [entries] property, which should return read-only set of map entries.\n *\n * @param K the type of map keys. The map is invariant in its key type.\n * @param V the type of map values. The map is covariant in its value type.\n */\n@SinceKotlin(\"1.1\")\npublic abstract class AbstractMap<K, out V> protected constructor() : Map<K, V> {\n\n   override fun containsKey(key: K): Boolean {\n   return implFindEntry(key) != null\n   }\n\n   override fun containsValue(value: @UnsafeVariance V): Boolean = entries.any { it.value == value }\n\n   internal fun containsEntry(entry: Map.Entry<*, *>?): Boolean {\n   // since entry comes from @UnsafeVariance parameters it can be virtually anything\n   if (entry !is Map.Entry<*, *>) return false\n   val key = entry.key\n   val value = entry.value\n   val ourValue = get(key)\n\n   if (value != ourValue) {\n   return false\n   }\n\n   // Perhaps it was null and we don't contain the key?\n   if (ourValue == null && !containsKey(key)) {\n   return false\n   }\n\n   return true\n   }\n\n\n   /**\n   * Compares this map with other instance with the ordered structural equality.\n   *\n   * @return true, if [other] instance is a [Map] of the same size, all entries of which are contained in the [entries] set of this map.\n   */\n   override fun equals(other: Any?): Boolean {\n   if (other === this) return true\n   if (other !is Map<*, *>) return false\n   if (size != other.size) return false\n\n   return other.entries.all { containsEntry(it) }\n   }\n\n   override operator fun get(key: K): V? = implFindEntry(key)?.value\n\n\n   /**\n   * Returns the hash code value for this map.\n   *\n   * It is the same as the hashCode of [entries] set.\n   */\n   override fun hashCode(): Int = entries.hashCode()\n\n   override fun isEmpty(): Boolean = size == 0\n   override val size: Int get() = entries.size\n\n   /**\n   * Returns a read-only [Set] of all keys in this map.\n   *\n   * Accessing this property first time creates a keys view from [entries].\n   * All subsequent accesses just return the created instance.\n   */\n   override val keys: Set<K>\n   get() {\n   if (_keys == null) {\n   _keys = object : AbstractSet<K>() {\n   override operator fun contains(element: K): Boolean = containsKey(element)\n\n   override operator fun iterator(): Iterator<K> {\n   val entryIterator = entries.iterator()\n   return object : Iterator<K> {\n   override fun hasNext(): Boolean = entryIterator.hasNext()\n   override fun next(): K = entryIterator.next().key\n   }\n   }\n\n   override val size: Int get() = this@AbstractMap.size\n   }\n   }\n   return _keys!!\n   }\n\n   @kotlin.jvm.Volatile\n   private var _keys: Set<K>? = null\n\n\n   override fun toString(): String = entries.joinToString(\", \", \"{\", \"}\") { toString(it) }\n\n   private fun toString(entry: Map.Entry<K, V>): String =

toString(entry.key) + \"=\" + toString(entry.value)\n\n private fun toString(o: Any?): String = if (o === this) \"(this Map)\" else o.toString()\n\n /**\n * Returns a read-only [Collection] of all values in this map.\n *\n * Accessing this property first time creates a values view from [entries].\n * All subsequent accesses just return the created instance.\n */\n override val values: Collection<V>\n get() {\n if (_values == null) {\n _values = object : AbstractCollection<V>() {\n override operator fun contains(element: @UnsafeVariance V): Boolean = containsValue(element)\n\n override operator fun iterator(): Iterator<V> {\n val entryIterator

= entries.iterator()\n return object : Iterator<V> {\n override fun hasNext(): Boolean = entryIterator.hasNext()\n override fun next(): V = entryIterator.next().value\n }\n }\n\n override val size: Int get() = this@AbstractMap.size\n }\n }\n return _values!!\n }\n\n @kotlin.jvm.Volatile\n private var _values: Collection<V>? = null\n\n private fun implFindEntry(key: K): Map.Entry<K, V>? = entries.firstOrNull { it.key == key }\n\n internal companion object {\n\n internal fun entryHashCode(e: Map.Entry<*, *>): Int = with(e) { (key?.hashCode() ?: 0) xor (value?.hashCode() ?: 0) }\n internal fun entryToString(e: Map.Entry<*, *>): String = with(e) { \"$key=$value\" }\n internal fun entryEquals(e: Map.Entry<*, *>, other: Any?): Boolean {\n if (other !is Map.Entry<*,

>) return false\n return e.key == other.key && e.value == other.value\n }\n }\n}\n","/\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the read-only [Set] interface.\n *\n * This class is intended to help implementing read-only sets so it doesn't support concurrent modification tracking.\n *\n * @param E the type of elements contained in the set. The set is covariant in its element type.\n */\n@SinceKotlin(\"1.1\")\npublic abstract class AbstractSet<out E> protected constructor() : AbstractCollection<E>(), Set<E> {\n\n /**\n * Compares this set with other set instance with the unordered structural equality.\n *\n * @return true, if [other] instance is a [Set] of the same size, all elements of which are contained

in this set.\n */\n override fun equals(other: Any?): Boolean {\n if (other === this) return true\n if (other !is Set<*>) return false\n return setEquals(this, other)\n }\n\n /**\n * Returns the hash code value for this set.\n */\n override fun hashCode(): Int = unorderedHashCode(this)\n\n internal companion object {\n internal fun unorderedHashCode(c: Collection<*>): Int {\n var hashCode = 0\n for (element in c) {\n hashCode += (element?.hashCode() ?: 0)\n }\n return hashCode\n }\n\n internal fun setEquals(c: Set<*>, other: Set<*>): Boolean {\n if (c.size != other.size) return false\n return c.containsAll(other)\n }\n }\n\n}","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt

file.\n */\n\npackage kotlin.collections\n\n/**\n * Resizable-array implementation of the deque data structure.\n *\n * The name deque is short for \"double ended queue\" and is usually pronounced \"deck\".\n *\n * The collection provide methods for convenient access to the both ends.\n * It also implements [MutableList] interface and supports efficient get/set operations by index.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic class ArrayDeque<E> : AbstractMutableList<E> {\n private var head: Int = 0\n private var elementData: Array<Any?>\n\n override var size: Int = 0\n private set\n\n /**\n * Constructs an empty deque with specified [initialCapacity], or throws [IllegalArgumentException] if [initialCapacity] is negative.\n */\n public constructor(initialCapacity: Int) {\n elementData = when {\n initialCapacity == 0 -> emptyElementData\n initialCapacity > 0 -> arrayOfNulls(initialCapacity)\n

else -> throw IllegalArgumentException(\"Illegal Capacity: $initialCapacity\")\n }\n }\n\n /**\n * Constructs an empty deque.\n */\n public constructor() {\n elementData = emptyElementData\n }\n\n /**\n * Constructs a deque that contains the same elements as the specified [elements] collection in the same

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order.\n     */\n    public constructor(elements: Collection<E>) {\n        elementData = elements.toTypedArray()\n
 size = elementData.size\n        if (elementData.isEmpty()) elementData = emptyElementData\n    }\n\n    /**\n     *
Ensures that the capacity of this deque is at least equal to the specified [minCapacity].\n     *\n     * If the current
capacity is less than the [minCapacity], a new backing storage is allocated with greater capacity.\n     * Otherwise,
this method takes no action and simply returns.\n     */\n    private fun ensureCapacity(minCapacity: Int) {\n        if
(minCapacity < 0) throw IllegalStateException(\"Deque
 is too big.\")    // overflow\n        if (minCapacity <= elementData.size) return\n        if (elementData ===
emptyElementData) {\n            elementData = arrayOfNulls(minCapacity.coerceAtLeast(defaultMinCapacity))\n
    return\n        }\n\n        val newCapacity = newCapacity(elementData.size, minCapacity)\n
copyElements(newCapacity)\n    }\n\n    /**\n     * Creates a new array with the specified [newCapacity] size and
copies elements in the [elementData] array to it.\n     */\n    private fun copyElements(newCapacity: Int) {\n        val
newElements = arrayOfNulls<Any?>(newCapacity)\n        elementData.copyInto(newElements, 0, head,
elementData.size)\n        elementData.copyInto(newElements, elementData.size - head, 0, head)\n        head = 0\n
 elementData = newElements\n    }\n\n    @kotlin.internal.InlineOnly\n    private inline fun
internalGet(internalIndex: Int): E {\n        @Suppress(\"UNCHECKED_CAST\")\n        return
elementData[internalIndex]
 as E\n    }\n\n    private fun positiveMod(index: Int): Int = if (index >= elementData.size) index - elementData.size
else index\n\n    private fun negativeMod(index: Int): Int = if (index < 0) index + elementData.size else index\n\n
@kotlin.internal.InlineOnly\n    private inline fun internalIndex(index: Int): Int = positiveMod(head + index)\n\n
private fun incremented(index: Int): Int = if (index == elementData.lastIndex) 0 else index + 1\n\n    private fun
decremented(index: Int): Int = if (index == 0) elementData.lastIndex else index - 1\n\n    override fun isEmpty():
Boolean = size == 0\n\n    /**\n     * Returns the first element, or throws [NoSuchElementException] if this deque is
empty.\n     */\n    public fun first(): E = if (isEmpty()) throw NoSuchElementException(\"ArrayDeque is empty.\")
else internalGet(head)\n\n    /**\n     * Returns the first element, or `null` if this deque is empty.\n     */\n    public
fun firstOrNull(): E? = if (isEmpty()) null
 else internalGet(head)\n\n    /**\n     * Returns the last element, or throws [NoSuchElementException] if this deque
is empty.\n     */\n    public fun last(): E = if (isEmpty()) throw NoSuchElementException(\"ArrayDeque is empty.\")
else internalGet(internalIndex(lastIndex))\n\n    /**\n     * Returns the last element, or `null` if this deque is empty.\n
    */\n    public fun lastOrNull(): E? = if (isEmpty()) null else internalGet(internalIndex(lastIndex))\n\n    /**\n     *
Prepends the specified [element] to this deque.\n     */\n    public fun addFirst(element: E) {\n
ensureCapacity(size + 1)\n\n        head = decremented(head)\n        elementData[head] = element\n        size += 1\n
}\n\n    /**\n     * Appends the specified [element] to this deque.\n     */\n    public fun addLast(element: E) {\n
ensureCapacity(size + 1)\n\n        elementData[internalIndex(size)] = element\n        size += 1\n    }\n\n    /**\n     *
Removes the first element from this deque
 and returns that removed element, or throws [NoSuchElementException] if this deque is empty.\n     */\n    public
fun removeFirst(): E {\n        if (isEmpty()) throw NoSuchElementException(\"ArrayDeque is empty.\")\n\n        val
element = internalGet(head)\n        elementData[head] = null\n        head = incremented(head)\n        size -= 1\n
return element\n    }\n\n    /**\n     * Removes the first element from this deque and returns that removed element, or
returns `null` if this deque is empty.\n     */\n    public fun removeFirstOrNull(): E? = if (isEmpty()) null else
removeFirst()\n\n    /**\n     * Removes the last element from this deque and returns that removed element, or
throws [NoSuchElementException] if this deque is empty.\n     */\n    public fun removeLast(): E {\n        if
(isEmpty()) throw NoSuchElementException(\"ArrayDeque is empty.\")\n\n        val internalLastIndex =
internalIndex(lastIndex)\n        val element = internalGet(internalLastIndex)\n
    elementData[internalLastIndex] = null\n        size -= 1\n        return element\n    }\n\n    /**\n     * Removes the
last element from this deque and returns that removed element, or returns `null` if this deque is empty.\n     */\n
public fun removeLastOrNull(): E? = if (isEmpty()) null else removeLast()\n\n    // MutableList,
MutableCollection\n    public override fun add(element: E): Boolean {\n        addLast(element)\n        return true\n
}\n\n    public override fun add(index: Int, element: E) {\n        AbstractList.checkPositionIndex(index, size)\n\n
```

if (index == size) {\n addLast(element)\n return\n } else if (index == 0) {\n addFirst(element)\n return\n }\n\n ensureCapacity(size + 1)\n\n // Elements in circular array lay in 2 ways:\n // 1. `head` is less than `tail`: [#, #, e1, e2, e3, #]\n // 2. `head` is greater than `tail`: [e3, #, #, #, e1, e2]\n // where head is the index of the first element in the circular array,\n // and tail is the index following the last element.\n //\n // At this point the insertion index is not equal to head or tail.\n // Also the circular array can store at least one more element.\n //\n // Depending on where the given element must be inserted the preceding or the succeeding\n // elements will be shifted to make room for the element to be inserted.\n //\n // In case the preceding elements are shifted:\n // * if the insertion index is greater than the head (regardless of circular array form)\n // -> shift the preceding elements\n // * otherwise, the circular array has (2) form and the insertion index is less than tail\n // -> shift all elements in the back of the array\n // -> shift preceding elements in the front of the array\n // In case the succeeding elements are shifted:\n // * if the insertion index is less than the tail (regardless of circular array form)\n // -> shift the succeeding elements\n // * otherwise, the circular array has (2) form and the insertion index is greater than head\n // -> shift all elements in the front of the array\n // -> shift succeeding elements in the back of the array\n\n val internalIndex = internalIndex(index)\n\n if (index < (size + 1) shr 1) {\n // closer to the first element -> shift preceding elements\n val decrementedInternalIndex = decremented(internalIndex)\n val decrementedHead = decremented(head)\n\n if (decrementedInternalIndex >= head) {\n elementData[decrementedHead] = elementData[head] // head can be zero\n elementData.copyInto(elementData, head, head + 1, decrementedInternalIndex + 1)\n } else { // head > tail\n elementData.copyInto(elementData, head - 1, head, elementData.size) // head can't be zero\n elementData[elementData.size - 1] = elementData[0]\n elementData.copyInto(elementData, 0, 1, decrementedInternalIndex + 1)\n }\n\n elementData[decrementedInternalIndex] = element\n head = decrementedHead\n } else {\n // closer to the last element -> shift succeeding elements\n val tail = internalIndex(size)\n\n if (internalIndex < tail) {\n elementData.copyInto(elementData, internalIndex + 1, internalIndex, tail)\n } else { // head > tail\n elementData.copyInto(elementData, 1, 0, tail)\n elementData[0] = elementData[elementData.size - 1]\n elementData.copyInto(elementData, internalIndex + 1, internalIndex, elementData.size - 1)\n }\n\n elementData[internalIndex] = element\n }\n size += 1\n }\n\n private fun copyCollectionElements(internalIndex: Int, elements: Collection<E>) {\n val iterator = elements.iterator()\n\n for (index in internalIndex until elementData.size) {\n if (!iterator.hasNext()) break\n elementData[index] = iterator.next()\n }\n for (index in 0 until head) {\n if (!iterator.hasNext()) break\n elementData[index] = iterator.next()\n }\n\n size += elements.size\n }\n\n public override fun addAll(elements: Collection<E>): Boolean {\n if (elements.isEmpty()) return false\n ensureCapacity(this.size + elements.size)\n copyCollectionElements(internalIndex(size), elements)\n return true\n }\n\n public override fun addAll(index: Int, elements: Collection<E>): Boolean {\n AbstractList.checkPositionIndex(index, size)\n\n if (elements.isEmpty()) {\n return false\n } else if (index == size) {\n return addAll(elements)\n }\n\n ensureCapacity(this.size + elements.size)\n\n val tail = internalIndex(size)\n val internalIndex = internalIndex(index)\n val elementsSize = elements.size\n\n if (index < (size + 1) shr 1) {\n // closer to the first element -> shift preceding elements\n\n var shiftedHead = head - elementsSize\n\n if (internalIndex >= head) {\n if (shiftedHead >= 0) {\n elementData.copyInto(elementData, shiftedHead, head, internalIndex)\n } else { // head < tail, insertion leads to head >= tail\n shiftedHead += elementData.size\n val elementsToShift = internalIndex - head\n val shiftToBack = elementData.size - shiftedHead\n\n if (shiftToBack >= elementsToShift) {\n elementData.copyInto(elementData, shiftedHead, head, internalIndex)\n } else {\n elementData.copyInto(elementData, shiftedHead, head, head + shiftToBack)\n   elementData.copyInto(elementData, 0, head + shiftToBack, internalIndex)\n   }\n   }\n   } else { // head > tail, internalIndex < tail\n   elementData.copyInto(elementData, shiftedHead, head, elementData.size)\n   if (elementsSize >= internalIndex) {\n   elementData.copyInto(elementData, elementData.size - elementsSize, 0, internalIndex)\n   } else {\n   elementData.copyInto(elementData, elementData.size - elementsSize, 0, elementsSize)\n   elementData.copyInto(elementData, 0, elementsSize, internalIndex)\n   }\n   }\n   head = shiftedHead\n   copyCollectionElements(negativeMod(internalIndex - elementsSize), elements)\n   } else {\n   // closer to the last element -> shift succeeding elements\n\n   val shiftedInternalIndex = internalIndex + elementsSize\n\n   if (internalIndex < tail) {\n   if (tail + elementsSize <= elementData.size) {\n   elementData.copyInto(elementData, shiftedInternalIndex, internalIndex, tail)\n   } else { // head < tail, insertion leads to head >= tail\n   if (shiftedInternalIndex >= elementData.size) {\n   elementData.copyInto(elementData, shiftedInternalIndex - elementData.size, internalIndex, tail)\n   } else {\n   val shiftToFront = tail + elementsSize - elementData.size\n   elementData.copyInto(elementData, 0, tail - shiftToFront, tail)\n   elementData.copyInto(elementData, shiftedInternalIndex, internalIndex, tail - shiftToFront)\n   }\n   }\n   } else { // head > tail, internalIndex > head\n   elementData.copyInto(elementData, elementsSize, 0, tail)\n   if (shiftedInternalIndex >= elementData.size) {\n   elementData.copyInto(elementData, shiftedInternalIndex - elementData.size, internalIndex, elementData.size)\n   } else {\n   elementData.copyInto(elementData, 0, elementData.size - elementsSize, elementData.size)\n   elementData.copyInto(elementData, shiftedInternalIndex, internalIndex, elementData.size - elementsSize)\n   }\n   }\n   copyCollectionElements(internalIndex, elements)\n   }\n\n   return true\n }\n\n public override fun get(index: Int): E {\n   AbstractList.checkElementIndex(index, size)\n\n   return internalGet(internalIndex(index))\n }\n\n public override fun set(index: Int, element: E): E {\n   AbstractList.checkElementIndex(index, size)\n\n   val internalIndex = internalIndex(index)\n   val oldElement = internalGet(internalIndex)\n   elementData[internalIndex] = element\n\n   return oldElement\n }\n\n public override fun contains(element: E): Boolean = indexOf(element) != -1\n\n public override fun indexOf(element: E): Int {\n   val tail = internalIndex(size)\n\n   if (head < tail) {\n   for (index in head until tail) {\n   if (element == elementData[index]) return index - head\n   }\n   } else if (head >= tail) {\n   for (index in head until elementData.size) {\n   if (element == elementData[index]) return index - head\n   }\n   for (index in 0 until tail) {\n   if (element == elementData[index]) return index + elementData.size - head\n   }\n   }\n\n   return -1\n }\n\n public override fun lastIndexOf(element: E): Int {\n   val tail = internalIndex(size)\n\n   if (head < tail) {\n   for (index in tail - 1 downTo head) {\n   if (element == elementData[index]) return index - head\n   }\n   } else if (head > tail) {\n   for (index in tail - 1 downTo 0) {\n   if (element == elementData[index]) return index + elementData.size - head\n   }\n   for (index in elementData.lastIndex downTo head) {\n   if (element == elementData[index]) return index - head\n   }\n   }\n\n   return -1\n }\n\n public override fun remove(element: E): Boolean {\n   val index = indexOf(element)\n   if (index == -1) return false\n   removeAt(index)\n   return true\n }\n\n public override fun removeAt(index: Int): E {\n   AbstractList.checkElementIndex(index, size)\n\n   if (index == lastIndex) {\n   return removeLast()\n   } else if (index == 0) {\n   return removeFirst()\n   }\n\n   val internalIndex = internalIndex(index)\n   val element = internalGet(internalIndex)\n\n   if (index < size shr 1) {\n   // closer to the first element -> shift preceding elements\n   if (internalIndex >= head) {\n   elementData.copyInto(elementData, head + 1, head, internalIndex)\n   } else { // head > tail, internalIndex < head\n   elementData.copyInto(elementData, 1, 0, internalIndex)\n   elementData[0] = elementData[elementData.size - 1]\n   elementData.copyInto(elementData, head + 1, head, elementData.size

- 1)\n }\n\n elementData[head] = null\n head = incremented(head)\n } else {\n // closer to the last element -> shift succeeding elements\n val internalLastIndex = internalIndex(lastIndex)\n\n if (internalIndex <= internalLastIndex) {\n elementData.copyInto(elementData, internalIndex, internalIndex + 1, internalLastIndex + 1)\n } else { // head > tail, internalIndex > head\n elementData.copyInto(elementData, internalIndex, internalIndex + 1, elementData.size)\n elementData[elementData.size - 1] = elementData[0]\n elementData.copyInto(elementData, 0, 1, internalLastIndex + 1)\n }\n\n elementData[internalLastIndex] = null\n }\n size -= 1\n\n return element\n }\n\n public override fun removeAll(elements: Collection<E>): Boolean = filterInPlace { !elements.contains(it) }\n\n public override fun retainAll(elements: Collection<E>): Boolean = filterInPlace { elements.contains(it) }\n\n private inline fun filterInPlace(predicate: (E) -> Boolean): Boolean {\n if (this.isEmpty() || elementData.isEmpty())\n return false\n\n val tail = internalIndex(size)\n var newTail = head\n var modified = false\n\n if (head < tail) {\n for (index in head until tail) {\n val element = elementData[index]\n\n @Suppress(\"UNCHECKED_CAST\")\n if (predicate(element as E))\n elementData[newTail++] = element\n else\n modified = true\n }\n\n elementData.fill(null, newTail, tail)\n\n } else {\n for (index in head until elementData.size) {\n val element = elementData[index]\n elementData[index] = null\n\n @Suppress(\"UNCHECKED_CAST\")\n if (predicate(element as E))\n elementData[newTail++] = element\n else\n modified = true\n }\n\n newTail = positiveMod(newTail)\n\n for (index in 0 until tail) {\n val element = elementData[index]\n elementData[index] = null\n\n @Suppress(\"UNCHECKED_CAST\")\n if (predicate(element as E)) {\n elementData[newTail] = element\n newTail = incremented(newTail)\n } else {\n modified = true\n }\n }\n }\n if (modified)\n size = negativeMod(newTail - head)\n\n return modified\n }\n\n public override fun clear() {\n val tail = internalIndex(size)\n if (head < tail) {\n elementData.fill(null, head, tail)\n } else if (isNotEmpty()) {\n elementData.fill(null, head, elementData.size)\n elementData.fill(null, 0, tail)\n }\n head = 0\n size = 0\n }\n\n @Suppress(\"NOTHING_TO_OVERRIDE\")\n override fun <T> toArray(array: Array<T>): Array<T> {\n @Suppress(\"UNCHECKED_CAST\")\n val dest = (if (array.size >= size) array else arrayOfNulls(array, size)) as Array<Any?>\n\n val tail = internalIndex(size)\n if (head < tail) {\n elementData.copyInto(dest, startIndex = head, endIndex = tail)\n } else if (isNotEmpty()) {\n elementData.copyInto(dest, destinationOffset = 0, startIndex = head, endIndex = elementData.size)\n elementData.copyInto(dest, destinationOffset = elementData.size - head, startIndex = 0, endIndex = tail)\n }\n if (dest.size > size) {\n dest[size] = null // null-terminate\n }\n\n @Suppress(\"UNCHECKED_CAST\")\n return dest as Array<T>\n }\n\n @Suppress(\"NOTHING_TO_OVERRIDE\")\n override fun toArray(): Array<Any?> {\n return toArray(arrayOfNulls<Any?>(size))\n }\n\n // for testing\n internal fun <T> testToArray(array: Array<T>): Array<T> = toArray(array)\n internal fun testToArray(): Array<Any?> = toArray()\n\n internal companion object {\n private val emptyElementData = emptyArray<Any?>()\n private const val maxArraySize = Int.MAX_VALUE - 8\n private const val defaultMinCapacity = 10\n\n internal fun newCapacity(oldCapacity: Int, minCapacity: Int): Int {\n // overflow-conscious\n var newCapacity = oldCapacity + (oldCapacity shr 1)\n if (newCapacity - minCapacity < 0)\n newCapacity = minCapacity\n if (newCapacity - maxArraySize > 0)\n newCapacity = if (minCapacity > maxArraySize) Int.MAX_VALUE else maxArraySize\n return newCapacity\n }\n }\n\n // For testing only\n internal fun internalStructure(structure: (head: Int, elements: Array<Any?>) -> Unit) {\n val tail = internalIndex(size)\n val head = if (isEmpty() || head < tail) head else head - elementData.size\n structure(head, toArray())\n }\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n

/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"ArraysKt\")\n\n\npackage kotlin.collections\n\nimport kotlin.contracts.\n\n\n/**\n
 * Returns a single list of all elements from all arrays in the given array.\n * @sample samples.collections.Arrays.Transformations.flattenArray\n */\npublic fun <T> Array<out Array<out T>>.flatten(): List<T> {\n   val result = ArrayList<T>(sumOf { it.size })\n   for (element in this) {\n   result.addAll(element)\n   }\n   return result\n}\n\n/**\n * Returns a pair of lists, where\n * *first* list is built from the first values of each pair from this array,\n * *second* list is built from the second values of each pair from this array.\n * @sample samples.collections.Arrays.Transformations.unzipArray\n */\npublic fun <T, R> Array<out Pair<T, R>>.unzip(): Pair<List<T>, List<R>> {\n   val listT = ArrayList<T>(size)\n   val listR = ArrayList<R>(size)\n   for (pair in this) {\n   listT.add(pair.first)\n   listR.add(pair.second)\n   }\n   return listT to listR\n}\n\n/**\n * Returns `true` if this nullable array is either null or empty.\n * @sample samples.collections.Arrays.Usage.arrayIsNullOrEmpty\n
 /\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun Array<>?.isNullOrEmpty(): Boolean {\n   contract {\n   returns(false) implies (this@isNullOrEmpty != null)\n   }\n\n   return this == null || this.isEmpty()\n}\n\n/**\n * Returns this array if it's not empty\n * or the result of calling [defaultValue] function if the array is empty.\n *\n * @sample samples.collections.Arrays.Usage.arrayIfEmpty\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"UPPER_BOUND_CANNOT_BE_ARRAY\")\npublic inline fun <C, R> C.ifEmpty(defaultValue: () -> R): R where C : Array<*>, C : R =\n   if (isEmpty()) defaultValue() else this\n\n\n@OptIn(ExperimentalUnsignedTypes::class)\n@SinceKotlin(\"1.3\")\n@PublishedApi\n@kotlin.jvm.JvmName(\"contentDeepEquals\")\n@kotlin.js.JsName(\"contentDeepEqualsImpl\")\ninternal fun <T> Array<out T>?.contentDeepEqualsImpl(other: Array<out T>?): Boolean {\n   if (this === other)
 return true\n   if (this == null || other == null || this.size != other.size) return false\n\n   for (i in indices) {\n   val v1 = this[i]\n   val v2 = other[i]\n\n   if (v1 === v2) {\n   continue\n   } else if (v1 == null || v2 == null) {\n   return false\n   }\n\n   when {\n   v1 is Array<*>   && v2 is Array<*>   -> if (!v1.contentDeepEquals(v2)) return false\n   v1 is ByteArray   && v2 is ByteArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is ShortArray   && v2 is ShortArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is IntArray   && v2 is IntArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is LongArray   && v2 is LongArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is FloatArray   && v2 is FloatArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is DoubleArray && v2 is DoubleArray -> if (!v1.contentEquals(v2)) return
 false\n   v1 is CharArray   && v2 is CharArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is BooleanArray && v2 is BooleanArray -> if (!v1.contentEquals(v2)) return false\n\n   v1 is UByteArray   && v2 is UByteArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is UShortArray && v2 is UShortArray -> if (!v1.contentEquals(v2)) return false\n   v1 is UIntArray   && v2 is UIntArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is ULongArray   && v2 is ULongArray   -> if (!v1.contentEquals(v2)) return false\n\n   else -> if (v1 != v2) return false\n   }\n\n   }\n   return true\n}\n\n@SinceKotlin(\"1.3\")\n@PublishedApi\n@kotlin.jvm.JvmName(\"contentDeepToString\")\n@kotlin.js.JsName(\"contentDeepToStringImpl\")\ninternal fun <T> Array<out T>?.contentDeepToStringImpl(): String {\n   if (this == null) return \"null\"\n   val length = size.coerceAtMost((Int.MAX_VALUE - 2) / 5) * 5 + 2 // in
 order not to overflow Int.MAX_VALUE\n   return buildString(length) {\n   contentDeepToStringInternal(this, mutableListOf())\n   }\n}\n\n@OptIn(ExperimentalUnsignedTypes::class)\nprivate fun <T> Array<out T>.contentDeepToStringInternal(result: StringBuilder, processed: MutableList<Array<*>>) {\n   if (this in processed) {\n   result.append(\"[...]\")\n   return\n   }\n   processed.add(this)\n   result.append('[')\n\n   for (i in indices) {\n   if (i != 0) {\n   result.append(\", \")\n   }\n   val element = this[i]\n   when (element) {\n   null   -> result.append(\"null\")\n   is Array<*>   -> element.contentDeepToStringInternal(result, processed)\n   is ByteArray   -> result.append(element.contentToString())\n   is ShortArray   -> result.append(element.contentToString())\n

is IntArray -> result.append(element.contentToString())\n is LongArray -> result.append(element.contentToString())\n is FloatArray -> result.append(element.contentToString())\n is DoubleArray -> result.append(element.contentToString())\n is CharArray -> result.append(element.contentToString())\n is BooleanArray -> result.append(element.contentToString())\n\n is UByteArray -> result.append(element.contentToString())\n is UShortArray -> result.append(element.contentToString())\n is UIntArray -> result.append(element.contentToString())\n is ULongArray -> result.append(element.contentToString())\n\n else -> result.append(element.toString())\n }\n }\n\n result.append(']')\n processed.removeAt(processed.lastIndex)\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n\n/** Returns true if the brittle contains optimization is enabled. See KT-45438. */\ninternal expect fun brittleContainsOptimizationEnabled(): Boolean\n\n/**\n * Returns true if [brittleContainsOptimizationEnabled] is true\n * and it's safe to convert this collection to a set without changing contains method behavior.\n */\nprivate fun <T> Collection<T>.safeToConvertToSet() = brittleContainsOptimizationEnabled() && size > 2 && this is ArrayList\n\n/**\n * When [brittleContainsOptimizationEnabled] is true:\n * - Converts this [Iterable] to a set if it is not a [Collection].\n * - Converts this [Collection] to a set, when it's worth so and it doesn't change contains method behavior.\n * - Otherwise returns this.\n * When [brittleContainsOptimizationEnabled] is false:\n * - Converts this [Iterable] to a list if it is not a [Collection].\n * - Otherwise returns this.\n */\ninternal fun <T> Iterable<T>.convertToSetForSetOperationWith(source: Iterable<T>): Collection<T> =\n when (this) {\n is Set -> this\n is Collection ->\n when {\n source is Collection && source.size < 2 -> this\n else -> if (this.safeToConvertToSet()) toHashSet() else this\n }\n else -> if (brittleContainsOptimizationEnabled()) toHashSet() else toList()\n }\n\n/**\n * When [brittleContainsOptimizationEnabled] is true:\n * - Converts this [Iterable] to a set if it is not a [Collection].\n * - Converts this [Collection] to a set, when it's worth so and it doesn't change contains method behavior.\n * - Otherwise returns this.\n * When [brittleContainsOptimizationEnabled] is false:\n * - Converts this [Iterable] to a list if it is not a [Collection].\n * - Otherwise returns this.\n */\ninternal fun <T> Iterable<T>.convertToSetForSetOperation(): Collection<T> =\n when (this) {\n is Set -> this\n is Collection -> if (this.safeToConvertToSet()) toHashSet() else this\n else -> if (brittleContainsOptimizationEnabled()) toHashSet() else toList()\n }\n\n/**\n * Converts this sequence to a set if [brittleContainsOptimizationEnabled] is true,\n * otherwise converts it to a list.\n */\ninternal fun <T> Sequence<T>.convertToSetForSetOperation(): Collection<T> =\n if (brittleContainsOptimizationEnabled()) toHashSet() else toList()\n\n/**\n * Converts this array to a set if [brittleContainsOptimizationEnabled] is true,\n * otherwise converts it to a list.\n */\ninternal fun <T> Array<T>.convertToSetForSetOperation(): Collection<T> =\n if (brittleContainsOptimizationEnabled()) toHashSet() else asList()","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n/**\n * Data class representing a value from a collection or sequence, along with its index in that collection or sequence.\n *\n * @property value the underlying value.\n * @property index the index of the value in the collection or sequence.\n */\npublic data class IndexedValue<out T>(public val index: Int, public val value: T)\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"MapAccessorsKt\")\n\npackage kotlin.collections\n\nimport kotlin.reflect.KProperty\nimport kotlin.internal.Exact\n\n/**\n * Returns the value of the property for the given object from this read-only map.\n * @param thisRef the object for which the value is requested (not used).\n * @param property the metadata for the property, used to get the name of property and lookup the value corresponding to this name in the map.\n * @return the property value.\n *\n * @throws NoSuchElementException

when the map doesn't contain value for the property name
 and doesn't provide an implicit default (see [withDefault]).\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <V, V1 : V> Map<in String, @Exact V>.getValue(thisRef: Any?, property: KProperty<*>): V1 =\n @Suppress(\"UNCHECKED_CAST\") (getOrImplicitDefault(property.name) as V1)\n\n/**\n * Returns the value of the property for the given object from this mutable map.\n * @param thisRef the object for which the value is requested (not used).\n * @param property the metadata for the property, used to get the name of property and lookup the value corresponding to this name in the map.\n * @return the property value.\n *\n * @throws NoSuchElementException when the map doesn't contain value for the property name and doesn't provide an implicit default (see [withDefault]).\n */\n@kotlin.jvm.JvmName(\"getVar\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <V, V1 : V> MutableMap<in String, out @Exact V>.getValue(thisRef: Any?, property: KProperty<*>): V1 =\n   @Suppress(\"UNCHECKED_CAST\")
 (getOrImplicitDefault(property.name) as V1)\n\n/**\n * Stores the value of the property for the given object in this mutable map.\n * @param thisRef the object for which the value is requested (not used).\n * @param property the metadata for the property, used to get the name of property and store the value associated with that name in the map.\n * @param value the value to set.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <V> MutableMap<in String, in V>.setValue(thisRef: Any?, property: KProperty<*>, value: V) {\n this.put(property.name, value)\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"MapsKt\")\n\npackage kotlin.collections\n\n/**\n * Returns the value for the given key, or the implicit default value for
 this map.\n * By default no implicit value is provided for maps and a [NoSuchElementException] is thrown.\n * To create a map with implicit default value use [withDefault] method.\n *\n * @throws NoSuchElementException when the map doesn't contain a value for the specified key and no implicit default was provided for that map.\n */\n@kotlin.jvm.JvmName(\"getOrImplicitDefaultNullable\")\n@PublishedApi\ninternal fun <K, V> Map<K, V>.getOrImplicitDefault(key: K): V {\n   if (this is MapWithDefault)\n   return this.getOrImplicitDefault(key)\n\n   return getOrElseNullable(key, { throw NoSuchElementException(\"Key $key is missing in the map.\") })\n}\n\n/**\n * Returns a wrapper of this read-only map, having the implicit default value provided with the specified function [defaultValue].\n *\n * This implicit default value is used when the original map doesn't contain a value for the key specified\n * and a value is obtained with [Map.getValue] function, for example when properties
 are delegated to the map.\n *\n * When this map already has an implicit default value provided with a former call to [withDefault], it is being replaced by this call.\n */\npublic fun <K, V> Map<K, V>.withDefault(defaultValue: (key: K) -> V): Map<K, V> =\n   when (this) {\n   is MapWithDefault -> this.map.withDefault(defaultValue)\n   else -> MapWithDefaultImpl(this, defaultValue)\n   }\n\n/**\n * Returns a wrapper of this mutable map, having the implicit default value provided with the specified function [defaultValue].\n *\n * This implicit default value is used when the original map doesn't contain a value for the key specified\n * and a value is obtained with [Map.getValue] function, for example when properties are delegated to the map.\n *\n * When this map already has an implicit default value provided with a former call to [withDefault], it is being replaced by this call.\n */\n@kotlin.jvm.JvmName(\"withDefaultMutable\")\npublic fun <K, V> MutableMap<K, V>.withDefault(defaultValue:
 (key: K) -> V): MutableMap<K, V> =\n   when (this) {\n   is MutableMapWithDefault -> this.map.withDefault(defaultValue)\n   else -> MutableMapWithDefaultImpl(this, defaultValue)\n   }\n\n\nprivate interface MapWithDefault<K, out V> : Map<K, V> {\n   public val map: Map<K, V>\n   public fun getOrImplicitDefault(key: K): V\n}\n\nprivate interface MutableMapWithDefault<K, V> : MutableMap<K, V>, MapWithDefault<K, V> {\n   public override val map: MutableMap<K, V>\n}\n\n\nprivate class MapWithDefaultImpl<K, out V>(public override val map: Map<K, V>, private val default: (key: K) -> V) : MapWithDefault<K, V> {\n   override fun equals(other: Any?): Boolean = map.equals(other)\n   override fun

hashCode(): Int = map.hashCode()\n   override fun toString(): String = map.toString()\n   override val size: Int get() = map.size\n   override fun isEmpty(): Boolean = map.isEmpty()\n   override fun containsKey(key: K): Boolean = map.containsKey(key)\n   override fun containsValue(value: @UnsafeVariance V): Boolean = map.containsValue(value)\n   override fun get(key: K): V? = map.get(key)\n   override val keys: Set<K> get() = map.keys\n   override val values: Collection<V> get() = map.values\n   override val entries: Set<Map.Entry<K, V>> get() = map.entries\n\n   override fun getOrImplicitDefault(key: K): V = map.getOrElseNullable(key, { default(key) })\n}\n\nprivate class MutableMapWithDefaultImpl<K, V>(public override val map: MutableMap<K, V>, private val default: (key: K) -> V) : MutableMapWithDefault<K, V> {\n   override fun equals(other: Any?): Boolean = map.equals(other)\n   override fun hashCode(): Int = map.hashCode()\n   override fun toString(): String = map.toString()\n   override val size: Int get() = map.size\n   override fun isEmpty(): Boolean = map.isEmpty()\n   override fun containsKey(key: K): Boolean = map.containsKey(key)\n   override fun containsValue(value: @UnsafeVariance V): Boolean = map.containsValue(value)\n   override fun get(key: K): V? = map.get(key)\n   override val keys: MutableSet<K> get() = map.keys\n   override val values: MutableCollection<V> get() = map.values\n   override val entries: MutableSet<MutableMap.MutableEntry<K, V>> get() = map.entries\n\n   override fun put(key: K, value: V): V? = map.put(key, value)\n   override fun remove(key: K): V? = map.remove(key)\n   override fun putAll(from: Map<out K, V>) = map.putAll(from)\n   override fun clear() = map.clear()\n\n   override fun getOrImplicitDefault(key: K): V = map.getOrElseNullable(key, { default(key) })\n}\n\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CollectionsKt\")\n\npackage kotlin.collections\n\nimport kotlin.random.Random\n\n/**\n * Removes a single instance of the specified element from this\n * collection, if it is present.\n *\n * Allows to overcome type-safety restriction of `remove` that requires to pass an element of type `E`.\n *\n * @return `true` if the element has been successfully removed; `false` if it was not present in the collection.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes T> MutableCollection<out T>.remove(element: T): Boolean =\n   @Suppress(\"UNCHECKED_CAST\") (this as MutableCollection<T>).remove(element)\n\n/**\n * Removes all of this collection's elements that are also contained in the specified collection.\n\n * Allows to overcome type-safety restriction of `removeAll` that requires to pass a collection of type `Collection<E>`.\n *\n * @return `true` if any of the specified elements was removed from the collection, `false` if the collection was not modified.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes T> MutableCollection<out T>.removeAll(elements: Collection<T>): Boolean =\n   @Suppress(\"UNCHECKED_CAST\") (this as MutableCollection<T>).removeAll(elements)\n\n/**\n * Retains only the elements in this collection that are contained in the specified collection.\n *\n * Allows to overcome type-safety restriction of `retainAll` that requires to pass a collection of type `Collection<E>`.\n *\n * @return `true` if any element was removed from the collection, `false` if the collection was not modified.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes T> MutableCollection<out T>.retainAll(elements: Collection<T>): Boolean =\n   @Suppress(\"UNCHECKED_CAST\") (this as MutableCollection<T>).retainAll(elements)\n\n/**\n * Adds the specified [element] to this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.plusAssign(element: T) {\n   this.add(element)\n}\n\n/**\n * Adds all elements of the given [elements] collection to this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.plusAssign(elements: Iterable<T>) {\n   this.addAll(elements)\n}\n\n/**\n * Adds all elements of the given [elements] array to this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.plusAssign(elements: Array<T>) {\n   this.addAll(elements)\n}\n\n/**\n * Adds all elements of the given [elements] sequence to this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T>

MutableCollection<in T>.plusAssign(elements: Sequence<T>) {\n   this.addAll(elements)\n}\n\n/**\n * Removes a single instance of the specified [element] from this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.minusAssign(element: T) {\n   this.remove(element)\n}\n\n/**\n * Removes all elements contained in the given [elements] collection from this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic
inline operator fun <T> MutableCollection<in T>.minusAssign(elements: Iterable<T>) {\n   this.removeAll(elements)\n}\n\n/**\n * Removes all elements contained in the given [elements] array from this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.minusAssign(elements: Array<T>) {\n   this.removeAll(elements)\n}\n\n/**\n * Removes all elements contained in the given [elements] sequence from this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.minusAssign(elements: Sequence<T>) {\n   this.removeAll(elements)\n}\n\n/**\n * Adds all elements of the given [elements] collection to this [MutableCollection].\n */\npublic fun <T> MutableCollection<in T>.addAll(elements: Iterable<T>): Boolean {\n   when (elements) {\n   is Collection -> return addAll(elements)\n   else -> {\n   var result: Boolean = false\n
for (item in elements)\n   if (add(item)) result = true\n   return result\n   }\n   }\n}\n\n/**\n * Adds all elements of the given [elements] sequence to this [MutableCollection].\n */\npublic fun <T> MutableCollection<in T>.addAll(elements: Sequence<T>): Boolean {\n   var result: Boolean = false\n   for (item in elements) {\n   if (add(item)) result = true\n   }\n   return result\n}\n\n/**\n * Adds all elements of the given [elements] array to this [MutableCollection].\n */\npublic fun <T> MutableCollection<in T>.addAll(elements: Array<out T>): Boolean {\n   return addAll(elements.asList())\n}\n\n/**\n * Removes all elements from this [MutableCollection] that are also contained in the given [elements] collection.\n */\npublic fun <T> MutableCollection<in T>.removeAll(elements: Iterable<T>): Boolean {\n   return removeAll(elements.convertToSetForSetOperationWith(this))\n}\n\n/**\n * Removes all elements from this [MutableCollection] that are
also contained in the given [elements] sequence.\n */\npublic fun <T> MutableCollection<in T>.removeAll(elements: Sequence<T>): Boolean {\n   val set = elements.convertToSetForSetOperation()\n   return set.isNotEmpty() && removeAll(set)\n}\n\n/**\n * Removes all elements from this [MutableCollection] that are also contained in the given [elements] array.\n */\npublic fun <T> MutableCollection<in T>.removeAll(elements: Array<out T>): Boolean {\n   return elements.isNotEmpty() && removeAll(elements.convertToSetForSetOperation())\n}\n\n/**\n * Retains only elements of this [MutableCollection] that are contained in the given [elements] collection.\n */\npublic fun <T> MutableCollection<in T>.retainAll(elements: Iterable<T>): Boolean {\n   return retainAll(elements.convertToSetForSetOperationWith(this))\n}\n\n/**\n * Retains only elements of this [MutableCollection] that are contained in the given [elements] array.\n */\npublic fun <T> MutableCollection<in T>.retainAll(elements: Array<out
T>): Boolean {\n   if (elements.isNotEmpty())\n   return retainAll(elements.convertToSetForSetOperation())\n   else\n   return retainNothing()\n}\n\n/**\n * Retains only elements of this [MutableCollection] that are contained in the given [elements] sequence.\n */\npublic fun <T> MutableCollection<in T>.retainAll(elements: Sequence<T>): Boolean {\n   val set = elements.convertToSetForSetOperation()\n   if (set.isNotEmpty())\n   return retainAll(set)\n   else\n   return retainNothing()\n}\n\nprivate fun MutableCollection<*>.retainNothing(): Boolean {\n   val result = isNotEmpty()\n   clear()\n   return result\n}\n\n\n/**\n * Removes all elements from this [MutableIterable] that match the given [predicate].\n *\n * @return `true` if any element was removed from this collection, or `false` when no elements were removed and collection was not modified.\n */\npublic fun <T> MutableIterable<T>.removeAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate,
true)\n\n/**\n * Retains only elements of this [MutableIterable] that match the given [predicate].\n *\n * @return `true` if any element was removed from this collection, or `false` when all elements were retained and collection was not modified.\n */\npublic fun <T> MutableIterable<T>.retainAll(predicate: (T) -> Boolean): Boolean =

filterInPlace(predicate, false)\n\nprivate fun <T> MutableIterable<T>.filterInPlace(predicate: (T) -> Boolean, predicateResultToRemove: Boolean): Boolean {\n var result = false\n with(iterator()) {\n while (hasNext())\n if (predicate(next()) == predicateResultToRemove) {\n remove()\n result = true\n }\n }\n return result\n}\n\n\n/**\n * Removes the element at the specified [index] from this list.\n * In Kotlin one should use the [MutableList.removeAt] function instead.\n */\n@Deprecated(\"Use removeAt(index) instead.\", ReplaceWith(\"removeAt(index)\"), level = DeprecationLevel.ERROR)\n@kotlin.internal.InlineOnly\npublic inline fun <T> MutableList<T>.remove(index: Int): T = removeAt(index)\n\n/**\n * Removes the first element from this mutable list and returns that removed element, or throws [NoSuchElementException] if this list is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> MutableList<T>.removeFirst(): T = if (isEmpty()) throw NoSuchElementException(\"List is empty.\") else removeAt(0)\n\n/**\n * Removes the first element from this mutable list and returns that removed element, or returns `null` if this list is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> MutableList<T>.removeFirstOrNull(): T? = if (isEmpty()) null else removeAt(0)\n\n/**\n * Removes the last element from this mutable list and returns that removed element, or throws [NoSuchElementException] if this list is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> MutableList<T>.removeLast(): T = if (isEmpty()) throw NoSuchElementException(\"List is empty.\") else removeAt(lastIndex)\n\n/**\n * Removes the last element from this mutable list and returns that removed element, or returns `null` if this list is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> MutableList<T>.removeLastOrNull(): T? = if (isEmpty()) null else removeAt(lastIndex)\n\n/**\n * Removes all elements from this [MutableList] that match the given [predicate].\n *\n * @return `true` if any element was removed from this collection, or `false` when no elements were removed and collection was not modified.\n */\npublic fun <T> MutableList<T>.removeAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate, true)\n\n/**\n * Retains only elements of this [MutableList] that match the given [predicate].\n *\n * @return `true` if any element was removed from this collection, or `false` when all elements were retained and collection was not modified.\n */\npublic fun <T> MutableList<T>.retainAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate, false)\n\nprivate fun <T> MutableList<T>.filterInPlace(predicate: (T) -> Boolean, predicateResultToRemove: Boolean): Boolean {\n if (this !is RandomAccess)\n return (this as MutableIterable<T>).filterInPlace(predicate, predicateResultToRemove)\n\n var writeIndex: Int = 0\n for (readIndex in 0..lastIndex) {\n val element = this[readIndex]\n if (predicate(element) == predicateResultToRemove)\n continue\n\n if (writeIndex != readIndex)\n this[writeIndex] = element\n\n writeIndex++\n }\n if (writeIndex < size) {\n for (removeIndex in lastIndex downTo writeIndex)\n removeAt(removeIndex)\n\n return true\n } else {\n return false\n }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CollectionsKt\")\n\npackage kotlin.collections\n\nprivate open class ReversedListReadOnly<out T>(private val delegate: List<T>) : AbstractList<T>() {\n override val size: Int get() = delegate.size\n override fun get(index: Int): T = delegate[reverseElementIndex(index)]\n}\n\nprivate class ReversedList<T>(private val delegate: MutableList<T>) : AbstractMutableList<T>() {\n override val size: Int get() = delegate.size\n override fun get(index: Int): T = delegate[reverseElementIndex(index)]\n\n override fun clear() = delegate.clear()\n override fun removeAt(index: Int): T = delegate.removeAt(reverseElementIndex(index))\n\n override fun set(index: Int, element: T): T = delegate.set(reverseElementIndex(index), element)\n override fun add(index: Int, element: T) {\n delegate.add(reversePositionIndex(index), element)\n }\n}\n\nprivate fun List<*>.reverseElementIndex(index: Int) =\n if (index in 0..lastIndex) lastIndex - index else throw IndexOutOfBoundsException(\"Element index $index must be in range

[${0..lastIndex}].\")\n\nprivate fun List<*>.reversePositionIndex(index: Int) =\n   if (index in 0..size) size - index else throw IndexOutOfBoundsException(\"Position index $index must be in range [${0..size}].\")\n\n\n/**\n * Returns a reversed read-only view of the original List.\n * All changes made in the original list will be reflected in the reversed one.\n * @sample samples.collections.ReversedViews.asReversedList\n */\npublic fun <T> List<T>.asReversed(): List<T> = ReversedListReadOnly(this)\n\n/**\n * Returns a reversed mutable view of the original mutable List.\n * All changes made in the original list will be reflected in the reversed one and vice versa.\n * @sample samples.collections.ReversedViews.asReversedMutableList\n */\n@kotlin.jvm.JvmName(\"asReversedMutable\")\npublic

fun <T> MutableList<T>.asReversed(): MutableList<T> = ReversedList(this)\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"SequencesKt\")\n@file:OptIn(ExperimentalTypeInference::class)\n\npackage kotlin.sequences\n\nimport kotlin.coroutines.*\nimport kotlin.coroutines.intrinsics.*\nimport kotlin.experimental.ExperimentalTypeInference\n\n/**\n * Builds a [Sequence] lazily yielding values one by one.\n *\n * @see kotlin.sequences.generateSequence\n *\n * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n * @sample samples.collections.Sequences.Building.buildFibonacciSequence\n */\n@SinceKotlin(\"1.3\")\npublic fun <T> sequence(@BuilderInference block: suspend SequenceScope<T>.() -> Unit): Sequence<T> = Sequence { iterator(block)

}\n\n/**\n * Builds an [Iterator] lazily yielding values one by one.\n *\n * @sample samples.collections.Sequences.Building.buildIterator\n * @sample samples.collections.Iterables.Building.iterable\n */\n@SinceKotlin(\"1.3\")\npublic fun <T> iterator(@BuilderInference block: suspend SequenceScope<T>.() -> Unit): Iterator<T> {\n   val iterator = SequenceBuilderIterator<T>()\n   iterator.nextStep = block.createCoroutineUnintercepted(receiver = iterator, completion = iterator)\n   return iterator\n}\n\n/**\n * The scope for yielding values of a [Sequence] or an [Iterator], provides [yield] and [yieldAll] suspension functions.\n *\n * @see sequence\n * @see iterator\n *\n * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n * @sample samples.collections.Sequences.Building.buildFibonacciSequence\n */\n@RestrictsSuspension\n@SinceKotlin(\"1.3\")\npublic abstract class SequenceScope<in T> internal constructor() {\n   /**\n   * Yields a value to the [Iterator]

being built and suspends\n   * until the next value is requested.\n   *\n   * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n   * @sample samples.collections.Sequences.Building.buildFibonacciSequence\n   */\n   public abstract suspend fun yield(value: T)\n\n   /**\n   * Yields all values from the `iterator` to the [Iterator] being built\n   * and suspends until all these values are iterated and the next one is requested.\n   *\n   * The sequence of values returned by the given iterator can be potentially infinite.\n   *\n   * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n   */\n   public abstract suspend fun yieldAll(iterator: Iterator<T>)\n\n   /**\n   * Yields a collections of values to the [Iterator] being built\n   * and suspends until all these values are iterated and the next one is requested.\n   *\n   * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n   */\n   public

suspend fun yieldAll(elements: Iterable<T>) {\n   if (elements is Collection && elements.isEmpty()) return\n

return yieldAll(elements.iterator())\n   }\n\n   /**\n   * Yields potentially infinite sequence of values to the [Iterator] being built\n   * and suspends until all these values are iterated and the next one is requested.\n   *\n   * The sequence can be potentially infinite.\n   *\n   * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n   */\n   public suspend fun yieldAll(sequence: Sequence<T>) = yieldAll(sequence.iterator())\n}\n\nprivate typealias State = Int\n\nprivate const val State_NotReady: State = 0\nprivate const val State_ManyNotReady: State = 1\nprivate const val State_ManyReady: State = 2\nprivate const val State_Ready: State = 3\nprivate const val State_Done: State = 4\nprivate const val State_Failed: State = 5\n\nprivate class SequenceBuilderIterator<T> : SequenceScope<T>(), Iterator<T>, Continuation<Unit> {\n private var state = State_NotReady\n private var nextValue: T? = null\n private var nextIterator: Iterator<T>? = null\n var nextStep: Continuation<Unit>? = null\n\n override fun hasNext(): Boolean {\n while (true) {\n when (state) {\n State_NotReady -> {}\n State_ManyNotReady ->\n if (nextIterator!!.hasNext()) {\n state = State_ManyReady\n return true\n } else {\n nextIterator = null\n }\n State_Done -> return false\n State_Ready, State_ManyReady -> return true\n else -> throw exceptionalState()\n }\n\n state = State_Failed\n val step = nextStep!!\n nextStep = null\n step.resume(Unit)\n }\n }\n\n override fun next(): T {\n when (state) {\n State_NotReady, State_ManyNotReady -> return nextNotReady()\n State_ManyReady -> {\n state = State_ManyNotReady\n return nextIterator!!.next()\n }\n State_Ready -> {\n state = State_NotReady\n @Suppress(\"UNCHECKED_CAST\")\n val result = nextValue as T\n nextValue = null\n return result\n }\n else -> throw exceptionalState()\n }\n }\n\n private fun nextNotReady(): T {\n if (!hasNext()) throw NoSuchElementException() else return next()\n }\n\n private fun exceptionalState(): Throwable = when (state) {\n State_Done -> NoSuchElementException()\n State_Failed -> IllegalStateException(\"Iterator has failed.\")\n else -> IllegalStateException(\"Unexpected state of the iterator: $state\")\n }\n\n\n override suspend fun yield(value: T) {\n nextValue = value\n state = State_Ready\n return suspendCoroutineUninterceptedOrReturn { c ->\n nextStep = c\n COROUTINE_SUSPENDED\n }\n }\n\n override suspend fun yieldAll(iterator: Iterator<T>) {\n if (!iterator.hasNext()) return\n nextIterator = iterator\n state = State_ManyReady\n return suspendCoroutineUninterceptedOrReturn { c ->\n nextStep = c\n COROUTINE_SUSPENDED\n }\n }\n\n // Completion continuation implementation\n override fun resumeWith(result: Result<Unit>) {\n result.getOrThrow() // just rethrow exception if it is there\n state = State_Done\n }\n\n override val context: CoroutineContext\n get() = EmptyCoroutineContext\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\ninternal fun checkWindowSizeStep(size: Int, step: Int) {\n require(size > 0 && step > 0) {\n if (size != step)\n \"Both size $size and step $step must be greater than zero.\"\n else\n \"size $size must be greater than zero.\"\n }\n}\n\ninternal fun <T> Sequence<T>.windowedSequence(size: Int, step: Int, partialWindows: Boolean, reuseBuffer: Boolean): Sequence<List<T>> {\n checkWindowSizeStep(size, step)\n return Sequence { windowedIterator(iterator(), size, step, partialWindows, reuseBuffer) }\n}\n\ninternal fun <T> windowedIterator(iterator: Iterator<T>, size: Int, step: Int, partialWindows: Boolean, reuseBuffer: Boolean): Iterator<List<T>> {\n if (!iterator.hasNext()) return EmptyIterator\n return iterator<List<T>> {\n val bufferInitialCapacity = size.coerceAtMost(1024)\n val gap = step - size\n if (gap >= 0) {\n var buffer = ArrayList<T>(bufferInitialCapacity)\n var skip = 0\n for (e in iterator) {\n if (skip > 0) { skip -= 1; continue }\n buffer.add(e)\n if (buffer.size == size) {\n yield(buffer)\n if (reuseBuffer) buffer.clear() else buffer = ArrayList(size)\n skip = gap\n }\n }\n if (buffer.isNotEmpty()) {\n if (partialWindows || buffer.size == size) yield(buffer)\n }\n } else {\n var buffer = RingBuffer<T>(bufferInitialCapacity)\n for (e in iterator) {\n buffer.add(e)\n if (buffer.isFull()) {\n if (buffer.size < size) { buffer = buffer.expanded(maxCapacity = size); continue }\n\n yield(if (reuseBuffer) buffer else ArrayList(buffer))\n buffer.removeFirst(step)\n }\n }\n if (partialWindows) {\n while (buffer.size > step) {\n yield(if (reuseBuffer) buffer else ArrayList(buffer))\n buffer.removeFirst(step)\n }\n if (buffer.isNotEmpty()) yield(buffer)\n }\n }\n }\n}\n\ninternal class MovingSubList<out E>(private val list: List<E>) : AbstractList<E>(), RandomAccess {\n private var fromIndex: Int = 0\n private var _size: Int = 0\n\n fun move(fromIndex: Int, toIndex: Int) {\n checkRangeIndexes(fromIndex, toIndex, list.size)\n

this.fromIndex = fromIndex\n   this._size = toIndex - fromIndex\n   }\n\n   override fun get(index: Int): E {\n
checkElementIndex(index, _size)\n\n   return list[fromIndex + index]\n   }\n\n   override val size: Int get() =
_size\n}\n\n\n/**\n * Provides ring buffer implementation.\n *\n * Buffer overflow is not allowed so [add] doesn't
overwrite tail but raises an exception.\n */\nprivate class RingBuffer<T>(private val buffer: Array<Any?>,
filledSize: Int) : AbstractList<T>(), RandomAccess {\n
init {\n   require(filledSize >= 0) { \"ring buffer filled size should not be negative but it is $filledSize\" }\n
require(filledSize <= buffer.size) { \"ring buffer filled size: $filledSize cannot be larger than the buffer size:
${buffer.size}\" }\n   }\n\n   constructor(capacity: Int) : this(arrayOfNulls<Any?>(capacity), 0)\n\n   private val
capacity = buffer.size\n   private var startIndex: Int = 0\n\n   override var size: Int = filledSize\n   private set\n\n
override fun get(index: Int): T {\n   checkElementIndex(index, size)\n
@Suppress(\"UNCHECKED_CAST\")\n   return buffer[startIndex.forward(index)] as T\n   }\n\n   fun isFull() =
size == capacity\n\n   override fun iterator(): Iterator<T> = object : AbstractIterator<T>() {\n   private var count
= size\n   private var index = startIndex\n\n   override fun computeNext() {\n   if (count == 0) {\n
done()\n   } else {\n   @Suppress(\"UNCHECKED_CAST\")\n
setNext(buffer[index] as T)\n   index = index.forward(1)\n   count--\n   }\n   }\n
}\n\n   @Suppress(\"UNCHECKED_CAST\")\n   override fun <T> toArray(array: Array<T>): Array<T> {\n
val result: Array<T?> =\n   if (array.size < this.size) array.copyOf(this.size) else array as Array<T?>\n\n
val size = this.size\n\n   var widx = 0\n   var idx = startIndex\n\n   while (widx < size && idx < capacity)
{\n   result[widx] = buffer[idx] as T\n   widx++\n   idx++\n   }\n\n   idx = 0\n   while
(widx < size) {\n   result[widx] = buffer[idx] as T\n   widx++\n   idx++\n   }\n   if (result.size
> this.size) result[this.size] = null\n\n   return result as Array<T>\n   }\n\n   override fun toArray():
Array<Any?> {\n   return toArray(arrayOfNulls(size))\n   }\n\n   /**\n   * Creates a new
ring buffer with the capacity equal to the minimum of [maxCapacity] and 1.5 * [capacity].\n   * The returned ring
buffer contains the same elements as this ring buffer.\n   */\n   fun expanded(maxCapacity: Int): RingBuffer<T>
{\n   val newCapacity = (capacity + (capacity shr 1) + 1).coerceAtMost(maxCapacity)\n   val newBuffer = if
(startIndex == 0) buffer.copyOf(newCapacity) else toArray(arrayOfNulls(newCapacity))\n   return
RingBuffer(newBuffer, size)\n   }\n\n   /**\n   * Add [element] to the buffer or fail with [IllegalStateException] if
no free space available in the buffer\n   */\n   fun add(element: T) {\n   if (isFull()) {\n   throw
IllegalStateException(\"ring buffer is full\")\n   }\n\n   buffer[startIndex.forward(size)] = element\n
size++\n   }\n\n   /**\n   * Removes [n] first elements from the buffer or fails with [IllegalArgumentException] if
not enough elements in the buffer to remove\n   */\n   fun removeFirst(n:
Int) {\n   require(n >= 0) { \"n shouldn't be negative but it is $n\" }\n   require(n <= size) { \"n shouldn't be
greater than the buffer size: n = $n, size = $size\" }\n\n   if (n > 0) {\n   val start = startIndex\n   val
end = start.forward(n)\n\n   if (start > end) {\n   buffer.fill(null, start, capacity)\n
buffer.fill(null, 0, end)\n   } else {\n   buffer.fill(null, start, end)\n   }\n\n   startIndex =
end\n   size -= n\n   }\n   }\n\n\n   @Suppress(\"NOTHING_TO_INLINE\")\n   private inline fun
Int.forward(n: Int): Int = (this + n) % capacity\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n// UByteArray
===\n@Exp
erimentalUnsignedTypes\nprivate
fun partition(\n   array: UByteArray, left: Int, right: Int): Int {\n   var i = left\n   var j = right\n   val pivot =
array[(left + right) / 2]\n   while (i <= j) {\n   while (array[i] < pivot)\n   i++\n   while (array[j] >
pivot)\n   j--\n   if (i <= j) {\n   val tmp = array[i]\n   array[i] = array[j]\n   array[j] = tmp\n
i++\n   j--\n   }\n   }\n   return i\n}\n\n@ExperimentalUnsignedTypes\nprivate fun quickSort(\n
array: UByteArray, left: Int, right: Int) {\n   val index = partition(array, left, right)\n   if (left < index - 1)\n
quickSort(array, left, index - 1)\n   if (index < right)\n   quickSort(array, index, right)\n}\n\n// UShortArray
===\n@Exp

```
erimentalUnsignedTypes\nprivate fun partition(\n    array: UShortArray, left: Int,
 right: Int): Int {\n    var i = left\n    var j = right\n    val pivot = array[(left + right) / 2]\n    while (i <= j) {\n
while (array[i] < pivot)\n            i++\n        while (array[j] > pivot)\n            j--\n        if (i <= j) {\n            val tmp =
array[i]\n            array[i] = array[j]\n            array[j] = tmp\n            i++\n            j--\n        }\n    }\n    return
i\n}\n\n@ExperimentalUnsignedTypes\nprivate fun quickSort(\n    array: UShortArray, left: Int, right: Int) {\n    val
index = partition(array, left, right)\n    if (left < index - 1)\n        quickSort(array, left, index - 1)\n    if (index <
right)\n        quickSort(array, index, right)\n}\n\n// UIntArray
=============================================================================\n@Exp
erimentalUnsignedTypes\nprivate fun partition(\n    array: UIntArray, left: Int, right: Int): Int {\n    var i = left\n
var j = right\n    val pivot = array[(left + right) / 2]\n    while (i <= j)
 {\n        while (array[i] < pivot)\n            i++\n        while (array[j] > pivot)\n            j--\n        if (i <= j) {\n
val tmp = array[i]\n            array[i] = array[j]\n            array[j] = tmp\n            i++\n            j--\n        }\n    }\n
return i\n}\n\n@ExperimentalUnsignedTypes\nprivate fun quickSort(\n    array: UIntArray, left: Int, right: Int) {\n
val index = partition(array, left, right)\n    if (left < index - 1)\n        quickSort(array, left, index - 1)\n    if (index <
right)\n        quickSort(array, index, right)\n}\n\n// ULongArray
=============================================================================\n@Exp
erimentalUnsignedTypes\nprivate fun partition(\n    array: ULongArray, left: Int, right: Int): Int {\n    var i = left\n
var j = right\n    val pivot = array[(left + right) / 2]\n    while (i <= j) {\n        while (array[i] < pivot)\n            i++\n
   while (array[j] > pivot)\n            j--\n        if (i
 <= j) {\n            val tmp = array[i]\n            array[i] = array[j]\n            array[j] = tmp\n            i++\n            j--\n
}\n    }\n    return i\n}\n\n@ExperimentalUnsignedTypes\nprivate fun quickSort(\n    array: ULongArray, left: Int,
right: Int) {\n    val index = partition(array, left, right)\n    if (left < index - 1)\n        quickSort(array, left, index - 1)\n
  if (index < right)\n        quickSort(array, index, right)\n}\n\n\n// Interfaces
=============================================================================\n/**\n
* Sorts the given array using qsort algorithm.\n */\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array:
UByteArray, fromIndex: Int, toIndex: Int)    = quickSort(array, fromIndex, toIndex -
1)\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array: UShortArray, fromIndex: Int, toIndex: Int)   =
quickSort(array, fromIndex, toIndex - 1)\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array: UIntArray,
fromIndex: Int, toIndex:
 Int)     = quickSort(array, fromIndex, toIndex - 1)\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array:
ULongArray, fromIndex: Int, toIndex: Int)    = quickSort(array, fromIndex, toIndex - 1)","/*\n * Copyright 2010-
2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport
kotlin.internal.InlineOnly\n\n/**\n * Compares this object with the specified object for order. Returns zero if this
object is equal\n * to the specified [other] object, a negative number if it's less than [other], or a positive number\n *
if it's greater than [other].\n *\n * This function delegates to [Comparable.compareTo] and allows to call it in infix
form.\n */\n@InlineOnly\n@SinceKotlin(\"1.6\")\npublic inline infix fun <T> Comparable<T>.compareTo(other:
T): Int =\n    this.compareTo(other)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and
 Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.contracts\n\nimport
kotlin.internal.ContractsDsl\nimport kotlin.internal.InlineOnly\n\n/**\n * This marker distinguishes the
experimental contract declaration API and is used to opt-in for that feature\n * when declaring contracts of user
functions.\n *\n * Any usage of a declaration annotated with `@ExperimentalContracts` must be accepted either
by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalContracts::class)`,\n * or by
using the compiler argument `-opt-in=kotlin.contracts.ExperimentalContracts`.\n
*/\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.3\")\n@RequiresOptIn\n@MustBeDocumente
d\npublic annotation class ExperimentalContracts\n\n/**\n * Provides a scope, where the functions of the contract
DSL, such as [returns], [callsInPlace], etc.,\n * can be used to
```

describe the contract of a function.\n *\n * This type is used as a receiver type of the lambda function passed to the [contract] function.\n *\n * @see contract\n */\n@ContractsDsl\n@ExperimentalContracts\n@SinceKotlin(\"1.3\")\npublic interface ContractBuilder {\n   /**\n   * Describes a situation when a function returns normally, without any exceptions thrown.\n   *\n   * Use [SimpleEffect.implies] function to describe a conditional effect that happens in such case.\n   *\n   */\n   // @sample samples.contracts.returnsContract\n   @ContractsDsl public fun returns(): Returns\n\n   /**\n   * Describes a situation when a function returns normally with the specified return [value].\n   *\n   * The possible values of [value] are limited to `true`, `false` or `null`.\n   *\n   * Use [SimpleEffect.implies] function to describe a conditional effect that happens in such case.\n   *\n   */\n   // @sample samples.contracts.returnsTrueContract\n   // @sample samples.contracts.returnsFalseContract\n   // @sample samples.contracts.returnsNullContract\n   @ContractsDsl public fun returns(value: Any?): Returns\n\n   /**\n   * Describes a situation when a function returns normally with any value that is not `null`.\n   *\n   * Use [SimpleEffect.implies] function to describe a conditional effect that happens in such case.\n   *\n   */\n   // @sample samples.contracts.returnsNotNullContract\n   @ContractsDsl public fun returnsNotNull(): ReturnsNotNull\n\n   /**\n   * Specifies that the function parameter [lambda] is invoked in place.\n   *\n   * This contract specifies that:\n   * 1. the function [lambda] can only be invoked during the call of the owner function,\n   * and it won't be invoked after that owner function call is completed;\n   * 2. _(optionally)_ the function [lambda] is invoked the amount of times specified by the [kind] parameter,\n   * see the [InvocationKind] enum for possible values.\n   *\n   * A function declaring the `callsInPlace` effect must be _inline_.\n   *\n   */\n   /* @sample samples.contracts.callsInPlaceAtMostOnceContract\n   * @sample samples.contracts.callsInPlaceAtLeastOnceContract\n   * @sample samples.contracts.callsInPlaceExactlyOnceContract\n   * @sample samples.contracts.callsInPlaceUnknownContract\n   */\n   @ContractsDsl public fun <R> callsInPlace(lambda: Function<R>, kind: InvocationKind = InvocationKind.UNKNOWN): CallsInPlace\n}\n\n/**\n * Specifies how many times a function invokes its function parameter in place.\n *\n * See [ContractBuilder.callsInPlace] for the details of the call-in-place function contract.\n */\n@ContractsDsl\n@ExperimentalContracts\n@SinceKotlin(\"1.3\")\npublic enum class InvocationKind {\n   /**\n   * A function parameter will be invoked one time or not invoked at all.\n   */\n   // @sample samples.contracts.callsInPlaceAtMostOnceContract\n   @ContractsDsl AT_MOST_ONCE,\n\n   /**\n   * A function parameter will be invoked one or more times.\n   *\n   */\n   // @sample samples.contracts.callsInPlaceAtLeastOnceContract\n   @ContractsDsl AT_LEAST_ONCE,\n\n   /**\n   * A function parameter will be invoked exactly one time.\n   *\n   */\n   // @sample samples.contracts.callsInPlaceExactlyOnceContract\n   @ContractsDsl EXACTLY_ONCE,\n\n   /**\n   * A function parameter is called in place, but it's unknown how many times it can be called.\n   *\n   */\n   // @sample samples.contracts.callsInPlaceUnknownContract\n   @ContractsDsl UNKNOWN\n}\n\n/**\n * Specifies the contract of a function.\n *\n * The contract description must be at the beginning of a function and have at least one effect.\n *\n * Only the top-level functions can have a contract for now.\n *\n * @param builder the lambda where the contract of a function is described with the help of the [ContractBuilder] members.\n *\n */\n/* @sample samples.contracts.returnsContract\n* @sample samples.contracts.returnsTrueContract\n* @sample samples.contracts.returnsFalseContract\n* @sample samples.contracts.returnsNullContract\n* @sample samples.contracts.returnsNotNullContract\n* @sample samples.contracts.callsInPlaceAtMostOnceContract\n* @sample samples.contracts.callsInPlaceAtLeastOnceContract\n* @sample samples.contracts.callsInPlaceExactlyOnceContract\n* @sample samples.contracts.callsInPlaceUnknownContract\n*/\n@ContractsDsl\n@ExperimentalContracts\n@InlineOnly\n@SinceKotlin(\"1.3\")\n@Suppress(\"UNUSED_PARAMETER\")\npublic inline fun contract(builder: ContractBuilder.() -> Unit) { }\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language

contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\n/**\n * Marks coroutine context element that intercepts coroutine continuations.\n * The coroutines framework uses [ContinuationInterceptor.Key] to retrieve the interceptor
and\n * intercepts all coroutine continuations with [interceptContinuation] invocations.\n *\n * [ContinuationInterceptor] behaves like a [polymorphic element][AbstractCoroutineContextKey], meaning that\n * its implementation delegates [get][CoroutineContext.Element.get] and [minusKey][CoroutineContext.Element.minusKey]\n * to [getPolymorphicElement] and [minusPolymorphicKey] respectively.\n * [ContinuationInterceptor] subtypes can be extracted from the coroutine context using either [ContinuationInterceptor.Key]\n * or subtype key if it extends [AbstractCoroutineContextKey].\n */\n@SinceKotlin(\"1.3\")\npublic interface ContinuationInterceptor : CoroutineContext.Element {\n   /**\n   * The key that defines *the* context interceptor.\n   */\n   companion object Key : CoroutineContext.Key<ContinuationInterceptor>\n\n   /**\n   * Returns continuation that wraps the original [continuation], thus intercepting all resumptions.\n   * This function is invoked by coroutines framework
when needed and the resulting continuations are\n   * cached internally per each instance of the original [continuation].\n   *\n   * This function may simply return original [continuation] if it does not want to intercept this particular continuation.\n   *\n   * When the original [continuation] completes, coroutine framework invokes [releaseInterceptedContinuation]\n   * with the resulting continuation if it was intercepted, that is if `interceptContinuation` had previously\n   * returned a different continuation instance.\n   */\n   public fun <T> interceptContinuation(continuation: Continuation<T>): Continuation<T>\n\n   /**\n   * Invoked for the continuation instance returned by [interceptContinuation] when the original\n   * continuation completes and will not be used anymore. This function is invoked only if [interceptContinuation]\n   * had returned a different continuation instance from the one it was invoked with.\n   *\n   * Default implementation
does nothing.\n   *\n   * @param continuation Continuation instance returned by this interceptor's [interceptContinuation] invocation.\n   */\n   public fun releaseInterceptedContinuation(continuation: Continuation<*>) {\n   /* do nothing by default */\n   }\n\n   public override operator fun <E : CoroutineContext.Element> get(key: CoroutineContext.Key<E>): E? {\n   // getPolymorphicKey specialized for ContinuationInterceptor key\n   @OptIn(ExperimentalStdlibApi::class)\n   if (key is AbstractCoroutineContextKey<*, *>) {\n   @Suppress(\"UNCHECKED_CAST\")\n   return if (key.isSubKey(this.key)) key.tryCast(this) as? E else null\n   }\n   @Suppress(\"UNCHECKED_CAST\")\n
return if (ContinuationInterceptor === key) this as E else null\n   }\n\n\n   public override fun minusKey(key: CoroutineContext.Key<*>): CoroutineContext {\n   // minusPolymorphicKey specialized for ContinuationInterceptor key\n   @OptIn(ExperimentalStdlibApi::class)\n
if (key is AbstractCoroutineContextKey<*, *>) {\n   return if (key.isSubKey(this.key) && key.tryCast(this) != null) EmptyCoroutineContext else this\n   }\n   return if (ContinuationInterceptor === key) EmptyCoroutineContext else this\n   }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\n/**\n * Persistent context for the coroutine. It is an indexed set of [Element] instances.\n * An indexed set is a mix between a set and a map.\n * Every element in this set has a unique [Key].\n */\n@SinceKotlin(\"1.3\")\npublic interface CoroutineContext {\n   /**\n   * Returns the element with the given [key] from this context or `null`.\n   */\n   public operator fun <E : Element> get(key: Key<E>): E?\n\n   /**\n   * Accumulates entries
of this context starting with [initial] value and applying [operation]\n   * from left to right to current accumulator value and each element of this context.\n   */\n   public fun <R> fold(initial: R, operation: (R, Element) -> R): R\n\n   /**\n   * Returns a context containing elements from this context and elements from other [context].\n   * The elements from this context with the same key as in the other one are dropped.\n   */\n   public operator fun plus(context: CoroutineContext): CoroutineContext =\n   if (context === EmptyCoroutineContext) this else // fast path -- avoid lambda creation\n   context.fold(this) { acc, element ->\n   val removed =

acc.minusKey(element.key)\n if (removed === EmptyCoroutineContext) element else {\n // make sure interceptor is always last in the context (and thus is fast to get when present)\n val interceptor = removed[ContinuationInterceptor]\n

if (interceptor == null) CombinedContext(removed, element) else {\n val left = removed.minusKey(ContinuationInterceptor)\n if (left === EmptyCoroutineContext) CombinedContext(element, interceptor) else\n CombinedContext(CombinedContext(left, element), interceptor)\n }\n }\n }\n\n /**\n * Returns a context containing elements from this context, but without an element with\n * the specified [key].\n */\n public fun minusKey(key: Key<*>): CoroutineContext\n\n /**\n * Key for the elements of [CoroutineContext]. [E] is a type of element with this key.\n */\n public interface Key<E : Element>\n\n /**\n * An element of the [CoroutineContext]. An element of the coroutine context is a singleton context by itself.\n */\n public interface Element : CoroutineContext {\n /**\n * A key of this coroutine context element.\n

/\n public val key: Key<>\n\n public override operator fun <E : Element> get(key: Key<E>): E? =\n @Suppress(\"UNCHECKED_CAST\")\n if (this.key == key) this as E else null\n\n public override fun <R> fold(initial: R, operation: (R, Element) -> R): R =\n operation(initial, this)\n\n public override fun minusKey(key: Key<*>): CoroutineContext =\n if (this.key == key) EmptyCoroutineContext else this\n }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\nimport kotlin.coroutines.CoroutineContext.Element\nimport kotlin.coroutines.CoroutineContext.Key\n\n/**\n * Base class for [CoroutineContext.Element] implementations.\n */\n@SinceKotlin(\"1.3\")\npublic abstract class AbstractCoroutineContextElement(public

override val key: Key<*>) : Element\n\n/**\n * Base class for [CoroutineContext.Key] associated with polymorphic [CoroutineContext.Element] implementation.\n * Polymorphic element implementation implies delegating its [get][Element.get] and [minusKey][Element.minusKey]\n * to [getPolymorphicElement] and [minusPolymorphicKey] respectively.\n *\n * Polymorphic elements can be extracted from the coroutine context using both element key and its supertype key.\n * Example of polymorphic elements:\n * ```\n * open class BaseElement : CoroutineContext.Element {\n * companion object Key : CoroutineContext.Key<BaseElement>\n * override val key: CoroutineContext.Key<*> get() = Key\n * // It is important to use getPolymorphicKey and minusPolymorphicKey\n * override fun <E : CoroutineContext.Element> get(key: CoroutineContext.Key<E>): E? = getPolymorphicElement(key)\n * override fun minusKey(key: CoroutineContext.Key<*>): CoroutineContext = minusPolymorphicKey(key)\n * }\n

*\n * class DerivedElement : BaseElement() {\n * companion object Key : AbstractCoroutineContextKey<BaseElement, DerivedElement>(BaseElement, { it as? DerivedElement })\n * }\n * // Now it is possible to query both `BaseElement` and `DerivedElement`\n * someContext[BaseElement] // Returns BaseElement?, non-null both for BaseElement and DerivedElement instances\n * someContext[DerivedElement] // Returns DerivedElement?, non-null only for DerivedElement instance\n * ```\n * @param B base class of a polymorphic element\n * @param baseKey an instance of base key\n * @param E element type associated with the current key\n * @param safeCast a function that can safely cast abstract [CoroutineContext.Element] to the concrete [E] type\n * and return the element if it is a subtype of [E] or `null` otherwise.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalStdlibApi\npublic abstract class AbstractCoroutineContextKey<B : Element, E : B>(\n baseKey: Key<B>,\n private val safeCast:

(element: Element) -> E?\n) : Key<E> {\n private val topmostKey: Key<*> = if (baseKey is AbstractCoroutineContextKey<*, *>) baseKey.topmostKey else baseKey\n\n internal fun tryCast(element: Element): E? = safeCast(element)\n internal fun isSubKey(key: Key<*>): Boolean = key === this || topmostKey === key\n}\n\n/**\n * Returns the current element if it is associated with the given [key] in a polymorphic manner or `null` otherwise.\n * This method returns non-null value if either [Element.key] is equal to the given [key] or if the [key] is associated\n * with [Element.key] via [AbstractCoroutineContextKey].\n * See [AbstractCoroutineContextKey] for the example of usage.\n

```
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalStdlibApi\npublic fun <E : Element>
Element.getPolymorphicElement(key: Key<E>): E? {\n    if (key is AbstractCoroutineContextKey<*, *>) {\n
@Suppress(\"UNCHECKED_CAST\")\n        return if (key.isSubKey(this.key)) key.tryCast(this) as? E else null\n
}\n    @Suppress(\"UNCHECKED_CAST\")\n
    return if (this.key === key) this as E else null\n}\n\n/**\n * Returns empty coroutine context if the element is
associated with the given [key] in a polymorphic manner\n * or `null` otherwise.\n * This method returns empty
context if either [Element.key] is equal to the given [key] or if the [key] is associated\n * with [Element.key] via
[AbstractCoroutineContextKey].\n * See [AbstractCoroutineContextKey] for the example of usage.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalStdlibApi\npublic fun Element.minusPolymorphicKey(key: Key<*>):
CoroutineContext {\n    if (key is AbstractCoroutineContextKey<*, *>) {\n        return if (key.isSubKey(this.key)
&& key.tryCast(this) != null) EmptyCoroutineContext else this\n    }\n    return if (this.key === key)
EmptyCoroutineContext else this\n}\n\n/**\n * An empty coroutine context.\n */\n@SinceKotlin(\"1.3\")\npublic
object EmptyCoroutineContext : CoroutineContext, Serializable {\n    private const val serialVersionUID:
 Long = 0\n    private fun readResolve(): Any = EmptyCoroutineContext\n\n    public override fun <E : Element>
get(key: Key<E>): E? = null\n    public override fun <R> fold(initial: R, operation: (R, Element) -> R): R = initial\n
 public override fun plus(context: CoroutineContext): CoroutineContext = context\n    public override fun
minusKey(key: Key<*>): CoroutineContext = this\n    public override fun hashCode(): Int = 0\n    public override
fun toString(): String = \"EmptyCoroutineContext\"\n}\n\n//--------------------- internal impl ---------------------\n\n//
this class is not exposed, but is hidden inside implementations\n// this is a left-biased list, so that `plus` works
naturally\n@SinceKotlin(\"1.3\")\ninternal class CombinedContext(\n    private val left: CoroutineContext,\n
private val element: Element\n) : CoroutineContext, Serializable {\n\n    override fun <E : Element> get(key:
Key<E>): E? {\n        var cur = this\n        while (true) {\n            cur.element[key]?.let
 { return it }\n            val next = cur.left\n            if (next is CombinedContext) {\n                cur = next\n            }
else {\n                return next[key]\n            }\n        }\n    }\n\n    public override fun <R> fold(initial: R, operation:
(R, Element) -> R): R =\n        operation(left.fold(initial, operation), element)\n\n    public override fun
minusKey(key: Key<*>): CoroutineContext {\n        element[key]?.let { return left }\n        val newLeft =
left.minusKey(key)\n        return when {\n            newLeft === left -> this\n            newLeft ===
EmptyCoroutineContext -> element\n            else -> CombinedContext(newLeft, element)\n        }\n    }\n\n
private fun size(): Int {\n        var cur = this\n        var size = 2\n        while (true) {\n            cur = cur.left as?
CombinedContext ?: return size\n            size++\n        }\n    }\n\n    private fun contains(element: Element): Boolean
=\n        get(element.key)
 == element\n\n    private fun containsAll(context: CombinedContext): Boolean {\n        var cur = context\n
while (true) {\n            if (!contains(cur.element)) return false\n            val next = cur.left\n            if (next is
CombinedContext) {\n                cur = next\n            } else {\n                return contains(next as Element)\n
}\n        }\n    }\n\n    override fun equals(other: Any?): Boolean =\n        this === other || other is CombinedContext
&& other.size() == size() && other.containsAll(this)\n\n    override fun hashCode(): Int = left.hashCode() +
element.hashCode()\n\n    override fun toString(): String =\n        \"[\" + fold(\"\") { acc, element ->\n            if
(acc.isEmpty()) element.toString() else \"$acc, $element\"\n        } + \"]\"\n\n    private fun writeReplace(): Any {\n
    val n = size()\n        val elements = arrayOfNulls<CoroutineContext>(n)\n        var index = 0\n        fold(Unit) { _,
element -> elements[index++]
 = element }\n        check(index == n)\n        @Suppress(\"UNCHECKED_CAST\")\n        return
Serialized(elements as Array<CoroutineContext>)\n    }\n\n    private class Serialized(val elements:
Array<CoroutineContext>) : Serializable {\n        companion object {\n            private const val serialVersionUID:
Long = 0L\n        }\n\n        private fun readResolve(): Any = elements.fold(EmptyCoroutineContext,
CoroutineContext::plus)\n    }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmName(\"IntrinsicsKt\")\n@file:kotlin.jvm.JvmMultifileClass\n\npackage
```

kotlin.coroutines.intrinsics\n\nimport kotlin.contracts.*\nimport kotlin.coroutines.*\nimport kotlin.internal.InlineOnly\n\n/**\n * Obtains the current continuation instance inside suspend functions and either suspends\n * currently running

coroutine or returns result immediately without suspension.\n *\n * If the [block] returns the special [COROUTINE_SUSPENDED] value, it means that suspend function did suspend the execution and will\n * not return any result immediately. In this case, the [Continuation] provided to the [block] shall be\n * resumed by invoking [Continuation.resumeWith] at some moment in the\n * future when the result becomes available to resume the computation.\n *\n * Otherwise, the return value of the [block] must have a type assignable to [T] and represents the result of this suspend function.\n * It means that the execution was not suspended and the [Continuation] provided to the [block] shall not be invoked.\n * As the result type of the [block] is declared as `Any?` and cannot be correctly type-checked,\n * its proper return type remains on the conscience of the suspend function's author.\n *\n * Invocation of [Continuation.resumeWith] resumes coroutine directly in the invoker's thread without

going through the\n * [ContinuationInterceptor] that might be present in the coroutine's [CoroutineContext].\n * It is the invoker's responsibility to ensure that a proper invocation context is established.\n * [Continuation.intercepted] can be used to acquire the intercepted continuation.\n *\n * Note that it is not recommended to call either [Continuation.resume] nor [Continuation.resumeWithException] functions synchronously\n * in the same stackframe where suspension function is run. Use [suspendCoroutine] as a safer way to obtain current\n * continuation instance.\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\n@Suppress(\"UNUSED_PARAMETER\", \"RedundantSuspendModifier\")\npublic suspend inline fun <T> suspendCoroutineUninterceptedOrReturn(crossinline block: (Continuation<T>) -> Any?): T {\n   contract { callsInPlace(block, InvocationKind.EXACTLY_ONCE) }\n   throw NotImplementedError(\"Implementation of suspendCoroutineUninterceptedOrReturn is intrinsic\")\n}\n\n/**\n * This value is

used as a return value of [suspendCoroutineUninterceptedOrReturn] `block` argument to state that\n * the execution was suspended and will not return any result immediately.\n *\n * **Note: this value should not be used in general code.** Using it outside of the context of\n * `suspendCoroutineUninterceptedOrReturn` function return value (including, but not limited to,\n * storing this value in other properties, returning it from other functions, etc)\n * can lead to unspecified behavior of the code.\n */\n// It is implemented as property with getter to avoid ProGuard <clinit> problem with multifile IntrinsicsKt class\n@SinceKotlin(\"1.3\")\npublic val COROUTINE_SUSPENDED: Any get() = CoroutineSingletons.COROUTINE_SUSPENDED\n\n// Using enum here ensures two important properties:\n// 1. It makes SafeContinuation serializable with all kinds of serialization frameworks (since all of them natively support enums)\n// 2. It improves debugging experience, since you clearly see toString()

value of those objects and what package they come from\n@SinceKotlin(\"1.3\")\n@PublishedApi // This class is Published API via serialized representation of SafeContinuation, don't rename/move\ninternal enum class CoroutineSingletons { COROUTINE_SUSPENDED, UNDECIDED, RESUMED }\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.experimental\n\n/** Performs a bitwise AND operation between the two values. */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline infix fun Byte.and(other: Byte): Byte = (this.toInt() and other.toInt()).toByte()\n\n/** Performs a bitwise OR operation between the two values. */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline infix fun Byte.or(other: Byte): Byte = (this.toInt() or other.toInt()).toByte()\n\n/** Performs a bitwise XOR operation between

the two values. */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline infix fun Byte.xor(other: Byte): Byte = (this.toInt() xor other.toInt()).toByte()\n\n/** Inverts the bits in this value. */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.inv(): Byte = (this.toInt().inv()).toByte()\n\n\n/** Performs a bitwise AND operation between the two values. */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline infix fun Short.and(other: Short): Short = (this.toInt() and other.toInt()).toShort()\n\n/** Performs a bitwise OR operation between the two values. */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline infix fun Short.or(other: Short): Short =

(this.toInt() or other.toInt()).toShort()\n\n/** Performs a bitwise XOR operation between the two values. */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline infix fun Short.xor(other: Short): Short = (this.toInt() xor other.toInt()).toShort()\n\n/** Inverts

the bits in this value. */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.inv(): Short = (this.toInt().inv()).toShort()\n\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.experimental\n\n/**\n * The experimental marker for type inference augmenting annotations.\n *\n * Any usage of a declaration annotated with `@ExperimentalTypeInference` must be accepted either by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalTypeInference::class)`,\n * or by using the compiler argument `-opt-in=kotlin.experimental.ExperimentalTypeInference`.\n */\n@RequiresOptIn(level = RequiresOptIn.Level.ERROR)\n@MustBeDocumented\n@Retention(AnnotationRetention.BINARY)\n@Target(AnnotationTarget.ANNOTATION_CLASS)\n@SinceKotlin(\"1.3\")\npublic annotation class ExperimentalTypeInference\n","/*\n

* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.internal\n\n/**\n * Specifies that the corresponding type should be ignored during type inference.\n */\n@Target(AnnotationTarget.TYPE)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class NoInfer\n\n/**\n * Specifies that the constraint built for the type during type inference should be an equality one.\n */\n@Target(AnnotationTarget.TYPE)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class Exact\n\n/**\n * Specifies that a corresponding member has the lowest priority in overload resolution.\n */\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY, AnnotationTarget.CONSTRUCTOR)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class LowPriorityInOverloadResolution\n\n/**\n * Specifies

that the corresponding member has the highest priority in overload resolution. Effectively this means that\n * an extension annotated with this annotation will win in overload resolution over a member with the same signature.\n */\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class HidesMembers\n\n/**\n * The value of this type parameter should be mentioned in input types (argument types, receiver type or expected type).\n */\n@Target(AnnotationTarget.TYPE_PARAMETER)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class OnlyInputTypes\n\n/**\n * Specifies that this function should not be called directly without inlining\n */\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY, AnnotationTarget.PROPERTY_GETTER, AnnotationTarget.PROPERTY_SETTER)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class InlineOnly\n\n/**\n * Specifies that this declaration can have dynamic receiver

type.\n */\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class DynamicExtension\n\n/**\n * The value of this parameter should be a property reference expression (`this::foo`), referencing a `lateinit` property,\n * the backing field of which is accessible at the point where the corresponding argument is passed.\n */\n@Target(AnnotationTarget.VALUE_PARAMETER)\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.2\")\ninternal annotation class AccessibleLateinitPropertyLiteral\n\n/**\n * Specifies that this declaration is only completely supported since the specified version.\n *\n * The Kotlin compiler of an earlier version is going to report a diagnostic on usages of this declaration.\n * The diagnostic message can be specified with [message], or via [errorCode] (takes less space, but might not be immediately clear\n * to the user). The diagnostic severity can be specified with [level]: WARNING/ERROR

mean that either a warning or an error\n * is going to be reported, HIDDEN means that the declaration is going to be removed from resolution completely.\n *\n * [versionKind] specifies which version should be compared with the [version] value, when compiling the usage of the annotated declaration.\n * Note that prior to 1.2, only [RequireKotlinVersionKind.LANGUAGE_VERSION] was supported, so the Kotlin compiler before 1.2 is going to\n * treat any [RequireKotlin] as if it requires the language version. Since 1.2, the Kotlin compiler supports\n * [RequireKotlinVersionKind.LANGUAGE_VERSION], [RequireKotlinVersionKind.COMPILER_VERSION] and [RequireKotlinVersionKind.API_VERSION].\n * If the actual value of [versionKind] is something different (e.g. a new version kind, added in future versions of Kotlin),\n * Kotlin 1.2 is going to ignore this [RequireKotlin] altogether, where as Kotlin before 1.2 is going to treat this as a requirement\n * on the language version.\n *\n * This annotation is
erased at compile time; its arguments are stored in a more compact form in the Kotlin metadata.\n */\n@Target(AnnotationTarget.CLASS, AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY, AnnotationTarget.CONSTRUCTOR, AnnotationTarget.TYPEALIAS)\n@Retention(AnnotationRetention.SOURCE)\n@Repeatable\n@SinceKotlin(\"1.2\")\ninternal annotation class RequireKotlin(\n   val version: String,\n   val message: String = \"\",\n   val level: DeprecationLevel = DeprecationLevel.ERROR,\n   val versionKind: RequireKotlinVersionKind = RequireKotlinVersionKind.LANGUAGE_VERSION,\n   val errorCode: Int = -1\n)\n\n/**\n * The kind of the version that is required by [RequireKotlin].\n */\n@SinceKotlin(\"1.2\")\ninternal enum class RequireKotlinVersionKind {\n   LANGUAGE_VERSION,\n   COMPILER_VERSION,\n   API_VERSION,\n}\n\n/**\n * Specifies that this declaration is a part of special DSL, used for constructing function's contract.\n */\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.2\")\ninternal
annotation class ContractsDsl\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.properties\n\nimport kotlin.reflect.KProperty\n\n/**\n * Standard property delegates.\n */\npublic object Delegates {\n   /**\n   * Returns a property delegate for a read/write property with a non-`null` value that is initialized not during\n   * object construction time but at a later time. Trying to read the property before the initial value has been\n   * assigned results in an exception.\n   *\n   * @sample samples.properties.Delegates.notNullDelegate\n   */\n   public fun <T : Any> notNull(): ReadWriteProperty<Any?, T> = NotNullVar()\n\n   /**\n   * Returns a property delegate for a read/write property that calls a specified callback function when changed.\n   * @param initialValue the initial
value of the property.\n   * @param onChange the callback which is called after the change of the property is made. The value of the property\n   * has already been changed when this callback is invoked.\n   *\n   * @sample samples.properties.Delegates.observableDelegate\n   */\n   public inline fun <T> observable(initialValue: T, crossinline onChange: (property: KProperty<*>, oldValue: T, newValue: T) -> Unit):\n   ReadWriteProperty<Any?, T> =\n   object : ObservableProperty<T>(initialValue) {\n   override fun afterChange(property: KProperty<*>, oldValue: T, newValue: T) = onChange(property, oldValue, newValue)\n   }\n\n   /**\n   * Returns a property delegate for a read/write property that calls a specified callback function when changed,\n   * allowing the callback to veto the modification.\n   * @param initialValue the initial value of the property.\n   * @param onChange the callback which is called before a change to the property
value is attempted.\n   * The value of the property hasn't been changed yet, when this callback is invoked.\n   * If the callback returns `true` the value of the property is being set to the new value,\n   * and if the callback returns `false` the new value is discarded and the property remains its old value.\n   *\n   * @sample samples.properties.Delegates.vetoableDelegate\n   * @sample samples.properties.Delegates.throwVetoableDelegate\n   */\n   public inline fun <T> vetoable(initialValue: T, crossinline onChange: (property: KProperty<*>, oldValue: T, newValue: T) -> Boolean):\n   ReadWriteProperty<Any?, T> =\n   object : ObservableProperty<T>(initialValue) {\n   override fun beforeChange(property: KProperty<*>, oldValue: T, newValue: T): Boolean = onChange(property, oldValue, newValue)\n   }\n\n}\n\n\nprivate class NotNullVar<T : Any>() : ReadWriteProperty<Any?, T> {\n   private var

value: T? = null\n\n   public override fun getValue(thisRef: Any?, property: KProperty<*>): T {\n   return value ?: throw IllegalStateException(\"Property ${property.name} should be initialized before get.\")\n   }\n\n   public override fun setValue(thisRef: Any?, property: KProperty<*>, value: T) {\n   this.value = value\n   }\n}\n\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.properties\n\nimport kotlin.reflect.KProperty\n\n/**\n * Base interface that can be used for implementing property delegates of read-only properties.\n *\n * This is provided only for convenience; you don't have to extend this interface\n * as long as your property delegate has methods with the same signatures.\n *\n * @param T the type of object which owns the delegated property.\n * @param V the type of the property value.\n */\npublic fun interface ReadOnlyProperty<in T, out V> {\n   /**\n   * Returns the value of the property for the given object.\n   * @param thisRef the object for which the value is requested.\n   * @param property the metadata for the property.\n   * @return the property value.\n   */\n   public operator fun getValue(thisRef: T, property: KProperty<*>): V\n}\n\n/**\n * Base interface that can be used for implementing property delegates of read-write properties.\n *\n * This is provided only for convenience; you don't have to extend this interface\n * as long as your property delegate has methods with the same signatures.\n *\n * @param T the type of object which owns the delegated property.\n * @param V the type of the property value.\n */\npublic interface ReadWriteProperty<in T, V> : ReadOnlyProperty<T, V> {\n   /**\n   * Returns the value of the property for the given object.\n   * @param thisRef the object for which the value is requested.\n   * @param property the metadata for the property.\n   * @return the property value.\n   */\n   public override operator fun getValue(thisRef: T, property: KProperty<*>): V\n\n   /**\n   * Sets the value of the property for the given object.\n   * @param thisRef the object for which the value is requested.\n   * @param property the metadata for the property.\n   * @param value the value to set.\n   */\n   public operator fun setValue(thisRef: T, property: KProperty<*>, value: V)\n}\n\n/**\n * Base interface that can be used for implementing property delegate providers.\n *\n * This is provided only for convenience; you don't have to extend this interface\n * as long as your delegate provider has a method with the same signature.\n *\n * @param T the type of object which owns the delegated property.\n * @param D the type of property delegates this provider provides.\n */\n@SinceKotlin(\"1.4\")\npublic fun interface PropertyDelegateProvider<in T, out D> {\n   /**\n   * Returns the delegate of the property for the given object.\n   *\n   * This function can be used to extend the logic of creating the object (e.g. perform validation checks)\n   * to which the property implementation is delegated.\n   *\n   * @param thisRef the object for which property delegate is requested.\n   * @param property the metadata for the property.\n   * @return the property delegate.\n   */\n   public operator fun provideDelegate(thisRef: T, property: KProperty<*>): D\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.properties\n\nimport kotlin.reflect.KProperty\n\n/**\n * Implements the core logic of a property delegate for a read/write property that calls callback functions when changed.\n * @param initialValue the initial value of the property.\n */\npublic abstract class ObservableProperty<V>(initialValue: V) : ReadWriteProperty<Any?, V> {\n   private var value = initialValue\n\n   /**\n   * The callback which is called before a change to the property value is attempted.\n   * The value of the property hasn't been changed yet, when this callback is invoked.\n   * If the callback returns `true` the value of the property is being set to the new value,\n   * and if the callback returns `false` the new value is discarded and the property remains its old value.\n   */\n   protected open fun beforeChange(property: KProperty<*>, oldValue: V, newValue: V): Boolean = true\n\n   /**\n   * The callback which is called after the change of the property is made. The value of the property\n   * has already been changed when this callback is invoked.\n   */\n   protected open fun afterChange(property: KProperty<*>, oldValue: V, newValue: V): Unit {}\n\n   public override fun getValue(thisRef: Any?, property: KProperty<*>): V {\n   return value\n   }\n\n   public override fun setValue(thisRef: Any?, property: KProperty<*>, value: V) {\n   val oldValue = this.value\n   if (!beforeChange(property, oldValue, value)) {\n   return\n   }\n   this.value = value\n   afterChange(property, oldValue, value)\n

}\n}","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:Suppress(\"PackageDirectoryMismatch\")\npackage kotlin\n\nimport kotlin.reflect.*\n\n/**\n * An extension operator that allows delegating a read-only property of type [V]\n * to a property reference to a property of type [V] or its subtype.\n *\n * @receiver A property reference to a read-only or mutable property of type [V] or its subtype.\n * The reference is without a receiver, i.e. it either references a top-level property or\n * has the receiver bound to it.\n *\n * Example:\n *\n * ```\n * class Login(val
username: String)\n * val defaultLogin = Login(\"Admin\")\n * val defaultUsername by defaultLogin::username\n * // equivalent to\n * val defaultUserName get() = defaultLogin.username\n * ```\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <V> KProperty0<V>.getValue(thisRef: Any?, property: KProperty<*>): V {\n   return get()\n}\n\n/**\n * An extension operator that allows delegating a mutable property of type [V]\n * to a property reference to a mutable property of the same type [V].\n *\n * @receiver A property reference to a mutable property of type [V].\n * The reference is without a receiver, i.e. it either references a top-level property or\n * has the receiver bound to it.\n *\n * Example:\n *\n * ```\n * class Login(val username: String, var incorrectAttemptCounter: Int = 0)\n * val defaultLogin = Login(\"Admin\")\n * var defaultLoginAttempts by defaultLogin::incorrectAttemptCounter\n * // equivalent to\n * var defaultLoginAttempts: Int\n *
    get() = defaultLogin.incorrectAttemptCounter\n *   set(value) { defaultLogin.incorrectAttemptCounter = value }\n * ```\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <V> KMutableProperty0<V>.setValue(thisRef: Any?, property: KProperty<*>, value: V) {\n   set(value)\n}\n\n\n/**\n * An extension operator that allows delegating a read-only member or extension property of type [V]\n * to a property reference to a member or extension property of type [V] or its subtype.\n *\n * @receiver A property reference to a read-only or mutable property of type [V] or its subtype.\n * The reference has an unbound receiver of type [T].\n *\n * Example:\n *\n * ```\n * class Login(val username: String)\n * val Login.user by Login::username\n * // equivalent to\n * val Login.user get() = this.username\n * ```\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <T, V> KProperty1<T, V>.getValue(thisRef: T, property: KProperty<*>):
V {\n   return get(thisRef)\n}\n\n/**\n * An extension operator that allows delegating a mutable member or extension property of type [V]\n * to a property reference to a member or extension mutable property of the same type [V].\n *\n * @receiver A property reference to a read-only or mutable property of type [V] or its subtype.\n * The reference has an unbound receiver of type [T].\n *\n * Example:\n *\n * ```\n * class Login(val username: String, var incorrectAttemptCounter: Int)\n * var Login.attempts by Login::incorrectAttemptCounter\n * // equivalent to\n * var Login.attempts: Int\n *   get() = this.incorrectAttemptCounter\n *   set(value) { this.incorrectAttemptCounter = value }\n * ```\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <T, V> KMutableProperty1<T, V>.setValue(thisRef: T, property: KProperty<*>, value: V) {\n   set(thisRef, value)\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n
* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.random\n\nimport kotlin.math.nextDown\n\n/**\n * An abstract class that is implemented by random number generator algorithms.\n *\n * The companion object [Random.Default] is the default instance of [Random].\n *\n * To get a seeded instance of random generator use [Random] function.\n *\n * @sample samples.random.Randoms.defaultRandom\n */\n@SinceKotlin(\"1.3\")\npublic abstract class Random {\n\n   /**\n
* Gets the next random [bitCount] number of bits.\n   *\n   * Generates an `Int` whose lower [bitCount] bits are filled with random values and the remaining upper bits are zero.\n   *\n   * @param bitCount number of bits to generate, must be in range 0..32, otherwise the behavior is unspecified.\n   *\n   * @sample samples.random.Randoms.nextBits\n   */\n   public abstract fun nextBits(bitCount: Int): Int\n\n   /**\n
* Gets the next random `Int` from the random number generator.\n   *\n   * Generates an `Int` random value uniformly distributed between `Int.MIN_VALUE` and `Int.MAX_VALUE` (inclusive).\n   *\n   * @sample

samples.random.Randoms.nextInt\n */\n public open fun nextInt(): Int = nextBits(32)\n\n /**\n * Gets the next random non-negative `Int` from the random number generator less than the specified [until] bound.\n *\n * Generates an `Int` random value uniformly distributed between `0` (inclusive) and the specified [until] bound (exclusive).\n *\n * @param until must be positive.\n *\n * @throws IllegalArgumentException if [until] is negative or zero.\n *\n * @sample samples.random.Randoms.nextIntFromUntil\n */\n public open fun nextInt(until: Int): Int = nextInt(0, until)\n\n /**\n * Gets the next random `Int` from the random number generator in the specified range.\n *\n * Generates an `Int` random value uniformly distributed between the specified [from] (inclusive) and [until] (exclusive) bounds.\n *\n * @throws IllegalArgumentException if [from] is greater than or equal to [until].\n *\n * @sample samples.random.Randoms.nextIntFromUntil\n */\n public open fun nextInt(from: Int, until: Int): Int {\n checkRangeBounds(from, until)\n val n = until - from\n if (n > 0 || n == Int.MIN_VALUE) {\n val rnd = if (n and -n == n) {\n val bitCount = fastLog2(n)\n nextBits(bitCount)\n } else {\n var v: Int\n do {\n val bits = nextInt().ushr(1)\n v = bits % n\n } while (bits - v + (n - 1) < 0)\n v\n }\n return from + rnd\n } else {\n while (true) {\n val rnd = nextInt()\n if (rnd in from until until) return rnd\n }\n }\n }\n\n /**\n * Gets the next random `Long` from the random number generator.\n *\n * Generates a `Long` random value uniformly distributed between `Long.MIN_VALUE` and `Long.MAX_VALUE` (inclusive).\n *\n * @sample samples.random.Randoms.nextLong\n */\n public open fun nextLong(): Long = nextInt().toLong().shl(32) + nextInt()\n\n /**\n * Gets the next random non-negative `Long` from the random number generator less than the specified [until] bound.\n *\n * Generates a `Long` random value uniformly distributed between `0` (inclusive) and the specified [until] bound (exclusive).\n *\n * @param until must be positive.\n *\n * @throws IllegalArgumentException if [until] is negative or zero.\n *\n * @sample samples.random.Randoms.nextLongFromUntil\n */\n public open fun nextLong(until: Long): Long = nextLong(0, until)\n\n /**\n * Gets the next random `Long` from the random number generator in the specified range.\n *\n * Generates a `Long` random value uniformly distributed between the specified [from] (inclusive) and [until] (exclusive) bounds.\n *\n * @throws IllegalArgumentException if [from] is greater than or equal to [until].\n *\n * @sample samples.random.Randoms.nextLongFromUntil\n */\n public open fun nextLong(from: Long, until: Long): Long {\n checkRangeBounds(from, until)\n val n = until - from\n if (n > 0) {\n val rnd: Long\n if (n and -n == n) {\n val nLow = n.toInt()\n val nHigh = (n ushr 32).toInt()\n rnd = when {\n nLow != 0 -> {\n val bitCount = fastLog2(nLow)\n // toUInt().toLong()\n nextBits(bitCount).toLong() and 0xFFFF_FFFF\n }\n nHigh == 1 ->\n // toUInt().toLong()\n nextInt().toLong() and 0xFFFF_FFFF\n else -> {\n val bitCount = fastLog2(nHigh)\n nextBits(bitCount).toLong().shl(32) + (nextInt().toLong() and 0xFFFF_FFFF)\n }\n }\n } else {\n var v: Long\n do {\n val bits = nextLong().ushr(1)\n v = bits % n\n } while (bits - v + (n - 1) < 0)\n rnd = v\n }\n return from + rnd\n } else {\n while (true) {\n val rnd = nextLong()\n if (rnd in from until until) return rnd\n }\n }\n }\n\n /**\n * Gets the next random [Boolean] value.\n *\n * @sample samples.random.Randoms.nextBoolean\n */\n public open fun nextBoolean(): Boolean = nextBits(1) != 0\n\n /**\n * Gets the next random [Double] value uniformly distributed between 0 (inclusive) and 1 (exclusive).\n *\n * @sample samples.random.Randoms.nextDouble\n */\n public open fun nextDouble(): Double = doubleFromParts(nextBits(26), nextBits(27))\n\n /**\n * Gets the next random non-negative `Double` from the random number generator less than the specified [until] bound.\n *\n * Generates a `Double` random value uniformly distributed between 0 (inclusive) and [until] (exclusive).\n *\n * @throws IllegalArgumentException if [until] is negative or zero.\n *\n * @sample samples.random.Randoms.nextDoubleFromUntil\n */\n public open fun nextDouble(until: Double): Double = nextDouble(0.0, until)\n\n /**\n * Gets the next random

`Double` from the random number generator in the specified range.\n   *\n   * Generates a `Double` random value uniformly distributed between the specified [from] (inclusive) and [until] (exclusive) bounds.\n   *\n   * [from] and [until] must be finite otherwise the behavior is unspecified.\n   *\n
 * @throws IllegalArgumentException if [from] is greater than or equal to [until].\n   *\n   * @sample samples.random.Randoms.nextDoubleFromUntil\n   */\n   public open fun nextDouble(from: Double, until: Double): Double {\n   checkRangeBounds(from, until)\n   val size = until - from\n   val r = if (size.isInfinite() && from.isFinite() && until.isFinite()) {\n   val r1 = nextDouble() * (until / 2 - from / 2)\n   from + r1 + r1\n   } else {\n   from + nextDouble() * size\n   }\n   return if (r >= until) until.nextDown() else r\n   }\n\n   /**\n   * Gets the next random [Float] value uniformly distributed between 0 (inclusive) and 1 (exclusive).\n   *\n   * @sample samples.random.Randoms.nextFloat\n   */\n   public open fun nextFloat(): Float = nextBits(24) / (1 shl 24).toFloat()\n\n   /**\n   * Fills a subrange of the specified byte [array] starting from [fromIndex] inclusive and ending [toIndex] exclusive\n
   * with random bytes.\n   *\n   * @return [array] with the subrange filled with random bytes.\n   *\n   * @sample samples.random.Randoms.nextBytes\n   */\n   public open fun nextBytes(array: ByteArray, fromIndex: Int = 0, toIndex: Int = array.size): ByteArray {\n   require(fromIndex in 0..array.size && toIndex in 0..array.size) { \"fromIndex ($fromIndex) or toIndex ($toIndex) are out of range: 0..${array.size}.\" }\n   require(fromIndex <= toIndex) { \"fromIndex ($fromIndex) must be not greater than toIndex ($toIndex).\" }\n\n   val steps = (toIndex - fromIndex) / 4\n\n   var position = fromIndex\n   repeat(steps) {\n   val v = nextInt()\n   array[position] = v.toByte()\n   array[position + 1] = v.ushr(8).toByte()\n   array[position + 2] = v.ushr(16).toByte()\n   array[position + 3] = v.ushr(24).toByte()\n   position += 4\n   }\n\n   val remainder = toIndex - position\n   val vr =
 nextBits(remainder * 8)\n   for (i in 0 until remainder) {\n   array[position + i] = vr.ushr(i * 8).toByte()\n
  }\n\n   return array\n   }\n\n   /**\n   * Fills the specified byte [array] with random bytes and returns it.\n   *\n   * @return [array] filled with random bytes.\n   *\n   * @sample samples.random.Randoms.nextBytes\n   */\n   public open fun nextBytes(array: ByteArray): ByteArray = nextBytes(array, 0, array.size)\n\n   /**\n   * Creates a byte array of the specified [size], filled with random bytes.\n   *\n   * @sample samples.random.Randoms.nextBytes\n   */\n   public open fun nextBytes(size: Int): ByteArray = nextBytes(ByteArray(size))\n\n\n   /**\n   * The default random number generator.\n   *\n   * On JVM this generator is thread-safe, its methods can be invoked from multiple threads.\n   *\n   * @sample samples.random.Randoms.defaultRandom\n   */\n   companion object Default : Random(), Serializable {\n
       private val defaultRandom: Random = defaultPlatformRandom()\n\n   private object Serialized : Serializable {\n   private const val serialVersionUID = 0L\n\n   private fun readResolve(): Any = Random\n   }\n\n
      private fun writeReplace(): Any = Serialized\n\n   override fun nextBits(bitCount: Int): Int = defaultRandom.nextBits(bitCount)\n   override fun nextInt(): Int = defaultRandom.nextInt()\n   override fun nextInt(until: Int): Int = defaultRandom.nextInt(until)\n   override fun nextInt(from: Int, until: Int): Int = defaultRandom.nextInt(from, until)\n\n   override fun nextLong(): Long = defaultRandom.nextLong()\n   override fun nextLong(until: Long): Long = defaultRandom.nextLong(until)\n   override fun nextLong(from: Long, until: Long): Long = defaultRandom.nextLong(from, until)\n\n   override fun nextBoolean(): Boolean = defaultRandom.nextBoolean()\n\n   override fun nextDouble(): Double = defaultRandom.nextDouble()\n
        override fun nextDouble(until: Double): Double = defaultRandom.nextDouble(until)\n   override fun nextDouble(from: Double, until: Double): Double = defaultRandom.nextDouble(from, until)\n\n   override fun nextFloat(): Float = defaultRandom.nextFloat()\n\n   override fun nextBytes(array: ByteArray): ByteArray = defaultRandom.nextBytes(array)\n   override fun nextBytes(size: Int): ByteArray = defaultRandom.nextBytes(size)\n   override fun nextBytes(array: ByteArray, fromIndex: Int, toIndex: Int): ByteArray =\n   defaultRandom.nextBytes(array, fromIndex, toIndex)\n   }\n}\n\n/**\n * Returns a repeatable random number generator seeded with the given [seed] `Int` value.\n *\n * Two generators with the same seed produce the same sequence of values within the same version of Kotlin runtime.\n *\n * *Note:* Future versions of Kotlin may change the algorithm of this seeded number generator so that it will return\n * a sequence of values

different from the current one for a given seed.\n *\n * On JVM the returned generator is NOT thread-safe. Do not invoke it from multiple threads without proper synchronization.\n *\n * @sample samples.random.Randoms.seededRandom\n */\n@SinceKotlin(\"1.3\")\npublic fun Random(seed: Int): Random = XorWowRandom(seed, seed.shr(31))\n\n/**\n * Returns a repeatable random number generator seeded with the given [seed] `Long` value.\n *\n * Two generators with the same seed produce the same sequence of values within the same version of Kotlin runtime.\n *\n * *Note:* Future versions of Kotlin may change the algorithm of this seeded number generator so that it will return\n * a sequence of values different from the current one for a given seed.\n *\n * On JVM the returned generator is NOT thread-safe. Do not invoke it from multiple threads without proper synchronization.\n *\n * @sample samples.random.Randoms.seededRandom\n */\n@SinceKotlin(\"1.3\")\npublic fun Random(seed: Long): Random
 = XorWowRandom(seed.toInt(), seed.shr(32).toInt())\n\n\n/**\n * Gets the next random `Int` from the random number generator in the specified [range].\n *\n * Generates an `Int` random value uniformly distributed in the specified [range]:\n * from `range.start` inclusive to `range.endInclusive` inclusive.\n *\n * @throws IllegalArgumentException if [range] is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun Random.nextInt(range: IntRange): Int = when {\n   range.isEmpty() -> throw IllegalArgumentException(\"Cannot get random in empty range: $range\")\n   range.last < Int.MAX_VALUE -> nextInt(range.first, range.last + 1)\n   range.first > Int.MIN_VALUE -> nextInt(range.first - 1, range.last) + 1\n   else -> nextInt()\n}\n\n/**\n * Gets the next random `Long` from the random number generator in the specified [range].\n *\n * Generates a `Long` random value uniformly distributed in the specified [range]:\n * from `range.start` inclusive to `range.endInclusive` inclusive.\n *\n * @throws
 IllegalArgumentException if [range] is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun Random.nextLong(range: LongRange): Long = when {\n   range.isEmpty() -> throw IllegalArgumentException(\"Cannot get random in empty range: $range\")\n   range.last < Long.MAX_VALUE -> nextLong(range.first, range.last + 1)\n   range.first > Long.MIN_VALUE -> nextLong(range.first - 1, range.last) + 1\n   else -> nextLong()\n}\n\n\ninternal expect fun defaultPlatformRandom(): Random\ninternal expect fun doubleFromParts(hi26: Int, low27: Int): Double\n\ninternal fun fastLog2(value: Int): Int = 31 - value.countLeadingZeroBits()\n\n/** Takes upper [bitCount] bits (0..32) from this number. */\ninternal fun Int.takeUpperBits(bitCount: Int): Int =\n   this.ushr(32 - bitCount) and (-bitCount).shr(31)\n\ninternal fun checkRangeBounds(from: Int, until: Int) = require(until > from) { boundsErrorMessage(from, until) }\ninternal fun checkRangeBounds(from: Long, until: Long) = require(until > from) { boundsErrorMessage(from,
 until) }\ninternal fun checkRangeBounds(from: Double, until: Double) = require(until > from) { boundsErrorMessage(from, until) }\n\ninternal fun boundsErrorMessage(from: Any, until: Any) = \"Random range is empty: [$from, $until).\"\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.random\n\n\n/**\n * Gets the next random [UInt] from the random number generator.\n *\n * Generates a [UInt] random value uniformly distributed between [UInt.MIN_VALUE] and [UInt.MAX_VALUE] (inclusive).\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextUInt(): UInt = nextInt().toUInt()\n\n/**\n * Gets the next random [UInt] from the random number generator less than the specified [until] bound.\n *\n * Generates a [UInt] random value uniformly distributed between
 `0` (inclusive) and the specified [until] bound (exclusive).\n *\n * @throws IllegalArgumentException if [until] is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextUInt(until: UInt): UInt = nextUInt(0u, until)\n\n/**\n * Gets the next random [UInt] from the random number generator in the specified range.\n *\n * Generates a [UInt] random value uniformly distributed between the specified [from] (inclusive) and [until] (exclusive) bounds.\n *\n * @throws IllegalArgumentException if [from] is greater than or equal to [until].\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun

Random.nextUInt(from: UInt, until: UInt): UInt {\n   checkUIntRangeBounds(from, until)\n\n   val signedFrom = from.toInt() xor Int.MIN_VALUE\n   val signedUntil = until.toInt() xor Int.MIN_VALUE\n\n   val signedResult = nextInt(signedFrom, signedUntil) xor Int.MIN_VALUE\n   return signedResult.toUInt()\n}\n\n/**\n * Gets the next random [UInt] from the random number generator in the specified [range].\n *\n * Generates a [UInt] random value uniformly distributed in the specified [range]:\n * from `range.start` inclusive to `range.endInclusive` inclusive.\n *\n * @throws IllegalArgumentException if [range] is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextUInt(range: UIntRange): UInt = when {\n   range.isEmpty() -> throw IllegalArgumentException(\"Cannot get random in empty range: $range\")\n   range.last < UInt.MAX_VALUE -> nextUInt(range.first, range.last + 1u)\n   range.first > UInt.MIN_VALUE -> nextUInt(range.first - 1u, range.last) + 1u\n   else -> nextUInt()\n}\n\n/**\n * Gets the next random [ULong] from the random number generator.\n *\n * Generates a [ULong] random value uniformly distributed between [ULong.MIN_VALUE] and [ULong.MAX_VALUE] (inclusive).\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextULong(): ULong = nextLong().toULong()\n\n/**\n * Gets the next random [ULong] from the random number generator less than the specified [until] bound.\n *\n * Generates a [ULong] random value uniformly distributed between `0` (inclusive) and the specified [until] bound (exclusive).\n *\n * @throws IllegalArgumentException if [until] is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextULong(until: ULong): ULong = nextULong(0uL, until)\n\n/**\n * Gets the next random [ULong] from the random number generator in the specified range.\n *\n * Generates a [ULong] random value uniformly distributed between the specified [from] (inclusive) and [until] (exclusive) bounds.\n *\n * @throws IllegalArgumentException if [from] is greater than or equal to [until].\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextULong(from: ULong, until: ULong): ULong {\n   checkULongRangeBounds(from, until)\n\n   val signedFrom = from.toLong() xor Long.MIN_VALUE\n   val signedUntil = until.toLong() xor Long.MIN_VALUE\n\n   val signedResult = nextLong(signedFrom, signedUntil) xor Long.MIN_VALUE\n   return signedResult.toULong()\n}\n\n/**\n * Gets the next random [ULong] from the random number generator in the specified [range].\n *\n * Generates a [ULong] random value uniformly distributed in the specified [range]:\n * from `range.start` inclusive to `range.endInclusive` inclusive.\n *\n * @throws IllegalArgumentException if [range] is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextULong(range: ULongRange): ULong = when {\n   range.isEmpty() -> throw IllegalArgumentException(\"Cannot get random in empty range: $range\")\n   range.last < ULong.MAX_VALUE -> nextULong(range.first, range.last + 1u)\n   range.first > ULong.MIN_VALUE -> nextULong(range.first - 1u, range.last) + 1u\n else -> nextULong()\n}\n\n/**\n * Fills the specified unsigned byte [array] with random bytes and returns it.\n *\n * @return [array] filled with random bytes.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Random.nextUBytes(array: UByteArray): UByteArray {\n   nextBytes(array.asByteArray())\n   return array\n}\n\n/**\n * Creates an unsigned byte array of the specified [size], filled with random bytes.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Random.nextUBytes(size: Int): UByteArray = nextBytes(size).asUByteArray()\n\n/**\n * Fills a subrange of the specified `UByte` [array] starting from [fromIndex] inclusive and ending [toIndex] exclusive with random UBytes.\n *\n * @return [array] with the subrange filled with random bytes.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Random.nextUBytes(array: UByteArray, fromIndex: Int = 0, toIndex: Int = array.size): UByteArray {\n   nextBytes(array.asByteArray(), fromIndex, toIndex)\n   return array\n}\n\n\ninternal fun checkUIntRangeBounds(from: UInt, until: UInt) = require(until > from) { boundsErrorMessage(from, until) }\ninternal fun checkULongRangeBounds(from: ULong, until: ULong) =

require(until > from) { boundsErrorMessage(from, until) }\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.random\n\n/**\n * Random number generator, using Marsaglia's \"xorwow\" algorithm\n *\n * Cycles after 2^192 - 2^32 repetitions.\n *\n * For more details, see Marsaglia, George (July 2003). \"Xorshift RNGs\". Journal of Statistical Software. 8 (14). doi:10.18637/jss.v008.i14\n *\n * Available at https://www.jstatsoft.org/v08/i14/paper\n *\n */\ninternal class XorWowRandom internal constructor(\n   private var x: Int,\n   private var y: Int,\n   private var z: Int,\n   private var
 w: Int,\n   private var v: Int,\n   private var addend: Int\n) : Random(), Serializable {\n\n   internal constructor(seed1: Int, seed2: Int) :\n   this(seed1, seed2, 0, 0, seed1.inv(), (seed1 shl 10) xor (seed2 ushr 4))\n\n   init {\n   require((x or y or z or w or v) != 0) { \"Initial state must have at least one non-zero element.\" }\n\n   // some trivial seeds can produce several values with zeroes in upper bits, so we discard first 64\n   repeat(64) { nextInt() }\n   }\n\n   override fun nextInt(): Int {\n   // Equivalent to the xorxow algorithm\n   // From Marsaglia, G. 2003. Xorshift RNGs. J. Statis. Soft. 8, 14, p. 5\n   var t = x\n   t = t xor (t ushr 2)\n   x = y\n   y = z\n   z = w\n   val v0 = v\n   w = v0\n   t = (t xor (t shl 1)) xor v0 xor (v0 shl 4)\n   v = t\n   addend += 362437\n   return t + addend\n   }\n\n   override fun nextBits(bitCount: Int): Int =\n   nextInt().takeUpperBits(bitCount)\n\n
    private companion object {\n   private const val serialVersionUID: Long = 0L\n   }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"RangesKt\")\n\npackage kotlin.ranges\n\n/**\n * Represents a range of [Comparable] values.\n */\nprivate open class ComparableRange<T : Comparable<T>>(\n   override val start: T,\n   override val endInclusive: T\n) : ClosedRange<T> {\n\n   override fun equals(other: Any?): Boolean {\n   return other is ComparableRange<*> && (isEmpty() && other.isEmpty() ||\n   start == other.start && endInclusive == other.endInclusive)\n   }\n\n   override fun hashCode(): Int {\n   return if (isEmpty()) -1 else 31 * start.hashCode() + endInclusive.hashCode()\n   }\n\n   override
 fun toString(): String = \"$start..$endInclusive\"\n}\n\n/**\n * Creates a range from this [Comparable] value to the specified [that] value.\n *\n * This value needs to be smaller than or equal to [that] value, otherwise the returned range will be empty.\n * @sample samples.ranges.Ranges.rangeFromComparable\n */\npublic operator fun <T : Comparable<T>> T.rangeTo(that: T): ClosedRange<T> = ComparableRange(this, that)\n\n\n/**\n * Represents a range of floating point numbers.\n * Extends [ClosedRange] interface providing custom operation [lessThanOrEquals] for comparing values of range domain type.\n *\n * This interface is implemented by floating point ranges returned by [Float.rangeTo] and [Double.rangeTo] operators to\n * achieve IEEE-754 comparison order instead of total order of floating point numbers.\n */\n@SinceKotlin(\"1.1\")\npublic interface ClosedFloatingPointRange<T : Comparable<T>> : ClosedRange<T> {\n   override fun contains(value: T): Boolean = lessThanOrEquals(start,
 value) && lessThanOrEquals(value, endInclusive)\n   override fun isEmpty(): Boolean = !lessThanOrEquals(start, endInclusive)\n\n   /**\n   * Compares two values of range domain type and returns true if first is less than or equal to second.\n   */\n   fun lessThanOrEquals(a: T, b: T): Boolean\n}\n\n\n/**\n * A closed range of values of type `Double`.\n *\n * Numbers are compared with the ends of this range according to IEEE-754.\n */\nprivate class ClosedDoubleRange(\n   start: Double,\n   endInclusive: Double\n) : ClosedFloatingPointRange<Double> {\n   private val _start = start\n   private val _endInclusive = endInclusive\n   override val start: Double get() = _start\n   override val endInclusive: Double get() = _endInclusive\n\n   override fun lessThanOrEquals(a: Double, b: Double): Boolean = a <= b\n\n   override fun contains(value: Double): Boolean = value >= _start && value <= _endInclusive\n   override fun isEmpty(): Boolean = !(_start <= _endInclusive)\n\n
  override fun equals(other: Any?): Boolean {\n   return other is ClosedDoubleRange && (isEmpty() && other.isEmpty() ||\n   _start == other._start && _endInclusive == other._endInclusive)\n   }\n\n   override fun hashCode(): Int {\n   return if (isEmpty()) -1 else 31 * _start.hashCode() + _endInclusive.hashCode()\n

}\n\n   override fun toString(): String = \"$_start..$_endInclusive\"\n}\n\n/**\n * Creates a range from this [Double] value to the specified [that] value.\n *\n * Numbers are compared with the ends of this range according to IEEE-754.\n * @sample samples.ranges.Ranges.rangeFromDouble\n */\n@SinceKotlin(\"1.1\")\npublic operator fun Double.rangeTo(that: Double): ClosedFloatingPointRange<Double> = ClosedDoubleRange(this, that)\n\n\n/**\n * A closed range of values of type `Float`.\n *\n * Numbers are compared with the ends of this range according to IEEE-754.\n */\nprivate class ClosedFloatRange(\n   start: Float,\n   endInclusive: Float\n) : ClosedFloatingPointRange<Float>

{\n   private val _start = start\n   private val _endInclusive = endInclusive\n   override val start: Float get() = _start\n   override val endInclusive: Float get() = _endInclusive\n\n   override fun lessThanOrEquals(a: Float, b: Float): Boolean = a <= b\n\n   override fun contains(value: Float): Boolean = value >= _start && value <= _endInclusive\n   override fun isEmpty(): Boolean = !(_start <= _endInclusive)\n\n   override fun equals(other: Any?): Boolean {\n   return other is ClosedFloatRange && (isEmpty() && other.isEmpty() ||\n   _start == other._start && _endInclusive == other._endInclusive)\n   }\n\n   override fun hashCode(): Int {\n   return if (isEmpty()) -1 else 31 * _start.hashCode() + _endInclusive.hashCode()\n   }\n\n   override fun toString(): String = \"$_start..$_endInclusive\"\n}\n\n/**\n * Creates a range from this [Float] value to the specified [that] value.\n *\n * Numbers are compared with the ends

of this range according to IEEE-754.\n * @sample samples.ranges.Ranges.rangeFromFloat\n */\n@SinceKotlin(\"1.1\")\npublic operator fun Float.rangeTo(that: Float): ClosedFloatingPointRange<Float> = ClosedFloatRange(this, that)\n\n\n/**\n * Returns `true` if this iterable range contains the specified [element].\n *\n * Always returns `false` if the [element] is `null`.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <T, R> R.contains(element: T?): Boolean where T : Any, R : Iterable<T>, R : ClosedRange<T> =\n   element != null && contains(element)\n\n\ninternal fun checkStepIsPositive(isPositive: Boolean, step: Number) {\n   if (!isPositive) throw IllegalArgumentException(\"Step must be positive, was: $step.\")\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"KClasses\")\n@file:Suppress(\"UNCHECKED_CAST\")\n\npackage

kotlin.reflect\n\nimport kotlin.internal.LowPriorityInOverloadResolution\n\n/**\n * Casts the given [value] to the class represented by this [KClass] object.\n * Throws an exception if the value is `null` or if it is not an instance of this class.\n *\n * This is an experimental function that behaves as a similar function from kotlin.reflect.full on JVM.\n *\n * @see [KClass.isInstance]\n * @see [KClass.safeCast]\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@LowPriorityInOverloadResolution\nfun <T : Any> KClass<T>.cast(value: Any?): T {\n   if (!isInstance(value)) throw ClassCastException(\"Value cannot be cast to $qualifiedOrSimpleName\")\n   return value as T\n}\n\n// TODO: replace with qualifiedName when it is fully supported in K/JS\ninternal expect val KClass<*>.qualifiedOrSimpleName: String?\n\n/**\n * Casts the given [value] to the class represented by this [KClass] object.\n * Returns

`null` if the value is `null` or if it is not an instance of this class.\n *\n * This is an experimental function that behaves as a similar function from kotlin.reflect.full on JVM.\n *\n * @see [KClass.isInstance]\n * @see [KClass.cast]\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@LowPriorityInOverloadResolution\nfun <T : Any> KClass<T>.safeCast(value: Any?): T? {\n   return if (isInstance(value)) value as T else null\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect\n\nimport kotlin.jvm.JvmField\nimport kotlin.jvm.JvmStatic\n\n\n\n\n/**\n * Represents a type projection. Type projection is usually the argument to another type in a type usage.\n * For example, in the type `Array<out Number>`, `out Number` is the covariant projection of the type represented

by the class `Number`.\n *\n * Type projection is either the star projection, or an entity consisting of a specific type plus optional variance.\n *\n * See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/generics.html#type-projections)\n * for more information.\n

*/\n@SinceKotlin(\"1.1\")\npublic data class KTypeProjection constructor(\n   /**\n   * The use-site variance specified in the projection, or `null` if this is a star projection.\n   */\n   public val variance: KVariance?,\n   /**\n   * The type specified in the projection, or `null` if this is a star projection.\n   */\n   public val type: KType?\n) {\n\n   init {\n   require((variance == null) == (type == null)) {\n   if (variance == null)\n   \"Star projection must have no type specified.\"\n   else\n   \"The projection variance $variance requires type to be specified.\"\n   }\n   }\n\n   override fun toString(): String = when (variance) {\n   null -> \"*\"\n   KVariance.INVARIANT -> type.toString()\n   KVariance.IN -> \"in $type\"\n   KVariance.OUT -> \"out $type\"\n   }\n\n   public companion object {\n   // provided for compiler access\n   @JvmField\n   @PublishedApi\n   internal val star: KTypeProjection = KTypeProjection(null, null)\n\n   /**\n   * Star projection, denoted by the `*` character.\n   * For example, in the type `KClass<*>`, `*` is the star projection.\n   * See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/generics.html#star-projections)\n   * for more information.\n   */\n   public val STAR: KTypeProjection get() = star\n\n   /**\n   * Creates an invariant projection of a given type. Invariant projection is just the type itself,\n   * without any use-site variance modifiers applied to it.\n   * For example, in the type `Set<String>`, `String` is an invariant projection of the type represented by the class `String`.\n   */\n   @JvmStatic\n   public fun invariant(type: KType): KTypeProjection =\n   KTypeProjection(KVariance.INVARIANT, type)\n\n   /**\n   * Creates a contravariant projection of a given type, denoted by the `in` modifier applied to a type.\n   * For example, in the type `MutableList<in Number>`, `in Number` is a contravariant projection of the type of class `Number`.\n   */\n   @JvmStatic\n   public fun contravariant(type: KType): KTypeProjection =\n   KTypeProjection(KVariance.IN, type)\n\n   /**\n   * Creates a covariant projection of a given type, denoted by the `out` modifier applied to a type.\n   * For example, in the type `Array<out Number>`, `out Number` is a covariant projection of the type of class `Number`.\n   */\n   @JvmStatic\n   public fun covariant(type: KType): KTypeProjection =\n   KTypeProjection(KVariance.OUT, type)\n   }\n}","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect\n\n/**\n * Represents variance applied to a type parameter on the declaration site (*declaration-site variance*),\n * or to a type in a projection (*use-site variance*).\n *\n * See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/generics.html#variance)\n * for more information.\n *\n * @see [KTypeParameter.variance]\n * @see [KTypeProjection]\n */\n@SinceKotlin(\"1.1\")\nenum class KVariance {\n   /**\n   * The affected type parameter or type is *invariant*, which means it has no variance applied to it.\n   */\n   INVARIANT,\n\n   /**\n   * The affected type parameter or type is *contravariant*. Denoted by the `in` modifier in the source code.\n   */\n   IN,\n\n   /**\n   * The affected type parameter or type is *covariant*. Denoted by the `out` modifier in the source code.\n   */\n   OUT,\n}","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect\n\n/**\n * Returns a runtime representation of the given reified type [T] as an instance of [KType].\n *\n * Note that on JVM, the created type has no annotations ([KType.annotations] returns an empty list)\n * even if the type in the source code is annotated. Support for type annotations might be added in a future version.\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <reified T> typeOf(): KType =\n   throw UnsupportedOperationException(\"This function is implemented as an intrinsic on all supported platforms.\")\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n\npackage kotlin.text\n\n/**\n * An object to which char sequences and values can be appended.\n */\nexpect interface Appendable {\n   /**\n   * Appends the specified character [value] to this Appendable and returns this instance.\n   *\n   * @param value the character to append.\n   */\n   fun append(value: Char): Appendable\n\n   /**\n   *

Appends the specified character sequence [value] to this Appendable and returns this instance.\n   *\n   * @param value the character sequence to append. If [value] is `null`, then the four characters `\"null\"` are appended to this Appendable.\n   */\n   fun append(value: CharSequence?): Appendable\n\n   /**\n   * Appends a subsequence of the specified character sequence [value] to this Appendable and returns

this instance.\n   *\n   * @param value the character sequence from which a subsequence is appended. If [value] is `null`,\n   * then characters are appended as if [value] contained the four characters `\"null\"`.\n   * @param startIndex the beginning (inclusive) of the subsequence to append.\n   * @param endIndex the end (exclusive) of the subsequence to append.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n   */\n   fun append(value: CharSequence?, startIndex: Int, endIndex: Int): Appendable\n}\n\n/**\n * Appends a subsequence of the specified character sequence [value] to this Appendable and returns this instance.\n *\n * @param value the character sequence from which a subsequence is appended.\n * @param startIndex the beginning (inclusive) of the subsequence to append.\n * @param endIndex the end (exclusive) of

the subsequence to append.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T : Appendable> T.appendRange(value: CharSequence, startIndex: Int, endIndex: Int): T {\n   @Suppress(\"UNCHECKED_CAST\")\n   return append(value, startIndex, endIndex) as T\n}\n\n/**\n * Appends all arguments to the given [Appendable].\n */\npublic fun <T : Appendable> T.append(vararg value: CharSequence?): T {\n   for (item in value)\n   append(item)\n   return this\n}\n\n/** Appends a line feed character (`\\n`) to this Appendable. */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun Appendable.appendLine(): Appendable = append('\\n')\n\n/** Appends value to the given Appendable and a line feed character (`\\n`) after it. */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic

inline fun Appendable.appendLine(value: CharSequence?): Appendable = append(value).appendLine()\n\n/** Appends value to the given Appendable and a line feed character (`\\n`) after it. */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun Appendable.appendLine(value: Char): Appendable = append(value).appendLine()\n\n\ninternal fun <T> Appendable.appendElement(element: T, transform: ((T) -> CharSequence)?) {\n   when {\n   transform != null -> append(transform(element))\n   element is CharSequence? -> append(element)\n   element is Char -> append(element)\n   else -> append(element.toString())\n   }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n\npackage
kotlin.text\n\n/**\n

* Trims leading whitespace characters followed by [marginPrefix] from every line of a source string and removes\n * the first and the last lines if they are blank (notice difference blank vs empty).\n *\n * Doesn't affect a line if it doesn't contain [marginPrefix] except the first and the last blank lines.\n *\n * Doesn't preserve the original line endings.\n *\n * @param marginPrefix non-blank string, which is used as a margin delimiter. Default is `|` (pipe character).\n *\n * @sample samples.text.Strings.trimMargin\n * @see trimIndent\n * @see kotlin.text.isWhitespace\n */\npublic fun String.trimMargin(marginPrefix: String = \"|\"): String =\n   replaceIndentByMargin(\"\", marginPrefix)\n\n/**\n * Detects indent by [marginPrefix] as it does [trimMargin] and replace it with [newIndent].\n *\n * @param marginPrefix non-blank string, which is used as a margin delimiter. Default is `|` (pipe character).\n */\npublic fun String.replaceIndentByMargin(newIndent: String =

\"\", marginPrefix: String = \"|\"): String {\n   require(marginPrefix.isNotBlank()) { \"marginPrefix must be non-blank string.\" }\n   val lines = lines()\n\n   return lines.reindent(length + newIndent.length * lines.size, getIndentFunction(newIndent), { line ->\n   val firstNonWhitespaceIndex = line.indexOfFirst { !it.isWhitespace() }\n\n   when {\n   firstNonWhitespaceIndex == -1 -> null\n   line.startsWith(marginPrefix, firstNonWhitespaceIndex) -> line.substring(firstNonWhitespaceIndex + marginPrefix.length)\n   else -> null\n

}\n   })\n}\n\n/**\n * Detects a common minimal indent of all the input lines, removes it from every line and also removes the first and the last\n * lines if they are blank (notice difference blank vs empty).\n *\n * Note that blank lines do not affect the detected indent level.\n *\n * In case if there are non-blank lines with no leading whitespace characters (no indent at all) then the\n * common indent is 0,
and therefore this function doesn't change the indentation.\n *\n * Doesn't preserve the original line endings.\n *\n * @sample samples.text.Strings.trimIndent\n * @see trimMargin\n * @see kotlin.text.isBlank\n */\npublic fun String.trimIndent(): String = replaceIndent(\"\")\n\n/**\n * Detects a common minimal indent like it does [trimIndent] and replaces it with the specified [newIndent].\n */\npublic fun String.replaceIndent(newIndent: String = \"\"): String {\n   val lines = lines()\n\n   val minCommonIndent = lines\n   .filter(String::isNotBlank)\n   .map(String::indentWidth)\n   .minOrNull() ?: 0\n\n   return lines.reindent(length + newIndent.length * lines.size, getIndentFunction(newIndent), { line -> line.drop(minCommonIndent) })\n}\n\n/**\n * Prepends [indent] to every line of the original string.\n *\n * Doesn't preserve the original line endings.\n */\npublic fun String.prependIndent(indent: String = \"   \"): String =\n   lineSequence()\n   .map {\n   when {\n   it.isBlank() -> {\n   when {\n   it.length < indent.length -> indent\n   else -> it\n   }\n   }\n   else -> indent + it\n   }\n   }\n   .joinToString(\"\\n\")\n\nprivate fun String.indentWidth(): Int = indexOfFirst { !it.isWhitespace() }.let { if (it == -1) length else it }\n\nprivate fun getIndentFunction(indent: String) = when {\n   indent.isEmpty() -> { line: String -> line }\n   else -> { line: String -> indent + line }\n}\n\nprivate inline fun List<String>.reindent(\n   resultSizeEstimate: Int,\n   indentAddFunction: (String) -> String,\n   indentCutFunction: (String) -> String?\n): String {\n   val lastIndex = lastIndex\n   return mapIndexedNotNull { index, value ->\n   if ((index == 0 || index == lastIndex) && value.isBlank())\n   null\n   else\n   indentCutFunction(value)?.let(indentAddFunction)
?: value\n   }\n   .joinTo(StringBuilder(resultSizeEstimate), \"\\n\")\n   .toString()\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/**\n * Defines names for Unicode symbols used in proper Typography.\n */\npublic object Typography {\n   /** The character " \u2013 quotation mark */\n   public const val quote: Char = '\\u0022'\n   /** The character $ \u2013 dollar sign */\n   public const val dollar: Char = '\\u0024'\n   /** The character & \u2013 ampersand */\n   public const val amp: Char = '\\u0026'\n   /** The character < \u2013 less-than sign */\n   public const val less: Char = '\\u003C'\n   /** The character > \u2013 greater-than sign */\n   public const val greater: Char = '\\u003E'\n   /** The non-breaking space character */\n
public const val nbsp: Char = '\\u00A0'\n   /** The character × */\n   public const val times: Char = '\\u00D7'\n   /** The character ¢ */\n   public const val cent: Char = '\\u00A2'\n   /** The character £ */\n   public const val pound: Char = '\\u00A3'\n   /** The character § */\n   public const val section: Char = '\\u00A7'\n   /** The character © */\n   public const val copyright: Char = '\\u00A9'\n   /** The character « */\n   @SinceKotlin(\"1.6\")\n   public const val leftGuillemet: Char = '\\u00AB'\n   /** The character » */\n   @SinceKotlin(\"1.6\")\n   public const val rightGuillemet: Char = '\\u00BB'\n   /** The character ® */\n   public const val registered: Char = '\\u00AE'\n   /** The character ° */\n   public const val degree: Char = '\\u00B0'\n   /** The character ± */\n   public const val plusMinus: Char = '\\u00B1'\n   /** The character ¶ */\n   public const val paragraph: Char = '\\u00B6'\n
/** The character · */\n   public const val middleDot: Char = '\\u00B7'\n   /** The character ½ */\n   public const val half: Char = '\\u00BD'\n   /** The character – */\n   public const val ndash: Char = '\\u2013'\n   /** The character — */\n   public const val mdash: Char = '\\u2014'\n   /** The character ‘ */\n   public const val leftSingleQuote: Char = '\\u2018'\n   /** The character ’ */\n   public const val rightSingleQuote: Char = '\\u2019'\n   /** The character ‚ */\n   public const val lowSingleQuote: Char = '\\u201A'\n   /** The character “ */\n   public const val leftDoubleQuote: Char = '\\u201C'\n   /** The character ” */\n   public const val rightDoubleQuote: Char = '\\u201D'\n   /** The character „ */\n   public const val lowDoubleQuote: Char = '\\u201E'\n   /** The character † */\n

public const val dagger: Char = '\\u2020'\n   /** The character ‡ */\n   public

const val doubleDagger: Char = '\\u2021'\n   /** The character • */\n   public const val bullet: Char = '\\u2022'\n   /** The character … */\n   public const val ellipsis: Char = '\\u2026'\n   /** The character ′ */\n   public const val prime: Char = '\\u2032'\n   /** The character ″ */\n   public const val doublePrime: Char = '\\u2033'\n   /** The character € */\n   public const val euro: Char = '\\u20AC'\n   /** The character ™ */\n   public const val tm: Char = '\\u2122'\n   /** The character ≈ */\n   public const val almostEqual: Char = '\\u2248'\n   /** The character ≠ */\n   public const val notEqual: Char = '\\u2260'\n   /** The character ≤ */\n   public const val lessOrEqual: Char = '\\u2264'\n   /** The character ≥ */\n   public const val greaterOrEqual: Char = '\\u2265'\n\n   /** The character « */\n   @Deprecated(\"This constant has a typo in the name. Use leftGuillemet instead.\",

ReplaceWith(\"Typography.leftGuillemet\"))\n   @DeprecatedSinceKotlin(\"1.6\")\n   public const val leftGuillemete: Char = '\\u00AB'\n\n   /** The character » */\n   @Deprecated(\"This constant has a typo in the name. Use rightGuillemet instead.\", ReplaceWith(\"Typography.rightGuillemet\"))\n   @DeprecatedSinceKotlin(\"1.6\")\n   public const val rightGuillemete: Char = '\\u00BB'\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/**\n * Represents a collection of captured groups in a single match of a regular expression.\n *\n * This collection has size of `groupCount + 1` where `groupCount` is the count of groups in the regular expression.\n * Groups are indexed from 1 to `groupCount` and group with the index 0 corresponds to the entire match.\n *\n * An element of the collection

at the particular index can be `null`,\n * if the corresponding group in the regular expression is optional and\n * there was no match captured by that group.\n */\npublic interface MatchGroupCollection : Collection<MatchGroup?> {\n\n   /** Returns a group with the specified [index].\n   *\n   * @return An instance of [MatchGroup] if the group with the specified [index] was matched or `null` otherwise.\n   *\n   * Groups are indexed from 1 to the count of groups in the regular expression. A group with the index 0\n   * corresponds to the entire match.\n   */\n   public operator fun get(index: Int): MatchGroup?\n}\n\n/**\n * Extends [MatchGroupCollection] by introducing a way to get matched groups by name, when regex supports it.\n */\n@SinceKotlin(\"1.1\")\npublic interface MatchNamedGroupCollection : MatchGroupCollection {\n   /**\n   * Returns a named group with the specified [name].\n   * @return An instance of [MatchGroup] if the group with the specified [name] was

matched or `null` otherwise.\n   * @throws IllegalArgumentException if there is no group with the specified [name] defined in the regex pattern.\n   * @throws UnsupportedOperationException if this match group collection doesn't support getting match groups by name,\n   * for example, when it's not supported by the current platform.\n   */\n   public operator fun get(name: String): MatchGroup?\n}\n\n/**\n * Represents the results from a single regular expression match.\n */\npublic interface MatchResult {\n   /** The range of indices in the original string where match was captured. */\n   public val range: IntRange\n   /** The substring from the input string captured by this match. */\n   public val value: String\n   /**\n   * A collection of groups matched by the regular expression.\n   *\n   * This collection has size of `groupCount + 1` where `groupCount` is the count of groups in the regular expression.\n   * Groups are indexed from 1 to `groupCount` and group

with the index 0 corresponds to the entire match.\n   */\n   public val groups: MatchGroupCollection\n   /**\n   * A list of matched indexed group values.\n   *\n   * This list has size of `groupCount + 1` where `groupCount` is the count of groups in the regular expression.\n   * Groups are indexed from 1 to `groupCount` and group with the index 0 corresponds to the entire match.\n   *\n   * If the group in the regular expression is optional and there were no match captured by that group,\n   * corresponding item in [groupValues] is an empty string.\n   *\n   * @sample samples.text.Regexps.matchDestructuringToGroupValues\n   */\n   public val groupValues: List<String>\n\n   /**\n   * An instance of [MatchResult.Destructured] wrapper providing components for destructuring assignment of group values.\n   *\n   * component1 corresponds to the value of the first group, component2 \u2014 of the second, and so on.\n   *\n   * @sample samples.text.Regexps.matchDestructuringToGroupValues\n

*/\n public val destructured: Destructured get() = Destructured(this)\n\n /** Returns a new [MatchResult] with the results for the next match, starting at the position\n * at which the last match ended (at the character after the last matched character).\n */\n public fun next(): MatchResult?\n\n /**\n * Provides components for destructuring assignment of group values.\n *\n * [component1] corresponds to the value of the first group, [component2] \u2014 of the second, and so on.\n *\n * If the group in the regular expression is optional and there were no match captured by that group,\n * corresponding component value is an empty string.\n *\n * @sample samples.text.Regexps.matchDestructuringToGroupValues\n */\n public class Destructured internal constructor(public val match: MatchResult) {\n @kotlin.internal.InlineOnly\n public operator inline fun component1(): String = match.groupValues[1]\n

@kotlin.internal.InlineOnly\n public operator inline fun component2(): String = match.groupValues[2]\n @kotlin.internal.InlineOnly\n public operator inline fun component3(): String = match.groupValues[3]\n @kotlin.internal.InlineOnly\n public operator inline fun component4(): String = match.groupValues[4]\n @kotlin.internal.InlineOnly\n public operator inline fun component5(): String = match.groupValues[5]\n @kotlin.internal.InlineOnly\n public operator inline fun component6(): String = match.groupValues[6]\n @kotlin.internal.InlineOnly\n public operator inline fun component7(): String = match.groupValues[7]\n @kotlin.internal.InlineOnly\n public operator inline fun component8(): String = match.groupValues[8]\n @kotlin.internal.InlineOnly\n public operator inline fun component9(): String = match.groupValues[9]\n @kotlin.internal.InlineOnly\n

public operator inline fun component10(): String = match.groupValues[10]\n\n /**\n * Returns destructured group values as a list of strings.\n * First value in the returned list corresponds to the value of the first group, and so on.\n *\n * @sample samples.text.Regexps.matchDestructuringToGroupValues\n */\n public fun toList(): List<String> = match.groupValues.subList(1, match.groupValues.size)\n }\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass()\n@file:kotlin.jvm.JvmName(\"DurationUnitKt\")\n\npackage kotlin.time\n\n\n\n/**\n * The list of possible time measurement units, in which a duration can be expressed.\n *\n * The smallest time unit is [NANOSECONDS] and the largest is [DAYS], which corresponds to exactly 24 [HOURS].\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\npublic expect enum class DurationUnit {\n /**\n * Time unit representing one nanosecond, which is 1/1000 of a microsecond.\n */\n NANOSECONDS,\n /**\n * Time unit representing one microsecond, which is 1/1000 of a millisecond.\n */\n MICROSECONDS,\n /**\n * Time unit representing one millisecond, which is 1/1000 of a second.\n */\n MILLISECONDS,\n /**\n * Time unit representing one second.\n */\n SECONDS,\n /**\n * Time unit representing one minute.\n */\n MINUTES,\n /**\n * Time unit representing one hour.\n */\n HOURS,\n /**\n * Time unit representing one day, which is always equal to 24 hours.\n */\n DAYS;\n}\n\n/** Converts the given time duration [value] expressed in the specified [sourceUnit] into the specified [targetUnit]. */\n@SinceKotlin(\"1.3\")\ninternal expect fun convertDurationUnit(value: Double, sourceUnit: DurationUnit, targetUnit: DurationUnit): Double\n\n// overflown result is unspecified\n@SinceKotlin(\"1.5\")\ninternal expect fun convertDurationUnitOverflow(value: Long, sourceUnit: DurationUnit, targetUnit: DurationUnit): Long\n\n// overflown result is coerced in the Long range boundaries\n@SinceKotlin(\"1.5\")\ninternal expect fun convertDurationUnit(value: Long, sourceUnit: DurationUnit, targetUnit: DurationUnit): Long\n\n\n@SinceKotlin(\"1.3\")\n@Suppress(\"REDUNDANT_ELSE_IN_WHEN\")\ninternal fun DurationUnit.shortName(): String = when (this) {\n DurationUnit.NANOSECONDS -> \"ns\"\n DurationUnit.MICROSECONDS -> \"us\"\n DurationUnit.MILLISECONDS -> \"ms\"\n DurationUnit.SECONDS -> \"s\"\n DurationUnit.MINUTES -> \"m\"\n DurationUnit.HOURS -> \"h\"\n DurationUnit.DAYS -> \"d\"\n else -> error(\"Unknown unit: $this\")\n}\n\n@SinceKotlin(\"1.5\")\ninternal fun durationUnitByShortName(shortName: String): DurationUnit = when (shortName) {\n \"ns\"

-> DurationUnit.NANOSECONDS\n   \"us\" -> DurationUnit.MICROSECONDS\n   \"ms\" -> DurationUnit.MILLISECONDS\n   \"s\" -> DurationUnit.SECONDS\n   \"m\" -> DurationUnit.MINUTES\n   \"h\" -> DurationUnit.HOURS\n   \"d\" -> DurationUnit.DAYS\n   else -> throw IllegalArgumentException(\"Unknown duration unit short name: $shortName\")\n}\n\n@SinceKotlin(\"1.5\")\ninternal fun durationUnitByIsoChar(isoChar: Char, isTimeComponent: Boolean): DurationUnit =\n   when {\n   !isTimeComponent -> {\n   when (isoChar) {\n   'D' -> DurationUnit.DAYS\n   else -> throw IllegalArgumentException(\"Invalid or unsupported duration ISO non-time unit: $isoChar\")\n   }\n   }\n   else -> {\n   when (isoChar) {\n   'H' -> DurationUnit.HOURS\n   'M' -> DurationUnit.MINUTES\n   'S' -> DurationUnit.SECONDS\n   else -> throw IllegalArgumentException(\"Invalid duration ISO time unit: $isoChar\")\n

}\n   }\n   }","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\nimport kotlin.annotation.AnnotationTarget.*\n\n/**\n * This annotation marks the experimental preview of the standard library API for measuring time and working with durations.\n *\n * > Note that this API is in a preview state and has a very high chance of being changed in the future.\n * Do not use it if you develop a library since your library will become binary incompatible\n * with the future versions of the standard library.\n *\n * Any usage of a declaration annotated with `@ExperimentalTime` must be accepted either by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalTime::class)`,\n * or by using the compiler argument `-opt-in=kotlin.time.ExperimentalTime`.\n */\n@RequiresOptIn(level = RequiresOptIn.Level.ERROR)\n@MustBeDocumented\n@Retention(AnnotationRetention.BINARY)\n@Target(\n   CLASS,\n   ANNOTATION_CLASS,\n   PROPERTY,\n   FIELD,\n   LOCAL_VARIABLE,\n   VALUE_PARAMETER,\n   CONSTRUCTOR,\n   FUNCTION,\n   PROPERTY_GETTER,\n   PROPERTY_SETTER,\n   TYPEALIAS\n)\n@SinceKotlin(\"1.3\")\npublic annotation class ExperimentalTime\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\nimport kotlin.jvm.JvmInline\n\n/**\n * A source of time for measuring time intervals.\n *\n * The only operation provided by the time source is [markNow]. It returns a [TimeMark], which can be used to query the elapsed time later.\n *\n * @see [measureTime]\n * @see [measureTimedValue]\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic interface TimeSource {\n   /**\n   *

Marks a point in time on this time source.\n   *\n   * The returned [TimeMark] instance encapsulates the captured time point and allows querying\n   * the duration of time interval [elapsed][TimeMark.elapsedNow] from that point.\n   */\n   public fun markNow(): TimeMark\n\n   /**\n   * The most precise time source available in the platform.\n   *\n   * This time source returns its readings from a source of monotonic time when it is available in a target platform,\n   * and resorts to a non-monotonic time source otherwise.\n   *\n   * The function [markNow] of this time source returns the specialized [ValueTimeMark] that is an inline value class\n   * wrapping a platform-dependent time reading value.\n   */\n   public object Monotonic : TimeSource {\n   override fun markNow(): ValueTimeMark = MonotonicTimeSource.markNow()\n   override fun toString(): String = MonotonicTimeSource.toString()\n\n   /**\n   * A specialized [kotlin.time.TimeMark]

returned by [TimeSource.Monotonic].\n   *\n   * This time mark is implemented as an inline value class wrapping a platform-dependent\n   * time reading value of the default monotonic time source, thus allowing to avoid additional boxing\n   * of that value.\n   *\n   * The operations [plus] and [minus] are also specialized to return [ValueTimeMark] type.\n   */\n   @ExperimentalTime\n   @SinceKotlin(\"1.7\")\n   @JvmInline\n   public value class ValueTimeMark internal constructor(internal val reading: ValueTimeMarkReading) : TimeMark {\n   override fun elapsedNow(): Duration =

MonotonicTimeSource.elapsedFrom(this)\n   override fun plus(duration: Duration): ValueTimeMark = MonotonicTimeSource.adjustReading(this, duration)\n   override fun minus(duration: Duration): ValueTimeMark = MonotonicTimeSource.adjustReading(this, -duration)\n   override fun hasPassedNow(): Boolean = !elapsedNow().isNegative()\n

            override fun hasNotPassedNow(): Boolean = elapsedNow().isNegative()\n   }\n   }\n\n   public companion object {\n\n   }\n}\n\n/** A platform-specific reading type that is wrapped by [TimeSource.Monotonic.ValueTimeMark] inline class. */\ninternal expect class ValueTimeMarkReading\n\n\n/**\n * Represents a time point notched on a particular [TimeSource]. Remains bound to the time source it was taken from\n * and allows querying for the duration of time elapsed from that point (see the function [elapsedNow]).\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic interface TimeMark {\n   /**\n   * Returns the amount of time passed from this mark measured with the time source from which this mark was taken.\n   *\n   * Note that the value returned by this function can change on subsequent invocations.\n   *\n   * @throws IllegalArgumentException an implementation may throw if calculating the elapsed time involves\n   * adding a positive infinite

duration to an infinitely distant past time mark or\n   * a negative infinite duration to an infinitely distant future time mark.\n   */\n   public abstract fun elapsedNow(): Duration\n\n   /**\n   * Returns a time mark on the same time source that is ahead of this time mark by the specified [duration].\n   *\n   * The returned time mark is more _late_ when the [duration] is positive, and more _early_ when the [duration] is negative.\n   *\n   * If the time mark is adjusted too far in the past or in the future, it may saturate to an infinitely distant time mark.\n   * In that case, [elapsedNow] will return an infinite duration elapsed from such infinitely distant mark.\n   *\n   * @throws IllegalArgumentException an implementation may throw if a positive infinite duration is added to an infinitely distant past time mark or\n   * a negative infinite duration is added to an infinitely distant future time mark.\n   */\n   public open operator fun plus(duration:

Duration): TimeMark = AdjustedTimeMark(this, duration)\n\n   /**\n   * Returns a time mark on the same time source that is behind this time mark by the specified [duration].\n   *\n   * The returned time mark is more _early_ when the [duration] is positive, and more _late_ when the [duration] is negative.\n   *\n   * If the time mark is adjusted too far in the past or in the future, it may saturate to an infinitely distant time mark.\n   * In that case, [elapsedNow] will return an infinite duration elapsed from such infinitely distant mark.\n   *\n   * @throws IllegalArgumentException an implementation may throw if a positive infinite duration is subtracted from an infinitely distant future time mark or\n   * a negative infinite duration is subtracted from an infinitely distant past time mark.\n   */\n   public open operator fun minus(duration: Duration): TimeMark = plus(-duration)\n\n\n   /**\n   * Returns true if this time mark has passed according to the

time source from which this mark was taken.\n   *\n   * Note that the value returned by this function can change on subsequent invocations.\n   * If the time source is monotonic, it can change only from `false` to `true`, namely, when the time mark becomes behind the current point of the time source.\n   */\n   public fun hasPassedNow(): Boolean = !elapsedNow().isNegative()\n\n   /**\n   * Returns false if this time mark has not passed according to the time source from which this mark was taken.\n   *\n   * Note that the value returned by this function can change on subsequent invocations.\n   * If the time source is monotonic, it can change only from `true` to `false`, namely, when the time mark becomes behind the current point of the time source.\n   */\n   public fun hasNotPassedNow(): Boolean = elapsedNow().isNegative()\n}\n\n\n@ExperimentalTime\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Deprecated(\n   \"Subtracting one TimeMark from another is not

a well defined operation because these time marks could have been obtained from the different time sources.\",\n   level = DeprecationLevel.ERROR\n)\n@Suppress(\"UNUSED_PARAMETER\")\npublic inline operator fun TimeMark.minus(other: TimeMark): Duration = throw Error(\"Operation is disallowed.\")\n\n@ExperimentalTime\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Deprecated(\n   \"Comparing one TimeMark to another is not a well defined operation because these time marks could have been obtained from the different time sources.\",\n   level =

DeprecationLevel.ERROR\n)\n@Suppress(\"UNUSED_PARAMETER\")\npublic inline operator fun TimeMark.compareTo(other: TimeMark): Int = throw Error(\"Operation is disallowed.\")\n\n\n@ExperimentalTime\nprivate class AdjustedTimeMark(val mark: TimeMark, val adjustment: Duration) : TimeMark {\n   override fun elapsedNow(): Duration = mark.elapsedNow() - adjustment\n\n   override fun plus(duration: Duration): TimeMark = AdjustedTimeMark(mark, adjustment

+ duration)\n}\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\ninternal expect object MonotonicTimeSource : TimeSource {\n   override fun markNow(): TimeSource.Monotonic.ValueTimeMark\n   fun elapsedFrom(timeMark: TimeSource.Monotonic.ValueTimeMark): Duration\n   fun adjustReading(timeMark: TimeSource.Monotonic.ValueTimeMark, duration: Duration): TimeSource.Monotonic.ValueTimeMark\n}\n\n/**\n * An abstract class used to implement time sources that return their readings as [Long] values in the specified [unit].\n *\n * @property unit The unit in which this time source's readings are expressed.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic abstract class AbstractLongTimeSource(protected val unit: DurationUnit) : TimeSource {\n   /**\n

* This protected method should be overridden to return the current reading of the time source expressed as a [Long] number\n   * in the unit specified by the [unit] property.\n   */\n   protected abstract fun read(): Long\n\n   private class LongTimeMark(private val startedAt: Long, private val timeSource: AbstractLongTimeSource, private val offset: Duration) : TimeMark {\n   override fun elapsedNow(): Duration = (timeSource.read() - startedAt).toDuration(timeSource.unit) - offset\n   override fun plus(duration: Duration): TimeMark = LongTimeMark(startedAt, timeSource, offset + duration)\n   }\n\n   override fun markNow(): TimeMark = LongTimeMark(read(), this, Duration.ZERO)\n}\n\n/**\n * An abstract class used to implement time sources that return their readings as [Double] values in the specified [unit].\n *\n * @property unit The unit in which this time source's readings are expressed.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic abstract class AbstractDoubleTimeSource(protected

val unit: DurationUnit) : TimeSource {\n   /**\n   * This protected method should be overridden to return the current reading of the time source expressed as a [Double] number\n   * in the unit specified by the [unit] property.\n   */\n   protected abstract fun read(): Double\n\n   private class DoubleTimeMark(private val startedAt: Double, private val timeSource: AbstractDoubleTimeSource, private val offset: Duration) : TimeMark {\n   override fun elapsedNow(): Duration = (timeSource.read() - startedAt).toDuration(timeSource.unit) - offset\n   override fun plus(duration: Duration): TimeMark = DoubleTimeMark(startedAt, timeSource, offset + duration)\n   }\n\n   override fun markNow(): TimeMark = DoubleTimeMark(read(), this, Duration.ZERO)\n}\n\n/**\n * A time source that has programmatically updatable readings. It is useful as a predictable source of time in tests.\n *\n * The current reading value can be advanced by the specified duration

amount with the operator [plusAssign]:\n *\n * ```\n * val timeSource = TestTimeSource()\n * timeSource += 10.seconds\n * ```\n *\n * Implementation note: the current reading value is stored as a [Long] number of nanoseconds,\n * thus it's capable to represent a time range of approximately \u00b1292 years.\n * Should the reading value overflow as the result of [plusAssign] operation, an [IllegalStateException] is thrown.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic class TestTimeSource : AbstractLongTimeSource(unit = DurationUnit.NANOSECONDS) {\n   private var reading: Long = 0L\n\n   override fun read(): Long = reading\n\n

/**\n   * Advances the current reading value of this time source by the specified [duration].\n   *\n   * [duration] value is rounded down towards zero when converting it to a [Long] number of nanoseconds.\n   * For example, if the duration being added is `0.6.nanoseconds`, the reading doesn't advance because\n   * the duration value is

rounded to zero nanoseconds.\n   *\n   * @throws IllegalStateException when the reading value overflows as the result of this operation.\n   */\n   public operator fun plusAssign(duration: Duration) {\n   val longDelta = duration.toLong(unit)\n   reading = if (longDelta != Long.MIN_VALUE && longDelta != Long.MAX_VALUE) {\n   // when delta fits in long, add it as long\n   val newReading = reading + longDelta\n   if (reading xor longDelta >= 0 && reading xor newReading < 0) overflow(duration)\n   newReading\n   } else

{\n val delta = duration.toDouble(unit)\n // when delta is greater than long, add it as double\n val newReading = reading + delta\n if (newReading > Long.MAX_VALUE || newReading < Long.MIN_VALUE) overflow(duration)\n newReading.toLong()\n }\n }\n\n private fun overflow(duration: Duration) {\n throw IllegalStateException(\"TestTimeSource will overflow if its reading ${reading}ns is advanced by $duration.\")\n }\n}\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\nimport kotlin.time.Duration.Companion.milliseconds\nimport kotlin.time.Duration.Companion.nanoseconds\n\n// Long time reading saturation math, shared between JVM and Native\n\ninternal fun saturatingAdd(longNs: Long, duration: Duration): Long {\n val durationNs = duration.inWholeNanoseconds\n if ((longNs - 1) or 1 == Long.MAX_VALUE) { // MIN_VALUE or MAX_VALUE - the reading is infinite\n return checkInfiniteSumDefined(longNs, duration, durationNs)\n }\n if ((durationNs - 1) or 1 == Long.MAX_VALUE) { // duration doesn't fit in Long nanos\n return saturatingAddInHalves(longNs, duration)\n }\n\n val result = longNs + durationNs\n if (((longNs xor result) and (durationNs xor result)) < 0) {\n return if (longNs < 0) Long.MIN_VALUE else Long.MAX_VALUE\n }\n return result\n}\n\nprivate fun checkInfiniteSumDefined(longNs: Long, duration: Duration, durationNs: Long): Long {\n if (duration.isInfinite() && (longNs xor durationNs < 0)) throw IllegalArgumentException(\"Summing infinities of different signs\")\n return longNs\n}\n\nprivate fun saturatingAddInHalves(longNs: Long, duration: Duration): Long {\n val half = duration / 2\n if ((half.inWholeNanoseconds - 1) or 1 == Long.MAX_VALUE) {\n // this will definitely saturate\n return (longNs + duration.toDouble(DurationUnit.NANOSECONDS)).toLong()\n } else {\n return saturatingAdd(saturatingAdd(longNs, half), half)\n }\n}\n\ninternal fun saturatingDiff(valueNs: Long, originNs: Long): Duration {\n if ((originNs - 1) or 1 == Long.MAX_VALUE) { // MIN_VALUE or MAX_VALUE\n return -(originNs.toDuration(DurationUnit.DAYS)) // saturate to infinity\n }\n val result = valueNs - originNs\n if ((result xor valueNs) and (result xor originNs).inv() < 0) {\n val resultMs = valueNs / NANOS_IN_MILLIS - originNs / NANOS_IN_MILLIS\n val resultNs = valueNs % NANOS_IN_MILLIS - originNs % NANOS_IN_MILLIS\n return resultMs.milliseconds + resultNs.nanoseconds\n }\n return result.nanoseconds\n}\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\nimport kotlin.contracts.*\n\n/**\n * Executes the given function [block] and returns the duration of elapsed time interval.\n *\n * The elapsed time is measured with [TimeSource.Monotonic].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic inline fun measureTime(block: () -> Unit): Duration {\n contract {\n callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n }\n return TimeSource.Monotonic.measureTime(block)\n}\n\n\n/**\n * Executes the given function [block] and returns the duration of elapsed time interval.\n *\n * The elapsed time is measured with the specified `this` [TimeSource] instance.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic inline fun TimeSource.measureTime(block: () -> Unit): Duration {\n contract {\n callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n }\n\n val mark = markNow()\n block()\n return mark.elapsedNow()\n}\n\n/**\n * Executes the given function [block] and returns the duration of elapsed time interval.\n *\n * The elapsed time is measured with the specified `this` [TimeSource.Monotonic] instance.\n */\n@SinceKotlin(\"1.7\")\n@ExperimentalTime\npublic inline fun TimeSource.Monotonic.measureTime(block: () -> Unit): Duration {\n contract {\n callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n }\n\n val mark = markNow()\n block()\n return mark.elapsedNow()\n}\n\n\n/**\n * Data class representing a result of executing an action, along with the duration of elapsed time interval.\n *\n * @property value the result of the action.\n * @property duration the time elapsed to execute the action.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic data class TimedValue<T>(val value: T, val duration: Duration)\n\n/**\n * Executes the given function [block] and returns an instance of [TimedValue] class, containing

both\n * the result of the function execution and the duration of elapsed time interval.\n *\n * The elapsed time is measured with [TimeSource.Monotonic].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic inline fun <T> measureTimedValue(block: () -> T): TimedValue<T> {\n   contract {\n   callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n\n   return TimeSource.Monotonic.measureTimedValue(block)\n}\n\n/**\n * Executes the given [block] and returns an instance of [TimedValue] class, containing both\n * the result
 of function execution and the duration of elapsed time interval.\n *\n * The elapsed time is measured with the specified `this` [TimeSource] instance.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic inline fun <T> TimeSource.measureTimedValue(block: () -> T): TimedValue<T> {\n   contract {\n   callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n\n   val mark = markNow()\n   val result = block()\n   return TimedValue(result, mark.elapsedNow())\n}\n\n/**\n * Executes the given [block] and returns an instance of [TimedValue] class, containing both\n * the result of function execution and the duration of elapsed time interval.\n *\n * The elapsed time is measured with the specified `this` [TimeSource.Monotonic] instance.\n */\n@SinceKotlin(\"1.7\")\n@ExperimentalTime\npublic inline fun <T> TimeSource.Monotonic.measureTimedValue(block: () -> T): TimedValue<T> {\n   contract {\n   callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n\n   val mark = markNow()\n
    val result = block()\n   return TimedValue(result, mark.elapsedNow())\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.coroutines.*\nimport kotlin.coroutines.intrinsics.*\nimport kotlin.native.concurrent.SharedImmutable\n\n/**\n * Defines deep recursive function that keeps its stack on the heap,\n * which allows very deep recursive computations that do not use the actual call stack.\n * To initiate a call to this deep recursive function use its [invoke] function.\n * As a rule of thumb, it should be used if recursion goes deeper than a thousand calls.\n *\n * The [DeepRecursiveFunction] takes one parameter of type [T] and returns a result of type [R].\n * The [block] of code defines the body of a recursive function. In this block\n * [callRecursive][DeepRecursiveScope.callRecursive]
 function can be used to make a recursive call\n * to the declared function. Other instances of [DeepRecursiveFunction] can be called\n * in this scope with `callRecursive` extension, too.\n *\n * For example, take a look at the following recursive tree class and a deeply\n * recursive instance of this tree with 100K nodes:\n *\n * ```\n * class Tree(val left: Tree? = null, val right: Tree? = null)\n * val deepTree = generateSequence(Tree()) { Tree(it) }.take(100_000).last()\n * ```\n *\n * A regular recursive function can be defined to compute a depth of a tree:\n *\n * ```\n * fun depth(t: Tree?): Int =\n *   if (t == null) 0 else max(depth(t.left), depth(t.right)) + 1\n * println(depth(deepTree)) // StackOverflowError\n * ```\n *\n * If this `depth` function is called for a `deepTree` it produces `StackOverflowError` because of deep recursion.\n * However, the `depth` function can be rewritten using `DeepRecursiveFunction` in the following way, and then\n * it successfully computes
 [`depth(deepTree)`][DeepRecursiveFunction.invoke] expression:\n *\n * ```\n * val depth = DeepRecursiveFunction<Tree?, Int> { t ->\n *   if (t == null) 0 else max(callRecursive(t.left), callRecursive(t.right)) + 1\n * }\n * println(depth(deepTree)) // Ok\n * ```\n *\n * Deep recursive functions can also mutually call each other using a heap for the stack via\n * [callRecursive][DeepRecursiveScope.callRecursive] extension. For example, the\n * following pair of mutually recursive functions computes the number of tree nodes at even depth in the tree.\n *\n * ```\n * val mutualRecursion = object {\n *   val even: DeepRecursiveFunction<Tree?, Int> = DeepRecursiveFunction { t ->\n *   if (t == null) 0 else odd.callRecursive(t.left) + odd.callRecursive(t.right) + 1\n *   }\n *   val odd: DeepRecursiveFunction<Tree?, Int> = DeepRecursiveFunction { t ->\n *   if (t == null) 0 else even.callRecursive(t.left) + even.callRecursive(t.right)\n *   }\n * }\n * ```\n *\n *
 @param [T] the function parameter type.\n * @param [R] the function result type.\n * @param block the function body.\n */\n@SinceKotlin(\"1.7\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic class DeepRecursiveFunction<T, R>(\n   internal val block: suspend DeepRecursiveScope<T, R>.(T) -> R\n)\n\n/**\n *

Initiates a call to this deep recursive function, forming a root of the call tree.\n *\n * This operator should not be used from inside of [DeepRecursiveScope] as it uses the call stack slot for\n * initial recursive invocation. From inside of [DeepRecursiveScope] use\n * [callRecursive][DeepRecursiveScope.callRecursive].\n */\n@SinceKotlin(\"1.7\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic operator fun <T, R> DeepRecursiveFunction<T, R>.invoke(value: T): R =\n   DeepRecursiveScopeImpl<T, R>(block, value).runCallLoop()\n\n/**\n * A scope class for [DeepRecursiveFunction] function declaration that defines [callRecursive] methods to\n * recursively call this function
 or another [DeepRecursiveFunction] putting the call activation frame on the heap.\n *\n * @param [T] function parameter type.\n * @param [R] function result type.\n */\n@RestrictsSuspension\n@SinceKotlin(\"1.7\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic sealed class DeepRecursiveScope<T, R> {\n   /**\n   * Makes recursive call to this [DeepRecursiveFunction] function putting the call activation frame on the heap,\n   * as opposed to the actual call stack that is used by a regular recursive call.\n   */\n   public abstract suspend fun callRecursive(value: T): R\n\n   /**\n   * Makes call to the specified [DeepRecursiveFunction] function putting the call activation frame on the heap,\n   * as opposed to the actual call stack that is used by a regular call.\n   */\n   public abstract suspend fun <U, S> DeepRecursiveFunction<U, S>.callRecursive(value: U): S\n\n   @Deprecated(\n   level = DeprecationLevel.ERROR,\n   message =\n   \"'invoke'
 should not be called from DeepRecursiveScope. \" +\n   \"Use 'callRecursive' to do recursion in the heap instead of the call stack.\",\n   replaceWith = ReplaceWith(\"this.callRecursive(value)\")\n   )\n   @Suppress(\"UNUSED_PARAMETER\")\n   public operator fun DeepRecursiveFunction<*, *>.invoke(value: Any?): Nothing =\n   throw UnsupportedOperationException(\"Should not be called from DeepRecursiveScope\")\n}\n\n// ================== Implementation ==================\n\nprivate typealias DeepRecursiveFunctionBlock = suspend DeepRecursiveScope<*, *>.(Any?) -> Any?\n\n@SharedImmutable\nprivate val UNDEFINED_RESULT = Result.success(COROUTINE_SUSPENDED)\n\n@Suppress(\"UNCHECKED_CAST\")\nprivate class DeepRecursiveScopeImpl<T, R>(\n   block: suspend DeepRecursiveScope<T, R>.(T) -> R,\n   value: T\n) : DeepRecursiveScope<T, R>(), Continuation<R> {\n   // Active function block\n   private var function: DeepRecursiveFunctionBlock = block as DeepRecursiveFunctionBlock\n\n
    // Value to call function with\n   private var value: Any? = value\n\n   // Continuation of the current call\n   private var cont: Continuation<Any?>? = this as Continuation<Any?>\n\n   // Completion result (completion of the whole call stack)\n   private var result: Result<Any?> = UNDEFINED_RESULT\n\n   override val context: CoroutineContext\n   get() = EmptyCoroutineContext\n\n   override fun resumeWith(result: Result<R>) {\n   this.cont = null\n   this.result = result\n   }\n\n   override suspend fun callRecursive(value: T): R = suspendCoroutineUninterceptedOrReturn { cont ->\n   // calling the same function that is currently active\n   this.cont = cont as Continuation<Any?>\n   this.value = value\n   COROUTINE_SUSPENDED\n   }\n\n   override suspend fun <U, S> DeepRecursiveFunction<U, S>.callRecursive(value: U): S = suspendCoroutineUninterceptedOrReturn { cont ->\n   // calling another recursive function\n   val
 function = block as DeepRecursiveFunctionBlock\n   with(this@DeepRecursiveScopeImpl) {\n   val currentFunction = this.function\n   if (function !== currentFunction) {\n   // calling a different function -- create a trampoline to restore function ref\n   this.function = function\n   this.cont = crossFunctionCompletion(currentFunction, cont as Continuation<Any?>)\n   } else {\n   // calling the same function -- direct\n   this.cont = cont as Continuation<Any?>\n   }\n   this.value = value\n   }\n   COROUTINE_SUSPENDED\n   }\n\n   private fun crossFunctionCompletion(\n   currentFunction: DeepRecursiveFunctionBlock,\n   cont: Continuation<Any?>\n   ): Continuation<Any?> = Continuation(EmptyCoroutineContext) {\n   this.function = currentFunction\n   // When going back from a trampoline we cannot just call cont.resume (stack usage!)\n   //
 We delegate the cont.resumeWith(it) call to runCallLoop\n   this.cont = cont\n   this.result = it\n   }\n\n   @Suppress(\"UNCHECKED_CAST\")\n   fun runCallLoop(): R {\n   while (true) {\n   // Note: cont is set

to null in DeepRecursiveScopeImpl.resumeWith when the whole computation completes\n   val result = this.result\n   val cont = this.cont\n   ?: return (result as Result<R>).getOrThrow() // done -- final result\n   // The order of comparison is important here for that case of rogue class with broken equals\n   if (UNDEFINED_RESULT == result) {\n   // call \"function\" with \"value\" using \"cont\" as completion\n   val r = try {\n   // This is block.startCoroutine(this, value, cont)\n   function.startCoroutineUninterceptedOrReturn(this, value, cont)\n   } catch (e: Throwable) {\n   cont.resumeWithException(e)\n   continue\n   }\n   // If the function returns without suspension -- calls its continuation immediately\n   if (r !== COROUTINE_SUSPENDED)\n   cont.resume(r as R)\n   } else {\n   // we returned from a crossFunctionCompletion trampoline -- call resume here\n   this.result = UNDEFINED_RESULT // reset result back\n   cont.resumeWith(result)\n   }\n   }\n   }\n}\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\n@file:kotlin.jvm.JvmName(\"NumbersKt\")\n@file:kotlin.jvm.JvmMultifileClass\npackage kotlin\n\nimport kotlin.math.sign\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.floorDiv(other: Byte): Int = \n   this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.mod(other: Byte): Byte = \n   this.toInt().mod(other.toInt()).toByte()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.floorDiv(other: Short): Int = \n   this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.mod(other: Short): Short = \n   this.toInt().mod(other.toInt()).toShort()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.floorDiv(other: Int): Int = \n   this.toInt().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.mod(other: Int): Int = \n   this.toInt().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.floorDiv(other: Long): Long = \n   this.toLong().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.mod(other: Long): Long = \n   this.toLong().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.floorDiv(other: Byte): Int = \n   this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.mod(other: Byte): Byte = \n   this.toInt().mod(other.toInt()).toByte()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.floorDiv(other: Short): Int = \n this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.mod(other: Short): Short = \n   this.toInt().mod(other.toInt()).toShort()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.floorDiv(other: Int): Int = \n   this.toInt().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.mod(other: Int): Int = \n   this.toInt().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.floorDiv(other: Long): Long = \n this.toLong().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.mod(other: Long): Long = \n   this.toLong().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.floorDiv(other: Byte): Int = \n   this.floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.mod(other: Byte): Byte = \n this.mod(other.toInt()).toByte()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.floorDiv(other: Short): Int = \n   this.floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.mod(other: Short): Short = \n this.mod(other.toInt()).toShort()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.floorDiv(other: Int): Int {\n   var q = this / other\n   if (this xor other < 0 && q * other != this) q-- \n   return q\n}\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.mod(other: Int): Int {\n val r = this % other\n   return r + (other and (((r xor other) and (r or -r)) shr 31))\n}\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.floorDiv(other: Long): Long = \n this.toLong().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.mod(other: Long): Long = \n   this.toLong().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.floorDiv(other: Byte): Long = \n this.floorDiv(other.toLong())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n

*/\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.mod(other: Byte): Byte = \n this.mod(other.toLong()).toByte()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.floorDiv(other: Short): Long = \n   this.floorDiv(other.toLong())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.mod(other: Short): Short = \n this.mod(other.toLong()).toShort()\n\n/**

Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.floorDiv(other: Int): Long = \n this.floorDiv(other.toLong())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.mod(other: Int): Int = \n   this.mod(other.toLong()).toInt()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.floorDiv(other: Long): Long {\n var q = this / other\n   if (this xor other < 0 && q * other != this) q-- \n   return q\n}\n\n/**\n * Calculates the remainder

of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.mod(other: Long): Long {\n   val r = this % other\n   return r + (other and (((r xor other) and (r or -r)) shr 63))\n}\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n * \n * If the result cannot be represented exactly, it is rounded to the nearest representable number. In this case the absolute value of the result can be less than or _equal to_ the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Float.mod(other: Float): Float {\n   val r = this % other\n

return if (r != 0.0.toFloat() && r.sign != other.sign) r + other else r\n}\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n * \n * If the result cannot be represented exactly, it is rounded to the nearest representable number. In this case the absolute value of the result can be less than or _equal to_ the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Float.mod(other: Double): Double = \n this.toDouble().mod(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n * \n * If the result cannot be represented exactly, it is rounded to the nearest representable

number. In this case the absolute value of the result can be less than or _equal to_ the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Double.mod(other: Float): Double = \n   this.mod(other.toDouble())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n * \n * If the result cannot be represented exactly, it is rounded to the nearest representable number. In this case the absolute value of the result can be less than or _equal to_ the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Double.mod(other: Double): Double {\n   val r = this % other\n   return if (r != 0.0 && r.sign != other.sign) r + other else r\n}\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming

Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.internal.InlineOnly\n\n\n/**\n * Returns a hash code value for the object or zero if the object is `null`.\n *\n * @see Any.hashCode\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic inline fun Any?.hashCode(): Int = this?.hashCode() ?: 0\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n/**\n * Represents a version of the Kotlin standard library.\n *\n * [major], [minor] and [patch] are integer components of a version,\n * they must be non-negative and not greater than 255 ([MAX_COMPONENT_VALUE]).\n *\n * @constructor Creates a version from all three components.\n */\n@SinceKotlin(\"1.1\")\npublic class KotlinVersion(val major: Int, val minor: Int, val patch: Int) : Comparable<KotlinVersion> {\n /**\n * Creates a version from [major] and [minor] components, leaving [patch] component zero.\n */\n public constructor(major: Int, minor: Int) : this(major, minor, 0)\n\n private val version = versionOf(major, minor, patch)\n\n private fun versionOf(major: Int, minor: Int, patch: Int): Int {\n require(major in 0..MAX_COMPONENT_VALUE && minor in 0..MAX_COMPONENT_VALUE && patch in 0..MAX_COMPONENT_VALUE) {\n \"Version components are out of range: $major.$minor.$patch\"\n }\n return major.shl(16) + minor.shl(8) + patch\n }\n\n /**\n * Returns the string representation of this version\n */\n override fun toString(): String = \"$major.$minor.$patch\"\n\n override fun equals(other: Any?): Boolean {\n if (this === other) return true\n val otherVersion = (other as? KotlinVersion) ?: return false\n return this.version == otherVersion.version\n }\n\n override fun hashCode(): Int = version\n\n override fun compareTo(other: KotlinVersion): Int = version - other.version\n\n /**\n * Returns `true` if this version is not less than the version specified\n * with the provided [major] and [minor] components.\n */\n public fun isAtLeast(major: Int, minor: Int): Boolean = // this.version >= versionOf(major, minor, 0)\n this.major > major || (this.major == major &&\n this.minor >= minor)\n\n /**\n * Returns `true` if this version is not less than the version specified\n * with the provided [major], [minor] and [patch] components.\n */\n public fun isAtLeast(major: Int, minor: Int, patch: Int): Boolean = // this.version >= versionOf(major, minor, patch)\n this.major > major || (this.major == major &&\n (this.minor > minor || this.minor == minor &&\n this.patch >= patch))\n\n companion object {\n /**\n * Maximum value a version component can have, a constant value 255.\n */\n // NOTE: Must be placed before CURRENT because its initialization requires this field being initialized in JS\n public const val MAX_COMPONENT_VALUE = 255\n\n /**\n * Returns the current version of the Kotlin standard library.\n */\n @kotlin.jvm.JvmField\n public val CURRENT: KotlinVersion = KotlinVersionCurrentValue.get()\n }\n}\n\n// this class is ignored during classpath normalization when considering whether to recompile dependencies in Kotlin build\nprivate object KotlinVersionCurrentValue {\n @kotlin.jvm.JvmStatic\n fun get(): KotlinVersion = KotlinVersion(1, 7, 10) // value is written here automatically during build\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"LateinitKt\")\n@file:Suppress(\"unused\")\n\npackage kotlin\n\nimport kotlin.internal.InlineOnly\nimport kotlin.internal.AccessibleLateinitPropertyLiteral\nimport kotlin.reflect.KProperty0\n\n/**\n * Returns `true` if this lateinit property has been assigned a value, and `false` otherwise.\n *\n * Cannot be used in an inline function, to avoid binary compatibility issues.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\ninline val @receiver:AccessibleLateinitPropertyLiteral KProperty0<*>.isInitialized: Boolean\n get() = throw NotImplementedError(\"Implementation is intrinsic\")\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"LazyKt\")\n@file:kotlin.jvm.JvmMultifileClass\n\npackage kotlin\n\nimport kotlin.reflect.KProperty\n\n/**\n * Represents a value with lazy initialization.\n

*\n * To create an instance of [Lazy] use the [lazy] function.\n */\npublic interface Lazy<out T> {\n   /**\n   * Gets the lazily initialized value of the current Lazy instance.\n   * Once the value was initialized it must not change during the rest of lifetime of this Lazy instance.\n   */\n   public val value: T\n\n   /**\n   * Returns `true` if a value for this Lazy instance has been already initialized, and `false` otherwise.\n   * Once this function has returned `true` it stays `true` for the rest of lifetime of this Lazy instance.\n   */\n   public fun isInitialized(): Boolean\n}\n\n/**\n * Creates a new instance of the [Lazy] that is already initialized with the specified [value].\n */\npublic fun <T> lazyOf(value: T): Lazy<T> = InitializedLazyImpl(value)\n\n/**\n * An extension to delegate a read-only property of type [T] to an instance of [Lazy].\n *\n * This extension allows to use instances of Lazy for property delegation:\n * `val property: String

by lazy { initializer }`\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Lazy<T>.getValue(thisRef: Any?, property: KProperty<*>): T = value\n\n/**\n * Specifies how a [Lazy] instance synchronizes initialization among multiple threads.\n */\npublic enum class LazyThreadSafetyMode {\n\n   /**\n   * Locks are used to ensure that only a single thread can initialize the [Lazy] instance.\n   */\n   SYNCHRONIZED,\n\n   /**\n   * Initializer function can be called several times on concurrent access to uninitialized [Lazy] instance value,\n   * but only the first returned value will be used as the value of [Lazy] instance.\n   */\n   PUBLICATION,\n\n   /**\n   * No locks are used to synchronize an access to the [Lazy] instance value; if the instance is accessed from multiple threads, its behavior is undefined.\n   *\n   * This mode should not be used unless the [Lazy] instance is guaranteed never to be initialized from more than one thread.\n   */\n

NONE,\n}\n\n\ninternal object UNINITIALIZED_VALUE\n\n// internal to be called from lazy in JS\ninternal class UnsafeLazyImpl<out T>(initializer: () -> T) : Lazy<T>, Serializable {\n   private var initializer: (() -> T)? = initializer\n   private var _value: Any? = UNINITIALIZED_VALUE\n\n   override val value: T\n   get() {\n   if (_value === UNINITIALIZED_VALUE) {\n   _value = initializer!!()\n   initializer = null\n   }\n   @Suppress(\"UNCHECKED_CAST\")\n   return _value as T\n   }\n\n   override fun isInitialized(): Boolean = _value !== UNINITIALIZED_VALUE\n\n   override fun toString(): String = if (isInitialized()) value.toString() else \"Lazy value not initialized yet.\"\n\n   private fun writeReplace(): Any = InitializedLazyImpl(value)\n}\n\ninternal class InitializedLazyImpl<out T>(override val value: T) : Lazy<T>, Serializable {\n\n   override fun isInitialized(): Boolean = true\n\n   override fun

toString(): String = value.toString()\n\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n

*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"NumbersKt\")\npackage kotlin\n\n/**\n * Counts the number of set bits in the binary representation of this [Int] number.\n

*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.countOneBits(): Int\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Int] number.\n

*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.countLeadingZeroBits(): Int\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Int] number.\n

*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic

expect fun Int.countTrailingZeroBits(): Int\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [Int] number,\n * or zero, if this number is zero.\n

*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.takeHighestOneBit(): Int\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Int] number,\n * or zero, if this number is zero.\n

*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.takeLowestOneBit(): Int\n\n/**\n * Rotates the binary representation of this [Int] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least

significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Int.SIZE_BITS] (32) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 32)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.rotateLeft(bitCount: Int): Int\n\n\n/**\n * Rotates the binary representation of this [Int] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Int.SIZE_BITS] (32) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 32)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.rotateRight(bitCount: Int): Int\n\n\n/**\n * Counts the number of set bits in the binary representation of this [Long] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.countOneBits(): Int\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Long] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.countLeadingZeroBits(): Int\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Long] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.countTrailingZeroBits(): Int\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [Long] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.takeHighestOneBit(): Long\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Long] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.takeLowestOneBit(): Long\n\n/**\n * Rotates the binary representation of this [Long] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Long.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 64)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.rotateLeft(bitCount: Int): Long\n\n/**\n * Rotates the binary representation of this [Long] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Long.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 64)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.rotateRight(bitCount: Int): Long\n\n/**\n * Counts the number of set bits in the binary representation of this [Byte] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.countOneBits(): Int = (toInt() and 0xFF).countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Byte] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.countLeadingZeroBits(): Int = (toInt() and 0xFF).countLeadingZeroBits() - (Int.SIZE_BITS -

Byte.SIZE_BITS)\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Byte] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.countTrailingZeroBits(): Int = (toInt() or 0x100).countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [Byte] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic

 inline fun Byte.takeHighestOneBit(): Byte = (toInt() and 0xFF).takeHighestOneBit().toByte()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Byte] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.takeLowestOneBit(): Byte = toInt().takeLowestOneBit().toByte()\n\n\n/**\n * Rotates the binary representation of this [Byte] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Byte.SIZE_BITS] (8) returns the same number, or more generally\n * `number.rotateLeft(n)

 == number.rotateLeft(n % 8)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Byte.rotateLeft(bitCount: Int): Byte =\n   (toInt().shl(bitCount and 7) or (toInt() and 0xFF).ushr(8 - (bitCount and 7))).toByte()\n\n/**\n * Rotates the binary representation of this [Byte] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Byte.SIZE_BITS] (8) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 8)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Byte.rotateRight(bitCount: Int): Byte =\n   (toInt().shl(8 - (bitCount and 7)) or (toInt() and

 0xFF).ushr(bitCount and 7)).toByte()\n\n/**\n * Counts the number of set bits in the binary representation of this [Short] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.countOneBits(): Int = (toInt() and 0xFFFF).countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Short] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.countLeadingZeroBits(): Int =\n   (toInt() and 0xFFFF).countLeadingZeroBits() - (Int.SIZE_BITS - Short.SIZE_BITS)\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Short] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.countTrailingZeroBits(): Int = (toInt()

 or 0x10000).countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [Short] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.takeHighestOneBit(): Short = (toInt() and 0xFFFF).takeHighestOneBit().toShort()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Short] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.takeLowestOneBit(): Short = toInt().takeLowestOneBit().toShort()\n\n\n/**\n * Rotates the binary representation of this [Short] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Short.SIZE_BITS] (16) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 16)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Short.rotateLeft(bitCount: Int): Short =\n   (toInt().shl(bitCount and 15) or (toInt() and 0xFFFF).ushr(16 - (bitCount and 15))).toShort()\n\n/**\n * Rotates the binary representation of this [Short] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Short.SIZE_BITS] (16) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 16)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Short.rotateRight(bitCount: Int): Short =\n   (toInt().shl(16 - (bitCount and 15)) or (toInt() and 0xFFFF).ushr(bitCount and 15)).toShort()\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\nimport kotlin.internal.RequireKotlin\nimport kotlin.internal.RequireKotlinVersionKind\n\n@kotlin.internal.InlineOnly\n@SinceKotlin(\"1.2\")\n@Suppress(\"INVISIBLE_MEMBER\", \"INVISIBLE_REFERENCE\")\n@RequireKotlin(\"1.2.30\", level = DeprecationLevel.HIDDEN, versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\npublic inline fun <R> suspend(noinline block: suspend () -> R): suspend () -> R = block\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"TuplesKt\")\n\npackage kotlin\n\n\n/**\n * Represents a generic pair of two values.\n *\n * There is no meaning attached to values in this class, it can be used for any purpose.\n * Pair exhibits value semantics, i.e. two pairs are equal if both components are equal.\n *\n * An example of decomposing it into values:\n * @sample samples.misc.Tuples.pairDestructuring\n *\n * @param A type of the first value.\n * @param B type of the second value.\n * @property first First value.\n * @property second Second value.\n * @constructor Creates a new instance of Pair.\n */\npublic data class Pair<out A, out B>(\n   public val first: A,\n   public val second: B\n) : Serializable {\n\n   /**\n   * Returns string representation of the [Pair] including its [first] and [second] values.\n   */\n   public override fun toString(): String = \"($first, $second)\"\n}\n\n/**\n * Creates a tuple of type [Pair] from this and [that].\n *\n * This can be useful for creating [Map] literals with less noise, for example:\n * @sample samples.collections.Maps.Instantiation.mapFromPairs\n */\npublic infix fun <A, B> A.to(that: B): Pair<A, B> = Pair(this, that)\n\n/**\n * Converts this pair into a list.\n * @sample samples.misc.Tuples.pairToList\n */\npublic fun <T> Pair<T, T>.toList(): List<T> = listOf(first, second)\n\n/**\n * Represents a triad of values\n *\n * There is no meaning attached to values in this class, it can be used for any purpose.\n * Triple exhibits value semantics, i.e. two triples are equal if all three components are equal.\n * An example of decomposing it into values:\n * @sample samples.misc.Tuples.tripleDestructuring\n *\n * @param A type of the first value.\n * @param B type of the second value.\n * @param C type of the third value.\n * @property first First value.\n * @property second Second value.\n * @property third Third value.\n */\npublic data class Triple<out A, out B, out C>(\n   public val first: A,\n   public val second: B,\n   public val third: C\n) : Serializable {\n\n   /**\n   * Returns string representation of the [Triple] including its [first], [second] and [third] values.\n   */\n   public override fun toString(): String = \"($first, $second, $third)\"\n}\n\n/**\n * Converts this triple into a list.\n * @sample samples.misc.Tuples.tripleToList\n */\npublic fun <T> Triple<T, T, T>.toList(): List<T> = listOf(first, second, third)\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT

```
EDIT!\n\npackage kotlin.ranges\n\n\n\nimport kotlin.internal.*\n\n/**\n * A range of values of
 type `UInt`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic class
UIntRange(start: UInt, endInclusive: UInt) : UIntProgression(start, endInclusive, 1), ClosedRange<UInt> {\n
override val start: UInt get() = first\n    override val endInclusive: UInt get() = last\n\n    override fun contains(value:
UInt): Boolean = first <= value && value <= last\n\n    /** \n     * Checks if the range is empty.\n     \n     * The
range is empty if its start value is greater than the end value.\n     */\n    override fun isEmpty(): Boolean = first >
last\n\n    override fun equals(other: Any?): Boolean =\n        other is UIntRange && (isEmpty() &&
other.isEmpty() ||\n                first == other.first && last == other.last)\n\n    override fun hashCode(): Int =\n        if
(isEmpty()) -1 else (31 * first.toInt() + last.toInt())\n\n    override fun toString(): String = \"$first..$last\"\n\n
companion object {\n        /** An empty range of values of type
 UInt. */\n        public val EMPTY: UIntRange = UIntRange(UInt.MAX_VALUE, UInt.MIN_VALUE)\n
}\n}\n\n/**\n * A progression of values of type `UInt`.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic open class
UIntProgression\ninternal constructor(\n    start: UInt,\n    endInclusive: UInt,\n    step: Int\n) : Iterable<UInt> {\n
init {\n        if (step == 0.toInt()) throw kotlin.IllegalArgumentException(\"Step must be non-zero.\")\n        if (step
== Int.MIN_VALUE) throw kotlin.IllegalArgumentException(\"Step must be greater than Int.MIN_VALUE to
avoid overflow on negation.\")\n    }\n\n    /**\n     * The first element in the progression.\n     */\n    public val first:
UInt = start\n\n    /**\n     * The last element in the progression.\n     */\n    public val last: UInt =
getProgressionLastElement(start, endInclusive, step)\n\n    /**\n     * The step of the progression.\n     */\n    public
val step: Int = step\n\n    final override fun
 iterator(): Iterator<UInt> = UIntProgressionIterator(first, last, step)\n\n    /** \n     * Checks if the progression is
empty.\n     \n     * Progression with a positive step is empty if its first element is greater than the last element.\n     *
Progression with a negative step is empty if its first element is less than the last element.\n     */\n    public open fun
isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n    override fun equals(other: Any?): Boolean =\n
other is UIntProgression && (isEmpty() && other.isEmpty() ||\n                first == other.first && last == other.last
&& step == other.step)\n\n    override fun hashCode(): Int =\n        if (isEmpty()) -1 else (31 * (31 * first.toInt() +
last.toInt()) + step.toInt())\n\n    override fun toString(): String = if (step > 0) \"$first..$last step $step\" else \"$first
downTo $last step ${-step}\"\n\n    companion object {\n        /**\n         * Creates UIntProgression within the
specified bounds
 of a closed range.\n\n         * The progression starts with the [rangeStart] value and goes toward the [rangeEnd]
value not excluding it, with the specified [step].\n         * In order to go backwards the [step] must be negative.\n
*\n         * [step] must be greater than `Int.MIN_VALUE` and not equal to zero.\n         */\n        public fun
fromClosedRange(rangeStart: UInt, rangeEnd: UInt, step: Int): UIntProgression = UIntProgression(rangeStart,
rangeEnd, step)\n    }\n}\n\n\n/**\n * An iterator over a progression of values of type `UInt`.\n * @property step the
number by which the value is incremented on each step.\n */\n@SinceKotlin(\"1.3\")\nprivate class
UIntProgressionIterator(first: UInt, last: UInt, step: Int) : Iterator<UInt> {\n    private val finalElement = last\n
private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n    private val step = step.toUInt() // use 2-
complement math for negative steps\n    private var next = if (hasNext)
 first else finalElement\n\n    override fun hasNext(): Boolean = hasNext\n\n    override fun next(): UInt {\n        val
value = next\n        if (value == finalElement) {\n            if (!hasNext) throw kotlin.NoSuchElementException()\n
    hasNext = false\n        } else {\n            next += step\n        }\n        return value\n    }\n}\n\n","/*\n * Copyright
2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT
EDIT!\n\npackage kotlin.ranges\n\n\n\nimport kotlin.internal.*\n\n/**\n * A range of values of type `ULong`.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic class
ULongRange(start: ULong, endInclusive: ULong) : ULongProgression(start, endInclusive, 1),
ClosedRange<ULong> {\n    override val start: ULong get() = first\n    override val endInclusive: ULong
```

get() = last\n\n override fun contains(value: ULong): Boolean = first <= value && value <= last\n\n /** \n * Checks if the range is empty.\n \n * The range is empty if its start value is greater than the end value.\n */\n override fun isEmpty(): Boolean = first > last\n\n override fun equals(other: Any?): Boolean =\n other is ULongRange && (isEmpty() && other.isEmpty() ||\n first == other.first && last == other.last)\n\n override fun hashCode(): Int =\n if (isEmpty()) -1 else (31 * (first xor (first shr 32)).toInt() + (last xor (last shr 32)).toInt())\n\n override fun toString(): String = \"$first..$last\"\n\n companion object {\n /** An empty range of values of type ULong. */\n public val EMPTY: ULongRange = ULongRange(ULong.MAX_VALUE, ULong.MIN_VALUE)\n }\n}\n\n/**\n * A progression of values of type `ULong`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic open class ULongProgression\ninternal constructor(\n start: ULong,\n endInclusive: ULong,\n step: Long\n) : Iterable<ULong> {\n init {\n if (step == 0.toLong()) throw kotlin.IllegalArgumentException(\"Step must be non-zero.\")\n if (step == Long.MIN_VALUE) throw kotlin.IllegalArgumentException(\"Step must be greater than Long.MIN_VALUE to avoid overflow on negation.\")\n }\n\n /**\n * The first element in the progression.\n */\n public val first: ULong = start\n\n /**\n * The last element in the progression.\n */\n public val last: ULong = getProgressionLastElement(start, endInclusive, step)\n\n /**\n * The step of the progression.\n */\n public val step: Long = step\n\n final override fun iterator(): Iterator<ULong> = ULongProgressionIterator(first, last, step)\n\n /** \n * Checks if the progression is empty.\n \n * Progression with a positive step is empty if its first element is greater than the last element.\n * Progression with a negative step is empty if its first element is less than the last element.\n */\n public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n override fun equals(other: Any?): Boolean =\n other is ULongProgression && (isEmpty() && other.isEmpty() ||\n first == other.first && last == other.last && step == other.step)\n\n override fun hashCode(): Int =\n if (isEmpty()) -1 else (31 * (31 * (first xor (first shr 32)).toInt() + (last xor (last shr 32)).toInt()) + (step xor (step ushr 32)).toInt())\n\n override fun toString(): String = if (step > 0) \"$first..$last step $step\" else \"$first downTo $last step ${-step}\"\n\n companion object {\n /**\n * Creates ULongProgression within the specified bounds of a closed range.\n\n * The progression starts with the [rangeStart] value and goes toward the [rangeEnd] value not excluding it, with the specified [step].\n * In order to go backwards the [step] must be negative.\n *\n * [step] must be greater than `Long.MIN_VALUE` and not equal to zero.\n */\n public fun fromClosedRange(rangeStart: ULong, rangeEnd: ULong, step: Long): ULongProgression = ULongProgression(rangeStart, rangeEnd, step)\n }\n}\n\n\n/**\n * An iterator over a progression of values of type `ULong`.\n * @property step the number by which the value is incremented on each step.\n */\n@SinceKotlin(\"1.3\")\nprivate class ULongProgressionIterator(first: ULong, last: ULong, step: Long) : Iterator<ULong> {\n private val finalElement = last\n private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n private val step = step.toULong() // use 2-complement math for negative steps\n private var next = if (hasNext) first else finalElement\n\n override fun hasNext(): Boolean = hasNext\n\n override fun next(): ULong {\n val value = next\n if (value == finalElement) {\n if (!hasNext) throw kotlin.NoSuchElementException()\n hasNext = false\n } else {\n next += step\n }\n return value\n }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.math\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun min(a: UInt, b: UInt): UInt {\n return minOf(a, b)\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun min(a: ULong, b: ULong): ULong {\n return minOf(a, b)\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\

npublic
 inline fun max(a: UInt, b: UInt): UInt {\n   return maxOf(a, b)\n}\n\n/**\n * Returns the greater of two values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\
npublic inline fun max(a: ULong, b: ULong): ULong {\n   return maxOf(a, b)\n}","/*\n * Copyright 2010-2021
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Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmName(\"UNumbersKt\")\npackage kotlin\n\n/**\n * Counts the number of set bits in the
binary representation of this [UInt] number.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.countOneBits(): Int =
toInt().countOneBits()\n\n/**\n * Counts the number of consecutive most significant
 bits that are zero in the binary representation of this [UInt] number.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.countLeadingZeroBits(): Int =
toInt().countLeadingZeroBits()\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the
binary representation of this [UInt] number.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.countTrailingZeroBits(): Int =
toInt().countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most
significant set bit of this [UInt] number,\n * or zero, if this number is zero.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.takeHighestOneBit():
 UInt = toInt().takeHighestOneBit().toUInt()\n\n/**\n * Returns a number having a single bit set in the position of
the least significant set bit of this [UInt] number,\n * or zero, if this number is zero.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.takeLowestOneBit(): UInt =
toInt().takeLowestOneBit().toUInt()\n\n/**\n * Rotates the binary representation of this [UInt] number left by the
specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as
the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as
rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a
multiple of [UInt.SIZE_BITS] (32) returns the same number, or more generally\n * `number.rotateLeft(n) ==
number.rotateLeft(n %
 32)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class,
ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.rotateLeft(bitCount: Int):
UInt = toInt().rotateLeft(bitCount).toUInt()\n\n\n/**\n * Rotates the binary representation of this [UInt] number
right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter
the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is
the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n *
Rotating by a multiple of [UInt.SIZE_BITS] (32) returns the same number, or more generally\n *
`number.rotateRight(n) == number.rotateRight(n % 32)`\n
*/\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class,
ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.rotateRight(bitCount: Int):
 UInt = toInt().rotateRight(bitCount).toUInt()\n\n\n/**\n * Counts the number of set bits in the binary representation
of this [ULong] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class,
ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.countOneBits(): Int =
toLong().countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the
binary representation of this [ULong] number.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class,

ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.countLeadingZeroBits(): Int = toLong().countLeadingZeroBits()\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [ULong] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline
 fun ULong.countTrailingZeroBits(): Int = toLong().countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [ULong] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.takeHighestOneBit(): ULong = toLong().takeHighestOneBit().toULong()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [ULong] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.takeLowestOneBit(): ULong = toLong().takeLowestOneBit().toULong()\n\n/**\n * Rotates the binary representation of this [ULong] number left by the specified [bitCount] number of bits.\n * The most significant
 bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [ULong.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 64)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.rotateLeft(bitCount: Int): ULong = toLong().rotateLeft(bitCount).toULong()\n\n/**\n * Rotates the binary representation of this [ULong] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it
 left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [ULong.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 64)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.rotateRight(bitCount: Int): ULong = toLong().rotateRight(bitCount).toULong()\n\n/**\n * Counts the number of set bits in the binary representation of this [UByte] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.countOneBits(): Int = toUInt().countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [UByte] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class,
 ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.countLeadingZeroBits(): Int = toByte().countLeadingZeroBits()\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [UByte] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.countTrailingZeroBits(): Int = toByte().countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [UByte] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.takeHighestOneBit(): UByte = toInt().takeHighestOneBit().toUByte()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit

of this [UByte] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.takeLowestOneBit(): UByte = toInt().takeLowestOneBit().toUByte()\n\n\n/**\n * Rotates the binary representation of this [UByte] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [UByte.SIZE_BITS] (8) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 8)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic
inline fun UByte.rotateLeft(bitCount: Int): UByte = toByte().rotateLeft(bitCount).toUByte()\n\n/**\n * Rotates the binary representation of this [UByte] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [UByte.SIZE_BITS] (8) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 8)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.rotateRight(bitCount: Int): UByte = toByte().rotateRight(bitCount).toUByte()\n\n/**\n * Counts the number of set bits in the binary representation of this [UShort]
number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.countOneBits(): Int = toUInt().countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [UShort] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.countLeadingZeroBits(): Int = toShort().countLeadingZeroBits()\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [UShort] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.countTrailingZeroBits(): Int = toShort().countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in
the position of the most significant set bit of this [UShort] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.takeHighestOneBit(): UShort = toInt().takeHighestOneBit().toUShort()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [UShort] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.takeLowestOneBit(): UShort = toInt().takeLowestOneBit().toUShort()\n\n\n/**\n * Rotates the binary representation of this [UShort] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating
the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [UShort.SIZE_BITS] (16) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 16)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.rotateLeft(bitCount: Int): UShort = toShort().rotateLeft(bitCount).toUShort()\n\n/**\n * Rotates the binary representation of this

[UShort] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [UShort.SIZE_BITS] (16) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 16)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.rotateRight(bitCount: Int): UShort = toShort().rotateRight(bitCount).toUShort()\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.internal\n\n// (a - b) mod c\nprivate fun differenceModulo(a: UInt, b: UInt, c: UInt): UInt {\n   val ac = a % c\n   val bc = b % c\n   return if (ac >= bc) ac - bc else ac - bc + c\n}\n\nprivate fun differenceModulo(a: ULong, b: ULong, c: ULong): ULong {\n   val ac = a % c\n   val bc = b % c\n   return if (ac >= bc) ac - bc else ac - bc + c\n}\n\n/**\n * Calculates the final element of a bounded arithmetic progression, i.e. the last element of the progression which is in the range\n * from [start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative\n * [step].\n *\n * No validation on passed parameters is performed. The given parameters should satisfy the condition:\n *\n * - either `step > 0` and `start <= end`,\n * - or `step < 0` and `start >= end`.\n *\n * @param start first element of the progression\n * @param end ending bound for the progression\n * @param step increment, or difference of successive elements in the progression\n * @return the final element of the progression\n * @suppress\n */\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal fun getProgressionLastElement(start: UInt, end: UInt, step: Int): UInt = when {\n   step > 0 -> if (start >= end) end else end - differenceModulo(end, start, step.toUInt())\n   step < 0 -> if (start <= end) end else end + differenceModulo(start, end, (-step).toUInt())\n   else -> throw kotlin.IllegalArgumentException(\"Step is zero.\")\n}\n\n/**\n * Calculates the final element of a bounded arithmetic progression, i.e. the last element of the progression which is in the range\n * from [start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative\n * [step].\n *\n * No validation on passed parameters is performed. The given parameters should satisfy the condition:\n *\n * - either `step > 0` and `start <= end`,\n * - or `step < 0` and `start >= end`.\n *\n * @param start first element of the progression\n * @param end ending bound for the progression\n * @param step increment, or difference of successive elements in the progression\n * @return the final element of the progression\n * @suppress\n */\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal fun getProgressionLastElement(start: ULong, end: ULong, step: Long): ULong = when {\n   step > 0 -> if (start >= end) end else end - differenceModulo(end, start, step.toULong())\n   step < 0 -> if (start <= end) end else end + differenceModulo(start, end, (-step).toULong())\n   else -> throw kotlin.IllegalArgumentException(\"Step is zero.\")\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"UStringsKt\") // string representation of unsigned numbers\n\npackage kotlin.text\n\n/**\n * Returns a string representation of this [Byte] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n//@kotlin.internal.InlineOnly\npublic /*inline*/ fun UByte.toString(radix: Int): String = this.toInt().toString(radix)\n\n/**\n * Returns a string representation of this [Short] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n//@kotlin.internal.InlineOnly\npublic /*inline*/ fun UShort.toString(radix: Int): String = this.toInt().toString(radix)\n\n\n/**\n * Returns a string representation of this [Int] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n//@kotlin.internal.InlineOnly

\npublic /*inline*/ fun UInt.toString(radix: Int): String = this.toLong().toString(radix)\n\n/**\n * Returns a string representation of this [Long] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun ULong.toString(radix: Int):
 String = ulongToString(this.toLong(), checkRadix(radix))\n\n\n/**\n * Parses the string as a signed [UByte] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUByte(): UByte = toUByteOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a signed [UByte] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUByte(radix: Int): UByte = toUByteOrNull(radix) ?: numberFormatError(this)\n\n\n/**\n * Parses the string as a [UShort] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation
 of a number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUShort(): UShort = toUShortOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a [UShort] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUShort(radix: Int): UShort = toUShortOrNull(radix) ?: numberFormatError(this)\n\n/**\n * Parses the string as an [UInt] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUInt(): UInt = toUIntOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as an [UInt] number and
 returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUInt(radix: Int): UInt = toUIntOrNull(radix) ?: numberFormatError(this)\n\n/**\n * Parses the string as a [ULong] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toULong(): ULong = toULongOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a [ULong] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic
 fun String.toULong(radix: Int): ULong = toULongOrNull(radix) ?: numberFormatError(this)\n\n\n\n\n\n/**\n * Parses the string as an [UByte] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUByteOrNull(): UByte? = toUByteOrNull(radix = 10)\n\n/**\n * Parses the string as an [UByte] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUByteOrNull(radix: Int): UByte? {\n   val int = this.toUIntOrNull(radix) ?: return null\n   if (int > UByte.MAX_VALUE) return null\n   return int.toUByte()\n}\n\n/**\n * Parses the string
 as an [UShort] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUShortOrNull(): UShort? = toUShortOrNull(radix = 10)\n\n/**\n * Parses the string as an [UShort] number

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and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws
IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
String.toUShortOrNull(radix: Int): UShort? {\n    val int = this.toUIntOrNull(radix) ?: return null\n    if (int >
UShort.MAX_VALUE) return null\n    return int.toUShort()\n}\n\n/**\n * Parses the string as an [UInt] number and
returns the result\n * or `null` if the string is not a valid representation of a number.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic
 fun String.toUIntOrNull(): UInt? = toUIntOrNull(radix = 10)\n\n/**\n * Parses the string as an [UInt] number and
returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws
IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
String.toUIntOrNull(radix: Int): UInt? {\n    checkRadix(radix)\n\n    val length = this.length\n    if (length == 0)
return null\n\n    val limit: UInt = UInt.MAX_VALUE\n    val start: Int\n\n    val firstChar = this[0]\n    if (firstChar
< '0') {\n        if (length == 1 || firstChar != '+') return null\n        start = 1\n    } else {\n        start = 0\n    }\n\n    val
limitForMaxRadix = 119304647u  //  limit / 36\n\n    var limitBeforeMul = limitForMaxRadix\n    val uradix =
radix.toUInt()\n    var result = 0u\n    for (i in start until length) {\n        val
 digit = digitOf(this[i], radix)\n\n        if (digit < 0) return null\n        if (result > limitBeforeMul) {\n            if
(limitBeforeMul == limitForMaxRadix) {\n                limitBeforeMul = limit / uradix\n\n                if (result >
limitBeforeMul) {\n                    return null\n                }\n            } else {\n                return null\n            }\n
}\n\n        result *= uradix\n\n        val beforeAdding = result\n        result += digit.toUInt()\n        if (result <
beforeAdding) return null // overflow has happened\n    }\n\n    return result\n}\n\n/**\n * Parses the string as an
[ULong] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
String.toULongOrNull(): ULong? = toULongOrNull(radix = 10)\n\n/**\n * Parses the string as an [ULong] number
and returns the result\n * or `null` if the string is not a
 valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for
string to number conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun
String.toULongOrNull(radix: Int): ULong? {\n    checkRadix(radix)\n\n    val length = this.length\n    if (length ==
0) return null\n\n    val limit: ULong = ULong.MAX_VALUE\n    val start: Int\n\n    val firstChar = this[0]\n    if
(firstChar < '0') {\n        if (length == 1 || firstChar != '+') return null\n        start = 1\n    } else {\n        start = 0\n
}\n\n\n    val limitForMaxRadix = 512409557603043100uL  //  limit / 36\n\n    var limitBeforeMul =
limitForMaxRadix\n    val uradix = radix.toULong()\n    var result = 0uL\n    for (i in start until length) {\n        val
digit = digitOf(this[i], radix)\n\n        if (digit < 0) return null\n        if (result > limitBeforeMul) {\n            if
(limitBeforeMul == limitForMaxRadix) {\n
       limitBeforeMul = limit / uradix\n\n                if (result > limitBeforeMul) {\n                    return null\n
}\n            } else {\n                return null\n            }\n        }\n\n        result *= uradix\n\n        val beforeAdding =
result\n        result += digit.toUInt()\n        if (result < beforeAdding) return null // overflow has happened\n    }\n\n
return result\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n *
Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\npackage kotlin\n\nimport
kotlin.annotation.AnnotationTarget.*\nimport kotlin.internal.RequireKotlin\nimport
kotlin.internal.RequireKotlinVersionKind\n\n/**\n * Marks the API that is dependent on the experimental unsigned
types, including those types themselves.\n *\n * Usages of such API will be
 reported as warnings unless an explicit opt-in with\n * the [OptIn] annotation, e.g.
`@OptIn(ExperimentalUnsignedTypes::class)`,\n * or with the `-opt-in=kotlin.ExperimentalUnsignedTypes`
compiler option is given.\n *\n * It's recommended to propagate the experimental status to the API that depends on
unsigned types by annotating it with this annotation.\n */\n@RequiresOptIn(level =
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RequiresOptIn.Level.WARNING)\n@MustBeDocumented\n@Target(CLASS, ANNOTATION_CLASS, PROPERTY, FIELD, LOCAL_VARIABLE, VALUE_PARAMETER, CONSTRUCTOR, FUNCTION, PROPERTY_GETTER, PROPERTY_SETTER, TYPEALIAS)\n@Retention(AnnotationRetention.BINARY)\n@RequireKotlin(\"1.2.50\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\npublic annotation class ExperimentalUnsignedTypes\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"MathKt\")\n\n\npackage kotlin.math\n\n\n\n\n// constants, can't use them from nativeMath as they are not constants there\n\n/** Ratio of the circumference of a circle to its diameter, approximately 3.14159. */\n@SinceKotlin(\"1.2\")\npublic const val PI: Double = 3.141592653589793\n/** Base of the natural logarithms, approximately 2.71828. */\n@SinceKotlin(\"1.2\")\npublic const val E: Double = 2.718281828459045\n\n// region ================ Double Math ==\n\n/** Computes the sine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `sin(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sin(x: Double): Double\n\n/** Computes the cosine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `cos(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun cos(x: Double): Double\n\n/** Computes the tangent of the angle [x] given in radians.\n *\n * Special cases:\n *   - `tan(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun tan(x: Double): Double\n\n/**\n * Computes the arc sine of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `asin(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun asin(x: Double): Double\n\n/**\n * Computes the arc cosine of the value [x];\n * the returned value is an angle in the range from `0.0` to `PI` radians.\n *\n * Special cases:\n *   - `acos(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun acos(x: Double): Double\n\n/**\n * Computes the arc tangent of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `atan(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun atan(x: Double): Double\n\n/**\n * Returns the angle `theta` of the polar coordinates `(r, theta)` that correspond\n * to the rectangular coordinates `(x, y)` by computing the arc tangent of the value [y] / [x];\n * the returned value is an angle in the range from `-PI` to `PI` radians.\n *\n * Special cases:\n *   - `atan2(0.0, 0.0)` is `0.0`\n *   - `atan2(0.0, x)` is `0.0` for `x > 0` and `PI` for `x < 0`\n *   - `atan2(-0.0, x)` is `-0.0` for 'x > 0` and `-PI` for `x < 0`\n *   - `atan2(y, +Inf)` is `0.0` for `0 < y < +Inf` and `-0.0` for '-Inf < y < 0`\n *   - `atan2(y, -Inf)` is `PI` for `0 < y < +Inf` and `-PI` for `-Inf < y < 0`\n *   - `atan2(y, 0.0)` is `PI/2` for `y > 0` and `-PI/2` for `y < 0`\n *   - `atan2(+Inf, x)` is `PI/2` for finite `x`y\n *   - `atan2(-Inf, x)` is `-PI/2` for finite `x`\n *   - `atan2(NaN, x)` and `atan2(y, NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun atan2(y: Double, x: Double): Double\n\n/**\n * Computes the hyperbolic sine of the value [x].\n *\n * Special cases:\n *   - `sinh(NaN)` is `NaN`\n *   - `sinh(+Inf)` is `+Inf`\n *   - `sinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sinh(x: Double): Double\n\n/**\n * Computes the hyperbolic cosine of the value [x].\n *\n * Special cases:\n *   - `cosh(NaN)` is `NaN`\n *   - `cosh(+Inf|-Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun cosh(x: Double): Double\n\n/**\n * Computes the hyperbolic tangent of the value [x].\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(+Inf)` is `1.0`\n *   - `tanh(-Inf)` is `-1.0`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun tanh(x: Double): Double\n\n/**\n * Computes the inverse hyperbolic sine of the value [x].\n *\n * The returned value is `y` such that `sinh(y) == x`.\n *\n * Special cases:\n *   - `asinh(NaN)` is `NaN`\n *   - `asinh(+Inf)` is `+Inf`\n *   - `asinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun asinh(x: Double): Double\n\n/**\n * Computes the inverse hyperbolic cosine of the value [x].\n *\n * The returned value is positive `y` such that `cosh(y) == x`.\n *\n * Special cases:\n *   - `acosh(NaN)` is `NaN`\n *   - `acosh(x)` is `NaN` when `x < 1`\n *   - `acosh(+Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun acosh(x: Double): Double\n\n/**\n * Computes the inverse hyperbolic tangent of the value [x].\n *\n * The returned value is `y` such that `tanh(y) == x`.\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(x)` is `NaN` when `x > 1` or `x <

-1`\n *   - `tanh(1.0)` is `+Inf`\n *   - `tanh(-1.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun atanh(x: Double): Double\n\n/**\n * Computes `sqrt(x^2 + y^2)` without intermediate overflow or underflow.\n *\n * Special cases:\n *   - returns `+Inf` if any of arguments is infinite\n *   - returns `NaN` if any of arguments is `NaN` and the other is not infinite\n */\n@SinceKotlin(\"1.2\")\npublic expect fun hypot(x: Double, y: Double): Double\n\n/**\n * Computes the positive square root of the value [x].\n *\n * Special cases:\n *   - `sqrt(x)` is `NaN` when `x < 0` or `x` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sqrt(x: Double): Double\n\n/**\n * Computes Euler's number `e` raised to the power of the value [x].\n *\n * Special cases:\n *   - `exp(NaN)` is `NaN`\n *   - `exp(+Inf)` is `+Inf`\n *   - `exp(-Inf)` is `0.0`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun exp(x: Double): Double\n\n/**\n * Computes `exp(x) - 1`.\n *\n * This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `expm1(NaN)` is `NaN`\n *   - `expm1(+Inf)` is `+Inf`\n *   - `expm1(-Inf)` is `-1.0`\n *\n * @see [exp] function.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun expm1(x: Double): Double\n\n/**\n * Computes the logarithm of the value [x] to the given [base].\n *\n * Special cases:\n *   - `log(x, b)` is `NaN` if either `x` or `b` are `NaN`\n *   - `log(x, b)` is `NaN` when `x < 0` or `b <= 0` or `b == 1.0`\n *   - `log(+Inf, +Inf)` is `NaN`\n *   - `log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1`\n *   - `log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b > 1`\n *\n * See also logarithm functions for common fixed bases: [ln], [log10] and [log2].\n */\n@SinceKotlin(\"1.2\")\npublic expect fun log(x: Double, base: Double): Double\n\n/**\n * Computes the natural logarithm (base `E`) of the value [x].\n *\n * Special cases:\n *   - `ln(NaN)` is `NaN`\n *   - `ln(x)` is `NaN` when `x < 0.0`\n *   - `ln(+Inf)` is `+Inf`\n *   - `ln(0.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun ln(x: Double): Double\n\n/**\n * Computes the common logarithm (base 10) of the value [x].\n *\n * @see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun log10(x: Double): Double\n\n/**\n * Computes the binary logarithm (base 2) of the value [x].\n *\n * @see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun log2(x: Double): Double\n\n/**\n * Computes `ln(x + 1)`.\n *\n * This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `ln1p(NaN)` is `NaN`\n *   - `ln1p(x)` is `NaN` where `x < -1.0`\n *   - `ln1p(-1.0)` is `-Inf`\n *   - `ln1p(+Inf)` is `+Inf`\n *\n * @see [ln] function\n * @see [expm1] function\n */\n@SinceKotlin(\"1.2\")\npublic expect fun ln1p(x: Double): Double\n\n/**\n * Rounds the given value [x] to an integer towards positive infinity.\n\n * @return the smallest double value that is greater than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `ceil(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun ceil(x: Double): Double\n\n/**\n * Rounds the given value [x] to an integer towards negative infinity.\n\n * @return the largest double value that is smaller than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `floor(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun floor(x: Double): Double\n\n/**\n * Rounds the given value [x] to an integer towards zero.\n *\n * @return the value [x] having its fractional part truncated.\n *\n * Special cases:\n *   - `truncate(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun truncate(x: Double): Double\n\n/**\n * Rounds the given value [x] towards the closest integer with ties rounded towards even integer.\n *\n * Special cases:\n *   - `round(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun round(x: Double): Double\n\n/**\n * Returns the absolute value of the given value [x].\n *\n * Special cases:\n *   - `abs(NaN)` is `NaN`\n *\n * @see absoluteValue extension property for [Double]\n */\n@SinceKotlin(\"1.2\")\npublic expect fun abs(x: Double): Double\n\n/**\n * Returns the sign of the given value [x]:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `sign(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sign(x: Double): Double\n\n\n/**\n * Returns the smaller of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun min(a: Double, b: Double): Double\n\n/**\n * Returns the greater of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun max(a: Double, b: Double): Double\n\n// extensions\n\n/**\n * Raises this value to the power [x].\n *\n * Special cases:\n *   - `b.pow(0.0)` is `1.0`\n *   -

```
`b.pow(1.0) == b`\n *   - `b.pow(NaN)` is `NaN`\n *   - `NaN.pow(x)` is `NaN` for `x != 0.0`\n *   - `b.pow(Inf)` is
`NaN` for `abs(b) == 1.0`\n *   - `b.pow(x)` is `NaN`
 for `b < 0` and `x` is finite and not an integer\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.pow(x:
Double): Double\n\n/**\n * Raises this value to the integer power [n].\n *\n * See the other overload of [pow] for
details.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.pow(n: Int): Double\n\n/**\n * Returns the absolute
value of this value.\n *\n * Special cases:\n *   - `NaN.absoluteValue` is `NaN`\n *\n * @see abs function\n
*/\n@SinceKotlin(\"1.2\")\npublic expect val Double.absoluteValue: Double\n\n/**\n * Returns the sign of this
value:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n *
Special case:\n *   - `NaN.sign` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect val Double.sign:
Double\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n *\n * If [sign] is `NaN` the sign
of the result is undefined.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.withSign(sign:
 Double): Double\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n
*/\n@SinceKotlin(\"1.2\")\npublic expect fun Double.withSign(sign: Int): Double\n\n/**\n * Returns the ulp (unit in
the last place) of this value.\n *\n * An ulp is a positive distance between this value and the next nearest [Double]
value larger in magnitude.\n *\n * Special Cases:\n *   - `NaN.ulp` is `NaN`\n *   - `x.ulp` is `+Inf` when `x` is `+Inf`
or `-Inf`\n *   - `0.0.ulp` is `Double.MIN_VALUE`\n */\n@SinceKotlin(\"1.2\")\npublic expect val Double.ulp:
Double\n\n/**\n * Returns the [Double] value nearest to this value in direction of positive infinity.\n
*/\n@SinceKotlin(\"1.2\")\npublic expect fun Double.nextUp(): Double\n\n/**\n * Returns the [Double] value
nearest to this value in direction of negative infinity.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun
Double.nextDown(): Double\n\n/**\n * Returns the [Double] value nearest to this value in direction from this value
towards
 the value [to].\n *\n * Special cases:\n *   - `x.nextTowards(y)` is `NaN` if either `x` or `y` are `NaN`\n *   -
`x.nextTowards(x) == x`\n *\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.nextTowards(to: Double):
Double\n\n/**\n * Rounds this [Double] value to the nearest integer and converts the result to [Int].\n * Ties are
rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToInt() == Int.MAX_VALUE` when `x >
Int.MAX_VALUE`\n *   - `x.roundToInt() == Int.MIN_VALUE` when `x < Int.MIN_VALUE`\n *\n * @throws
IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun
Double.roundToInt(): Int\n\n/**\n * Rounds this [Double] value to the nearest integer and converts the result to
[Long].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToLong() ==
Long.MAX_VALUE` when `x > Long.MAX_VALUE`\n *   - `x.roundToLong() == Long.MIN_VALUE` when `x
< Long.MIN_VALUE`\n *\n * @throws IllegalArgumentException
 when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.roundToLong(): Long\n\n//
endregion\n\n\n\n// region ================ Float Math
========================================\n\n/** Computes the sine of the angle [x] given in
radians.\n *\n *  Special cases:\n *   - `sin(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun
sin(x: Float): Float\n\n/** Computes the cosine of the angle [x] given in radians.\n *\n *  Special cases:\n *   -
`cos(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun cos(x: Float): Float\n\n/** Computes
the tangent of the angle [x] given in radians.\n *\n *  Special cases:\n *   - `tan(NaN|+Inf|-Inf)` is `NaN`\n
*/\n@SinceKotlin(\"1.2\")\npublic expect fun tan(x: Float): Float\n\n/**\n * Computes the arc sine of the value
[x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *    -
`asin(x)` is `NaN`, when `abs(x) > 1` or
 x is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun asin(x: Float): Float\n\n/**\n * Computes the arc cosine
of the value [x];\n * the returned value is an angle in the range from `0.0` to `PI` radians.\n *\n * Special cases:\n *
- `acos(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun acos(x: Float):
Float\n\n/**\n * Computes the arc tangent of the value [x];\n * the returned value is an angle in the range from `-
PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `atan(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic
expect fun atan(x: Float): Float\n\n/**\n * Returns the angle `theta` of the polar coordinates `(r, theta)` that
correspond\n * to the rectangular coordinates `(x, y)` by computing the arc tangent of the value [y] / [x];\n * the
```

returned value is an angle in the range from `-PI` to `PI` radians.\n *\n * Special cases:\n *   - `atan2(0.0, 0.0)` is `0.0`\n *   - `atan2(0.0, x)` is `0.0` for `x > 0` and `PI` for `x < 0`\n *   - `atan2(-0.0, x)` is `-0.0` for 'x > 0` and `-PI` for `x < 0`\n *   - `atan2(y, +Inf)` is `0.0` for `0 < y < +Inf` and `-0.0` for '-Inf < y < 0`\n *   - `atan2(y, -Inf)` is `PI` for `0 < y < +Inf` and `-PI` for `-Inf < y < 0`\n *   - `atan2(y, 0.0)` is `PI/2` for `y > 0` and `-PI/2` for `y < 0`\n *   - `atan2(+Inf, x)` is `PI/2` for finite `x`y\n *   - `atan2(-Inf, x)` is `-PI/2` for finite `x`\n *   - `atan2(NaN, x)` and `atan2(y, NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun atan2(y: Float, x: Float): Float\n\n/**\n * Computes the hyperbolic sine of the value [x].\n *\n * Special cases:\n *   - `sinh(NaN)` is `NaN`\n *   - `sinh(+Inf)` is `+Inf`\n *   - `sinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sinh(x: Float): Float\n\n/**\n * Computes the hyperbolic cosine of the value [x].\n *\n * Special cases:\n *   - `cosh(NaN)` is `NaN`\n *   - `cosh(+Inf|-Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun cosh(x: Float): Float\n\n/**\n * Computes the hyperbolic tangent of the value [x].\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(+Inf)` is `1.0`\n *   - `tanh(-Inf)` is `-1.0`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun tanh(x: Float): Float\n\n/**\n * Computes the inverse hyperbolic sine of the value [x].\n *\n * The returned value is `y` such that `sinh(y) == x`.\n *\n * Special cases:\n *   - `asinh(NaN)` is `NaN`\n *   - `asinh(+Inf)` is `+Inf`\n *   - `asinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun asinh(x: Float): Float\n\n/**\n * Computes the inverse hyperbolic cosine of the value [x].\n *\n * The returned value is positive `y` such that `cosh(y) == x`.\n *\n * Special cases:\n *   - `acosh(NaN)` is `NaN`\n *   - `acosh(x)` is `NaN` when `x < 1`\n *   - `acosh(+Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun acosh(x: Float): Float\n\n/**\n * Computes the inverse hyperbolic tangent of the value [x].\n *\n * The returned value is `y` such that `tanh(y) == x`.\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(x)` is `NaN` when `x > 1` or `x < -1`\n *   - `tanh(1.0)` is `+Inf`\n *   - `tanh(-1.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun atanh(x: Float): Float\n\n/**\n * Computes `sqrt(x^2 + y^2)` without intermediate overflow or underflow.\n *\n * Special cases:\n *   - returns `+Inf` if any of arguments is infinite\n *   - returns `NaN` if any of arguments is `NaN` and the other is not infinite\n */\n@SinceKotlin(\"1.2\")\npublic expect fun hypot(x: Float, y: Float): Float\n\n/**\n * Computes the positive square root of the value [x].\n *\n * Special cases:\n *   - `sqrt(x)` is `NaN` when `x < 0` or `x` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sqrt(x: Float): Float\n\n/**\n * Computes Euler's number `e` raised to the power of the value [x].\n *\n * Special cases:\n *   - `exp(NaN)` is `NaN`\n *   - `exp(+Inf)` is `+Inf`\n *   - `exp(-Inf)` is `0.0`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun exp(x: Float): Float\n\n/**\n * Computes `exp(x) - 1`.\n *\n * This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `expm1(NaN)` is `NaN`\n *   - `expm1(+Inf)` is `+Inf`\n *   - `expm1(-Inf)` is `-1.0`\n *\n * @see [exp] function.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun expm1(x: Float): Float\n\n/**\n * Computes the logarithm of the value [x] to the given [base].\n *\n * Special cases:\n *   - `log(x, b)` is `NaN` if either `x` or `b` are `NaN`\n *   - `log(x, b)` is `NaN` when `x < 0` or `b <= 0` or `b == 1.0`\n *   - `log(+Inf, +Inf)` is `NaN`\n *   - `log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1`\n *   - `log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b > 1`\n *\n * See also logarithm functions for common fixed bases: [ln], [log10] and [log2].\n */\n@SinceKotlin(\"1.2\")\npublic expect fun log(x: Float, base: Float): Float\n\n/**\n * Computes the natural logarithm (base `E`) of the value [x].\n *\n * Special cases:\n *   - `ln(NaN)` is `NaN`\n *   - `ln(x)` is `NaN` when `x < 0.0`\n *   - `ln(+Inf)` is `+Inf`\n *   - `ln(0.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun ln(x: Float): Float\n\n/**\n * Computes the common logarithm (base 10) of the value [x].\n *\n * @see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun log10(x: Float): Float\n\n/**\n * Computes the binary logarithm (base 2) of the value [x].\n *\n * @see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun log2(x: Float): Float\n\n/**\n * Computes `ln(a + 1)`.\n *\n * This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `ln1p(NaN)` is `NaN`\n *   - `ln1p(x)` is `NaN` where `x < -1.0`\n *   - `ln1p(-1.0)` is `-Inf`\n *   - `ln1p(+Inf)` is `+Inf`\n *\n * @see [ln] function\n * @see [expm1] function\n */\n@SinceKotlin(\"1.2\")\npublic expect fun ln1p(x: Float): Float\n\n/**\n

 * Rounds the given value [x] to an integer towards positive infinity.\n\n * @return the smallest Float value that is greater than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `ceil(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun ceil(x: Float): Float\n\n/**\n * Rounds the given value [x] to an integer towards negative infinity.\n\n * @return the largest Float value that is smaller than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `floor(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun floor(x: Float): Float\n\n/**\n * Rounds the given value [x] to an integer towards zero.\n *\n * @return the value [x] having its fractional part truncated.\n *\n * Special cases:\n *   - `truncate(x)` is `x` where `x` is `NaN` or `+Inf`

 or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun truncate(x: Float): Float\n\n/**\n * Rounds the given value [x] towards the closest integer with ties rounded towards even integer.\n *\n * Special cases:\n *   - `round(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun round(x: Float): Float\n\n\n/**\n * Returns the absolute value of the given value [x].\n *\n * Special cases:\n *   - `abs(NaN)` is `NaN`\n *\n * @see absoluteValue extension property for [Float]\n */\n@SinceKotlin(\"1.2\")\npublic expect fun abs(x: Float): Float\n\n/**\n * Returns the sign of the given value [x]:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `sign(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sign(x: Float): Float\n\n\n\n/**\n * Returns the smaller of two values.\n

 *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun min(a: Float, b: Float): Float\n\n/**\n * Returns the greater of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun max(a: Float, b: Float): Float\n\n// extensions\n\n\n/**\n * Raises this value to the power [x].\n *\n * Special cases:\n *   - `b.pow(0.0)` is `1.0`\n *   - `b.pow(1.0) == b`\n *   - `b.pow(NaN)` is `NaN`\n *   - `NaN.pow(x)` is `NaN` for `x != 0.0`\n *   - `b.pow(Inf)` is `NaN` for `abs(b) == 1.0`\n *   - `b.pow(x)` is `NaN` for `b < 0` and `x` is finite and not an integer\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Float.pow(x: Float): Float\n\n/**\n * Raises this value to the integer power [n].\n *\n * See the other overload of [pow] for details.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Float.pow(n: Int): Float\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n *

   - `NaN.absoluteValue` is `NaN`\n *\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\npublic expect val Float.absoluteValue: Float\n\n/**\n * Returns the sign of this value:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `NaN.sign` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect val Float.sign: Float\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n *\n * If [sign] is `NaN` the sign of the result is undefined.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Float.withSign(sign: Float): Float\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Float.withSign(sign: Int): Float\n\n\n/**\n * Rounds this [Float] value to the nearest integer and converts the result to [Int].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToInt() == Int.MAX_VALUE` when

 `x > Int.MAX_VALUE`\n *   - `x.roundToInt() == Int.MIN_VALUE` when `x < Int.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Float.roundToInt(): Int\n\n/**\n * Rounds this [Float] value to the nearest integer and converts the result to [Long].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToLong() == Long.MAX_VALUE` when `x > Long.MAX_VALUE`\n *   - `x.roundToLong() == Long.MIN_VALUE` when `x < Long.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Float.roundToLong(): Long\n\n\n// endregion\n\n\n// region ================ Integer Math ==\n\n\n/**\n * Returns the absolute value of the given value [n].\n *\n * Special cases:\n *   - `abs(Int.MIN_VALUE)` is `Int.MIN_VALUE` due to an overflow\n *\n * @see absoluteValue extension property for [Int]\n */\n@SinceKotlin(\"1.2\")\npublic

expect fun abs(n: Int): Int\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.2\")\npublic expect
fun min(a: Int, b: Int): Int\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.2\")\npublic expect
fun max(a: Int, b: Int): Int\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n *   -
`Int.MIN_VALUE.absoluteValue` is `Int.MIN_VALUE` due to an overflow\n *\n * @see abs function\n
*/\n@SinceKotlin(\"1.2\")\npublic expect val Int.absoluteValue: Int\n\n/**\n * Returns the sign of this value:\n *   -
`-1` if the value is negative,\n *   - `0` if the value is zero,\n *   - `1` if the value is positive\n
*/\n@SinceKotlin(\"1.2\")\npublic expect val Int.sign: Int\n\n\n\n/**\n * Returns the absolute value of the given
value [n].\n *\n * Special cases:\n *   - `abs(Long.MIN_VALUE)` is `Long.MIN_VALUE` due to an overflow\n *\n
* @see absoluteValue extension property for [Long]\n */\n@SinceKotlin(\"1.2\")\npublic expect
fun abs(n: Long): Long\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.2\")\npublic expect
fun min(a: Long, b: Long): Long\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.2\")\npublic
expect fun max(a: Long, b: Long): Long\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n
*   - `Long.MIN_VALUE.absoluteValue` is `Long.MIN_VALUE` due to an overflow\n *\n * @see abs function\n
*/\n@SinceKotlin(\"1.2\")\npublic expect val Long.absoluteValue: Long\n\n/**\n * Returns the sign of this value:\n
*   - `-1` if the value is negative,\n *   - `0` if the value is zero,\n *   - `1` if the value is positive\n
/\n@SinceKotlin(\"1.2\")\npublic expect val Long.sign: Int\n\n\n// endregion\n","/\n * Copyright 2010-2022
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n *
Exposes the JavaScript [Math
object](https://developer.mozilla.org/en/docs/Web/JavaScript/Reference/Global_Objects/Math) to Kotlin.\n
*/\n@PublishedApi\n@JsName(\"Math\")\ninternal external object JsMath {\n   val LN2: Double\n   fun
abs(value: Double): Double\n   fun acos(value: Double): Double\n   fun asin(value: Double): Double\n   fun
atan(value: Double): Double\n   fun atan2(y: Double, x: Double): Double\n   fun cos(value: Double): Double\n
fun sin(value: Double): Double\n   fun exp(value: Double): Double\n   fun max(vararg values: Int): Int\n   fun
max(vararg values: Float): Float\n   fun max(vararg values: Double): Double\n   fun min(vararg values: Int): Int\n
fun min(vararg values: Float): Float\n   fun min(vararg values: Double): Double\n   fun sqrt(value: Double):
Double\n   fun tan(value: Double): Double\n   fun log(value: Double): Double\n   fun pow(base: Double, exp:
Double): Double\n   fun round(value: Number): Double\n   fun floor(value: Number):
Double\n   fun ceil(value: Number): Double\n}\n\ninternal const val defineTaylorNBound = \"\"\"\n   var epsilon =
2.220446049250313E-16;\n   var taylor_2_bound = Math.sqrt(epsilon);\n   var taylor_n_bound =
Math.sqrt(taylor_2_bound);\n\"\"\"\n\ninternal const val defineUpperTaylor2Bound = \"\"\"\n
$defineTaylorNBound\n   var upper_taylor_2_bound = 1/taylor_2_bound;\n\"\"\"\n\ninternal const val
defineUpperTaylorNBound = \"\"\"\n $defineUpperTaylor2Bound\n   var upper_taylor_n_bound =
1/taylor_n_bound;\n\"\"\"\n"],"names":[],"mappings":"AAWC,CAXA,yB;EACG,IAAI,OAAO,MAAO,KAAI,UAA
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4S2B,IAt4S3B,CAAJ,C;YAA2C,sBAs4SZ,IAt4SY,C;;QAzH/C,OA2HO,W;O;KAnIX,C;kGAWA,yB;MAAA,+D;
MA2HA,gC;MAo4SA,oC;MA//SA,uC;QAQW,kBAAgB,gB;QA8/SV,gB;QADb,YAAY,C;QACZ,iD;UAAa,WAA
b,0B;UAAmB,eAAO,cAAP,EAAO,sBAAP,S;UAAA,cAAgB,iB;UAl4S/B,IA5HsC,SA4HlC,CAAU,OAAV,EAAi
B,OAAjB,CAAJ,C;YAA2C,sBAAI,OAAJ,C;;QA5H/C,OA8HO,W;O;KAtIX,C;oGAWA,6C;MA26SiB,gB;MADb,
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CAAJ,C;UAA2C,sBAk6SZ,IAl6SY,C;;MAE/C,OAAO,W;K;qGAGX,6C;MAu6SiB,gB;MADb,YAAY,C;MACZ,i
D;QAAa,WAAb,e;QA95SI,IAAI,WA85SkB,cA95SlB,EA85SkB,sBA95SlB,WA85S2B,IA95S3B,CAAJ,C;UAA2C
,sBA85SZ,IA95SY,C;;MAE/C,OAAO,W;K;sGAGX,6C;MAm6SiB,gB;MADb,YAAY,C;MACZ,iD;QAAa,WAAb,
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SY,C;;MAE/C,OAAO,W;K;qGAGX,6C;MA+5SiB,gB;MADb,YAAY,C;MACZ,iD;QAAa,WAAb,e;QAt5SI,IAAI,
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O,W;K;sGAGX,6C;MA25SiB,gB;MADb,YAAY,C;MACZ,iD;QAAa,WAAb,e;QAl5SI,IAAI,WAk5SkB,cAl5SlB,
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B,IAAI,UAAU,OAAV,EAAiB,OAAjB,CAAJ,C;YAA2C,sBAAI,OAAJ,C;;QAE/C,OAAO,W;O;KAXX,C;sGAcA,
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O,W;O;KAvRX,C;sFAYA,yB;MAAA,wE;MA8QA,+D;MA9QA,yD;QAUW,kBAAU,oB;QA8QD,Q;QAAhB,iD;U
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VxB,C;UACL,IAAI,aAAJ,C;YACH,aPqjVuC,gB;YAA5B,WOpjVX,aPojVgC,GOpjVhC,EAAS,MAAT,C;YACA,
e;;YAEA,c;;UPijVA,iB;UACA,IAAK,WAAjRyD,cAiRrD,CAAe,OAAf,CAAJ,C;;QAjRT,OAmRO,W;O;KA7RX,C;
sFAaA,yB;MAAA,wE;MAmRA,+D;MAnRA,yD;QAUW,kBAAU,oB;QAmRD,Q;QAAhB,iD;UAAgB,cAAhB,e;U
ACI,UApRiD,WAoRvC,CAAY,OAAZ,C;UOvkVP,U;UADP,YPykVe,WOzkVH,WPykVwB,GOzkVxB,C;UACL,I
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mkVA,iB;UACA,IAAK,WAtRyD,cAsRrD,CAAe,OAAf,CAAJ,C;;QAtRT,OAwRO,W;O;KAlSX,C;uFAaA,yB;M
AAA,wE;MAwRA,+D;MAxRA,yD;QAUW,kBAAU,oB;QAwRD,Q;QAAhB,iD;UAAgB,cAAhB,e;UACI,UAzRiD
,WAyRvC,CAAY,OAAZ,C;UOzlVP,U;UADP,YP2lVe,WO3lVH,WP2lVwB,GO3lVxB,C;UACL,IAAI,aAAJ,C;Y

ACH,aPylVuC,gB;YAA5B,WOxlVX,aPwlVgC,GOxlVhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPqlVA,iB;UAC
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RA,+D;MA7RA,yD;QAUW,kBAAU,oB;QA6RD,Q;QAAhB,iD;UAAgB,cAAhB,e;UACI,UA9RiD,WA8RvC,CA
AY,OAAZ,C;UO3mVP,U;UADP,YP6mVe,WO7mVH,WP6mVwB,GO7mVxB,C;UACL,IAAI,aAAJ,C;YACH,aP
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,U;UADP,YPipVe,WOjpVH,WPipVwB,GOjpVxB,C;UACL,IAAI,aAAJ,C;YACH,aP+oVuC,gB;YAA5B,WO9oV
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,oB;QA4SD,Q;QAAhB,iD;UAAgB,cAAhB,e;UACI,UA7SiD,WA6SvC,CAAY,OAAZ,C;UOjqVP,U;UADP,YPmq
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;;QA/ST,OAiTO,W;O;KA3TX,C;uFAaA,yB;MAAA,wE;MAiTA,+D;MAjTA,yD;QAUW,kBAAU,oB;QAiTD,Q;Q
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T,C;YACA,e;;YAEA,c;;UP+qVA,iB;UACA,IAAK,WApTyD,cAoTrD,CAAe,OAAf,CAAJ,C;;QApTT,OAsTO,W;
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A,c;;UPu5UA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OAAO,W;O;KAdX,C;0FAiBA,yB;MAAA,+D;MAAA,sD
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,aP26UgC,GO36UhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPw6UA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OA
AO,W;O;KAdX,C;0FAiBA,yB;MAAA,+D;MAAA,sD;QASoB,Q;QAAhB,wBAAgB,SAAhB,gB;UAAgB,cAAA,S
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Py7UA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OAAO,W;O;KAdX,C;0FAiBA,yB;MAAA,+D;MAAA,sD;QASo
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C,EAAS,MAAT,C;YACA,e;;YAEA,c;;UP4+UA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OAAO,W;O;KAdX,C;0
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AO,W;O;KAfX,C;0FAkBA,yB;MAAA,+D;MAAA,sE;QAUoB,Q;QAAhB,wBAAgB,SAAhB,gB;UAAgB,cAAA,S
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J,C;;QAET,OAAO,W;O;KAfX,C;2FAkBA,yB;MAAA,+D;MAAA,sE;QAUoB,Q;QAAhB,wBAAgB,SAAhB,gB;U
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AgB,SAAhB,gB;UAAgB,cAAhB,UAAgB,SAAhB,O;UACI,OAAO,SAAS,oBAAT,C;;QAEX,OAAO,G;O;KAVX,
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,WAAV,EAAuB,OAAvB,C;YACd,MAAO,WAAI,WAAJ,C;;UAEX,qBAAO,M;;;QA8FP,yB;O;KAdJ,C;8FAiBA,
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X,+B;MAUoB,Q;MADhB,UAAe,C;MACC,2B;MAAhB,OAAgB,cAAhB,C;QAAgB,yB;QACZ,YAAO,SAAS,OA
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;cAAP,sB;;;UAE5B,oBAAO,I;;;QAxoBP,wB;O;KATJ,C;yFAYA,yB;MAwoBA,+C;MAktFI,0D;MA11GJ,uC;QAS
W,qB;;UAwoBO,Q;UAAA,OAAa,SAysFX,YAAR,iBAAQ,CAzsFW,CAAb,W;UAAd,OAAc,cAAd,C;YAAc,uB;
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T,C;W;S;OAAF,C;MAP/B,uC;QAOmB,kBAAR,iB;QAAQ,sB;;UtCu2BD,Q;UAAA,OAAQ,SAAR,wBAAQ,CAA
R,W;UAAd,OAAc,cAAd,C;YAAc,uB;YACV,IsCx2ByB,UpCvgBS,eF+2CpB,YAAK,KAAL,CE/2CoB,CoCugBT,
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;MAAA,sD;QAYoB,Q;QAAA,2B;QAAhB,OAAgB,cAAhB,C;UAAgB,yB;UACZ,UAAU,YAAY,OAAZ,C;U/Bh+
IP,U;UADP,Y+Bk+Ie,W/Bl+IH,W+Bk+IwB,G/Bl+IxB,C;UACL,IAAI,aAAJ,C;YACH,a+Bg+IuC,gB;YAA5B,W/
B/9IX,a+B+9IgC,G/B/9IhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;U+B49IA,iB;UACA,IAAK,WAAI,OAAJ,C;;QA
ET,OAAO,W;O;KAjBX,C;2FAoBA,yB;MAAA,+D;MAAA,sD;QAYoB,Q;QAAA,2B;QAAhB,OAAgB,cAAhB,C;
UAAgB,yB;UACZ,UAAU,YAAY,OAAZ,C;U/Bp/IP,U;UADP,Y+Bs/Ie,W/Bt/IH,W+Bs/IwB,G/Bt/IxB,C;UACL,I
AAI,aAAJ,C;YACH,a+Bo/IuC,gB;YAA5B,W/Bn/IX,a+Bm/IgC,G/Bn/IhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;U
+Bg/IA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OAAO,W;O;KAjBX,C;2FAoBA,yB;MAAA,+D;MAAA,sD;QA
YoB,Q;QAAA,2B;QAAhB,OAAgB,cAAhB,C;UAAgB,yB;UACZ,UAAU,YAAY,OAAZ,C;U/BxgJP,U;UADP,Y+
B0gJe,W/B1gJH,W+B0gJwB,G/B1gJxB,C;UACL,IAAI,aAAJ,C;YACH,a+BwgJuC,gB;YAA5B,W/BvgJX,a+BugJ
gC,G/BvgJhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;U+BogJA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OAAO,W;
O;KAjBX,C;2FAoBA,yB;MAAA,+D;MAAA,sD;QAYoB,Q;QAAA,2B;QAAhB,OAAgB,cAAhB,C;UAAgB,yB;U
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J,C;YACH,a+B4hJuC,gB;YAA5B,W/B3hJX,a+B2hJgC,G/B3hJhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;U+BwhJA
,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OAAO,W;O;KAjBX,C;2FAoBA,yB;MAAA,+D;MAAA,sE;QAaoB,Q;Q
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BnjJH,W+BmjJwB,G/BnjJxB,C;UACL,IAAI,aAAJ,C;YACH,a+BijJuC,gB;YAA5B,W/BhjJX,a+BgjJgC,G/BhjJhC,
EAAS,MAAT,C;YACA,e;;YAEA,c;;U+B6iJA,iB;UACA,IAAK,WAAI,eAAe,OAAf,CAAJ,C;;QAET,OAAO,W;O
;KAlBX,C;2FAqBA,yB;MAAA,+D;MAAA,sE;QAaoB,Q;QAAA,2B;QAAhB,OAAgB,cAAhB,C;UAAgB,yB;UA
CZ,UAAU,YAAY,OAAZ,C;U/BtkJP,U;UADP,Y+BwkJe,W/BxkJH,W+BwkJwB,G/BxkJxB,C;UACL,IAAI,aAAJ,
C;YACH,a+BskJuC,gB;YAA5B,W/BrkJX,a+BqkJgC,G/BrkJhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;U+BkkJA,iB
;UACA,IAAK,WAAI,eAAe,OAAf,CAAJ,C;;QAET,OAAO,W;O;KAlBX,C;2FAqBA,yB;MAAA,+D;MAAA,sE;Q
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B6lJe,W/B7lJH,W+B6lJwB,G/B7lJxB,C;UACL,IAAI,aAAJ,C;YACH,a+B2lJuC,gB;YAA5B,W/B1lJX,a+B0lJgC,
G/B1lJhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;U+BulJA,iB;UACA,IAAK,WAAI,eAAe,OAAf,CAAJ,C;;QAET,O
AAO,W;O;KAlBX,C;2FAqBA,yB;MAAA,+D;MAAA,sE;QAaoB,Q;QAAA,2B;QAAhB,OAAgB,cAAhB,C;UAAg

B,yB;UACZ,UAAU,YAAY,OAAZ,C;U/BhnJP,U;UADP,Y+BknJe,W/BlnJH,W+BknJwB,G/BlnJxB,C;UACL,IAA
I,aAAJ,C;YACH,a+BgnJuC,gB;YAA5B,W/B/mJX,a+B+mJgC,G/B/mJhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;U+
B4mJA,iB;UACA,IAAK,WAAI,eAAe,OAAf,CAAJ,C;;QAET,OAAO,W;O;KAlBX,C;+EAqBA,yB;MAAA,gE;M
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V,EAAU,sBAAV,WAAmB,IAAnB,CAAJ,C;;QAtDhB,OAuDO,W;O;KAjEX,C;6FAaA,yB;MAAA,gE;MAAA,uC;
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B,M;MAF9B,YAAY,C;MACC,2B;MAAb,OAAa,cAAb,C;QAAa,sB;QACT,WAAY,WAAI,WAAU,cAAV,EAAU,
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CC,2B;MAAb,OAAa,cAAb,C;QAAa,sB;QACT,WAAY,WAAI,WAAU,cAAV,EAAU,sBAAV,WAAmB,IAAnB,C
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tD,OAAO,I;K;+EAGX,gC;MASoB,Q;MAAA,2B;MAAhB,OAAgB,cAAhB,C;QAAgB,yB;QAAM,IAAI,CAAC,U
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B,cAAhB,C;QAAgB,yB;QAAM,IAAI,UAAU,OAAV,CAAJ,C;UAAwB,OAAO,I;;MACrD,OAAO,K;K;+EAGX,g
C;MASoB,Q;MAAA,2B;MAAhB,OAAgB,cAAhB,C;QAAgB,yB;QAAM,IAAI,UAAU,OAAV,CAAJ,C;UAAwB,
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,IAAI,UAAU,OAAV,CAAJ,C;UAAwB,OAAO,I;;MACrD,OAAO,K;K;mFAGX,gC;MAQoB,Q;MADhB,YAAY,C
;MACI,2B;MAAhB,OAAgB,cAAhB,C;QAAgB,yB;QAAM,IAAI,UAAU,OAAV,CAAJ,C;UAAwB,qB;;MAC9C,O
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,2B;MAAhB,OAAgB,cAAhB,C;QAAgB,yB;QAAM,IAAI,UAAU,OAAV,CAAJ,C;UAAwB,qB;;MAC9C,OAAO,
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;MAAhB,OAAgB,cAAhB,C;QAAgB,yB;QAAM,cAAc,UAAU,WAAV,EAAuB,OAAvB,C;;MACpC,OAAO,W;K;
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,kBAAkB,O;MACF,2B;MAAhB,OAAgB,cAAhB,C;QAAgB,yB;QAAM,cAAc,WAAU,cAAV,EAAU,sBAAV,WA
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C;MACJ,2B;MAAhB,OAAgB,cAAhB,C;QAAgB,yB;QACZ,OAAO,SAAS,OAAT,C;;MAEX,OAAO,G;K;mFAG
X,+B;MAYoB,Q;MADhB,UAAe,C;MACC,2B;MAAhB,OAAgB,cAAhB,C;QAAgB,yB;QACZ,YAAO,SAAS,OA
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,OAAT,CAAP,I;;MAEJ,OAAO,G;K;mFAGX,yB;MAAA,SAWoB,gB;MAXpB,sC;QAYoB,Q;QADhB,Y;QACgB,
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,sC;QAYoB,Q;QADhB,Y;QACgB,2B;QAAhB,OAAgB,cAAhB,C;UAAgB,yB;UACZ,cAAO,SAAS,OAAT,CAAP,
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,OAAZ,E;K;wGAE7C,yB;MAAA,+D;MAAA,gC;QAI0B,gBAAf,gB;QAAqB,aJU5B,W;QIVA,OJWO,SIXoC,Q;O
;KAJ/C,C;yGAOA,yB;MAAA,4E;MAAA,gE;MAAA,0C;QAII,qBAAqB,QAArB,C;QAC8B,gBAAvB,eAAa,QAA
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3D,C;IAQA,qB;MAIuD,oBAAU,IAAV,E;K;sGAEvD,yB;MAAA,wE;MAAA,gC;QAIiC,gBAAtB,oB;QAA4B,aJh
CnC,W;QIgCA,OJ/BO,SI+B2C,Q;O;KAJtD,C;uGAOA,yB;MAAA,uE;MAAA,0C;QAIyC,gBAA9B,mBAAoB,QA
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2C;MAQI,gBAAgB,SAAhB,EAAsB,UAAtB,C;K;IAGJ,2C;MACI,IAAI,IAAK,KAAL,IAAa,CAAjB,C;QAAoB,M
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D,C;UACI,iBAAc,CAAd,UAAsB,SAAtB,U;YACI,YAAY,oBAAoB,KAApB,IAAZ,IAAyC,OAAO,aAAa,KAAb,I
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EJ,OAAO,K;K;IAIX,mC;MAIqD,mB;K;IAErD,wC;MP1NI,IAAI,EOiOI,YAAY,CPjOhB,CAAJ,C;QACI,cOgOqB,
gC;QP/NrB,MAAM,gCAAyB,OAAQ,WAAjC,C;;K;IOkOd,8C;MAAoE,Y;K;IgE3PV,qC;MAAiC,6B;K;uDAIvF,
mB;MACI,qB;MACA,eAAe,e;MACf,OAAO,QAAS,UAAhB,C;QACI,IAAI,OAAAA,QAAS,OAAT,EAAAmB,OAAn
B,CAAJ,C;UACI,QAAS,S;UACT,OAAO,I;;;MAGf,OAAO,K;K;yDAGX,oB;MAGoB,Q;MAFhB,qB;MACA,eAA
e,K;MACC,0B;MAAhB,OAAgB,cAAhB,C;QAAgB,yB;QACZ,IAAI,eAAI,OAAJ,CAAJ,C;UAAkB,WAAW,I;;M
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CA,OAAoC,YAA5B,iEAA4B,EAAU,oDAAV,C;K;IAKU,sE;MAAA,qB;QAAE,QAAO,gBAAP,mB;O;K;4DAFp
D,oB;MAEY,Q;MADR,qB;MACA,OAAoC,YAA5B,iEAA4B,EAAU,oDAAV,C;K;gDAGxC,Y;MACI,qB;MACA,
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,C;UACI,OAAO,K;;;MAGf,OAAO,E;K;sDAGX,mB;MACI,iBAAc,sBAAd,WAA+B,CAA/B,U;QACI,IAAI,wBA
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```

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D7B,C;;Q0EnnDR,uBAAoC,cAA5B,oBAA4B,EAAV,CAAU,EAAP,KAAO,CAAY,QpE7DE,YoE6DK,QpE7DL,
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Q,C;eACnC,uC;YAAmC,2BAAR,OAAQ,C;;YAEA,kBAAR,OAAQ,C;;QATvC,wB;QAYA,SAAS,MAAK,MAAL
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K;6CAE1C,Y;MACI,IAAI,yBAAJ,C;QAAgB,MAAM,oC;K;;IAnG1B,mC;MAAA,uD;MAGuB,qB;MA9J3B,yB;M
A+JQ,sBAAM,gB;MAJV,Y;K;IAOA,iD;MAAA,uD;MAAoD,qB;MAlKxD,yB;MAoKc,Q;MAAN,sBAAM,+D;M
AFV,Y;K;IAKA,kE;MAAA,uD;MAQ8D,eAAM,eAAN,EAAuB,UAAvB,Q;MA/KlE,yB;MAgLQ,sBAAM,gB;MA
TV,Y;K;IAYA,sD;MAAA,uD;MAA2C,qBAAK,eAAL,EAAsB,GAAtB,Q;MAA3C,Y;K;IAEA,+C;MAAA,uD;MA
G2C,qB;MAxL/C,yB;MAyLQ,sBAAM,gB;MACN,KAAK,gBAAO,QAAP,C;MALT,Y;K;IA6EJ,kC;MAKwD,gB
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B,S;MAC/B,OAAO,I;K;6CAGX,Y;MAA+C,gBAAI,iB;K;;IAhCnD,wC;MAAA,uD;MAAmD,eAAM,GAAN,Q;M
APvD,yB;MAOI,Y;K;IAEA,qC;MAAA,uD;MAGuB,eAAM,oBAAN,Q;MAZ3B,yB;MASI,Y;K;IAKA,+C;MAAA,
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D,OlFoBO,S;K;;;;kFmFzEX,uB;MAQI,OAAO,O;K;ICXX,sB;K;mCACI,Y;MACI,mBAAM,IAAN,C;K;2CAGJ,m
B;MACI,mBAAM,OAAN,C;MACA,c;K;iCAKJ,Y;K;;IAKuB,oC;MAA8B,qB;MAA7B,gC;K;2CACxB,mB;MAEI,
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ACI,cAAS,E;K;;IAIjB,sC;MAE4C,yB;K;yDACxC,mB;MACI,QAwByC,OAxB1B,OAwB0B,C;MAvBzC,QAAQ,
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,eAAM,OAAN,C;K;IAGX,kB;MACqC,MAAM,qCAA8B,sCAA9B,C;K;IAE3C,wB;MAC4C,MAAM,qCAA8B,4C
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,4B;QAOsC,MAAL,SAAK,C;O;KAPtC,C;kFASA,yB;MAAA,iD;MAAA,kC;QAWuD,OAAK,WAAL,SAAK,EAA
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B,C;MAKA,6FAGuB,CAHvB,EAG0B,IAH1B,C;MAKA,yFAGqB,CAHrB,EAGwB,IAHxB,C;MAKA,4EAGc,EA
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HtB,C;MAKA,wEAGY,EAHZ,EAGgB,IAHhB,C;MAKA,gFAGgB,EAHhB,EAGoB,IAHpB,C;MAKA,gFAGgB,E
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D,C;UAEuB,U;UAAAA,IAAI,eAAc,CAAlB,C;YAAAA,SAAqB,C;;Y7Gs+BpC,U;YADhB,YAAY,C;YACI,oB6Gt+B

+C,S7Gs+B/C,C;YAAhB,OAAgB,gBAAhB,C;cAAgB,sC;cAAM,I6Gt+BgE,U7Gs+BlD,oB6Gt+BkD,MAAK,E7G
s+BrE,C;gBAAwB,qB;;Y6Gt+Bf,SAA4B,I7Gu+BpD,K6Gv+BoD,I;;UAA/C,yB;U/GqrCC,kB;UADb,YAAY,C;U
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0B0B,Saw0BtB,CAAY,OAAZ,CAAJ,EAAyC,Obx0BC,Maw0B1C,C;;Mbx0BhB,OAA6B,W;K;IAGjC,kC;MAIyB,
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A,mB;QAAE,sB;O;K;IALlE,kC;MAKuD,OAAkB,2CAAT,+BAAS,E;K;IAEzE,8B;MAK6D,OAAI,QbksPtD,YAA
Q,CalsP0C,GAAwB,eAAxB,GAAsD,WAAT,QAAS,C;K;IAEnH,yB;MAG8C,kC;K;IAE9C,yB;MAAA,6B;K;uCA
CI,Y;MAA6C,kC;K;2CAC7C,a;MAA4B,kC;K;2CAC5B,a;MAA4B,kC;K;;;IAHhC,qC;MAAA,oC;QAAA,mB;;M
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AAX,IAAN,IAAqC,OAAf,EAAG,MAAK,IAAI,CAAJ,IAAL,CAAY,C;;MAGzC,OAAO,K;K;yCACX,uD;MAvB4
C,yB;QAAA,YAAiB,C;MAAG,uB;QAAA,UAAe,KAAM,O;aARrF,0H;K;yCAiCA,iB;MAOyD,8BAAU,KAAV,E
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MAAA,8B;MAO2B,iB;MACvB,uBAAoC,uB;K;IAEpC,qC;MAAA,yC;MACI,4B;K;wDAEA,Y;MAAiC,mC;K;;;I
AHrC,iD;MAAA,gD;QAAA,+B;;MAAA,yC;K;8CAMA,Y;MAAkC,8C;K;gDAElC,oB;MAA4C,OAAA,oBAAc,k
BAAS,QAAT,C;K;uCAC1D,Y;MAA8B,OAAA,oBAAc,U;K;+CAC5C,iB;MAAwC,OAAA,oBAAc,iBAAQ,KAA
R,C;K;+CACtD,uB;MAAmD,OAAA,oBAAc,iBAAQ,IAAR,EAAc,KAAd,C;K;wCAEjE,Y;MAAgC,OAAA,oBAA
c,W;K;gDAC9C,iB;MAA2C,OAAA,oBAAc,kBAAS,KAAT,C;K;gDACzD,uB;MAAuD,OAAA,oBAAc,kBAAS,I
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,iB;MAAiD,OAAA,oBAAc,oBAAW,KAAX,C;K;kDAC/D,uB;MAA+D,OAAA,oBAAc,oBAAW,IAAX,EAAiB,K
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D,OAGjB,2BAAS,KAAM,MAAN,8BAAc,CAAd,EAAT,EAA0B,KAAM,KAAhC,0BAAwC,CAAxC,E;;QAHiB,
OAIzC,oB;K;IAOZ,yB;MAAyC,YjFrTkB,YiFqTb,KjFrTa,CiFqTlB,I;K;IAEzC,4C;MAEI,OAAAA,SAAK,KAAK,E
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1LtV/D,CAAJ,C;QACI,c0LqVuE,+B;Q1LpVvE,MAAM,gCAAyB,OAAQ,WAAjC,C;;K;I0LqVd,yC;M1LvVI,IAA
I,E0LuVyD,sBAAQ,IAAR,K1LvVzD,CAAJ,C;QACI,c0LsVyE,+B;Q1LrVzE,MAAM,gCAAyB,OAAQ,WAAjC,C
;;K;I0LsVd,yC;M1LxVI,IAAI,E0LwV6D,QAAQ,I1LxVrE,CAAJ,C;QACI,c0LuV6E,+B;Q1LtV7E,MAAM,gCAA
yB,OAAQ,WAAjC,C;;K;I0LwVd,yC;MAAyD,oCAA0B,IAA1B,qBAAiC,KAAjC,kB;K;ICrXzD,6B;MAOqC,OtM
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tMsW4B,C;K;IsMnWvC,sC;MAWI,IAAA,KAAM,UAAN,C;QAAmB,MAAM,gCAAyB,uCAAoC,KAA7D,C;;QA
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BtB,C;;UAC/B,ItMEkE,YsMFlE,KAAM,MtME6E,KAAjB,EsMFpD,4BAAK,UtME4E,KAA7B,CsMFlE,K;YAHi
D,OtMuBI,SsMpBrB,sBtMiCsB,SsMjCb,KAAM,MtMiCiB,KAAK,GAAY,CsMjC1B,WtMiC0B,MAAZ,IAAf,Cs
MjCtB,EAA2B,KAAM,KAAjC,CtMoB+B,KAAK,GAAW,CsMpBN,WtMoBM,MAAX,IAAf,C;;YsMvBJ,OAIzC,
mB;;;K;IAGZ,8B;MAOuC,OtL0VG,UsL1VH,oBtL0VG,C;K;IsLxV1C,uC;MASmD,8BAAU,2BAAV,EAAe,KAAf
,C;K;IAEnD,6C;MAUI,sBAAsB,IAAtB,EAA4B,KAA5B,C;MAEA,iBAAiB,ItLwNkB,KsLxNlB,8B;MACjB,kBA
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YtL6T+B,C;K;IsL1T1C,uC;MAWI,IAAA,KAAM,UAAN,C;QAAmB,MAAM,gCAAyB,uCAAoC,KAA7D,C;;QA
CzB,ItL7CmE,asL6CnE,KAAM,KtL7C+E,KAAlB,EsL6CtD,6BAAM,UtL7C8E,KAA9B,CsL6CnE,K;UAFoD,OA
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AQI,4BAAU,KnKg/FH,QmKh/FP,C;MACA,OAAO,K;K;IAGX,uC;MAKsD,OnK+iG3C,emK/iG2C,4BAAU,IAA
V,CnK+iG3C,C;K;ImK7iGX,4D;MAOgD,yB;QAAA,YAAAiB,C;MAAG,uB;QAAA,UAAe,KAAM,K;MACrF,4BA
AU,KnK69FH,QmK79FP,EAA+B,SAA/B,EAA0C,OAA1C,C;MACA,OAAO,K;K;IAIX,2C;M3LrHI,IAAI,EX2B8
D,YsM0FD,KtM1FkB,KAAjB,EsM0FO,ItM1FsB,KAA7B,CsM0FD,I3LrH7D,CAAJ,C;QACI,c2LoH6E,+B;Q3Ln
H7E,MAAM,gCAAyB,OAAQ,WAAjC,C;;K;I2LoHd,4C;M3LtHI,IAAI,EKmC+D,asLmFC,KtLnFiB,KAAlB,EsL
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C,C;;K;I4LpBc,6C;MAsCxB,oC;MA/BA,iB;MANA,Y;MACA,Y;MACA,Y;MACA,Y;MACA,Y;MACA,sB;M5LY
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;QyLxHiB,c;;K;qCAGjB,Y;MAGI,QAAQ,Q;MACR,IAAI,IAAO,MAAO,C;MAClB,WAAI,Q;MACJ,WAAI,Q;M
ACJ,WAAI,Q;MACJ,SAAS,Q;MACT,WAAI,E;MACJ,IAAK,IAAO,KAAM,CAAd,GAAsB,EAAtB,GAA8B,MA
AO,C;MACzC,WAAI,C;MACJ,gCAAU,MAAV,I;MACA,OAAO,IAAI,aAAJ,I;K;8CAGX,oB;MACI,OAAU,cAA
V,cAAU,EAAc,QAAd,C;K;IAEd,kC;MAAA,sC;MACI,4B;K;;;IADJ,8C;MAAA,6C;QAAA,4B;;MAAA,sC;K;;IA7
BA,gD;MAAA,sD;MACQ,yBAAK,KAAL,EAAY,KAAZ,EAAmB,CAAnB,EAAsB,CAAtB,EAA+B,CAAN,KAA
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AjB,EAAwB,KAAxB,KAAkC,8BAAiB,KAAjB,EAAwB,iBAAxB,C;K;iDAC7E,Y;MAAkC,QAAC,8BAAiB,UA
AjB,EAAwB,iBAAxB,C;K;;IAcR,gD;MAI3B,gBAAqB,K;MACrB,uBAA4B,Y;K;0FACD,Y;MAAQ,oB;K;iGACD
,Y;MAAQ,2B;K;2DAE1C,gB;MAA+D,YAAK,C;K;mDAEpE,iB;MAAgD,gBAAS,aAAT,IAAmB,SAAS,oB;K;0C
AC5E,Y;MAAkC,SAAE,iBAAU,oBAAZ,C;K;yCAElC,iB;MACI,OAAO,4CAA+B,kBAAa,KAAM,UAAnB,KAC
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AF,qBAAW,oB;K;;IAGjD,oC;MAOqF,6BAAkB,SAAlB,EAAwB,IAAxB,C;K;IAQvD,+C;MAI1B,gBAAqB,K;M
ACrB,uBAA4B,Y;K;yFACF,Y;MAAQ,oB;K;gGACD,Y;MAAQ,2B;K;0DAEzC,gB;MAA6D,YAAK,C;K;kDAElE
,iB;MAA+C,gBAAS,aAAT,IAAmB,SAAS,oB;K;yCAC3E,Y;MAAkC,SAAE,iBAAU,oBAAZ,C;K;wCAElC,iB;M
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B,CAA9B,C;K;0CAIX,Y;MACI,OAAW,cAAJ,GAAe,EAAf,GAAuB,MAAY,SAAP,aAAO,CAAZ,QAAuC,SAAd,
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uB,IAAvB,C;K;oFAGlF,8B;MAQI,0BAAmB,2BAAS,OAAT,C;K;IAGvB,+C;MACI,IAAI,CAAC,UAAL,C;QAAi
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B;MAIA,gB;M/LQA,IAAI,E+LDS,iBAAY,IAAb,MAAuB,iBAAvB,C/LCR,CAAJ,C;QACI,c+LDQ,iBAAY,IAAh
B,GACI,8CADJ,GAGI,sCAA0B,aAA1B,qC;Q/LDR,MAAM,gCAAyB,OAAQ,WAAjC,C;;K;yC+LKV,Y;MAAwC
,Q;MAAA,oB;MACpC,iB;QAD8B,OACtB,G;WACR,oD;QAF8B,OAEF,SAAL,SAAK,C;WAC5B,6C;QAH8B,O
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;;MAAA,yC;K;;2CArCJ,Y;MAWI,oB;K;2CAXJ,Y;MAeI,gB;K;6CAfJ,0B;MAAA,2BAWI,8CAXJ,EAeI,kCAfJ,C;
K;yCAAA,Y;MAAA,c;MAWI,yD;MAIA,qD;MAfJ,a;K;uCAAA,iB;MAAA,4IAWI,4CAXJ,IAeI,oCAfJ,I;K;ICLA,
kC;MAAA,e;MAAA,iB;MAAA,uB;K;IAAA,gC;MAAA,mC;O;MAYI,4D;MAKA,8C;MAKA,gD;K;;IAVA,2C;M
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A,mG;K;;IAAA,iC;MAAA,a;aAAA,W;UAAA,wC;aAAA,I;UAAA,iC;aAAA,K;UAAA,kC;;UAAA,6D;;K;;6ECA
A,yB;MAAA,4F;MAAA,2B;QASI,MAAM,mCAA8B,0EAA9B,C;O;KATV,C;ICkCA,+D;MAaW,Q;MAAP,OAA
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AO,OAAP,C;WAC5B,2B;QAAmB,yBAAO,kBAAP,C;;QACX,yBAAe,SAAR,OAAQ,CAAf,C;K;IpL7EhB,+B;M
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Q,KAAxB,C;QACI,MAAM,gCAAyB,WAAQ,SAAR,mDAAwD,KAAjF,C;;MAEH,IAAI,YAAO,EAAX,C;QACH
,mBAAM,SAAN,C;;QAEA,0BAAM,SAAN,IAAa,EAAb,C;;MAHJ,W;K;IAuFJ,8B;MAWsC,+B;K;0EAEtC,4B;M
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,KAAZ,C;QAAmB,OAAO,I;MAC1B,IAAI,CAAC,UAAL,C;QAAAiB,OAAO,K;MAExB,gBAAqB,cAAL,SAAK,C;
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pB,C;YACI,IAAI,mBAAmB,mCAAW,MAAlC,C;cAA0C,MAAM,+B;YAChD,kBAAkB,I;YAClB,Q;;UAEkB,iBA
Ae,K;UA+EjD,QAHgC,U;UAIhC,Y;YAAO,eAhFqB,KAgFjB,O;YAAJ,S;cAAc,SAAU,YAhFH,KAgFG,YAAK,C
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IV,sC;MAAC,gB;K;IAOf,4E;MAAC,4B;MAA6B,8B;MAAgD,sB;K;+DACpG,Y;MAAsC,OAAgC,aAA/B,iBAA
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,4B;MAoII,QAhIK,SAgIG,GAhIc,KAgId,I;MACR,IAAI,CAjIC,SAiID,GAjIkB,KAiIlB,IAAiB,CAAjB,IAAsB,eAj
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,K;K;kFgC7NL,Y;MAAQ,OAAA,YAAQ,O;K;oCAE9C,Y;MAC8E,+BAAS,YAAT,C;K;IAExD,oC;MAAC,oB;M
ACnB,eAAoB,C;K;4CACpB,Y;MAAyB,sBAAQ,YAAM,O;K;yCACvC,Y;MAAoD,Q;MAA9B,IAAI,eAAQ,YAA
M,OAAlB,C;QAAA,OhCoTY,UgCpTY,aAAM,mBAAN,EAAM,2BAAN,OhCoTZ,C;;QgCpT0C,MAAM,2BAAu
B,YAAM,WAA7B,C;K;;0CAGtF,mB;MAIS,Q;MAAL,IAAI,eAAC,0EAAD,QAAJ,C;QAAiC,OAAO,K;MAExC,
OAAe,WAAR,YAAQ,EAAS,OhC4MO,KgC5MhB,C;K;+CAGnB,oB;MACY,Q;MAA2B,gBAA3B,gE;MAA2B,c;;
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hB,C;UAAgB,2B;Uc7nD6B,2Bd6nDR,Oc7nDQ,Q;UAAA,W;YAAuB,oBAAR,YAAQ,Ed6nD/B,OlBr7CF,KgCxM
iC,C;;Ud6nD9C,IAAI,OAAJ,C;YAAyB,aAAO,K;YAAP,e;;;QAC/C,aAAO,I;;;Mc9nDH,iB;K;mCAGJ,Y;MAAkC,
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hC,Y;K;;;;oCAPJ,Y;MAAA,OAKqB,qDALrB,M;K;oCAAA,Y;MAAA,c;MAKqB,wD;MALrB,a;K;kCAAA,iB;M
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BFvD,C;4FAIA,yB;MD6NA,6B;MC7NA,wB;QAEuD,OAMD,cAAK,IAAK,KAAK,GAAY,CD8N9C,cCpO+B,K
DoOrB,KAAL,GAAiB,GAAtB,CC9N8C,MAAZ,IAAf,C;O;KARtD,C;4FAGA,yB;MC2NA,6B;MD3NA,wB;QAE
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;KALtD,C;4FAGA,yB;MAAA,6B;MAAA,wB;QAEsD,qBAAe,YAAV,IAAK,KAAK,EAAM,KAAM,KAAZ,CAA
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A,6B;MCxKA,kD;MDuOJ,0B;MAAA,+B;MC3LI,wB;QAQ6C,OD8LR,eAAW,OC5OI,cAAc,IAAd,ED2KjB,cC7
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+B;MgB/LA,oD;MhBgEA,wB;QAQ6C,OgBlES,ehBkMjB,eAAW,oBAAL,SAAK,CAAL,iBAAN,CgBlMiB,EhBk
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D,C;wFASA,yB;MAAA,6B;MAAA,wB;QAEiD,qBAAK,IAAK,KAAL,GAAc,KAAM,KAAzB,C;O;KAFjD,C;sFA
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,6B;MAAA,mB;QAEgC,qBAAU,CAAL,SAAL,C;O;KAFhC,C;8EAIA,yB;MAAA,0B;MAAA,mB;QAUmC,OAA
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C;O;KD1DvC,C;8EAUA,Y;MAEmC,W;K;gFACnC,yB;MAAA,kBAS6D,sB;MAT7D,+B;MAAA,mB;QASqC,sB
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,qBAAK,SAAL,C;O;KAVvC,C;wEAWA,yB;MAAA,6B;MAAA,4B;QAWwC,qBAAK,SAAK,QAAV,C;O;KAXx
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,aAAO,K;YAAP,e;;;QAC/C,aAAO,I;;;Me9nDH,iB;K;kCAGJ,Y;MAAkC,OAAA,IAAK,QAAQ,OAAb,KAAqB,C;
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;QAC3B,iBAAU,K;;QAEV,chOjD6C,SgOiD7C,WhOjDuD,KAAK,GgOiDpD,WhOjD+D,KAAX,IAAf,C;;MgOm
DjD,OAAO,K;K;;IhNpHU,qB;MAErB,6B;MAFwD,gB;K;IAExD,2B;MAAA,+B;MACI,iBAGoC,a;MAEpC,iBAG
oC,c;MAEpC,kBAGmC,C;MAEnC,iBAGkC,E;K;;;IAnBtC,uC;MAAA,sC;QAAA,qB;;MAAA,+B;K;sGAsBA,yB;
MjBqRA,WAS6D,wB;MAT7D,+B;MiB7PA,gD;MAxBA,wB;QAM0D,OAyBS,aAAa,IAAK,KAAlB,EAA8B,CjB
+P5D,eAAW,oBiBxRyB,KjBwR9B,KAAK,CAAL,UAAN,CiB/P4D,MAA9B,C;O;KA/BnE,C;sGAQA,yB;Mf8QA,
aAS6D,0B;MAT7D,+B;Me9PA,gD;MAhBA,wB;QAM2D,OAiBQ,aAAa,IAAK,KAAlB,EAA8B,CfgQ5D,eAAW,o
BejR0B,KfiR/B,KAAK,CAAL,YAAN,CehQ4D,MAA9B,C;O;KAvBnE,C;sGAQA,yB;MhByRA,kBAS6D,sB;MA
T7D,+B;MgBjRA,gD;MARA,wB;QAMyD,OASU,aAAa,IAAK,KAAlB,EAA8B,ChBmR5D,eAAW,oBgB5RwB,K
hB4R7B,KAAK,CAAL,iBAAN,CgBnR4D,MAA9B,C;O;KAfnE,C;kGAQA,yB;MAAA,gD;MAAA,wB;QAOmE,o
BAAa,IAAK,KAAlB,EAAwB,KAAM,KAA9B,C;O;KAPnE,C;4FASA,yB;MjBoPA,WAS6D,wB;MAT7D,+B;MiB
pPA,wB;QAEuD,OASA,eAAM,IAAK,KAAK,KAAW,CjBkP7C,eAAW,oBiB3PiB,KjB2PtB,KAAK,CAAL,UAA

N,CiBlP6C,MAAX,CAAhB,C;O;KAXvD,C;4FAGA,yB;MfkPA,aAS6D,0B;MAT7D,+B;MelPA,wB;QAEwD,OA
MD,eAAM,IAAK,KAAK,KAAW,CfmP7C,eAAW,oBezPkB,KfyPvB,KAAK,CAAL,YAAN,CenP6C,MAAX,CAA
hB,C;O;KARvD,C;4FAGA,yB;MhBkQA,kBAS6D,sB;MAT7D,+B;MgBlQA,wB;QAEsD,OAGC,eAAM,IAAK,K
AAK,KAAW,ChBsQ7C,eAAW,oBgBzQgB,KhByQrB,KAAK,CAAL,iBAAN,CgBtQ6C,MAAX,CAAhB,C;O;KA
LvD,C;4FAGA,yB;MAAA,+B;MAAA,wB;QAEuD,sBAAM,IAAK,KAAK,KAAK,KAAM,KAAX,CAAhB,C;O;K
AFvD,C;8FAIA,yB;MjBuOA,WAS6D,wB;MAT7D,+B;MiBvOA,wB;QAEwD,OASA,eAAM,IAAK,KAAK,UAA
Y,CjBqO/C,eAAW,oBiB9OmB,KjB8OxB,KAAK,CAAL,UAAN,CiBrO+C,MAAZ,CAAhB,C;O;KAXxD,C;8FAG
A,yB;MfqOA,aAS6D,0B;MAT7D,+B;MerOA,wB;QAEyD,OAMD,eAAM,IAAK,KAAK,UAAY,CfsO/C,eAAW,o
Be5OoB,Kf4OzB,KAAK,CAAL,YAAN,CetO+C,MAAZ,CAAhB,C;O;KARxD,C;8FAGA,yB;MhBqPA,kBAS6D,s
B;MAT7D,+B;MgBrPA,wB;QAEuD,OAGC,eAAM,IAAK,KAAK,UAAY,ChByP/C,eAAW,oBgB5PkB,KhB4PvB,
KAAK,CAAL,iBAAN,CgBzP+C,MAAZ,CAAhB,C;O;KALxD,C;8FAGA,yB;MAAA,+B;MAAA,wB;QAEwD,sB
AAM,IAAK,KAAK,UAAM,KAAM,KAAZ,CAAhB,C;O;KAFxD,C;8FAIA,yB;MjB0NA,WAS6D,wB;MAT7D,+
B;MiB1NA,wB;QAEwD,OASA,eAAM,IAAK,KAAK,UAAY,CjBwN/C,eAAW,oBiBjOmB,KjBiOxB,KAAK,CA
AL,UAAN,CiBxN+C,MAAZ,CAAhB,C;O;KAXxD,C;8FAGA,yB;MfwNA,aAS6D,0B;MAT7D,+B;MexNA,wB;Q
AEyD,OAMD,eAAM,IAAK,KAAK,UAAY,CfyN/C,eAAW,oBe/NoB,Kf+NzB,KAAK,CAAL,YAAN,CezN+C,M
AAZ,CAAhB,C;O;KARxD,C;8FAGA,yB;MhBwOA,kBAS6D,sB;MAT7D,+B;MgBxOA,wB;QAEuD,OAGC,eAA
M,IAAK,KAAK,UAAY,ChB4O/C,eAAW,oBgB/OkB,KhB+OvB,KAAK,CAAL,iBAAN,CgB5O+C,MAAZ,CAAh
B,C;O;KALxD,C;8FAGA,yB;MAAA,+B;MAAA,wB;QAEwD,sBAAM,IAAK,KAAK,UAAM,KAAM,KAAZ,CA
AhB,C;O;KAFxD,C;0FAIA,yB;MjB6MA,WAS6D,wB;MAT7D,+B;MiBpMA,8C;MATA,wB;QAEsD,OASA,YA
AY,IAAZ,EjB2MjB,eAAW,oBiBpNe,KjBoNpB,KAAK,CAAL,UAAN,CiB3MiB,C;O;KAXtD,C;0FAGA,yB;Mf2
MA,aAS6D,0B;MAT7D,+B;MerMA,8C;MANA,wB;QAEuD,OAMD,YAAY,IAAZ,Ef4MjB,eAAW,oBelNgB,Kfk
NrB,KAAK,CAAL,YAAN,Ce5MiB,C;O;KARtD,C;0FAGA,yB;MhB2NA,kBAS6D,sB;MAT7D,+B;MgBxNA,8C;
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C;O;KALtD,C;0FAGA,yB;MAAA,8C;MAAA,wB;QAEsD,mBAAY,IAAZ,EAAkB,KAAlB,C;O;KAFtD,C;0FAIA
,yB;MjBgMA,WAS6D,wB;MAT7D,+B;MiB3KA,oD;MArBA,wB;QAMsD,OAqBA,eAAe,IAAf,EjB8KjB,eAAW,
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;Me5KA,oD;MAdA,wB;QAMuD,OAcD,eAAe,IAAf,Ef+KjB,eAAW,oBe7LgB,Kf6LrB,KAAK,CAAL,YAAN,Ce/
KiB,C;O;KApBtD,C;0FAOA,yB;MhBsMA,kBAS6D,sB;MAT7D,+B;MgB/LA,oD;MAPA,wB;QAMqD,OAOC,eA
Ae,IAAf,EhBkMjB,eAAW,oBgBzMc,KhByMnB,KAAK,CAAL,iBAAN,CgBlMiB,C;O;KAbtD,C;0FAOA,yB;MA
AA,oD;MAAA,wB;QAMsD,sBAAe,IAAf,EAAqB,KAArB,C;O;KANtD,C;oGAQA,yB;MjBmKA,WAS6D,wB;M
AT7D,+B;MiBpMA,8C;MAiCA,wB;QAMkD,OArCI,YAAY,IAAZ,EjB2MjB,eAAW,oBiBtKgB,KjBsKrB,KAAK,
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NjB,eAAW,oBgB5Ke,KhB4KpB,KAAK,CAAL,iBAAN,CgB/NiB,C;O;KA6CtD,C;oGAOA,yB;MAtDA,8C;MAs
DA,wB;QAMkD,OA1DI,YAAY,IAAZ,EA0DA,KA1DA,C;O;KAoDtD,C;0FAQA,yB;MjBsIA,WAS6D,wB;MAT7
D,+B;MiB3KA,oD;MjB4OJ,0B;MAAA,+B;MiBvMI,wB;QAQ6C,OjB0MP,eAAW,OiBjPK,eAAe,IAAf,EjB8KjB,e
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8HA,aAS6D,0B;MAT7D,+B;Me5KA,oD;Mf6OJ,4B;MAAA,iC;Me/LI,wB;QAQ+C,OfkMP,gBAAY,QelPE,eAAe,
IAAf,Ef+KjB,eAAW,oBe/HQ,Kf+Hb,KAAK,CAAL,YAAN,Ce/KiB,CAsLf,Kf4Da,SAAZ,C;O;Ke1MxC,C;0FAS
A,yB;MhBwIA,kBAS6D,sB;MAT7D,+B;MgB/LA,oD;MhBkQJ,6B;MgB3MI,wB;QAQ2C,OhB8MP,cgBvQkB,eA
Ae,IAAf,EhBkMjB,eAAW,oBgBzII,KhByIT,KAAK,CAAL,iBAAN,CgBlMiB,CAgMnB,KhBuEW,QAAV,C;O;K
gBtNpC,C;0FASA,yB;MAhEA,oD;MAgEA,wB;QAQ6C,OAlES,eAAe,IAAf,EAkEL,KAlEK,C;O;KA0DtD,C;0EA
UA,yB;MAAA,+B;MAAA,mB;QAM0C,sBAAM,SAAK,MAAX,C;O;KAN1C,C;0EAQA,yB;MAAA,+B;MAAA,
mB;QAM0C,sBAAM,SAAK,MAAX,C;O;KAN1C,C;kGAQA,yB;MAAA,gD;MAAA,wB;QAE+D,2BAAW,IAAX
,EAAiB,KAAjB,C;O;KAF/D,C;0FAIA,yB;MAAA,+B;MAAA,2B;QAOoD,sBAAM,oBAAS,QAAT,CAAN,C;O;K
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B;MAAA,+B;MAAA,wB;QAEkD,sBAAM,IAAK,KAAL,IAAa,KAAM,KAAnB,CAAN,C;O;KAFlD,C;0FAGA,y
B;MAAA,+B;MAAA,wB;QAEmD,sBAAM,IAAK,KAAL,KAAc,KAAM,KAApB,CAAN,C;O;KAFnD,C;0EAGA,
yB;MAAA,+B;MAAA,mB;QAEiC,sBAAM,SAAK,MAAX,C;O;KAFjC,C;gFAIA,yB;MAAA,0B;MAAA,mB;QA
UmC,OAAK,OAAL,SAAK,S;O;KAVxC,C;kFAWA,yB;MAAA,4B;MAAA,mB;QAUqC,OAAK,QAAL,SAAK,S;
O;KAV1C,C;8EAWA,Y;MAUiC,OAAA,SAAK,Q;K;gFACtC,Y;MASmC,gB;K;kFAEnC,yB;MjBmEJ,0B;MAAA,
+B;MiBnEI,mB;QASqC,OjBqEC,eAAW,OiBrEZ,SjBqEY,SAAX,C;O;KiB9EtC,C;oFAUA,yB;Mf0DJ,4B;MAAA,
iC;Me1DI,mB;QASuC,Of4DC,gBAAY,Qe5Db,Sf4Da,SAAZ,C;O;KerExC,C;gFAUA,yB;MhBqEJ,6B;MgBrEI,mB
;QASmC,OhBuEC,cgBvED,ShBuEW,QAAV,C;O;KgBhFpC,C;kFAUA,Y;MAEqC,W;K;kFAErC,yB;MASA,kD;
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Ad,C;O;KARvC,C;+BAUA,Y;MAAyC,qBAAc,SAAd,C;K;;;;;+BAnW7C,Y;MAAA,c;MAG4D,qD;MAH5D,a;K;6
BAAA,iB;MAAA,2IAG4D,oCAH5D,G;K;wEAuWA,yB;MAAA,+B;MAAA,4B;QAW0C,sBAAW,oBAAL,SAAK
,CAAX,C;O;KAX1C,C;0EAYA,yB;MAAA,+B;MAAA,4B;QAW2C,sBAAW,oBAAL,SAAK,CAAX,C;O;KAX3C
,C;0EAYA,yB;MAAA,+B;MAAA,4B;QAWyC,sBAAW,oBAAL,SAAK,CAAX,C;O;KAXzC,C;0EAYA,yB;MAA
A,+B;MAAA,4B;QAU0C,sBAAM,SAAN,C;O;KAV1C,C;yEAYA,yB;MAAA,kD;MAAA,4B;QAS2C,qBAAmB,S
AAnB,C;O;KAT3C,C;0EAUA,yB;MAAA,kD;MAAA,4B;QAS4C,qBAAc,SAAd,C;O;KAT5C,C;IiB9ZA,6B;MAC
qB,sB;K;uCAKjB,iB;MAM6C,OjBsYP,UiBtYO,aAAQ,KAAR,CjBsYP,C;K;uCiBpYtC,wB;MAOI,aAAQ,KAAR,I
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MAAC,oB;MACnB,eAAoB,C;K;4CACpB,Y;MAAyB,sBAAQ,YAAM,O;K;yCACvC,Y;MAAoD,Q;MAA9B,IAAI
,eAAQ,YAAM,OAAlB,C;QAAA,OjBiXY,UiBjXY,aAAM,mBAAN,EAAM,2BAAN,OjBiXZ,C;;QiBjX0C,MAA
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;MAExC,OAAe,WAAR,YAAQ,EAAS,OjB+PO,KiB/PhB,C;K;+CAGnB,oB;MACY,Q;MAA2B,gBAA3B,gE;MA
A2B,c;;QhB6nDvB,U;QADhB,IAAI,wCAAsB,mBAA1B,C;UAAqC,aAAO,I;UAAP,e;;QACrB,6B;QAAhB,OAAg
B,gBAAhB,C;UAAgB,2B;UgB7nD6B,2BhB6nDR,OgB7nDQ,Q;UAAA,W;YAAuB,oBAAR,YAAQ,EhB6nD/B,O
Dl4CF,KiB3PiC,C;;UhB6nD9C,IAAI,OAAJ,C;YAAyB,aAAO,K;YAAP,e;;;QAC/C,aAAO,I;;;MgB9nDH,iB;K;mC
AGJ,Y;MAAkC,OAAA,IAAK,QAAQ,OAAb,KAAqB,C;K;;IA9CvD,sC;MAAA,oD;MACgC,uBAAK,iBAAU,IA
AV,CAAL,C;MADhC,Y;K;;;;oCAPJ,Y;MAAA,OAKqB,qDALrB,M;K;oCAAA,Y;MAAA,c;MAKqB,wD;MALrB,
a;K;kCAAA,iB;MAAA,2IAKqB,0CALrB,G;K;gFAwDA,yB;MAAA,yC;MAWsC,yC;QAAA,wB;UAAW,OAAA,a
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KAXX,C;kFAcA,oB;MAGqE,e;K;IgMlE9C,2C;MAsBnB,kC;MAtByD,4BAAiB,KAAjB,EAAwB,YAAxB,K;K;qF
AC/B,Y;MAAQ,iB;K;4FACD,Y;MAAQ,gB;K;8CAEzC,iB;MAA+C,WjNgDoB,aiNhDpB,UjNgDsC,KAAlB,EiNh
DX,KjNgDyC,KAA9B,CiNhDpB,K;MAAA,S;QAAkB,OjNgDE,aiNhDF,KjNgDoB,KAAlB,EiNhDO,SjNgDuB,K
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N1QV,I;K;sCAE5B,Y;MAAkC,OAAE,UAAF,qBAAU,S;K;IAE5C,gC;MAAA,oC;MACI,aAC+B,iBAAW,6BAA
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,CAAyB,QAA9G,I;K;0CAE5B,Y;MAAkC,OAAI,uBAAO,CAAX,GAAgB,UAAF,qBAAU,SAAV,cAAqB,SAArB,
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F,4BAAiB,UAAjB,EAA6B,QAA7B,EAAuC,IAAvC,C;K;;;IATnG,kD;MAAA,iD;QAAA,gC;;MAAA,0C;K;;IAm
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N/C2C,KAA9B,CiN+CtB,KAA7C,GjN/CmE,aiN+CH,KjN/CqB,KAAlB,EiN+CM,IjN/CwB,KAA9B,CiN+CH,K;
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C,qB;K;8CAElC,Y;MACI,YAAY,W;MACZ,IAAI,6BAAS,mBAAT,QAAJ,C;QACI,IAAI,CAAC,cAAL,C;UAAc,
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B,C;;MiNgDnD,OAAO,K;K;;wEC5Hf,yB;MAAA,8C;MAAA,uB;QAOI,OAAO,MAAM,CAAN,EAAS,CAAT,C;
O;KAPX,C;wEAUA,yB;MAAA,8C;MAAA,uB;QAOI,OAAO,MAAM,CAAN,EAAS,CAAT,C;O;KAPX,C;wEAU
A,yB;MAAA,8C;MAAA,uB;QAOI,OAAO,MAAM,CAAN,EAAS,CAAT,C;O;KAPX,C;wEAUA,yB;MAAA,8C;
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C,OAAQ,anO+RhB,cmO/RgB,C;O;KANrD,C;oGAQA,yB;M/GwCA,4B;M+GxCA,4B;QAMqD,O/GwCM,YpH+
OtB,coH/OsB,C;O;K+G9C3D,C;sGAQA,yB;MAAA,kE;MAAA,4B;QAMsD,OAAQ,sBnO+QzB,cmO/QyB,C;O;K
AN9D,C;8FAQA,yB;MAAA,0D;MnOwWA,6B;MmOxWA,4B;QAOmD,OnO2WZ,cmO3WoB,kBnOsQtB,cmOtQ
sB,CnO2WpB,C;O;KmOlXvC,C;4FASA,yB;MAAA,wD;MnO+VA,6B;MmO/VA,4B;QAOkD,OnOkWX,cmOlW
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D,OnOmVlB,cmOnV0B,WnO8O5B,cmO9O4B,EAAW,QAAX,CnOmV1B,C;O;KmOhWvC,C;kFAgBA,yB;MAA
A,8C;MnOsUA,6B;MmOtUA,sC;QAa0D,OnOmUnB,cmOnU2B,YnO8N7B,cmO9N6B,EAAY,QAAZ,CnOmU3B,
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yB;MAAA,4C;MnN2RA,+B;MmN3RA,sC;QAa2D,OnNwRjB,emNxR0B,WnN+K7B,cmN/K6B,EAAW,QAAX,C
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X,C;O;KoOjMzC,C;gFAUA,yB;MAAA,4C;MpOqJA,+B;MoOrJA,sC;QAa2D,OpOkJjB,eoOlJ0B,WpOmD7B,coO
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B,eoOnI2B,YpOoC9B,coOpC8B,EAAY,QAAZ,CpOmI3B,C;O;KoOhJ1C,C;oFAeA,yB;MlOgFI,6B;MkO3SJ,gD;
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a,CAAX,C;O;KE1EvC,C;sFAUA,Y;MAEuC,W;K;kFACvC,yB;MAAA,6B;MAAA,mB;QASmC,qBAAU,SAAL,G
AAiB,KAAtB,C;O;KATnC,C;oFAUA,yB;MAAA,aAS6D,0B;MAT7D,+B;MAAA,mB;QASqC,sBAAW,oBAAL,S
AAK,CAAL,YAAN,C;O;KATrC,C;oFAWA,Y;MAMqC,OApDC,SAAL,GAAiB,K;K;sFAqDlD,Y;MAMuC,OA3
DD,SAAL,GAAiB,K;K;gCA6DlD,Y;MAAyC,OAAQ,CA7DX,SAAL,GAAiB,KA6DD,Y;K;;;;;gCA3UrD,Y;MAA
A,c;MAG6D,qD;MAH7D,a;K;8BAAA,iB;MAAA,2IAG6D,oCAH7D,G;K;0EA+UA,yB;MAAA,iC;MAAA,4B;QA
W4C,uBAAY,SAAZ,C;O;KAX5C,C;4EAYA,yB;MAAA,iC;MAAA,4B;QAU6C,uBAAO,SAAP,C;O;KAV7C,C;4
EAWA,yB;MAAA,4B;MAAA,iC;MAAA,4B;QAW2C,uBAAY,QAAL,SAAK,CAAZ,C;O;KAX3C,C;4EAYA,yB;
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K;wCAKjB,iB;MAM8C,OjCsVL,WiCtVK,aAAQ,KAAR,CjCsVL,C;K;wCiCpVzC,wB;MAOI,aAAQ,KAAR,IAAi
B,KjC4OgB,K;K;mFiCxOP,Y;MAAQ,OAAA,YAAQ,O;K;qCAE9C,Y;MAC+E,gCAAS,YAAT,C;K;IAEzD,qC;M
AAC,oB;MACnB,eAAoB,C;K;6CACpB,Y;MAAyB,sBAAQ,YAAM,O;K;0CACvC,Y;MAAoD,Q;MAA9B,IAAI,e
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2BAAuB,YAAM,WAA7B,C;K;;2CAGvF,mB;MAIS,Q;MAAL,IAAI,eAAC,0EAAD,SAAJ,C;QAAkC,OAAO,K;

MAEzC,OAAe,WAAR,YAAQ,EAAS,OjCuNS,KiCvNlB,C;K;gDAGnB,oB;MACY,Q;MAA2B,gBAA3B,gE;MAA
2B,c;;QjB6nDvB,U;QADhB,IAAI,wCAAsB,mBAA1B,C;UAAqC,aAAO,I;UAAP,e;;QACrB,6B;QAAhB,OAAgB,
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mCAAA,iB;MAAA,2IAKqB,0CALrB,G;K;kFAwDA,yB;MAAA,2C;MAWwC,0C;QAAA,wB;UAAW,OAAA,aA
AK,KAAL,CjCkMV,K;S;O;MiC7MzC,6B;QAWI,OAAO,qBAAY,gCAAW,IAAX,GAAiB,wBAAjB,CAAZ,C;O;
KAXX,C;oFAcA,oB;MAGwE,e;K;ImM3ExE,sC;MAQ2D,OAAa,WAAb,StOwQjB,KAAL,GAAiB,GsOxQkB,EA
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uC,Q;MAAA,2DAAoB,kBAAkB,SAAlB,C;K;IAE3D,sC;MAOiD,Q;MAAA,2CAAe,KAAf,oBAAyB,kBAAkB,SA
AlB,C;K;IAE1E,6B;MAMmC,Q;MAAA,yDAAkB,kBAAkB,SAAlB,C;K;IAErD,oC;MAO6C,Q;MAAA,yCAAa,K
AAb,oBAAuB,kBAAkB,SAAlB,C;K;IAEpE,8B;MAMqC,Q;MAAA,0DAAmB,kBAAkB,SAAlB,C;K;IAExD,qC;
MAO+C,Q;MAAA,0CAAc,KAAd,oBAAwB,kBAAkB,SAAlB,C;K;IAMvE,kC;MAM4C,kCAAsB,EAAtB,C;K;IA
E5C,2C;MASmB,Q;MAAA,sBAAL,SAAK,EAAa,KAAb,C;MAAL,iB;QAA4B,OAAO,I;;MAA7C,UAAU,I;MAC
V,IrO/EkE,YqO+E9D,GrO/E+E,KAAjB,EAA6B,CD6P5D,SsO9KzB,6BAAM,UtO8K6B,KAAL,GAAiB,GAAtB,
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;MAExB,YAAkB,4BAAK,U;MACvB,S;MAEA,gBAAgB,qBAAK,CAAL,C;MAChB,IAAI,YAAY,EAAhB,C;QA
CI,IAAI,WAAU,CAAV,IAAe,cAAa,EAAhC,C;UAAqC,OAAO,I;QAC5C,QAAQ,C;;QAER,QAAQ,C;;MAGZ,uB
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EA,aAAa,SAAK,O;MAClB,IAAI,WAAU,CAAd,C;QAAiB,OAAO,I;MAExB,YAAmB,6BAAM,U;MACzB,S;MA
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IqC,UAAW,oBqN1InC,KrN0ImC,CAAX,C;MqNzIrC,aAAa,2B;MACb,aAAU,KAAV,MAAsB,MAAtB,M;QACI,
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N5M+D,aqN4M3D,MrN5M6E,KAAlB,EqN4MlD,crN5MgF,KAA9B,CqN4M3D,IAAJ,C;UACI,IAAI,+CAAkB,g
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Found
 in path(s):
* /opt/cola/permits/1434738800_1665040139.7753422/0/kotlin-1-7-10-tgz/package/kotlin.js.map

1.347 metrics-jvm 4.2.12

1.347.1 Available under license :

No license file was found, but licenses were detected in source scan.

Manifest-Version: 1.0
Automatic-Module-Name: com.codahale.metrics.jvm
Build-Jdk-Spec: 11
Bundle-Description: A set of classes which allow you to monitor critic
al aspects of your Java Virtual Machine 	using Metrics.
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0.html
Bundle-ManifestVersion: 2
Bundle-Name: JVM Integration for Metrics
Bundle-SymbolicName: io.dropwizard.metrics.jvm
Bundle-Version: 4.2.12
Created-By: Apache Maven Bundle Plugin 5.1.8
Export-Package: com.codahale.metrics.jvm;uses:="com.codahale.metrics,j
avax.management";version="4.2.12"
Implementation-Title: JVM Integration for Metrics
Implementation-Version: 4.2.12
Import-Package: org.slf4j;version="[1.6.0,2.0.0)",com.sun.management;r
esolution:=optional,com.codahale.metrics;version="[4.2,5)",javax.mana
gement
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.8))"
Tool: Bnd-6.3.1.202206071316

Found in path(s):
* /opt/cola/permits/1434973136_1665051951.2958791/0/metrics-jvm-4-2-12-jar/META-INF/MANIFEST.MF

1.348 metrics-health-checks 4.2.12

1.348.1 Available under license :

No license file was found, but licenses were detected in source scan.

Manifest-Version: 1.0
Automatic-Module-Name: com.codahale.metrics.health
Build-Jdk-Spec: 11
Bundle-Description: An addition to Metrics which provides the ability
to run application-specific health checks,   allowing you to che
ck your application's heath in production.
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0.html
Bundle-ManifestVersion: 2
Bundle-Name: Metrics Health Checks
Bundle-SymbolicName: io.dropwizard.metrics.healthchecks
Bundle-Version: 4.2.12
Created-By: Apache Maven Bundle Plugin 5.1.8
Export-Package: com.codahale.metrics.health.jvm;uses:="com.codahale.me
trics.health,com.codahale.metrics.jvm";version="4.2.12",com.codahale.
metrics.health.annotation;version="4.2.12",com.codahale.metrics.healt
h;uses:="com.codahale.metrics";version="4.2.12"
Implementation-Title: Metrics Health Checks
Implementation-Version: 4.2.12
Import-Package: org.slf4j;version="[1.6.0,2.0.0)",com.codahale.metrics
 ;version="[4.2,5)",com.codahale.metrics.health,com.codahale.metrics.h
ealth.annotation,com.codahale.metrics.jvm;version="[4.2,5)";resolutio
n:=optional
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.8))"
Tool: Bnd-6.3.1.202206071316

Found in path(s):
* /opt/cola/permits/1434973188_1665051949.7440183/0/metrics-healthchecks-4-2-12-jar/META-INF/MANIFEST.MF

1.349 nss 3.79.0-1.el7_9

1.349.1 Available under license :

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this for license compatibility reasons.

Note on LGPL Compatibility

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1.350 metrics-annotation 4.2.12

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Manifest-Version: 1.0
Automatic-Module-Name: com.codahale.metrics.annotation
Build-Jdk-Spec: 11
Bundle-Description: A dependency-less package of just the annotations
used by other Metrics modules.
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0.html
Bundle-ManifestVersion: 2
Bundle-Name: Annotations for Metrics
Bundle-SymbolicName: io.dropwizard.metrics.annotation

Bundle-Version: 4.2.12
Created-By: Apache Maven Bundle Plugin 5.1.8
Export-Package: com.codahale.metrics.annotation;version="4.2.12"
Implementation-Title: Annotations for Metrics
Implementation-Version: 4.2.12
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.8))"
Tool: Bnd-6.3.1.202206071316

Found in path(s):
* /opt/cola/permits/1435925682_1665131991.1248417/0/metrics-annotation-4-2-12-jar/META-INF/MANIFEST.MF

1.351 lz4 1.4.0

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* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/lz4/LZ4SafeDecompressor.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/lz4/LZ4Decompressor.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/lz4/LZ4UnsafeUtils.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/xxhash/XXHash64.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/lz4/LZ4JNICompressor.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/lz4/LZ4SafeUtils.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/xxhash/XXHashConstants.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/util/UnsafeUtils.java

* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/xxhash/AbstractStreamingXXHash64Java.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/lz4/LZ4HCJNICompressor.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/lz4/LZ4Factory.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/xxhash/XXHash32.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/lz4/LZ4Compressor.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/lz4/LZ4Constants.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/lz4/LZ4Exception.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/xxhash/StreamingXXHash32.java
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* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/lz4/LZ4BlockOutputStream.java
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* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/lz4/LZ4Utils.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/xxhash/XXHash64JNI.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/xxhash/XXHashFactory.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/lz4/LZ4ByteBufferUtils.java
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* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/xxhash/StreamingXXHash64.java
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* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/lz4/LZ4JNIFastDecompressor.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/util/Utils.java
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/xxhash/XXHash32JNI.java

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* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/overview.html
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/util/package.html
* /opt/cola/permits/1435965234_1665135237.2038426/0/lz4-1-4-0-sources-jar/net/jpountz/xxhash/package.html

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1.353 postgre-sql 42.4.1

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1.354 metrics-jetty 4.2.12

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Manifest-Version: 1.0
Automatic-Module-Name: com.codahale.metrics.jetty9
Build-Jdk-Spec: 11
Bundle-Description: A set of extensions for Jetty 9.3 and higher which
 provide instrumentation of thread pools, connector metrics, a
nd application latency and utilization.
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0.html
Bundle-ManifestVersion: 2
Bundle-Name: Metrics Integration for Jetty 9.3 and higher
Bundle-SymbolicName: io.dropwizard.metrics.jetty9
Bundle-Version: 4.2.12
Created-By: Apache Maven Bundle Plugin 5.1.8

Export-Package: com.codahale.metrics.jetty9;uses:="com.codahale.metric
s,javax.servlet,javax.servlet.http,org.eclipse.jetty.io,org.eclipse.j
etty.server,org.eclipse.jetty.server.handler,org.eclipse.jetty.util.a
nnotation,org.eclipse.jetty.util.component,org.eclipse.jetty.util.thr
ead";version="4.2.12"
Implementation-Title: Metrics Integration for Jetty 9.3 and higher
Implementation-Version:
 4.2.12
Import-Package: javax.servlet;version="[2.5.0,4.0.0)",javax.servlet.ht
tp;version="[2.5.0,4.0.0)",com.codahale.metrics;version="[4.2,5)",org
.eclipse.jetty.http;version="[9.4,10)",org.eclipse.jetty.io;version="
[9.4,10)",org.eclipse.jetty.server;version="[9.4,10)",org.eclipse.jet
ty.server.handler;version="[9.4,10)",org.eclipse.jetty.util.annotatio
n;version="[9.4,10)",org.eclipse.jetty.util.component;version="[9.4,1
0)",org.eclipse.jetty.util.thread;version="[9.4,10)"
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.8))"
Tool: Bnd-6.3.1.202206071316

Found in path(s):
* /opt/cola/permits/1437913149_1665412945.7540498/0/metrics-jetty9-4-2-12-jar/META-INF/MANIFEST.MF

1.355 metrics-json 4.2.12

1.355.1 Available under license :

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Manifest-Version: 1.0
Automatic-Module-Name: com.codahale.metrics.json
Build-Jdk-Spec: 11
Bundle-Description: A set of Jackson modules which provide serializers
 for most Metrics classes.
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0.html
Bundle-ManifestVersion: 2
Bundle-Name: Jackson Integration for Metrics
Bundle-SymbolicName: io.dropwizard.metrics.json
Bundle-Version: 4.2.12
Created-By: Apache Maven Bundle Plugin 5.1.8
Export-Package: com.codahale.metrics.json;uses:="com.codahale.metrics,
com.fasterxml.jackson.core,com.fasterxml.jackson.databind";version="4
.2.12"
Implementation-Title: Jackson Integration for Metrics
Implementation-Version: 4.2.12
Import-Package: com.codahale.metrics;version="[4.2,5)",com.codahale.me
trics.health;version="[4.2,5)";resolution:=optional,com.fasterxml.jac
kson.core;version="[2.12,3)",com.fasterxml.jackson.databind;version="
[2.12,3)",com.fasterxml.jackson.databind.module;version="[2.12,3)",co

m.fasterxml.jackson.databind.ser;version="[2.12,3)",com.fasterxml.jackson.databind.ser.std;version="[2.12,3)"
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.8))"
Tool: Bnd-6.3.1.202206071316

Found in path(s):
* /opt/cola/permits/1437913142_1665412927.3404572/0/metrics-json-4-2-12-jar/META-INF/MANIFEST.MF

1.356 metrics-jmx 4.2.12

1.356.1 Available under license :

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Manifest-Version: 1.0
Automatic-Module-Name: com.codahale.metrics.jmx
Build-Jdk-Spec: 11
Bundle-Description: A set of classes which allow you to report metrics via JMX.
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0.html
Bundle-ManifestVersion: 2
Bundle-Name: Metrics Integration with JMX
Bundle-SymbolicName: io.dropwizard.metrics.jmx
Bundle-Version: 4.2.12
Created-By: Apache Maven Bundle Plugin 5.1.8
Export-Package: com.codahale.metrics.jmx;uses:="com.codahale.metrics,javax.management";version="4.2.12"
Implementation-Title: Metrics Integration with JMX
Implementation-Version: 4.2.12
Import-Package: org.slf4j;version="[1.6.0,2.0.0)",com.codahale.metrics;version="[4.2,5)",javax.management
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.8))"
Tool: Bnd-6.3.1.202206071316

Found in path(s):
* /opt/cola/permits/1437913191_1665412996.190549/0/metrics-jmx-4-2-12-jar/META-INF/MANIFEST.MF

1.357 metrics-logback 4.2.12

1.357.1 Available under license :

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Manifest-Version: 1.0
Automatic-Module-Name: com.codahale.metrics.logback
Build-Jdk-Spec: 11
Bundle-Description: An instrumented appender for Logback.
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0.html

```
Bundle-ManifestVersion: 2
Bundle-Name: Metrics Integration for Logback
Bundle-SymbolicName: io.dropwizard.metrics.logback
Bundle-Version: 4.2.12
Created-By: Apache Maven Bundle Plugin 5.1.8
Export-Package: com.codahale.metrics.logback;uses:="ch.qos.logback.cla
ssic.spi,ch.qos.logback.core,com.codahale.metrics";version="4.2.12"
Implementation-Title: Metrics Integration for Logback
Implementation-Version: 4.2.12
Import-Package: ch.qos.logback.classic;version="[1.2,2)",ch.qos.logbac
k.classic.spi;version="[1.2,2)",ch.qos.logback.core;version="[1.2,2)"
,com.codahale.metrics;version="[4.2,5)"
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.8))"
Tool: Bnd-6.3.1.202206071316
```

Found in path(s):
*
 /opt/cola/permits/1437913135_1665412964.3274512/0/metrics-logback-4-2-12-jar/META-INF/MANIFEST.MF

1.358 metrics-jersey2 4.2.12

1.358.1 Available under license :

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```
Manifest-Version: 1.0
Automatic-Module-Name: com.codahale.metrics.jersey2
Build-Jdk-Spec: 11
Bundle-Description: A set of class providing Metrics integration for J
ersey, the reference JAX-RS 	implementation.
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0.html
Bundle-ManifestVersion: 2
Bundle-Name: Metrics Integration for Jersey 2.x
Bundle-SymbolicName: io.dropwizard.metrics.jersey2
Bundle-Version: 4.2.12
Created-By: Apache Maven Bundle Plugin 5.1.8
Export-Package: com.codahale.metrics.jersey2;uses:="com.codahale.metri
cs,javax.ws.rs.core,javax.ws.rs.ext,org.glassfish.jersey.server.model
,org.glassfish.jersey.server.monitoring";version="4.2.12"
Implementation-Title: Metrics Integration for Jersey 2.x
Implementation-Version: 4.2.12
Import-Package: com.codahale.metrics;version="[4.2,5)",com.codahale.me
trics.annotation;version="[4.2,5)",javax.ws.rs.core;version="[2.1,3)"
,javax.ws.rs.ext;version="[2.1,3)",org.glassfish.jersey.server;versio
 n="[2.36,3)",org.glassfish.jersey.server.model;version="[2.36,3)",org
.glassfish.jersey.server.monitoring;version="[2.36,3)"
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.8))"
Tool: Bnd-6.3.1.202206071316
```

Found in path(s):
* /opt/cola/permits/1437913170_1665412973.240013/0/metrics-jersey2-4-2-12-jar/META-INF/MANIFEST.MF

1.359 metrics-servlets 4.2.12

1.359.1 Available under license :

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Manifest-Version: 1.0
Automatic-Module-Name: com.codahale.metrics.servlets
Build-Jdk-Spec: 11
Bundle-Description: A set of utility servlets for Metrics, allowing yo
u to expose valuable information about your production environ
ment.
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0.html
Bundle-ManifestVersion: 2
Bundle-Name: Metrics Utility Servlets
Bundle-SymbolicName: io.dropwizard.metrics.servlets
Bundle-Version: 4.2.12
Created-By: Apache Maven Bundle Plugin 5.1.8
Export-Package: com.codahale.metrics.servlets;uses:="com.codahale.metr
ics,com.codahale.metrics.health,com.fasterxml.jackson.databind,javax.
servlet,javax.servlet.http";version="4.2.12"
Implementation-Title: Metrics Utility Servlets
Implementation-Version: 4.2.12
Import-Package: javax.servlet;version="[2.5.0,4.0.0)",javax.servlet.ht
tp;version="[2.5.0,4.0.0)",com.codahale.metrics;version="[4.2,5)",com
.codahale.metrics.health;version="[4.2,5)",com.codahale.metrics.json;
 version="[4.2,5)",com.codahale.metrics.jvm;version="[4.2,5)",com.fast
erxml.jackson.databind;version="[2.12,3)",com.fasterxml.jackson.datab
ind.util;version="[2.12,3)",com.papertrail.profiler;version="[1.1,2)"
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.8))"
Tool: Bnd-6.3.1.202206071316

Found in path(s):
* /opt/cola/permits/1437913163_1665413003.420422/0/metrics-servlets-4-2-12-jar/META-INF/MANIFEST.MF

1.360 protobuf-java 3.19.6

1.360.1 Available under license :

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Manifest-Version: 1.0
Automatic-Module-Name: com.google.protobuf
Bnd-LastModified: 1664485905970

Build-Jdk: 1.8.0_181-google-v7
Built-By: mkruskal
Bundle-Description: Core Protocol Buffers library. Protocol Buffers are
a way of encoding structured data in an efficient yet extensible for
mat.
Bundle-DocURL: https://developers.google.com/protocol-buffers/
Bundle-License: https://opensource.org/licenses/BSD-3-Clause
Bundle-ManifestVersion: 2
Bundle-Name: Protocol Buffers [Core]
Bundle-SymbolicName: com.google.protobuf
Bundle-Version: 3.19.6
Created-By: Apache Maven Bundle Plugin
Export-Package: com.google.protobuf;version="3.19.6"
Import-Package: sun.misc;resolution:=optional,com.google.protobuf;versio
n="[3.19,4)"
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.7))"
Tool: Bnd-3.0.0.201509101326

Found in path(s):
* /opt/cola/permits/1444789790_1666041710.804059/0/protobuf-java-3-19-6-jar/META-INF/MANIFEST.MF
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Found in path(s):
* /opt/cola/permits/1444789790_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/timestamp.proto
* /opt/cola/permits/1444789790_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/struct.proto
* /opt/cola/permits/1444789790_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/wrappers.proto
*
/opt/cola/permits/1444789790_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/type.proto
* /opt/cola/permits/1444789790_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/empty.proto
* /opt/cola/permits/1444789790_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/any.proto
* /opt/cola/permits/1444789790_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/descriptor.proto
* /opt/cola/permits/1444789790_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/duration.proto
* /opt/cola/permits/1444789790_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/field_mask.proto
* /opt/cola/permits/1444789790_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/compiler/plugin.proto
* /opt/cola/permits/1444789790_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/source_context.proto

* /opt/cola/permits/1444789790_1666041710.804059/0/protobuf-java-3-19-6-jar/google/protobuf/api.proto

1.361 apache-commons-text 1.10.0

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1.362 swagger-models 2.2.2

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1.363 swagger 2.2.2

1.363.1 Available under license :

No license file was found, but licenses were detected in source scan.

<p align="center">

</p>

[travis-image]: https://api.travis-ci.org/nestjs/nest.svg?branch=master
[travis-url]: https://travis-ci.org/nestjs/nest
[linux-image]: https://img.shields.io/travis/nestjs/nest/master.svg?label=linux
[linux-url]: https://travis-ci.org/nestjs/nest

 <p align="center">A progressive Node.js framework for building efficient and scalable server-side applications, heavily inspired by Angular.</p>
 <p align="center">

<img
 src="https://img.shields.io/npm/dm/@nestjs/core.svg" alt="NPM Downloads" />

<img
src="https://coveralls.io/repos/github/nestjs/nest/badge.svg?branch=master#5" alt="Coverage" />

<img src="https://opencollective.com/nest/sponsors/badge.svg"

alt="Sponsors on Open Collective" />

<img src="https://img.shields.io/twitter/follow/nestframework.svg?style=social&label=Follow">
</p>
<!--[![Backers on Open Collective](https://opencollective.com/nest/backers/badge.svg)](https://opencollective.com/nest#backer)
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Description

The [OpenAPI (Swagger)](https://www.openapis.org/) module for [Nest](https://github.com/nestjs/nest).

Installation

```bash
$ npm i --save @nestjs/swagger
```

Quick Start

[Overview & Tutorial](https://docs.nestjs.com/recipes/swagger)

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* Author - [Kamil Myliwiec](https://kamilmysliwiec.com)
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Found in path(s):
* /opt/cola/permits/1451483722_1666725860.8701193/0/swagger-2-2-2-tgz/package/README.md

1.364 hibernate-types-55 2.18.0

1.364.1 Available under license :

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1.365 kotlin 1.6.21

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{"version":3,"file":"kotlin.js","sources":["wrapper.js","js/arrayUtils.js","js/callableReferenceUtils.js","js/conversions.js","js/core.js","js/long.js","js/markerFunctions.js","js/misc.js","js/polyfills.js","js/rtti.js","runtime/arrayUtils.kt","runtime/Enum.kt","primitiveCompanionObjects.kt","common/src/generated/_Arrays.kt","common/src/generated/_Ranges.kt","unsigned/src/kotlin/UByte.kt","unsigned/src/kotlin/UInt.kt","unsigned/src/kotlin/UShort.kt","builtin-sources/Ranges.kt","src/kotlin/collections/Collections.kt","src/kotlin/collections/Maps.kt","src/kotlin/collections/Sets.kt","src/kotlin/text/StringNumberConversions.kt","src/kotlin/time/Duration.kt","unsigned/src/kotlin/UnsignedUtils.kt","src/kotlin/collections/Iterables.kt","src/kotlin/collections/Sequences.kt","src/kotlin/util/Preconditions.kt","js/src/generated/_ArraysJs.kt","src/kotlin/comparisons/Comparisons.kt","src/kotlin/util/Standard.kt","js/src/generated/_ComparisonsJs.kt","unsigned/src/kotlin/ULong.kt","common/src/generated/_Collections.kt","js/src/kotlin/collections.kt","src/kotlin/collections/Iterators.kt","common/src/generated/_Comparisons.kt","common/src/generated/_Maps.kt","common/src/generated/_OneToManyTitlecaseMappings.kt","js/src/kotlin/text/char.kt","js/src/kotlin/text/string.kt","src/kotlin/text/Char.kt","src/kotlin/CharCode.kt","common/src/generated/_Sequences.kt","common/src/generated/_Sets.kt","common/src/generated/_Strings.kt","src/kotlin/text/Strings.kt","unsigned/src/kotlin/UByteArray.kt","unsigned/src/kotlin/UIntArray.kt","unsigned/src/kotlin/ULongArray.kt","unsigned/src/kotlin/UShortArray.kt","common/src/generated/_UArrays.kt","common/src/generated/_UCollections.kt","common/src/generated/_UComparisons.kt","common/src/generated/_URanges.kt","common/src/generated/_USequences.kt","common/src/kotlin/ExceptionsH.kt","common/src/kotlin/JsAnnotationsH.kt","common/src/kotlin/ioH.kt","builtin-sources/Collections.kt","builtin-sources/Iterators.kt","builtin-sources/ProgressionIterators.kt","builtin-sources/Progressions.kt","builtin-sources/Range.kt","builtin-sources/Unit.kt","builtin-sources/annotation/Annotations.kt","builtin-sources/internal/InternalAnnotations.kt","builtin-sources/internal/progressionUtil.kt","src/kotlin/builtins.kt","src/kotlin/jsTypeOf.kt","src/kotlin/kotlin.kt","src/kotlin/charCode_js-v1.kt","src/kotlin/coroutines/CoroutineImpl.kt","src/kotlin/util/Result.kt","src/kotlin/coroutines/Continuation.kt","src/kotlin/coroutines/intrinsics/IntrinsicsJs.kt","src/kotlin/currentBeMisc.kt","src/kotlin/exceptions.kt","src/kotlin/jsOperators.kt","src/kotlin/math_js-v1.kt","src/kotlin/numbers_js-v1.kt","src/kotlin/reflection_js-v1.kt","src/kotlin/text/numberConversions_js-v1.kt","js/src/generated/_CharCategories.kt","js/src/generated/_CollectionsJs.kt","js/src/generated/_DigitChars.kt","js/src/generated/_LetterChars.kt","js/src/generated/_OtherLowercaseChars.kt","js/src/generated/_OtherUppercaseChars.kt","js/src/generated/_StringsJs.kt","js/src/generated/_TitlecaseMappings.kt","js/src/generated/_UArraysJs.kt","js/src/generated/_WhitespaceChars.kt","js/src/kotlin/Comparator.kt","js/src/kotlin/annotations.kt","js/src/kotlin/annotationsJVM.kt","js/src/kotlin/collections/AbstractMutableCollection.kt","js/src/kotlin/collections/AbstractMutableList.kt","js/src/kotlin/collections/AbstractMutableMap.kt","js/src/kotlin/collections/AbstractMutableSet.kt","js/src/kotlin/collections/ArrayList.kt","js/src/kotlin/collections/ArraySorting.kt","js/src/kotlin/collections/ArraysJs.kt","js/src/kotlin/collections/EqualityComparator.kt","js/src/kotlin/collections/HashMap.kt","js/src/kotlin/collections/HashSet.kt","js/src/kotlin/collections/InternalHashCodeMap.kt","js/src/kotlin/collections/InternalMap.kt","js/src/kotlin/collections/InternalStringMap.kt","js/src/kotlin/collections/LinkedHashMap.kt","js/src/kotlin/collections/LinkedHashSet.kt","js/src/kotlin/concurrent.kt","js/src/kotlin/console.kt","js/src/kotlin/coroutines/SafeContinuationJs.kt","js/src/kotlin/coroutines/cancellation/CancellationException.kt","js/src/kotlin/coroutines/js/internal/EmptyContinuation.kt","js/src/kotlin/date.kt","js/src/kotlin/dom/Builders.kt","js/src/kotlin/dom/Classes.kt","js/src/kotlin/dom/Dom.kt","js/src/kotli n/dom/EventListener.kt","js/src/kotlin/dom/ItemArrayLike.kt","js/src/kotlin/dom/Mutations.kt","js/src/kotlin/dynamic.kt","js/src/kotlin/exceptionUtils.kt","js/src/kotlin/grouping.kt","src/kotlin/collections/Grouping.kt","js/src/kotlin/internalAnnotations.kt","js/src/kotlin/json.kt","js/src/kotlin/math.kt","js/src/kotlin/numbers.kt","js/src/kotlin/promise.kt","js/src/kotlin/random/PlatformRandom.kt","js/src/kotlin/reflect/AssociatedObjects.kt","js/src/kotlin/reflect/JsClass.kt","js/src/kotlin/reflect/KClassImpl.kt","js/src/kotlin/reflect/KClassesImpl.kt","js/src/kotlin/reflect/KTypeHelpers.kt","js/src/kotlin/reflect/KTypeImpl.kt","js/src/kotlin/reflect/KTypeParameterImpl.kt","js/src/kotlin/reflect/primitives.kt","js/src/kotlin/reflect/reflection.kt","js/src/kotlin/regexp.kt","js/src/kotlin/sequence.kt","js/src/kotlin/text/CharCategoryJS.kt","js/src/kotlin/text/CharacterCodingExceptionJs.kt","js/src/kotlin/text/StringBuilderJs.kt","js/src/kotlin/text/numberConversions.kt","js/src/kotlin/text/regex.kt","src/kotlin/text/StringBuilder.kt","js/src/kotlin/text/stringsCode.kt","js/src/kotlin/text/utf8Encoding.kt","js/src/kotlin/throwableExtensions.kt","js/src/kotlin/time/DurationJs.kt","js/src/kotlin/time/DurationUnit.kt","js/src/kotlin/time/MonoTimeSource.kt","js/src/kotlinx/dom/Builders.kt","js/src/kotlinx/dom/Classes.kt","src/kotlin/text/regex/RegexExtensions.kt","js/src/kotlinx/dom/Dom.kt","js/src/kotlinx/dom/Mutations.kt","js/src/org.w3c/deprecated.kt","js/src/org.w3c/org.khronos.webgl.kt","js/src/org.w3c/org.w3c.dom.clipboard.kt","js/src/org.w3c/org.w3c.dom.css.kt","js/src/org.w3c/org.w3c.dom.encryptedmedia.kt","js/src/org.w3c/org.w3c.dom.events.kt","js/src/org.w3c/org.w3c.dom.kt","js/src/org.w3c/org.w3c.fetch.kt","js/src/org.w3c/org.w3c.dom.mediacapture.kt","js/src/org.w3c/org.w3c.dom.mediasource.kt","js/src/org.w3c/org.w3c.dom.pointerevents.kt","js/src/org.w3c/org.w3c.dom.svg.kt","js/src/org.w3c/org.w3c.files.kt","js/src/org.w3c/org.w3c.notifications.kt","js/src/org.w3c/org.w3c.workers.kt","js/src/org.w3c/org.w3c.xhr.kt","src/kotlin/annotations/Experimental.kt","src/kotlin/annotations/ExperimentalStdlibApi.kt","src/kotlin/annotations/Inference.kt","src/kotlin/annotations/Multiplatform.kt","src/kotlin/annotations/OptIn.kt","src/kotlin/collections/AbstractCollection.kt","src/kotlin/collections/AbstractIterator.kt","src/kotlin/collections/AbstractList.kt","src/kotlin/collections/AbstractMap.kt","src/kotlin/collections/AbstractSet.kt","src/kotlin/collections/ArrayDeque.kt","src/kotlin/collections/Arrays.kt","src/kotlin/collections/BrittleContainsOptimization.kt","src/kotlin/collections/IndexedValue.kt","src/kotlin/collections/MapAccessors.kt","src/kotlin/collections/MapWithDefault.kt","src/kotlin/collections/MutableCollections.kt","src/kotlin/collections/ReversedViews.kt","src/kotlin/collections/SequenceBuilder.kt","src/kotlin/collections/SlidingWindow.kt","src/kotlin/collections/UArraySorting.kt","src/kotlin/comparisons/compareTo.kt","src/kotlin/contracts/ContractBuilder.kt","src/kotlin/coroutines/ContinuationInterceptor.kt","src/kotlin/coroutines/CoroutineContext.kt","src/kotlin/coroutines/CoroutineContextImpl.kt","src/kotlin/coroutines/intrinsics/Intrinsics.kt","src/kotlin/experimental/bitwiseOperations.kt","src/kotlin/experimental/inferenceMarker.kt","src/kotlin/internal/Annotations.kt","src/kotlin/properties/Delegates.kt","src/kotlin/properties/Interfaces.kt","src/kotlin/properties/ObservableProperty.kt","src/kotlin/properties/PropertyReferenceDelegates.kt","src/kotlin/random/Random.kt","src/kotlin/random/URandom.kt","src/kotlin/random/XorWowRandom.kt","src/kotlin/ranges/Ranges.kt","src/kotlin/reflect/KClasses.kt","src/kotlin/reflect/KTypeProjection.kt","src/kotlin/reflect/KVariance.kt","src/kotlin/reflect/typeOf.kt","src/kotlin/text/Appendable.kt","src/kotlin/text/Indent.kt","src/kotlin/text/Typography.kt","src/kotlin/text/regex/MatchResult.kt","src/kotlin/time/DurationUnit.kt","src/kotlin/time/ExperimentalTime.kt","src/kotlin/time/TimeSource.kt","src/kotlin/time/TimeSources.kt","src/kotlin/time/measureTime.kt","src/kotlin/util/DeepRecursive.kt","src/kotlin/util/FloorDivMod.kt","src/kotlin/util/HashCode.kt","src/kotlin/util/KotlinVersion.kt","src/kotlin/util/Lateinit.kt","src/kotlin/util/Lazy.kt","src/kotlin/util/Numbers.kt","src/kotlin/util/Suspend.kt","src/kotlin/util/Tuples.kt","unsigned/src/kotlin/UIntRange.kt","unsigned/src/kotlin/UIterators.kt","unsigned/src/kotlin/ULongRange.kt","unsigned/src/kotlin/UMath.kt","unsigned/src/kotlin/UNumbers.kt","unsigned/src/kotlin/UProgressionUtil.kt","unsigned/src/kotlin/UStrings.kt","unsigned/src/kotlin/annotations/Unsigned.kt","common/src/kotlin/MathH.kt"],"sourcesContent":["(function (root, factory) {\n   if (typeof define === 'function' && define.amd) {\n   define('kotlin', ['exports'], factory);\n   }\n   else if (typeof exports === 'object') {\n   factory(module.exports);\n   }\n   else {\n   root.kotlin = {};\n   factory(root.kotlin);\n   }\n}(this, function (Kotlin) {\n   var _ = Kotlin;\n\n   insertContent();\n}));\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\nKotlin.isBooleanArray = function (a) {\n   return (Array.isArray(a) || a instanceof Int8Array) && a.$type$ === \"BooleanArray\"\n};\n\nKotlin.isByteArray = function (a) {\n   return a instanceof Int8Array && a.$type$

!== \"BooleanArray\"\n};\n\nKotlin.isShortArray = function (a) {\n   return a instanceof
Int16Array\n};\n\nKotlin.isCharArray = function (a) {\n   return a instanceof Uint16Array
 && a.$type$ === \"CharArray\"\n};\n\nKotlin.isIntArray = function (a) {\n   return a instanceof
Int32Array\n};\n\nKotlin.isFloatArray = function (a) {\n   return a instanceof
Float32Array\n};\n\nKotlin.isDoubleArray = function (a) {\n   return a instanceof
Float64Array\n};\n\nKotlin.isLongArray = function (a) {\n   return Array.isArray(a) && a.$type$ ===
\"LongArray\"\n};\n\nKotlin.isArray = function (a) {\n   return Array.isArray(a) &&
!a.$type$;\n};\n\nKotlin.isArrayish = function (a) {\n   return Array.isArray(a) ||
ArrayBuffer.isView(a)\n};\n\nKotlin.arrayToString = function (a) {\n   if (a === null) return \"null\"\n   var
toString = Kotlin.isCharArray(a) ? String.fromCharCode : Kotlin.toString;\n   return \"[\" +
Array.prototype.map.call(a, function(e) { return toString(e); }).join(\", \") + \"]\";\n};\n\nKotlin.arrayDeepToString
= function (arr) {\n   return Kotlin.kotlin.collections.contentDeepToStringImpl(arr);\n};\n\nKotlin.arrayEquals =
function (a, b) {\n
    if (a === b) {\n   return true;\n   }\n   if (a === null || b === null || !Kotlin.isArrayish(b) || a.length !==
b.length) {\n   return false;\n   }\n\n   for (var i = 0, n = a.length; i < n; i++) {\n   if (!Kotlin.equals(a[i], b[i]))
{\n   return false;\n   }\n   }\n   return true;\n};\n\nKotlin.arrayDeepEquals = function (a, b) {\n   return
Kotlin.kotlin.collections.contentDeepEqualsImpl(a, b);\n};\n\nKotlin.arrayHashCode = function (arr) {\n   if (arr
=== null) return 0\n   var result = 1;\n   for (var i = 0, n = arr.length; i < n; i++) {\n   result = ((31 * result | 0) +
Kotlin.hashCode(arr[i])) | 0;\n   }\n   return result;\n};\n\nKotlin.arrayDeepHashCode = function (arr) {\n   return
Kotlin.kotlin.collections.contentDeepHashCodeImpl(arr);\n};\n\nKotlin.primitiveArraySort = function (array) {\n
array.sort(Kotlin.doubleCompareTo)\n};\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors. \n
 * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\nKotlin.getCallableRef = function(name, f) {\n   f.callableName = name;\n   return
f;\n};\n\nKotlin.getPropertyCallableRef = function(name, paramCount, getter, setter) {\n   getter.get = getter;\n
getter.set = setter;\n   getter.callableName = name;\n   return getPropertyRefClass(getter, setter,
propertyRefClassMetadataCache[paramCount]);\n};\n\nfunction getPropertyRefClass(obj, setter, cache) {\n
obj.$metadata$ = getPropertyRefMetadata(typeof setter === \"function\" ? cache.mutable : cache.immutable);\n
obj.constructor = obj;\n   return obj;\n}\n\nvar propertyRefClassMetadataCache = [\n   {\n   mutable: { value:
null, implementedInterface: function () {\n   return Kotlin.kotlin.reflect.KMutableProperty0 }\n   },\n
immutable: { value: null, implementedInterface: function () {\n   return Kotlin.kotlin.reflect.KProperty0
 }\n   }\n   },\n   {\n   mutable: { value: null, implementedInterface: function () {\n   return
Kotlin.kotlin.reflect.KMutableProperty1 }\n   },\n   immutable: { value: null, implementedInterface: function
() {\n   return Kotlin.kotlin.reflect.KProperty1 }\n   }\n   }\n];\n\nfunction getPropertyRefMetadata(cache)
{\n   if (cache.value === null) {\n   cache.value = {\n   interfaces: [cache.implementedInterface()],\n
baseClass: null,\n   functions: {},\n   properties: {},\n   types: {},\n   staticMembers: {}\n
};\n   }\n   return cache.value;\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\nKotlin.toShort = function (a) {\n   return (a & 0xFFFF) << 16 >>
16;\n};\n\nKotlin.toByte = function (a) {\n
    return (a & 0xFF) << 24 >> 24;\n};\n\nKotlin.toChar = function (a) {\n   return a &
0xFFFF;\n};\n\nKotlin.numberToLong = function (a) {\n   return a instanceof Kotlin.Long ? a :
Kotlin.Long.fromNumber(a);\n};\n\nKotlin.numberToInt = function (a) {\n   return a instanceof Kotlin.Long ?
a.toInt() : Kotlin.doubleToInt(a);\n};\n\nKotlin.numberToShort = function (a) {\n   return
Kotlin.toShort(Kotlin.numberToInt(a));\n};\n\nKotlin.numberToByte = function (a) {\n   return
Kotlin.toByte(Kotlin.numberToInt(a));\n};\n\nKotlin.numberToDouble = function (a) {\n   return
+a;\n};\n\nKotlin.numberToChar = function (a) {\n   return
Kotlin.toChar(Kotlin.numberToInt(a));\n};\n\nKotlin.doubleToInt = function(a) {\n   if (a > 2147483647) return

2147483647;\n if (a < -2147483648) return -2147483648;\n return a | 0;\n};\n\nKotlin.toBoxedChar = function (a) {\n if (a == null) return a;\n if (a instanceof Kotlin.BoxedChar) return a;\n return new Kotlin.BoxedChar(a);\n};\n\nKotlin.unboxChar = function(a) {\n if (a == null) return a;\n return Kotlin.toChar(a);\n};\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\nKotlin.equals = function (obj1, obj2) {\n if (obj1 == null) {\n return obj2 == null;\n }\n\n if (obj2 == null) {\n return false;\n }\n\n if (obj1 !== obj1) {\n return obj2 !== obj2;\n }\n\n if (typeof obj1 === \"object\" && typeof obj1.equals === \"function\") {\n return obj1.equals(obj2);\n }\n\n if (typeof obj1 === \"number\" && typeof obj2 === \"number\") {\n return obj1 === obj2 && (obj1 !== 0 || 1 / obj1 === 1 / obj2)\n }\n\n return obj1 === obj2;\n};\n\nKotlin.hashCode = function (obj) {\n if (obj == null) {\n return 0;\n }\n var objType = typeof obj;\n if (\"object\" === objType) {\n return \"function\" === typeof obj.hashCode ? obj.hashCode() : getObjectHashCode(obj);\n }\n if (\"function\" === objType) {\n return getObjectHashCode(obj);\n }\n if (\"number\" === objType) {\n return Kotlin.numberHashCode(obj);\n }\n if (\"boolean\" === objType) {\n return Number(obj)\n }\n\n var str = String(obj);\n return getStringHashCode(str);\n};\n\n\nKotlin.toString = function (o) {\n if (o == null) {\n return \"null\";\n }\n else if (Kotlin.isArrayish(o)) {\n return \"[...]\";\n }\n else {\n return o.toString();\n }\n};\n\n/** @const */\nvar POW_2_32 = 4294967296;\n// TODO: consider switching to Symbol type once we are on ES6.\n/** @const */\nvar OBJECT_HASH_CODE_PROPERTY_NAME = \"kotlinHashCodeValue$\";\n\nfunction getObjectHashCode(obj) {\n if (!(OBJECT_HASH_CODE_PROPERTY_NAME in obj)) {\n var hash = (Math.random() * POW_2_32) | 0; // Make 32-bit singed integer.\n Object.defineProperty(obj, OBJECT_HASH_CODE_PROPERTY_NAME, { value: hash, enumerable: false });\n }\n return obj[OBJECT_HASH_CODE_PROPERTY_NAME];\n}\n\nfunction getStringHashCode(str) {\n var hash = 0;\n for (var i = 0; i < str.length; i++) {\n var code = str.charCodeAt(i);\n hash = (hash * 31 + code) | 0; // Keep it 32-bit.\n }\n return hash;\n}\n\nKotlin.identityHashCode = getObjectHashCode;\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Copyright 2009 The Closure Library Authors. All Rights Reserved.\n//\n// Licensed under the Apache License, Version 2.0 (the \"License\");\n// you may not use this file except in compliance with the License.\n// You may obtain a copy of the License at\n//\n// http://www.apache.org/licenses/LICENSE-2.0\n//\n// Unless required by applicable law or agreed to in writing, software\n// distributed under the License is distributed on an \"AS-IS\" BASIS,\n// WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.\n\n/**\n * Constructs a 64-bit two's-complement integer, given its low and high 32-bit\n * values as *signed* integers. See the from* functions below for more\n * convenient ways of constructing Longs.\n *\n * The internal representation of a long is the two given signed, 32-bit values.\n * We use 32-bit pieces because these are the size of integers on which\n * Javascript performs bit-operations. For operations like addition and\n * multiplication, we split each number into 16-bit pieces, which can easily be\n * multiplied within Javascript's floating-point representation without overflow\n * or change in sign.\n *\n * In the algorithms below, we frequently reduce the negative case to the\n * positive case by negating the input(s) and then post-processing the result.\n * Note that we must ALWAYS check specially whether those values are MIN_VALUE\n * (-2^63) because -MIN_VALUE == MIN_VALUE (since 2^63 cannot be represented as\n * a positive number, it overflows back into a negative). Not handling this\n * case would often result in infinite recursion.\n *\n * @param {number} low The low (signed) 32 bits of the long.\n * @param {number} high The high (signed) 32 bits of the long.\n * @constructor\n * @final\n */\nKotlin.Long = function(low, high) {\n /**\n * @type {number}\n * @private\n */\n this.low_ = low | 0; // force into 32 signed bits.\n\n /**\n * @type {number}\n * @private\n */\n this.high_ = high | 0; // force into 32 signed bits.\n};\n\nKotlin.Long.$metadata$ = {\n kind: \"class\",\n simpleName: \"Long\",\n interfaces:[]\n};\n\n\n// NOTE: Common constant values ZERO, ONE, NEG_ONE, etc. are defined below the\n// from* methods on which

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they depend.\n\n\n/**\n * A cache of the Long representations of small integer values.\n * @type {!Object}\n *
@private\n
 */\nKotlin.Long.IntCache_ = {};\n\n\n/**\n * Returns a Long representing the given (32-bit) integer value.\n *
@param {number} value The 32-bit integer in question.\n * @return {!Kotlin.Long} The corresponding Long
value.\n */\nKotlin.Long.fromInt = function(value) {\n  if (-128 <= value && value < 128) {\n    var cachedObj =
Kotlin.Long.IntCache_[value];\n    if (cachedObj) {\n      return cachedObj;\n    }\n  }\n\n  var obj = new
Kotlin.Long(value | 0, value < 0 ? -1 : 0);\n  if (-128 <= value && value < 128) {\n    Kotlin.Long.IntCache_[value]
= obj;\n  }\n  return obj;\n};\n\n\n/**\n * Converts this number value to `Long`.\n * The fractional part, if any, is
rounded down towards zero.\n * Returns zero if this `Double` value is `NaN`, `Long.MIN_VALUE` if it's less than
`Long.MIN_VALUE`,\n * `Long.MAX_VALUE` if it's bigger than `Long.MAX_VALUE`.\n * @param {number}
value The number in question.\n * @return {!Kotlin.Long} The corresponding Long value.\n
*/\nKotlin.Long.fromNumber
 = function(value) {\n  if (isNaN(value)) {\n    return Kotlin.Long.ZERO;\n  } else if (value <= -
Kotlin.Long.TWO_PWR_63_DBL_) {\n    return Kotlin.Long.MIN_VALUE;\n  } else if (value + 1 >=
Kotlin.Long.TWO_PWR_63_DBL_) {\n    return Kotlin.Long.MAX_VALUE;\n  } else if (value < 0) {\n    return
Kotlin.Long.fromNumber(-value).negate();\n  } else {\n    return new Kotlin.Long(\n        (value %
Kotlin.Long.TWO_PWR_32_DBL_) | 0,\n        (value / Kotlin.Long.TWO_PWR_32_DBL_) | 0);\n
}\n};\n\n\n/**\n * Returns a Long representing the 64-bit integer that comes by concatenating\n * the given high and
low bits.  Each is assumed to use 32 bits.\n * @param {number} lowBits The low 32-bits.\n * @param {number}
highBits The high 32-bits.\n * @return {!Kotlin.Long} The corresponding Long value.\n */\nKotlin.Long.fromBits
= function(lowBits, highBits) {\n  return new Kotlin.Long(lowBits, highBits);\n};\n\n\n/**\n * Returns a Long
representation of the given string, written using the given\n *
 radix.\n * @param {string} str The textual representation of the Long.\n * @param {number=} opt_radix The radix
in which the text is written.\n * @return {!Kotlin.Long} The corresponding Long value.\n
*/\nKotlin.Long.fromString = function(str, opt_radix) {\n  if (str.length == 0) {\n    throw Error('number format
error: empty string');\n  }\n\n  var radix = opt_radix || 10;\n  if (radix < 2 || 36 < radix) {\n    throw Error('radix out of
range: ' + radix);\n  }\n\n  if (str.charAt(0) == '-') {\n    return Kotlin.Long.fromString(str.substring(1),
radix).negate();\n  } else if (str.indexOf('-') >= 0) {\n    throw Error('number format error: interior \"-\" character: ' +
str);\n  }\n\n  // Do several (8) digits each time through the loop, so as to\n  // minimize the calls to the very
expensive emulated div.\n  var radixToPower = Kotlin.Long.fromNumber(Math.pow(radix, 8));\n\n  var result =
Kotlin.Long.ZERO;\n  for (var i = 0; i < str.length; i += 8) {\n    var size = Math.min(8, str.length
 - i);\n    var value = parseInt(str.substring(i, i + size), radix);\n    if (size < 8) {\n      var power =
Kotlin.Long.fromNumber(Math.pow(radix, size));\n      result =
result.multiply(power).add(Kotlin.Long.fromNumber(value));\n    } else {\n      result =
result.multiply(radixToPower);\n      result = result.add(Kotlin.Long.fromNumber(value));\n    }\n  }\n  return
result;\n};\n\n\n// NOTE: the compiler should inline these constant values below and then remove\n// these
variables, so there should be no runtime penalty for these.\n\n\n/**\n * Number used repeated below in calculations.
This must appear before the\n * first call to any from* function below.\n * @type {number}\n * @private\n
*/\nKotlin.Long.TWO_PWR_16_DBL_ = 1 << 16;\n\n\n/**\n * @type {number}\n * @private\n
*/\nKotlin.Long.TWO_PWR_24_DBL_ = 1 << 24;\n\n\n/**\n * @type {number}\n * @private\n
*/\nKotlin.Long.TWO_PWR_32_DBL_ =\n    Kotlin.Long.TWO_PWR_16_DBL_ *
Kotlin.Long.TWO_PWR_16_DBL_;\n\n\n/**\n * @type {number}\n
 * @private\n */\nKotlin.Long.TWO_PWR_31_DBL_ =\n    Kotlin.Long.TWO_PWR_32_DBL_ / 2;\n\n\n/**\n *
@type {number}\n * @private\n */\nKotlin.Long.TWO_PWR_48_DBL_ =\n    Kotlin.Long.TWO_PWR_32_DBL_
* Kotlin.Long.TWO_PWR_16_DBL_;\n\n\n/**\n * @type {number}\n * @private\n
*/\nKotlin.Long.TWO_PWR_64_DBL_ =\n    Kotlin.Long.TWO_PWR_32_DBL_ *
Kotlin.Long.TWO_PWR_32_DBL_;\n\n\n/**\n * @type {number}\n * @private\n
*/\nKotlin.Long.TWO_PWR_63_DBL_ =\n    Kotlin.Long.TWO_PWR_64_DBL_ / 2;\n\n\n/** @type
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{!Kotlin.Long} */\nKotlin.Long.ZERO = Kotlin.Long.fromInt(0);\n\n\n/** @type {!Kotlin.Long} */\nKotlin.Long.ONE = Kotlin.Long.fromInt(1);\n\n\n/** @type {!Kotlin.Long} */\nKotlin.Long.NEG_ONE = Kotlin.Long.fromInt(-1);\n\n\n/** @type {!Kotlin.Long} */\nKotlin.Long.MAX_VALUE =\n Kotlin.Long.fromBits(0xFFFFFFFF | 0, 0x7FFFFFFF | 0);\n\n\n/** @type {!Kotlin.Long} */\nKotlin.Long.MIN_VALUE = Kotlin.Long.fromBits(0, 0x80000000 | 0);\n\n\n/**\n * @type {!Kotlin.Long}\n * @private\n */\nKotlin.Long.TWO_PWR_24_ = Kotlin.Long.fromInt(1 << 24);\n\n\n/** @return {number} The value, assuming it is a 32-bit integer. */\nKotlin.Long.prototype.toInt = function() {\n return this.low_;\n};\n\n\n/** @return {number} The closest floating-point representation to this value. */\nKotlin.Long.prototype.toNumber = function() {\n return this.high_ * Kotlin.Long.TWO_PWR_32_DBL_ +\n   this.getLowBitsUnsigned();\n};\n\n/** @return {number} The 32-bit hashCode of this value. */\nKotlin.Long.prototype.hashCode = function() {\n return this.high_ ^ this.low_;\n};\n\n/**\n * @param {number=} opt_radix The radix in which the text should be written.\n * @return {string} The textual representation of this value.\n * @override\n */\nKotlin.Long.prototype.toString = function(opt_radix) {\n var radix = opt_radix || 10;\n if (radix < 2 || 36 < radix) {\n   throw Error('radix out of range: ' + radix);\n }\n\n if (this.isZero()) {\n   return '0';\n }\n\n if (this.isNegative()) {\n   if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   // We need to change the Long value before it can be negated, so we remove\n   // the bottom-most digit in this base and then recurse to do the rest.\n   var radixLong = Kotlin.Long.fromNumber(radix);\n   var div = this.div(radixLong);\n   var rem = div.multiply(radixLong).subtract(this);\n   return div.toString(radix) + rem.toInt().toString(radix);\n   } else {\n   return '-' + this.negate().toString(radix);\n   }\n }\n\n // Do several (6) digits each time through the loop, so as to\n // minimize the calls to the very expensive emulated div.\n var radixToPower = Kotlin.Long.fromNumber(Math.pow(radix, 6));\n\n var rem = this;\n var result = '';\n while (true) {\n   var remDiv = rem.div(radixToPower);\n   var intval = rem.subtract(remDiv.multiply(radixToPower)).toInt();\n   var digits = intval.toString(radix);\n\n   rem = remDiv;\n   if (rem.isZero()) {\n   return digits + result;\n   } else {\n   while (digits.length < 6) {\n   digits = '0' + digits;\n   }\n   result = '' + digits + result;\n   }\n }\n};\n\n\n/** @return {number} The high 32-bits as a signed value. */\nKotlin.Long.prototype.getHighBits = function() {\n return this.high_;\n};\n\n\n/** @return {number} The low 32-bits as a signed value. */\nKotlin.Long.prototype.getLowBits = function() {\n return this.low_;\n};\n\n\n/** @return {number} The low 32-bits as an unsigned value. */\nKotlin.Long.prototype.getLowBitsUnsigned = function() {\n return (this.low_ >= 0) ?\n   this.low_ : Kotlin.Long.TWO_PWR_32_DBL_ + this.low_;\n};\n\n\n/**\n * @return {number} Returns the number of bits needed to represent the absolute\n *   value of this Long.\n */\nKotlin.Long.prototype.getNumBitsAbs = function() {\n if (this.isNegative()) {\n   if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   return 64;\n   } else {\n   return this.negate().getNumBitsAbs();\n   }\n } else {\n   var val = this.high_ != 0 ? this.high_ : this.low_;\n   for (var bit = 31; bit > 0; bit--) {\n   if ((val & (1 << bit)) != 0) {\n   break;\n   }\n   }\n   return this.high_ != 0 ? bit + 33 : bit + 1;\n }\n};\n\n\n/** @return {boolean} Whether this value is zero. */\nKotlin.Long.prototype.isZero = function() {\n return this.high_ == 0 && this.low_ == 0;\n};\n\n\n/** @return {boolean} Whether this value is negative. */\nKotlin.Long.prototype.isNegative = function() {\n return this.high_ < 0;\n};\n\n\n/** @return {boolean} Whether this value is odd. */\nKotlin.Long.prototype.isOdd = function() {\n return (this.low_ & 1) == 1;\n};\n\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long equals the other.\n */\nKotlin.Long.prototype.equalsLong = function(other) {\n return (this.high_ == other.high_) && (this.low_ == other.low_);\n};\n\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long does not equal the other.\n */\nKotlin.Long.prototype.notEqualsLong = function(other) {\n return (this.high_ != other.high_) || (this.low_ != other.low_);\n};\n\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long is less than the other.\n */\nKotlin.Long.prototype.lessThan = function(other) {\n return this.compare(other) < 0;\n};\n\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long is less than or equal to the other.\n */\nKotlin.Long.prototype.lessThanOrEqual = function(other) {\n return this.compare(other) <= 0;\n};\n\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long is greater than the other.\n */\nKotlin.Long.prototype.greaterThan = function(other) {\n return this.compare(other) > 0;\n};\n\n\n/**\n * @param {Kotlin.Long} other Long to compare against.\n * @return {boolean} Whether this Long is greater than or equal to the other.\n */\nKotlin.Long.prototype.greaterThanOrEqual = function(other) {\n return this.compare(other) >= 0;\n};\n\n\n/**\n * Compares this Long with the given one.\n * @param {Kotlin.Long} other Long to compare against.\n * @return {number} 0 if they are the same, 1 if the this is greater, and -1\n *   if the given one is greater.\n */\nKotlin.Long.prototype.compare = function(other) {\n if (this.equalsLong(other)) {\n   return 0;\n }\n\n var thisNeg = this.isNegative();\n var otherNeg = other.isNegative();\n if (thisNeg && !otherNeg) {\n   return -1;\n }\n if (!thisNeg && otherNeg) {\n   return 1;\n }\n\n // at this point, the signs are the same, so subtraction will not overflow\n if (this.subtract(other).isNegative()) {\n   return -1;\n } else {\n   return 1;\n }\n};\n\n\n/** @return {!Kotlin.Long} The negation of this value. */\nKotlin.Long.prototype.negate = function() {\n if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   return Kotlin.Long.MIN_VALUE;\n } else {\n   return this.not().add(Kotlin.Long.ONE);\n }\n};\n\n\n/**\n * Returns the sum of this and the given Long.\n * @param {Kotlin.Long} other Long to add to this one.\n * @return {!Kotlin.Long} The sum of this and the given Long.\n */\nKotlin.Long.prototype.add = function(other) {\n // Divide each number into 4 chunks of 16 bits, and then sum the chunks.\n\n var a48 = this.high_ >>> 16;\n var a32 = this.high_ & 0xFFFF;\n var a16 = this.low_ >>> 16;\n var a00 = this.low_ & 0xFFFF;\n\n var b48 = other.high_ >>> 16;\n var b32 = other.high_ & 0xFFFF;\n var b16 = other.low_ >>> 16;\n var b00 = other.low_ & 0xFFFF;\n\n var c48 = 0, c32 = 0, c16 = 0, c00 = 0;\n c00 += a00 + b00;\n c16 += c00 >>> 16;\n c00 &= 0xFFFF;\n c16 += a16 + b16;\n c32 += c16 >>> 16;\n c16 &= 0xFFFF;\n c32 += a32 + b32;\n c48 += c32 >>> 16;\n c32 &= 0xFFFF;\n c48 += a48 + b48;\n c48 &= 0xFFFF;\n return Kotlin.Long.fromBits((c16 << 16) | c00, (c48 << 16) | c32);\n};\n\n\n/**\n * Returns the difference of this and the given Long.\n * @param {Kotlin.Long} other Long to subtract from this.\n * @return {!Kotlin.Long} The difference of this and the given Long.\n */\nKotlin.Long.prototype.subtract = function(other) {\n return this.add(other.negate());\n};\n\n\n/**\n * Returns the product of this and the given long.\n * @param {Kotlin.Long} other Long to multiply with this.\n * @return {!Kotlin.Long} The product of this and the other.\n */\nKotlin.Long.prototype.multiply = function(other) {\n if (this.isZero()) {\n   return Kotlin.Long.ZERO;\n } else if (other.isZero()) {\n   return Kotlin.Long.ZERO;\n }\n\n if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   return other.isOdd() ? Kotlin.Long.MIN_VALUE : Kotlin.Long.ZERO;\n } else if (other.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   return this.isOdd() ? Kotlin.Long.MIN_VALUE : Kotlin.Long.ZERO;\n }\n\n if (this.isNegative()) {\n   if (other.isNegative()) {\n   return this.negate().multiply(other.negate());\n   } else {\n   return this.negate().multiply(other).negate();\n   }\n } else if (other.isNegative()) {\n   return this.multiply(other.negate()).negate();\n }\n\n // If both longs are small, use float multiplication\n if (this.lessThan(Kotlin.Long.TWO_PWR_24_) &&\n   other.lessThan(Kotlin.Long.TWO_PWR_24_)) {\n   return Kotlin.Long.fromNumber(this.toNumber() * other.toNumber());\n }\n\n // Divide each long into 4 chunks of 16 bits, and then add up 4x4 products.\n // We can skip products that would overflow.\n\n var a48 = this.high_ >>> 16;\n var a32 = this.high_ & 0xFFFF;\n var a16 = this.low_ >>> 16;\n var a00 = this.low_ & 0xFFFF;\n\n var b48 = other.high_ >>> 16;\n var b32 = other.high_ & 0xFFFF;\n var b16 = other.low_ >>> 16;\n var b00 = other.low_ & 0xFFFF;\n\n var c48 = 0, c32 = 0, c16 = 0, c00 = 0;\n c00 += a00 * b00;\n c16 += c00 >>> 16;\n c00 &= 0xFFFF;\n c16 += a16 * b00;\n c32 += c16 >>> 16;\n c16 &= 0xFFFF;\n c16 += a00 * b16;\n c32 += c16 >>> 16;\n c16 &= 0xFFFF;\n c32 += a32 * b00;\n c48 += c32 >>> 16;\n c32 &= 0xFFFF;\n c32 += a16 * b16;\n c48 += c32 >>> 16;\n c32 &= 0xFFFF;\n c32 += a00 * b32;\n c48 += c32 >>> 16;\n c32 &= 0xFFFF;\n c48 += a48 * b00 + a32 * b16 + a16 * b32 + a00 * b48;\n c48 &= 0xFFFF;\n return Kotlin.Long.fromBits((c16 << 16) | c00, (c48 << 16) | c32);\n};\n\n\n/**\n * Returns this Long divided by the given one.\n * @param {Kotlin.Long} other Long by which to divide.\n * @return {!Kotlin.Long} This Long divided by the given one.\n */\nKotlin.Long.prototype.div =

function(other) {\n if (other.isZero()) {\n   throw Error('division by zero');\n } else if (this.isZero()) {\n   return Kotlin.Long.ZERO;\n }\n\n if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   if (other.equalsLong(Kotlin.Long.ONE) ||\n   other.equalsLong(Kotlin.Long.NEG_ONE)) {\n   return Kotlin.Long.MIN_VALUE; // recall that -MIN_VALUE == MIN_VALUE\n   } else if (other.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   return Kotlin.Long.ONE;\n
 } else {\n   // At this point, we have |other| >= 2, so |this/other| < |MIN_VALUE|.\n   var halfThis = this.shiftRight(1);\n   var approx = halfThis.div(other).shiftLeft(1);\n   if (approx.equalsLong(Kotlin.Long.ZERO)) {\n   return other.isNegative() ? Kotlin.Long.ONE : Kotlin.Long.NEG_ONE;\n   } else {\n   var rem = this.subtract(other.multiply(approx));\n   var result = approx.add(rem.div(other));\n   return result;\n   }\n   }\n } else if (other.equalsLong(Kotlin.Long.MIN_VALUE)) {\n   return Kotlin.Long.ZERO;\n }\n\n if (this.isNegative()) {\n   if (other.isNegative()) {\n   return this.negate().div(other.negate());\n   } else {\n   return this.negate().div(other).negate();\n   }\n } else if (other.isNegative()) {\n   return this.div(other.negate()).negate();\n }\n\n // Repeat the following until the remainder is less than other: find a\n // floating-point that approximates remainder / other *from below*, add this\n // into
 the result, and subtract it from the remainder. It is critical that\n // the approximate value is less than or equal to the real value so that the\n // remainder never becomes negative.\n var res = Kotlin.Long.ZERO;\n var rem = this;\n while (rem.greaterThanOrEqual(other)) {\n   // Approximate the result of division. This may be a little greater or\n   // smaller than the actual value.\n   var approx = Math.max(1, Math.floor(rem.toNumber() / other.toNumber()));\n\n
 // We will tweak the approximate result by changing it in the 48-th digit or\n   // the smallest non-fractional digit, whichever is larger.\n   var log2 = Math.ceil(Math.log(approx) / Math.LN2);\n   var delta = (log2 <= 48) ? 1 : Math.pow(2, log2 - 48);\n\n   // Decrease the approximation until it is smaller than the remainder. Note\n   // that if it is too large, the product overflows and is negative.\n   var approxRes = Kotlin.Long.fromNumber(approx);\n   var approxRem = approxRes.multiply(other);\n
  while (approxRem.isNegative() || approxRem.greaterThan(rem)) {\n   approx -= delta;\n   approxRes = Kotlin.Long.fromNumber(approx);\n   approxRem = approxRes.multiply(other);\n   }\n\n   // We know the answer can't be zero... and actually, zero would cause\n   // infinite recursion since we would make no progress.\n   if (approxRes.isZero()) {\n   approxRes = Kotlin.Long.ONE;\n   }\n\n   res = res.add(approxRes);\n   rem = rem.subtract(approxRem);\n }\n return res;\n};\n\n\n/**\n * Returns this Long modulo the given one.\n * @param {Kotlin.Long} other Long by which to mod.\n * @return {!Kotlin.Long} This Long modulo the given one.\n */\nKotlin.Long.prototype.modulo = function(other) {\n return this.subtract(this.div(other).multiply(other));\n};\n\n\n/** @return {!Kotlin.Long} The bitwise-NOT of this value. */\nKotlin.Long.prototype.not = function() {\n return Kotlin.Long.fromBits(~this.low_, ~this.high_);\n};\n\n\n/**\n * Returns the bitwise-AND of this Long and
 the given one.\n * @param {Kotlin.Long} other The Long with which to AND.\n * @return {!Kotlin.Long} The bitwise-AND of this and the other.\n */\nKotlin.Long.prototype.and = function(other) {\n return Kotlin.Long.fromBits(this.low_ & other.low_,\n   this.high_ & other.high_);\n};\n\n\n/**\n * Returns the bitwise-OR of this Long and the given one.\n * @param {Kotlin.Long} other The Long with which to OR.\n * @return {!Kotlin.Long} The bitwise-OR of this and the other.\n */\nKotlin.Long.prototype.or = function(other) {\n return Kotlin.Long.fromBits(this.low_ | other.low_,\n   this.high_ | other.high_);\n};\n\n\n/**\n * Returns the bitwise-XOR of this Long and the given one.\n * @param {Kotlin.Long} other The Long with which to XOR.\n * @return {!Kotlin.Long} The bitwise-XOR of this and the other.\n */\nKotlin.Long.prototype.xor = function(other) {\n return Kotlin.Long.fromBits(this.low_ ^ other.low_,\n

this.high_ ^ other.high_);\n};\n\n\n/**\n * Returns this Long with bits shifted to the left by the given amount.\n * @param {number} numBits The number of bits by which to shift.\n * @return {!Kotlin.Long} This shifted to the left by the given amount.\n */\nKotlin.Long.prototype.shiftLeft = function(numBits) {\n numBits &= 63;\n if (numBits == 0) {\n   return this;\n } else {\n   var low = this.low_;\n   if (numBits < 32) {\n   var high =

this.high_;\n   return Kotlin.Long.fromBits(\n   low << numBits,\n   (high << numBits) | (low >>> (32 - numBits)));\n   } else {\n   return Kotlin.Long.fromBits(0, low << (numBits - 32));\n   }\n }\n};\n\n\n/**\n * Returns this Long with bits shifted to the right by the given amount.\n * @param {number} numBits The number of bits by which to shift.\n * @return {!Kotlin.Long} This shifted to the right by the given amount.\n */\nKotlin.Long.prototype.shiftRight = function(numBits) {\n numBits &= 63;\n if (numBits == 0) {\n   return this;\n } else {\n   var high = this.high_;\n   if (numBits < 32) {\n   var low = this.low_;\n   return Kotlin.Long.fromBits(\n   (low >>> numBits) | (high << (32 - numBits)),\n   high >> numBits);\n   } else {\n   return Kotlin.Long.fromBits(\n   high >> (numBits - 32),\n   high >= 0 ? 0 : -1);\n   }\n }\n};\n\n\n/**\n * Returns this Long with bits shifted to the right by the given amount, with\n * zeros placed into the new leading bits.\n * @param {number} numBits The number of bits by which to shift.\n * @return {!Kotlin.Long} This shifted to the right by the given amount, with\n *   zeros placed into the new leading bits.\n */\nKotlin.Long.prototype.shiftRightUnsigned = function(numBits) {\n numBits &= 63;\n if (numBits == 0) {\n   return this;\n } else {\n   var high = this.high_;\n   if (numBits < 32) {\n   var low = this.low_;\n   return Kotlin.Long.fromBits(\n   (low >>> numBits) | (high << (32 - numBits)),\n   high >>> numBits);\n   } else if (numBits == 32) {\n   return Kotlin.Long.fromBits(high, 0);\n   } else {\n   return Kotlin.Long.fromBits(high >>> (numBits - 32), 0);\n   }\n }\n};\n\n// Support for Kotlin\nKotlin.Long.prototype.equals = function (other) {\n   return other instanceof Kotlin.Long && this.equalsLong(other);\n};\n\nKotlin.Long.prototype.compareTo_11rb$ = Kotlin.Long.prototype.compare;\n\nKotlin.Long.prototype.inc = function() {\n   return this.add(Kotlin.Long.ONE);\n};\n\nKotlin.Long.prototype.dec = function() {\n   return this.add(Kotlin.Long.NEG_ONE);\n};\n\nKotlin.Long.prototype.valueOf = function() {\n   return this.toNumber();\n};\n\nKotlin.Long.prototype.unaryPlus = function() {\n   return this;\n};\n\nKotlin.Long.prototype.unaryMinus = Kotlin.Long.prototype.negate;\nKotlin.Long.prototype.inv = Kotlin.Long.prototype.not;\n\nKotlin.Long.prototype.rangeTo = function (other) {\n   return new Kotlin.kotlin.ranges.LongRange(this, other);\n};","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/**\n * @param {string} id\n * @param {Object} declaration\n */\nKotlin.defineModule = function (id, declaration) {\n};\n\nKotlin.defineInlineFunction = function(tag, fun) {\n   return fun;\n};\n\nKotlin.wrapFunction = function(fun) {\n   var f = function() {\n   f = fun();\n   return f.apply(this, arguments);\n   };\n   return function() {\n   return f.apply(this, arguments);\n   };\n};\n\nKotlin.isTypeOf = function(type) {\n   return function (object) {\n   return typeof object === type;\n   }\n};\n\nKotlin.isInstanceOf = function (klass) {\n   return function (object) {\n   return Kotlin.isType(object, klass);\n   }\n};\n\nKotlin.orNull = function (fn) {\n   return function (object) {\n   return object == null || fn(object);\n   }\n};\n\nKotlin.andPredicate = function (a, b) {\n   return function (object) {\n   return a(object) && b(object);\n   }\n};\n\nKotlin.kotlinModuleMetadata = function (abiVersion, moduleName, data) {\n};\n\nKotlin.suspendCall = function(value) {\n   return value;\n};\n\nKotlin.coroutineResult = function(qualifier) {\n   throwMarkerError();\n};\n\nKotlin.coroutineController = function(qualifier) {\n   throwMarkerError();\n};\n\nKotlin.coroutineReceiver = function(qualifier) {\n   throwMarkerError();\n};\n\nKotlin.setCoroutineResult = function(value, qualifier) {\n   throwMarkerError();\n};\n\nKotlin.getReifiedTypeParameterKType = function(typeParameter) {\n   throwMarkerError();\n};\n\nfunction throwMarkerError() {\n   throw new Error(\n   \"This marker function should never been called. \" +\n   \"Looks like compiler did not eliminate it properly. \" +\n   \"Please, report an issue if you caught this exception.\");\n}\n\nKotlin.getFunctionById = function(id, defaultValue) {\n   return function() {\n   return defaultValue;\n   }\n};","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\nKotlin.compareTo = function (a, b) {\n   var typeA = typeof a;\n   if (typeA === \"number\") {\n   if (typeof b === \"number\") {\n   return

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Kotlin.doubleCompareTo(a, b);\n        }\n        return Kotlin.primitiveCompareTo(a, b);\n    }\n    if (typeA ===
\"string\" || typeA === \"boolean\") {\n        return Kotlin.primitiveCompareTo(a, b);\n    }\n    return
a.compareTo_11rb$(b);\n};\n\nKotlin.primitiveCompareTo = function (a, b) {\n    return a < b ? -1 : a > b ? 1 :
0;\n};\n\nKotlin.doubleCompareTo = function (a, b) {\n    if (a < b) return -1;\n    if (a > b) return 1;\n\n    if (a ===
b) {\n        if (a !== 0) return 0;\n\n        var ia = 1 / a;\n
        return ia === 1 / b ? 0 : (ia < 0 ? -1 : 1);\n    }\n\n    return a !== a ? (b !== b ? 0 : 1) : -1\n};\n\nKotlin.charInc =
function (value) {\n    return Kotlin.toChar(value+1);\n};\n\nKotlin.charDec = function (value) {\n    return
Kotlin.toChar(value-1);\n};\n\nKotlin.imul = Math.imul || imul;\n\nKotlin.imulEmulated = imul;\n\nfunction imul(a,
b) {\n    return ((a & 0xffff0000) * (b & 0xffff) + (a & 0xffff) * (b | 0)) | 0;\n}\n\n(function() {\n    var buf = new
ArrayBuffer(8);\n    var bufFloat64 = new Float64Array(buf);\n    var bufFloat32 = new Float32Array(buf);\n    var
bufInt32 = new Int32Array(buf);\n    var lowIndex = 0;\n    var highIndex = 1;\n\n    bufFloat64[0] = -1; //
bff00000_00000000\n    if (bufInt32[lowIndex] !== 0) {\n        lowIndex = 1;\n        highIndex = 0;\n    }\n\n
Kotlin.doubleToBits = function(value) {\n        return Kotlin.doubleToRawBits(isNaN(value) ? NaN : value);\n
};\n\n    Kotlin.doubleToRawBits = function(value) {\n        bufFloat64[0]
 = value;\n        return Kotlin.Long.fromBits(bufInt32[lowIndex], bufInt32[highIndex]);\n    };\n\n
Kotlin.doubleFromBits = function(value) {\n        bufInt32[lowIndex] = value.low_;\n        bufInt32[highIndex] =
value.high_;\n        return bufFloat64[0];\n    };\n\n    Kotlin.floatToBits = function(value) {\n        return
Kotlin.floatToRawBits(isNaN(value) ? NaN : value);\n    };\n\n    Kotlin.floatToRawBits = function(value) {\n
bufFloat32[0] = value;\n        return bufInt32[0];\n    };\n\n    Kotlin.floatFromBits = function(value) {\n
bufInt32[0] = value;\n        return bufFloat32[0];\n    };\n\n    // returns zero value for number with positive sign bit
and non-zero value for number with negative sign bit.\n    Kotlin.doubleSignBit = function(value) {\n
bufFloat64[0] = value;\n        return bufInt32[highIndex] & 0x80000000;\n    };\n\n    Kotlin.numberHashCode =
function(obj) {\n        if ((obj | 0) === obj) {\n            return obj | 0;\n
  }\n        else {\n            bufFloat64[0] = obj;\n            return (bufInt32[highIndex] * 31 | 0) + bufInt32[lowIndex] |
0;\n        }\n    }\n})();\n\nKotlin.ensureNotNull = function(x) {\n    return x != null ? x :
Kotlin.throwNPE();\n};\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\nif (typeof String.prototype.startsWith === \"undefined\") {\n
Object.defineProperty(String.prototype, \"startsWith\", {\n        value: function (searchString, position) {\n
position = position || 0;\n            return this.lastIndexOf(searchString, position) === position;\n        }\n    });\n}\nif
(typeof String.prototype.endsWith === \"undefined\") {\n    Object.defineProperty(String.prototype, \"endsWith\",
{\n        value: function (searchString, position) {\n            var subjectString = this.toString();\n
           if (position === undefined || position > subjectString.length) {\n                position = subjectString.length;\n
       }\n            position -= searchString.length;\n            var lastIndex = subjectString.indexOf(searchString,
position);\n            return lastIndex !== -1 && lastIndex === position;\n        }\n    });\n}\n// ES6 Math polyfills\nif
(typeof Math.sign === \"undefined\") {\n    Math.sign = function(x) {\n        x = +x; // convert to a number\n        if
(x === 0 || isNaN(x)) {\n            return Number(x);\n        }\n        return x > 0 ? 1 : -1;\n    };\n}\nif (typeof
Math.trunc === \"undefined\") {\n    Math.trunc = function(x) {\n        if (isNaN(x)) {\n            return NaN;\n
}\n        if (x > 0) {\n            return Math.floor(x);\n        }\n        return Math.ceil(x);\n    };\n}\n\n(function() {\n
var epsilon = 2.220446049250313E-16;\n    var taylor_2_bound = Math.sqrt(epsilon);\n    var taylor_n_bound =
Math.sqrt(taylor_2_bound);\n
    var upper_taylor_2_bound = 1/taylor_2_bound;\n    var upper_taylor_n_bound = 1/taylor_n_bound;\n\n    if
(typeof Math.sinh === \"undefined\") {\n        Math.sinh = function(x) {\n            if (Math.abs(x) < taylor_n_bound)
{\n                var result = x;\n                if (Math.abs(x) > taylor_2_bound) {\n                    result += (x * x * x) / 6;\n
            }\n                return result;\n            } else {\n                var y = Math.exp(x);\n                var y1 = 1 / y;\n
     if (!isFinite(y)) return Math.exp(x - Math.LN2);\n                if (!isFinite(y1)) return -Math.exp(-x - Math.LN2);\n
            return (y - y1) / 2;\n            }\n        };\n    }\n    if (typeof Math.cosh === \"undefined\") {\n        Math.cosh
= function(x) {\n            var y = Math.exp(x);\n            var y1 = 1 / y;\n            if (!isFinite(y) || !isFinite(y1)) return
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Math.exp(Math.abs(x) - Math.LN2);\n return (y + y1) / 2;\n };\n }\n\n if (typeof Math.tanh === \"undefined\") {\n Math.tanh = function(x){\n if (Math.abs(x) < taylor_n_bound) {\n var result = x;\n if (Math.abs(x) > taylor_2_bound) {\n result -= (x * x * x) / 3;\n }\n return result;\n }\n else {\n var a = Math.exp(+x), b = Math.exp(-x);\n return a === Infinity ? 1 : b === Infinity ? -1 : (a - b) / (a + b);\n }\n };\n }\n\n // Inverse hyperbolic function implementations derived from boost special math functions,\n // Copyright Eric Ford & Hubert Holin 2001.\n\n if (typeof Math.asinh === \"undefined\") {\n var asinh = function(x) {\n if (x >= +taylor_n_bound)\n {\n if (x > upper_taylor_n_bound)\n {\n if (x > upper_taylor_2_bound)\n {\n // approximation by laurent series in 1/x at 0+ order from -1 to 0\n return Math.log(x) + Math.LN2;\n }\n else\n {\n // approximation by laurent series in 1/x at 0+ order from -1 to 1\n return Math.log(x * 2 + (1 / (x * 2)));\n }\n }\n else\n {\n return Math.log(x + Math.sqrt(x * x + 1));\n }\n }\n else if (x <= -taylor_n_bound)\n {\n return -asinh(-x);\n }\n else\n {\n // approximation by taylor series in x at 0 up to order 2\n var result = x;\n if (Math.abs(x) >= taylor_2_bound)\n {\n var x3 = x * x * x;\n // approximation by taylor series in x at 0 up to order 4\n result -= x3 / 6;\n }\n return result;\n }\n };\n Math.asinh = asinh;\n }\n if (typeof Math.acosh === \"undefined\") {\n Math.acosh = function(x) {\n if (x < 1)\n {\n return NaN;\n }\n else if (x - 1 >= taylor_n_bound)\n {\n if (x > upper_taylor_2_bound)\n {\n // approximation by laurent series in 1/x at 0+ order from -1 to 0\n return Math.log(x) + Math.LN2;\n }\n else\n {\n return Math.log(x + Math.sqrt(x * x - 1));\n }\n }\n else\n {\n var y = Math.sqrt(x - 1);\n // approximation by taylor series in y at 0 up to order 2\n var result = y;\n if (y >= taylor_2_bound)\n {\n var y3 = y * y * y;\n // approximation by taylor series in y at 0 up to order 4\n result -= y3 / 12;\n }\n\n return Math.sqrt(2) * result;\n }\n };\n }\n if (typeof Math.atanh === \"undefined\") {\n Math.atanh = function(x) {\n if (Math.abs(x) < taylor_n_bound) {\n var result = x;\n if (Math.abs(x) > taylor_2_bound) {\n result += (x * x * x) / 3;\n }\n return result;\n }\n return Math.log((1 + x) / (1 - x)) / 2;\n };\n }\n if (typeof Math.log1p === \"undefined\") {\n Math.log1p = function(x) {\n if (Math.abs(x) < taylor_n_bound) {\n var x2 = x * x;\n var x3 = x2 * x;\n var x4 = x3 * x;\n // approximation by taylor series in x at 0 up to order 4\n return (-x4 / 4 + x3 / 3 - x2 / 2 + x);\n }\n return Math.log(x + 1);\n };\n }\n if (typeof Math.expm1 === \"undefined\") {\n Math.expm1 = function(x) {\n if (Math.abs(x) < taylor_n_bound) {\n var x2 = x * x;\n var x3 = x2 * x;\n var x4 = x3 * x;\n // approximation by taylor series in x at 0 up to order 4\n return (x4 / 24 + x3 / 6 + x2 / 2 + x);\n }\n return Math.exp(x) - 1;\n };\n }\n})();\nif (typeof Math.hypot === \"undefined\") {\n Math.hypot = function() {\n var y = 0;\n var length = arguments.length;\n\n for (var i = 0; i < length; i++) {\n if (arguments[i] === Infinity || arguments[i] === -Infinity) {\n return Infinity;\n }\n y += arguments[i] * arguments[i];\n }\n return Math.sqrt(y);\n };\n}\nif (typeof Math.log10 === \"undefined\") {\n Math.log10 = function(x) {\n return Math.log(x) * Math.LOG10E;\n };\n}\nif (typeof Math.log2 === \"undefined\") {\n Math.log2 = function(x) {\n return Math.log(x) * Math.LOG2E;\n };\n}\nif (typeof Math.clz32 === \"undefined\") {\n Math.clz32 = (function(log, LN2) {\n return function(x) {\n var asUint = x >>> 0;\n if (asUint === 0) {\n return 32;\n }\n return 31 - (log(asUint) / LN2 | 0) | 0; // the \"| 0\" acts like math.floor\n };\n })(Math.log, Math.LN2);\n}\n\n// For HtmlUnit and PhantomJs\nif (typeof ArrayBuffer.isView === \"undefined\") {\n ArrayBuffer.isView = function(a) {\n return a != null && a.__proto__ != null && a.__proto__.__proto__ === Int8Array.prototype.__proto__;\n };\n}\n\nif (typeof

Array.prototype.fill === \"undefined\") {\n // Polyfill from https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Array/fill#Polyfill\n Object.defineProperty(Array.prototype, 'fill', {\n value: function (value) {\n\n // Steps 1-2.\n if (this == null) {\n throw new TypeError('this is null or not defined');\n }\n\n var O = Object(this);\n\n // Steps 3-5.\n var len = O.length >>> 0;\n\n // Steps 6-7.\n var start = arguments[1];\n var relativeStart = start >> 0;\n\n // Step 8.\n var k = relativeStart < 0 ?\n Math.max(len + relativeStart, 0) :\n Math.min(relativeStart, len);\n\n // Steps 9-10.\n var end = arguments[2];\n var relativeEnd = end === undefined ?\n len : end >> 0;\n\n // Step 11.\n var finalValue = relativeEnd < 0 ?\n Math.max(len + relativeEnd, 0) :\n Math.min(relativeEnd, len);\n\n // Step 12.\n while (k < finalValue) {\n O[k] = value;\n k++;\n }\n\n // Step 13.\n return O;\n }\n });\n}\n\n(function() {\n function normalizeOffset(offset, length) {\n if (offset < 0) return Math.max(0, offset + length);\n return Math.min(offset, length);\n }\n function typedArraySlice(begin, end) {\n if (typeof end === \"undefined\") {\n end = this.length;\n }\n begin = normalizeOffset(begin || 0, this.length);\n end = Math.max(begin, normalizeOffset(end, this.length));\n return new this.constructor(this.subarray(begin, end));\n }\n\n var arrays = [Int8Array, Int16Array, Uint16Array, Int32Array, Float32Array, Float64Array];\n for (var i = 0; i < arrays.length; ++i) {\n var TypedArray = arrays[i];\n if (typeof TypedArray.prototype.fill === \"undefined\") {\n Object.defineProperty(TypedArray.prototype, 'fill', {\n value: Array.prototype.fill\n });\n }\n if (typeof TypedArray.prototype.slice === \"undefined\") {\n Object.defineProperty(TypedArray.prototype, 'slice', {\n value: typedArraySlice\n });\n }\n }\n\n // Patch apply to work with TypedArrays if needed.\n try {\n (function() {}).apply(null, new Int32Array(0))\n } catch (e) {\n var apply = Function.prototype.apply;\n Object.defineProperty(Function.prototype, 'apply', {\n value: function(self, array) {\n return apply.call(this, self, [].slice.call(array));\n }\n });\n }\n\n\n // Patch map to work with TypedArrays if needed.\n for (var i = 0; i < arrays.length; ++i) {\n var TypedArray = arrays[i];\n if (typeof TypedArray.prototype.map === \"undefined\") {\n Object.defineProperty(TypedArray.prototype, 'map', {\n value: function(callback, self) {\n return [].slice.call(this).map(callback, self);\n }\n });\n }\n }\n\n // Patch sort to work with TypedArrays if needed.\n // TODO: consider to remove following function and replace it with `Kotlin.doubleCompareTo` (see misc.js)\n var totalOrderComparator = function (a, b) {\n if (a < b) return -1;\n if (a > b) return 1;\n\n if (a === b) {\n if (a !== 0) return 0;\n\n var ia = 1 / a;\n return ia === 1 / b ? 0 : (ia < 0 ? -1 : 1);\n }\n\n return a !== a ? (b !== b ? 0 : 1) : -1\n };\n\n for (var i = 0; i < arrays.length; ++i) {\n var TypedArray = arrays[i];\n if (typeof TypedArray.prototype.sort === \"undefined\") {\n Object.defineProperty(TypedArray.prototype, 'sort', {\n value: function(compareFunction) {\n return Array.prototype.sort.call(this, compareFunction || totalOrderComparator);\n }\n });\n }\n }\n})();\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\nKotlin.Kind = {\n CLASS: \"class\",\n INTERFACE: \"interface\",\n OBJECT: \"object\"\n};\n\nKotlin.callGetter = function (thisObject, klass, propertyName) {\n var propertyDescriptor = Object.getOwnPropertyDescriptor(klass, propertyName);\n if (propertyDescriptor != null && propertyDescriptor.get != null) {\n return propertyDescriptor.get.call(thisObject);\n }\n\n propertyDescriptor = Object.getOwnPropertyDescriptor(thisObject, propertyName);\n if (propertyDescriptor != null && \"value\" in propertyDescriptor) {\n return thisObject[propertyName];\n }\n\n return Kotlin.callGetter(thisObject, Object.getPrototypeOf(klass), propertyName);\n};\n\nKotlin.callSetter = function (thisObject, klass,

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 propertyName, value) {\n    var propertyDescriptor = Object.getOwnPropertyDescriptor(klass, propertyName);\n
if (propertyDescriptor != null && propertyDescriptor.set != null) {\n        propertyDescriptor.set.call(thisObject,
value);\n        return;\n    }\n\n    propertyDescriptor = Object.getOwnPropertyDescriptor(thisObject,
propertyName);\n    if (propertyDescriptor != null && \"value\" in propertyDescriptor) {\n
thisObject[propertyName] = value;\n        return\n    }\n\n    Kotlin.callSetter(thisObject,
Object.getPrototypeOf(klass), propertyName, value);\n};\n\nfunction isInheritanceFromInterface(ctor, iface) {\n    if
(ctor === iface) return true;\n\n    var metadata = ctor.$metadata$;\n    if (metadata != null) {\n        var interfaces =
metadata.interfaces;\n        for (var i = 0; i < interfaces.length; i++) {\n            if
(isInheritanceFromInterface(interfaces[i], iface)) {\n                return true;\n            }\n        }\n    }\n\n    var
superPrototype
 = ctor.prototype != null ? Object.getPrototypeOf(ctor.prototype) : null;\n    var superConstructor = superPrototype
!= null ? superPrototype.constructor : null;\n    return superConstructor != null &&
isInheritanceFromInterface(superConstructor, iface);\n}\n\n/**\n *\n * @param {*} object\n * @param
{Function|Object} klass\n * @returns {Boolean}\n */\nKotlin.isType = function (object, klass) {\n    if (klass ===
Object) {\n        switch (typeof object) {\n            case \"string\":\n            case \"number\":\n            case
\"boolean\":\n            case \"function\":\n                return true;\n            default:\n                return object instanceof
Object;\n        }\n    }\n\n    if (object == null || klass == null || (typeof object !== 'object' && typeof object !==
'function')) {\n        return false;\n    }\n\n    if (typeof klass === \"function\" && object instanceof klass) {\n
return true;\n    }\n\n    var proto = Object.getPrototypeOf(klass);\n
  var constructor = proto != null ? proto.constructor : null;\n    if (constructor != null && \"$metadata$\" in
constructor) {\n        var metadata = constructor.$metadata$;\n        if (metadata.kind === Kotlin.Kind.OBJECT) {\n
        return object === klass;\n        }\n    }\n\n    var klassMetadata = klass.$metadata$;\n\n    // In WebKit
(JavaScriptCore) for some interfaces from DOM typeof returns \"object\", nevertheless they can be used in RHS of
instanceof\n    if (klassMetadata == null) {\n        return object instanceof klass;\n    }\n\n    if (klassMetadata.kind
=== Kotlin.Kind.INTERFACE && object.constructor != null) {\n        return
isInheritanceFromInterface(object.constructor, klass);\n    }\n\n    return false;\n};\n\nKotlin.isNumber = function (a)
{\n    return typeof a == \"number\" || a instanceof Kotlin.Long;\n};\n\nKotlin.isChar = function (value) {\n    return
value instanceof Kotlin.BoxedChar\n};\n\nKotlin.isComparable = function (value) {\n    var type = typeof
 value;\n\n    return type === \"string\" ||\n           type === \"boolean\" ||\n           Kotlin.isNumber(value) ||\n
Kotlin.isType(value, Kotlin.kotlin.Comparable);\n};\n\nKotlin.isCharSequence = function (value) {\n    return
typeof value === \"string\" || Kotlin.isType(value, Kotlin.kotlin.CharSequence);\n};","/*\n * Copyright 2010-2020
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// a package is omitted to get
declarations directly under the module\n\n@PublishedApi\nexternal internal fun <T> Array(size: Int):
Array<T>\n\n@JsName(\"newArray\")\nfun <T> newArray(size: Int, initValue: T) = fillArrayVal(Array<T>(size),
initValue)\n\n@JsName(\"newArrayF\")\ninline fun <T> arrayWithFun(size: Int, init: (Int) -> T) =
fillArrayFun(Array<T>(size), init)\n\n@JsName(\"fillArray\")\ninline fun <T> fillArrayFun(array: Array<T>, init:
(Int)
 -> T): Array<T> {\n    for (i in 0..array.size - 1) {\n        array[i] = init(i)\n    }\n    return
array\n}\n\n@JsName(\"booleanArray\")\nfun booleanArray(size: Int, init: dynamic): Array<Boolean> {\n    val
result: dynamic = Array<Boolean>(size)\n    result.`$type$` = \"BooleanArray\"\n    return when (init) {\n        null,
true -> fillArrayVal(result, false)\n        false -> result\n        else -> fillArrayFun<Boolean>(result, init)\n
}\n}\n\n@JsName(\"booleanArrayF\")\ninline fun booleanArrayWithFun(size: Int, init: (Int) -> Boolean):
Array<Boolean> = fillArrayFun(booleanArray(size, false),
init)\n\n@JsName(\"charArray\")\n@Suppress(\"UNUSED_PARAMETER\")\nfun charArray(size: Int, init:
dynamic): Array<Char> {\n    val result = js(\"new Uint16Array(size)\")\n    result.`$type$` = \"CharArray\"\n
return when (init) {\n        null, true, false -> result // For consistency\n        else -> fillArrayFun<Char>(result,
init)\n    }\n}\n\n@JsName(\"charArrayF\")\ninline fun charArrayWithFun(size:
```

Int, init: (Int) -> Char): Array<Char> {\n   val array = charArray(size, null)\n   for (i in 0..array.size - 1) {\n   @Suppress(\"UNUSED_VARIABLE\") // used in js block\n   val value = init(i)\n   js(\"array[i] = value;\")\n   }\n   return array\n}\n\n@JsName(\"untypedCharArrayF\")\ninline fun untypedCharArrayWithFun(size: Int, init: (Int) -> Char): Array<Char> {\n   val array = Array<Char>(size)\n   for (i in 0..array.size - 1) {\n   @Suppress(\"UNUSED_VARIABLE\") // used in js block\n   val value = init(i)\n   js(\"array[i] = value;\")\n   }\n   return array\n}\n\n@JsName(\"longArray\")\nfun longArray(size: Int, init: dynamic): Array<Long> {\n   val result: dynamic = Array<Long>(size)\n   result.`$type$` = \"LongArray\"\n   return when (init) {\n   null, true -> fillArrayVal(result, 0L)\n   false -> result\n   else -> fillArrayFun<Long>(result, init)\n   }\n}\n\n@JsName(\"longArrayF\")\ninline fun longArrayWithFun(size: Int, init: (Int) -> Long): Array<Long> = fillArrayFun(longArray(size, false), init)\n\nprivate fun <T> fillArrayVal(array: Array<T>, initValue: T): Array<T> {\n   for (i in 0..array.size - 1) {\n   array[i] = initValue\n   }\n   return array\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\npublic class Enum<T : Enum<T>> : Comparable<Enum<T>> {\n   @JsName(\"name$\") private var _name: String = \"\"\n   @JsName(\"ordinal$\") private var _ordinal: Int = 0\n\n   val name: String\n   get() = _name\n\n   val ordinal: Int\n   get() = _ordinal\n\n   override fun compareTo(other: Enum<T>) = ordinal.compareTo(other.ordinal)\n\n   override fun equals(other: Any?) = this === other\n\n   override fun hashCode(): Int = js(\"Kotlin.identityHashCode\")(this)\n\n   override fun toString() = name\n\n   companion object\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js.internal\n\n@JsName(\"DoubleCompanionObject\")\ninternal object DoubleCompanionObject {\n   @JsName(\"MIN_VALUE\")\n   const val MIN_VALUE: Double = 4.9E-324\n\n   @JsName(\"MAX_VALUE\")\n   const val MAX_VALUE: Double = 1.7976931348623157E308\n\n   @JsName(\"POSITIVE_INFINITY\")\n   @Suppress(\"DIVISION_BY_ZERO\")\n   const val POSITIVE_INFINITY: Double = 1.0 / 0.0\n\n   @JsName(\"NEGATIVE_INFINITY\")\n   @Suppress(\"DIVISION_BY_ZERO\")\n   const val NEGATIVE_INFINITY: Double = -1.0 / 0.0\n\n   @JsName(\"NaN\")\n   @Suppress(\"DIVISION_BY_ZERO\")\n   const val NaN: Double = -(0.0 / 0.0)\n\n   @JsName(\"SIZE_BYTES\")\n   const val SIZE_BYTES = 8\n\n   @JsName(\"SIZE_BITS\")\n   const val SIZE_BITS = 64\n}\n\n@JsName(\"FloatCompanionObject\")\ninternal object FloatCompanionObject {\n   @JsName(\"MIN_VALUE\")\n   const val MIN_VALUE: Float = 1.4E-45F\n\n   @JsName(\"MAX_VALUE\")\n   const val MAX_VALUE: Float = 3.4028235E38F\n\n   @JsName(\"POSITIVE_INFINITY\")\n   @Suppress(\"DIVISION_BY_ZERO\")\n   const val POSITIVE_INFINITY: Float = 1.0F / 0.0F\n\n   @JsName(\"NEGATIVE_INFINITY\")\n   @Suppress(\"DIVISION_BY_ZERO\")\n   const val NEGATIVE_INFINITY: Float = -1.0F / 0.0F\n\n   @JsName(\"NaN\")\n   @Suppress(\"DIVISION_BY_ZERO\")\n   const val NaN: Float = -(0.0F / 0.0F)\n\n   @JsName(\"SIZE_BYTES\")\n   const val SIZE_BYTES = 4\n\n   @JsName(\"SIZE_BITS\")\n   const val SIZE_BITS = 32\n}\n\n@JsName(\"IntCompanionObject\")\ninternal object IntCompanionObject {\n   @JsName(\"MIN_VALUE\")\n   val MIN_VALUE: Int = -2147483647 - 1\n\n   @JsName(\"MAX_VALUE\")\n   val MAX_VALUE: Int = 2147483647\n\n   @JsName(\"SIZE_BYTES\")\n   const val SIZE_BYTES = 4\n\n   @JsName(\"SIZE_BITS\")\n   const val SIZE_BITS = 32\n}\n\n@JsName(\"LongCompanionObject\")\ninternal object LongCompanionObject {\n   @JsName(\"MIN_VALUE\")\n   val MIN_VALUE: Long = js(\"Kotlin.Long.MIN_VALUE\")\n\n   @JsName(\"MAX_VALUE\")\n   val MAX_VALUE: Long = js(\"Kotlin.Long.MAX_VALUE\")\n\n   @JsName(\"SIZE_BYTES\")\n   const val SIZE_BYTES = 8\n\n   @JsName(\"SIZE_BITS\")\n   const val SIZE_BITS = 64\n}\n\n@JsName(\"ShortCompanionObject\")\ninternal object ShortCompanionObject {\n   @JsName(\"MIN_VALUE\")\n   val MIN_VALUE: Short = -32768\n\n   @JsName(\"MAX_VALUE\")\n   val MAX_VALUE: Short = 32767\n\n   @JsName(\"SIZE_BYTES\")\n   const

val SIZE_BYTES = 2\n\n   @JsName(\"SIZE_BITS\")\n   const val SIZE_BITS =
16\n}\n\n@JsName(\"ByteCompanionObject\")\ninternal object ByteCompanionObject {\n
@JsName(\"MIN_VALUE\")\n   val MIN_VALUE: Byte = -128\n\n   @JsName(\"MAX_VALUE\")\n   val
MAX_VALUE: Byte = 127\n\n   @JsName(\"SIZE_BYTES\")\n   const
val SIZE_BYTES = 1\n\n   @JsName(\"SIZE_BITS\")\n   const val SIZE_BITS =
8\n}\n\n@JsName(\"CharCompanionObject\")\ninternal object CharCompanionObject {\n
@JsName(\"MIN_VALUE\")\n   public const val MIN_VALUE: Char = '\\u0000'\n\n
@JsName(\"MAX_VALUE\")\n   public const val MAX_VALUE: Char = '\\uFFFF'\n\n
@JsName(\"MIN_HIGH_SURROGATE\")\n   public const val MIN_HIGH_SURROGATE: Char = '\\uD800'\n\n
@JsName(\"MAX_HIGH_SURROGATE\")\n   public const val MAX_HIGH_SURROGATE: Char =
'\\uDBFF'\n\n   @JsName(\"MIN_LOW_SURROGATE\")\n   public const val MIN_LOW_SURROGATE: Char =
'\\uDC00'\n\n   @JsName(\"MAX_LOW_SURROGATE\")\n   public const val MAX_LOW_SURROGATE: Char
= '\\uDFFF'\n\n   @JsName(\"MIN_SURROGATE\")\n   public const val MIN_SURROGATE: Char =
MIN_HIGH_SURROGATE\n\n   @JsName(\"MAX_SURROGATE\")\n   public const val MAX_SURROGATE:
Char = MAX_LOW_SURROGATE\n\n   @JsName(\"SIZE_BYTES\")\n   const val SIZE_BYTES = 2\n\n
@JsName(\"SIZE_BITS\")\n   const
val SIZE_BITS = 16\n}\n\ninternal object StringCompanionObject {}\n\ninternal object
BooleanCompanionObject {}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"ArraysKt\")\n\npackage
kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\nimport
kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the
size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior
is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component1(): T
{\n   return get(0)\n}\n\n/**\n
* Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component1(): Byte {\n   return
get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component1(): Short {\n   return
get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component1(): Int {\n   return
get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size
of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is
unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component1(): Long {\n
return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1,
throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component1(): Float {\n   return
get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component1(): Double {\n   return
get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an
[IndexOutOfBoundsException]

except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component1(): Boolean {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component1(): Char {\n   return get(0)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component2(): T {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior

is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component2(): Byte {\n return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component2(): Short {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component2(): Int {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline

operator fun LongArray.component2(): Long {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component2(): Float {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component2(): Double {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component2(): Boolean {\n

return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component2(): Char {\n   return get(1)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component3(): T {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component3(): Byte {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n

* \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component3(): Short {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component3(): Int {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component3(): Long {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws

an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component3(): Float {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component3(): Double {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component3(): Boolean {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component3(): Char {\n   return get(2)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component4(): T {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component4(): Byte {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component4(): Short {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component4(): Int {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component4(): Long {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component4(): Float {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component4(): Double {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component4(): Boolean {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component4(): Char {\n   return get(3)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component5(): T {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component5(): Byte {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component5(): Short {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component5(): Int {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component5(): Long {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component5(): Float {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except

in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component5(): Double {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component5(): Boolean {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component5(): Char {\n   return get(4)\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun <@kotlin.internal.OnlyInputTypes T> Array<out T>.contains(element: T): Boolean {\n   return indexOf(element) >=

0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun ByteArray.contains(element: Byte): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun ShortArray.contains(element: Short): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun IntArray.contains(element: Int): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun LongArray.contains(element: Long): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\n@Deprecated(\"The function has unclear behavior when searching for NaN or zero values and will be removed soon. Use 'any { it == element }' instead to continue using this behavior, or '.asList().contains(element: T)' to get the same search behavior

as in a list.\", ReplaceWith(\"any { it == element }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\n@Suppress(\"DEPRECATION_ERROR\")\npublic operator fun FloatArray.contains(element: Float): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\n@Deprecated(\"The function has unclear behavior when searching for NaN or zero values and will be removed soon. Use 'any { it == element }' instead to continue using this behavior, or '.asList().contains(element: T)' to get the same search behavior as in a list.\", ReplaceWith(\"any { it == element }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\n@Suppress(\"DEPRECATION_ERROR\")\npublic operator fun DoubleArray.contains(element: Double): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun BooleanArray.contains(element: Boolean): Boolean {\n   return

indexOf(element) >= 0\n}\n\n/**\n * Returns `true` if [element] is found in the array.\n */\npublic operator fun CharArray.contains(element: Char): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun <T> Array<out T>.elementAt(index: Int): T\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun ByteArray.elementAt(index: Int): Byte\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun ShortArray.elementAt(index:

Int): Short\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun IntArray.elementAt(index: Int): Int\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun LongArray.elementAt(index: Int): Long\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun FloatArray.elementAt(index: Int): Float\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n

*/\npublic expect fun DoubleArray.elementAt(index: Int): Double\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun BooleanArray.elementAt(index: Int): Boolean\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun CharArray.elementAt(index: Int): Char\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n   return

if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Byte): Byte {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Short): Short {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at

the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Int): Int {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Long): Long {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n

* \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Float): Float {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Double): Double {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic

inline fun BooleanArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Boolean): Boolean {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Char): Char {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.elementAtOrNull(index: Int): T? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given

[index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.elementAtOrNull(index: Int): Byte? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.elementAtOrNull(index: Int): Short? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.elementAtOrNull(index: Int): Int? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of

bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.elementAtOrNull(index: Int): Long? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.elementAtOrNull(index: Int): Float? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.elementAtOrNull(index: Int): Double? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample

samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.elementAtOrNull(index: Int): Boolean? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.elementAtOrNull(index: Int): Char? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.find(predicate: (T) -> Boolean): T? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n

*/\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.find(predicate: (Byte) -> Boolean): Byte? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.find(predicate: (Short) -> Boolean): Short? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.find(predicate: (Int) -> Boolean): Int? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such

element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n
*/\n@kotlin.internal.InlineOnly\npublic
inline fun LongArray.find(predicate: (Long) -> Boolean): Long? {\n   return firstOrNull(predicate)\n}\n\n/**\n *
Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.find(predicate: (Float) -> Boolean): Float? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the
first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
DoubleArray.find(predicate: (Double) -> Boolean): Double? {\n   return firstOrNull(predicate)\n}\n\n/**\n *
Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
BooleanArray.find(predicate:
(Boolean) -> Boolean): Boolean? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element
matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
CharArray.find(predicate: (Char) -> Boolean): Char? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the
last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out
T>.findLast(predicate: (T) -> Boolean): T? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element
matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.findLast(predicate: (Byte) -> Boolean): Byte? {\n
return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no
such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.findLast(predicate: (Short) -> Boolean): Short? {\n
return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no
such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.findLast(predicate: (Int) -> Boolean): Int? {\n   return
lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such
element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.findLast(predicate: (Long) -> Boolean): Long? {\n
return lastOrNull(predicate)\n}\n\n/**\n *
Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.findLast(predicate: (Float) -> Boolean): Float? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns
the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
DoubleArray.findLast(predicate: (Double) -> Boolean): Double? {\n   return lastOrNull(predicate)\n}\n\n/**\n *
Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
BooleanArray.findLast(predicate: (Boolean) -> Boolean): Boolean? {\n   return lastOrNull(predicate)\n}\n\n/**\n *
Returns the last element
matching the given [predicate], or `null` if no such element was found.\n * \n * @sample
samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun
CharArray.findLast(predicate: (Char) -> Boolean): Char? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns
first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun <T> Array<out
T>.first(): T {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return
this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n

*/\npublic fun ByteArray.first(): Byte {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun ShortArray.first(): Short {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n
 * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun IntArray.first(): Int {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun LongArray.first(): Long {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun FloatArray.first(): Float {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun DoubleArray.first(): Double {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns first element.\n
 * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun BooleanArray.first(): Boolean {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun CharArray.first(): Char {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[0]\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun <T> Array<out T>.first(predicate: (T) -> Boolean): T {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun ByteArray.first(predicate:
 (Byte) -> Boolean): Byte {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun ShortArray.first(predicate: (Short) -> Boolean): Short {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun IntArray.first(predicate: (Int) -> Boolean): Int {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n
 * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun LongArray.first(predicate: (Long) -> Boolean): Long {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun FloatArray.first(predicate: (Float) -> Boolean): Float {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun DoubleArray.first(predicate: (Double) -> Boolean): Double {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array
 contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun BooleanArray.first(predicate: (Boolean) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws

[NoSuchElementException] if no such element is found.\n */\npublic inline fun CharArray.first(predicate: (Char) -> Boolean): Char {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to elements of this array in iteration order,\n * or throws [NoSuchElementException] if no non-null
 value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any> Array<out T>.firstNotNullOf(transform: (T) -> R?): R {\n   return firstNotNullOfOrNull(transform) ?: throw NoSuchElementException(\"No element of the array was transformed to a non-null value.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to elements of this array in iteration order,\n * or `null` if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any> Array<out T>.firstNotNullOfOrNull(transform: (T) -> R?): R? {\n   for (element in this) {\n   val result = transform(element)\n   if (result != null) {\n   return result\n   }\n   }\n   return null\n}\n\n/**\n * Returns the first
 element, or `null` if the array is empty.\n */\npublic fun <T> Array<out T>.firstOrNull(): T? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun ByteArray.firstOrNull(): Byte? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun ShortArray.firstOrNull(): Short? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun IntArray.firstOrNull(): Int? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun LongArray.firstOrNull(): Long? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun FloatArray.firstOrNull(): Float? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n
 * Returns the first element, or `null` if the array is empty.\n */\npublic fun DoubleArray.firstOrNull(): Double? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun BooleanArray.firstOrNull(): Boolean? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\npublic fun CharArray.firstOrNull(): Char? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun <T> Array<out T>.firstOrNull(predicate: (T) -> Boolean): T? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun ByteArray.firstOrNull(predicate: (Byte) -> Boolean): Byte? {\n   for (element in this)
 if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun ShortArray.firstOrNull(predicate: (Short) -> Boolean): Short? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun IntArray.firstOrNull(predicate: (Int) -> Boolean): Int? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun LongArray.firstOrNull(predicate: (Long) -> Boolean): Long? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic
 inline fun FloatArray.firstOrNull(predicate: (Float) -> Boolean): Float? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun DoubleArray.firstOrNull(predicate: (Double) -> Boolean): Double? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun

BooleanArray.firstOrNull(predicate: (Boolean) -> Boolean): Boolean? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun CharArray.firstOrNull(predicate: (Char) -> Boolean): Char? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.getOrElse(index: Int, defaultValue: (Int) -> T): T {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.getOrElse(index: Int, defaultValue: (Int) -> Byte): Byte {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.getOrElse(index: Int, defaultValue: (Int) -> Short): Short {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.getOrElse(index: Int, defaultValue: (Int) -> Int): Int {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.getOrElse(index: Int, defaultValue: (Int) -> Long): Long {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.getOrElse(index: Int, defaultValue: (Int) -> Float): Float {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.getOrElse(index: Int, defaultValue: (Int) -> Double): Double {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.getOrElse(index: Int, defaultValue: (Int) -> Boolean): Boolean {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.getOrElse(index: Int, defaultValue: (Int) -> Char): Char {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun <T> Array<out T>.getOrNull(index: Int): T? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun ByteArray.getOrNull(index: Int): Byte? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun ShortArray.getOrNull(index: Int): Short? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun IntArray.getOrNull(index: Int): Int? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun LongArray.getOrNull(index: Int): Long? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun FloatArray.getOrNull(index: Int): Float? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun DoubleArray.getOrNull(index: Int): Double? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun BooleanArray.getOrNull(index: Int): Boolean? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun CharArray.getOrNull(index: Int): Char? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun <@kotlin.internal.OnlyInputTypes T> Array<out T>.indexOf(element: T): Int {\n   if (element == null) {\n   for (index in indices) {\n   if (this[index] == null) {\n   return index\n   }\n   }\n   } else {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun ByteArray.indexOf(element: Byte): Int {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun ShortArray.indexOf(element: Short): Int {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun IntArray.indexOf(element: Int): Int {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun LongArray.indexOf(element: Long): Int {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\n@Deprecated(\"The function has unclear behavior when searching for NaN or zero values and will be removed soon. Use 'indexOfFirst { it == element }' instead to continue using this behavior, or '.asList().indexOf(element: T)' to get the same search behavior as in a list.\", ReplaceWith(\"indexOfFirst { it == element }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic fun FloatArray.indexOf(element: Float): Int {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\n@Deprecated(\"The function has unclear behavior when searching for NaN or zero values and will be removed soon. Use 'indexOfFirst { it == element }' instead to continue using this behavior, or '.asList().indexOf(element: T)' to get the same search behavior as in a list.\", ReplaceWith(\"indexOfFirst { it == element }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic fun DoubleArray.indexOf(element: Double): Int {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun BooleanArray.indexOf(element: Boolean): Int {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\npublic fun CharArray.indexOf(element: Char): Int {\n   for (index in indices) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun <T> Array<out T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n   for (index in indices) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element

matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun ByteArray.indexOfFirst(predicate: (Byte) -> Boolean): Int {\n for (index in indices) {\n if (predicate(this[index])) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun ShortArray.indexOfFirst(predicate: (Short) -> Boolean): Int {\n for (index in indices) {\n if (predicate(this[index])) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun IntArray.indexOfFirst(predicate: (Int) -> Boolean): Int {\n for (index in indices) {\n if (predicate(this[index])) {\n return index\n }\n }\n return -1\n}\n\n/**\n *

Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun LongArray.indexOfFirst(predicate: (Long) -> Boolean): Int {\n for (index in indices) {\n if (predicate(this[index])) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun FloatArray.indexOfFirst(predicate: (Float) -> Boolean): Int {\n for (index in indices) {\n if (predicate(this[index])) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun DoubleArray.indexOfFirst(predicate: (Double) -> Boolean): Int {\n for (index in indices) {\n if (predicate(this[index])) {\n return index\n }\n

}\n return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun BooleanArray.indexOfFirst(predicate: (Boolean) -> Boolean): Int {\n for (index in indices) {\n if (predicate(this[index])) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun CharArray.indexOfFirst(predicate: (Char) -> Boolean): Int {\n for (index in indices) {\n if (predicate(this[index])) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun <T> Array<out T>.indexOfLast(predicate: (T) -> Boolean): Int {\n for (index in indices.reversed()) {\n if (predicate(this[index]))

{\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun ByteArray.indexOfLast(predicate: (Byte) -> Boolean): Int {\n for (index in indices.reversed()) {\n if (predicate(this[index])) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun ShortArray.indexOfLast(predicate: (Short) -> Boolean): Int {\n for (index in indices.reversed()) {\n if (predicate(this[index])) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun IntArray.indexOfLast(predicate: (Int) -> Boolean): Int {\n for (index

in indices.reversed()) {\n if (predicate(this[index])) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun LongArray.indexOfLast(predicate: (Long) -> Boolean): Int {\n for (index in indices.reversed()) {\n if (predicate(this[index])) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun FloatArray.indexOfLast(predicate: (Float) -> Boolean): Int {\n for (index in indices.reversed()) {\n if (predicate(this[index])) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun DoubleArray.indexOfLast(predicate:

(Double) -> Boolean): Int {\n for (index in indices.reversed()) {\n if (predicate(this[index])) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun BooleanArray.indexOfLast(predicate: (Boolean)

-> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun CharArray.indexOfLast(predicate: (Char) -> Boolean): Int {\n   for (index in indices.reversed()) {\n   if (predicate(this[index])) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> Array<out T>.last(): T {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun ByteArray.last(): Byte {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun ShortArray.last(): Short {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun IntArray.last(): Int {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun LongArray.last(): Long {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun FloatArray.last(): Float {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun DoubleArray.last(): Double {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun BooleanArray.last(): Boolean {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun CharArray.last(): Char {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return this[lastIndex]\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Array<out T>.last(predicate: (T) -> Boolean): T {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun ByteArray.last(predicate: (Byte) -> Boolean): Byte {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun ShortArray.last(predicate: (Short) -> Boolean): Short {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun IntArray.last(predicate: (Int) -> Boolean): Int {\n for (index in this.indices.reversed()) {\n val element = this[index]\n if (predicate(element)) return element\n }\n throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun LongArray.last(predicate: (Long) -> Boolean): Long {\n for (index in this.indices.reversed()) {\n val element = this[index]\n if (predicate(element)) return element\n }\n throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun FloatArray.last(predicate: (Float) -> Boolean): Float {\n for (index in this.indices.reversed()) {\n val element = this[index]\n if (predicate(element)) return element\n }\n throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun DoubleArray.last(predicate: (Double) -> Boolean): Double {\n for (index in this.indices.reversed()) {\n val element = this[index]\n if (predicate(element)) return element\n }\n throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun BooleanArray.last(predicate: (Boolean) -> Boolean): Boolean {\n for (index in this.indices.reversed()) {\n val element = this[index]\n if (predicate(element)) return element\n }\n throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun CharArray.last(predicate: (Char) -> Boolean): Char {\n for (index in this.indices.reversed()) {\n val element = this[index]\n if (predicate(element)) return element\n }\n throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun <@kotlin.internal.OnlyInputTypes T> Array<out T>.lastIndexOf(element: T): Int {\n if (element == null) {\n for (index in indices.reversed()) {\n if (this[index] == null) {\n return index\n }\n }\n } else {\n for (index in indices.reversed()) {\n if (element == this[index]) {\n return index\n }\n }\n }\n return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun ByteArray.lastIndexOf(element: Byte): Int {\n for (index in indices.reversed()) {\n if (element == this[index]) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun ShortArray.lastIndexOf(element: Short): Int {\n for (index in indices.reversed()) {\n if (element == this[index]) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun IntArray.lastIndexOf(element: Int): Int {\n for (index in indices.reversed()) {\n if (element == this[index]) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun LongArray.lastIndexOf(element: Long): Int {\n for (index in indices.reversed()) {\n if (element == this[index]) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\n@Deprecated(\"The function has unclear behavior when searching for NaN or zero values and will be removed soon. Use 'indexOfLast { it == element }' instead to continue using this behavior, or '.asList().lastIndexOf(element: T)' to get the same search behavior as in a list.\", ReplaceWith(\"indexOfLast { it == element

}\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic fun FloatArray.lastIndexOf(element: Float): Int {\n   for (index in indices.reversed()) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\n@Deprecated(\"The function has unclear behavior when searching for NaN or zero values and will be removed soon. Use 'indexOfLast { it == element }' instead to continue using this behavior, or '.asList().lastIndexOf(element:

T)' to get the same search behavior as in a list.\", ReplaceWith(\"indexOfLast { it == element }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic fun DoubleArray.lastIndexOf(element: Double): Int {\n   for (index in indices.reversed()) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun BooleanArray.lastIndexOf(element: Boolean): Int {\n   for (index in indices.reversed()) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun CharArray.lastIndexOf(element: Char): Int {\n   for (index in indices.reversed()) {\n   if (element == this[index]) {\n   return index\n   }\n   }\n   return -1\n}\n\n/**\n

* Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> Array<out T>.lastOrNull(): T? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun ByteArray.lastOrNull(): Byte? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun ShortArray.lastOrNull(): Short? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun IntArray.lastOrNull(): Int? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the

array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun LongArray.lastOrNull(): Long? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun FloatArray.lastOrNull(): Float? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun DoubleArray.lastOrNull(): Double? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun BooleanArray.lastOrNull(): Boolean? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n

*/\npublic fun CharArray.lastOrNull(): Char? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Array<out T>.lastOrNull(predicate: (T) -> Boolean): T? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun ByteArray.lastOrNull(predicate: (Byte) -> Boolean): Byte? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element

matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun ShortArray.lastOrNull(predicate: (Short) -> Boolean): Short? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun IntArray.lastOrNull(predicate: (Int) -> Boolean): Int? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun LongArray.lastOrNull(predicate: (Long) -> Boolean): Long? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun FloatArray.lastOrNull(predicate: (Float) -> Boolean): Float? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun DoubleArray.lastOrNull(predicate: (Double) -> Boolean): Double? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun BooleanArray.lastOrNull(predicate: (Boolean) -> Boolean): Boolean? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun CharArray.lastOrNull(predicate: (Char) -> Boolean): Char? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.random(): T {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.random(): Byte {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.random(): Short {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.random(): Int {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.random(): Long {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.random(): Float {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.random(): Double {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.random(): Boolean {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.random(): Char {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun <T> Array<out T>.random(random: Random): T {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun ByteArray.random(random: Random): Byte {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is

empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun ShortArray.random(random: Random): Short {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun IntArray.random(random: Random): Int {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun LongArray.random(random: Random): Long {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source

of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun FloatArray.random(random: Random): Float {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun DoubleArray.random(random: Random): Double {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun BooleanArray.random(random: Random): Boolean {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n

* Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun CharArray.random(random: Random): Char {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.randomOrNull(): T? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.randomOrNull(): Byte? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null`

if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.randomOrNull(): Short? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.randomOrNull(): Int? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.randomOrNull(): Long? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli

c inline fun FloatArray.randomOrNull():
 Float? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun DoubleArray.randomOrNull(): Double? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun BooleanArray.randomOrNull(): Boolean? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun CharArray.randomOrNull(): Char? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array using the specified source of
 randomness, or `null` if this array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> Array<out T>.randomOrNull(random: Random): T? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun ByteArray.randomOrNull(random: Random): Byte? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun ShortArray.randomOrNull(random: Random): Short? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from
 this array using the specified source of randomness, or `null` if this array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun IntArray.randomOrNull(random: Random): Int? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun LongArray.randomOrNull(random: Random): Long? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun FloatArray.randomOrNull(random: Random): Float? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n
 * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun DoubleArray.randomOrNull(random: Random): Double? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun BooleanArray.randomOrNull(random: Random): Boolean? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun CharArray.randomOrNull(random: Random): Char? {\n   if (isEmpty())\n   return

null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun <T> Array<out T>.single(): T {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun ByteArray.single(): Byte {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun ShortArray.single(): Short {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun IntArray.single(): Int {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun LongArray.single(): Long {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun FloatArray.single(): Float {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun DoubleArray.single(): Double {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun BooleanArray.single(): Boolean {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\npublic fun CharArray.single(): Char {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"Array is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"Array has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun <T> Array<out T>.single(predicate: (T) -> Boolean): T {\n   var single: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return single as T\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun ByteArray.single(predicate: (Byte) -> Boolean): Byte {\n   var single: Byte? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return single as Byte\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun ShortArray.single(predicate: (Short) -> Boolean): Short {\n   var single: Short? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if

(!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Short\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun IntArray.single(predicate: (Int) -> Boolean): Int {\n var single: Int? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Int\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun LongArray.single(predicate: (Long) -> Boolean): Long {\n var single: Long? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Long\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun FloatArray.single(predicate: (Float) -> Boolean): Float {\n var single: Float? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Float\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun DoubleArray.single(predicate: (Double) -> Boolean): Double {\n var single: Double? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Double\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun BooleanArray.single(predicate: (Boolean) -> Boolean): Boolean {\n var single: Boolean? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Boolean\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun CharArray.single(predicate: (Char) -> Boolean): Char {\n var single: Char? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Char\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun <T> Array<out T>.singleOrNull(): T? {\n return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun ByteArray.singleOrNull(): Byte? {\n return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun ShortArray.singleOrNull(): Short? {\n return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun IntArray.singleOrNull(): Int? {\n return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun LongArray.singleOrNull(): Long? {\n

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return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more
than one element.\n */\npublic fun FloatArray.singleOrNull(): Float? {\n    return if (size == 1) this[0] else
null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic
fun DoubleArray.singleOrNull(): Double? {\n    return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single
element, or `null` if the array is empty or has more than one
 element.\n */\npublic fun BooleanArray.singleOrNull(): Boolean? {\n    return if (size == 1) this[0] else
null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic
fun CharArray.singleOrNull(): Char? {\n    return if (size == 1) this[0] else null\n}\n\n/**\n * Returns the single
element matching the given [predicate], or `null` if element was not found or more than one element was found.\n
*/\npublic inline fun <T> Array<out T>.singleOrNull(predicate: (T) -> Boolean): T? {\n    var single: T? = null\n
var found = false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n
single = element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n *
Returns the single element matching the given [predicate], or `null` if element was not found or more than one
element was found.\n */\npublic inline fun ByteArray.singleOrNull(predicate:
 (Byte) -> Boolean): Byte? {\n    var single: Byte? = null\n    var found = false\n    for (element in this) {\n        if
(predicate(element)) {\n            if (found) return null\n            single = element\n            found = true\n        }\n    }\n
 if (!found) return null\n    return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or
`null` if element was not found or more than one element was found.\n */\npublic inline fun
ShortArray.singleOrNull(predicate: (Short) -> Boolean): Short? {\n    var single: Short? = null\n    var found =
false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single =
element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns the
single element matching the given [predicate], or `null` if element was not found or more than one element was
found.\n */\npublic inline fun IntArray.singleOrNull(predicate:
 (Int) -> Boolean): Int? {\n    var single: Int? = null\n    var found = false\n    for (element in this) {\n        if
(predicate(element)) {\n            if (found) return null\n            single = element\n            found = true\n        }\n    }\n
 if (!found) return null\n    return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or
`null` if element was not found or more than one element was found.\n */\npublic inline fun
LongArray.singleOrNull(predicate: (Long) -> Boolean): Long? {\n    var single: Long? = null\n    var found =
false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single =
element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns the
single element matching the given [predicate], or `null` if element was not found or more than one element was
found.\n */\npublic inline fun FloatArray.singleOrNull(predicate:
 (Float) -> Boolean): Float? {\n    var single: Float? = null\n    var found = false\n    for (element in this) {\n        if
(predicate(element)) {\n            if (found) return null\n            single = element\n            found = true\n        }\n    }\n
 if (!found) return null\n    return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or
`null` if element was not found or more than one element was found.\n */\npublic inline fun
DoubleArray.singleOrNull(predicate: (Double) -> Boolean): Double? {\n    var single: Double? = null\n    var found
= false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single =
element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns the
single element matching the given [predicate], or `null` if element was not found or more than one element was
found.\n */\npublic
 inline fun BooleanArray.singleOrNull(predicate: (Boolean) -> Boolean): Boolean? {\n    var single: Boolean? =
null\n    var found = false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n
      single = element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n *
Returns the single element matching the given [predicate], or `null` if element was not found or more than one
element was found.\n */\npublic inline fun CharArray.singleOrNull(predicate: (Char) -> Boolean): Char? {\n    var
single: Char? = null\n    var found = false\n    for (element in this) {\n        if (predicate(element)) {\n            if
(found) return null\n            single = element\n            found = true\n        }\n    }\n    if (!found) return null\n    return
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single\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun <T> Array<out T>.drop(n: Int): List<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun ByteArray.drop(n: Int): List<Byte> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun ShortArray.drop(n: Int): List<Short> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun IntArray.drop(n: Int): List<Int> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun LongArray.drop(n: Int): List<Long> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun FloatArray.drop(n: Int): List<Float> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun DoubleArray.drop(n: Int): List<Double> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun BooleanArray.drop(n: Int): List<Boolean> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun CharArray.drop(n: Int): List<Char> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun <T> Array<out T>.dropLast(n: Int): List<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun ByteArray.dropLast(n: Int): List<Byte> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun ShortArray.dropLast(n: Int): List<Short> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size -

n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun IntArray.dropLast(n: Int): List<Int> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun LongArray.dropLast(n: Int): List<Long> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun FloatArray.dropLast(n: Int): List<Float> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun DoubleArray.dropLast(n: Int): List<Double> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun BooleanArray.dropLast(n: Int): List<Boolean> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun CharArray.dropLast(n: Int): List<Char> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun <T> Array<out T>.dropLastWhile(predicate: (T) -> Boolean): List<T> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun ByteArray.dropLastWhile(predicate: (Byte) -> Boolean): List<Byte> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun ShortArray.dropLastWhile(predicate: (Short) -> Boolean): List<Short> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun IntArray.dropLastWhile(predicate: (Int) -> Boolean): List<Int> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun LongArray.dropLastWhile(predicate: (Long) -> Boolean): List<Long> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun FloatArray.dropLastWhile(predicate: (Float) -> Boolean): List<Float> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun DoubleArray.dropLastWhile(predicate: (Double) -> Boolean): List<Double> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun BooleanArray.dropLastWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun CharArray.dropLastWhile(predicate: (Char) -> Boolean): List<Char> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun <T> Array<out T>.dropWhile(predicate: (T) -> Boolean): List<T> {\n   var yielding = false\n   val list = ArrayList<T>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun ByteArray.dropWhile(predicate: (Byte) -> Boolean): List<Byte> {\n   var yielding = false\n   val list = ArrayList<Byte>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun ShortArray.dropWhile(predicate: (Short) -> Boolean): List<Short> {\n   var yielding = false\n   val list = ArrayList<Short>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun IntArray.dropWhile(predicate: (Int) -> Boolean): List<Int> {\n   var yielding = false\n   val list = ArrayList<Int>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun LongArray.dropWhile(predicate: (Long) -> Boolean): List<Long> {\n   var yielding = false\n   val list = ArrayList<Long>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun FloatArray.dropWhile(predicate: (Float) -> Boolean): List<Float> {\n   var yielding = false\n   val list = ArrayList<Float>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun DoubleArray.dropWhile(predicate: (Double) -> Boolean): List<Double> {\n   var yielding = false\n   val list = ArrayList<Double>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic

inline fun BooleanArray.dropWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n   var yielding = false\n
val list = ArrayList<Boolean>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if
(!predicate(item)) {\n
list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing all elements
except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n */\npublic inline fun CharArray.dropWhile(predicate:
(Char) -> Boolean): List<Char> {\n   var yielding = false\n   val list = ArrayList<Char>()\n   for (item in this)\n
if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding =
true\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n *
\n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun <T> Array<out
T>.filter(predicate: (T) -> Boolean): List<T> {\n   return filterTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns
a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*/\npublic inline fun ByteArray.filter(predicate: (Byte) -> Boolean): List<Byte> {\n   return
filterTo(ArrayList<Byte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given
[predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun
ShortArray.filter(predicate: (Short) -> Boolean): List<Short> {\n   return filterTo(ArrayList<Short>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n */\npublic inline fun IntArray.filter(predicate: (Int) -> Boolean):
List<Int> {\n   return filterTo(ArrayList<Int>(), predicate)\n}\n\n/**\n * Returns a list containing only elements
matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline
fun LongArray.filter(predicate: (Long) -> Boolean): List<Long> {\n   return filterTo(ArrayList<Long>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n */\npublic inline fun FloatArray.filter(predicate: (Float) ->
Boolean): List<Float> {\n   return filterTo(ArrayList<Float>(), predicate)\n}\n\n/**\n * Returns a list containing
only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n
*/\npublic inline fun DoubleArray.filter(predicate: (Double) -> Boolean): List<Double> {\n   return
filterTo(ArrayList<Double>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given
[predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun
BooleanArray.filter(predicate: (Boolean) -> Boolean): List<Boolean> {\n   return filterTo(ArrayList<Boolean>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n
* \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun CharArray.filter(predicate:
(Char) -> Boolean): List<Char> {\n   return filterTo(ArrayList<Char>(), predicate)\n}\n\n/**\n * Returns a list
containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an
element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun <T> Array<out
T>.filterIndexed(predicate: (index: Int, T) -> Boolean): List<T> {\n   return filterIndexedTo(ArrayList<T>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param
[predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate
evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n
*/\npublic inline fun ByteArray.filterIndexed(predicate: (index: Int, Byte) -> Boolean): List<Byte> {\n   return
filterIndexedTo(ArrayList<Byte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the
given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and
returns the result of predicate evaluation on the element.\n * \n * @sample
samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun ShortArray.filterIndexed(predicate:
(index: Int, Short) -> Boolean): List<Short> {\n   return filterIndexedTo(ArrayList<Short>(), predicate)\n}\n\n/**\n
* Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes
the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n

* @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun IntArray.filterIndexed(predicate: (index: Int, Int) -> Boolean): List<Int> {\n   return filterIndexedTo(ArrayList<Int>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun LongArray.filterIndexed(predicate: (index: Int, Long) -> Boolean): List<Long> {\n   return filterIndexedTo(ArrayList<Long>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun FloatArray.filterIndexed(predicate: (index: Int, Float) -> Boolean): List<Float> {\n   return filterIndexedTo(ArrayList<Float>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun DoubleArray.filterIndexed(predicate: (index: Int, Double) -> Boolean): List<Double> {\n   return filterIndexedTo(ArrayList<Double>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun BooleanArray.filterIndexed(predicate: (index: Int, Boolean) -> Boolean): List<Boolean> {\n   return filterIndexedTo(ArrayList<Boolean>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun CharArray.filterIndexed(predicate: (index: Int, Char) -> Boolean): List<Char> {\n   return filterIndexedTo(ArrayList<Char>(), predicate)\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Array<out T>.filterIndexedTo(destination: C, predicate: (index: Int, T) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Byte>> ByteArray.filterIndexedTo(destination: C, predicate: (index: Int, Byte) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Short>> ShortArray.filterIndexedTo(destination: C, predicate: (index: Int, Short) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Int>> IntArray.filterIndexedTo(destination: C, predicate: (index: Int, Int) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n *

Appends all elements
matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Long>> LongArray.filterIndexedTo(destination: C, predicate: (index: Int, Long) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Float>> FloatArray.filterIndexedTo(destination:
C, predicate: (index: Int, Float) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Double>> DoubleArray.filterIndexedTo(destination: C, predicate: (index: Int, Double) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns
the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Boolean>> BooleanArray.filterIndexedTo(destination: C, predicate: (index: Int, Boolean) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : MutableCollection<in Char>> CharArray.filterIndexedTo(destination: C, predicate: (index: Int, Char) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n
}\n   return destination\n}\n\n/**\n * Returns a list containing all elements that are instances of specified type parameter R.\n * \n * @sample samples.collections.Collections.Filtering.filterIsInstance\n */\npublic inline fun <reified R> Array<*>.filterIsInstance(): List<@kotlin.internal.NoInfer R> {\n   return filterIsInstanceTo(ArrayList<R>())\n}\n\n/**\n * Appends all elements that are instances of specified type parameter R to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterIsInstanceTo\n */\npublic inline fun <reified R, C : MutableCollection<in R>> Array<*>.filterIsInstanceTo(destination: C): C {\n   for (element in this) if (element is R) destination.add(element)\n   return destination\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun <T> Array<out T>.filterNot(predicate: (T) -> Boolean): List<T> {\n
return filterNotTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun ByteArray.filterNot(predicate: (Byte) -> Boolean): List<Byte> {\n   return filterNotTo(ArrayList<Byte>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun ShortArray.filterNot(predicate: (Short) -> Boolean): List<Short> {\n   return filterNotTo(ArrayList<Short>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun IntArray.filterNot(predicate: (Int) -> Boolean): List<Int> {\n   return filterNotTo(ArrayList<Int>(), predicate)\n}\n\n/**\n * Returns a list containing all elements

not matching
 the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun LongArray.filterNot(predicate: (Long) -> Boolean): List<Long> {\n   return filterNotTo(ArrayList<Long>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun FloatArray.filterNot(predicate: (Float) -> Boolean): List<Float> {\n   return filterNotTo(ArrayList<Float>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun DoubleArray.filterNot(predicate: (Double) -> Boolean): List<Double> {\n   return filterNotTo(ArrayList<Double>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic
 inline fun BooleanArray.filterNot(predicate: (Boolean) -> Boolean): List<Boolean> {\n   return filterNotTo(ArrayList<Boolean>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun CharArray.filterNot(predicate: (Char) -> Boolean): List<Char> {\n   return filterNotTo(ArrayList<Char>(), predicate)\n}\n\n/**\n * Returns a list containing all elements that are not `null`.\n * \n * @sample samples.collections.Collections.Filtering.filterNotNull\n */\npublic fun <T : Any> Array<out T?>.filterNotNull(): List<T> {\n   return filterNotNullTo(ArrayList<T>())\n}\n\n/**\n * Appends all elements that are not `null` to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterNotNullTo\n */\npublic fun <C : MutableCollection<in T>, T : Any> Array<out T?>.filterNotNullTo(destination: C): C {\n   for (element in this) if
 (element != null) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Array<out T>.filterNotTo(destination: C, predicate: (T) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Byte>> ByteArray.filterNotTo(destination: C, predicate: (Byte) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n
 */\npublic inline fun <C : MutableCollection<in Short>> ShortArray.filterNotTo(destination: C, predicate: (Short) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Int>> IntArray.filterNotTo(destination: C, predicate: (Int) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Long>> LongArray.filterNotTo(destination: C, predicate: (Long) -> Boolean): C {\n   for (element in this) if (!predicate(element))
 destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Float>> FloatArray.filterNotTo(destination: C, predicate: (Float) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Double>> DoubleArray.filterNotTo(destination: C, predicate: (Double) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not

matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n

*/\npublic inline fun <C : MutableCollection<in Boolean>> BooleanArray.filterNotTo(destination: C, predicate: (Boolean) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Char>> CharArray.filterNotTo(destination: C, predicate: (Char) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Array<out T>.filterTo(destination: C, predicate: (T) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n

return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Byte>> ByteArray.filterTo(destination: C, predicate: (Byte) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Short>> ShortArray.filterTo(destination: C, predicate: (Short) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic

inline fun <C : MutableCollection<in Int>> IntArray.filterTo(destination: C, predicate: (Int) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Long>> LongArray.filterTo(destination: C, predicate: (Long) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Float>> FloatArray.filterTo(destination: C, predicate: (Float) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n

* Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Double>> DoubleArray.filterTo(destination: C, predicate: (Double) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in Boolean>> BooleanArray.filterTo(destination: C, predicate: (Boolean) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : MutableCollection<in

Char>> CharArray.filterTo(destination: C, predicate: (Char) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun <T> Array<out T>.slice(indices: IntRange): List<T> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun ByteArray.slice(indices: IntRange): List<Byte> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun ShortArray.slice(indices: IntRange): List<Short> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive

+ 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun IntArray.slice(indices: IntRange): List<Int> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun LongArray.slice(indices: IntRange): List<Long> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun FloatArray.slice(indices: IntRange): List<Float> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun DoubleArray.slice(indices: IntRange): List<Double> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun BooleanArray.slice(indices: IntRange): List<Boolean> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic fun CharArray.slice(indices: IntRange): List<Char> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun <T> Array<out T>.slice(indices: Iterable<Int>): List<T> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<T>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun ByteArray.slice(indices: Iterable<Int>): List<Byte> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Byte>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun ShortArray.slice(indices: Iterable<Int>): List<Short> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Short>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun IntArray.slice(indices: Iterable<Int>): List<Int> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Int>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun LongArray.slice(indices: Iterable<Int>): List<Long> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Long>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun FloatArray.slice(indices: Iterable<Int>): List<Float> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Float>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun DoubleArray.slice(indices: Iterable<Int>): List<Double> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Double>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun BooleanArray.slice(indices: Iterable<Int>): List<Boolean> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Boolean>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun CharArray.slice(indices: Iterable<Int>): List<Char> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<Char>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun <T> Array<T>.sliceArray(indices: Collection<Int>): Array<T> {\n   val result = arrayOfNulls(this, indices.size)\n   var targetIndex = 0\n   for (sourceIndex in indices) {\n   result[targetIndex++] = this[sourceIndex]\n   }\n   return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun ByteArray.sliceArray(indices: Collection<Int>): ByteArray {\n val result = ByteArray(indices.size)\n var targetIndex = 0\n for (sourceIndex in indices) {\n result[targetIndex++] = this[sourceIndex]\n }\n return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun ShortArray.sliceArray(indices: Collection<Int>): ShortArray {\n val result = ShortArray(indices.size)\n var targetIndex = 0\n for (sourceIndex in indices) {\n result[targetIndex++] = this[sourceIndex]\n }\n return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun IntArray.sliceArray(indices: Collection<Int>): IntArray {\n val result = IntArray(indices.size)\n var targetIndex = 0\n for (sourceIndex in indices) {\n result[targetIndex++] = this[sourceIndex]\n }\n return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun LongArray.sliceArray(indices: Collection<Int>): LongArray {\n val result = LongArray(indices.size)\n var targetIndex = 0\n for (sourceIndex in indices) {\n result[targetIndex++] = this[sourceIndex]\n }\n return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun FloatArray.sliceArray(indices: Collection<Int>): FloatArray {\n val result = FloatArray(indices.size)\n var targetIndex = 0\n for (sourceIndex in indices) {\n result[targetIndex++] = this[sourceIndex]\n }\n return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun DoubleArray.sliceArray(indices: Collection<Int>): DoubleArray {\n val result = DoubleArray(indices.size)\n var targetIndex = 0\n for (sourceIndex in indices) {\n result[targetIndex++] = this[sourceIndex]\n }\n return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun BooleanArray.sliceArray(indices: Collection<Int>): BooleanArray {\n val result = BooleanArray(indices.size)\n var targetIndex = 0\n for (sourceIndex in indices) {\n result[targetIndex++] = this[sourceIndex]\n }\n return result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\npublic fun CharArray.sliceArray(indices: Collection<Int>): CharArray {\n val result = CharArray(indices.size)\n var targetIndex = 0\n for (sourceIndex in indices) {\n result[targetIndex++] = this[sourceIndex]\n }\n return result\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun <T> Array<T>.sliceArray(indices: IntRange): Array<T> {\n if (indices.isEmpty()) return copyOfRange(0, 0)\n return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun ByteArray.sliceArray(indices: IntRange): ByteArray {\n if (indices.isEmpty()) return ByteArray(0)\n return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun ShortArray.sliceArray(indices: IntRange): ShortArray {\n if (indices.isEmpty()) return ShortArray(0)\n return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun IntArray.sliceArray(indices: IntRange): IntArray {\n if (indices.isEmpty()) return IntArray(0)\n return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun LongArray.sliceArray(indices: IntRange): LongArray {\n if (indices.isEmpty()) return LongArray(0)\n return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun FloatArray.sliceArray(indices: IntRange): FloatArray {\n if (indices.isEmpty()) return FloatArray(0)\n return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun DoubleArray.sliceArray(indices: IntRange): DoubleArray {\n if (indices.isEmpty()) return DoubleArray(0)\n return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun BooleanArray.sliceArray(indices: IntRange): BooleanArray {\n if (indices.isEmpty()) return BooleanArray(0)\n return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\npublic fun CharArray.sliceArray(indices: IntRange): CharArray {\n if (indices.isEmpty()) return CharArray(0)\n return copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws

IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun <T> Array<out T>.take(n: Int): List<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n
    if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<T>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun ByteArray.take(n: Int): List<Byte> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Byte>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n
 */\npublic fun ShortArray.take(n: Int): List<Short> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Short>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun IntArray.take(n: Int): List<Int> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Int>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n
            break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun LongArray.take(n: Int): List<Long> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Long>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun FloatArray.take(n: Int): List<Float> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n
    if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Float>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun DoubleArray.take(n: Int): List<Double> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Double>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count == n)\n
            break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
 samples.collections.Collections.Transformations.take\n */\npublic fun BooleanArray.take(n: Int): List<Boolean> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Boolean>(n)\n
 for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun CharArray.take(n: Int): List<Char> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<Char>(n)\n

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for (item in this) {\n
    list.add(item)\n        if (++count == n)\n            break\n    }\n    return list\n}\n\n/**\n * Returns a list containing
last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic fun <T> Array<out T>.takeLast(n: Int): List<T>
{\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val
size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list =
ArrayList<T>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n * Returns
a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic fun ByteArray.takeLast(n: Int): List<Byte> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n
    if (n == 0) return emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return
listOf(this[size - 1])\n    val list = ArrayList<Byte>(n)\n    for (index in size - n until size)\n
list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic fun ShortArray.takeLast(n: Int): List<Short> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val size =
size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list = ArrayList<Short>(n)\n
for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last
[n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
 */\npublic fun IntArray.takeLast(n: Int): List<Int> {\n    require(n >= 0) { \"Requested element count $n is less than
zero.\" }\n    if (n == 0) return emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return
listOf(this[size - 1])\n    val list = ArrayList<Int>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n
 return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if
[n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun
LongArray.takeLast(n: Int): List<Long> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\"
}\n    if (n == 0) return emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return
listOf(this[size - 1])\n    val list = ArrayList<Long>(n)\n    for (index in size - n until size)\n
list.add(this[index])\n
    return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if
[n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun
FloatArray.takeLast(n: Int): List<Float> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n
  if (n == 0) return emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return
listOf(this[size - 1])\n    val list = ArrayList<Float>(n)\n    for (index in size - n until size)\n
list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic fun DoubleArray.takeLast(n: Int): List<Double>
{\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val
size = size\n
    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list = ArrayList<Double>(n)\n    for
(index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last [n]
elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic fun BooleanArray.takeLast(n: Int):
List<Boolean> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return
emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list
= ArrayList<Boolean>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n *
Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n *
@sample samples.collections.Collections.Transformations.take\n */\npublic
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fun CharArray.takeLast(n: Int): List<Char> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   val size = size\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[size - 1])\n   val list = ArrayList<Char>(n)\n   for (index in size - n until size)\n   list.add(this[index])\n   return list\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun <T> Array<out T>.takeLastWhile(predicate: (T) -> Boolean): List<T> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun ByteArray.takeLastWhile(predicate: (Byte) -> Boolean): List<Byte> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun ShortArray.takeLastWhile(predicate: (Short) -> Boolean): List<Short> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun IntArray.takeLastWhile(predicate: (Int) -> Boolean): List<Int> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun LongArray.takeLastWhile(predicate: (Long) -> Boolean): List<Long> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun FloatArray.takeLastWhile(predicate: (Float) -> Boolean): List<Float> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun DoubleArray.takeLastWhile(predicate: (Double) -> Boolean): List<Double> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun BooleanArray.takeLastWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun CharArray.takeLastWhile(predicate: (Char) -> Boolean): List<Char> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return drop(index + 1)\n   }\n   }\n   return toList()\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun <T> Array<out T>.takeWhile(predicate: (T) -> Boolean): List<T> {\n   val list = ArrayList<T>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun ByteArray.takeWhile(predicate: (Byte) -> Boolean): List<Byte> {\n   val list = ArrayList<Byte>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun ShortArray.takeWhile(predicate: (Short) -> Boolean): List<Short> {\n   val list = ArrayList<Short>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun IntArray.takeWhile(predicate: (Int) -> Boolean): List<Int> {\n   val list = ArrayList<Int>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun LongArray.takeWhile(predicate: (Long) -> Boolean): List<Long> {\n   val list = ArrayList<Long>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun FloatArray.takeWhile(predicate: (Float) -> Boolean): List<Float> {\n   val list = ArrayList<Float>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun DoubleArray.takeWhile(predicate: (Double) -> Boolean): List<Double> {\n   val list = ArrayList<Double>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun BooleanArray.takeWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n   val list = ArrayList<Boolean>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic inline fun CharArray.takeWhile(predicate: (Char) -> Boolean): List<Char> {\n   val list = ArrayList<Char>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun <T> Array<T>.reverse(): Unit {\n   val midPoint = (size / 2) - 1\n   if (midPoint < 0) return\n   var reverseIndex = lastIndex\n   for (index in 0..midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun ByteArray.reverse(): Unit {\n   val midPoint = (size / 2) - 1\n   if (midPoint < 0) return\n   var reverseIndex = lastIndex\n   for (index in 0..midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun ShortArray.reverse(): Unit {\n   val midPoint = (size / 2) - 1\n   if (midPoint < 0) return\n   var reverseIndex = lastIndex\n   for (index in 0..midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun IntArray.reverse(): Unit {\n   val midPoint = (size / 2) - 1\n   if (midPoint < 0) return\n   var reverseIndex = lastIndex\n   for (index in 0..midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun LongArray.reverse(): Unit {\n   val midPoint = (size / 2) - 1\n   if (midPoint < 0) return\n   var reverseIndex = lastIndex\n   for (index in 0..midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun FloatArray.reverse(): Unit {\n   val midPoint = (size / 2) - 1\n   if (midPoint < 0) return\n   var reverseIndex = lastIndex\n   for (index in 0..midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun DoubleArray.reverse(): Unit {\n   val midPoint = (size / 2) - 1\n   if (midPoint < 0) return\n   var reverseIndex = lastIndex\n   for (index in 0..midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun BooleanArray.reverse(): Unit {\n   val midPoint = (size / 2) - 1\n   if (midPoint < 0) return\n   var reverseIndex = lastIndex\n   for (index in 0..midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements in the array in-place.\n */\npublic fun CharArray.reverse(): Unit {\n   val midPoint = (size / 2) - 1\n   if (midPoint < 0) return\n   var reverseIndex = lastIndex\n   for (index in 0..midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n

        this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Array<T>.reverse(fromIndex: Int, toIndex: Int): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements

of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n

* @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException

if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException

if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun BooleanArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val midPoint = (fromIndex + toIndex) / 2\n   if (fromIndex == midPoint) return\n   var reverseIndex = toIndex - 1\n   for (index in fromIndex until midPoint) {\n   val tmp = this[index]\n   this[index] = this[reverseIndex]\n   this[reverseIndex] = tmp\n   reverseIndex--\n   }\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun <T> Array<out T>.reversed(): List<T> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun ByteArray.reversed(): List<Byte> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun ShortArray.reversed(): List<Short> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun IntArray.reversed(): List<Int> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun LongArray.reversed(): List<Long> {\n   if (isEmpty()) return emptyList()\n val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun FloatArray.reversed(): List<Float> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun DoubleArray.reversed(): List<Double> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun BooleanArray.reversed(): List<Boolean> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun CharArray.reversed(): List<Char> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun <T> Array<T>.reversedArray(): Array<T> {\n   if (isEmpty()) return this\n   val result = arrayOfNulls(this, size)\n   val lastIndex = lastIndex\n   for (i in 0..lastIndex)\n   result[lastIndex - i] = this[i]\n   return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun ByteArray.reversedArray(): ByteArray {\n   if (isEmpty()) return this\n   val result = ByteArray(size)\n   val lastIndex = lastIndex\n   for (i in 0..lastIndex)\n   result[lastIndex - i] = this[i]\n   return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun ShortArray.reversedArray(): ShortArray {\n   if (isEmpty()) return this\n   val result = ShortArray(size)\n   val lastIndex = lastIndex\n   for (i in 0..lastIndex)\n

        result[lastIndex - i] = this[i]\n   return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun IntArray.reversedArray(): IntArray {\n   if (isEmpty()) return this\n   val result = IntArray(size)\n   val lastIndex = lastIndex\n   for (i in 0..lastIndex)\n   result[lastIndex - i] = this[i]\n   return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun LongArray.reversedArray(): LongArray {\n   if (isEmpty()) return this\n   val result = LongArray(size)\n   val lastIndex = lastIndex\n   for (i in 0..lastIndex)\n   result[lastIndex - i] = this[i]\n   return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun FloatArray.reversedArray(): FloatArray {\n   if (isEmpty()) return this\n   val result = FloatArray(size)\n   val lastIndex = lastIndex\n   for (i in 0..lastIndex)\n   result[lastIndex - i] = this[i]\n

    return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun DoubleArray.reversedArray(): DoubleArray {\n   if (isEmpty()) return this\n   val result = DoubleArray(size)\n   val lastIndex = lastIndex\n   for (i in 0..lastIndex)\n   result[lastIndex - i] = this[i]\n   return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun BooleanArray.reversedArray(): BooleanArray {\n   if (isEmpty()) return this\n   val result = BooleanArray(size)\n   val lastIndex = lastIndex\n   for (i in 0..lastIndex)\n   result[lastIndex - i] = this[i]\n   return result\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun CharArray.reversedArray(): CharArray {\n   if (isEmpty()) return this\n   val result = CharArray(size)\n   val lastIndex = lastIndex\n   for (i in 0..lastIndex)\n   result[lastIndex - i] = this[i]\n   return result\n}\n\n/**\n

 * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Array<T>.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic

 fun DoubleArray.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun BooleanArray.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Array<T>.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n *

See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\npublic fun BooleanArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Sorts elements in the array in-place according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>> Array<out T>.sortBy(crossinline selector: (T) -> R?): Unit {\n   if (size > 1) sortWith(compareBy(selector))\n}\n\n/**\n * Sorts elements in the array in-place descending according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>> Array<out T>.sortByDescending(crossinline selector: (T) -> R?): Unit {\n   if (size > 1) sortWith(compareByDescending(selector))\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to

each other after sorting.\n */\npublic fun <T : Comparable<T>> Array<out T>.sortDescending(): Unit {\n   sortWith(reverseOrder())\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun ByteArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun ShortArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun IntArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun LongArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun FloatArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun
 DoubleArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun CharArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Array<out T>.sorted(): List<T> {\n   return sortedArray().asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun ByteArray.sorted(): List<Byte> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun ShortArray.sorted(): List<Short> {\n   return toTypedArray().apply
 { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun IntArray.sorted(): List<Int> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun LongArray.sorted(): List<Long> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun FloatArray.sorted(): List<Float> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun DoubleArray.sorted(): List<Double> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\npublic fun CharArray.sorted(): List<Char> {\n   return toTypedArray().apply { sort() }.asList()\n}\n\n/**\n
 * Returns an array with all elements of this array sorted according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Array<T>.sortedArray(): Array<T> {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun ByteArray.sortedArray(): ByteArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun ShortArray.sortedArray(): ShortArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun IntArray.sortedArray():
 IntArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun LongArray.sortedArray(): LongArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun FloatArray.sortedArray(): FloatArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun DoubleArray.sortedArray(): DoubleArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\npublic fun CharArray.sortedArray(): CharArray {\n   if (isEmpty()) return this\n

    return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Array<T>.sortedArrayDescending(): Array<T> {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortWith(reverseOrder()) }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun ByteArray.sortedArrayDescending(): ByteArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun ShortArray.sortedArrayDescending(): ShortArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n
 * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun IntArray.sortedArrayDescending(): IntArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun LongArray.sortedArrayDescending(): LongArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun FloatArray.sortedArrayDescending(): FloatArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun DoubleArray.sortedArrayDescending(): DoubleArray {\n   if
 (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun CharArray.sortedArrayDescending(): CharArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according the specified [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T> Array<out T>.sortedArrayWith(comparator: Comparator<in T>): Array<out T> {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortWith(comparator) }\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other
 after sorting.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <T, R : Comparable<R>> Array<out T>.sortedBy(crossinline selector: (T) -> R?): List<T> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> ByteArray.sortedBy(crossinline selector: (Byte) -> R?): List<Byte> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> ShortArray.sortedBy(crossinline selector: (Short) -> R?): List<Short> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list
 of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> IntArray.sortedBy(crossinline selector: (Int) -> R?): List<Int> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> LongArray.sortedBy(crossinline selector: (Long) -> R?): List<Long> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample

samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> FloatArray.sortedBy(crossinline selector: (Float) -> R?): List<Float> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> DoubleArray.sortedBy(crossinline selector: (Double) -> R?): List<Double> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> BooleanArray.sortedBy(crossinline selector: (Boolean) -> R?): List<Boolean> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <R : Comparable<R>> CharArray.sortedBy(crossinline selector: (Char) -> R?): List<Char> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>> Array<out T>.sortedByDescending(crossinline selector: (T) -> R?): List<T> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> ByteArray.sortedByDescending(crossinline selector: (Byte) -> R?): List<Byte> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> ShortArray.sortedByDescending(crossinline selector: (Short) -> R?): List<Short> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> IntArray.sortedByDescending(crossinline selector: (Int) -> R?): List<Int> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> LongArray.sortedByDescending(crossinline selector: (Long) -> R?): List<Long> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> FloatArray.sortedByDescending(crossinline selector: (Float) -> R?): List<Float> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> DoubleArray.sortedByDescending(crossinline selector: (Double) -> R?): List<Double> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> BooleanArray.sortedByDescending(crossinline selector: (Boolean) -> R?): List<Boolean> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>> CharArray.sortedByDescending(crossinline selector: (Char) -> R?): List<Char> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Array<out T>.sortedDescending(): List<T> {\n   return sortedWith(reverseOrder())\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun ByteArray.sortedDescending(): List<Byte> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun ShortArray.sortedDescending(): List<Short> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun IntArray.sortedDescending(): List<Int> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun LongArray.sortedDescending(): List<Long> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun FloatArray.sortedDescending(): List<Float> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun DoubleArray.sortedDescending(): List<Double> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n */\npublic fun CharArray.sortedDescending(): List<Char> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T> Array<out T>.sortedWith(comparator: Comparator<in T>): List<T> {\n   return sortedArrayWith(comparator).asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun ByteArray.sortedWith(comparator: Comparator<in Byte>): List<Byte> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun ShortArray.sortedWith(comparator: Comparator<in Short>): List<Short> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun IntArray.sortedWith(comparator: Comparator<in Int>): List<Int> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun LongArray.sortedWith(comparator: Comparator<in Long>): List<Long> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun FloatArray.sortedWith(comparator: Comparator<in Float>): List<Float> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun DoubleArray.sortedWith(comparator: Comparator<in Double>): List<Double> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun BooleanArray.sortedWith(comparator: Comparator<in Boolean>): List<Boolean> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n */\npublic fun CharArray.sortedWith(comparator: Comparator<in Char>): List<Char> {\n   return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun <T> Array<out T>.asList(): List<T>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun ByteArray.asList(): List<Byte>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun ShortArray.asList(): List<Short>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun IntArray.asList(): List<Int>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun LongArray.asList(): List<Long>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun FloatArray.asList(): List<Float>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun DoubleArray.asList(): List<Double>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun BooleanArray.asList(): List<Boolean>\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic expect fun CharArray.asList(): List<Char>\n\n/**\n * Returns `true` if the two specified arrays are *deeply* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * If two corresponding elements are nested arrays, they are also compared deeply.\n * If any of arrays contains itself on any nesting level the behavior is undefined.\n * \n * The elements of other types are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic expect infix fun <T> Array<out T>.contentDeepEquals(other: Array<out T>): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *deeply* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The specified arrays are also considered deeply equal if both are `null`.\n * \n * If two corresponding elements are nested arrays, they are also compared deeply.\n * If any of arrays contains itself on any nesting level the behavior is undefined.\n * \n * The elements of other types are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun <T> Array<out T>?.contentDeepEquals(other: Array<out T>?): Boolean\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level the behavior is undefined.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic expect fun <T> Array<out T>.contentDeepHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level the behavior is undefined.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T> Array<out T>?.contentDeepHashCode(): Int\n\n/**\n * Returns a string representation of the contents of this array as if it is a [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level that reference\n * is rendered as `\"[...]\"` to prevent recursion.\n * \n * @sample samples.collections.Arrays.ContentOperations.contentDeepToString\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic expect fun <T> Array<out T>.contentDeepToString(): String\n\n/**\n * Returns a string representation of the contents of this array as if it is a [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level that reference\n * is rendered as `\"[...]\"` to prevent recursion.\n * \n * @sample samples.collections.Arrays.ContentOperations.contentDeepToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T> Array<out T>?.contentDeepToString(): String\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun <T> Array<out T>.contentEquals(other: Array<out T>): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun ByteArray.contentEquals(other: ByteArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun ShortArray.contentEquals(other: ShortArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic

expect infix fun IntArray.contentEquals(other: IntArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same
 elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun LongArray.contentEquals(other: LongArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun FloatArray.contentEquals(other:
 FloatArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun DoubleArray.contentEquals(other: DoubleArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use
 Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun BooleanArray.contentEquals(other: BooleanArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect infix fun CharArray.contentEquals(other: CharArray): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality
 with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun <T> Array<out T>?.contentEquals(other: Array<out T>?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun ByteArray?.contentEquals(other: ByteArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating
 point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun ShortArray?.contentEquals(other: ShortArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun IntArray?.contentEquals(other: IntArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the

[equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0`
is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun LongArray?.contentEquals(other:
LongArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n
* i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for
equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself
and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect infix fun
FloatArray?.contentEquals(other: FloatArray?): Boolean\n\n/**\n * Returns `true` if the two specified arrays are
structurally equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n
* The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it
means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic expect
infix fun DoubleArray?.contentEquals(other: DoubleArray?): Boolean\n\n/**\n * Returns `true` if the two specified
arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same
order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point
numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\npublic
expect infix fun BooleanArray?.contentEquals(other: BooleanArray?): Boolean\n\n/**\n * Returns `true` if the two
specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the
same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating
point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*/\n@SinceKotlin(\"1.4\")\npublic expect infix fun CharArray?.contentEquals(other: CharArray?): Boolean\n\n/**\n
* Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler
1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince =
\"1.4\")\npublic expect fun <T> Array<out T>.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the
contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun
ByteArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is
[List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun
ShortArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is
[List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4
to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic
expect fun IntArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if
it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun
LongArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is
[List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun
FloatArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is
[List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun
DoubleArray.contentHashCode():
Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use
Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun
BooleanArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is
[List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation
warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun
CharArray.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is
[List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T> Array<out T>?.contentHashCode(): Int\n\n/**\n *

Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun ByteArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun ShortArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun IntArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun LongArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun FloatArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun DoubleArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun BooleanArray?.contentHashCode(): Int\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\npublic expect fun CharArray?.contentHashCode(): Int\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun <T> Array<out T>.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun ByteArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun ShortArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun IntArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun LongArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun FloatArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun DoubleArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun BooleanArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic expect fun

CharArray.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T> Array<out T>?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun ByteArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun ShortArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun IntArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun LongArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun FloatArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun DoubleArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun BooleanArray?.contentToString(): String\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\npublic expect fun CharArray?.contentToString(): String\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun <T> Array<out T>.copyInto(destination: Array<T>, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): Array<T>\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun ByteArray.copyInto(destination: ByteArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ByteArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun ShortArray.copyInto(destination: ShortArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ShortArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun IntArray.copyInto(destination: IntArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): IntArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun LongArray.copyInto(destination: LongArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): LongArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun FloatArray.copyInto(destination: FloatArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): FloatArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the

subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return
 the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun DoubleArray.copyInto(destination: DoubleArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): DoubleArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange
 doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun BooleanArray.copyInto(destination: BooleanArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): BooleanArray\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException
 or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\npublic expect fun CharArray.copyInto(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): CharArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect fun <T> Array<T>.copyOf(): Array<T>\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun ByteArray.copyOf(): ByteArray\n\n/**\n * Returns
 new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun ShortArray.copyOf(): ShortArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun IntArray.copyOf(): IntArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun LongArray.copyOf(): LongArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun FloatArray.copyOf(): FloatArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun DoubleArray.copyOf(): DoubleArray\n\n/**\n * Returns new array which is a copy of the original
 array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun BooleanArray.copyOf(): BooleanArray\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic expect fun CharArray.copyOf(): CharArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of

the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun ByteArray.copyOf(newSize: Int): ByteArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n

* The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun ShortArray.copyOf(newSize: Int): ShortArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n

*/\npublic expect fun IntArray.copyOf(newSize: Int): IntArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun LongArray.copyOf(newSize: Int): LongArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size

of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun FloatArray.copyOf(newSize: Int): FloatArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun DoubleArray.copyOf(newSize: Int): DoubleArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with `false` values

if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with `false` values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun BooleanArray.copyOf(newSize: Int): BooleanArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with null char (`\\u0000`) values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with null char (`\\u0000`) values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic expect fun

CharArray.copyOf(newSize: Int): CharArray\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with `null` values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with `null` values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizingCopyOf\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect fun <T> Array<T>.copyOf(newSize: Int):

Array<T?>\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of
 this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect fun <T> Array<T>.copyOfRange(fromIndex: Int, toIndex: Int): Array<T>\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun ByteArray.copyOfRange(fromIndex: Int, toIndex: Int): ByteArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException
 if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun ShortArray.copyOfRange(fromIndex: Int, toIndex: Int): ShortArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun IntArray.copyOfRange(fromIndex: Int, toIndex: Int): IntArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n
 * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun LongArray.copyOfRange(fromIndex: Int, toIndex: Int): LongArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun FloatArray.copyOfRange(fromIndex: Int, toIndex: Int): FloatArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the
 end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun DoubleArray.copyOfRange(fromIndex: Int, toIndex: Int): DoubleArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun BooleanArray.copyOfRange(fromIndex: Int, toIndex: Int): BooleanArray\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the
 range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun CharArray.copyOfRange(fromIndex: Int, toIndex: Int): CharArray\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n *

@param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun <T> Array<T>.fill(element: T, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun ByteArray.fill(element: Byte, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun ShortArray.fill(element: Short, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun IntArray.fill(element: Int, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun LongArray.fill(element: Long, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun FloatArray.fill(element: Float, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun DoubleArray.fill(element: Double, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun BooleanArray.fill(element: Boolean, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\npublic expect fun CharArray.fill(element: Char, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val <T> Array<out T>.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val ByteArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val ShortArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val IntArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val LongArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val FloatArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val DoubleArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val BooleanArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val CharArray.indices: IntRange\n   get() = IntRange(0, lastIndex)\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.isEmpty(): Boolean {\n   return size == 0\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.isNotEmpty(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns the last valid index for the array.\n */\npublic val <T> Array<out T>.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val ByteArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val ShortArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val IntArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val LongArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val FloatArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val DoubleArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val BooleanArray.lastIndex: Int\n   get() = size - 1\n\n/**\n * Returns the last valid index for the array.\n */\npublic val CharArray.lastIndex: Int\n   get() = size

- 1\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect operator fun <T> Array<T>.plus(element: T): Array<T>\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun ByteArray.plus(element: Byte): ByteArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun ShortArray.plus(element: Short): ShortArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun IntArray.plus(element: Int): IntArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun LongArray.plus(element: Long): LongArray\n\n/**\n * Returns an array containing all elements of the original array

and then the given [element].\n */\npublic expect operator fun FloatArray.plus(element: Float): FloatArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun DoubleArray.plus(element: Double): DoubleArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun BooleanArray.plus(element: Boolean): BooleanArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\npublic expect operator fun CharArray.plus(element: Char): CharArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect operator fun <T> Array<T>.plus(elements: Collection<T>): Array<T>\n\n/**\n * Returns an array containing all elements of the original array and then all

elements of the given [elements] collection.\n */\npublic expect operator fun ByteArray.plus(elements: Collection<Byte>): ByteArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun ShortArray.plus(elements: Collection<Short>): ShortArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun IntArray.plus(elements: Collection<Int>): IntArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun LongArray.plus(elements: Collection<Long>): LongArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun FloatArray.plus(elements: Collection<Float>):

FloatArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun DoubleArray.plus(elements: Collection<Double>): DoubleArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun BooleanArray.plus(elements: Collection<Boolean>): BooleanArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic expect operator fun CharArray.plus(elements: Collection<Char>): CharArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect operator fun <T> Array<T>.plus(elements: Array<out T>): Array<T>\n\n/**\n * Returns an array containing all elements of the original

array and then all elements of the given [elements] array.\n */\npublic expect operator fun ByteArray.plus(elements: ByteArray): ByteArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun ShortArray.plus(elements: ShortArray): ShortArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun IntArray.plus(elements: IntArray): IntArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun LongArray.plus(elements: LongArray): LongArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun FloatArray.plus(elements: FloatArray): FloatArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun DoubleArray.plus(elements: DoubleArray): DoubleArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun BooleanArray.plus(elements: BooleanArray): BooleanArray\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\npublic expect operator fun CharArray.plus(elements: CharArray): CharArray\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NO_ACTUAL_FOR_EXPECT\")\npublic expect fun <T> Array<T>.plusElement(element: T): Array<T>\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun IntArray.sort(): Unit\n\n/**\n * Sorts the array in-place.\n

* \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun LongArray.sort(): Unit\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun ByteArray.sort(): Unit\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun ShortArray.sort(): Unit\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun DoubleArray.sort(): Unit\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun FloatArray.sort(): Unit\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic expect fun CharArray.sort(): Unit\n\n/**\n * Sorts the array in-place according to the natural order of its elements.\n * \n * The sort is _stable_. It means that equal elements preserve their

order relative to each other after sorting.\n * \n * @sample samples.collections.Arrays.Sorting.sortArrayOfComparable\n */\npublic expect fun <T : Comparable<T>> Array<out T>.sort(): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArrayOfComparable\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T : Comparable<T>> Array<out T>.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n

* \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun ByteArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n

* \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun ShortArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun IntArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by

default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun LongArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun FloatArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun DoubleArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\npublic expect fun CharArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Array<out T>.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sortWith(reverseOrder(), fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n *
Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the

end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than

zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements of the

array in the specified range in-place.\n * The elements are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic expect fun <T> Array<out T>.sortWith(comparator: Comparator<in T>): Unit\n\n/**\n * Sorts a range in the array in-place with the given [comparator].\n

* \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic expect fun <T> Array<out T>.sortWith(comparator: Comparator<in T>, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Returns an array of Boolean containing all of the elements of this generic array.\n */\npublic fun Array<out Boolean>.toBooleanArray(): BooleanArray {\n   return BooleanArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Byte containing all of the elements of this generic array.\n */\npublic fun Array<out Byte>.toByteArray(): ByteArray

{\n   return ByteArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Char containing all of the elements of this generic array.\n */\npublic fun Array<out Char>.toCharArray(): CharArray {\n   return CharArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Double containing all of the elements of this generic array.\n */\npublic fun Array<out Double>.toDoubleArray(): DoubleArray {\n   return DoubleArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Float containing all of the elements of this generic array.\n */\npublic fun Array<out Float>.toFloatArray(): FloatArray {\n   return FloatArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Int containing all of the elements of this generic array.\n */\npublic fun Array<out Int>.toIntArray(): IntArray {\n   return IntArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Long containing all of the elements of this generic array.\n */\npublic fun

Array<out Long>.toLongArray(): LongArray {\n   return LongArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of Short containing all of the elements of this generic array.\n */\npublic fun Array<out Short>.toShortArray(): ShortArray {\n   return ShortArray(size) { index -> this[index] }\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun ByteArray.toTypedArray(): Array<Byte>\n\n/**\n * Returns a *typed* object array containing all of the elements of

this primitive array.\n */\npublic expect fun ShortArray.toTypedArray(): Array<Short>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun IntArray.toTypedArray(): Array<Int>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun LongArray.toTypedArray(): Array<Long>\n\n/**\n * Returns a *typed* object array containing
all of the elements of this primitive array.\n */\npublic expect fun FloatArray.toTypedArray(): Array<Float>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun DoubleArray.toTypedArray(): Array<Double>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun BooleanArray.toTypedArray(): Array<Boolean>\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic expect fun CharArray.toTypedArray(): Array<Char>\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic
inline fun <T, K, V> Array<out T>.associate(transform: (T) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> ByteArray.associate(transform: (Byte) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have
the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> ShortArray.associate(transform: (Short) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> IntArray.associate(transform: (Int) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return
associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> LongArray.associate(transform: (Long) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n
*/\npublic inline fun <K, V> FloatArray.associate(transform: (Float) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to

elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> DoubleArray.associate(transform: (Double) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> BooleanArray.associate(transform: (Boolean) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitives\n */\npublic inline fun <K, V> CharArray.associate(transform: (Char) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <T, K> Array<out T>.associateBy(keySelector: (T) -> K): Map<K, T> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, T>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> ByteArray.associateBy(keySelector: (Byte) -> K): Map<K, Byte> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Byte>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> ShortArray.associateBy(keySelector: (Short) -> K): Map<K, Short> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Short>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> IntArray.associateBy(keySelector: (Int) -> K): Map<K, Int> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Int>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> LongArray.associateBy(keySelector: (Long) -> K): Map<K, Long> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Long>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> FloatArray.associateBy(keySelector: (Float) -> K): Map<K, Float> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Float>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> DoubleArray.associateBy(keySelector: (Double) -> K): Map<K, Double> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Double>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> BooleanArray.associateBy(keySelector: (Boolean) -> K): Map<K, Boolean> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Boolean>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesBy\n */\npublic inline fun <K> CharArray.associateBy(keySelector: (Char) -> K): Map<K, Char> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Char>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <T, K, V> Array<out T>.associateBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> ByteArray.associateBy(keySelector: (Byte) -> K, valueTransform: (Byte) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform]

and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original
 array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> ShortArray.associateBy(keySelector: (Short) -> K, valueTransform: (Short) -> V): Map<K, V> {\n val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> IntArray.associateBy(keySelector: (Int) -> K, valueTransform: (Int) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n
    return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> LongArray.associateBy(keySelector: (Long) -> K, valueTransform: (Long) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n
 * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> FloatArray.associateBy(keySelector: (Float) -> K, valueTransform: (Float) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n
 */\npublic inline fun <K, V> DoubleArray.associateBy(keySelector: (Double) -> K, valueTransform: (Double) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> BooleanArray.associateBy(keySelector: (Boolean) -> K, valueTransform: (Boolean) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K,
 V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample

samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByWithValueTransform\n */\npublic inline fun <K, V> CharArray.associateBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, V> {\n   val capacity = mapCapacity(size).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n

 * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <T, K, M : MutableMap<in K, in T>> Array<out T>.associateByTo(destination: M, keySelector: (T) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Byte>> ByteArray.associateByTo(destination: M, keySelector: (Byte)

 -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Short>> ShortArray.associateByTo(destination: M, keySelector: (Short) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n *

 and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Int>> IntArray.associateByTo(destination: M, keySelector: (Int) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Long>> LongArray.associateByTo(destination:

 M, keySelector: (Long) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Float>> FloatArray.associateByTo(destination: M, keySelector: (Float) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element

 of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Double>> DoubleArray.associateByTo(destination: M, keySelector: (Double) -> K): M {\n for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Boolean>> BooleanArray.associateByTo(destination: M, keySelector: (Boolean) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given array\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Char>> CharArray.associateByTo(destination: M, keySelector: (Char) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Array<out T>.associateByTo(destination: M, keySelector: (T) -> K, valueTransform: (T) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> ByteArray.associateByTo(destination: M, keySelector: (Byte) -> K, valueTransform: (Byte) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> ShortArray.associateByTo(destination: M, keySelector: (Short) -> K, valueTransform: (Short) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> IntArray.associateByTo(destination: M, keySelector: (Int) -> K, valueTransform: (Int) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample

samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> LongArray.associateByTo(destination: M, keySelector: (Long) -> K, valueTransform: (Long) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned
 by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> FloatArray.associateByTo(destination: M, keySelector: (Float) -> K, valueTransform: (Float) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> DoubleArray.associateByTo(destination:
 M, keySelector: (Double) -> K, valueTransform: (Double) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> BooleanArray.associateByTo(destination: M, keySelector: (Boolean) -> K, valueTransform: (Boolean) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n
 * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesByToWithValueTransform\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> CharArray.associateByTo(destination: M, keySelector: (Char) -> K, valueTransform: (Char) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added
 to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Array<out T>.associateTo(destination: M, transform: (T) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> ByteArray.associateTo(destination: M, transform: (Byte) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value
 pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample

samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> ShortArray.associateTo(destination: M, transform: (Short) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> IntArray.associateTo(destination: M, transform: (Int) -> Pair<K, V>): M {\n   for
 (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> LongArray.associateTo(destination: M, transform: (Long) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n
 */\npublic inline fun <K, V, M : MutableMap<in K, in V>> FloatArray.associateTo(destination: M, transform: (Float) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> DoubleArray.associateTo(destination: M, transform: (Double) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element
 of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> BooleanArray.associateTo(destination: M, transform: (Boolean) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Arrays.Transformations.associateArrayOfPrimitivesTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> CharArray.associateTo(destination: M, transform: (Char) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n
    }\n   return destination\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <K, V> Array<out K>.associateWith(valueSelector: (K) -> V): Map<K, V> {\n   val result = LinkedHashMap<K, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n
 * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V>

ByteArray.associateWith(valueSelector: (Byte) -> V): Map<Byte, V> {\n   val result = LinkedHashMap<Byte, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> ShortArray.associateWith(valueSelector: (Short) -> V): Map<Short, V> {\n   val result = LinkedHashMap<Short, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result,
 valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> IntArray.associateWith(valueSelector: (Int) -> V): Map<Int, V> {\n   val result = LinkedHashMap<Int, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order
 of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> LongArray.associateWith(valueSelector: (Long) -> V): Map<Long, V> {\n   val result = LinkedHashMap<Long, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> FloatArray.associateWith(valueSelector: (Float) -> V): Map<Float, V> {\n   val result = LinkedHashMap<Float, V>(mapCapacity(size).coerceAtLeast(16))\n
    return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> DoubleArray.associateWith(valueSelector: (Double) -> V): Map<Double, V> {\n   val result = LinkedHashMap<Double, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned
 map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> BooleanArray.associateWith(valueSelector: (Boolean) -> V): Map<Boolean, V> {\n   val result = LinkedHashMap<Boolean, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n *

@sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V> CharArray.associateWith(valueSelector: (Char) -> V): Map<Char, V> {\n   val result

= LinkedHashMap<Char, V>(mapCapacity(size.coerceAtMost(128)).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <K, V, M : MutableMap<in K, in V>> Array<out K>.associateWithTo(destination: M, valueSelector: (K) -> V): M {\n   for (element in this) {\n destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by

the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Byte, in V>> ByteArray.associateWithTo(destination: M, valueSelector: (Byte) -> V): M {\n   for (element in this) {\n destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic

inline fun <V, M : MutableMap<in Short, in V>> ShortArray.associateWithTo(destination: M, valueSelector: (Short) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Int, in V>> IntArray.associateWithTo(destination: M, valueSelector: (Int) -> V): M {\n   for (element in this) {\n destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination]

mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Long, in V>> LongArray.associateWithTo(destination: M, valueSelector: (Long) -> V): M {\n   for (element in this) {\n destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n

* @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Float, in V>> FloatArray.associateWithTo(destination: M, valueSelector: (Float) -> V): M {\n   for (element in this) {\n destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element

itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Double, in V>> DoubleArray.associateWithTo(destination: M, valueSelector: (Double) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Boolean, in V>> BooleanArray.associateWithTo(destination: M, valueSelector: (Boolean) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in Char, in V>> CharArray.associateWithTo(destination: M, valueSelector: (Char) -> V): M {\n   for (element in this) {\n destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <T, C : MutableCollection<in T>> Array<out T>.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Byte>> ByteArray.toCollection(destination: C): C {\n   for (item in this) {\n destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Short>> ShortArray.toCollection(destination: C): C {\n   for (item in this) {\n destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Int>> IntArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Long>> LongArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Float>> FloatArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Double>> DoubleArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Boolean>> BooleanArray.toCollection(destination: C): C {\n   for (item in this) {\n destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Char>> CharArray.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun <T> Array<out T>.toHashSet(): HashSet<T> {\n   return toCollection(HashSet<T>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun ByteArray.toHashSet(): HashSet<Byte> {\n   return toCollection(HashSet<Byte>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun ShortArray.toHashSet(): HashSet<Short> {\n   return toCollection(HashSet<Short>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n

*/\npublic fun IntArray.toHashSet(): HashSet<Int> {\n   return toCollection(HashSet<Int>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun LongArray.toHashSet(): HashSet<Long> {\n   return toCollection(HashSet<Long>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun FloatArray.toHashSet(): HashSet<Float> {\n   return toCollection(HashSet<Float>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun DoubleArray.toHashSet(): HashSet<Double> {\n   return toCollection(HashSet<Double>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun BooleanArray.toHashSet(): HashSet<Boolean> {\n   return toCollection(HashSet<Boolean>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun CharArray.toHashSet(): HashSet<Char> {\n   return toCollection(HashSet<Char>(mapCapacity(size.coerceAtMost(128))))\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun <T> Array<out T>.toList(): List<T> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun ByteArray.toList(): List<Byte> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun ShortArray.toList(): List<Short> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun IntArray.toList(): List<Int> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun LongArray.toList(): List<Long> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun FloatArray.toList(): List<Float> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun DoubleArray.toList(): List<Double> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun BooleanArray.toList(): List<Boolean> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun CharArray.toList(): List<Char> {\n   return when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun <T> Array<out T>.toMutableList(): MutableList<T> {\n   return ArrayList(this.asCollection())\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun ByteArray.toMutableList(): MutableList<Byte> {\n   val list = ArrayList<Byte>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun ShortArray.toMutableList(): MutableList<Short> {\n   val list = ArrayList<Short>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun IntArray.toMutableList(): MutableList<Int> {\n   val list = ArrayList<Int>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun LongArray.toMutableList(): MutableList<Long> {\n   val list = ArrayList<Long>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun FloatArray.toMutableList(): MutableList<Float> {\n   val list = ArrayList<Float>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun DoubleArray.toMutableList(): MutableList<Double> {\n   val list = ArrayList<Double>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun BooleanArray.toMutableList(): MutableList<Boolean> {\n   val list = ArrayList<Boolean>(size)\n   for (item in this) list.add(item)\n   return

list\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this array.\n */\npublic fun CharArray.toMutableList(): MutableList<Char> {\n   val list = ArrayList<Char>(size)\n   for (item in this) list.add(item)\n   return list\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun <T> Array<out T>.toSet(): Set<T> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<T>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun ByteArray.toSet(): Set<Byte> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Byte>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun ShortArray.toSet(): Set<Short> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Short>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun IntArray.toSet(): Set<Int> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Int>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun LongArray.toSet(): Set<Long> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Long>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun FloatArray.toSet(): Set<Float> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Float>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun DoubleArray.toSet(): Set<Double> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Double>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun BooleanArray.toSet(): Set<Boolean> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Boolean>(mapCapacity(size)))\n   }\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun CharArray.toSet(): Set<Char> {\n   return when (size) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Char>(mapCapacity(size.coerceAtMost(128))))\n   }\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <T, R> Array<out T>.flatMap(transform: (T) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> ByteArray.flatMap(transform: (Byte) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> ShortArray.flatMap(transform: (Short) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> IntArray.flatMap(transform: (Int) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> LongArray.flatMap(transform: (Long) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(),

transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original array.\n * \n * @sample
samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> FloatArray.flatMap(transform:
(Float) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single
list of all elements yielded from results of [transform]
 function being invoked on each element of original array.\n * \n * @sample
samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R>
DoubleArray.flatMap(transform: (Double) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original array.\n * \n * @sample
samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R>
BooleanArray.flatMap(transform: (Boolean) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original array.\n * \n * @sample
samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> CharArray.flatMap(transform:
(Char) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n
 * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of
original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapSequence\")\npublic inline fun <T, R> Array<out
T>.flatMap(transform: (T) -> Sequence<R>): List<R> {\n   return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element\n * and its index in the original array.\n * \n * @sample
samples.collections.Collections.Transformations.flatMapIndexed\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic
inline fun
 <T, R> Array<out T>.flatMapIndexed(transform: (index: Int, T) -> Iterable<R>): List<R> {\n   return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> ByteArray.flatMapIndexed(transform: (index: Int, Byte) -> Iterable<R>): List<R> {\n   return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> ShortArray.flatMapIndexed(transform: (index: Int, Short) -> Iterable<R>): List<R> {\n   return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from
results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n *
@sample samples.collections.Collections.Transformations.flatMapIndexed\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic
inline fun <R> IntArray.flatMapIndexed(transform: (index: Int, Int) -> Iterable<R>): List<R> {\n   return
flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n

* Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.flatMapIndexed(transform: (index: Int, Long) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.flatMapIndexed(transform: (index: Int, Float) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.flatMapIndexed(transform: (index: Int, Double) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.flatMapIndexed(transform: (index: Int, Boolean) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.flatMapIndexed(transform: (index: Int, Char) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedSequence\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Array<out T>.flatMapIndexed(transform: (index: Int, T) -> Sequence<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.flatMapIndexedTo(destination: C, transform: (index: Int, T) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

ByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> ByteArray.flatMapIndexedTo(destination: C, transform: (index: Int, Byte) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> ShortArray.flatMapIndexedTo(destination: C, transform: (index: Int, Short) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> IntArray.flatMapIndexedTo(destination: C, transform: (index: Int, Int) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> LongArray.flatMapIndexedTo(destination: C, transform: (index: Int, Long) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> FloatArray.flatMapIndexedTo(destination: C, transform: (index: Int, Float) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> DoubleArray.flatMapIndexedTo(destination: C, transform: (index: Int, Double) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> BooleanArray.flatMapIndexedTo(destination: C, transform: (index: Int, Boolean) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n

}\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> CharArray.flatMapIndexedTo(destination: C, transform: (index: Int, Char) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedSequenceTo\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.flatMapIndexedTo(destination: C, transform: (index: Int, T) -> Sequence<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.flatMapTo(destination: C, transform: (T) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> ByteArray.flatMapTo(destination: C, transform: (Byte) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> ShortArray.flatMapTo(destination: C, transform: (Short) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> IntArray.flatMapTo(destination: C, transform: (Int) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> LongArray.flatMapTo(destination: C, transform: (Long) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> FloatArray.flatMapTo(destination: C, transform: (Float) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> DoubleArray.flatMapTo(destination: C, transform: (Double) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> BooleanArray.flatMapTo(destination: C, transform: (Boolean) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> CharArray.flatMapTo(destination: C, transform: (Char) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapSequenceTo\")\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.flatMapTo(destination: C, transform: (T) -> Sequence<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K> Array<out T>.groupBy(keySelector: (T) -> K): Map<K, List<T>> {\n   return groupByTo(LinkedHashMap<K, MutableList<T>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> ByteArray.groupBy(keySelector: (Byte) -> K): Map<K, List<Byte>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Byte>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> ShortArray.groupBy(keySelector: (Short) -> K): Map<K, List<Short>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Short>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> IntArray.groupBy(keySelector: (Int) -> K): Map<K, List<Int>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Int>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> LongArray.groupBy(keySelector: (Long) -> K): Map<K, List<Long>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Long>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> FloatArray.groupBy(keySelector: (Float) -> K): Map<K, List<Float>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Float>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> DoubleArray.groupBy(keySelector: (Double) -> K): Map<K, List<Double>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Double>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> BooleanArray.groupBy(keySelector: (Boolean) -> K): Map<K, List<Boolean>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Boolean>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration

order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> CharArray.groupBy(keySelector: (Char) -> K): Map<K, List<Char>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Char>>(), keySelector)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <T, K, V> Array<out T>.groupBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n

* Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> ByteArray.groupBy(keySelector: (Byte) -> K, valueTransform: (Byte) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned

map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> ShortArray.groupBy(keySelector: (Short) -> K, valueTransform: (Short) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> IntArray.groupBy(keySelector: (Int) -> K, valueTransform: (Int) -> V): Map<K, List<V>> {\n

return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> LongArray.groupBy(keySelector: (Long) -> K, valueTransform: (Long) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> FloatArray.groupBy(keySelector: (Float) -> K, valueTransform: (Float) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> DoubleArray.groupBy(keySelector: (Double) -> K, valueTransform: (Double) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> BooleanArray.groupBy(keySelector: (Boolean) -> K, valueTransform: (Boolean) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> CharArray.groupBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K, M : MutableMap<in K, MutableList<T>>> Array<out T>.groupByTo(destination: M, keySelector: (T) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<T>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Byte>>> ByteArray.groupByTo(destination: M, keySelector: (Byte) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Byte>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Short>>> ShortArray.groupByTo(destination: M, keySelector: (Short) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Short>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K,

M : MutableMap<in K, MutableList<Int>>> IntArray.groupByTo(destination: M, keySelector: (Int) -> K): M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) { ArrayList<Int>() }\n list.add(element)\n }\n return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Long>>> LongArray.groupByTo(destination: M, keySelector: (Long) -> K): M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) { ArrayList<Long>() }\n list.add(element)\n }\n return destination\n}\n\n/**\n * Groups elements

of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Float>>> FloatArray.groupByTo(destination: M, keySelector: (Float) -> K): M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) { ArrayList<Float>() }\n list.add(element)\n }\n return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n

*/\npublic inline fun <K, M : MutableMap<in K, MutableList<Double>>> DoubleArray.groupByTo(destination: M, keySelector: (Double) -> K): M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) { ArrayList<Double>() }\n list.add(element)\n }\n return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Boolean>>> BooleanArray.groupByTo(destination: M, keySelector: (Boolean) -> K): M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) { ArrayList<Boolean>() }\n list.add(element)\n

}\n return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Char>>> CharArray.groupByTo(destination: M, keySelector: (Char) -> K): M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) { ArrayList<Char>() }\n list.add(element)\n }\n return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding

values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <T, K, V, M : MutableMap<in K, MutableList<V>>> Array<out T>.groupByTo(destination: M, keySelector: (T) -> K, valueTransform: (T) -> V): M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n }\n return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>>

ByteArray.groupByTo(destination: M, keySelector: (Byte) -> K, valueTransform: (Byte) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> ShortArray.groupByTo(destination: M, keySelector: (Short) -> K, valueTransform: (Short) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> IntArray.groupByTo(destination: M, keySelector: (Int) -> K, valueTransform: (Int) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> LongArray.groupByTo(destination: M, keySelector: (Long) -> K, valueTransform: (Long) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> FloatArray.groupByTo(destination: M, keySelector: (Float) -> K, valueTransform: (Float) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> DoubleArray.groupByTo(destination: M, keySelector: (Double) -> K, valueTransform: (Double) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> BooleanArray.groupByTo(destination: M, keySelector: (Boolean) -> K, valueTransform: (Boolean) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val

list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> CharArray.groupByTo(destination: M, keySelector: (Char) -> K, valueTransform: (Char) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Creates a [Grouping] source from an array to be used later
with one of group-and-fold operations\n * using the specified [keySelector] function to extract a key from each element.\n * \n * @sample samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K> Array<out T>.groupingBy(crossinline keySelector: (T) -> K): Grouping<T, K> {\n   return object : Grouping<T, K> {\n   override fun sourceIterator(): Iterator<T> = this@groupingBy.iterator()\n   override fun keyOf(element: T): K = keySelector(element)\n   }\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <T, R> Array<out T>.map(transform: (T) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample
samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> ByteArray.map(transform: (Byte) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> ShortArray.map(transform: (Short) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> IntArray.map(transform: (Int) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample
samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> LongArray.map(transform: (Long) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> FloatArray.map(transform: (Float) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> DoubleArray.map(transform: (Double) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample
samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> BooleanArray.map(transform: (Boolean) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <R> CharArray.map(transform: (Char) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T, R> Array<out T>.mapIndexed(transform: (index: Int, T) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n *

Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> ByteArray.mapIndexed(transform: (index: Int, Byte) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> ShortArray.mapIndexed(transform: (index: Int, Short) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n

 * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> IntArray.mapIndexed(transform: (index: Int, Int) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> LongArray.mapIndexed(transform: (index: Int, Long) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform]

 function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> FloatArray.mapIndexed(transform: (index: Int, Float) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> DoubleArray.mapIndexed(transform: (index: Int, Double) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element

 itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> BooleanArray.mapIndexed(transform: (index: Int, Boolean) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R> CharArray.mapIndexed(transform: (index: Int, Char) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied

 to the element.\n */\npublic inline fun <T, R : Any> Array<out T>.mapIndexedNotNull(transform: (index: Int, T) -> R?): List<R> {\n   return mapIndexedNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends only the non-null results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T, R : Any, C : MutableCollection<in R>> Array<out T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R?): C {\n   forEachIndexed { index, element -> transform(index, element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.mapIndexedTo(destination: C, transform: (index: Int, T) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> ByteArray.mapIndexedTo(destination: C, transform: (index: Int, Byte) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function

to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> ShortArray.mapIndexedTo(destination: C, transform: (index: Int, Short) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> IntArray.mapIndexedTo(destination: C, transform: (index: Int, Int) -> R): C {\n   var index = 0\n

for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> LongArray.mapIndexedTo(destination: C, transform: (index: Int, Long) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic

inline fun <R, C : MutableCollection<in R>> FloatArray.mapIndexedTo(destination: C, transform: (index: Int, Float) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> DoubleArray.mapIndexedTo(destination: C, transform: (index: Int, Double) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform]

function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> BooleanArray.mapIndexedTo(destination: C, transform: (index: Int, Boolean) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <R, C : MutableCollection<in R>> CharArray.mapIndexedTo(destination: C, transform: (index: Int, Char) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Returns

a list containing only the non-null results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.mapNotNull\n */\npublic inline fun <T, R : Any> Array<out T>.mapNotNull(transform: (T) -> R?): List<R> {\n   return

mapNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each element in the original array\n * and appends only the non-null results to the given [destination].\n */\npublic inline fun <T, R : Any, C : MutableCollection<in R>> Array<out T>.mapNotNullTo(destination: C, transform: (T) -> R?): C {\n forEach { element -> transform(element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.mapTo(destination: C, transform:
 (T) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> ByteArray.mapTo(destination: C, transform: (Byte) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> ShortArray.mapTo(destination: C, transform: (Short) -> R): C {\n   for (item in this)\n destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in
 R>> IntArray.mapTo(destination: C, transform: (Int) -> R): C {\n   for (item in this)\n destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> LongArray.mapTo(destination: C, transform: (Long) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> FloatArray.mapTo(destination: C, transform: (Float) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results
 to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> DoubleArray.mapTo(destination: C, transform: (Double) -> R): C {\n   for (item in this)\n destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> BooleanArray.mapTo(destination: C, transform: (Boolean) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> CharArray.mapTo(destination: C, transform: (Char) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Returns a lazy [Iterable]
 that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun <T> Array<out T>.withIndex(): Iterable<IndexedValue<T>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun ByteArray.withIndex(): Iterable<IndexedValue<Byte>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun ShortArray.withIndex(): Iterable<IndexedValue<Short>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n
 */\npublic fun IntArray.withIndex(): Iterable<IndexedValue<Int>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun LongArray.withIndex():

Iterable<IndexedValue<Long>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun FloatArray.withIndex(): Iterable<IndexedValue<Float>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun DoubleArray.withIndex(): Iterable<IndexedValue<Double>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun BooleanArray.withIndex(): Iterable<IndexedValue<Boolean>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun CharArray.withIndex(): Iterable<IndexedValue<Char>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * Among equal elements of the given array, only the first one will be present in the resulting list.\n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun <T> Array<out T>.distinct(): List<T>
{\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun ByteArray.distinct(): List<Byte> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun ShortArray.distinct(): List<Short> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun IntArray.distinct(): List<Int> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun LongArray.distinct(): List<Long> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun FloatArray.distinct(): List<Float> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting
list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun DoubleArray.distinct(): List<Double> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun BooleanArray.distinct(): List<Boolean> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only distinct elements from the given array.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun CharArray.distinct(): List<Char> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns
a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * Among elements of the given array with equal keys, only the first one will be present in the resulting list.\n * The elements in the resulting list are in the same order as they were in the source array.\n * \n *

@sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <T, K> Array<out T>.distinctBy(selector: (T) -> K): List<T> {\n   val set = HashSet<K>()\n   val list = ArrayList<T>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> ByteArray.distinctBy(selector: (Byte) -> K): List<Byte> {\n   val set = HashSet<K>()\n   val list = ArrayList<Byte>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> ShortArray.distinctBy(selector: (Short) -> K): List<Short> {\n   val set = HashSet<K>()\n   val list = ArrayList<Short>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> IntArray.distinctBy(selector: (Int) -> K): List<Int> {\n   val set = HashSet<K>()\n   val list = ArrayList<Int>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> LongArray.distinctBy(selector: (Long) -> K): List<Long> {\n   val set = HashSet<K>()\n   val list = ArrayList<Long>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> FloatArray.distinctBy(selector: (Float) -> K): List<Float> {\n   val set = HashSet<K>()\n   val list = ArrayList<Float>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> DoubleArray.distinctBy(selector: (Double) -> K): List<Double> {\n   val set = HashSet<K>()\n   val list = ArrayList<Double>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> BooleanArray.distinctBy(selector: (Boolean) -> K): List<Boolean> {\n   val set = HashSet<K>()\n   val list = ArrayList<Boolean>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they were in the source array.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <K> CharArray.distinctBy(selector: (Char) -> K): List<Char> {\n   val set = HashSet<K>()\n   val list =

ArrayList<Char>()\n   for (e in this) {\n   val key = selector(e)\n   if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun <T> Array<out T>.intersect(other: Iterable<T>): Set<T> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun ByteArray.intersect(other: Iterable<Byte>): Set<Byte> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun ShortArray.intersect(other: Iterable<Short>): Set<Short> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun IntArray.intersect(other: Iterable<Int>): Set<Int> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun LongArray.intersect(other: Iterable<Long>): Set<Long> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun FloatArray.intersect(other: Iterable<Float>): Set<Float> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun DoubleArray.intersect(other: Iterable<Double>): Set<Double> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun BooleanArray.intersect(other: Iterable<Boolean>): Set<Boolean> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this array and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun CharArray.intersect(other: Iterable<Char>): Set<Char> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun <T> Array<out T>.subtract(other: Iterable<T>): Set<T> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun ByteArray.subtract(other: Iterable<Byte>): Set<Byte> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The

returned set preserves the element iteration order of the original array.\n */\npublic infix fun ShortArray.subtract(other: Iterable<Short>): Set<Short> {\n   val set = this.toMutableSet()\n set.removeAll(other)\n
    return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun IntArray.subtract(other: Iterable<Int>): Set<Int> {\n   val set = this.toMutableSet()\n set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun LongArray.subtract(other: Iterable<Long>): Set<Long> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n
 */\npublic infix fun FloatArray.subtract(other: Iterable<Float>): Set<Float> {\n   val set = this.toMutableSet()\n set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun DoubleArray.subtract(other: Iterable<Double>): Set<Double> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun BooleanArray.subtract(other: Iterable<Boolean>): Set<Boolean> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array
 and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun CharArray.subtract(other: Iterable<Char>): Set<Char> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n   return set\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun <T> Array<out T>.toMutableSet(): MutableSet<T> {\n   return toCollection(LinkedHashSet<T>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun ByteArray.toMutableSet(): MutableSet<Byte> {\n   return toCollection(LinkedHashSet<Byte>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given
 array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun ShortArray.toMutableSet(): MutableSet<Short> {\n   return toCollection(LinkedHashSet<Short>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun IntArray.toMutableSet(): MutableSet<Int> {\n   return toCollection(LinkedHashSet<Int>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun LongArray.toMutableSet(): MutableSet<Long> {\n   return toCollection(LinkedHashSet<Long>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order
 of the original array.\n */\npublic fun FloatArray.toMutableSet(): MutableSet<Float> {\n   return toCollection(LinkedHashSet<Float>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun DoubleArray.toMutableSet(): MutableSet<Double> {\n   return toCollection(LinkedHashSet<Double>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun BooleanArray.toMutableSet(): MutableSet<Boolean> {\n   return

toCollection(LinkedHashSet<Boolean>(mapCapacity(size)))\n}\n\n/**\n * Returns a new [MutableSet] containing all distinct elements from the given array.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic fun CharArray.toMutableSet():
 MutableSet<Char> {\n   return toCollection(LinkedHashSet<Char>(mapCapacity(size.coerceAtMost(128))))\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun <T> Array<out T>.union(other: Iterable<T>): Set<T> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing
 all elements that are contained in both collections use [intersect].\n */\npublic infix fun ByteArray.union(other: Iterable<Byte>): Set<Byte> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun ShortArray.union(other: Iterable<Short>): Set<Short> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are
 unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun IntArray.union(other: Iterable<Int>): Set<Int> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun LongArray.union(other: Iterable<Long>): Set<Long> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the
 element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun FloatArray.union(other: Iterable<Float>): Set<Float> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun DoubleArray.union(other: Iterable<Double>): Set<Double> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n *
 Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun BooleanArray.union(other: Iterable<Boolean>): Set<Boolean> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original array.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n

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*/\npublic infix fun CharArray.union(other: Iterable<Char>):
 Set<Char> {\n    val set = this.toMutableSet()\n    set.addAll(other)\n    return set\n}\n\n/**\n * Returns `true` if all
elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic
inline fun <T> Array<out T>.all(predicate: (T) -> Boolean): Boolean {\n    for (element in this) if
(!predicate(element)) return false\n    return true\n}\n\n/**\n * Returns `true` if all elements match the given
[predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun
ByteArray.all(predicate: (Byte) -> Boolean): Boolean {\n    for (element in this) if (!predicate(element)) return
false\n    return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.all\n */\npublic inline fun ShortArray.all(predicate: (Short) -> Boolean):
Boolean {\n    for (element in this) if (!predicate(element)) return false\n    return true\n}\n\n/**\n
 * Returns `true` if all elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.all\n */\npublic inline fun IntArray.all(predicate: (Int) -> Boolean):
Boolean {\n    for (element in this) if (!predicate(element)) return false\n    return true\n}\n\n/**\n * Returns `true` if
all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n
*/\npublic inline fun LongArray.all(predicate: (Long) -> Boolean): Boolean {\n    for (element in this) if
(!predicate(element)) return false\n    return true\n}\n\n/**\n * Returns `true` if all elements match the given
[predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun
FloatArray.all(predicate: (Float) -> Boolean): Boolean {\n    for (element in this) if (!predicate(element)) return
false\n    return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.all\n
 */\npublic inline fun DoubleArray.all(predicate: (Double) -> Boolean): Boolean {\n    for (element in this) if
(!predicate(element)) return false\n    return true\n}\n\n/**\n * Returns `true` if all elements match the given
[predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun
BooleanArray.all(predicate: (Boolean) -> Boolean): Boolean {\n    for (element in this) if (!predicate(element))
return false\n    return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.all\n */\npublic inline fun CharArray.all(predicate: (Char) -> Boolean):
Boolean {\n    for (element in this) if (!predicate(element)) return false\n    return true\n}\n\n/**\n * Returns `true` if
array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun
<T> Array<out T>.any(): Boolean {\n    return !isEmpty()\n}\n\n/**\n
 * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n */\npublic fun ByteArray.any(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n */\npublic fun ShortArray.any(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n */\npublic fun IntArray.any(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n */\npublic fun LongArray.any(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n */\npublic fun FloatArray.any(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns
 `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n
*/\npublic fun DoubleArray.any(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least
one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun
BooleanArray.any(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n
* \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun CharArray.any(): Boolean {\n
return !isEmpty()\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun <T> Array<out
T>.any(predicate: (T) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return true\n    return
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false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.anyWithPredicate\n
 */\npublic inline fun ByteArray.any(predicate: (Byte) -> Boolean): Boolean {\n    for (element in this) if
(predicate(element)) return true\n    return false\n}\n\n/**\n * Returns `true` if at least one element matches the
given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic
inline fun ShortArray.any(predicate: (Short) -> Boolean): Boolean {\n    for (element in this) if (predicate(element))
return true\n    return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun
IntArray.any(predicate: (Int) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return true\n
return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.anyWithPredicate\n
 */\npublic inline fun LongArray.any(predicate: (Long) -> Boolean): Boolean {\n    for (element in this) if
(predicate(element)) return true\n    return false\n}\n\n/**\n * Returns `true` if at least one element matches the
given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic
inline fun FloatArray.any(predicate: (Float) -> Boolean): Boolean {\n    for (element in this) if (predicate(element))
return true\n    return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun
DoubleArray.any(predicate: (Double) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
true\n    return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic
 inline fun BooleanArray.any(predicate: (Boolean) -> Boolean): Boolean {\n    for (element in this) if
(predicate(element)) return true\n    return false\n}\n\n/**\n * Returns `true` if at least one element matches the
given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic
inline fun CharArray.any(predicate: (Char) -> Boolean): Boolean {\n    for (element in this) if (predicate(element))
return true\n    return false\n}\n\n/**\n * Returns the number of elements in this array.\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.count(): Int {\n    return size\n}\n\n/**\n *
Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.count(): Int {\n    return size\n}\n\n/**\n * Returns the number of elements in this array.\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.count(): Int {\n    return size\n}\n\n/**\n * Returns the
number of elements in this
 array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.count(): Int {\n    return size\n}\n\n/**\n *
Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun
LongArray.count(): Int {\n    return size\n}\n\n/**\n * Returns the number of elements in this array.\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.count(): Int {\n    return size\n}\n\n/**\n * Returns the
number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.count(): Int {\n
return size\n}\n\n/**\n * Returns the number of elements in this array.\n */\n@kotlin.internal.InlineOnly\npublic
inline fun BooleanArray.count(): Int {\n    return size\n}\n\n/**\n * Returns the number of elements in this array.\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.count(): Int {\n    return size\n}\n\n/**\n * Returns the
number of elements matching the given [predicate].\n */\npublic inline fun <T> Array<out
 T>.count(predicate: (T) -> Boolean): Int {\n    var count = 0\n    for (element in this) if (predicate(element))
++count\n    return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic
inline fun ByteArray.count(predicate: (Byte) -> Boolean): Int {\n    var count = 0\n    for (element in this) if
(predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns the number of elements matching the given
[predicate].\n */\npublic inline fun ShortArray.count(predicate: (Short) -> Boolean): Int {\n    var count = 0\n    for
(element in this) if (predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns the number of elements
matching the given [predicate].\n */\npublic inline fun IntArray.count(predicate: (Int) -> Boolean): Int {\n    var
count = 0\n    for (element in this) if (predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns the
number of elements matching the given [predicate].\n */\npublic inline fun LongArray.count(predicate:
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(Long) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun FloatArray.count(predicate: (Float) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun DoubleArray.count(predicate: (Double) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun BooleanArray.count(predicate: (Boolean) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun
CharArray.count(predicate: (Char) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Array<out T>.fold(initial: R, operation: (acc: R, T) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that
takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> ByteArray.fold(initial: R, operation: (acc: R, Byte) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> ShortArray.fold(initial: R, operation: (acc: R, Short) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n
* to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> IntArray.fold(initial: R, operation: (acc: R, Int) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> LongArray.fold(initial: R, operation: (acc: R, Long) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator,
element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> FloatArray.fold(initial: R, operation: (acc: R, Float) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic
inline fun <R> DoubleArray.fold(initial: R, operation: (acc: R, Double) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator

value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> BooleanArray.fold(initial: R, operation: (acc: R, Boolean) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial]
value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\npublic inline fun <R> CharArray.fold(initial: R, operation: (acc: R, Char) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Array<out T>.foldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element
in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> ByteArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Byte) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns
the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> ShortArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Short) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> IntArray.foldIndexed(initial: R, operation:
(index: Int, acc: R, Int) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> LongArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Long) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n
* to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> FloatArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Float) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to

right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> DoubleArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Double) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> BooleanArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Boolean) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <R> CharArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Array<out T>.foldRight(initial: R, operation: (T, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> ByteArray.foldRight(initial: R, operation: (Byte, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> ShortArray.foldRight(initial: R, operation: (Short, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> IntArray.foldRight(initial: R, operation: (Int, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> LongArray.foldRight(initial: R, operation: (Long, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> FloatArray.foldRight(initial: R, operation: (Float, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> DoubleArray.foldRight(initial: R, operation: (Double, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> BooleanArray.foldRight(initial: R, operation: (Boolean, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> CharArray.foldRight(initial: R, operation: (Char, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Array<out T>.foldRightIndexed(initial: R, operation: (index: Int, T, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> ByteArray.foldRightIndexed(initial: R, operation: (index: Int, Byte, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> ShortArray.foldRightIndexed(initial: R, operation: (index: Int, Short, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> IntArray.foldRightIndexed(initial: R, operation: (index: Int, Int, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n

    --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> LongArray.foldRightIndexed(initial: R, operation: (index: Int, Long, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator
 = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> FloatArray.foldRightIndexed(initial: R, operation: (index: Int, Float, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to
 left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> DoubleArray.foldRightIndexed(initial: R, operation: (index: Int, Double, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element
 itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> BooleanArray.foldRightIndexed(initial: R, operation: (index: Int, Boolean, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> CharArray.foldRightIndexed(initial: R, operation: (index: Int, Char, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator
 = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun <T> Array<out T>.forEach(action: (T) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun ByteArray.forEach(action: (Byte) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun ShortArray.forEach(action: (Short) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun IntArray.forEach(action: (Int) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun LongArray.forEach(action: (Long) -> Unit): Unit {\n   for
 (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun FloatArray.forEach(action: (Float) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun DoubleArray.forEach(action: (Double) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun BooleanArray.forEach(action: (Boolean) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\npublic inline fun CharArray.forEach(action: (Char) -> Unit):

Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun <T> Array<out T>.forEachIndexed(action: (index: Int, T) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun ByteArray.forEachIndexed(action: (index: Int, Byte) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun ShortArray.forEachIndexed(action: (index: Int, Short) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun IntArray.forEachIndexed(action: (index: Int, Int) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun LongArray.forEachIndexed(action: (index: Int, Long) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun FloatArray.forEachIndexed(action: (index: Int, Float) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun DoubleArray.forEachIndexed(action: (index: Int, Double) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun BooleanArray.forEachIndexed(action: (index: Int, Boolean) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun CharArray.forEachIndexed(action: (index: Int, Char) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Array<out Double>.max(): Double? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Array<out Float>.max(): Float? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T : Comparable<T>> Array<out T>.max(): T? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun ByteArray.max(): Byte? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun ShortArray.max(): Short? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun IntArray.max(): Int? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun LongArray.max(): Long? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun FloatArray.max(): Float? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun DoubleArray.max(): Double? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun CharArray.max(): Char? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <T, R : Comparable<R>> Array<out T>.maxBy(selector: (T) -> R): T? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> ByteArray.maxBy(selector: (Byte) -> R): Byte? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> ShortArray.maxBy(selector: (Short) -> R): Short? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> IntArray.maxBy(selector: (Int) -> R): Int? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> LongArray.maxBy(selector: (Long) -> R): Long? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> FloatArray.maxBy(selector: (Float) -> R): Float? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> DoubleArray.maxBy(selector: (Double) -> R): Double? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> BooleanArray.maxBy(selector: (Boolean) -> R): Boolean? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> CharArray.maxBy(selector: (Char) -> R): Char? {\n   return maxByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R : Comparable<R>> Array<out T>.maxByOrNull(selector: (T) -> R): T? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> ByteArray.maxByOrNull(selector: (Byte) -> R): Byte? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> ShortArray.maxByOrNull(selector: (Short) -> R): Short? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> IntArray.maxByOrNull(selector: (Int) -> R): Int? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> LongArray.maxByOrNull(selector: (Long) -> R): Long? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> FloatArray.maxByOrNull(selector: (Float) -> R): Float? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> DoubleArray.maxByOrNull(selector: (Double) -> R): Double? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> BooleanArray.maxByOrNull(selector: (Boolean) -> R): Boolean? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> CharArray.maxByOrNull(selector: (Char) -> R): Char? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue =

selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned
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 fun ByteArray.maxOf(selector: (Byte) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.maxOf(selector: (Short) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue,
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 (Float) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n

*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.maxOf(selector: (Double) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return
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 (T) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.maxOf(selector: (Byte) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n
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1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.maxOf(selector: (Long) -> Float):

Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.maxOf(selector: (Float) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the

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is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.maxOf(selector: (Boolean) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.maxOf(selector: (Char) -> Float): Float {\n   if

(isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Array<out T>.maxOf(selector: (T) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * 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ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.maxOfOrNull(selector: (Float) -> Double): Double? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.maxOfOrNull(selector: (Double) -> Double): Double? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.maxOfOrNull(selector: (Boolean) -> Double): Double? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.maxOfOrNull(selector: (Char) -> Double): Double? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.maxOfOrNull(selector: (T) -> Float): Float? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.maxOfOrNull(selector: (Byte) -> Float): Float? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.maxOfOrNull(selector: (Short) -> Float): Float? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n

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IntArray.maxOfWith(comparator: Comparator<in R>, selector: (Int) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.maxOfWith(comparator: Comparator<in R>, selector: (Long) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 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throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.maxOfWith(comparator: Comparator<in R>, selector: (Boolean) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n

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inline fun <T, R> Array<out T>.maxOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Byte) -> R): R? {\n   if (isEmpty())

return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Short) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n *

Returns the largest

value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> IntArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Int) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic

inline fun <R> LongArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Long) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Float) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val

v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Double) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function

applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Boolean) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.maxOfWithOrNull(comparator:

Comparator<in R>, selector: (Char) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Array<out Double>.maxOrNull(): Double? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null`

if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Array<out Float>.maxOrNull(): Float? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n
 val e = this[i]\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Array<out T>.maxOrNull(): T? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.maxOrNull(): Byte? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.maxOrNull(): Short? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max
 = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.maxOrNull(): Int? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.maxOrNull(): Long? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.maxOrNull(): Float? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   max = maxOf(max, e)\n
 }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.maxOrNull(): Double? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.maxOrNull(): Char? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T> Array<out T>.maxWith(comparator: Comparator<in T>): T? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use
 maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun ByteArray.maxWith(comparator: Comparator<in Byte>): Byte? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun ShortArray.maxWith(comparator: Comparator<in Short>): Short? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun IntArray.maxWith(comparator: Comparator<in Int>): Int? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince
 = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun LongArray.maxWith(comparator: Comparator<in Long>): Long? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun FloatArray.maxWith(comparator: Comparator<in Float>): Float? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince

= \"1.5\", hiddenSince = \"1.6\")\npublic fun DoubleArray.maxWith(comparator: Comparator<in Double>): Double? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun BooleanArray.maxWith(comparator: Comparator<in Boolean>): Boolean? {\n   return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun CharArray.maxWith(comparator: Comparator<in Char>): Char? {\n   return maxWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Array<out T>.maxWithOrNull(comparator: Comparator<in T>): T? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.maxWithOrNull(comparator: Comparator<in Byte>): Byte? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.maxWithOrNull(comparator: Comparator<in Short>): Short? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.maxWithOrNull(comparator: Comparator<in Int>): Int? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.maxWithOrNull(comparator: Comparator<in Long>): Long? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.maxWithOrNull(comparator: Comparator<in Float>): Float? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.maxWithOrNull(comparator: Comparator<in Double>): Double? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun BooleanArray.maxWithOrNull(comparator: Comparator<in Boolean>): Boolean? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.maxWithOrNull(comparator: Comparator<in Char>): Char? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Array<out Double>.min(): Double? {\n   return

minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\",
ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\",
hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Array<out Float>.min(): Float? {\n   return
minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\",
ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince
= \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T : Comparable<T>> Array<out T>.min(): T?
{\n   return minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\",
ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\",
hiddenSince = \"1.6\")\npublic fun ByteArray.min(): Byte? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use
minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\",
errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun ShortArray.min(): Short? {\n   return
minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\",
ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\",
hiddenSince = \"1.6\")\npublic fun IntArray.min(): Int? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use
minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\",
errorSince = \"1.5\", hiddenSince
= \"1.6\")\npublic fun LongArray.min(): Long? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use minOrNull
instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince =
\"1.5\", hiddenSince = \"1.6\")\npublic fun FloatArray.min(): Float? {\n   return
minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\",
ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\",
hiddenSince = \"1.6\")\npublic fun DoubleArray.min(): Double? {\n   return
minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\",
ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\",
hiddenSince = \"1.6\")\npublic fun CharArray.min(): Char? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use
minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <T,
R : Comparable<R>> Array<out T>.minBy(selector: (T) -> R): T? {\n   return
minByOrNull(selector)\n}\n\n@Deprecated(\"Use minByOrNull instead.\",
ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince =
\"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> ByteArray.minBy(selector: (Byte) -> R):
Byte? {\n   return minByOrNull(selector)\n}\n\n@Deprecated(\"Use minByOrNull instead.\",
ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince =
\"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> ShortArray.minBy(selector: (Short) -> R):
Short? {\n   return minByOrNull(selector)\n}\n\n@Deprecated(\"Use minByOrNull instead.\",
ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince =
\"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> IntArray.minBy(selector: (Int) -> R): Int?
{\n   return minByOrNull(selector)\n}\n\n@Deprecated(\"Use
minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>>
LongArray.minBy(selector: (Long) -> R): Long? {\n   return minByOrNull(selector)\n}\n\n@Deprecated(\"Use
minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>>
FloatArray.minBy(selector: (Float) -> R): Float? {\n   return minByOrNull(selector)\n}\n\n@Deprecated(\"Use
minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>>
DoubleArray.minBy(selector: (Double) -> R): Double? {\n   return
minByOrNull(selector)\n}\n\n@Deprecated(\"Use minByOrNull instead.\",

ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> BooleanArray.minBy(selector: (Boolean) -> R): Boolean? {\n   return minByOrNull(selector)\n}\n\n@Deprecated(\"Use minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> CharArray.minBy(selector: (Char) -> R): Char? {\n   return minByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R : Comparable<R>> Array<out T>.minByOrNull(selector: (T) -> R): T? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> ByteArray.minByOrNull(selector: (Byte) -> R): Byte? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> ShortArray.minByOrNull(selector: (Short) -> R): Short? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> IntArray.minByOrNull(selector: (Int) -> R): Int? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> LongArray.minByOrNull(selector: (Long) -> R): Long? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> FloatArray.minByOrNull(selector: (Float) -> R): Float? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>>

DoubleArray.minByOrNull(selector: (Double) -> R): Double? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> BooleanArray.minByOrNull(selector: (Boolean) -> R): Boolean? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n

        val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> CharArray.minByOrNull(selector: (Char) -> R): Char? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values

produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.minOf(selector: (T) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic

inline fun ByteArray.minOf(selector: (Byte) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.minOf(selector: (Short) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val

v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.minOf(selector: (Int) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.minOf(selector: (Long) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.minOf(selector: (Float) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.minOf(selector: (Double) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.minOf(selector: (Boolean) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.minOf(selector: (Char) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.minOf(selector: (T) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws

NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.minOf(selector: (Byte) -> Float):
Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in
1..lastIndex) {\n   val v = selector(this[i])\n
        minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all
values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by
[selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is
empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.minOf(selector: (Short) ->
Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in
1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function
is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.minOf(selector: (Int) -> Float):
Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in
1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun LongArray.minOf(selector: (Long) -> Float): Float {\n   if (isEmpty()) throw
NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v =
selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest
value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.minOf(selector: (Float) -> Float):
Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in
1..lastIndex) {\n   val v = selector(this[i])\n   minValue =
minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.minOf(selector: (Double) ->
Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in
1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned
result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.minOf(selector: (Boolean) ->
Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in

1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.minOf(selector: (Char) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Array<out T>.minOf(selector: (T) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ByteArray.minOf(selector: (Byte) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ShortArray.minOf(selector: (Short) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> IntArray.minOf(selector: (Int) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> LongArray.minOf(selector: (Long) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <R : Comparable<R>> FloatArray.minOf(selector: (Float) -> R): R {\n   if (isEmpty()) throw
NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v =
selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n *
Returns the smallest value among all values produced by [selector] function\n * applied to each element in the
array.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
DoubleArray.minOf(selector: (Double) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var
minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n
        if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the
smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n *
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*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>>
BooleanArray.minOf(selector: (Boolean) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var
minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n
    minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values
produced by [selector] function\n * applied to each element in the array.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
inline fun <R : Comparable<R>> CharArray.minOf(selector: (Char) -> R): R {\n   if (isEmpty()) throw
NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v =
selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n *
Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array
or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned
result is `NaN`.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.minOfOrNull(selector:
(T) -> Double): Double? {\n   if (isEmpty()) return
null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue
= minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values
produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If
any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.minOfOrNull(selector: (Byte) ->
Double): Double? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n
   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns
the smallest value among all values produced by [selector] function\n * applied to each element
in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the
returned result is `NaN`.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.minOfOrNull(selector: (Short) -
> Double): Double? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n
      val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns
the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null`
if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is

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`NaN`.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
 inline fun IntArray.minOfOrNull(selector: (Int) -> Double): Double? {\n    if (isEmpty()) return null\n    var
minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue =
minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.minOfOrNull(selector: (Long) -
> Double): Double? {\n    if (isEmpty()) return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n
      val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n
 * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the
array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the
returned result is `NaN`.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.minOfOrNull(selector: (Float) ->
Double): Double? {\n    if (isEmpty()) return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n
   val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns
the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null`
if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
 inline fun DoubleArray.minOfOrNull(selector: (Double) -> Double): Double? {\n    if (isEmpty()) return null\n
var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue =
minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.minOfOrNull(selector:
(Boolean) -> Double): Double? {\n    if (isEmpty()) return null\n    var minValue = selector(this[0])\n
    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function
is `NaN`, the returned result is `NaN`.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.minOfOrNull(selector: (Char) ->
Double): Double? {\n    if (isEmpty()) return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n
   val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns
the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null`
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 * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.minOfOrNull(selector:
(T) -> Float): Float? {\n    if (isEmpty()) return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex)
{\n        val v = selector(this[i])\n        minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n *
Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array
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or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.minOfOrNull(selector: (Byte) -> Float): Float? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.minOfOrNull(selector: (Short) -> Float): Float? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.minOfOrNull(selector: (Int) -> Float): Float? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.minOfOrNull(selector: (Long) -> Float): Float? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.minOfOrNull(selector: (Float) -> Float): Float? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.minOfOrNull(selector: (Double) -> Float): Float? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.minOfOrNull(selector: (Boolean) -> Float): Float? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return

minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.minOfOrNull(selector: (Char) -> Float): Float? {\n   if (isEmpty())
 return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Array<out T>.minOfOrNull(selector: (T) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ByteArray.minOfOrNull(selector: (Byte) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
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 {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> IntArray.minOfOrNull(selector: (Int) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
 inline fun <R : Comparable<R>> LongArray.minOfOrNull(selector: (Long) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> FloatArray.minOfOrNull(selector: (Float) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> DoubleArray.minOfOrNull(selector: (Double) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic

inline fun <R : Comparable<R>> BooleanArray.minOfOrNull(selector: (Boolean) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> CharArray.minOfOrNull(selector: (Char) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return

minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Array<out T>.minOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array

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R>, selector: (Short) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> IntArray.minOfWith(comparator: Comparator<in R>, selector: (Int) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v)

 > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.minOfWith(comparator: Comparator<in R>, selector: (Long) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the

 array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.minOfWith(comparator: Comparator<in R>, selector: (Float) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic

 inline fun <R> DoubleArray.minOfWith(comparator: Comparator<in R>, selector: (Double) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> BooleanArray.minOfWith(comparator: Comparator<in R>, selector: (Boolean) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n

    val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.minOfWith(comparator: Comparator<in R>, selector: (Char) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among

 all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Array<out T>.minOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]

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function applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
 inline fun <R> ByteArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Byte) -> R): R? {\n    if
(isEmpty()) return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        if (comparator.compare(minValue, v) > 0) {\n            minValue = v\n        }\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ShortArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Short) -> R): R? {\n    if (isEmpty())
return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(minValue,
 v) > 0) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value
according to the provided [comparator]\n * among all values produced by [selector] function applied to each
element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
IntArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Int) -> R): R? {\n    if (isEmpty()) return
null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(minValue, v) > 0) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n *
Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or `null` if there
 are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
LongArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Long) -> R): R? {\n    if (isEmpty()) return
null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(minValue, v) > 0) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n *
Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
FloatArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Float)
 -> R): R? {\n    if (isEmpty()) return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v
= selector(this[i])\n        if (comparator.compare(minValue, v) > 0) {\n            minValue = v\n        }\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
DoubleArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Double) -> R): R? {\n    if (isEmpty())
return null\n    var minValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        if
(comparator.compare(minValue, v) > 0) {\n            minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n
 * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector]
function applied to each element in the array or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R>
BooleanArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Boolean) -> R): R? {\n    if (isEmpty())
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return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (Char) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Array<out Double>.minOrNull(): Double? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Array<out Float>.minOrNull(): Float? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Array<out T>.minOrNull(): T? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.minOrNull(): Byte? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.minOrNull(): Short? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.minOrNull(): Int? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.minOrNull(): Long? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.minOrNull(): Float? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.minOrNull(): Double? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharArray.minOrNull(): Char? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T> Array<out T>.minWith(comparator: Comparator<in T>): T? {\n   return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun ByteArray.minWith(comparator: Comparator<in Byte>): Byte? {\n   return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince

= \"1.5\", hiddenSince = \"1.6\")\npublic fun ShortArray.minWith(comparator: Comparator<in Short>): Short? {\n return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun IntArray.minWith(comparator: Comparator<in Int>): Int? {\n   return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun LongArray.minWith(comparator: Comparator<in Long>): Long? {\n return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun FloatArray.minWith(comparator: Comparator<in Float>): Float? {\n return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun DoubleArray.minWith(comparator: Comparator<in Double>): Double? {\n   return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun BooleanArray.minWith(comparator: Comparator<in Boolean>): Boolean? {\n   return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun CharArray.minWith(comparator: Comparator<in Char>): Char? {\n   return minWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Array<out T>.minWithOrNull(comparator: Comparator<in T>): T? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ByteArray.minWithOrNull(comparator: Comparator<in Byte>): Byte? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun ShortArray.minWithOrNull(comparator: Comparator<in Short>): Short? {\n if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun IntArray.minWithOrNull(comparator: Comparator<in Int>): Int? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun LongArray.minWithOrNull(comparator: Comparator<in Long>): Long? {\n if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun FloatArray.minWithOrNull(comparator: Comparator<in Float>): Float? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun DoubleArray.minWithOrNull(comparator: Comparator<in Double>): Double? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n

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*/\n@SinceKotlin(\"1.4\")\npublic fun BooleanArray.minWithOrNull(comparator: Comparator<in Boolean>):
Boolean? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n
 if (comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first element having the
smallest value according to the provided [comparator] or `null` if there are no elements.\n
*/\n@SinceKotlin(\"1.4\")\npublic fun CharArray.minWithOrNull(comparator: Comparator<in Char>): Char? {\n
if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if
(comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns `true` if the array has no
elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun <T> Array<out
T>.none(): Boolean {\n    return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n *
@sample samples.collections.Collections.Aggregates.none\n */\npublic fun ByteArray.none(): Boolean {\n    return
isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n
 */\npublic fun ShortArray.none(): Boolean {\n    return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no
elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun IntArray.none():
Boolean {\n    return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n */\npublic fun LongArray.none(): Boolean {\n    return
isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n */\npublic fun FloatArray.none(): Boolean {\n    return
isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n */\npublic fun DoubleArray.none(): Boolean {\n    return
isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n */\npublic fun BooleanArray.none():
 Boolean {\n    return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n */\npublic fun CharArray.none(): Boolean {\n    return
isEmpty()\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun <T> Array<out
T>.none(predicate: (T) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return false\n    return
true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun ByteArray.none(predicate:
(Byte) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return false\n    return
true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n
 */\npublic inline fun ShortArray.none(predicate: (Short) -> Boolean): Boolean {\n    for (element in this) if
(predicate(element)) return false\n    return true\n}\n\n/**\n * Returns `true` if no elements match the given
[predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun
IntArray.none(predicate: (Int) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return false\n
return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun LongArray.none(predicate:
(Long) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return false\n    return
true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun FloatArray.none(predicate:
(Float)
 -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return false\n    return true\n}\n\n/**\n *
Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun DoubleArray.none(predicate:
(Double) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return false\n    return
true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun
```

BooleanArray.none(predicate: (Boolean) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun CharArray.none(predicate: (Char) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.onEach(action: (T) -> Unit): Array<out T> {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.onEach(action: (Byte) -> Unit): ByteArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.onEach(action: (Short) -> Unit): ShortArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.onEach(action: (Int) -> Unit): IntArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.onEach(action: (Long) -> Unit): LongArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.onEach(action: (Float) -> Unit): FloatArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.onEach(action: (Double) -> Unit): DoubleArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.onEach(action: (Boolean) -> Unit): BooleanArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.onEach(action: (Char) -> Unit): CharArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.onEachIndexed(action: (index: Int, T) -> Unit): Array<out T> {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.onEachIndexed(action: (index: Int, Byte) -> Unit): ByteArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.onEachIndexed(action: (index: Int, Short) -> Unit): ShortArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun

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 while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun CharArray.reduceRightIndexed(operation: (index: Int, Char, acc: Char) -> Char): Char {\n   var index = lastIndex\n   if (index < 0) throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n
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{\n   var index = lastIndex\n   if (index < 0) return null\n   var accumulator: S = get(index--)\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns `null` if

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value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R> Array<out T>.runningFold(initial: R, operation: (acc: R, T) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (element in this) {\n   accumulator = operation(accumulator, element)\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates 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*/\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R> Array<out T>.runningFoldIndexed(initial: R,
 operation: (index: Int, acc: R, T) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result =
ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (index in indices) {\n
accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return
result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from
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 inline fun <R> ByteArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Byte) -> R): List<R> {\n
if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator
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ShortArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Short) -> R): List<R> {\n   if (isEmpty())
return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n
for (index in indices) {\n   accumulator = operation(index, accumulator, this[index])\n
result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation
values generated by applying [operation] from left to right\n * to each element, its index in the original array and
current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function
should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]
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 index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator
value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <R>
IntArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Int) -> R): List<R> {\n   if (isEmpty()) return
listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for
(index in indices) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n
 }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
[operation] from left to right\n * to each element, its index in the original array and current accumulator value that
starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n *

otherwise
 it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Long) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (index in indices) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n
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*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (index in indices) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and the element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S> Array<out T>.runningReduce(operation: (acc: S, T) -> S): List<S> {\n   if (isEmpty()) return emptyList()\n   var accumulator: S = this[0]\n   val result = ArrayList<S>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.runningReduce(operation: (acc: Byte, Byte) -> Byte): List<Byte> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Byte>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.runningReduce(operation: (acc: Short, Short) -> Short): List<Short> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Short>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.runningReduce(operation: (acc: Int, Int) -> Int): List<Int> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Int>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.runningReduce(operation: (acc: Long, Long) -> Long): List<Long> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Long>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function

that
 takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.runningReduce(operation: (acc: Float, Float) -> Float): List<Float> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Float>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
 */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.runningReduce(operation: (acc: Double, Double) -> Double): List<Double> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Double>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline
 fun BooleanArray.runningReduce(operation: (acc: Boolean, Boolean) -> Boolean): List<Boolean> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Boolean>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.runningReduce(operation: (acc: Char, Char) -> Char): List<Char> {\n   if (isEmpty()) return
 emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Char>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
*/\n@SinceKotlin(\"1.4\")\npublic inline fun <S, T : S> Array<out T>.runningReduceIndexed(operation:
 (index: Int, acc: S, T) -> S): List<S> {\n   if (isEmpty()) return emptyList()\n   var accumulator: S = this[0]\n   val result = ArrayList<S>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun

ByteArray.runningReduceIndexed(operation: (index: Int, acc: Byte,
Byte) -> Byte): List<Byte> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result =
ArrayList<Byte>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator =
operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n *
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each element, its index in the original array and current accumulator value that starts with the first element of this
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samples.collections.Collections.Aggregates.runningReduce\n
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun
ShortArray.runningReduceIndexed(operation: (index: Int, acc: Short, Short) -> Short): List<Short>
{\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Short>(size).apply {
add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n
result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation
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*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun
IntArray.runningReduceIndexed(operation: (index: Int, acc: Int, Int) -> Int): List<Int> {\n   if (isEmpty()) return
emptyList()\n
var accumulator = this[0]\n   val result = ArrayList<Int>(size).apply { add(accumulator) }\n   for (index in 1
until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n
return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying
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samples.collections.Collections.Aggregates.runningReduce\n
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun
LongArray.runningReduceIndexed(operation: (index: Int, acc: Long, Long) -> Long): List<Long> {\n   if
(isEmpty()) return emptyList()\n   var accumulator =
this[0]\n   val result = ArrayList<Long>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n
accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return
result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from
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FloatArray.runningReduceIndexed(operation: (index: Int, acc: Float, Float) -> Float): List<Float> {\n   if
(isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result =
ArrayList<Float>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator =
operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n *
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samples.collections.Collections.Aggregates.runningReduce\n

*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.runningReduceIndexed(operation: (index: Int, acc: Double, Double) -> Double): List<Double> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Double>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.runningReduceIndexed(operation: (index: Int, acc: Boolean, Boolean) -> Boolean): List<Boolean> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Boolean>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.runningReduceIndexed(operation: (index: Int, acc: Char, Char) -> Char): List<Char> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Char>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <T, R> Array<out T>.scan(initial: R, operation: (acc: R, T) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.scan(initial: R, operation: (acc: R, Byte) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.scan(initial: R, operation: (acc: R, Short) -> R): List<R> {\n   return

runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next
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 fun <R> LongArray.scan(initial: R, operation: (acc: R, Long) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.scan(initial: R, operation: (acc: R, Float) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values
 generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> DoubleArray.scan(initial: R, operation: (acc: R, Double) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function
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 the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharArray.scan(initial: R, operation: (acc: R, Char) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation]

from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic

inline fun <T, R> Array<out T>.scanIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): List<R> {\n return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> ByteArray.scanIndexed(initial:

R, operation: (index: Int, acc: R, Byte) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> ShortArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Short) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n

* Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> IntArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Int) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation]

from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> LongArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Long) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator

value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> FloatArray.scanIndexed(initial: R, operation: (index: Int, acc: R, Float) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function 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ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun ByteArray.sumBy(selector: (Byte) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun ShortArray.sumBy(selector: (Short) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun IntArray.sumBy(selector: (Int) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun

LongArray.sumBy(selector: (Long) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun FloatArray.sumBy(selector: (Float) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun DoubleArray.sumBy(selector: (Double) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun BooleanArray.sumBy(selector: (Boolean) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun CharArray.sumBy(selector: (Char) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun <T> Array<out T>.sumByDouble(selector: (T) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun ByteArray.sumByDouble(selector: (Byte) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun ShortArray.sumByDouble(selector: (Short) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun IntArray.sumByDouble(selector: (Int) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun LongArray.sumByDouble(selector: (Long) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun FloatArray.sumByDouble(selector: (Float) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince

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this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.sumOf(selector: (T) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.sumOf(selector: (Byte) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.sumOf(selector: (Short) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.sumOf(selector: (Int) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.sumOf(selector: (Long) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.sumOf(selector: (Float) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.sumOf(selector: (Double) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.sumOf(selector: (Boolean) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n  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sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.sumOf(selector: (Int) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.sumOf(selector: (Long) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all 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function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.sumOf(selector: (Boolean) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.sumOf(selector: (Char) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.sumOf(selector: (T) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.sumOf(selector: (Byte) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.sumOf(selector: (Short) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.sumOf(selector: (Int) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.sumOf(selector: (Long) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.sumOf(selector: (Float) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.sumOf(selector: (Double) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

ByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.sumOf(selector: (Boolean) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.sumOf(selector: (Char) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.sumOf(selector: (T) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.sumOf(selector: (Byte) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.sumOf(selector: (Short) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.sumOf(selector: (Int) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.sumOf(selector: (Long) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.sumOf(selector: (Float) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.sumOf(selector: (Double) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n

*/\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.sumOf(selector: (Boolean) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values

produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.sumOf(selector: (Char) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.sumOf(selector: (T) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this)

{\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.sumOf(selector: (Byte) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.sumOf(selector:

(Short) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.sumOf(selector: (Int) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic

inline fun LongArray.sumOf(selector: (Long) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.sumOf(selector: (Float) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

ByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic
 inline fun DoubleArray.sumOf(selector: (Double) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.sumOf(selector: (Boolean) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
 function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.sumOf(selector: (Char) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns an original collection containing all the non-`null` elements, throwing an [IllegalArgumentException] if there are any `null` elements.\n */\npublic fun <T : Any> Array<T?>.requireNoNulls(): Array<T> {\n   for (element in this) {\n   if (element == null) {\n   throw IllegalArgumentException(\"null element found in $this.\")\n   }\n   }\n   @Suppress(\"UNCHECKED_CAST\")\n   return this as Array<T>\n}\n\n/**\n * Splits the original array into pair of lists,\n *
 where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun <T> Array<out T>.partition(predicate: (T) -> Boolean): Pair<List<T>, List<T>> {\n   val first = ArrayList<T>()\n   val second = ArrayList<T>()\n   for (element in this) {\n   if (predicate(element)) {\n   first.add(element)\n   } else {\n   second.add(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun ByteArray.partition(predicate: (Byte) -> Boolean): Pair<List<Byte>,
 List<Byte>> {\n   val first = ArrayList<Byte>()\n   val second = ArrayList<Byte>()\n   for (element in this) {\n
 if (predicate(element)) {\n   first.add(element)\n   } else {\n   second.add(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun ShortArray.partition(predicate: (Short) -> Boolean): Pair<List<Short>, List<Short>> {\n   val first = ArrayList<Short>()\n   val second = ArrayList<Short>()\n   for (element in this) {\n   if (predicate(element)) {\n   first.add(element)\n   } else {\n   second.add(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Splits the
 original array into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun IntArray.partition(predicate: (Int) -> Boolean): Pair<List<Int>, List<Int>> {\n   val first = ArrayList<Int>()\n   val second = ArrayList<Int>()\n   for (element in this) {\n   if (predicate(element)) {\n   first.add(element)\n
 } else {\n   second.add(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample

samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun LongArray.partition(predicate: (Long) -> Boolean): Pair<List<Long>, List<Long>> {\n   val first = ArrayList<Long>()\n   val second = ArrayList<Long>()\n   for (element in this) {\n   if (predicate(element)) {\n   first.add(element)\n   } else {\n   second.add(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun FloatArray.partition(predicate: (Float) -> Boolean): Pair<List<Float>, List<Float>> {\n   val first = ArrayList<Float>()\n   val second = ArrayList<Float>()\n   for (element in this) {\n   if (predicate(element)) {\n   first.add(element)\n   } else {\n   second.add(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun DoubleArray.partition(predicate: (Double) -> Boolean): Pair<List<Double>, List<Double>> {\n   val first = ArrayList<Double>()\n   val second = ArrayList<Double>()\n   for (element in this) {\n   if (predicate(element)) {\n   first.add(element)\n   } else {\n   second.add(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun BooleanArray.partition(predicate: (Boolean) -> Boolean): Pair<List<Boolean>, List<Boolean>> {\n   val first = ArrayList<Boolean>()\n   val second = ArrayList<Boolean>()\n   for (element in this) {\n   if (predicate(element)) {\n   first.add(element)\n   } else {\n   second.add(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Splits the original array into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample samples.collections.Arrays.Transformations.partitionArrayOfPrimitives\n */\npublic inline fun CharArray.partition(predicate: (Char) -> Boolean): Pair<List<Char>, List<Char>> {\n   val first = ArrayList<Char>()\n   val second = ArrayList<Char>()\n   for (element in this) {\n   if (predicate(element)) {\n   first.add(element)\n   } else {\n   second.add(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <T, R> Array<out T>.zip(other: Array<out R>): List<Pair<T, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> ByteArray.zip(other: Array<out R>): List<Pair<Byte, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> ShortArray.zip(other: Array<out R>): List<Pair<Short, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> IntArray.zip(other: Array<out R>): List<Pair<Int, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> LongArray.zip(other: Array<out R>): List<Pair<Long, R>> {\n   return zip(other) { t1, t2 ->

t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> FloatArray.zip(other: Array<out R>): List<Pair<Float, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> DoubleArray.zip(other: Array<out R>): List<Pair<Double, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> BooleanArray.zip(other: Array<out R>): List<Pair<Boolean, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> CharArray.zip(other: Array<out R>): List<Pair<Char, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <T, R, V> Array<out T>.zip(other: Array<out R>, transform: (a: T, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> ByteArray.zip(other: Array<out R>, transform: (a: Byte, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair 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*/\npublic inline fun <R, V> FloatArray.zip(other: Array<out R>, transform: (a: Float, b: R) -> V): List<V> {\n val size = minOf(size, other.size)\n val list = ArrayList<V>(size)\n for (i in 0 until size) {\n list.add(transform(this[i], other[i]))\n }\n return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> DoubleArray.zip(other: Array<out R>, transform: (a: Double, b: R) -> V): List<V> {\n val size = minOf(size, other.size)\n val list = ArrayList<V>(size)\n for (i in 0 until size) {\n list.add(transform(this[i], other[i]))\n }\n return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> BooleanArray.zip(other: Array<out R>, transform: (a: Boolean, b: R) -> V): List<V> {\n val size = minOf(size, other.size)\n val list = ArrayList<V>(size)\n for (i in 0 until size) {\n list.add(transform(this[i], other[i]))\n }\n return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> CharArray.zip(other: Array<out R>, transform: (a: Char, b: R) -> V): List<V> {\n val size = minOf(size, other.size)\n val list = ArrayList<V>(size)\n for (i in 0 until size) {\n list.add(transform(this[i], other[i]))\n }\n return list\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <T, R> Array<out T>.zip(other: Iterable<R>): List<Pair<T, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> ByteArray.zip(other: Iterable<R>): List<Pair<Byte, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> ShortArray.zip(other: Iterable<R>): List<Pair<Short, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> IntArray.zip(other: Iterable<R>): List<Pair<Int, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> LongArray.zip(other: Iterable<R>): List<Pair<Long, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> FloatArray.zip(other: Iterable<R>): List<Pair<Float, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> DoubleArray.zip(other: Iterable<R>): List<Pair<Double, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements

of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> BooleanArray.zip(other: Iterable<R>): List<Pair<Boolean, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <R> CharArray.zip(other: Iterable<R>): List<Pair<Char, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <T, R, V> Array<out T>.zip(other: Iterable<R>, transform: (a: T, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> ByteArray.zip(other: Iterable<R>, transform: (a: Byte, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> ShortArray.zip(other: Iterable<R>, transform: (a: Short, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> IntArray.zip(other: Iterable<R>, transform: (a: Int, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> LongArray.zip(other: Iterable<R>, transform: (a: Long, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <R, V> FloatArray.zip(other: Iterable<R>, transform: (a: Float, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n

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Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun DoubleArray.zip(other: DoubleArray): List<Pair<Double, Double>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun BooleanArray.zip(other: BooleanArray): List<Pair<Boolean, Boolean>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun CharArray.zip(other: CharArray): List<Pair<Char, Char>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> ByteArray.zip(other: ByteArray, transform: (a: Byte, b: Byte) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the

provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> ShortArray.zip(other: ShortArray, transform: (a: Short, b: Short) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> IntArray.zip(other: IntArray, transform: (a: Int, b: Int) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n

for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> LongArray.zip(other: LongArray, transform: (a: Long, b: Long) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n *

@sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> FloatArray.zip(other: FloatArray, transform: (a: Float, b: Float) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> DoubleArray.zip(other: DoubleArray, transform: (a: Double, b: Double) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n

* Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> BooleanArray.zip(other: BooleanArray, transform: (a: Boolean, b: Boolean) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <V> CharArray.zip(other:

```
 CharArray, transform: (a: Char, b: Char) -> V): List<V> {\n    val size = minOf(size, other.size)\n    val list =
ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i], other[i]))\n    }\n    return
list\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix]
and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in
which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to
\"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <T, A :
Appendable> Array<out T>.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix:
CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): A
{\n    buffer.append(prefix)\n    var count = 0\n    for
 (element in this) {\n        if (++count > 1) buffer.append(separator)\n        if (limit < 0 || count <= limit) {\n
buffer.appendElement(element, transform)\n        } else break\n    }\n    if (limit >= 0 && count > limit)
buffer.append(truncated)\n    buffer.append(postfix)\n    return buffer\n}\n\n/**\n * Appends the string from all the
elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection
could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will
be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample
samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable>
ByteArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence =
\"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Byte) -> CharSequence)? = null): A {\n
    buffer.append(prefix)\n    var count = 0\n    for (element in this) {\n        if (++count > 1)
buffer.append(separator)\n        if (limit < 0 || count <= limit) {\n            if (transform != null)\n
buffer.append(transform(element))\n            else\n                buffer.append(element.toString())\n        } else break\n
}\n    if (limit >= 0 && count > limit) buffer.append(truncated)\n    buffer.append(postfix)\n    return
buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given
[prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of
[limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which
defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A :
Appendable> ShortArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix:
 CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform:
((Short) -> CharSequence)? = null): A {\n    buffer.append(prefix)\n    var count = 0\n    for (element in this) {\n
if (++count > 1) buffer.append(separator)\n        if (limit < 0 || count <= limit) {\n            if (transform != null)\n
      buffer.append(transform(element))\n            else\n                buffer.append(element.toString())\n        } else
break\n    }\n    if (limit >= 0 && count > limit) buffer.append(truncated)\n    buffer.append(postfix)\n    return
buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given
[prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of
[limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which
defaults to \"...\").\n * \n * @sample
 samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> IntArray.joinTo(buffer:
A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1,
truncated: CharSequence = \"...\", transform: ((Int) -> CharSequence)? = null): A {\n    buffer.append(prefix)\n    var
count = 0\n    for (element in this) {\n        if (++count > 1) buffer.append(separator)\n        if (limit < 0 || count <=
limit) {\n            if (transform != null)\n                buffer.append(transform(element))\n            else\n
buffer.append(element.toString())\n        } else break\n    }\n    if (limit >= 0 && count > limit)
buffer.append(truncated)\n    buffer.append(postfix)\n    return buffer\n}\n\n/**\n * Appends the string from all the
elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection
could be huge, you can specify a non-negative value of [limit],
 in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults
to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A :
Appendable> LongArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix:
```

CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Long) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   if (transform != null)\n   buffer.append(transform(element))\n   else\n   buffer.append(element.toString())\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> FloatArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Float) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   if (transform != null)\n   buffer.append(transform(element))\n   else\n   buffer.append(element.toString())\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> DoubleArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Double) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   if (transform != null)\n   buffer.append(transform(element))\n   else\n   buffer.append(element.toString())\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> BooleanArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Boolean) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   if (transform != null)\n   buffer.append(transform(element))\n   else\n   buffer.append(element.toString())\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A : Appendable> CharArray.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\",
limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Char) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   if (transform != null)\n   buffer.append(transform(element))\n   else\n   buffer.append(element)\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Creates a string from all the

elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun <T> Array<out T>.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun ByteArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Byte) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun ShortArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Short) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun IntArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Int) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun LongArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Long) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun FloatArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Float) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun DoubleArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix:

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CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Double) -> CharSequence)? =
null): String {\n    return joinTo(StringBuilder(), separator, prefix, postfix,
 limit, truncated, transform).toString()\n}\n\n/**\n * Creates a string from all the elements separated using
[separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can
specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed
by the [truncated] string (which defaults to \"...\").\n * \n * @sample
samples.collections.Collections.Transformations.joinToString\n */\npublic fun
BooleanArray.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence =
\"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Boolean) -> CharSequence)? = null): String {\n
return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates
a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n
* If the collection could
 be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be
appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample
samples.collections.Collections.Transformations.joinToString\n */\npublic fun CharArray.joinToString(separator:
CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated:
CharSequence = \"...\", transform: ((Char) -> CharSequence)? = null): String {\n    return joinTo(StringBuilder(),
separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates an [Iterable] instance that
wraps the original array returning its elements when being iterated.\n */\npublic fun <T> Array<out T>.asIterable():
Iterable<T> {\n    if (isEmpty()) return emptyList()\n    return Iterable { this.iterator() }\n}\n\n/**\n * Creates an
[Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic
 fun ByteArray.asIterable(): Iterable<Byte> {\n    if (isEmpty()) return emptyList()\n    return Iterable { this.iterator()
}\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its elements when being
iterated.\n */\npublic fun ShortArray.asIterable(): Iterable<Short> {\n    if (isEmpty()) return emptyList()\n    return
Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original array returning its
elements when being iterated.\n */\npublic fun IntArray.asIterable(): Iterable<Int> {\n    if (isEmpty()) return
emptyList()\n    return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original
array returning its elements when being iterated.\n */\npublic fun LongArray.asIterable(): Iterable<Long> {\n    if
(isEmpty()) return emptyList()\n    return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that
wraps the original array returning its elements
 when being iterated.\n */\npublic fun FloatArray.asIterable(): Iterable<Float> {\n    if (isEmpty()) return
emptyList()\n    return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original
array returning its elements when being iterated.\n */\npublic fun DoubleArray.asIterable(): Iterable<Double> {\n
if (isEmpty()) return emptyList()\n    return Iterable { this.iterator() }\n}\n\n/**\n * Creates an [Iterable] instance
that wraps the original array returning its elements when being iterated.\n */\npublic fun BooleanArray.asIterable():
Iterable<Boolean> {\n    if (isEmpty()) return emptyList()\n    return Iterable { this.iterator() }\n}\n\n/**\n * Creates
an [Iterable] instance that wraps the original array returning its elements when being iterated.\n */\npublic fun
CharArray.asIterable(): Iterable<Char> {\n    if (isEmpty()) return emptyList()\n    return Iterable { this.iterator()
}\n}\n\n/**\n * Creates a [Sequence] instance that wraps the
 original array returning its elements when being iterated.\n * \n * @sample
samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun <T> Array<out T>.asSequence():
Sequence<T> {\n    if (isEmpty()) return emptySequence()\n    return Sequence { this.iterator() }\n}\n\n/**\n *
Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n *
@sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun ByteArray.asSequence():
Sequence<Byte> {\n    if (isEmpty()) return emptySequence()\n    return Sequence { this.iterator() }\n}\n\n/**\n *
Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n *
@sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun ShortArray.asSequence():
Sequence<Short> {\n    if (isEmpty()) return emptySequence()\n    return Sequence { this.iterator() }\n}\n\n/**\n *
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Creates a [Sequence] instance that wraps
 the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun IntArray.asSequence(): Sequence<Int> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun LongArray.asSequence(): Sequence<Long> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun FloatArray.asSequence(): Sequence<Float> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that
 wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun DoubleArray.asSequence(): Sequence<Double> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun BooleanArray.asSequence(): Sequence<Boolean> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun CharArray.asSequence(): Sequence<Char> {\n   if (isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n/**\n * Returns an average value
 of elements in the array.\n */\n@kotlin.jvm.JvmName(\"averageOfByte\")\npublic fun Array<out Byte>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\n@kotlin.jvm.JvmName(\"averageOfShort\")\npublic fun Array<out Short>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\n@kotlin.jvm.JvmName(\"averageOfInt\")\npublic fun Array<out Int>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n
 * Returns an average value of elements in the array.\n */\n@kotlin.jvm.JvmName(\"averageOfLong\")\npublic fun Array<out Long>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\n@kotlin.jvm.JvmName(\"averageOfFloat\")\npublic fun Array<out Float>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\n@kotlin.jvm.JvmName(\"averageOfDouble\")\npublic fun Array<out Double>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN
 else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun ByteArray.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun ShortArray.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun IntArray.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun LongArray.average():

Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun FloatArray.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun DoubleArray.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   ++count\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfByte\")\npublic fun Array<out Byte>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfShort\")\npublic fun Array<out Short>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfInt\")\npublic fun Array<out Int>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfLong\")\npublic fun Array<out Long>.sum(): Long {\n   var sum: Long = 0L\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfFloat\")\npublic fun Array<out Float>.sum(): Float {\n   var sum: Float = 0.0f\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfDouble\")\npublic fun Array<out Double>.sum(): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun ByteArray.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun ShortArray.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun IntArray.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun LongArray.sum(): Long {\n   var sum: Long = 0L\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun FloatArray.sum(): Float {\n   var sum: Float = 0.0f\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun DoubleArray.sum(): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"RangesKt\")\n\npackage kotlin.ranges\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n * Returns a random element from this range.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun IntRange.random(): Int {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this range.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun LongRange.random(): Long {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this range.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun CharRange.random(): Char {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun IntRange.random(random: Random): Int {\n   try {\n   return random.nextInt(this)\n

} catch(e: IllegalArgumentException) {\n   throw NoSuchElementException(e.message)\n   }\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun LongRange.random(random: Random): Long {\n   try {\n   return random.nextLong(this)\n   } catch(e: IllegalArgumentException) {\n   throw NoSuchElementException(e.message)\n   }\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun CharRange.random(random: Random): Char {\n   try {\n   return random.nextInt(first.code, last.code + 1).toChar()\n   } catch(e: IllegalArgumentException) {\n   throw NoSuchElementException(e.message)\n   }\n}\n\n/**\n * Returns a random element from this range, or `null` if
this range is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun IntRange.randomOrNull(): Int? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun LongRange.randomOrNull(): Long? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharRange.randomOrNull(): Char? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun IntRange.randomOrNull(random:
Random): Int? {\n   if (isEmpty())\n   return null\n   return random.nextInt(this)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun LongRange.randomOrNull(random: Random): Long? {\n   if (isEmpty())\n   return null\n   return random.nextLong(this)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun CharRange.randomOrNull(random: Random): Char? {\n   if (isEmpty())\n   return null\n   return random.nextInt(first.code, last.code + 1).toChar()\n}\n\n/**\n * Returns `true` if this range contains the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic
inline operator fun IntRange.contains(element: Int?): Boolean {\n   return element != null && contains(element)\n}\n\n/**\n * Returns `true` if this range contains the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline operator fun LongRange.contains(element: Long?): Boolean {\n   return element != null && contains(element)\n}\n\n/**\n * Returns `true` if this range contains the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline operator fun CharRange.contains(element: Char?): Boolean {\n   return element != null && contains(element)\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"intRangeContains\")\npublic operator fun ClosedRange<Int>.contains(value: Byte): Boolean {\n   return contains(value.toInt())\n}\n\n/**\n
* Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"longRangeContains\")\npublic operator fun ClosedRange<Long>.contains(value: Byte): Boolean {\n   return contains(value.toLong())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"shortRangeContains\")\npublic operator fun ClosedRange<Short>.contains(value: Byte): Boolean {\n   return contains(value.toShort())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and

floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"doubleRangeContains\")\npublic operator fun ClosedRange<Double>.contains(value: Byte): Boolean {\n   return contains(value.toDouble())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This

`contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"floatRangeContains\")\npublic operator fun ClosedRange<Float>.contains(value: Byte): Boolean {\n   return contains(value.toFloat())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"intRangeContains\")\npublic operator fun ClosedRange<Int>.contains(value: Double): Boolean {\n   return value.toIntExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation

mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"longRangeContains\")\npublic operator fun ClosedRange<Long>.contains(value: Double): Boolean {\n   return value.toLongExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"byteRangeContains\")\npublic operator fun ClosedRange<Byte>.contains(value: Double): Boolean {\n   return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This

`contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"shortRangeContains\")\npublic operator fun ClosedRange<Short>.contains(value: Double): Boolean {\n   return value.toShortExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"floatRangeContains\")\npublic operator fun ClosedRange<Float>.contains(value: Double): Boolean {\n   return contains(value.toFloat())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"intRangeContains\")\npublic

operator fun ClosedRange<Int>.contains(value: Float): Boolean {\n   return value.toIntExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"longRangeContains\")\npublic operator fun ClosedRange<Long>.contains(value: Float): Boolean {\n   return value.toLongExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"byteRangeContains\")\npublic

operator fun ClosedRange<Byte>.contains(value: Float): Boolean {\n   return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"shortRangeContains\")\npublic operator fun ClosedRange<Short>.contains(value: Float): Boolean {\n   return value.toShortExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"doubleRangeContains\")\npublic operator fun ClosedRange<Double>.contains(value: Float): Boolean {\n   return contains(value.toDouble())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"longRangeContains\")\npublic operator fun ClosedRange<Long>.contains(value: Int): Boolean {\n   return contains(value.toLong())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"byteRangeContains\")\npublic operator fun ClosedRange<Byte>.contains(value: Int): Boolean {\n   return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"shortRangeContains\")\npublic operator fun ClosedRange<Short>.contains(value: Int): Boolean {\n   return value.toShortExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"doubleRangeContains\")\npublic operator fun ClosedRange<Double>.contains(value: Int): Boolean {\n   return contains(value.toDouble())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"floatRangeContains\")\npublic operator fun ClosedRange<Float>.contains(value: Int): Boolean {\n   return contains(value.toFloat())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"intRangeContains\")\npublic operator fun ClosedRange<Int>.contains(value: Long): Boolean {\n   return value.toIntExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"byteRangeContains\")\npublic operator fun ClosedRange<Byte>.contains(value: Long): Boolean {\n   return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"shortRangeContains\")\npublic operator fun ClosedRange<Short>.contains(value: Long): Boolean {\n   return value.toShortExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"doubleRangeContains\")\npublic operator fun ClosedRange<Double>.contains(value: Long): Boolean {\n   return contains(value.toDouble())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"floatRangeContains\")\npublic operator fun ClosedRange<Float>.contains(value: Long): Boolean {\n   return contains(value.toFloat())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"intRangeContains\")\npublic operator fun ClosedRange<Int>.contains(value: Short): Boolean {\n   return contains(value.toInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"longRangeContains\")\npublic operator fun ClosedRange<Long>.contains(value: Short): Boolean {\n   return contains(value.toLong())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@kotlin.jvm.JvmName(\"byteRangeContains\")\npublic operator fun ClosedRange<Byte>.contains(value: Short): Boolean {\n   return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"doubleRangeContains\")\npublic operator fun ClosedRange<Double>.contains(value: Short): Boolean {\n   return contains(value.toDouble())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@Deprecated(\"This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.\")\n@DeprecatedSinceKotlin(warningSince = \"1.3\", errorSince = \"1.4\", hiddenSince = \"1.5\")\n@kotlin.jvm.JvmName(\"floatRangeContains\")\npublic operator fun ClosedRange<Float>.contains(value: Short): Boolean {\n   return contains(value.toFloat())\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Int.downTo(to: Byte): IntProgression {\n   return IntProgression.fromClosedRange(this, to.toInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Long.downTo(to: Byte): LongProgression {\n   return LongProgression.fromClosedRange(this, to.toLong(), -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Byte.downTo(to: Byte): IntProgression {\n   return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Short.downTo(to: Byte): IntProgression {\n   return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Char.downTo(to: Char): CharProgression {\n   return CharProgression.fromClosedRange(this, to, -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Int.downTo(to: Int): IntProgression {\n   return IntProgression.fromClosedRange(this, to, -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Long.downTo(to: Int): LongProgression {\n   return LongProgression.fromClosedRange(this, to.toLong(), -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Byte.downTo(to: Int): IntProgression {\n   return IntProgression.fromClosedRange(this.toInt(), to, -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Short.downTo(to: Int): IntProgression {\n   return IntProgression.fromClosedRange(this.toInt(), to, -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Int.downTo(to: Long): LongProgression {\n   return LongProgression.fromClosedRange(this.toLong(), to, -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Long.downTo(to: Long): LongProgression {\n   return LongProgression.fromClosedRange(this, to, -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Byte.downTo(to: Long): LongProgression {\n   return LongProgression.fromClosedRange(this.toLong(), to, -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Short.downTo(to: Long): LongProgression {\n   return LongProgression.fromClosedRange(this.toLong(), to, -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Int.downTo(to: Short): IntProgression {\n   return IntProgression.fromClosedRange(this, to.toInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Long.downTo(to: Short): LongProgression {\n   return LongProgression.fromClosedRange(this, to.toLong(), -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Byte.downTo(to: Short): IntProgression {\n   return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\npublic infix fun Short.downTo(to: Short): IntProgression {\n   return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the same step.\n */\npublic fun IntProgression.reversed(): IntProgression {\n   return IntProgression.fromClosedRange(last, first, -step)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the same step.\n */\npublic fun LongProgression.reversed(): LongProgression {\n   return LongProgression.fromClosedRange(last, first, -step)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the same step.\n */\npublic fun CharProgression.reversed(): CharProgression {\n   return CharProgression.fromClosedRange(last, first, -step)\n}\n\n/**\n * Returns a progression that goes over the same range with the given step.\n */\npublic infix fun IntProgression.step(step: Int): IntProgression {\n   checkStepIsPositive(step > 0, step)\n   return IntProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/**\n * Returns a progression that goes over the same range with the given step.\n */\npublic infix fun LongProgression.step(step: Long): LongProgression {\n   checkStepIsPositive(step > 0, step)\n   return LongProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/**\n * Returns a progression that goes over the same range with the given step.\n */\npublic infix fun CharProgression.step(step: Int): CharProgression {\n   checkStepIsPositive(step > 0, step)\n   return CharProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\ninternal fun Int.toByteExactOrNull(): Byte? {\n   return if (this in Byte.MIN_VALUE.toInt()..Byte.MAX_VALUE.toInt()) this.toByte() else null\n}\n\ninternal fun Long.toByteExactOrNull(): Byte? {\n   return if (this in Byte.MIN_VALUE.toLong()..Byte.MAX_VALUE.toLong()) this.toByte() else null\n}\n\ninternal fun Short.toByteExactOrNull(): Byte? {\n   return if (this in Byte.MIN_VALUE.toShort()..Byte.MAX_VALUE.toShort()) this.toByte() else null\n}\n\ninternal fun Double.toByteExactOrNull(): Byte? {\n   return if (this in Byte.MIN_VALUE.toDouble()..Byte.MAX_VALUE.toDouble()) this.toInt().toByte() else null\n}\n\ninternal fun Float.toByteExactOrNull(): Byte? {\n   return if (this in Byte.MIN_VALUE.toFloat()..Byte.MAX_VALUE.toFloat()) this.toInt().toByte() else null\n}\n\ninternal fun Long.toIntExactOrNull(): Int? {\n   return if (this in Int.MIN_VALUE.toLong()..Int.MAX_VALUE.toLong()) this.toInt() else null\n}\n\ninternal fun Double.toIntExactOrNull(): Int? {\n   return if (this in

Int.MIN_VALUE.toDouble()..Int.MAX_VALUE.toDouble()) this.toInt() else null\n}\n\ninternal fun Float.toIntExactOrNull(): Int? {\n   return if (this in Int.MIN_VALUE.toFloat()..Int.MAX_VALUE.toFloat()) this.toInt() else null\n}\n\ninternal fun Double.toLongExactOrNull(): Long? {\n   return if (this in Long.MIN_VALUE.toDouble()..Long.MAX_VALUE.toDouble()) this.toLong() else null\n}\n\ninternal fun Float.toLongExactOrNull(): Long? {\n   return if (this in Long.MIN_VALUE.toFloat()..Long.MAX_VALUE.toFloat()) this.toLong() else null\n}\n\ninternal fun Int.toShortExactOrNull(): Short? {\n   return if (this in Short.MIN_VALUE.toInt()..Short.MAX_VALUE.toInt()) this.toShort() else null\n}\n\ninternal fun Long.toShortExactOrNull(): Short? {\n   return if (this in Short.MIN_VALUE.toLong()..Short.MAX_VALUE.toLong()) this.toShort() else null\n}\n\ninternal fun Double.toShortExactOrNull(): Short? {\n   return if (this in Short.MIN_VALUE.toDouble()..Short.MAX_VALUE.toDouble()) this.toInt().toShort() else null\n}\n\ninternal fun Float.toShortExactOrNull(): Short? {\n   return if (this in Short.MIN_VALUE.toFloat()..Short.MAX_VALUE.toFloat()) this.toInt().toShort() else null\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Int.until(to: Byte): IntRange {\n   return this .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Long.until(to: Byte): LongRange {\n   return this .. (to.toLong() - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Byte.until(to: Byte): IntRange {\n   return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Short.until(to: Byte): IntRange {\n   return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Char.until(to: Char): CharRange {\n   if (to <= '\\u0000') return CharRange.EMPTY\n   return this .. (to - 1).toChar()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Int.until(to: Int): IntRange {\n   if (to <= Int.MIN_VALUE) return IntRange.EMPTY\n   return this .. (to - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Long.until(to: Int): LongRange {\n   return this .. (to.toLong() - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Byte.until(to: Int): IntRange {\n   if (to <= Int.MIN_VALUE) return IntRange.EMPTY\n   return this.toInt() .. (to - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Short.until(to: Int): IntRange {\n   if (to <= Int.MIN_VALUE) return IntRange.EMPTY\n   return this.toInt() .. (to - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Int.until(to: Long): LongRange {\n   if (to <= Long.MIN_VALUE) return LongRange.EMPTY\n   return this.toLong() .. (to - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Long.until(to: Long): LongRange {\n   if (to <= Long.MIN_VALUE) return LongRange.EMPTY\n   return this .. (to - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Byte.until(to: Long): LongRange {\n   if (to <= Long.MIN_VALUE) return LongRange.EMPTY\n   return this.toLong() .. (to - 1).toLong()\n}\n\n/**\n *

Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Short.until(to: Long): LongRange {\n   if (to <= Long.MIN_VALUE) return LongRange.EMPTY\n   return this.toLong() .. (to - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Int.until(to: Short): IntRange {\n   return this .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Returns
 a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Long.until(to: Short): LongRange {\n   return this .. (to.toLong() - 1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Byte.until(to: Short): IntRange {\n   return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Short.until(to: Short): IntRange {\n   return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value
 if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeastComparable\n */\npublic fun <T : Comparable<T>> T.coerceAtLeast(minimumValue: T): T {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Byte.coerceAtLeast(minimumValue: Byte): Byte {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Short.coerceAtLeast(minimumValue: Short):
 Short {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Int.coerceAtLeast(minimumValue: Int): Int {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Long.coerceAtLeast(minimumValue: Long): Long {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue]
 or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Float.coerceAtLeast(minimumValue: Float): Float {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeast\n */\npublic fun Double.coerceAtLeast(minimumValue: Double): Double {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMostComparable\n */\npublic fun <T : Comparable<T>> T.coerceAtMost(maximumValue: T): T {\n   return if (this > maximumValue)
 maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun

Byte.coerceAtMost(maximumValue: Byte): Byte {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Short.coerceAtMost(maximumValue: Short): Short {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n

 * \n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Int.coerceAtMost(maximumValue: Int): Int {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Long.coerceAtMost(maximumValue: Long): Long {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Float.coerceAtMost(maximumValue: Float): Float {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is

 not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Double.coerceAtMost(maximumValue: Double): Double {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceInComparable\n */\npublic fun <T : Comparable<T>> T.coerceIn(minimumValue: T?, maximumValue: T?): T {\n   if (minimumValue !== null && maximumValue !== null) {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n

        if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   }\n   else {\n   if (minimumValue !== null && this < minimumValue) return minimumValue\n   if (maximumValue !== null && this > maximumValue) return maximumValue\n   }\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Byte.coerceIn(minimumValue: Byte, maximumValue: Byte): Byte {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n

    return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Short.coerceIn(minimumValue: Short, maximumValue: Short): Short {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n

* \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Int.coerceIn(minimumValue: Int, maximumValue: Int): Int {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Long.coerceIn(minimumValue: Long, maximumValue: Long): Long {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Float.coerceIn(minimumValue: Float, maximumValue: Float): Float {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Double.coerceIn(minimumValue: Double, maximumValue: Double): Double {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n * @return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceInFloatingPointRange\n */\n@SinceKotlin(\"1.1\")\npublic fun <T : Comparable<T>> T.coerceIn(range: ClosedFloatingPointRange<T>): T {\n   if (range.isEmpty()) throw IllegalArgumentException(\"Cannot coerce value to an empty range: $range.\")\n   return when {\n   // this < start equiv to this <= start && !(this >= start)\n   range.lessThanOrEquals(this, range.start) && !range.lessThanOrEquals(range.start, this) -> range.start\n   // this > end equiv to this >= end && !(this <= end)\n   range.lessThanOrEquals(range.endInclusive, this) && !range.lessThanOrEquals(this, range.endInclusive) -> range.endInclusive\n   else -> this\n   }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n * @return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceInComparable\n */\npublic fun <T : Comparable<T>> T.coerceIn(range: ClosedRange<T>): T {\n   if (range is ClosedFloatingPointRange) {\n   return this.coerceIn<T>(range)\n   }\n   if (range.isEmpty()) throw IllegalArgumentException(\"Cannot coerce value to an empty range: $range.\")\n   return when {\n   this < range.start -> range.start\n   this > range.endInclusive -> range.endInclusive\n   else -> this\n   }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n * @return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Int.coerceIn(range: ClosedRange<Int>): Int {\n   if (range is ClosedFloatingPointRange) {\n   return this.coerceIn<Int>(range)\n   }\n   if (range.isEmpty()) throw IllegalArgumentException(\"Cannot coerce value to

an empty range: $range.\")\n   return when {\n   this < range.start -> range.start\n   this > range.endInclusive -> range.endInclusive\n   else -> this\n   }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n * @return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Long.coerceIn(range: ClosedRange<Long>): Long {\n   if (range is ClosedFloatingPointRange) {\n   return this.coerceIn<Long>(range)\n   }\n   if (range.isEmpty()) throw IllegalArgumentException(\"Cannot coerce value to an empty range: $range.\")\n   return when {\n   this < range.start -> range.start\n   this > range.endInclusive -> range.endInclusive\n   else -> this\n   }\n}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage

kotlin\n\nimport kotlin.experimental.*\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@JvmInline\npublic value class UByte @PublishedApi internal constructor(@PublishedApi internal val data: Byte) : Comparable<UByte> {\n\n   companion object {\n   /**\n   * A constant holding the minimum value an instance of UByte can have.\n   */\n   public const val MIN_VALUE: UByte = UByte(0)\n\n   /**\n   * A constant holding the maximum value an instance of UByte can have.\n   */\n   public const val MAX_VALUE: UByte = UByte(-1)\n\n   /**\n   * The number of bytes used to represent an instance of UByte in a binary form.\n   */\n   public const val SIZE_BYTES: Int = 1\n\n   /**\n   * The number of bits used to represent an instance of UByte in a binary form.\n   */\n   public const val SIZE_BITS: Int = 8\n   }\n\n   /**\n   * Compares this value with the

specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   @Suppress(\"OVERRIDE_BY_INLINE\")\n   public override inline operator fun compareTo(other: UByte): Int = this.toInt().compareTo(other.toInt())\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other: UShort): Int = this.toInt().compareTo(other.toInt())\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive

number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other: UInt): Int = this.toUInt().compareTo(other)\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other: ULong): Int = this.toULong().compareTo(other)\n\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UByte): UInt = this.toUInt().plus(other.toUInt())\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UShort): UInt = this.toUInt().plus(other.toUInt())\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public

inline operator fun plus(other: UInt): UInt = this.toUInt().plus(other)\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: ULong): ULong = this.toULong().plus(other)\n\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UByte): UInt = this.toUInt().minus(other.toUInt())\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UShort): UInt = this.toUInt().minus(other.toUInt())\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UInt): UInt = this.toUInt().minus(other)\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun

minus(other: ULong): ULong = this.toULong().minus(other)\n\n   /** Multiplies this value by
 the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UByte): UInt = this.toUInt().times(other.toUInt())\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UShort): UInt = this.toUInt().times(other.toUInt())\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UInt): UInt = this.toUInt().times(other)\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: ULong): ULong = this.toULong().times(other)\n\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UByte): UInt = this.toUInt().div(other.toUInt())\n   /** Divides this value by the other value, truncating the result to an integer
 that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UShort): UInt = this.toUInt().div(other.toUInt())\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UInt): UInt = this.toUInt().div(other)\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: ULong): ULong = this.toULong().div(other)\n\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UByte): UInt = this.toUInt().rem(other.toUInt())\n   /**\n   * Calculates the remainder of truncating division of this value by the other
 value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UShort): UInt = this.toUInt().rem(other.toUInt())\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UInt): UInt = this.toUInt().rem(other)\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: ULong): ULong = this.toULong().rem(other)\n\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are
 the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UByte): UInt = this.toUInt().floorDiv(other.toUInt())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UShort): UInt = this.toUInt().floorDiv(other.toUInt())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UInt): UInt = this.toUInt().floorDiv(other)\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n
     * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: ULong): ULong = this.toULong().floorDiv(other)\n\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UByte): UByte = this.toUInt().mod(other.toUInt()).toUByte()\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n
 * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UShort):

UShort = this.toUInt().mod(other.toUInt()).toUShort()\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UInt): UInt = this.toUInt().mod(other)\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: ULong): ULong = this.toULong().mod(other)\n\n   /**\n   * Returns this value incremented by one.\n   *\n   * @sample samples.misc.Builtins.inc\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun inc(): UByte = UByte(data.inc())\n\n   /**\n   * Returns this value decremented by one.\n   *\n   * @sample samples.misc.Builtins.dec\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun dec(): UByte = UByte(data.dec())\n\n   /** Creates a range from this value to the specified [other] value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rangeTo(other: UByte): UIntRange = UIntRange(this.toUInt(), other.toUInt())\n\n   /** Performs a bitwise AND operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun and(other: UByte): UByte = UByte(this.data and other.data)\n   /** Performs a bitwise OR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun or(other: UByte): UByte = UByte(this.data or other.data)\n   /** Performs a bitwise XOR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun xor(other: UByte): UByte = UByte(this.data xor other.data)\n   /** Inverts the bits in this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun inv(): UByte = UByte(data.inv())\n\n   /**\n   * Converts this [UByte] value to [Byte].\n   *\n   * If this value is less than or equals to [Byte.MAX_VALUE], the resulting `Byte` value represents\n   * the same numerical value as this `UByte`. Otherwise the result is negative.\n   *\n   * The resulting `Byte` value has the same binary representation as this `UByte` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toByte(): Byte = data\n   /**\n   * Converts this [UByte] value to [Short].\n   *\n   * The resulting `Short` value represents the same numerical value as this `UByte`.\n   *\n   * The least significant 8 bits of the resulting `Short` value are the same as the bits of this `UByte` value,\n   * whereas the most significant 8 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toShort(): Short = data.toShort() and 0xFF\n   /**\n   * Converts this [UByte] value to [Int].\n   *\n   * The resulting `Int` value represents the same numerical value as this `UByte`.\n   *\n   * The least significant 8 bits of the resulting `Int` value are the same as the bits of this `UByte` value,\n   * whereas the most significant 24 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toInt(): Int = data.toInt() and 0xFF\n   /**\n   * Converts this [UByte] value to [Long].\n   *\n   * The resulting `Long` value represents the same numerical value as this `UByte`.\n   *\n   * The least significant 8 bits of the resulting `Long` value are the same as the bits of this `UByte` value,\n   * whereas the most significant 56 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toLong(): Long = data.toLong() and 0xFF\n\n   /** Returns this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun toUByte(): UByte = this\n   /**\n   * Converts this [UByte] value to [UShort].\n   *\n   * The resulting `UShort` value represents the same numerical value as this `UByte`.\n   *\n   * The least significant 8 bits of the resulting `UShort` value are the same as the bits of this `UByte` value,\n   * whereas the most significant 8 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUShort(): UShort = UShort(data.toShort() and 0xFF)\n   /**\n   * Converts this [UByte] value to [UInt].\n   *\n   * The resulting `UInt` value represents the same numerical value as this `UByte`.\n   *\n   * The least significant 8 bits of the resulting `UInt` value are the same as the bits of this `UByte` value,\n   * whereas the most significant 24 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUInt(): UInt = UInt(data.toInt() and 0xFF)\n   /**\n   * Converts this [UByte] value to [ULong].\n   *\n   * The resulting `ULong` value represents the same numerical value as this `UByte`.\n   *\n   * The least significant 8 bits of the resulting `ULong` value are the same as the bits of this `UByte` value,\n   * whereas the most significant 56 bits are filled with zeros.\n   */\n

@kotlin.internal.InlineOnly\n   public inline fun toULong(): ULong = ULong(data.toLong() and 0xFF)\n\n   /**\n
 * Converts this [UByte] value to [Float].\n   *\n   * The resulting `Float` value represents the same numerical
value as this `UByte`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toFloat(): Float =
this.toInt().toFloat()\n   /**\n   * Converts this [UByte] value to [Double].\n   *\n   * The resulting `Double`
value represents the same numerical value as this `UByte`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline
fun toDouble(): Double = this.toInt().toDouble()\n\n   public
 override fun toString(): String = toInt().toString()\n\n}\n\n/**\n * Converts this [Byte] value to [UByte].\n *\n * If
this value is positive, the resulting `UByte` value represents the same numerical value as this `Byte`.\n *\n * The
resulting `UByte` value has the same binary representation as this `Byte` value.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\
npublic inline fun Byte.toUByte(): UByte = UByte(this)\n/**\n * Converts this [Short] value to [UByte].\n *\n * If
this value is positive and less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\n *
the same numerical value as this `Short`.\n *\n * The resulting `UByte` value is represented by the least significant 8
bits of this `Short` value.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\
npublic inline fun Short.toUByte(): UByte = UByte(this.toByte())\n/**\n * Converts this [Int]
 value to [UByte].\n *\n * If this value is positive and less than or equals to [UByte.MAX_VALUE], the resulting
`UByte` value represents\n * the same numerical value as this `Int`.\n *\n * The resulting `UByte` value is
represented by the least significant 8 bits of this `Int` value.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\
npublic inline fun Int.toUByte(): UByte = UByte(this.toByte())\n/**\n * Converts this [Long] value to [UByte].\n
*\n * If this value is positive and less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value
represents\n * the same numerical value as this `Long`.\n *\n * The resulting `UByte` value is represented by the
least significant 8 bits of this `Long` value.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\
npublic inline fun Long.toUByte(): UByte = UByte(this.toByte())\n","/*\n * Copyright 2010-2022 JetBrains s.r.o.
and
 Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage
kotlin\n\nimport kotlin.experimental.*\nimport
kotlin.jvm.*\n\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@JvmInline\npu
blic value class UInt @PublishedApi internal constructor(@PublishedApi internal val data: Int) :
Comparable<UInt> {\n\n   companion object {\n   /**\n   * A constant holding the minimum value an
instance of UInt can have.\n   */\n   public const val MIN_VALUE: UInt = UInt(0)\n\n   /**\n   * A
constant holding the maximum value an instance of UInt can have.\n   */\n   public const val MAX_VALUE:
UInt = UInt(-1)\n\n   /**\n   * The number of bytes used to represent an instance of UInt in a binary form.\n
    */\n   public const val SIZE_BYTES: Int = 4\n\n
  /**\n   * The number of bits used to represent an instance of UInt in a binary form.\n   */\n   public const
val SIZE_BITS: Int = 32\n   }\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns
zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive
number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun
compareTo(other: UByte): Int = this.compareTo(other.toUInt())\n\n   /**\n   * Compares this value with the
specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if
it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n
public inline operator fun compareTo(other: UShort): Int = this.compareTo(other.toUInt())\n\n   /**\n   *
Compares this value with the specified value for order.\n
     * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or
a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n

@Suppress(\"OVERRIDE_BY_INLINE\")\n   public override inline operator fun compareTo(other: UInt): Int = uintCompare(this.data, other.data)\n\n   /**\n   * Compares this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other: ULong): Int = this.toULong().compareTo(other)\n\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UByte): UInt = this.plus(other.toUInt())\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UShort): UInt = this.plus(other.toUInt())\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UInt): UInt = UInt(this.data.plus(other.data))\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: ULong): ULong = this.toULong().plus(other)\n\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UByte): UInt = this.minus(other.toUInt())\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UShort): UInt = this.minus(other.toUInt())\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UInt): UInt = UInt(this.data.minus(other.data))\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: ULong): ULong = this.toULong().minus(other)\n\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UByte): UInt = this.times(other.toUInt())\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UShort): UInt = this.times(other.toUInt())\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UInt): UInt = UInt(this.data.times(other.data))\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: ULong): ULong = this.toULong().times(other)\n\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UByte): UInt = this.div(other.toUInt())\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UShort): UInt = this.div(other.toUInt())\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UInt): UInt = uintDivide(this, other)\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: ULong): ULong = this.toULong().div(other)\n\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UByte): UInt = this.rem(other.toUInt())\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UShort): UInt = this.rem(other.toUInt())\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UInt): UInt = uintRemainder(this, other)\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: ULong): ULong = this.toULong().rem(other)\n\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UByte): UInt = this.floorDiv(other.toUInt())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UShort): UInt =

this.floorDiv(other.toUInt())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UInt): UInt = div(other)\n   /**\n   * Divides this value
by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: ULong): ULong = this.toULong().floorDiv(other)\n\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UByte): UByte = this.mod(other.toUInt()).toUByte()\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n
     */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UShort): UShort = this.mod(other.toUInt()).toUShort()\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UInt): UInt = rem(other)\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: ULong): ULong = this.toULong().mod(other)\n\n   /**\n   * Returns this value incremented by one.\n   *\n   * @sample samples.misc.Builtins.inc\n   */\n
    @kotlin.internal.InlineOnly\n   public inline operator fun inc(): UInt = UInt(data.inc())\n\n   /**\n   * Returns this value decremented by one.\n   *\n   * @sample samples.misc.Builtins.dec\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun dec(): UInt = UInt(data.dec())\n\n   /** Creates a range from this value to the specified [other] value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rangeTo(other: UInt): UIntRange = UIntRange(this, other)\n\n   /**\n   * Shifts this value left by the [bitCount] number of bits.\n   *\n   * Note that only the five lowest-order bits of the [bitCount] are used as the shift distance.\n   * The shift distance actually used is therefore always in the range `0..31`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline infix fun shl(bitCount: Int): UInt = UInt(data shl bitCount)\n\n   /**\n   * Shifts this value right by the [bitCount] number of bits, filling the leftmost bits
with zeros.\n   *\n   * Note that only the five lowest-order bits of the [bitCount] are used as the shift distance.\n   * The shift distance actually used is therefore always in the range `0..31`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline infix fun shr(bitCount: Int): UInt = UInt(data ushr bitCount)\n\n   /** Performs a bitwise AND operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun and(other: UInt): UInt = UInt(this.data and other.data)\n   /** Performs a bitwise OR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun or(other: UInt): UInt = UInt(this.data or other.data)\n   /** Performs a bitwise XOR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun xor(other: UInt): UInt = UInt(this.data xor other.data)\n   /** Inverts the bits in this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun inv(): UInt
= UInt(data.inv())\n\n   /**\n   * Converts this [UInt] value to [Byte].\n   *\n   * If this value is less than or equals to [Byte.MAX_VALUE], the resulting `Byte` value represents\n   * the same numerical value as this `UInt`.\n   *\n   * The resulting `Byte` value is represented by the least significant 8 bits of this `UInt` value.\n   * Note that the resulting `Byte` value may be negative.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toByte(): Byte = data.toByte()\n   /**\n   * Converts this [UInt] value to [Short].\n   *\n   * If this value is less than or equals to [Short.MAX_VALUE], the resulting `Short` value represents\n   * the same numerical value as this `UInt`.\n   *\n   * The resulting `Short` value is represented by the least significant 16 bits of this `UInt` value.\n   * Note that the resulting `Short` value may be negative.\n   */\n   @kotlin.internal.InlineOnly\n   public

inline fun toShort(): Short = data.toShort()\n   /**\n   * Converts this [UInt] value to [Int].\n   *\n   * If this value is less than or equals to [Int.MAX_VALUE], the resulting `Int` value represents\n   * the same numerical value as this `UInt`. Otherwise the result is negative.\n   *\n   * The resulting `Int` value has the same binary representation as this `UInt` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toInt(): Int = data\n   /**\n   * Converts this [UInt] value to [Long].\n   *\n   * The resulting `Long` value represents the same numerical value as this `UInt`.\n   *\n   * The least significant 32 bits of the resulting `Long` value are the same as the bits of this `UInt` value,\n   * whereas the most significant 32 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toLong(): Long = data.toLong() and 0xFFFF_FFFF\n\n   /**\n   * Converts this [UInt] value to [UByte].\n   *\n   * If this value is less than or equals to
 [UByte.MAX_VALUE], the resulting `UByte` value represents\n   * the same numerical value as this `UInt`.\n   *\n   * The resulting `UByte` value is represented by the least significant 8 bits of this `UInt` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUByte(): UByte = data.toUByte()\n   /**\n   * Converts this [UInt] value to [UShort].\n   *\n   * If this value is less than or equals to [UShort.MAX_VALUE], the resulting `UShort` value represents\n   * the same numerical value as this `UInt`.\n   *\n   * The resulting `UShort` value is represented by the least significant 16 bits of this `UInt` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUShort(): UShort = data.toUShort()\n   /** Returns this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun toUInt(): UInt = this\n   /**\n   * Converts this [UInt] value to [ULong].\n   *\n   * The resulting `ULong` value represents the same numerical value
 as this `UInt`.\n   *\n   * The least significant 32 bits of the resulting `ULong` value are the same as the bits of this `UInt` value,\n   * whereas the most significant 32 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toULong(): ULong = ULong(data.toLong() and 0xFFFF_FFFF)\n\n   /**\n   * Converts this [UInt] value to [Float].\n   *\n   * The resulting value is the closest `Float` to this `UInt` value.\n   * In case when this `UInt` value is exactly between two `Float`s,\n   * the one with zero at least significant bit of mantissa is selected.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toFloat(): Float = this.toDouble().toFloat()\n   /**\n   * Converts this [UInt] value to [Double].\n   *\n   * The resulting `Double` value represents the same numerical value as this `UInt`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toDouble(): Double = uintToDouble(data)\n\n   public
 override fun toString(): String = toLong().toString()\n\n}\n\n/**\n * Converts this [Byte] value to [UInt].\n *\n * If this value is positive, the resulting `UInt` value represents the same numerical value as this `Byte`.\n *\n * The least significant 8 bits of the resulting `UInt` value are the same as the bits of this `Byte` value,\n * whereas the most significant 24 bits are filled with the sign bit of this value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.toUInt(): UInt = UInt(this.toInt())\n/**\n * Converts this [Short] value to [UInt].\n *\n * If this value is positive, the resulting `UInt` value represents the same numerical value as this `Short`.\n *\n * The least significant 16 bits of the resulting `UInt` value are the same as the bits of this `Short` value,\n * whereas the most significant 16 bits are filled with the sign bit of this value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic
 inline fun Short.toUInt(): UInt = UInt(this.toInt())\n/**\n * Converts this [Int] value to [UInt].\n *\n * If this value is positive, the resulting `UInt` value represents the same numerical value as this `Int`.\n *\n * The resulting `UInt` value has the same binary representation as this `Int` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Int.toUInt(): UInt = UInt(this)\n/**\n * Converts this [Long] value to [UInt].\n *\n * If this value is positive and less than or equals to [UInt.MAX_VALUE], the resulting `UInt` value represents\n * the same numerical value as this `Long`.\n *\n * The resulting `UInt` value is represented by the least significant 32 bits of this `Long` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\

npublic inline fun Long.toUInt(): UInt =
 UInt(this.toInt())\n\n/**\n * Converts this [Float] value to [UInt].\n *\n * The fractional part, if any, is rounded
down towards zero.\n * Returns zero if this `Float` value is negative or `NaN`, [UInt.MAX_VALUE] if it's bigger
than `UInt.MAX_VALUE`.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\
npublic inline fun Float.toUInt(): UInt = doubleToUInt(this.toDouble())\n/**\n * Converts this [Double] value to
[UInt].\n *\n * The fractional part, if any, is rounded down towards zero.\n * Returns zero if this `Double` value is
negative or `NaN`, [UInt.MAX_VALUE] if it's bigger than `UInt.MAX_VALUE`.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\
npublic inline fun Double.toUInt(): UInt = doubleToUInt(this)\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that
 can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage
kotlin\n\nimport kotlin.experimental.*\nimport
kotlin.jvm.*\n\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@JvmInline\npu
blic value class UShort @PublishedApi internal constructor(@PublishedApi internal val data: Short) :
Comparable<UShort> {\n\n   companion object {\n   /**\n   * A constant holding the minimum value an
instance of UShort can have.\n   */\n   public const val MIN_VALUE: UShort = UShort(0)\n\n   /**\n
* A constant holding the maximum value an instance of UShort can have.\n   */\n   public const val
MAX_VALUE: UShort = UShort(-1)\n\n   /**\n   * The number of bytes used to represent an instance of
UShort in a binary form.\n   */\n   public const val SIZE_BYTES: Int = 2\n\n   /**\n   * The number of
bits used to represent an instance of UShort in a binary form.\n
         */\n   public const val SIZE_BITS: Int = 16\n   }\n\n   /**\n   * Compares this value with the specified
value for order.\n   * Returns zero if this value is equal to the specified other value, a negative number if it's less
than other,\n   * or a positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public
inline operator fun compareTo(other: UByte): Int = this.toInt().compareTo(other.toInt())\n\n   /**\n   * Compares
this value with the specified value for order.\n   * Returns zero if this value is equal to the specified other value, a
negative number if it's less than other,\n   * or a positive number if it's greater than other.\n   */\n
@kotlin.internal.InlineOnly\n   @Suppress(\"OVERRIDE_BY_INLINE\")\n   public override inline operator fun
compareTo(other: UShort): Int = this.toInt().compareTo(other.toInt())\n\n   /**\n   * Compares this value with the
specified value for order.\n   * Returns zero if
 this value is equal to the specified other value, a negative number if it's less than other,\n   * or a positive number
if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun compareTo(other:
UInt): Int = this.toUInt().compareTo(other)\n\n   /**\n   * Compares this value with the specified value for order.\n
   * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n   * or a
positive number if it's greater than other.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun
compareTo(other: ULong): Int = this.toULong().compareTo(other)\n\n   /** Adds the other value to this value. */\n
 @kotlin.internal.InlineOnly\n   public inline operator fun plus(other: UByte): UInt =
this.toUInt().plus(other.toUInt())\n   /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n
public inline operator fun plus(other: UShort): UInt = this.toUInt().plus(other.toUInt())\n
    /** Adds the other value to this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun plus(other:
UInt): UInt = this.toUInt().plus(other)\n   /** Adds the other value to this value. */\n
@kotlin.internal.InlineOnly\n   public inline operator fun plus(other: ULong): ULong =
this.toULong().plus(other)\n\n   /** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n
public inline operator fun minus(other: UByte): UInt = this.toUInt().minus(other.toUInt())\n   /** Subtracts the
other value from this value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UShort):
UInt = this.toUInt().minus(other.toUInt())\n   /** Subtracts the other value from this value. */\n
@kotlin.internal.InlineOnly\n   public inline operator fun minus(other: UInt): UInt = this.toUInt().minus(other)\n
/** Subtracts the other value from this value. */\n   @kotlin.internal.InlineOnly\n   public

inline operator fun minus(other: ULong): ULong = this.toULong().minus(other)\n\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UByte): UInt = this.toUInt().times(other.toUInt())\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UShort): UInt = this.toUInt().times(other.toUInt())\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: UInt): UInt = this.toUInt().times(other)\n   /** Multiplies this value by the other value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun times(other: ULong): ULong = this.toULong().times(other)\n\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UByte): UInt =
this.toUInt().div(other.toUInt())\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UShort): UInt = this.toUInt().div(other.toUInt())\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UInt): UInt = this.toUInt().div(other)\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: ULong): ULong = this.toULong().div(other)\n\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UByte): UInt = this.toUInt().rem(other.toUInt())\n
/**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UShort): UInt = this.toUInt().rem(other.toUInt())\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UInt): UInt = this.toUInt().rem(other)\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: ULong): ULong = this.toULong().rem(other)\n\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative
infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UByte): UInt = this.toUInt().floorDiv(other.toUInt())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UShort): UInt = this.toUInt().floorDiv(other.toUInt())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UInt): UInt = this.toUInt().floorDiv(other)\n   /**\n
* Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: ULong): ULong = this.toULong().floorDiv(other)\n\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UByte): UByte = this.toUInt().mod(other.toUInt()).toUByte()\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating
division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UShort): UShort = this.toUInt().mod(other.toUInt()).toUShort()\n   /**\n   * Calculates the remainder of flooring division of this

value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UInt): UInt = this.toUInt().mod(other)\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: ULong): ULong = this.toULong().mod(other)\n\n   /**\n   * Returns this value incremented by one.\n

     *\n   * @sample samples.misc.Builtins.inc\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun inc(): UShort = UShort(data.inc())\n\n   /**\n   * Returns this value decremented by one.\n   *\n   * @sample samples.misc.Builtins.dec\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun dec(): UShort = UShort(data.dec())\n\n   /** Creates a range from this value to the specified [other] value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rangeTo(other: UShort): UIntRange = UIntRange(this.toUInt(), other.toUInt())\n\n   /** Performs a bitwise AND operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun and(other: UShort): UShort = UShort(this.data and other.data)\n   /** Performs a bitwise OR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun or(other: UShort): UShort = UShort(this.data or other.data)\n   /** Performs a

 bitwise XOR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun xor(other: UShort): UShort = UShort(this.data xor other.data)\n   /** Inverts the bits in this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun inv(): UShort = UShort(data.inv())\n\n   /**\n   * Converts this [UShort] value to [Byte].\n   *\n   * If this value is less than or equals to [Byte.MAX_VALUE], the resulting `Byte` value represents\n   * the same numerical value as this `UShort`.\n   *\n   * The resulting `Byte` value is represented by the least significant 8 bits of this `UShort` value.\n   * Note that the resulting `Byte` value may be negative.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toByte(): Byte = data.toByte()\n   /**\n   * Converts this [UShort] value to [Short].\n   *\n   * If this value is less than or equals to [Short.MAX_VALUE], the resulting `Short` value represents\n   * the same numerical

 value as this `UShort`. Otherwise the result is negative.\n   *\n   * The resulting `Short` value has the same binary representation as this `UShort` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toShort(): Short = data\n   /**\n   * Converts this [UShort] value to [Int].\n   *\n   * The resulting `Int` value represents the same numerical value as this `UShort`.\n   *\n   * The least significant 16 bits of the resulting `Int` value are the same as the bits of this `UShort` value,\n   * whereas the most significant 16 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toInt(): Int = data.toInt() and 0xFFFF\n   /**\n   * Converts this [UShort] value to [Long].\n   *\n   * The resulting `Long` value represents the same numerical value as this `UShort`.\n   *\n   * The least significant 16 bits of the resulting `Long` value are the same as the bits of this `UShort` value,\n   * whereas the most

 significant 48 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toLong(): Long = data.toLong() and 0xFFFF\n\n   /**\n   * Converts this [UShort] value to [UByte].\n   *\n   * If this value is less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\n   * the same numerical value as this `UShort`.\n   *\n   * The resulting `UByte` value is represented by the least significant 8 bits of this `UShort` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUByte(): UByte = data.toUByte()\n   /** Returns this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun toUShort(): UShort = this\n   /**\n   * Converts this [UShort] value to [UInt].\n   *\n   * The resulting `UInt` value represents the same numerical value as this `UShort`.\n   *\n   * The least significant 16 bits of the resulting `UInt` value are the same as the bits of this `UShort` value,\n   * whereas

 the most significant 16 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUInt(): UInt = UInt(data.toInt() and 0xFFFF)\n   /**\n   * Converts this [UShort] value to [ULong].\n   *\n   * The resulting `ULong` value represents the same numerical value as this `UShort`.\n   *\n   * The least significant 16 bits of the resulting `ULong` value are the same as the bits of this `UShort` value,\n   * whereas the most significant 48 bits are filled with zeros.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toULong():

ULong = ULong(data.toLong() and 0xFFFF)\n\n   /**\n   * Converts this [UShort] value to [Float].\n   *\n   * The resulting `Float` value represents the same numerical value as this `UShort`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toFloat(): Float = this.toInt().toFloat()\n   /**\n   * Converts this [UShort] value to [Double].\n   *\n   * The resulting `Double` value represents the same numerical value as this `UShort`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toDouble(): Double = this.toInt().toDouble()\n\n   public override fun toString(): String = toInt().toString()\n\n}\n\n/**\n * Converts this [Byte] value to [UShort].\n *\n * If this value is positive, the resulting `UShort` value represents the same numerical value as this `Byte`.\n *\n * The least significant 8 bits of the resulting `UShort` value are the same as the bits of this `Byte` value,\n * whereas the most significant 8 bits are filled with the sign bit of this value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.toUShort(): UShort = UShort(this.toShort())\n/**\n * Converts this [Short] value to [UShort].\n *\n * If this value is positive, the resulting `UShort` value represents the same numerical value as this `Short`.\n *\n * The resulting `UShort` value has the same binary representation as this `Short` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.toUShort(): UShort = UShort(this)\n/**\n * Converts this [Int] value to [UShort].\n *\n * If this value is positive and less than or equals to [UShort.MAX_VALUE], the resulting `UShort` value represents\n * the same numerical value as this `Int`.\n *\n * The resulting `UShort` value is represented by the least significant 16 bits of this `Int` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Int.toUShort(): UShort = UShort(this.toShort())\n/**\n * Converts this [Long] value to [UShort].\n *\n * If this value is positive and less than or equals to [UShort.MAX_VALUE], the resulting `UShort` value represents\n * the same numerical value as this `Long`.\n *\n * The resulting `UShort` value is represented by the least significant 16 bits of this `Long` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Long.toUShort(): UShort = UShort(this.toShort())\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.ranges\n\n/**\n * A range of values of type `Char`.\n */\npublic class CharRange(start: Char, endInclusive: Char) : CharProgression(start, endInclusive, 1), ClosedRange<Char> {\n   override val start: Char get() = first\n   override val endInclusive: Char get() = last\n\n   override fun contains(value: Char): Boolean = first <= value && value <= last\n\n   /** \n   * Checks whether the range is empty.\n   *\n   * The range is empty if its start value is greater than the end value.\n   */\n   override fun isEmpty(): Boolean = first > last\n\n   override fun equals(other: Any?): Boolean =\n   other is CharRange && (isEmpty() && other.isEmpty() ||\n   first == other.first && last == other.last)\n\n   override fun hashCode(): Int =\n   if (isEmpty()) -1 else (31 * first.code + last.code)\n\n   override fun toString(): String = \"$first..$last\"\n\n   companion object {\n   /** An empty range of values of type Char. */\n   public val EMPTY: CharRange = CharRange(1.toChar(), 0.toChar())\n   }\n}\n\n/**\n * A range of values of type `Int`.\n */\npublic class IntRange(start: Int, endInclusive: Int) : IntProgression(start, endInclusive, 1), ClosedRange<Int> {\n   override val start: Int get() = first\n   override val endInclusive: Int get() = last\n\n   override fun contains(value: Int): Boolean = first <= value && value <= last\n\n   /** \n   * Checks whether the range is empty.\n   *\n   * The range is empty if its start value is greater than the end value.\n   */\n   override fun isEmpty(): Boolean = first > last\n\n   override fun equals(other: Any?): Boolean =\n   other is IntRange && (isEmpty() && other.isEmpty() ||\n   first == other.first && last == other.last)\n\n   override fun hashCode(): Int =\n   if (isEmpty()) -1 else (31 * first + last)\n\n   override fun toString(): String = \"$first..$last\"\n\n   companion object {\n   /** An empty range of values of type Int. */\n   public val

EMPTY: IntRange = IntRange(1, 0)\n   }\n}\n\n/**\n * A range of values of type `Long`.\n */\npublic class LongRange(start: Long, endInclusive: Long) : LongProgression(start, endInclusive, 1), ClosedRange<Long> {\n   override val start: Long get() = first\n   override val endInclusive: Long get() = last\n\n   override fun contains(value: Long): Boolean = first <= value && value <= last\n\n   /** \n   * Checks whether the range is empty.\n   *\n   * The range is empty if its start value is greater than
 the end value.\n   */\n   override fun isEmpty(): Boolean = first > last\n\n   override fun equals(other: Any?): Boolean =\n   other is LongRange && (isEmpty() && other.isEmpty() ||\n   first == other.first && last == other.last)\n\n   override fun hashCode(): Int =\n   if (isEmpty()) -1 else (31 * (first xor (first ushr 32)) + (last xor (last ushr 32))).toInt()\n\n   override fun toString(): String = \"$first..$last\"\n\n   companion object {\n   /** An empty range of values of type Long. */\n   public val EMPTY: LongRange = LongRange(1, 0)\n   }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CollectionsKt\")\n@file:OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n\npackage kotlin.collections\n\nimport kotlin.contracts.*\nimport
 kotlin.random.Random\n\ninternal object EmptyIterator : ListIterator<Nothing> {\n   override fun hasNext(): Boolean = false\n   override fun hasPrevious(): Boolean = false\n   override fun nextIndex(): Int = 0\n   override fun previousIndex(): Int = -1\n   override fun next(): Nothing = throw NoSuchElementException()\n   override fun previous(): Nothing = throw NoSuchElementException()\n}\n\ninternal object EmptyList : List<Nothing>, Serializable, RandomAccess {\n   private const val serialVersionUID: Long = -7390468764508069838L\n\n   override fun equals(other: Any?): Boolean = other is List<*> && other.isEmpty()\n   override fun hashCode(): Int = 1\n   override fun toString(): String = \"[]\"\n\n   override val size: Int get() = 0\n   override fun isEmpty(): Boolean = true\n   override fun contains(element: Nothing): Boolean = false\n   override fun containsAll(elements: Collection<Nothing>): Boolean = elements.isEmpty()\n\n   override fun get(index:
 Int): Nothing = throw IndexOutOfBoundsException(\"Empty list doesn't contain element at index $index.\")\n   override fun indexOf(element: Nothing): Int = -1\n   override fun lastIndexOf(element: Nothing): Int = -1\n\n   override fun iterator(): Iterator<Nothing> = EmptyIterator\n   override fun listIterator(): ListIterator<Nothing> = EmptyIterator\n   override fun listIterator(index: Int): ListIterator<Nothing> {\n   if (index != 0) throw IndexOutOfBoundsException(\"Index: $index\")\n   return EmptyIterator\n   }\n\n   override fun subList(fromIndex: Int, toIndex: Int): List<Nothing> {\n   if (fromIndex == 0 && toIndex == 0) return this\n   throw IndexOutOfBoundsException(\"fromIndex: $fromIndex, toIndex: $toIndex\")\n   }\n\n   private fun readResolve(): Any = EmptyList\n}\n\ninternal fun <T> Array<out T>.asCollection(): Collection<T> = ArrayAsCollection(this, isVarargs = false)\n\nprivate class ArrayAsCollection<T>(val values: Array<out T>, val isVarargs:
 Boolean) : Collection<T> {\n   override val size: Int get() = values.size\n   override fun isEmpty(): Boolean = values.isEmpty()\n   override fun contains(element: T): Boolean = values.contains(element)\n   override fun containsAll(elements: Collection<T>): Boolean = elements.all { contains(it) }\n   override fun iterator(): Iterator<T> = values.iterator()\n   // override hidden toArray implementation to prevent copying of values array\n   public fun toArray(): Array<out Any?> = values.copyToArrayOfAny(isVarargs)\n}\n\n/**\n * Returns an empty read-only list. The returned list is serializable (JVM).\n * @sample samples.collections.Collections.Lists.emptyReadOnlyList\n */\npublic fun <T> emptyList(): List<T> = EmptyList\n\n/**\n * Returns a new read-only list of given elements. The returned list is serializable (JVM).\n * @sample samples.collections.Collections.Lists.readOnlyList\n */\npublic fun <T> listOf(vararg elements: T): List<T> = if (elements.size > 0) elements.asList()
 else emptyList()\n\n/**\n * Returns an empty read-only list. The returned list is serializable (JVM).\n * @sample samples.collections.Collections.Lists.emptyReadOnlyList\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> listOf(): List<T> = emptyList()\n\n/**\n * Returns an empty new [MutableList].\n * @sample samples.collections.Collections.Lists.emptyMutableList\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> mutableListOf(): MutableList<T> =

ArrayList()\n\n/**\n * Returns an empty new [ArrayList].\n * @sample
samples.collections.Collections.Lists.emptyArrayList\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> arrayListOf(): ArrayList<T> =
ArrayList()\n\n/**\n * Returns a new [MutableList] with the given elements.\n * @sample
samples.collections.Collections.Lists.mutableList\n */\npublic fun <T> mutableListOf(vararg elements: T):
MutableList<T> =\n   if (elements.size == 0) ArrayList() else ArrayList(ArrayAsCollection(elements,
 isVarargs = true))\n\n/**\n * Returns a new [ArrayList] with the given elements.\n * @sample
samples.collections.Collections.Lists.arrayList\n */\npublic fun <T> arrayListOf(vararg elements: T): ArrayList<T>
=\n   if (elements.size == 0) ArrayList() else ArrayList(ArrayAsCollection(elements, isVarargs = true))\n\n/**\n *
Returns a new read-only list either of single given element, if it is not null, or empty list if the element is null. The
returned list is serializable (JVM).\n * @sample samples.collections.Collections.Lists.listOfNotNull\n */\npublic fun
<T : Any> listOfNotNull(element: T?): List<T> = if (element != null) listOf(element) else emptyList()\n\n/**\n *
Returns a new read-only list only of those given elements, that are not null. The returned list is serializable
(JVM).\n * @sample samples.collections.Collections.Lists.listOfNotNull\n */\npublic fun <T : Any>
listOfNotNull(vararg elements: T?): List<T> = elements.filterNotNull()\n\n/**\n * Creates
 a new read-only list with the specified [size], where each element is calculated by calling the specified\n * [init]
function.\n *\n * The function [init] is called for each list element sequentially starting from the first one.\n * It
should return the value for a list element given its index.\n *\n * @sample
samples.collections.Collections.Lists.readOnlyListFromInitializer\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> List(size: Int, init: (index: Int) -> T):
List<T> = MutableList(size, init)\n\n/**\n * Creates a new mutable list with the specified [size], where each element
is calculated by calling the specified\n * [init] function.\n *\n * The function [init] is called for each list element
sequentially starting from the first one.\n * It should return the value for a list element given its index.\n *\n *
@sample samples.collections.Collections.Lists.mutableListFromInitializer\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline
 fun <T> MutableList(size: Int, init: (index: Int) -> T): MutableList<T> {\n   val list = ArrayList<T>(size)\n
repeat(size) { index -> list.add(init(index)) }\n   return list\n}\n\n/**\n * Builds a new read-only [List] by
populating a [MutableList] using the given [builderAction]\n * and returning a read-only list with the same
elements.\n *\n * The list passed as a receiver to the [builderAction] is valid only inside that function.\n * Using it
outside of the function produces an unspecified behavior.\n *\n * The returned list is serializable (JVM).\n *\n *
@sample samples.collections.Builders.Lists.buildListSample\n
*/\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun <E> buildList(@BuilderInference builderAction: MutableList<E>.() -> Unit): List<E> {\n   contract {
callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n   return
buildListInternal(builderAction)\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninter
nal
 expect inline fun <E> buildListInternal(builderAction: MutableList<E>.() -> Unit): List<E>\n\n/**\n * Builds a
new read-only [List] by populating a [MutableList] using the given [builderAction]\n * and returning a read-only list
with the same elements.\n *\n * The list passed as a receiver to the [builderAction] is valid only inside that
function.\n * Using it outside of the function produces an unspecified behavior.\n *\n * The returned list is
serializable (JVM).\n *\n * [capacity] is used to hint the expected number of elements added in the
[builderAction].\n *\n * @throws IllegalArgumentException if the given [capacity] is negative.\n *\n * @sample
samples.collections.Builders.Lists.buildListSampleWithCapacity\n
*/\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun <E> buildList(capacity: Int, @BuilderInference builderAction: MutableList<E>.() -> Unit): List<E> {\n
  contract
 { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n   return buildListInternal(capacity,
builderAction)\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal expect inline

fun <E> buildListInternal(capacity: Int, builderAction: MutableList<E>.() -> Unit): List<E>\n\n/**\n * Returns an [IntRange] of the valid indices for this collection.\n * @sample samples.collections.Collections.Collections.indicesOfCollection\n */\npublic val Collection<*>.indices: IntRange\n get() = 0..size - 1\n\n/**\n * Returns the index of the last item in the list or -1 if the list is empty.\n *\n * @sample samples.collections.Collections.Lists.lastIndexOfList\n */\npublic val <T> List<T>.lastIndex: Int\n   get() = this.size - 1\n\n/**\n * Returns `true` if the collection is not empty.\n * @sample samples.collections.Collections.Collections.collectionIsNotEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>.isNotEmpty(): Boolean = !isEmpty()\n\n/**\n * Returns `true` if this nullable collection is either null or empty.\n * @sample samples.collections.Collections.Collections.collectionIsNullOrEmpty\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>?.isNullOrEmpty(): Boolean {\n   contract {\n   returns(false) implies (this@isNullOrEmpty != null)\n   }\n\n   return this == null || this.isEmpty()\n}\n\n/**\n * Returns this Collection if it's not `null` and the empty list otherwise.\n * @sample samples.collections.Collections.Collections.collectionOrEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>?.orEmpty(): Collection<T> = this ?: emptyList()\n\n/**\n * Returns this List if it's not `null` and the empty list otherwise.\n * @sample samples.collections.Collections.Lists.listOrEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>?.orEmpty(): List<T> = this ?: emptyList()\n\n/**\n * Returns this collection if it's not empty\n * or the result of calling [defaultValue] function if the collection is empty.\n *\n * @sample samples.collections.Collections.Collections.collectionIfEmpty\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <C, R> C.ifEmpty(defaultValue: () -> R): R where C : Collection<*>, C : R =\n   if (isEmpty()) defaultValue() else this\n\n\n/**\n * Checks if all elements in the specified collection are contained in this collection.\n *\n * Allows to overcome type-safety restriction of `containsAll` that requires to pass a collection of type `Collection<E>`.\n * @sample samples.collections.Collections.Collections.collectionContainsAll\n */\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\") // false warning, extension takes precedence in some cases\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes T> Collection<T>.containsAll(elements: Collection<T>): Boolean = this.containsAll(elements)\n\n\n/**\n * Returns a new list with the elements of this list randomly shuffled\n * using the specified [random] instance as the source of randomness.\n */\n@SinceKotlin(\"1.3\")\npublic fun <T> Iterable<T>.shuffled(random: Random): List<T> = toMutableList().apply { shuffle(random) }\n\n\ninternal fun <T> List<T>.optimizeReadOnlyList() = when (size) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this\n}\n\n/**\n * Searches this list or its range for the provided [element] using the binary search algorithm.\n * The list is expected to be sorted into ascending order according to the Comparable natural ordering of its elements,\n * otherwise the result is undefined.\n *\n * If the list contains multiple elements equal to the specified [element], there is no guarantee which one will be found.\n *\n * `null` value is considered to be less than any non-null value.\n *\n * @return the index of the element, if it is contained in the list within the specified range;\n * otherwise, the inverted insertion point `(-insertion point - 1)`.\n * The insertion point is defined as the index at which the element should be inserted,\n * so that the list (or the specified subrange of list) still remains sorted.\n * @sample samples.collections.Collections.Lists.binarySearchOnComparable\n * @sample samples.collections.Collections.Lists.binarySearchWithBoundaries\n */\npublic fun <T : Comparable<T>> List<T?>.binarySearch(element: T?, fromIndex: Int = 0, toIndex: Int = size): Int {\n   rangeCheck(size, fromIndex, toIndex)\n\n   var low = fromIndex\n   var high = toIndex - 1\n\n   while (low <= high) {\n   val mid = (low + high).ushr(1) // safe from overflows\n   val midVal = get(mid)\n   val cmp = compareValues(midVal, element)\n\n   if (cmp < 0)\n   low = mid + 1\n   else if (cmp > 0)\n   high = mid - 1\n   else\n   return mid // key found\n   }\n   return -(low + 1) // key not found\n}\n\n/**\n * Searches this list or its range for the provided [element] using the binary search

algorithm.\n * The list is expected to be sorted into ascending order according to the specified [comparator],\n * otherwise the result is undefined.\n *\n * If the list contains multiple elements equal to the specified [element], there is no guarantee which one will be found.\n *\n * `null` value is considered to be less than any non-null value.\n *\n * @return the index of the element, if it is contained in the list within the specified range;\n * otherwise, the inverted insertion point `(-insertion point - 1)`.\n * The insertion point is defined as the index at which the element should be inserted,\n * so that the list (or the specified subrange of list) still remains sorted according to the specified [comparator].\n * @sample samples.collections.Collections.Lists.binarySearchWithComparator\n */\npublic fun <T> List<T>.binarySearch(element: T, comparator: Comparator<in T>, fromIndex: Int = 0, toIndex: Int = size): Int {\n   rangeCheck(size, fromIndex, toIndex)\n\n   var low =
fromIndex\n   var high = toIndex - 1\n\n   while (low <= high) {\n   val mid = (low + high).ushr(1) // safe from overflows\n   val midVal = get(mid)\n   val cmp = comparator.compare(midVal, element)\n\n   if (cmp < 0)\n   low = mid + 1\n   else if (cmp > 0)\n   high = mid - 1\n   else\n   return mid // key found\n   }\n   return -(low + 1) // key not found\n}\n\n/**\n * Searches this list or its range for an element having the key returned by the specified [selector] function\n * equal to the provided [key] value using the binary search algorithm.\n * The list is expected to be sorted into ascending order according to the Comparable natural ordering of keys of its elements.\n * otherwise the result is undefined.\n *\n * If the list contains multiple elements with the specified [key], there is no guarantee which one will be found.\n *\n * `null` value is considered to be less than any non-null value.\n *\n * @return the index
of the element with the specified [key], if it is contained in the list within the specified range;\n * otherwise, the inverted insertion point `(-insertion point - 1)`.\n * The insertion point is defined as the index at which the element should be inserted,\n * so that the list (or the specified subrange of list) still remains sorted.\n * @sample samples.collections.Collections.Lists.binarySearchByKey\n */\npublic inline fun <T, K : Comparable<K>> List<T>.binarySearchBy(\n   key: K?,\n   fromIndex: Int = 0,\n   toIndex: Int = size,\n   crossinline selector: (T) -> K?\n): Int =\n   binarySearch(fromIndex, toIndex) { compareValues(selector(it), key) }\n\n// do not introduce this overload --- too rare\n//public fun <T, K> List<T>.binarySearchBy(key: K, comparator: Comparator<K>, fromIndex: Int = 0, toIndex: Int = size(), selector: (T) -> K): Int =\n//   binarySearch(fromIndex, toIndex) { comparator.compare(selector(it), key) }\n\n\n/**\n * Searches this list or its range for an
element for which the given [comparison] function returns zero using the binary search algorithm.\n *\n * The list is expected to be sorted so that the signs of the [comparison] function's return values ascend on the list elements,\n * i.e. negative values come before zero and zeroes come before positive values.\n * Otherwise, the result is undefined.\n *\n * If the list contains multiple elements for which [comparison] returns zero, there is no guarantee which one will be found.\n *\n * @param comparison function that returns zero when called on the list element being searched.\n * On the elements coming before the target element, the function must return negative values;\n * on the elements coming after the target element, the function must return positive values.\n *\n * @return the index of the found element, if it is contained in the list within the specified range;\n * otherwise, the inverted insertion point `(-insertion point - 1)`.\n * The insertion point is defined as the index
at which the element should be inserted,\n * so that the list (or the specified subrange of list) still remains sorted.\n * @sample samples.collections.Collections.Lists.binarySearchWithComparisonFunction\n */\npublic fun <T> List<T>.binarySearch(fromIndex: Int = 0, toIndex: Int = size, comparison: (T) -> Int): Int {\n   rangeCheck(size, fromIndex, toIndex)\n\n   var low = fromIndex\n   var high = toIndex - 1\n\n   while (low <= high) {\n   val mid = (low + high).ushr(1) // safe from overflows\n   val midVal = get(mid)\n   val cmp = comparison(midVal)\n\n   if (cmp < 0)\n   low = mid + 1\n   else if (cmp > 0)\n   high = mid - 1\n   else\n   return mid // key found\n   }\n   return -(low + 1) // key not found\n}\n\n/**\n * Checks that `from` and `to` are in\n * the range of [0..size] and throws an appropriate exception, if they aren't.\n */\nprivate fun rangeCheck(size: Int, fromIndex: Int, toIndex: Int) {\n   when {\n
fromIndex > toIndex -> throw IllegalArgumentException(\"fromIndex ($fromIndex) is greater than toIndex ($toIndex).\")\n   fromIndex < 0 -> throw IndexOutOfBoundsException(\"fromIndex ($fromIndex) is less than zero.\")\n   toIndex > size -> throw IndexOutOfBoundsException(\"toIndex ($toIndex) is greater than size

($size).\")\n   }\n}\n\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal expect fun checkIndexOverflow(index: Int): Int\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal expect fun checkCountOverflow(count: Int): Int\n\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal fun throwIndexOverflow() { throw ArithmeticException(\"Index overflow has happened.\") }\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal fun throwCountOverflow() { throw ArithmeticException(\"Count overflow has happened.\") }\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can
be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"MapsKt\")\n@file:OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n\npackage kotlin.collections\n\nimport kotlin.contracts.*\n\nprivate object EmptyMap : Map<Any?, Nothing>, Serializable {\n   private const val serialVersionUID: Long = 8246714829545688274\n\n   override fun equals(other: Any?): Boolean = other is Map<*, *> && other.isEmpty()\n   override fun hashCode(): Int = 0\n   override fun toString(): String = \"{}\"\n\n   override val size: Int get() = 0\n   override fun isEmpty(): Boolean = true\n\n   override fun containsKey(key: Any?): Boolean = false\n   override fun containsValue(value: Nothing): Boolean = false\n   override fun get(key: Any?): Nothing? = null\n   override val entries: Set<Map.Entry<Any?, Nothing>> get() = EmptySet\n   override val keys: Set<Any?> get() = EmptySet\n   override val values: Collection<Nothing> get() = EmptyList\n\n
private fun readResolve(): Any = EmptyMap\n}\n\n/**\n * Returns an empty read-only map of specified type.\n *\n * The returned map is serializable (JVM).\n * @sample samples.collections.Maps.Instantiation.emptyReadOnlyMap\n */\npublic fun <K, V> emptyMap(): Map<K, V> = @Suppress(\"UNCHECKED_CAST\") (EmptyMap as Map<K, V>)\n\n/**\n * Returns a new read-only map with the specified contents, given as a list of pairs\n * where the first value is the key and the second is the value.\n *\n * If multiple pairs have the same key, the resulting map will contain the value from the last of those pairs.\n *\n * Entries of the map are iterated in the order they were specified.\n *\n * The returned map is serializable (JVM).\n *\n * @sample samples.collections.Maps.Instantiation.mapFromPairs\n */\npublic fun <K, V> mapOf(vararg pairs: Pair<K, V>): Map<K, V> =\n   if (pairs.size > 0) pairs.toMap(LinkedHashMap(mapCapacity(pairs.size))) else emptyMap()\n\n/**\n * Returns an empty read-only map.\n
*\n * The returned map is serializable (JVM).\n * @sample samples.collections.Maps.Instantiation.emptyReadOnlyMap\n */\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> mapOf(): Map<K, V> = emptyMap()\n\n/**\n * Returns an empty new [MutableMap].\n *\n * The returned map preserves the entry iteration order.\n * @sample samples.collections.Maps.Instantiation.emptyMutableMap\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> mutableMapOf(): MutableMap<K, V> = LinkedHashMap()\n\n/**\n * Returns a new [MutableMap] with the specified contents, given as a list of pairs\n * where the first component is the key and the second is the value.\n *\n * If multiple pairs have the same key, the resulting map will contain the value from the last of those pairs.\n *\n * Entries of the map are iterated in the order they were specified.\n *\n * @sample samples.collections.Maps.Instantiation.mutableMapFromPairs\n * @sample samples.collections.Maps.Instantiation.emptyMutableMap\n
*/\npublic fun <K, V> mutableMapOf(vararg pairs: Pair<K, V>): MutableMap<K, V> =\n   LinkedHashMap<K, V>(mapCapacity(pairs.size)).apply { putAll(pairs) }\n\n/**\n * Returns an empty new [HashMap].\n *\n * @sample samples.collections.Maps.Instantiation.emptyHashMap\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> hashMapOf(): HashMap<K, V> = HashMap<K, V>()\n\n/**\n * Returns a new [HashMap] with the specified contents, given as a list of pairs\n * where the first component is the key and the second is the value.\n *\n * @sample samples.collections.Maps.Instantiation.hashMapFromPairs\n */\npublic fun <K, V> hashMapOf(vararg pairs: Pair<K, V>): HashMap<K, V> = HashMap<K, V>(mapCapacity(pairs.size)).apply { putAll(pairs) }\n\n/**\n * Returns an empty new [LinkedHashMap].\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> linkedMapOf(): LinkedHashMap<K, V> = LinkedHashMap<K, V>()\n\n/**\n * Returns a new

[LinkedHashMap]
 with the specified contents, given as a list of pairs\n * where the first component is the key and the second is the value.\n *\n * If multiple pairs have the same key, the resulting map will contain the value from the last of those pairs.\n *\n * Entries of the map are iterated in the order they were specified.\n *\n * @sample samples.collections.Maps.Instantiation.linkedMapFromPairs\n */\npublic fun <K, V> linkedMapOf(vararg pairs: Pair<K, V>): LinkedHashMap<K, V> = pairs.toMap(LinkedHashMap(mapCapacity(pairs.size)))\n\n/**\n * Builds a new read-only [Map] by populating a [MutableMap] using the given [builderAction]\n * and returning a read-only map with the same key-value pairs.\n *\n * The map passed as a receiver to the [builderAction] is valid only inside that function.\n * Using it outside of the function produces an unspecified behavior.\n *\n * Entries of the map are iterated in the order they were added by the [builderAction].\n *\n * The returned map is serializable
 (JVM).\n *\n * @sample samples.collections.Builders.Maps.buildMapSample\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> buildMap(@BuilderInference builderAction: MutableMap<K, V>.() -> Unit): Map<K, V> {\n contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n   return buildMapInternal(builderAction)\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal expect inline fun <K, V> buildMapInternal(builderAction: MutableMap<K, V>.() -> Unit): Map<K, V>\n\n/**\n * Builds a new read-only [Map] by populating a [MutableMap] using the given [builderAction]\n * and returning a read-only map with the same key-value pairs.\n *\n * The map passed as a receiver to the [builderAction] is valid only inside that function.\n * Using it outside of the function produces an unspecified behavior.\n *\n * [capacity] is used to hint the expected number of pairs added in the
 [builderAction].\n *\n * Entries of the map are iterated in the order they were added by the [builderAction].\n *\n * The returned map is serializable (JVM).\n *\n * @throws IllegalArgumentException if the given [capacity] is negative.\n *\n * @sample samples.collections.Builders.Maps.buildMapSample\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> buildMap(capacity: Int, @BuilderInference builderAction: MutableMap<K, V>.() -> Unit): Map<K, V> {\n   contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n   return buildMapInternal(capacity, builderAction)\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal expect inline fun <K, V> buildMapInternal(capacity: Int, builderAction: MutableMap<K, V>.() -> Unit): Map<K, V>\n\n/**\n * Calculate the initial capacity of a map.\n */\n@PublishedApi\ninternal expect fun mapCapacity(expectedSize: Int): Int\n\n/**\n * Returns
 `true` if this map is not empty.\n * @sample samples.collections.Maps.Usage.mapIsNotEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.isNotEmpty(): Boolean = !isEmpty()\n\n/**\n * Returns `true` if this nullable map is either null or empty.\n * @sample samples.collections.Maps.Usage.mapIsNullOrEmpty\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>?.isNullOrEmpty(): Boolean {\n   contract {\n   returns(false) implies (this@isNullOrEmpty != null)\n   }\n\n   return this == null || isEmpty()\n}\n\n/**\n * Returns the [Map] if its not `null`, or the empty [Map] otherwise.\n *\n * @sample samples.collections.Maps.Usage.mapOrEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<K, V>?.orEmpty(): Map<K, V> = this ?: emptyMap()\n\n/**\n * Returns this map if it's not empty\n * or the result of calling [defaultValue] function if the map is empty.\n *\n * @sample samples.collections.Maps.Usage.mapIfEmpty\n
 /\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <M, R> M.ifEmpty(defaultValue: () -> R): R where M : Map<, *>, M : R =\n   if (isEmpty()) defaultValue() else this\n\n/**\n * Checks if the map contains the given key.\n *\n * This method allows to use the `x in map` syntax for checking whether an object is contained in the map.\n *\n * @sample samples.collections.Maps.Usage.containsKey\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <@kotlin.internal.OnlyInputTypes K, V> Map<out K, V>.contains(key: K): Boolean = containsKey(key)\n\n/**\n * Returns the value corresponding to the given [key], or

`null` if such a key is not present in the map.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun
<@kotlin.internal.OnlyInputTypes K, V> Map<out K, V>.get(key: K): V? =\n
@Suppress(\"UNCHECKED_CAST\") (this as Map<K, V>).get(key)\n\n/**\n * Allows to use the index operator
for storing values in a mutable map.\n */\n@kotlin.internal.InlineOnly\npublic
inline operator fun <K, V> MutableMap<K, V>.set(key: K, value: V): Unit {\n   put(key, value)\n}\n\n/**\n *
Returns `true` if the map contains the specified [key].\n *\n * Allows to overcome type-safety restriction of
`containsKey` that requires to pass a key of type `K`.\n */\n@kotlin.internal.InlineOnly\npublic inline fun
<@kotlin.internal.OnlyInputTypes K> Map<out K, *>.containsKey(key: K): Boolean =\n
@Suppress(\"UNCHECKED_CAST\") (this as Map<K, *>).containsKey(key)\n\n/**\n * Returns `true` if the map
maps one or more keys to the specified [value].\n *\n * Allows to overcome type-safety restriction of
`containsValue` that requires to pass a value of type `V`.\n *\n * @sample
samples.collections.Maps.Usage.containsValue\n */\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\")
// false warning, extension takes precedence in some cases\n@kotlin.internal.InlineOnly\npublic inline fun <K,
@kotlin.internal.OnlyInputTypes V> Map<K, V>.containsValue(value: V): Boolean
= this.containsValue(value)\n\n\n/**\n * Removes the specified key and its corresponding value from this map.\n
*\n * @return the previous value associated with the key, or `null` if the key was not present in the map.\n\n *
Allows to overcome type-safety restriction of `remove` that requires to pass a key of type `K`.\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes K, V> MutableMap<out K,
V>.remove(key: K): V? =\n   @Suppress(\"UNCHECKED_CAST\") (this as MutableMap<K,
V>).remove(key)\n\n/**\n * Returns the key component of the map entry.\n *\n * This method allows to use
destructuring declarations when working with maps, for example:\n * ```\n * for ((key, value) in map) {\n *   // do
something with the key and the value\n * }\n * ```\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K,
V> Map.Entry<K, V>.component1(): K = key\n\n/**\n * Returns the value component of the map entry.\n *\n *
This method allows to use destructuring
declarations when working with maps, for example:\n * ```\n * for ((key, value) in map) {\n *   // do something
with the key and the value\n * }\n * ```\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V>
Map.Entry<K, V>.component2(): V = value\n\n/**\n * Converts entry to [Pair] with key being first component and
value being second.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map.Entry<K, V>.toPair():
Pair<K, V> = Pair(key, value)\n\n/**\n * Returns the value for the given key, or the result of the [defaultValue]
function if there was no entry for the given key.\n *\n * @sample samples.collections.Maps.Usage.getOrElse\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<K, V>.getOrElse(key: K, defaultValue: () -> V): V
= get(key) ?: defaultValue()\n\n\ninternal inline fun <K, V> Map<K, V>.getOrElseNullable(key: K, defaultValue: ()
-> V): V {\n   val value = get(key)\n   if (value == null && !containsKey(key)) {\n   return defaultValue()\n
    } else {\n   @Suppress(\"UNCHECKED_CAST\")\n   return value as V\n   }\n}\n\n/**\n * Returns the
value for the given [key] or throws an exception if there is no such key in the map.\n *\n * If the map was created by
[withDefault], resorts to its `defaultValue` provider function\n * instead of throwing an exception.\n *\n * @throws
NoSuchElementException when the map doesn't contain a value for the specified key and\n * no implicit default
value was provided for that map.\n */\n@SinceKotlin(\"1.1\")\npublic fun <K, V> Map<K, V>.getValue(key: K): V
= getOrImplicitDefault(key)\n\n/**\n * Returns the value for the given key. If the key is not found in the map, calls
the [defaultValue] function,\n * puts its result into the map under the given key and returns it.\n *\n * Note that the
operation is not guaranteed to be atomic if the map is being modified concurrently.\n *\n * @sample
samples.collections.Maps.Usage.getOrPut\n */\npublic inline fun <K, V> MutableMap<K, V>.getOrPut(key:
K, defaultValue: () -> V): V {\n   val value = get(key)\n   return if (value == null) {\n   val answer =
defaultValue()\n   put(key, answer)\n   answer\n   } else {\n   value\n   }\n}\n\n/**\n * Returns an
[Iterator] over the entries in the [Map].\n *\n * @sample samples.collections.Maps.Usage.forOverEntries\n
*/\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> Map<out K, V>.iterator():
Iterator<Map.Entry<K, V>> = entries.iterator()\n\n/**\n * Returns a [MutableIterator] over the mutable entries in
the [MutableMap].\n *\n */\n@kotlin.jvm.JvmName(\"mutableIterator\")\n@kotlin.internal.InlineOnly\npublic

inline operator fun <K, V> MutableMap<K, V>.iterator(): MutableIterator<MutableMap.MutableEntry<K, V>> = entries.iterator()\n\n/**\n * Populates the given [destination] map with entries having the keys of this map and the values obtained\n * by applying the [transform] function to each entry in this [Map].\n */\npublic inline fun <K, V, R, M : MutableMap<in K, in R>> Map<out K, V>.mapValuesTo(destination: M, transform: (Map.Entry<K, V>) -> R): M {\n   return entries.associateByTo(destination, { it.key }, transform)\n}\n\n/**\n * Populates the given [destination] map with entries having the keys obtained\n * by applying the [transform] function to each entry in this [Map] and the values of this map.\n *\n * In case if any two entries are mapped to the equal keys, the value of the latter one will overwrite\n * the value associated with the former one.\n */\npublic inline fun <K, V, R, M : MutableMap<in R, in V>> Map<out K, V>.mapKeysTo(destination: M, transform: (Map.Entry<K, V>) -> R): M {\n   return entries.associateByTo(destination, transform, { it.value })\n}\n\n/**\n * Puts all the given [pairs] into this [MutableMap] with the first component in the pair being the key and the second the value.\n */\npublic fun <K, V> MutableMap<in K, in V>.putAll(pairs: Array<out Pair<K, V>>): Unit {\n   for ((key, value) in pairs) {\n   put(key, value)\n   }\n}\n\n/**\n * Puts all the elements of the given collection into this [MutableMap] with the first component in the pair being the key and the second the value.\n */\npublic fun <K, V> MutableMap<in K, in V>.putAll(pairs: Iterable<Pair<K, V>>): Unit {\n   for ((key, value) in pairs) {\n   put(key, value)\n   }\n}\n\n/**\n * Puts all the elements of the given sequence into this [MutableMap] with the first component in the pair being the key and the second the value.\n */\npublic fun <K, V> MutableMap<in K, in V>.putAll(pairs: Sequence<Pair<K, V>>): Unit {\n   for ((key, value) in pairs) {\n   put(key, value)\n   }\n}\n\n/**\n * Returns a new map with entries having the keys of this map and the values obtained by applying the [transform]\n * function to each entry in this [Map].\n *\n * The returned map preserves the entry iteration order of the original map.\n *\n * @sample samples.collections.Maps.Transformations.mapValues\n */\npublic inline fun <K, V, R> Map<out K, V>.mapValues(transform: (Map.Entry<K, V>) -> R): Map<K, R> {\n   return mapValuesTo(LinkedHashMap<K, R>(mapCapacity(size)), transform) // .optimizeReadOnlyMap()\n}\n\n/**\n * Returns a new Map with entries having the keys obtained by applying the [transform] function to each entry in this\n * [Map] and the values of this map.\n *\n * In case if any two entries are mapped to the equal keys, the value of the latter one will overwrite\n * the value associated with the former one.\n *\n * The returned map preserves the entry iteration order of the original map.\n *\n * @sample samples.collections.Maps.Transformations.mapKeys\n */\npublic inline fun <K, V, R> Map<out K, V>.mapKeys(transform: (Map.Entry<K, V>) -> R): Map<R, V> {\n   return mapKeysTo(LinkedHashMap<R, V>(mapCapacity(size)), transform) // .optimizeReadOnlyMap()\n}\n\n/**\n * Returns a map containing all key-value pairs with keys matching the given [predicate].\n *\n * The returned map preserves
the entry iteration order of the original map.\n * @sample samples.collections.Maps.Filtering.filterKeys\n */\npublic inline fun <K, V> Map<out K, V>.filterKeys(predicate: (K) -> Boolean): Map<K, V> {\n   val result = LinkedHashMap<K, V>()\n   for (entry in this) {\n   if (predicate(entry.key)) {\n   result.put(entry.key, entry.value)\n   }\n   }\n   return result\n}\n\n/**\n * Returns a map containing all key-value pairs with values matching the given [predicate].\n *\n * The returned map preserves the entry iteration order of the original map.\n * @sample samples.collections.Maps.Filtering.filterValues\n */\npublic inline fun <K, V> Map<out K, V>.filterValues(predicate: (V) -> Boolean): Map<K, V> {\n   val result = LinkedHashMap<K, V>()\n   for (entry in this) {\n   if (predicate(entry.value)) {\n   result.put(entry.key, entry.value)\n   }\n   }\n   return result\n}\n\n\n/**\n * Appends all entries matching the given [predicate] into
the mutable map given as [destination] parameter.\n *\n * @return the destination map.\n * @sample samples.collections.Maps.Filtering.filterTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> Map<out K, V>.filterTo(destination: M, predicate: (Map.Entry<K, V>) -> Boolean): M {\n   for (element in this) {\n   if (predicate(element)) {\n   destination.put(element.key, element.value)\n   }\n   }\n   return destination\n}\n\n/**\n * Returns a new map containing all key-value pairs matching the given [predicate].\n *\n * The returned map preserves the entry iteration order of the original map.\n * @sample samples.collections.Maps.Filtering.filter\n */\npublic inline fun <K, V> Map<out K, V>.filter(predicate: (Map.Entry<K, V>) -> Boolean): Map<K, V> {\n   return filterTo(LinkedHashMap<K, V>(),

predicate)\n}\n\n/**\n * Appends all entries not matching the given [predicate] into the given [destination].\n *\n * @return the destination map.\n * @sample samples.collections.Maps.Filtering.filterNotTo\n
*/\npublic inline fun <K, V, M : MutableMap<in K, in V>> Map<out K, V>.filterNotTo(destination: M, predicate: (Map.Entry<K, V>) -> Boolean): M {\n   for (element in this) {\n   if (!predicate(element)) {\n destination.put(element.key, element.value)\n   }\n   }\n   return destination\n}\n\n/**\n * Returns a new map containing all key-value pairs not matching the given [predicate].\n *\n * The returned map preserves the entry iteration order of the original map.\n * @sample samples.collections.Maps.Filtering.filterNot\n */\npublic inline fun <K, V> Map<out K, V>.filterNot(predicate: (Map.Entry<K, V>) -> Boolean): Map<K, V> {\n   return filterNotTo(LinkedHashMap<K, V>(), predicate)\n}\n\n/**\n * Returns a new map containing all key-value pairs from the given collection of pairs.\n *\n * The returned map preserves the entry iteration order of the original collection.\n * If any of two pairs would have the same key the last
one gets added to the map.\n */\npublic fun <K, V> Iterable<Pair<K, V>>.toMap(): Map<K, V> {\n   if (this is Collection) {\n   return when (size) {\n   0 -> emptyMap()\n   1 -> mapOf(if (this is List) this[0] else iterator().next())\n   else -> toMap(LinkedHashMap<K, V>(mapCapacity(size)))\n   }\n   }\n   return toMap(LinkedHashMap<K, V>()).optimizeReadOnlyMap()\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs from the given collection of pairs.\n */\npublic fun <K, V, M : MutableMap<in K, in V>> Iterable<Pair<K, V>>.toMap(destination: M): M =\n   destination.apply { putAll(this@toMap) }\n\n/**\n * Returns a new map containing all key-value pairs from the given array of pairs.\n *\n * The returned map preserves the entry iteration order of the original array.\n * If any of two pairs would have the same key the last one gets added to the map.\n */\npublic fun <K, V> Array<out Pair<K, V>>.toMap(): Map<K, V> =
when (size) {\n   0 -> emptyMap()\n   1 -> mapOf(this[0])\n   else -> toMap(LinkedHashMap<K, V>(mapCapacity(size)))\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs from the given array of pairs.\n */\npublic fun <K, V, M : MutableMap<in K, in V>> Array<out Pair<K, V>>.toMap(destination: M): M =\n   destination.apply { putAll(this@toMap) }\n\n/**\n * Returns a new map containing all key-value pairs from the given sequence of pairs.\n *\n * The returned map preserves the entry iteration order of the original sequence.\n * If any of two pairs would have the same key the last one gets added to the map.\n */\npublic fun <K, V> Sequence<Pair<K, V>>.toMap(): Map<K, V> = toMap(LinkedHashMap<K, V>()).optimizeReadOnlyMap()\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs from the given sequence of pairs.\n */\npublic fun <K, V, M : MutableMap<in K, in V>> Sequence<Pair<K, V>>.toMap(destination: M): M =\n   destination.apply
{ putAll(this@toMap) }\n\n/**\n * Returns a new read-only map containing all key-value pairs from the original map.\n *\n * The returned map preserves the entry iteration order of the original map.\n */\n@SinceKotlin(\"1.1\")\npublic fun <K, V> Map<out K, V>.toMap(): Map<K, V> = when (size) {\n   0 -> emptyMap()\n   1 -> toSingletonMap()\n   else -> toMutableMap()\n}\n\n/**\n * Returns a new mutable map containing all key-value pairs from the original map.\n *\n * The returned map preserves the entry iteration order of the original map.\n */\n@SinceKotlin(\"1.1\")\npublic fun <K, V> Map<out K, V>.toMutableMap(): MutableMap<K, V> = LinkedHashMap(this)\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs from the given map.\n */\n@SinceKotlin(\"1.1\")\npublic fun <K, V, M : MutableMap<in K, in V>> Map<out K, V>.toMap(destination: M): M =\n   destination.apply { putAll(this@toMap) }\n\n/**\n * Creates a new read-only map by replacing or adding an
entry to this map from a given key-value [pair].\n *\n * The returned map preserves the entry iteration order of the original map.\n * The [pair] is iterated in the end if it has a unique key.\n */\npublic operator fun <K, V> Map<out K, V>.plus(pair: Pair<K, V>): Map<K, V> =\n   if (this.isEmpty()) mapOf(pair) else LinkedHashMap(this).apply { put(pair.first, pair.second) }\n\n/**\n * Creates a new read-only map by replacing or adding entries to this map from a given collection of key-value [pairs].\n *\n * The returned map preserves the entry iteration order of the original map.\n * Those [pairs] with unique keys are iterated in the end in the order of [pairs] collection.\n */\npublic operator fun <K, V> Map<out K, V>.plus(pairs: Iterable<Pair<K, V>>): Map<K, V> =\n   if (this.isEmpty()) pairs.toMap() else LinkedHashMap(this).apply { putAll(pairs) }\n\n/**\n * Creates a new read-only map by

replacing or adding entries to this map from a given array of key-value [pairs].\n *\n * The
returned map preserves the entry iteration order of the original map.\n * Those [pairs] with unique keys are iterated
in the end in the order of [pairs] array.\n */\npublic operator fun <K, V> Map<out K, V>.plus(pairs: Array<out
Pair<K, V>>): Map<K, V> =\n   if (this.isEmpty()) pairs.toMap() else LinkedHashMap(this).apply { putAll(pairs)
}\n\n/**\n * Creates a new read-only map by replacing or adding entries to this map from a given sequence of key-value [pairs].\n *\n * The returned map preserves the entry iteration order of the original map.\n * Those [pairs] with
unique keys are iterated in the end in the order of [pairs] sequence.\n */\npublic operator fun <K, V> Map<out K,
V>.plus(pairs: Sequence<Pair<K, V>>): Map<K, V> =\n   LinkedHashMap(this).apply { putAll(pairs)
}.optimizeReadOnlyMap()\n\n/**\n * Creates a new read-only map by replacing or adding entries to this map from
another [map].\n *\n * The returned map preserves the entry iteration order of the original map.\n * Those
entries of another [map] that are missing in this map are iterated in the end in the order of that [map].\n */\npublic
operator fun <K, V> Map<out K, V>.plus(map: Map<out K, V>): Map<K, V> =\n   LinkedHashMap(this).apply {
putAll(map) }\n\n\n/**\n * Appends or replaces the given [pair] in this mutable map.\n
*/\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pair:
Pair<K, V>) {\n   put(pair.first, pair.second)\n}\n\n/**\n * Appends or replaces all pairs from the given collection
of [pairs] in this mutable map.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V>
MutableMap<in K, in V>.plusAssign(pairs: Iterable<Pair<K, V>>) {\n   putAll(pairs)\n}\n\n/**\n * Appends or
replaces all pairs from the given array of [pairs] in this mutable map.\n */\n@kotlin.internal.InlineOnly\npublic
inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pairs: Array<out Pair<K, V>>) {\n
putAll(pairs)\n}\n\n/**\n * Appends or
replaces all pairs from the given sequence of [pairs] in this mutable map.\n */\n@kotlin.internal.InlineOnly\npublic
inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pairs: Sequence<Pair<K, V>>) {\n
putAll(pairs)\n}\n\n/**\n * Appends or replaces all entries from the given [map] in this mutable map.\n
*/\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(map:
Map<K, V>) {\n   putAll(map)\n}\n\n/**\n * Returns a map containing all entries of the original map except the
entry with the given [key].\n *\n * The returned map preserves the entry iteration order of the original map.\n
*/\n@SinceKotlin(\"1.1\")\npublic operator fun <K, V> Map<out K, V>.minus(key: K): Map<K, V> =\n
this.toMutableMap().apply { minusAssign(key) }.optimizeReadOnlyMap()\n\n/**\n * Returns a map containing all
entries of the original map except those entries\n * the keys of which are contained in the given [keys] collection.\n
*\n * The returned map preserves
the entry iteration order of the original map.\n */\n@SinceKotlin(\"1.1\")\npublic operator fun <K, V> Map<out K,
V>.minus(keys: Iterable<K>): Map<K, V> =\n   this.toMutableMap().apply { minusAssign(keys)
}.optimizeReadOnlyMap()\n\n/**\n * Returns a map containing all entries of the original map except those entries\n
* the keys of which are contained in the given [keys] array.\n *\n * The returned map preserves the entry iteration
order of the original map.\n */\n@SinceKotlin(\"1.1\")\npublic operator fun <K, V> Map<out K, V>.minus(keys:
Array<out K>): Map<K, V> =\n   this.toMutableMap().apply { minusAssign(keys)
}.optimizeReadOnlyMap()\n\n/**\n * Returns a map containing all entries of the original map except those entries\n
* the keys of which are contained in the given [keys] sequence.\n *\n * The returned map preserves the entry
iteration order of the original map.\n */\n@SinceKotlin(\"1.1\")\npublic operator fun <K, V> Map<out K,
V>.minus(keys: Sequence<K>): Map<K, V>
=\n   this.toMutableMap().apply { minusAssign(keys) }.optimizeReadOnlyMap()\n\n/**\n * Removes the entry
with the given [key] from this mutable map.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic
inline operator fun <K, V> MutableMap<K, V>.minusAssign(key: K) {\n   remove(key)\n}\n\n/**\n * Removes all
entries the keys of which are contained in the given [keys] collection from this mutable map.\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<K,
V>.minusAssign(keys: Iterable<K>) {\n   this.keys.removeAll(keys)\n}\n\n/**\n * Removes all entries the keys of
which are contained in the given [keys] array from this mutable map.\n
*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<K,

V>.minusAssign(keys: Array<out K>) {\n   this.keys.removeAll(keys)\n}\n\n/**\n * Removes all entries from the keys of which are contained in the given [keys] sequence from this mutable map.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <K, V> MutableMap<K, V>.minusAssign(keys: Sequence<K>) {\n   this.keys.removeAll(keys)\n}\n\n\n// do not expose for now @PublishedApi\ninternal fun <K, V> Map<K, V>.optimizeReadOnlyMap() = when (size) {\n   0 -> emptyMap()\n   1 -> toSingletonMapOrSelf()\n   else -> this\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"SetsKt\")\n@file:OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n\npackage kotlin.collections\n\nimport kotlin.contracts.*\n\ninternal object EmptySet : Set<Nothing>, Serializable {\n   private const val serialVersionUID: Long = 3406603774387020532\n\n   override fun equals(other: Any?): Boolean = other is Set<*> && other.isEmpty()\n   override fun hashCode(): Int = 0\n   override fun toString(): String = \"[]\"\n\n   override val size: Int get() = 0\n   override fun isEmpty(): Boolean = true\n   override fun contains(element: Nothing): Boolean = false\n   override fun containsAll(elements: Collection<Nothing>): Boolean = elements.isEmpty()\n\n   override fun iterator(): Iterator<Nothing> = EmptyIterator\n\n   private fun readResolve(): Any = EmptySet\n}\n\n\n/**\n * Returns an empty read-only set. The returned set is serializable (JVM).\n * @sample samples.collections.Collections.Sets.emptyReadOnlySet\n */\npublic fun <T> emptySet(): Set<T> = EmptySet\n\n/**\n * Returns a new read-only set with the given elements.\n * Elements of the set are iterated in the order they were specified.\n * The returned set is serializable (JVM).\n * @sample samples.collections.Collections.Sets.readOnlySet\n */\npublic fun <T> setOf(vararg elements: T): Set<T> = if (elements.size > 0) elements.toSet() else emptySet()\n\n/**\n * Returns an empty read-only set. The returned set is serializable (JVM).\n * @sample samples.collections.Collections.Sets.emptyReadOnlySet\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> setOf(): Set<T> = emptySet()\n\n/**\n * Returns an empty new [MutableSet].\n *\n * The returned set preserves the element iteration order.\n * @sample samples.collections.Collections.Sets.emptyMutableSet\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> mutableSetOf(): MutableSet<T> = LinkedHashSet()\n\n/**\n * Returns a new [MutableSet] with the given elements.\n * Elements of the set are iterated in the order they were specified.\n * @sample samples.collections.Collections.Sets.mutableSet\n */\npublic fun <T> mutableSetOf(vararg elements: T): MutableSet<T> = elements.toCollection(LinkedHashSet(mapCapacity(elements.size)))\n\n/** Returns an empty new [HashSet]. */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> hashSetOf(): HashSet<T> = HashSet()\n\n/** Returns a new [HashSet] with the given elements. */\npublic fun <T> hashSetOf(vararg elements: T): HashSet<T> = elements.toCollection(HashSet(mapCapacity(elements.size)))\n\n/**\n * Returns an empty new [LinkedHashSet].\n * @sample samples.collections.Collections.Sets.emptyLinkedHashSet\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> linkedSetOf(): LinkedHashSet<T> = LinkedHashSet()\n\n/**\n * Returns a new [LinkedHashSet] with the given elements.\n * Elements of the set are iterated in the order they were specified.\n * @sample samples.collections.Collections.Sets.linkedHashSet\n */\npublic fun <T> linkedSetOf(vararg elements: T): LinkedHashSet<T> = elements.toCollection(LinkedHashSet(mapCapacity(elements.size)))\n\n/**\n * Returns a new read-only set either with single given element, if it is not null, or empty set if the element is null.\n * The returned set is serializable (JVM).\n * @sample samples.collections.Collections.Sets.setOfNotNull\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Any> setOfNotNull(element: T?): Set<T> = if (element != null) setOf(element) else emptySet()\n\n/**\n * Returns a new read-only set only with those given elements, that are not null.\n * Elements of the set are iterated in the order they were specified.\n * The returned set is serializable (JVM).\n * @sample samples.collections.Collections.Sets.setOfNotNull\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Any> setOfNotNull(vararg elements: T?): Set<T> {\n   return elements.filterNotNullTo(LinkedHashSet())\n}\n\n/**\n * Builds a new read-only [Set] by populating a

[MutableSet] using the given [builderAction]\n * and returning a read-only set with the same elements.\n *\n * The set passed as a receiver to the [builderAction] is valid only inside that function.\n * Using it outside of the function produces an unspecified behavior.\n *\n * Elements of the set are iterated in the order they were added by the [builderAction].\n *\n * The returned set is serializable (JVM).\n *\n * @sample samples.collections.Builders.Sets.buildSetSample\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <E> buildSet(@BuilderInference builderAction: MutableSet<E>.() -> Unit): Set<E> {\n   contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n   return buildSetInternal(builderAction)\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal expect inline fun <E> buildSetInternal(builderAction: MutableSet<E>.() -> Unit): Set<E>\n\n/**\n * Builds a new read-only [Set] by populating a [MutableSet] using the given [builderAction]\n * and returning a read-only set with the same elements.\n *\n * The set passed as a receiver to the [builderAction] is valid only inside that function.\n * Using it outside of the function produces an unspecified behavior.\n *\n * [capacity] is used to hint the expected number of elements added in the [builderAction].\n *\n * Elements of the set are iterated in the order they were added by the [builderAction].\n *\n * The returned set is serializable (JVM).\n *\n * @throws IllegalArgumentException if the given [capacity] is negative.\n *\n * @sample samples.collections.Builders.Sets.buildSetSample\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <E> buildSet(capacity: Int, @BuilderInference builderAction: MutableSet<E>.() -> Unit): Set<E> {\n   contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n   return buildSetInternal(capacity, builderAction)\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal expect inline fun <E> buildSetInternal(capacity: Int, builderAction: MutableSet<E>.() -> Unit): Set<E>\n\n\n/** Returns this Set if it's not `null` and the empty set otherwise. */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Set<T>?.orEmpty(): Set<T> = this ?: emptySet()\n\ninternal fun <T> Set<T>.optimizeReadOnlySet() = when (size) {\n   0 -> emptySet()\n   1 -> setOf(iterator().next())\n   else -> this\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n@file:Suppress(\"PLATFORM_CLASS_MAPPED_TO_KOTLIN\")\n\npackage kotlin.text\n\n/**\n * Parses the string as a signed [Byte] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toByteOrNull(): Byte? = toByteOrNull(radix = 10)\n\n/**\n * Parses the string as a signed [Byte] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toByteOrNull(radix: Int): Byte? {\n   val int = this.toIntOrNull(radix) ?: return null\n   if (int < Byte.MIN_VALUE || int > Byte.MAX_VALUE) return null\n   return int.toByte()\n}\n\n/**\n * Parses the string as a [Short] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toShortOrNull(): Short? = toShortOrNull(radix = 10)\n\n/**\n * Parses the string as a [Short] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toShortOrNull(radix: Int): Short? {\n   val int = this.toIntOrNull(radix) ?: return null\n   if (int < Short.MIN_VALUE || int > Short.MAX_VALUE) return null\n   return int.toShort()\n}\n\n/**\n * Parses the string as an [Int] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toIntOrNull(): Int? = toIntOrNull(radix = 10)\n\n/**\n * Parses the string as an [Int] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toIntOrNull(radix: Int): Int? {\n   checkRadix(radix)\n\n

val length = this.length\n   if (length == 0) return null\n\n   val start: Int\n   val isNegative: Boolean\n   val limit: Int\n\n   val firstChar = this[0]\n   if (firstChar < '0') { // Possible leading sign\n   if (length == 1) return null // non-digit (possible sign) only, no digits after\n\n   start = 1\n\n   if (firstChar == '-') {\n   isNegative = true\n   limit = Int.MIN_VALUE\n
        } else if (firstChar == '+') {\n   isNegative = false\n   limit = -Int.MAX_VALUE\n   } else\n   return null\n   } else {\n   start = 0\n   isNegative = false\n   limit = -Int.MAX_VALUE\n   }\n\n\n   val limitForMaxRadix = (-Int.MAX_VALUE) / 36\n\n   var limitBeforeMul = limitForMaxRadix\n   var result = 0\n   for (i in start until length) {\n   val digit = digitOf(this[i], radix)\n\n   if (digit < 0) return null\n   if (result < limitBeforeMul) {\n   if (limitBeforeMul == limitForMaxRadix) {\n   limitBeforeMul = limit / radix\n\n   if (result < limitBeforeMul) {\n   return null\n   }\n   } else {\n   return null\n   }\n   }\n\n   result *= radix\n\n   if (result < limit + digit) return null\n\n   result -= digit\n   }\n\n   return if (isNegative) result else -result\n}\n\n/**\n * Parses
the string as a [Long] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toLongOrNull(): Long? = toLongOrNull(radix = 10)\n\n/**\n * Parses the string as a [Long] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.1\")\npublic fun String.toLongOrNull(radix: Int): Long? {\n   checkRadix(radix)\n\n   val length = this.length\n   if (length == 0) return null\n\n   val start: Int\n   val isNegative: Boolean\n   val limit: Long\n\n   val firstChar = this[0]\n   if (firstChar < '0') { // Possible leading sign\n   if (length == 1) return null // non-digit (possible sign) only, no digits after\n\n   start = 1\n\n   if (firstChar == '-') {\n   isNegative = true\n   limit = Long.MIN_VALUE\n
        } else if (firstChar == '+') {\n   isNegative = false\n   limit = -Long.MAX_VALUE\n   } else\n   return null\n   } else {\n   start = 0\n   isNegative = false\n   limit = -Long.MAX_VALUE\n   }\n\n\n   val limitForMaxRadix = (-Long.MAX_VALUE) / 36\n\n   var limitBeforeMul = limitForMaxRadix\n   var result = 0L\n   for (i in start until length) {\n   val digit = digitOf(this[i], radix)\n\n   if (digit < 0) return null\n   if (result < limitBeforeMul) {\n   if (limitBeforeMul == limitForMaxRadix) {\n   limitBeforeMul = limit / radix\n\n   if (result < limitBeforeMul) {\n   return null\n   }\n   } else {\n   return null\n   }\n   }\n\n   result *= radix\n\n   if (result < limit + digit) return null\n\n   result -= digit\n   }\n\n   return if (isNegative) result else -result\n}\n\n\ninternal
fun numberFormatError(input: String): Nothing = throw NumberFormatException(\"Invalid number format: '$input'\")\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\nimport kotlin.contracts.*\nimport kotlin.jvm.JvmInline\nimport kotlin.math.*\n\n/**\n * Represents the amount of time one instant of time is away from another instant.\n *\n * A negative duration is possible in a situation when the second instant is earlier than the first one.\n *\n * The type can store duration values up to \u00b1146 years with nanosecond precision,\n * and up to \u00b1146 million years with millisecond precision.\n * If a duration-returning operation provided in `kotlin.time` produces a duration value that doesn't fit into the above range,\n * the returned `Duration` is infinite.\n *\n * An infinite duration value
[Duration.INFINITE] can be used to represent infinite timeouts.\n *\n * To construct a duration use either the extension function [toDuration],\n * or the extension properties [hours], [minutes], [seconds], and so on,\n * available on [Int], [Long], and [Double] numeric types.\n *\n * To get the value of this duration expressed in a particular [duration units][DurationUnit]\n * use the functions [toInt], [toLong], and [toDouble]\n * or the properties [inWholeHours], [inWholeMinutes], [inWholeSeconds], [inWholeNanoseconds], and so on.\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\n@JvmInline\npublic value class Duration internal constructor(private val rawValue: Long) : Comparable<Duration> {\n\n   private val value: Long get() = rawValue shr 1\n   private inline val unitDiscriminator: Int get() = rawValue.toInt() and 1\n   private fun isInNanos() = unitDiscriminator == 0\n   private fun isInMillis() = unitDiscriminator == 1\n   private val storageUnit get()

 = if (isInNanos()) DurationUnit.NANOSECONDS else DurationUnit.MILLISECONDS\n\n init {\n if (durationAssertionsEnabled) {\n if (isInNanos()) {\n if (value !in -MAX_NANOS..MAX_NANOS) throw AssertionError(\"$value ns is out of nanoseconds range\")\n } else {\n if (value !in -MAX_MILLIS..MAX_MILLIS) throw AssertionError(\"$value ms is out of milliseconds range\")\n if (value in -MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS) throw AssertionError(\"$value ms is denormalized\")\n }\n }\n }\n\n companion object {\n /** The duration equal to exactly 0 seconds. */\n public val ZERO: Duration = Duration(0L)\n\n /** The duration whose value is positive infinity. It is useful for representing timeouts that should never expire. */\n public val INFINITE: Duration = durationOfMillis(MAX_MILLIS)\n internal val NEG_INFINITE: Duration = durationOfMillis(-MAX_MILLIS)\n\n

/** Converts the given time duration [value] expressed in the specified [sourceUnit] into the specified [targetUnit]. */\n @ExperimentalTime\n public fun convert(value: Double, sourceUnit: DurationUnit, targetUnit: DurationUnit): Double =\n convertDurationUnit(value, sourceUnit, targetUnit)\n\n // Duration construction extension properties in Duration companion scope\n\n /** Returns a [Duration] equal to this [Int] number of nanoseconds. */\n @kotlin.internal.InlineOnly\n public inline val Int.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)\n\n /** Returns a [Duration] equal to this [Long] number of nanoseconds. */\n @kotlin.internal.InlineOnly\n public inline val Long.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)\n\n /**\n * Returns a [Duration] equal to this [Double] number of nanoseconds.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)\n\n\n /** Returns a [Duration] equal to this [Int] number of microseconds. */\n @kotlin.internal.InlineOnly\n public inline val Int.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n /** Returns a [Duration] equal to this [Long] number of microseconds. */\n @kotlin.internal.InlineOnly\n public inline val Long.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n /**\n * Returns a [Duration] equal to this [Double] number of microseconds.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n\n /** Returns a [Duration] equal to this [Int] number of milliseconds. */\n @kotlin.internal.InlineOnly\n public inline val Int.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n /** Returns a [Duration] equal to this [Long] number of milliseconds. */\n @kotlin.internal.InlineOnly\n public inline val Long.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n /**\n * Returns a [Duration] equal to this [Double] number of milliseconds.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n\n

/** Returns a [Duration] equal to this [Int] number of seconds. */\n @kotlin.internal.InlineOnly\n public inline val Int.seconds get() = toDuration(DurationUnit.SECONDS)\n\n /** Returns a [Duration] equal to this [Long] number of seconds. */\n @kotlin.internal.InlineOnly\n public inline val Long.seconds get() = toDuration(DurationUnit.SECONDS)\n\n /**\n * Returns a [Duration] equal to this [Double] number of seconds.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.seconds get() = toDuration(DurationUnit.SECONDS)\n\n\n /** Returns a [Duration] equal to this [Int] number of minutes. */\n @kotlin.internal.InlineOnly\n public inline val Int.minutes get() = toDuration(DurationUnit.MINUTES)\n\n /** Returns a [Duration] equal to this [Long] number of minutes. */\n @kotlin.internal.InlineOnly\n public inline val Long.minutes get() = toDuration(DurationUnit.MINUTES)\n\n /**\n * Returns a [Duration] equal to this [Double] number of minutes.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.minutes get() = toDuration(DurationUnit.MINUTES)\n\n\n /** Returns a [Duration] equal to this [Int] number of hours. */\n @kotlin.internal.InlineOnly\n public inline val Int.hours get() = toDuration(DurationUnit.HOURS)\n\n /** Returns a [Duration] equal to this [Long] number of hours. */\n @kotlin.internal.InlineOnly\n public inline val Long.hours get() = toDuration(DurationUnit.HOURS)\n\n /**\n * Returns a [Duration] equal to this [Double] number of hours.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.hours get() = toDuration(DurationUnit.HOURS)\n\n\n /** Returns a [Duration] equal to this [Int] number of days. */\n @kotlin.internal.InlineOnly\n public inline val Int.days get() = toDuration(DurationUnit.DAYS)\n\n /** Returns a [Duration] equal to this [Long] number of days. */\n @kotlin.internal.InlineOnly\n public inline val Long.days get() = toDuration(DurationUnit.DAYS)\n\n /**\n * Returns a [Duration] equal to this [Double] number of days.\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n @kotlin.internal.InlineOnly\n public inline val Double.days get() = toDuration(DurationUnit.DAYS)\n\n\n // deprecated static factory functions\n\n /** Returns a [Duration] representing the specified [value] number of nanoseconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Int.nanoseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.nanoseconds\", \"kotlin.time.Duration.Companion.nanoseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun nanoseconds(value: Int): Duration = value.toDuration(DurationUnit.NANOSECONDS)\n\n /** Returns a [Duration] representing the specified [value] number of nanoseconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Long.nanoseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.nanoseconds\", \"kotlin.time.Duration.Companion.nanoseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun nanoseconds(value: Long): Duration = value.toDuration(DurationUnit.NANOSECONDS)\n\n /**\n * Returns a [Duration] representing the specified [value] number of nanoseconds.\n *\n * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Double.nanoseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.nanoseconds\", \"kotlin.time.Duration.Companion.nanoseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun nanoseconds(value: Double): Duration = value.toDuration(DurationUnit.NANOSECONDS)\n\n\n /** Returns a [Duration] representing the specified [value] number of microseconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Int.microseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.microseconds\", \"kotlin.time.Duration.Companion.microseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun microseconds(value: Int): Duration = value.toDuration(DurationUnit.MICROSECONDS)\n\n /** Returns a [Duration] representing the specified [value] number of microseconds. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Long.microseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.microseconds\", \"kotlin.time.Duration.Companion.microseconds\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun microseconds(value: Long): Duration = value.toDuration(DurationUnit.MICROSECONDS)\n\n /**\n

* Returns a [Duration] representing the specified [value] number of microseconds.\n   *\n   * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n   */\n   @SinceKotlin(\"1.5\")\n   @ExperimentalTime\n   @Deprecated(\"Use 'Double.microseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.microseconds\", \"kotlin.time.Duration.Companion.microseconds\"))\n   @DeprecatedSinceKotlin(warningSince = \"1.6\")\n   public fun microseconds(value: Double): Duration = value.toDuration(DurationUnit.MICROSECONDS)\n\n\n   /** Returns a [Duration] representing the specified [value] number of milliseconds. */\n   @SinceKotlin(\"1.5\")\n   @ExperimentalTime\n   @Deprecated(\"Use 'Int.milliseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.milliseconds\", \"kotlin.time.Duration.Companion.milliseconds\"))\n   @DeprecatedSinceKotlin(warningSince = \"1.6\")\n   public fun milliseconds(value: Int): Duration = value.toDuration(DurationUnit.MILLISECONDS)\n\n   /** Returns a [Duration] representing the specified [value] number of milliseconds. */\n   @SinceKotlin(\"1.5\")\n   @ExperimentalTime\n   @Deprecated(\"Use 'Long.milliseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.milliseconds\", \"kotlin.time.Duration.Companion.milliseconds\"))\n   @DeprecatedSinceKotlin(warningSince = \"1.6\")\n   public fun milliseconds(value: Long): Duration = value.toDuration(DurationUnit.MILLISECONDS)\n\n   /**\n   * Returns a [Duration] representing the specified [value] number of milliseconds.\n   *\n   * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n   */\n   @SinceKotlin(\"1.5\")\n   @ExperimentalTime\n   @Deprecated(\"Use 'Double.milliseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.milliseconds\", \"kotlin.time.Duration.Companion.milliseconds\"))\n   @DeprecatedSinceKotlin(warningSince = \"1.6\")\n   public fun milliseconds(value: Double): Duration = value.toDuration(DurationUnit.MILLISECONDS)\n\n\n   /** Returns a [Duration] representing the specified [value] number of seconds. */\n   @SinceKotlin(\"1.5\")\n   @ExperimentalTime\n   @Deprecated(\"Use 'Int.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n   @DeprecatedSinceKotlin(warningSince = \"1.6\")\n   public fun seconds(value: Int): Duration = value.toDuration(DurationUnit.SECONDS)\n\n   /** Returns a [Duration] representing the specified [value] number of seconds. */\n   @SinceKotlin(\"1.5\")\n   @ExperimentalTime\n   @Deprecated(\"Use 'Long.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n   @DeprecatedSinceKotlin(warningSince = \"1.6\")\n   public fun seconds(value: Long): Duration = value.toDuration(DurationUnit.SECONDS)\n\n   /**\n   * Returns a [Duration] representing the specified [value] number of seconds.\n   *\n   * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n   */\n   @SinceKotlin(\"1.5\")\n   @ExperimentalTime\n   @Deprecated(\"Use 'Double.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"value.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n   @DeprecatedSinceKotlin(warningSince = \"1.6\")\n   public fun seconds(value: Double): Duration = value.toDuration(DurationUnit.SECONDS)\n\n\n   /** Returns a [Duration] representing the specified [value] number of minutes. */\n   @SinceKotlin(\"1.5\")\n   @ExperimentalTime\n   @Deprecated(\"Use 'Int.minutes' extension property from Duration.Companion instead.\", ReplaceWith(\"value.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n   @DeprecatedSinceKotlin(warningSince = \"1.6\")\n   public fun minutes(value: Int): Duration = value.toDuration(DurationUnit.MINUTES)\n\n   /** Returns a [Duration] representing the specified [value] number of minutes. */\n   @SinceKotlin(\"1.5\")\n   @ExperimentalTime\n   @Deprecated(\"Use 'Long.minutes' extension property from Duration.Companion instead.\", ReplaceWith(\"value.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n   @DeprecatedSinceKotlin(warningSince = \"1.6\")\n   public fun minutes(value: Long): Duration = value.toDuration(DurationUnit.MINUTES)\n\n   /**\n   * Returns a [Duration] representing the specified [value] number of minutes.\n   *\n   * @throws IllegalArgumentException if the provided `Double` [value] is

`NaN`.\n */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Double.minutes' extension property from Duration.Companion instead.\", ReplaceWith(\"value.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun minutes(value: Double): Duration = value.toDuration(DurationUnit.MINUTES)\n\n\n /** Returns a [Duration] representing the specified [value] number of hours. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Int.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"value.hours\", \"kotlin.time.Duration.Companion.hours\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun hours(value: Int): Duration = value.toDuration(DurationUnit.HOURS)\n\n /** Returns a [Duration] representing the specified [value] number of hours. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Long.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"value.hours\", \"kotlin.time.Duration.Companion.hours\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun hours(value: Long): Duration = value.toDuration(DurationUnit.HOURS)\n\n /**\n * Returns a [Duration] representing the specified [value] number of hours.\n *\n * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Double.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"value.hours\", \"kotlin.time.Duration.Companion.hours\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun hours(value: Double): Duration = value.toDuration(DurationUnit.HOURS)\n\n\n /** Returns a [Duration] representing the specified [value] number of days. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Int.days' extension property from Duration.Companion instead.\", ReplaceWith(\"value.days\", \"kotlin.time.Duration.Companion.days\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun days(value: Int): Duration = value.toDuration(DurationUnit.DAYS)\n\n /** Returns a [Duration] representing the specified [value] number of days. */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Long.days' extension property from Duration.Companion instead.\", ReplaceWith(\"value.days\", \"kotlin.time.Duration.Companion.days\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun days(value: Long): Duration = value.toDuration(DurationUnit.DAYS)\n\n /**\n * Returns a [Duration] representing the specified [value] number of days.\n *\n * @throws IllegalArgumentException if the provided `Double` [value] is `NaN`.\n */\n @SinceKotlin(\"1.5\")\n @ExperimentalTime\n @Deprecated(\"Use 'Double.days' extension property from Duration.Companion instead.\", ReplaceWith(\"value.days\", \"kotlin.time.Duration.Companion.days\"))\n @DeprecatedSinceKotlin(warningSince = \"1.6\")\n public fun days(value: Double): Duration = value.toDuration(DurationUnit.DAYS)\n\n /**\n * Parses a string that represents a duration and returns the parsed [Duration] value.\n *\n * The following formats are accepted:\n *\n * - ISO-8601 Duration format, e.g. `P1DT2H3M4.058S`, see [toIsoString] and [parseIsoString].\n * - The format of string returned by the default [Duration.toString] and `toString` in a specific unit,\n * e.g. `10s`, `1h 30m` or `-(1h 30m)`.\n *\n * @throws IllegalArgumentException if the string doesn't represent a duration in any of the supported formats.\n * @sample samples.time.Durations.parse\n */\n public fun parse(value: String): Duration = try {\n parseDuration(value, strictIso = false)\n } catch (e: IllegalArgumentException) {\n throw IllegalArgumentException(\"Invalid duration string format: '$value'.\", e)\n }\n\n /**\n * Parses a string that represents a duration in ISO-8601 format and returns the parsed [Duration] value.\n *\n * @throws IllegalArgumentException if the string doesn't represent a duration in ISO-8601 format.\n * @sample samples.time.Durations.parseIsoString\n */\n public fun parseIsoString(value: String): Duration = try {\n parseDuration(value, strictIso = true)\n } catch (e: IllegalArgumentException) {\n throw IllegalArgumentException(\"Invalid ISO duration string format: '$value'.\", e)\n }\n\n /**\n * Parses a string that represents a duration and returns the parsed [Duration]

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value,\n         * or `null` if the string doesn't represent
 a duration in any of the supported formats.\n         *\n         * The following formats are accepted:\n         *\n         * -
ISO-8601 Duration format, e.g. `P1DT2H3M4.058S`, see [toIsoString] and [parseIsoString].\n         * - The format
of string returned by the default [Duration.toString] and `toString` in a specific unit,\n         *   e.g. `10s`, `1h 30m`
or `-(1h 30m)`.\n         *   @sample samples.time.Durations.parse\n         */\n        public fun parseOrNull(value:
String): Duration? = try {\n            parseDuration(value, strictIso = false)\n        } catch (e:
IllegalArgumentException) {\n            null\n        }\n\n        /**\n         * Parses a string that represents a duration in
ISO-8601 format and returns the parsed [Duration] value,\n         * or `null` if the string doesn't represent a duration
in ISO-8601 format.\n         * @sample samples.time.Durations.parseIsoString\n         */\n        public fun
parseIsoStringOrNull(value: String): Duration? =
 try {\n            parseDuration(value, strictIso = true)\n        } catch (e: IllegalArgumentException) {\n            null\n
   }\n    }\n\n    // arithmetic operators\n\n    /** Returns the negative of this value. */\n    public operator fun
unaryMinus(): Duration = durationOf(-value, unitDiscriminator)\n\n    /**\n     * Returns a duration whose value is
the sum of this and [other] duration values.\n     *\n     * @throws IllegalArgumentException if the operation results
in an undefined value for the given arguments,\n     * e.g. when adding infinite durations of different sign.\n     */\n
public operator fun plus(other: Duration): Duration {\n        when {\n            this.isInfinite() -> {\n                if
(other.isFinite() || (this.rawValue xor other.rawValue >= 0))\n                    return this\n                else\n
throw IllegalArgumentException(\"Summing infinite durations of different signs yields an undefined result.\")\n
   }\n
           other.isInfinite() -> return other\n        }\n\n        return when {\n            this.unitDiscriminator ==
other.unitDiscriminator -> {\n                val result = this.value + other.value // never overflows long, but can
overflow long63\n                when {\n                    isInNanos() ->\n
durationOfNanosNormalized(result)\n                    else ->\n                        durationOfMillisNormalized(result)\n
      }\n            }\n            this.isInMillis() ->\n                addValuesMixedRanges(this.value, other.value)\n
else ->\n                addValuesMixedRanges(other.value, this.value)\n        }\n    }\n\n    private fun
addValuesMixedRanges(thisMillis: Long, otherNanos: Long): Duration {\n        val otherMillis =
nanosToMillis(otherNanos)\n        val resultMillis = thisMillis + otherMillis\n        return if (resultMillis in -
MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS) {\n            val otherNanoRemainder
 = otherNanos - millisToNanos(otherMillis)\n            durationOfNanos(millisToNanos(resultMillis) +
otherNanoRemainder)\n        } else {\n            durationOfMillis(resultMillis.coerceIn(-MAX_MILLIS,
MAX_MILLIS))\n        }\n    }\n\n    /**\n     * Returns a duration whose value is the difference between this and
[other] duration values.\n     *\n     * @throws IllegalArgumentException if the operation results in an undefined
value for the given arguments,\n     * e.g. when subtracting infinite durations of the same sign.\n     */\n    public
operator fun minus(other: Duration): Duration = this + (-other)\n\n    /**\n     * Returns a duration whose value is
this duration value multiplied by the given [scale] number.\n     *\n     * @throws IllegalArgumentException if the
operation results in an undefined value for the given arguments,\n     * e.g. when multiplying an infinite duration by
zero.\n     */\n    public operator fun times(scale: Int): Duration {\n        if (isInfinite())
 {\n            return when {\n                scale == 0 -> throw IllegalArgumentException(\"Multiplying infinite duration
by zero yields an undefined result.\")\n                scale > 0 -> this\n                else -> -this\n            }\n        }\n        if
(scale == 0) return ZERO\n\n        val value = value\n        val result = value * scale\n        return if (isInNanos()) {\n
         if (value in (MAX_NANOS / Int.MIN_VALUE)..(-MAX_NANOS / Int.MIN_VALUE)) {\n                // can't
overflow nanos range for any scale\n                durationOfNanos(result)\n            } else {\n                if (result / scale
== value) {\n                    durationOfNanosNormalized(result)\n                } else {\n                    val millis =
nanosToMillis(value)\n                    val remNanos = value - millisToNanos(millis)\n                    val resultMillis =
millis * scale\n                    val totalMillis = resultMillis + nanosToMillis(remNanos * scale)\n
                    if (resultMillis / scale == millis && totalMillis xor resultMillis >= 0) {\n
durationOfMillis(totalMillis.coerceIn(-MAX_MILLIS..MAX_MILLIS))\n                    } else {\n                        if
(value.sign * scale.sign > 0) INFINITE else NEG_INFINITE\n                    }\n                }\n            }\n        } else
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{\n if (result / scale == value) {\n durationOfMillis(result.coerceIn(-MAX_MILLIS..MAX_MILLIS))\n } else {\n if (value.sign * scale.sign > 0) INFINITE else NEG_INFINITE\n }\n }\n }\n\n /**\n * Returns a duration whose value is this duration value multiplied by the given [scale] number.\n *\n * The operation may involve rounding when the result cannot be represented exactly with a [Double] number.\n *\n * @throws IllegalArgumentException if the operation results in an undefined value for the given arguments,\n * e.g. when
multiplying an infinite duration by zero.\n */\n public operator fun times(scale: Double): Duration {\n val intScale = scale.roundToInt()\n if (intScale.toDouble() == scale) {\n return times(intScale)\n }\n\n val unit = storageUnit\n val result = toDouble(unit) * scale\n return result.toDuration(unit)\n }\n\n /**\n * Returns a duration whose value is this duration value divided by the given [scale] number.\n *\n * @throws IllegalArgumentException if the operation results in an undefined value for the given arguments,\n * e.g. when dividing zero duration by zero.\n */\n public operator fun div(scale: Int): Duration {\n if (scale == 0) {\n return when {\n isPositive() -> INFINITE\n isNegative() -> NEG_INFINITE\n else -> throw IllegalArgumentException(\"Dividing zero duration by zero yields an undefined result.\")\n
}\n
}\n if (isInNanos()) {\n return durationOfNanos(value / scale)\n } else {\n if (isInfinite())\n return this * scale.sign\n\n val result = value / scale\n\n if (result in -MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS) {\n val rem = millisToNanos(value - (result * scale)) / scale\n return durationOfNanos(millisToNanos(result) + rem)\n }\n return durationOfMillis(result)\n }\n }\n\n /**\n * Returns a duration whose value is this duration value divided by the given [scale] number.\n *\n * @throws IllegalArgumentException if the operation results in an undefined value for the given arguments,\n * e.g. when dividing an infinite duration by infinity or zero duration by zero.\n */\n public operator fun div(scale: Double): Duration {\n val intScale = scale.roundToInt()\n if (intScale.toDouble() == scale && intScale != 0) {\n
return div(intScale)\n }\n\n val unit = storageUnit\n val result = toDouble(unit) / scale\n return result.toDuration(unit)\n }\n\n /** Returns a number that is the ratio of this and [other] duration values. */\n public operator fun div(other: Duration): Double {\n val coarserUnit = maxOf(this.storageUnit, other.storageUnit)\n return this.toDouble(coarserUnit) / other.toDouble(coarserUnit)\n }\n\n /** Returns true, if the duration value is less than zero. */\n public fun isNegative(): Boolean = rawValue < 0\n\n /** Returns true, if the duration value is greater than zero. */\n public fun isPositive(): Boolean = rawValue > 0\n\n /** Returns true, if the duration value is infinite. */\n public fun isInfinite(): Boolean = rawValue == INFINITE.rawValue || rawValue == NEG_INFINITE.rawValue\n\n /** Returns true, if the duration value is finite. */\n public fun isFinite(): Boolean = !isInfinite()\n\n /**
Returns the absolute value of this value. The returned value is always non-negative. */\n public val absoluteValue: Duration get() = if (isNegative()) -this else this\n\n override fun compareTo(other: Duration): Int {\n val compareBits = this.rawValue xor other.rawValue\n if (compareBits < 0 || compareBits.toInt() and 1 == 0) // different signs or same sign/same range\n return this.rawValue.compareTo(other.rawValue)\n // same sign/different ranges\n val r = this.unitDiscriminator - other.unitDiscriminator // compare ranges\n return if (isNegative()) -r else r\n }\n\n\n // splitting to components\n\n /**\n * Splits this duration into days, hours, minutes, seconds, and nanoseconds and executes the given [action] with these components.\n * The result of [action] is returned as the result of this function.\n *\n * - `nanoseconds` represents the whole number of nanoseconds in this duration, and its absolute value
is less than 1_000_000_000;\n * - `seconds` represents the whole number of seconds in this duration, and its absolute value is less than 60;\n * - `minutes` represents the whole number of minutes in this duration, and its absolute value is less than 60;\n * - `hours` represents the whole number of hours in this duration, and its absolute value is less than 24;\n * - `days` represents the whole number of days in this duration.\n *\n * Infinite durations are represented as either [Long.MAX_VALUE] days, or [Long.MIN_VALUE] days (depending on the sign of infinity),\n * and zeroes in the lower components.\n */\n public inline fun <T> toComponents(action:

(days: Long, hours: Int, minutes: Int, seconds: Int, nanoseconds: Int) -> T): T {\n contract { callsInPlace(action, InvocationKind.EXACTLY_ONCE) }\n return action(inWholeDays, hoursComponent, minutesComponent, secondsComponent, nanosecondsComponent)\n }\n\n /**\n * Splits this
duration into hours, minutes, seconds, and nanoseconds and executes the given [action] with these components.\n * The result of [action] is returned as the result of this function.\n *\n * - `nanoseconds` represents the whole number of nanoseconds in this duration, and its absolute value is less than 1_000_000_000;\n * - `seconds` represents the whole number of seconds in this duration, and its absolute value is less than 60;\n * - `minutes` represents the whole number of minutes in this duration, and its absolute value is less than 60;\n * - `hours` represents the whole number of hours in this duration.\n *\n * Infinite durations are represented as either [Long.MAX_VALUE] hours, or [Long.MIN_VALUE] hours (depending on the sign of infinity),\n * and zeroes in the lower components.\n */\n public inline fun <T> toComponents(action: (hours: Long, minutes: Int, seconds: Int, nanoseconds: Int) -> T): T {\n contract { callsInPlace(action,
InvocationKind.EXACTLY_ONCE) }\n return action(inWholeHours, minutesComponent, secondsComponent, nanosecondsComponent)\n }\n\n /**\n * Splits this duration into minutes, seconds, and nanoseconds and executes the given [action] with these components.\n * The result of [action] is returned as the result of this function.\n *\n * - `nanoseconds` represents the whole number of nanoseconds in this duration, and its absolute value is less than 1_000_000_000;\n * - `seconds` represents the whole number of seconds in this duration, and its absolute value is less than 60;\n * - `minutes` represents the whole number of minutes in this duration.\n *\n * Infinite durations are represented as either [Long.MAX_VALUE] minutes, or [Long.MIN_VALUE] minutes (depending on the sign of infinity),\n * and zeroes in the lower components.\n */\n public inline fun <T> toComponents(action: (minutes: Long, seconds: Int, nanoseconds: Int) -> T): T {\n
contract { callsInPlace(action, InvocationKind.EXACTLY_ONCE) }\n return action(inWholeMinutes, secondsComponent, nanosecondsComponent)\n }\n\n /**\n * Splits this duration into seconds, and nanoseconds and executes the given [action] with these components.\n * The result of [action] is returned as the result of this function.\n *\n * - `nanoseconds` represents the whole number of nanoseconds in this duration, and its absolute value is less than 1_000_000_000;\n * - `seconds` represents the whole number of seconds in this duration.\n *\n * Infinite durations are represented as either [Long.MAX_VALUE] seconds, or [Long.MIN_VALUE] seconds (depending on the sign of infinity),\n * and zero nanoseconds.\n */\n public inline fun <T> toComponents(action: (seconds: Long, nanoseconds: Int) -> T): T {\n contract { callsInPlace(action, InvocationKind.EXACTLY_ONCE) }\n return action(inWholeSeconds, nanosecondsComponent)\n
}\n\n @PublishedApi\n internal val hoursComponent: Int\n get() = if (isInfinite()) 0 else (inWholeHours % 24).toInt()\n\n @PublishedApi\n internal val minutesComponent: Int\n get() = if (isInfinite()) 0 else (inWholeMinutes % 60).toInt()\n\n @PublishedApi\n internal val secondsComponent: Int\n get() = if (isInfinite()) 0 else (inWholeSeconds % 60).toInt()\n\n @PublishedApi\n internal val nanosecondsComponent: Int\n get() = when {\n isInfinite() -> 0\n isInMillis() -> millisToNanos(value % 1_000).toInt()\n else -> (value % 1_000_000_000).toInt()\n }\n\n\n // conversion to units\n\n /**\n * Returns the value of this duration expressed as a [Double] number of the specified [unit].\n *\n * The operation may involve rounding when the result cannot be represented exactly with a [Double] number.\n *\n * An infinite duration value is converted either to [Double.POSITIVE_INFINITY]
or [Double.NEGATIVE_INFINITY] depending on its sign.\n */\n public fun toDouble(unit: DurationUnit): Double {\n return when (rawValue) {\n INFINITE.rawValue -> Double.POSITIVE_INFINITY\n NEG_INFINITE.rawValue -> Double.NEGATIVE_INFINITY\n else -> {\n // TODO: whether it's ok to convert to Double before scaling\n convertDurationUnit(value.toDouble(), storageUnit, unit)\n }\n }\n }\n\n /**\n * Returns the value of this duration expressed as a [Long] number of the specified [unit].\n *\n * If the result doesn't fit in the range of [Long] type, it is coerced into that range:\n * - [Long.MIN_VALUE] is returned if it's less than `Long.MIN_VALUE`,\n * - [Long.MAX_VALUE] is returned if it's greater than `Long.MAX_VALUE`.\n *\n * An infinite duration value is converted either to

[Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n */\n public fun toLong(unit: DurationUnit): Long {\n return when (rawValue) {\n INFINITE.rawValue -> Long.MAX_VALUE\n NEG_INFINITE.rawValue -> Long.MIN_VALUE\n else -> convertDurationUnit(value, storageUnit, unit)\n }\n }\n\n /**\n * Returns the value of this duration expressed as an [Int] number of the specified [unit].\n *\n * If the result doesn't fit in the range of [Int] type, it is coerced into that range:\n * - [Int.MIN_VALUE] is returned if it's less than `Int.MIN_VALUE`,\n * - [Int.MAX_VALUE] is returned if it's greater than `Int.MAX_VALUE`.\n *\n * An infinite duration value is converted either to [Int.MAX_VALUE] or [Int.MIN_VALUE] depending on its sign.\n */\n public fun toInt(unit: DurationUnit): Int =\n toLong(unit).coerceIn(Int.MIN_VALUE.toLong(), Int.MAX_VALUE.toLong()).toInt()\n\n /** The value of this duration expressed as a [Double] number of days. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeDays property instead or convert toDouble(DAYS) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.DAYS)\"))\n public val inDays: Double get() = toDouble(DurationUnit.DAYS)\n\n /** The value of this duration expressed as a [Double] number of hours. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeHours property instead or convert toDouble(HOURS) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.HOURS)\"))\n public val inHours: Double get() = toDouble(DurationUnit.HOURS)\n\n /** The value of this duration expressed as a [Double] number of minutes. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeMinutes property instead or convert toDouble(MINUTES) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.MINUTES)\"))\n public val inMinutes: Double get() = toDouble(DurationUnit.MINUTES)\n\n /** The value of this duration expressed as a [Double] number of seconds. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeSeconds property instead or convert toDouble(SECONDS) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.SECONDS)\"))\n public val inSeconds: Double get() = toDouble(DurationUnit.SECONDS)\n\n /** The value of this duration expressed as a [Double] number of milliseconds. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeMilliseconds property instead or convert toDouble(MILLISECONDS) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.MILLISECONDS)\"))\n public val inMilliseconds: Double get() = toDouble(DurationUnit.MILLISECONDS)\n\n /** The value of this duration expressed as a [Double] number of microseconds. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeMicroseconds property instead or convert toDouble(MICROSECONDS) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.MICROSECONDS)\"))\n public val inMicroseconds: Double get() = toDouble(DurationUnit.MICROSECONDS)\n\n /** The value of this duration expressed as a [Double] number of nanoseconds. */\n @ExperimentalTime\n @Deprecated(\"Use inWholeNanoseconds property instead or convert toDouble(NANOSECONDS) if a double value is required.\", ReplaceWith(\"toDouble(DurationUnit.NANOSECONDS)\"))\n public val inNanoseconds: Double get() = toDouble(DurationUnit.NANOSECONDS)\n\n\n /**\n * The value of this duration expressed as a [Long] number of days.\n *\n * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n */\n public val inWholeDays: Long\n get() = toLong(DurationUnit.DAYS)\n\n /**\n * The value of this duration expressed as a [Long] number of hours.\n *\n * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n */\n public val inWholeHours: Long\n get() = toLong(DurationUnit.HOURS)\n\n /**\n * The value of this duration expressed as a [Long] number of minutes.\n *\n * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n */\n public val inWholeMinutes: Long\n get() = toLong(DurationUnit.MINUTES)\n\n /**\n * The value of this duration expressed as a [Long] number of seconds.\n *\n * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n */\n public val inWholeSeconds: Long\n get() = toLong(DurationUnit.SECONDS)\n\n /**\n * The value of this duration expressed as a [Long] number of milliseconds.\n   *\n   * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n   */\n   public val inWholeMilliseconds: Long\n   get() {\n   return if (isInMillis() && isFinite()) value else toLong(DurationUnit.MILLISECONDS)\n   }\n\n   /**\n   * The value of this

duration expressed as a [Long] number of microseconds.\n   *\n   * If the result doesn't fit in the range of [Long] type, it is coerced into that range:\n   * - [Long.MIN_VALUE] is returned if it's less than `Long.MIN_VALUE`,\n   * - [Long.MAX_VALUE] is returned if it's greater than `Long.MAX_VALUE`.\n   *\n   * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n   */\n   public val inWholeMicroseconds: Long\n   get() = toLong(DurationUnit.MICROSECONDS)\n\n   /**\n   * The value of this duration expressed as a [Long] number of nanoseconds.\n   *\n   * If the result doesn't fit in the range of [Long] type, it is coerced into that range:\n   * - [Long.MIN_VALUE] is returned if it's less than `Long.MIN_VALUE`,\n   * - [Long.MAX_VALUE] is returned if it's greater than `Long.MAX_VALUE`.\n   *\n   * An infinite duration value is converted either to [Long.MAX_VALUE] or [Long.MIN_VALUE] depending on its sign.\n   */\n   public val inWholeNanoseconds: Long\n   get() {\n   val value = value\n   return when {\n   isInNanos() -> value\n   value > Long.MAX_VALUE / NANOS_IN_MILLIS -> Long.MAX_VALUE\n   value < Long.MIN_VALUE / NANOS_IN_MILLIS -> Long.MIN_VALUE\n   else -> millisToNanos(value)\n   }\n   }\n\n   // shortcuts\n\n   /**\n   * Returns the value of this duration expressed as a [Long] number of nanoseconds.\n   *\n   * If the value doesn't fit in the range of [Long] type, it is coerced into that range, see the conversion [Double.toLong] for details.\n   *\n   * The range of durations that can be expressed as a `Long` number of nanoseconds is approximately \u00b1292 years.\n   */\n   @ExperimentalTime\n   @Deprecated(\"Use inWholeNanoseconds property instead.\", ReplaceWith(\"this.inWholeNanoseconds\"))\n   public fun toLongNanoseconds(): Long = inWholeNanoseconds\n\n

/**\n   * Returns the value of this duration expressed as a [Long] number of milliseconds.\n   *\n   * The value is coerced to the range of [Long] type, if it doesn't fit in that range, see the conversion [Double.toLong] for details.\n   *\n   * The range of durations that can be expressed as a `Long` number of milliseconds is approximately \u00b1292 million years.\n   */\n   @ExperimentalTime\n   @Deprecated(\"Use inWholeMilliseconds property instead.\", ReplaceWith(\"this.inWholeMilliseconds\"))\n   public fun toLongMilliseconds(): Long = inWholeMilliseconds\n\n   /**\n   * Returns a string representation of this duration value\n   * expressed as a combination of numeric components, each in its own unit.\n   *\n   * Each component is a number followed by the unit abbreviated name: `d`, `h`, `m`, `s`:\n   * `5h`, `1d 12h`, `1h 0m 30.340s`.\n   * The last component, usually seconds, can be a number with a fractional part.\n   *\n   * If the duration

is less than a second, it is represented as a single number\n   * with one of sub-second units: `ms` (milliseconds), `us` (microseconds), or `ns` (nanoseconds):\n   * `140.884ms`, `500us`, `24ns`.\n   *\n   * A negative duration is prefixed with `-` sign and, if it consists of multiple components, surrounded with parentheses:\n   * `-12m` and `-(1h 30m)`.\n   *\n   * Special cases:\n   * - an infinite duration is formatted as `\"Infinity\"` or `\"-Infinity\"` without a unit.\n   *\n   * It's recommended to use [toIsoString] that uses more strict ISO-8601 format instead of this `toString`\n   * when you want to convert a duration to a string in cases of serialization, interchange, etc.\n   *\n   * @sample samples.time.Durations.toStringDefault\n   */\n   override fun toString(): String = when (rawValue) {\n   0L -> \"0s\"\n   INFINITE.rawValue -> \"Infinity\"\n   NEG_INFINITE.rawValue -> \"-Infinity\"\n   else -> {\n   val isNegative

= isNegative()\n   buildString {\n   if (isNegative) append('-')\n   absoluteValue.toComponents { days, hours, minutes, seconds, nanoseconds ->\n   val hasDays = days != 0L\n   val hasHours = hours != 0\n   val hasMinutes = minutes != 0\n   val hasSeconds = seconds != 0 || nanoseconds != 0\n   var components = 0\n   if (hasDays) {\n   append(days).append('d')\n   components++\n   }\n   if (hasHours || (hasDays && (hasMinutes || hasSeconds))) {\n   if (components++ > 0) append(' ')\n   append(hours).append('h')\n   }\n   if (hasMinutes || (hasSeconds && (hasHours || hasDays)))

{\n if (components++ > 0) append(' ')\n append(minutes).append('m')\n }\n if (hasSeconds) {\n if (components++ > 0) append(' ')\n when {\n seconds != 0 || hasDays || hasHours || hasMinutes ->\n appendFractional(seconds, nanoseconds, 9, \"s\", isoZeroes = false)\n nanoseconds >= 1_000_000 ->\n appendFractional(nanoseconds / 1_000_000, nanoseconds % 1_000_000, 6, \"ms\", isoZeroes = false)\n nanoseconds >= 1_000 ->\n appendFractional(nanoseconds / 1_000, nanoseconds % 1_000, 3, \"us\", isoZeroes = false)\n else ->\n append(nanoseconds).append(\"ns\")\n }\n }\n if (isNegative && components > 1) insert(1, '(').append(')')\n }\n }\n }\n\n private fun StringBuilder.appendFractional(whole:

Int, fractional: Int, fractionalSize: Int, unit: String, isoZeroes: Boolean) {\n append(whole)\n if (fractional != 0) {\n append('.')\n val fracString = fractional.toString().padStart(fractionalSize, '0')\n val nonZeroDigits = fracString.indexOfLast { it != '0' } + 1\n when {\n !isoZeroes && nonZeroDigits < 3 -> appendRange(fracString, 0, nonZeroDigits)\n else -> appendRange(fracString, 0, ((nonZeroDigits + 2) / 3) * 3)\n }\n }\n append(unit)\n }\n\n /**\n * Returns a string representation of this duration value expressed in the given [unit]\n * and formatted with the specified [decimals] number of digits after decimal point.\n *\n * Special cases:\n * - an infinite duration is formatted as `\"Infinity\"` or `\"-Infinity\"` without a unit.\n *\n * @param decimals the number of digits after decimal point

to show. The value must be non-negative.\n * No more than 12 decimals will be shown, even if a larger number is requested.\n *\n * @return the value of duration in the specified [unit] followed by that unit abbreviated name: `d`, `h`, `m`, `s`, `ms`, `us`, or `ns`.\n *\n * @throws IllegalArgumentException if [decimals] is less than zero.\n *\n * @sample samples.time.Durations.toStringDecimals\n */\n public fun toString(unit: DurationUnit, decimals: Int = 0): String {\n require(decimals >= 0) { \"decimals must be not negative, but was $decimals\" }\n val number = toDouble(unit)\n if (number.isInfinite()) return number.toString()\n return formatToExactDecimals(number, decimals.coerceAtMost(12)) + unit.shortName()\n }\n\n\n /**\n * Returns an ISO-8601 based string representation of this duration.\n *\n * The returned value is presented in the format `PThHmMs.fS`, where `h`, `m`, `s` are the integer components

of this duration (see [toComponents])\n * and `f` is a fractional part of second. Depending on the roundness of the value the fractional part can be formatted with either\n * 0, 3, 6, or 9 decimal digits.\n *\n * The infinite duration is represented as `\"PT9999999999999H\"` which is larger than any possible finite duration in Kotlin.\n *\n * Negative durations are indicated with the sign `-` in the beginning of the returned string, for example, `\"-PT5M30S\"`.\n *\n * @sample samples.time.Durations.toIsoString\n */\n public fun toIsoString(): String = buildString {\n if (isNegative()) append('-')\n append(\"PT\")\n this@Duration.absoluteValue.toComponents { hours, minutes, seconds, nanoseconds ->\n @Suppress(\"NAME_SHADOWING\")\n var hours = hours\n if (isInfinite()) {\n // use large enough value instead of Long.MAX_VALUE\n hours = 9_999_999_999_999\n

}\n val hasHours = hours != 0L\n val hasSeconds = seconds != 0 || nanoseconds != 0\n val hasMinutes = minutes != 0 || (hasSeconds && hasHours)\n if (hasHours) {\n append(hours).append('H')\n }\n if (hasMinutes) {\n append(minutes).append('M')\n }\n if (hasSeconds || (!hasHours && !hasMinutes)) {\n appendFractional(seconds, nanoseconds, 9, \"S\", isoZeroes = true)\n }\n }\n }\n\n}\n\n// constructing from number of units\n// extension functions\n\n/** Returns a [Duration] equal to this [Int] number of the specified [unit]. */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\npublic fun Int.toDuration(unit: DurationUnit): Duration {\n return if (unit <= DurationUnit.SECONDS) {\n durationOfNanos(convertDurationUnitOverflow(this.toLong(), unit, DurationUnit.NANOSECONDS))\n } else\n toLong().toDuration(unit)\n}\n\n/**

Returns a [Duration] equal to this [Long] number of the specified [unit]. */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\npublic fun Long.toDuration(unit:

DurationUnit): Duration {\n val maxNsInUnit = convertDurationUnitOverflow(MAX_NANOS, DurationUnit.NANOSECONDS, unit)\n if (this in -maxNsInUnit..maxNsInUnit) {\n return durationOfNanos(convertDurationUnitOverflow(this, unit, DurationUnit.NANOSECONDS))\n } else {\n val millis = convertDurationUnit(this, unit, DurationUnit.MILLISECONDS)\n return durationOfMillis(millis.coerceIn(-MAX_MILLIS, MAX_MILLIS))\n }\n}\n\n/**\n * Returns a [Duration] equal to this [Double] number of the specified [unit].\n *\n * Depending on its magnitude, the value is rounded to an integer number of nanoseconds or milliseconds.\n *\n * @throws IllegalArgumentException if this `Double` value is `NaN`.\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\npublic fun Double.toDuration(unit: DurationUnit): Duration {\n val valueInNs = convertDurationUnit(this, unit, DurationUnit.NANOSECONDS)\n require(!valueInNs.isNaN()) { \"Duration value cannot be NaN.\" }\n val nanos = valueInNs.roundToLong()\n return if (nanos in -MAX_NANOS..MAX_NANOS) {\n durationOfNanos(nanos)\n } else {\n val millis = convertDurationUnit(this, unit, DurationUnit.MILLISECONDS).roundToLong()\n durationOfMillisNormalized(millis)\n }\n}\n\n// constructing from number of units\n// deprecated extension properties\n\n/** Returns a [Duration] equal to this [Int] number of nanoseconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.nanoseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.nanoseconds\", \"kotlin.time.Duration.Companion.nanoseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)\n\n/** Returns a [Duration] equal to this [Long] number of nanoseconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.nanoseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.nanoseconds\", \"kotlin.time.Duration.Companion.nanoseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)\n\n/**\n * Returns a [Duration] equal to this [Double] number of nanoseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.nanoseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.nanoseconds\", \"kotlin.time.Duration.Companion.nanoseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.nanoseconds get() = toDuration(DurationUnit.NANOSECONDS)\n\n\n/** Returns a [Duration] equal to this [Int] number of microseconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.microseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.microseconds\", \"kotlin.time.Duration.Companion.microseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n/** Returns a [Duration] equal to this [Long] number of microseconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.microseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.microseconds\", \"kotlin.time.Duration.Companion.microseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n/**\n * Returns a [Duration] equal to this [Double] number of microseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.microseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.microseconds\", \"kotlin.time.Duration.Companion.microseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.microseconds get() = toDuration(DurationUnit.MICROSECONDS)\n\n\n/** Returns a [Duration] equal to this [Int] number of milliseconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.milliseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.milliseconds\", \"kotlin.time.Duration.Companion.milliseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n/** Returns a [Duration] equal to this [Long] number of milliseconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.milliseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.milliseconds\",

\"kotlin.time.Duration.Companion.milliseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n/**\n * Returns a [Duration] equal to this [Double] number of milliseconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.milliseconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.milliseconds\", \"kotlin.time.Duration.Companion.milliseconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.milliseconds get() = toDuration(DurationUnit.MILLISECONDS)\n\n\n/** Returns a [Duration] equal to this [Int] number of seconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.seconds get() = toDuration(DurationUnit.SECONDS)\n\n/** Returns a [Duration] equal to this [Long] number of seconds. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.seconds get() = toDuration(DurationUnit.SECONDS)\n\n/**\n * Returns a [Duration] equal to this [Double] number of seconds.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.seconds' extension property from Duration.Companion instead.\", ReplaceWith(\"this.seconds\", \"kotlin.time.Duration.Companion.seconds\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.seconds get() = toDuration(DurationUnit.SECONDS)\n\n\n/** Returns a [Duration] equal to this [Int] number of minutes. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.minutes' extension property from Duration.Companion instead.\", ReplaceWith(\"this.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.minutes get() = toDuration(DurationUnit.MINUTES)\n\n/** Returns a [Duration] equal to this [Long] number of minutes. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.minutes' extension property from Duration.Companion instead.\", ReplaceWith(\"this.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.minutes get() = toDuration(DurationUnit.MINUTES)\n\n/**\n * Returns a [Duration] equal to this [Double] number of minutes.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.minutes' extension property from Duration.Companion instead.\", ReplaceWith(\"this.minutes\", \"kotlin.time.Duration.Companion.minutes\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.minutes get() = toDuration(DurationUnit.MINUTES)\n\n\n/** Returns a [Duration] equal to this [Int] number of hours. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"this.hours\", \"kotlin.time.Duration.Companion.hours\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.hours get() = toDuration(DurationUnit.HOURS)\n\n/** Returns a [Duration] equal to this [Long] number of hours. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"this.hours\", \"kotlin.time.Duration.Companion.hours\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.hours get() = toDuration(DurationUnit.HOURS)\n\n/**\n * Returns a [Duration] equal to this [Double] number of hours.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.hours' extension property from Duration.Companion instead.\", ReplaceWith(\"this.hours\", \"kotlin.time.Duration.Companion.hours\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.hours get() = toDuration(DurationUnit.HOURS)\n\n\n/** Returns a [Duration] equal to this [Int] number of days. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Int.days' extension property from

Duration.Companion instead.\", ReplaceWith(\"this.days\", \"kotlin.time.Duration.Companion.days\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Int.days get() = toDuration(DurationUnit.DAYS)\n\n/** Returns a [Duration] equal to this [Long] number of days. */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Long.days' extension property from Duration.Companion instead.\", ReplaceWith(\"this.days\", \"kotlin.time.Duration.Companion.days\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Long.days get() = toDuration(DurationUnit.DAYS)\n\n/**\n * Returns a [Duration] equal to this [Double] number of days.\n *\n * @throws IllegalArgumentException if this [Double] value is `NaN`.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\n@Deprecated(\"Use 'Double.days' extension property from Duration.Companion instead.\", ReplaceWith(\"this.days\", \"kotlin.time.Duration.Companion.days\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic val Double.days get() = toDuration(DurationUnit.DAYS)\n\n\n/** Returns a duration whose value is the specified [duration] value multiplied by this number. */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\n@kotlin.internal.InlineOnly\npublic inline operator fun Int.times(duration: Duration): Duration = duration * this\n\n/**\n * Returns a duration whose value is the specified [duration] value multiplied by this number.\n *\n * The operation may involve rounding when the result cannot be represented exactly with a [Double] number.\n *\n * @throws IllegalArgumentException if the operation results in a `NaN` value.\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\n@kotlin.internal.InlineOnly\npublic inline operator fun Double.times(duration: Duration): Duration = duration * this\n\n\n\nprivate fun parseDuration(value: String, strictIso: Boolean): Duration {\n   var length = value.length\n   if (length == 0) throw IllegalArgumentException(\"The string is empty\")\n   var index = 0\n   var result = Duration.ZERO\n   val infinityString = \"Infinity\"\n   when (value[index]) {\n   '+', '-' -> index++\n   }\n   val hasSign = index > 0\n   val isNegative = hasSign && value.startsWith('-')\n   when {\n   length <= index ->\n   throw IllegalArgumentException(\"No components\")\n   value[index] == 'P' -> {\n   if (++index == length) throw IllegalArgumentException()\n   val nonDigitSymbols = \"+-.\"\n   var isTimeComponent = false\n   var prevUnit: DurationUnit? = null\n   while (index < length) {\n   if (value[index] == 'T') {\n   if (isTimeComponent || ++index == length) throw IllegalArgumentException()\n   isTimeComponent = true\n   continue\n   }\n   val component = value.substringWhile(index) { it in '0'..'9' || it in nonDigitSymbols }\n   if (component.isEmpty()) throw IllegalArgumentException()\n   index += component.length\n   val unitChar = value.getOrElse(index) { throw IllegalArgumentException(\"Missing unit for value $component\") }\n   index++\n   val unit = durationUnitByIsoChar(unitChar, isTimeComponent)\n   if (prevUnit != null && prevUnit <= unit) throw IllegalArgumentException(\"Unexpected order of duration components\")\n   prevUnit = unit\n   val dotIndex = component.indexOf('.')\n   if (unit == DurationUnit.SECONDS && dotIndex > 0) {\n   val whole = component.substring(0, dotIndex)\n   result += parseOverLongIsoComponent(whole).toDuration(unit)\n   result += component.substring(dotIndex).toDouble().toDuration(unit)\n   } else {\n   result += parseOverLongIsoComponent(component).toDuration(unit)\n   }\n   }\n   }\n   strictIso ->\n   throw IllegalArgumentException()\n   value.regionMatches(index, infinityString, 0, length = maxOf(length - index, infinityString.length), ignoreCase = true) -> {\n   result = Duration.INFINITE\n   }\n   else -> {\n   // parse default string format\n   var prevUnit: DurationUnit? = null\n   var afterFirst = false\n   var allowSpaces = !hasSign\n   if (hasSign && value[index] == '(' && value.last() == ')') {\n   allowSpaces = true\n   if (++index == --length) throw IllegalArgumentException(\"No components\")\n   }\n   while (index < length) {\n   if (afterFirst && allowSpaces) {\n   index = value.skipWhile(index) { it == ' ' }\n   }\n   afterFirst = true\n   val component = value.substringWhile(index) { it in '0'..'9' || it == '.' }\n   if (component.isEmpty()) throw IllegalArgumentException()\n   index +=

component.length\n val unitName = value.substringWhile(index) { it in 'a'..'z' }\n index += unitName.length\n val unit = durationUnitByShortName(unitName)\n if (prevUnit != null && prevUnit <= unit) throw IllegalArgumentException(\"Unexpected order of duration components\")\n prevUnit = unit\n val dotIndex = component.indexOf('.')\n if (dotIndex > 0) {\n val whole = component.substring(0, dotIndex)\n result += whole.toLong().toDuration(unit)\n result += component.substring(dotIndex).toDouble().toDuration(unit)\n if (index < length) throw IllegalArgumentException(\"Fractional component must be last\")\n } else {\n result += component.toLong().toDuration(unit)\n }\n }\n }\n }\n return if (isNegative) -result else result\n}\n\n\nprivate fun parseOverLongIsoComponent(value: String): Long {\n val length = value.length\n var startIndex = 0\n if (length > 0 && value[0] in \"+-\") startIndex++\n if ((length - startIndex) > 16 && (startIndex..value.lastIndex).all { value[it] in '0'..'9' }) {\n // all chars are digits, but more than ceiling(log10(MAX_MILLIS / 1000)) of them\n return if (value[0] == '-') Long.MIN_VALUE else Long.MAX_VALUE\n }\n // TODO: replace with just toLong after
min JDK becomes 8\n return if (value.startsWith(\"+\")) value.drop(1).toLong() else value.toLong()\n}\n\n\n\nprivate inline fun String.substringWhile(startIndex: Int, predicate: (Char) -> Boolean): String =\n substring(startIndex, skipWhile(startIndex, predicate))\n\nprivate inline fun String.skipWhile(startIndex: Int, predicate: (Char) -> Boolean): Int {\n var i = startIndex\n while (i < length && predicate(this[i])) i++\n return i\n}\n\n\n\n\n\n// The ranges are chosen so that they are:\n// - symmetric relative to zero: this greatly simplifies operations with sign, e.g. unaryMinus and minus.\n// - non-overlapping, but adjacent: the first value that doesn't fit in nanos range, can be exactly represented in millis.\n\ninternal const val NANOS_IN_MILLIS = 1_000_000\n// maximum number duration can store in nanosecond range\ninternal const val MAX_NANOS = Long.MAX_VALUE / 2 / NANOS_IN_MILLIS * NANOS_IN_MILLIS - 1 // ends in ..._999_999\n// maximum number duration can store
in millisecond range, also encodes an infinite value\ninternal const val MAX_MILLIS = Long.MAX_VALUE / 2\n// MAX_NANOS expressed in milliseconds\nprivate const val MAX_NANOS_IN_MILLIS = MAX_NANOS / NANOS_IN_MILLIS\n\nprivate fun nanosToMillis(nanos: Long): Long = nanos / NANOS_IN_MILLIS\nprivate fun millisToNanos(millis: Long): Long = millis * NANOS_IN_MILLIS\n\nprivate fun durationOfNanos(normalNanos: Long) = Duration(normalNanos shl 1)\nprivate fun durationOfMillis(normalMillis: Long) = Duration((normalMillis shl 1) + 1)\nprivate fun durationOf(normalValue: Long, unitDiscriminator: Int) = Duration((normalValue shl 1) + unitDiscriminator)\nprivate fun durationOfNanosNormalized(nanos: Long) =\n if (nanos in -MAX_NANOS..MAX_NANOS) {\n durationOfNanos(nanos)\n } else {\n durationOfMillis(nanosToMillis(nanos))\n }\n\nprivate fun durationOfMillisNormalized(millis: Long) =\n if (millis in -MAX_NANOS_IN_MILLIS..MAX_NANOS_IN_MILLIS) {\n durationOfNanos(millisToNanos(millis))\n
} else {\n durationOfMillis(millis.coerceIn(-MAX_MILLIS, MAX_MILLIS))\n }\n\ninternal expect val durationAssertionsEnabled: Boolean\n\ninternal expect fun formatToExactDecimals(value: Double, decimals: Int): String\ninternal expect fun formatUpToDecimals(value: Double, decimals: Int): String","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n@file:kotlin.jvm.JvmName(\"UnsignedKt\")\npackage kotlin\n\n\n@PublishedApi\ninternal fun uintCompare(v1: Int, v2: Int): Int = (v1 xor Int.MIN_VALUE).compareTo(v2 xor Int.MIN_VALUE)\n@PublishedApi\ninternal fun ulongCompare(v1: Long, v2: Long): Int = (v1 xor Long.MIN_VALUE).compareTo(v2 xor Long.MIN_VALUE)\n\n@PublishedApi\ninternal fun uintDivide(v1: UInt, v2: UInt): UInt = (v1.toLong() / v2.toLong()).toUInt()\n@PublishedApi\ninternal fun uintRemainder(v1:
UInt, v2: UInt): UInt = (v1.toLong() % v2.toLong()).toUInt()\n\n// Division and remainder are based on Guava's UnsignedLongs implementation\n// Copyright 2011 The Guava Authors\n\n@PublishedApi\ninternal fun ulongDivide(v1: ULong, v2: ULong): ULong {\n val dividend = v1.toLong()\n val divisor = v2.toLong()\n if (divisor < 0) { // i.e., divisor >= 2^63:\n return if (v1 < v2) ULong(0) else ULong(1)\n }\n\n // Optimization

- use signed division if both dividend and divisor < 2^63\n   if (dividend >= 0) {\n   return ULong(dividend / divisor)\n   }\n\n   // Otherwise, approximate the quotient, check, and correct if necessary.\n   val quotient = ((dividend ushr 1) / divisor) shl 1\n   val rem = dividend - quotient * divisor\n   return ULong(quotient + if (ULong(rem) >= ULong(divisor)) 1 else 0)\n\n}\n\n@PublishedApi\ninternal fun ulongRemainder(v1: ULong, v2: ULong): ULong {\n   val dividend = v1.toLong()\n   val divisor = v2.toLong()\n   if (divisor < 0) { // i.e., divisor >= 2^63:\n   return if (v1 < v2) {\n   v1 // dividend < divisor\n   } else {\n   v1 - v2 // dividend >= divisor\n   }\n   }\n\n   // Optimization - use signed modulus if both dividend and divisor < 2^63\n   if (dividend >= 0) {\n   return ULong(dividend % divisor)\n   }\n\n   // Otherwise, approximate the quotient, check, and correct if necessary.\n   val quotient = ((dividend ushr 1) / divisor) shl 1\n   val rem = dividend - quotient * divisor\n   return ULong(rem - if (ULong(rem) >= ULong(divisor)) divisor else 0)\n}\n\n@PublishedApi\ninternal fun doubleToUInt(v: Double): UInt = when {\n   v.isNaN() -> 0u\n   v <= UInt.MIN_VALUE.toDouble() -> UInt.MIN_VALUE\n   v >= UInt.MAX_VALUE.toDouble() -> UInt.MAX_VALUE\n   v <= Int.MAX_VALUE -> v.toInt().toUInt()\n   else -> (v - Int.MAX_VALUE).toInt().toUInt() + Int.MAX_VALUE.toUInt()   // Int.MAX_VALUE < v < UInt.MAX_VALUE\n}\n\n@PublishedApi\ninternal fun doubleToULong(v: Double): ULong = when {\n   v.isNaN() -> 0u\n   v <= ULong.MIN_VALUE.toDouble() -> ULong.MIN_VALUE\n   v >= ULong.MAX_VALUE.toDouble() -> ULong.MAX_VALUE\n   v < Long.MAX_VALUE -> v.toLong().toULong()\n\n   // Real values from Long.MAX_VALUE to (Long.MAX_VALUE + 1) are not representable in Double, so don't handle them.\n   else -> (v - 9223372036854775808.0).toLong().toULong() + 9223372036854775808uL   // Long.MAX_VALUE + 1 < v < ULong.MAX_VALUE\n}\n\n\n@PublishedApi\ninternal fun uintToDouble(v: Int): Double = (v and Int.MAX_VALUE).toDouble() + (v ushr 31 shl 30).toDouble() * 2\n\n@PublishedApi\ninternal fun ulongToDouble(v: Long): Double = (v ushr 11).toDouble() * 2048 + (v and 2047)\n\n\ninternal fun ulongToString(v: Long): String = ulongToString(v, 10)\n\ninternal fun ulongToString(v: Long, base: Int): String {\n   if (v >= 0) return v.toString(base)\n\n   var quotient = ((v ushr 1) / base) shl 1\n   var rem = v - quotient * base\n   if (rem >= base) {\n   rem -= base\n   quotient += 1\n   }\n   return quotient.toString(base) + rem.toString(base)\n}\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CollectionsKt\")\n\npackage kotlin.collections\n\n/**\n * Given an [iterator] function constructs an [Iterable] instance that returns values through the [Iterator]\n * provided by that function.\n * @sample samples.collections.Iterables.Building.iterable\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable(crossinline iterator: () -> Iterator<T>): Iterable<T> = object : Iterable<T> {\n   override fun iterator(): Iterator<T> = iterator()\n}\n\n/**\n * A wrapper over another [Iterable] (or any other object that can produce an [Iterator]) that returns\n * an indexing iterator.\n */\ninternal class IndexingIterable<out T>(private val iteratorFactory: () -> Iterator<T>) : Iterable<IndexedValue<T>> {\n   override fun iterator(): Iterator<IndexedValue<T>> = IndexingIterator(iteratorFactory())\n}\n\n\n/**\n * Returns the size of this iterable if it is known, or `null` otherwise.\n */\n@PublishedApi\ninternal fun <T> Iterable<T>.collectionSizeOrNull(): Int? = if (this is Collection<*>) this.size else null\n\n/**\n * Returns the size of this iterable if it is known, or the specified [default] value otherwise.\n */\n@PublishedApi\ninternal fun <T> Iterable<T>.collectionSizeOrDefault(default: Int): Int = if (this is Collection<*>) this.size else default\n\n/**\n * Returns a single list of all elements from all collections in the given collection.\n * @sample samples.collections.Iterables.Operations.flattenIterable\n */\npublic fun <T> Iterable<Iterable<T>>.flatten(): List<T> {\n   val result = ArrayList<T>()\n   for (element in this) {\n   result.addAll(element)\n   }\n   return result\n}\n\n/**\n * Returns a pair of lists, where\n * *first* list is built from the first values of each pair from this collection,\n * *second* list is built from the second values of each pair from this collection.\n * @sample samples.collections.Iterables.Operations.unzipIterable\n */\npublic fun <T, R> Iterable<Pair<T, R>>.unzip():

Pair<List<T>, List<R>> {\n   val expectedSize = collectionSizeOrDefault(10)\n   val listT = ArrayList<T>(expectedSize)\n   val listR = ArrayList<R>(expectedSize)\n   for (pair in this) {\n listT.add(pair.first)\n   listR.add(pair.second)\n   }\n   return listT to listR\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"SequencesKt\")\n\npackage kotlin.sequences\n\nimport kotlin.random.Random\n\n/**\n

* Given an [iterator] function constructs a [Sequence] that returns values through the [Iterator]\n * provided by that function.\n * The values are evaluated lazily, and the sequence is potentially infinite.\n *\n * @sample samples.collections.Sequences.Building.sequenceFromIterator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence(crossinline iterator: () -> Iterator<T>): Sequence<T> = object : Sequence<T> {\n   override fun iterator(): Iterator<T> = iterator()\n}\n\n/**\n * Creates a sequence that returns all elements from this iterator. The sequence is constrained to be iterated only once.\n *\n * @sample samples.collections.Sequences.Building.sequenceFromIterator\n */\npublic fun <T> Iterator<T>.asSequence(): Sequence<T> = Sequence { this }.constrainOnce()\n\n/**\n * Creates a sequence that returns the specified values.\n *\n * @sample samples.collections.Sequences.Building.sequenceOfValues\n */\npublic fun <T> sequenceOf(vararg elements: T): Sequence<T> = if (elements.isEmpty())

emptySequence() else elements.asSequence()\n\n/**\n * Returns an empty sequence.\n */\npublic fun <T> emptySequence(): Sequence<T> = EmptySequence\n\nprivate object EmptySequence : Sequence<Nothing>, DropTakeSequence<Nothing> {\n   override fun iterator(): Iterator<Nothing> = EmptyIterator\n   override fun drop(n: Int) = EmptySequence\n   override fun take(n: Int) = EmptySequence\n}\n\n/**\n * Returns this sequence if it's not `null` and the empty sequence otherwise.\n * @sample samples.collections.Sequences.Usage.sequenceOrEmpty\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>?.orEmpty(): Sequence<T> = this ?: emptySequence()\n\n\n/**\n * Returns a sequence that iterates through the elements either of this sequence\n * or, if this sequence turns out to be empty, of the sequence returned by [defaultValue] function.\n *\n * @sample samples.collections.Sequences.Usage.sequenceIfEmpty\n */\n@SinceKotlin(\"1.3\")\npublic fun <T>

Sequence<T>.ifEmpty(defaultValue: () -> Sequence<T>): Sequence<T> = sequence {\n   val iterator = this@ifEmpty.iterator()\n   if (iterator.hasNext()) {\n   yieldAll(iterator)\n   } else {\n yieldAll(defaultValue())\n   }\n}\n\n/**\n * Returns a sequence of all elements from all sequences in this sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n *\n * @sample samples.collections.Sequences.Transformations.flattenSequenceOfSequences\n */\npublic fun <T> Sequence<Sequence<T>>.flatten(): Sequence<T> = flatten { it.iterator() }\n\n/**\n * Returns a sequence of all elements from all iterables in this sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n *\n * @sample samples.collections.Sequences.Transformations.flattenSequenceOfLists\n */\n@kotlin.jvm.JvmName(\"flattenSequenceOfIterable\")\npublic fun <T> Sequence<Iterable<T>>.flatten(): Sequence<T> = flatten { it.iterator() }\n\nprivate fun <T, R> Sequence<T>.flatten(iterator: (T) -> Iterator<R>):

Sequence<R> {\n   if (this is TransformingSequence<*, *>) {\n   return (this as TransformingSequence<*, T>).flatten(iterator)\n   }\n   return FlatteningSequence(this, { it }, iterator)\n}\n\n/**\n * Returns a pair of lists, where\n * *first* list is built from the first values of each pair from this sequence,\n * *second* list is built from the second values of each pair from this sequence.\n *\n * The operation is _terminal_.\n *\n * @sample samples.collections.Sequences.Transformations.unzip\n */\npublic fun <T, R> Sequence<Pair<T, R>>.unzip(): Pair<List<T>, List<R>> {\n   val listT = ArrayList<T>()\n   val listR = ArrayList<R>()\n   for (pair in this) {\n listT.add(pair.first)\n   listR.add(pair.second)\n   }\n   return listT to listR\n}\n\n/**\n * Returns a sequence that yields elements of this sequence randomly shuffled.\n *\n * Note that every iteration of the sequence returns elements in a different order.\n *\n * The operation is _intermediate_ and _stateful_.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Sequence<T>.shuffled(): Sequence<T> = shuffled(Random)\n\n/**\n * Returns a sequence that yields elements of this sequence randomly shuffled\n * using the specified [random] instance as the source of randomness.\n *\n * Note that every iteration of the sequence returns elements in a different order.\n *\n * The operation is _intermediate_ and _stateful_.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Sequence<T>.shuffled(random: Random): Sequence<T> = sequence<T> {\n   val buffer = toMutableList()\n   while (buffer.isNotEmpty()) {\n   val j = random.nextInt(buffer.size)\n   val last = buffer.removeLast()\n   val value = if (j < buffer.size) buffer.set(j, last) else last\n   yield(value)\n   }\n}\n\n\n/**\n * A sequence that returns the values from the underlying [sequence] that either match or do not match\n * the specified [predicate].\n *\n * @param sendWhen If `true`, values for which the predicate returns

`true` are returned. Otherwise,\n * values for which the predicate returns `false` are returned\n */\ninternal class FilteringSequence<T>(\n   private val sequence: Sequence<T>,\n   private val sendWhen: Boolean = true,\n   private val predicate: (T) -> Boolean\n) : Sequence<T> {\n\n   override fun iterator(): Iterator<T> = object : Iterator<T> {\n   val iterator = sequence.iterator()\n   var nextState: Int = -1 // -1 for unknown, 0 for done, 1 for continue\n   var nextItem: T? = null\n\n   private fun calcNext() {\n   while (iterator.hasNext()) {\n   val item = iterator.next()\n   if (predicate(item) == sendWhen) {\n   nextItem = item\n   nextState = 1\n   return\n   }\n   }\n   nextState = 0\n   }\n\n   override fun next(): T {\n   if (nextState == -1)\n   calcNext()\n   if (nextState == 0)\n   throw NoSuchElementException()\n   val result = nextItem\n   nextItem = null\n   nextState = -1\n   @Suppress(\"UNCHECKED_CAST\")\n   return result as T\n   }\n\n   override fun hasNext(): Boolean {\n   if (nextState == -1)\n   calcNext()\n   return nextState == 1\n   }\n   }\n}\n\n/**\n * A sequence which returns the results of applying the given [transformer] function to the values\n * in the underlying [sequence].\n */\n\ninternal class TransformingSequence<T, R>\nconstructor(private val sequence: Sequence<T>, private val transformer: (T) -> R) : Sequence<R> {\n   override fun iterator(): Iterator<R> = object : Iterator<R> {\n   val iterator = sequence.iterator()\n   override fun next(): R {\n   return transformer(iterator.next())\n   }\n\n   override fun hasNext(): Boolean {\n   return iterator.hasNext()\n   }\n   }\n\n   internal fun <E>

flatten(iterator: (R) -> Iterator<E>): Sequence<E> {\n   return FlatteningSequence<T, R, E>(sequence, transformer, iterator)\n   }\n}\n\n/**\n * A sequence which returns the results of applying the given [transformer] function to the values\n * in the underlying [sequence], where the transformer function takes the index of the value in the underlying\n * sequence along with the value itself.\n */\ninternal class TransformingIndexedSequence<T, R>\nconstructor(private val sequence: Sequence<T>, private val transformer: (Int, T) -> R) : Sequence<R> {\n   override fun iterator(): Iterator<R> = object : Iterator<R> {\n   val iterator = sequence.iterator()\n   var index = 0\n   override fun next(): R {\n   return transformer(checkIndexOverflow(index++), iterator.next())\n   }\n\n   override fun hasNext(): Boolean {\n   return iterator.hasNext()\n   }\n   }\n}\n\n/**\n * A sequence which combines values from the underlying [sequence] with

their indices and returns them as\n * [IndexedValue] objects.\n */\ninternal class IndexingSequence<T>\nconstructor(private val sequence: Sequence<T>) : Sequence<IndexedValue<T>> {\n   override fun iterator(): Iterator<IndexedValue<T>> = object : Iterator<IndexedValue<T>> {\n   val iterator = sequence.iterator()\n   var index = 0\n   override fun next(): IndexedValue<T> {\n   return IndexedValue(checkIndexOverflow(index++), iterator.next())\n   }\n\n   override fun hasNext(): Boolean {\n   return iterator.hasNext()\n   }\n   }\n}\n\n/**\n * A sequence which takes the values from two parallel underlying sequences, passes them to the given\n * [transform] function and returns the values returned by that function. The sequence stops returning\n * values as soon as one of the underlying sequences stops returning values.\n */\ninternal class MergingSequence<T1, T2, V>\nconstructor(\n   private val sequence1: Sequence<T1>,\n   private val

sequence2: Sequence<T2>,\n   private val transform: (T1, T2) -> V\n) : Sequence<V> {\n   override fun iterator(): Iterator<V> = object : Iterator<V> {\n   val iterator1 = sequence1.iterator()\n   val iterator2 =

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sequence2.iterator()\n        override fun next(): V {\n            return transform(iterator1.next(), iterator2.next())\n
}\n\n        override fun hasNext(): Boolean {\n            return iterator1.hasNext() && iterator2.hasNext()\n        }\n
}\n}\n\ninternal class FlatteningSequence<T, R, E>\nconstructor(\n    private val sequence: Sequence<T>,\n
private val transformer: (T) -> R,\n    private val iterator: (R) -> Iterator<E>\n) : Sequence<E> {\n    override fun
iterator(): Iterator<E> = object : Iterator<E> {\n        val iterator = sequence.iterator()\n        var itemIterator:
Iterator<E>? = null\n\n        override fun next(): E {\n            if (!ensureItemIterator())\n                throw
NoSuchElementException()\n            return itemIterator!!.next()\n
        }\n\n        override fun hasNext(): Boolean {\n            return ensureItemIterator()\n        }\n\n        private fun
ensureItemIterator(): Boolean {\n            if (itemIterator?.hasNext() == false)\n                itemIterator = null\n\n
 while (itemIterator == null) {\n                if (!iterator.hasNext()) {\n                    return false\n                } else {\n
            val element = iterator.next()\n                    val nextItemIterator = iterator(transformer(element))\n
if (nextItemIterator.hasNext()) {\n                        itemIterator = nextItemIterator\n                        return true\n
      }\n                }\n            }\n            return true\n        }\n    }\n}\n\ninternal fun <T, C, R> flatMapIndexed(source:
Sequence<T>, transform: (Int, T) -> C, iterator: (C) -> Iterator<R>): Sequence<R> =\n    sequence {\n        var
index = 0\n        for (element in source) {\n
          val result = transform(checkIndexOverflow(index++), element)\n            yieldAll(iterator(result))\n        }\n
}\n\n/**\n * A sequence that supports drop(n) and take(n) operations\n */\ninternal interface
DropTakeSequence<T> : Sequence<T> {\n    fun drop(n: Int): Sequence<T>\n    fun take(n: Int):
Sequence<T>\n}\n\n/**\n * A sequence that skips [startIndex] values from the underlying [sequence]\n * and stops
returning values right before [endIndex], i.e. stops at `endIndex - 1`\n */\ninternal class SubSequence<T>(\n
private val sequence: Sequence<T>,\n    private val startIndex: Int,\n    private val endIndex: Int\n) : Sequence<T>,
DropTakeSequence<T> {\n\n    init {\n        require(startIndex >= 0) { \"startIndex should be non-negative, but is
$startIndex\" }\n        require(endIndex >= 0) { \"endIndex should be non-negative, but is $endIndex\" }\n
require(endIndex >= startIndex) { \"endIndex should be not less than startIndex, but was $endIndex < $startIndex\"
 }\n    }\n\n    private val count: Int get() = endIndex - startIndex\n\n    override fun drop(n: Int): Sequence<T> = if
(n >= count) emptySequence() else SubSequence(sequence, startIndex + n, endIndex)\n    override fun take(n: Int):
Sequence<T> = if (n >= count) this else SubSequence(sequence, startIndex, startIndex + n)\n\n    override fun
iterator() = object : Iterator<T> {\n\n        val iterator = sequence.iterator()\n        var position = 0\n\n        //
Shouldn't be called from constructor to avoid premature iteration\n        private fun drop() {\n            while (position
< startIndex && iterator.hasNext()) {\n                iterator.next()\n                position++\n            }\n        }\n\n
override fun hasNext(): Boolean {\n            drop()\n            return (position < endIndex) && iterator.hasNext()\n
}\n\n        override fun next(): T {\n            drop()\n            if (position >= endIndex)\n                throw
NoSuchElementException()\n
          position++\n            return iterator.next()\n        }\n    }\n}\n\n/**\n * A sequence that returns at most [count]
values from the underlying [sequence], and stops returning values\n * as soon as that count is reached.\n */\ninternal
class TakeSequence<T>(\n    private val sequence: Sequence<T>,\n    private val count: Int\n) : Sequence<T>,
DropTakeSequence<T> {\n\n    init {\n        require(count >= 0) { \"count must be non-negative, but was $count.\"
}\n    }\n\n    override fun drop(n: Int): Sequence<T> = if (n >= count) emptySequence() else
SubSequence(sequence, n, count)\n    override fun take(n: Int): Sequence<T> = if (n >= count) this else
TakeSequence(sequence, n)\n\n    override fun iterator(): Iterator<T> = object : Iterator<T> {\n        var left =
count\n        val iterator = sequence.iterator()\n\n        override fun next(): T {\n            if (left == 0)\n                throw
NoSuchElementException()\n            left--\n            return iterator.next()\n
        }\n\n        override fun hasNext(): Boolean {\n            return left > 0 && iterator.hasNext()\n        }\n
}\n}\n\n/**\n * A sequence that returns values from the underlying [sequence] while the [predicate] function
returns\n * `true`, and stops returning values once the function returns `false` for the next element.\n */\ninternal
class TakeWhileSequence<T>\nconstructor(\n    private val sequence: Sequence<T>,\n    private val predicate: (T) -
> Boolean\n) : Sequence<T> {\n    override fun iterator(): Iterator<T> = object : Iterator<T> {\n        val iterator =
sequence.iterator()\n        var nextState: Int = -1 // -1 for unknown, 0 for done, 1 for continue\n        var nextItem: T?
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= null\n\n private fun calcNext() {\n if (iterator.hasNext()) {\n val item = iterator.next()\n if (predicate(item)) {\n nextState = 1\n nextItem = item\n return\n }\n }\n nextState = 0\n }\n\n override fun next(): T {\n if (nextState == -1)\n calcNext() // will change nextState\n if (nextState == 0)\n throw NoSuchElementException()\n @Suppress(\"UNCHECKED_CAST\")\n val result = nextItem as T\n\n // Clean next to avoid keeping reference on yielded instance\n nextItem = null\n nextState = -1\n return result\n }\n\n override fun hasNext(): Boolean {\n if (nextState == -1)\n calcNext() // will change nextState\n return nextState == 1\n }\n }\n}\n\n/**\n * A sequence that skips the specified number of values from the underlying [sequence] and returns\n * all values after that.\n */\ninternal class DropSequence<T>(\n private val sequence: Sequence<T>,\n private val count: Int\n) : Sequence<T>, DropTakeSequence<T> {\n init {\n

require(count >= 0) { \"count must be non-negative, but was $count.\" }\n }\n\n override fun drop(n: Int): Sequence<T> = (count + n).let { n1 -> if (n1 < 0) DropSequence(this, n) else DropSequence(sequence, n1) }\n override fun take(n: Int): Sequence<T> = (count + n).let { n1 -> if (n1 < 0) TakeSequence(this, n) else SubSequence(sequence, count, n1) }\n\n override fun iterator(): Iterator<T> = object : Iterator<T> {\n val iterator = sequence.iterator()\n var left = count\n\n // Shouldn't be called from constructor to avoid premature iteration\n private fun drop() {\n while (left > 0 && iterator.hasNext()) {\n iterator.next()\n left--\n }\n }\n\n override fun next(): T {\n drop()\n return iterator.next()\n }\n\n override fun hasNext(): Boolean {\n drop()\n return iterator.hasNext()\n }\n }\n}\n\n/**\n * A sequence

that skips the values from the underlying [sequence] while the given [predicate] returns `true` and returns\n * all values after that.\n */\ninternal class DropWhileSequence<T>\nconstructor(\n private val sequence: Sequence<T>,\n private val predicate: (T) -> Boolean\n) : Sequence<T> {\n\n override fun iterator(): Iterator<T> = object : Iterator<T> {\n val iterator = sequence.iterator()\n var dropState: Int = -1 // -1 for not dropping, 1 for nextItem, 0 for normal iteration\n var nextItem: T? = null\n\n private fun drop() {\n while (iterator.hasNext()) {\n val item = iterator.next()\n if (!predicate(item)) {\n nextItem = item\n dropState = 1\n return\n }\n }\n dropState = 0\n }\n\n override fun next(): T {\n if (dropState == -1)\n drop()\n\n if (dropState == 1)

{\n @Suppress(\"UNCHECKED_CAST\")\n val result = nextItem as T\n nextItem = null\n dropState = 0\n return result\n }\n return iterator.next()\n }\n\n override fun hasNext(): Boolean {\n if (dropState == -1)\n drop()\n return dropState == 1 || iterator.hasNext()\n }\n }\n}\n\ninternal class DistinctSequence<T, K>(private val source: Sequence<T>, private val keySelector: (T) -> K) : Sequence<T> {\n override fun iterator(): Iterator<T> = DistinctIterator(source.iterator(), keySelector)\n}\n\nprivate class DistinctIterator<T, K>(private val source: Iterator<T>, private val keySelector: (T) -> K) : AbstractIterator<T>() {\n private val observed = HashSet<K>()\n\n override fun computeNext() {\n while (source.hasNext()) {\n val next = source.next()\n val key = keySelector(next)\n\n if (observed.add(key))

{\n setNext(next)\n return\n }\n }\n\n done()\n }\n}\n\nprivate class GeneratorSequence<T : Any>(private val getInitialValue: () -> T?, private val getNextValue: (T) -> T?) : Sequence<T> {\n override fun iterator(): Iterator<T> = object : Iterator<T> {\n var nextItem: T? = null\n var nextState: Int = -2 // -2 for initial unknown, -1 for next unknown, 0 for done, 1 for continue\n\n private fun calcNext() {\n nextItem = if (nextState == -2) getInitialValue() else getNextValue(nextItem!!)\n nextState = if (nextItem == null) 0 else 1\n }\n\n override fun next(): T {\n if (nextState < 0)\n calcNext()\n\n if (nextState == 0)\n throw NoSuchElementException()\n val result = nextItem as T\n // Do not clean nextItem (to avoid keeping reference on yielded instance) -- need to keep state for

getNextValue\n nextState = -1\n return result\n }\n\n override fun hasNext(): Boolean {\n if (nextState < 0)\n calcNext()\n return nextState == 1\n }\n }\n}\n\n/**\n * Returns a wrapper sequence that provides values of this sequence, but ensures it can be iterated only one time.\n *\n * The operation is _intermediate_ and _stateless_.\n *\n * [IllegalStateException] is thrown on iterating the returned sequence for the second time and the following times.\n *\n */\npublic fun <T> Sequence<T>.constrainOnce(): Sequence<T> {\n   // as? does not work in js\n   //return this as? ConstrainedOnceSequence<T> ?: ConstrainedOnceSequence(this)\n   return if (this is ConstrainedOnceSequence<T>) this else ConstrainedOnceSequence(this)\n}\n\n\n/**\n * Returns a sequence which invokes the function to calculate the next value on each iteration until the function returns `null`.\n *\n * The returned sequence is constrained to be iterated only once.\n *\n * @see constrainOnce\n * @see kotlin.sequences.sequence\n *\n * @sample samples.collections.Sequences.Building.generateSequence\n */\npublic fun <T : Any> generateSequence(nextFunction: () -> T?): Sequence<T> {\n   return GeneratorSequence(nextFunction, { nextFunction() }).constrainOnce()\n}\n\n/**\n * Returns a sequence defined by the starting value [seed] and the function [nextFunction],\n * which is invoked to calculate the next value based on the previous one on each iteration.\n *\n * The sequence produces values until it encounters first `null` value.\n * If [seed] is `null`, an empty sequence is produced.\n *\n * The sequence can be iterated multiple times, each time starting with [seed].\n *\n * @see kotlin.sequences.sequence\n *\n * @sample samples.collections.Sequences.Building.generateSequenceWithSeed\n */\n@kotlin.internal.LowPriorityInOverloadResolution\npublic fun <T : Any> generateSequence(seed: T?, nextFunction: (T) -> T?): Sequence<T> =\n   if (seed == null)\n   EmptySequence\n   else\n   GeneratorSequence({ seed }, nextFunction)\n\n/**\n * Returns a sequence defined by the function [seedFunction], which is invoked to produce the starting value,\n * and the [nextFunction], which is invoked to calculate the next value based on the previous one on each iteration.\n *\n * The sequence produces values until it encounters first `null` value.\n * If [seedFunction] returns `null`, an empty sequence is produced.\n *\n * The sequence can be iterated multiple times.\n *\n * @see kotlin.sequences.sequence\n *\n * @sample samples.collections.Sequences.Building.generateSequenceWithLazySeed\n */\npublic fun <T : Any> generateSequence(seedFunction: () -> T?, nextFunction: (T) -> T?): Sequence<T> =\n   GeneratorSequence(seedFunction, nextFunction)\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"PreconditionsKt\")\n\npackage kotlin\n\nimport kotlin.contracts.contract\n\n/**\n * Throws an [IllegalArgumentException] if the [value] is false.\n *\n * @sample samples.misc.Preconditions.failRequireWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun require(value: Boolean): Unit {\n   contract {\n   returns() implies value\n   }\n   require(value) { \"Failed requirement.\" }\n}\n\n/**\n * Throws an [IllegalArgumentException] with the result of calling [lazyMessage] if the [value] is false.\n *\n * @sample samples.misc.Preconditions.failRequireWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun require(value: Boolean, lazyMessage: () -> Any): Unit {\n   contract {\n   returns() implies value\n   }\n   if (!value) {\n   val message = lazyMessage()\n   throw IllegalArgumentException(message.toString())\n   }\n}\n\n/**\n * Throws an [IllegalArgumentException] if the [value] is null. Otherwise returns the not null value.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T : Any> requireNotNull(value: T?): T {\n   contract {\n   returns() implies (value != null)\n   }\n   return requireNotNull(value) { \"Required value was null.\" }\n}\n\n/**\n * Throws an [IllegalArgumentException] with the result of calling [lazyMessage] if the [value] is null. Otherwise\n * returns the not null value.\n *\n * @sample samples.misc.Preconditions.failRequireNotNullWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T : Any> requireNotNull(value: T?, lazyMessage: () -> Any): T {\n   contract {\n   returns() implies (value != null)\n   }\n\n   if (value == null) {\n   val message = lazyMessage()\n   throw IllegalArgumentException(message.toString())\n   } else {\n   return value\n   }\n}\n\n/**\n * Throws an [IllegalStateException] if the [value] is false.\n *\n

* @sample samples.misc.Preconditions.failCheckWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun check(value: Boolean): Unit {\n   contract {\n   returns() implies value\n   }\n   check(value) { \"Check failed.\" }\n}\n\n/**\n * Throws an [IllegalStateException] with the result of calling [lazyMessage] if the [value] is false.\n *\n * @sample samples.misc.Preconditions.failCheckWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun check(value: Boolean, lazyMessage: () -> Any): Unit {\n   contract {\n   returns() implies value\n   }\n   if (!value) {\n   val message = lazyMessage()\n   throw IllegalStateException(message.toString())\n   }\n}\n\n/**\n * Throws an [IllegalStateException] if the [value] is null. Otherwise\n * returns the not null value.\n *\n * @sample samples.misc.Preconditions.failCheckWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T : Any> checkNotNull(value: T?): T {\n   contract {\n
        returns() implies (value != null)\n   }\n   return checkNotNull(value) { \"Required value was null.\" }\n}\n\n/**\n * Throws an [IllegalStateException] with the result of calling [lazyMessage] if the [value] is null. Otherwise\n * returns the not null value.\n *\n * @sample samples.misc.Preconditions.failCheckWithLazyMessage\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T : Any> checkNotNull(value: T?, lazyMessage: () -> Any): T {\n   contract {\n   returns() implies (value != null)\n   }\n\n   if (value == null) {\n   val message = lazyMessage()\n   throw IllegalStateException(message.toString())\n   } else {\n   return value\n   }\n}\n\n\n/**\n * Throws an [IllegalStateException] with the given [message].\n *\n * @sample samples.misc.Preconditions.failWithError\n */\n@kotlin.internal.InlineOnly\npublic inline fun error(message: Any): Nothing = throw IllegalStateException(message.toString())\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and
Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.js.*\nimport primitiveArrayConcat\nimport withType\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun <T> Array<out T>.elementAt(index: Int): T {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n
* \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun ByteArray.elementAt(index: Int): Byte {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun ShortArray.elementAt(index: Int): Short {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun IntArray.elementAt(index: Int): Int {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n
* Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun LongArray.elementAt(index: Int): Long {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun FloatArray.elementAt(index: Int): Float {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is

out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun DoubleArray.elementAt(index: Int): Double {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun BooleanArray.elementAt(index: Int): Boolean {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun CharArray.elementAt(index: Int): Char {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic actual fun <T> Array<out T>.asList(): List<T> {\n   return ArrayList<T>(this.unsafeCast<Array<Any?>>())\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun ByteArray.asList(): List<Byte> {\n   return this.unsafeCast<Array<Byte>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun ShortArray.asList(): List<Short> {\n   return this.unsafeCast<Array<Short>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun IntArray.asList(): List<Int> {\n   return this.unsafeCast<Array<Int>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun LongArray.asList(): List<Long> {\n   return this.unsafeCast<Array<Long>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun FloatArray.asList(): List<Float> {\n   return this.unsafeCast<Array<Float>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun DoubleArray.asList(): List<Double> {\n   return this.unsafeCast<Array<Double>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun BooleanArray.asList(): List<Boolean> {\n   return this.unsafeCast<Array<Boolean>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\npublic actual fun CharArray.asList(): List<Char> {\n   return object : AbstractList<Char>(), RandomAccess {\n   override val size: Int get() = this@asList.size\n   override fun isEmpty(): Boolean = this@asList.isEmpty()\n   override fun contains(element: Char): Boolean = this@asList.contains(element)\n   override fun get(index: Int): Char {\n   AbstractList.checkElementIndex(index, size)\n   return this@asList[index]\n   }\n   override fun indexOf(element: Char): Int {\n   @Suppress(\"USELESS_CAST\")\n   if ((element as Any?) !is Char) return -1\n   return this@asList.indexOf(element)\n   }\n   override fun lastIndexOf(element: Char): Int {\n   @Suppress(\"USELESS_CAST\")\n   if ((element as Any?) !is Char) return -1\n   return this@asList.lastIndexOf(element)\n   }\n   }\n}\n\n/**\n * Returns `true` if the two specified arrays are *deeply* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * If two corresponding elements are nested arrays, they are also compared deeply.\n * If any of arrays contains itself on any nesting level the behavior is undefined.\n * \n * The elements of other types are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic actual infix fun <T> Array<out T>.contentDeepEquals(other: Array<out T>): Boolean {\n   return this.contentDeepEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *deeply* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The specified arrays are also considered deeply equal if both are `null`.\n * \n * If two corresponding elements are nested arrays, they are also compared deeply.\n * If any of arrays contains itself on any nesting level the behavior is undefined.\n * \n * The elements of other types are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayDeepEquals\")\npublic actual infix fun <T> Array<out T>?.contentDeepEquals(other:

Array<out T>?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level the behavior is undefined.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic actual fun <T> Array<out T>.contentDeepHashCode(): Int {\n   return this.contentDeepHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level the behavior is undefined.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayDeepHashCode\")\npublic actual fun <T> Array<out T>?.contentDeepHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of this array as if it is a [List].\n * Nested arrays are treated as lists too.\n * \n

* If any of arrays contains itself on any nesting level that reference\n * is rendered as `\"[...]\"` to prevent recursion.\n * \n * @sample samples.collections.Arrays.ContentOperations.contentDeepToString\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.LowPriorityInOverloadResolution\npublic actual fun <T> Array<out T>.contentDeepToString(): String {\n   return this.contentDeepToString()\n}\n\n/**\n * Returns a string representation of the contents of this array as if it is a [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains itself on any nesting level that reference\n * is rendered as `\"[...]\"` to prevent recursion.\n * \n * @sample samples.collections.Arrays.ContentOperations.contentDeepToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayDeepToString\")\npublic actual fun <T> Array<out T>?.contentDeepToString(): String {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n

* i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun <T> Array<out T>.contentEquals(other: Array<out T>): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince

= \"1.4\")\npublic actual infix fun ByteArray.contentEquals(other: ByteArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun ShortArray.contentEquals(other: ShortArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for

equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun IntArray.contentEquals(other: IntArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun LongArray.contentEquals(other: LongArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun FloatArray.contentEquals(other: FloatArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun DoubleArray.contentEquals(other: DoubleArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun BooleanArray.contentEquals(other: BooleanArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual infix fun CharArray.contentEquals(other: CharArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun <T> Array<out T>?.contentEquals(other: Array<out T>?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun ByteArray?.contentEquals(other: ByteArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun ShortArray?.contentEquals(other: ShortArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun IntArray?.contentEquals(other: IntArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are

structurally equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal
 to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun LongArray?.contentEquals(other: LongArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun FloatArray?.contentEquals(other: FloatArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN`
 is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun DoubleArray?.contentEquals(other: DoubleArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun BooleanArray?.contentEquals(other: BooleanArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n
 * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayEquals\")\npublic actual infix fun CharArray?.contentEquals(other: CharArray?): Boolean {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun <T> Array<out T>.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun ByteArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as
 if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun ShortArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun IntArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun LongArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use
 Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun FloatArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun DoubleArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based

on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun BooleanArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use
 Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun CharArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun <T> Array<out T>?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun ByteArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun ShortArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic
 actual fun IntArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun LongArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun FloatArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun DoubleArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun BooleanArray?.contentHashCode(): Int
 {\n   definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayHashCode\")\npublic actual fun CharArray?.contentHashCode(): Int {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun <T> Array<out T>.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince
 = \"1.4\")\npublic actual fun ByteArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun ShortArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun IntArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the
 contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun LongArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample

samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun FloatArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use
 Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun DoubleArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun BooleanArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.1\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\npublic actual fun CharArray.contentToString():
 String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun <T> Array<out T>?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun ByteArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun ShortArray?.contentToString():
 String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun IntArray?.contentToString(): String {\n definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun LongArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun FloatArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n
 * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun DoubleArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun BooleanArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@library(\"arrayToString\")\npublic actual fun CharArray?.contentToString(): String {\n   definedExternally\n}\n\n/**\n * Copies this array or
 its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by

default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun <T> Array<out T>.copyInto(destination: Array<T>, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): Array<T> {\n   arrayCopy(this, destination, destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun ByteArray.copyInto(destination: ByteArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ByteArray {\n   arrayCopy(this.unsafeCast<Array<Byte>>(), destination.unsafeCast<Array<Byte>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun ShortArray.copyInto(destination: ShortArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ShortArray {\n   arrayCopy(this.unsafeCast<Array<Short>>(), destination.unsafeCast<Array<Short>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n

*/\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun IntArray.copyInto(destination: IntArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): IntArray {\n   arrayCopy(this.unsafeCast<Array<Int>>(), destination.unsafeCast<Array<Int>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n
 * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n
*/\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun LongArray.copyInto(destination: LongArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): LongArray {\n   arrayCopy(this.unsafeCast<Array<Long>>(), destination.unsafeCast<Array<Long>>(), destinationOffset, startIndex,
 endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n
 * \n * @return the [destination] array.\n
*/\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun FloatArray.copyInto(destination: FloatArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): FloatArray {\n   arrayCopy(this.unsafeCast<Array<Float>>(), destination.unsafeCast<Array<Float>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy,
 size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n
*/\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun DoubleArray.copyInto(destination: DoubleArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): DoubleArray {\n   arrayCopy(this.unsafeCast<Array<Double>>(), destination.unsafeCast<Array<Double>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n *

\n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic

actual inline fun BooleanArray.copyInto(destination: BooleanArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): BooleanArray {\n   arrayCopy(this.unsafeCast<Array<Boolean>>(), destination.unsafeCast<Array<Boolean>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or

[endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun CharArray.copyInto(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): CharArray {\n   arrayCopy(this.unsafeCast<Array<Char>>(), destination.unsafeCast<Array<Char>>(), destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\", \"NOTHING_TO_INLINE\")\npublic actual inline fun <T> Array<out

T>.copyOf(): Array<T> {\n   return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun ByteArray.copyOf(): ByteArray {\n   return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun ShortArray.copyOf(): ShortArray {\n   return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun IntArray.copyOf(): IntArray {\n   return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n

*/\npublic actual fun LongArray.copyOf(): LongArray {\n   return withType(\"LongArray\", this.asDynamic().slice())\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun FloatArray.copyOf(): FloatArray {\n   return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun DoubleArray.copyOf(): DoubleArray {\n   return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample

samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic actual fun BooleanArray.copyOf(): BooleanArray {\n   return withType(\"BooleanArray\", this.asDynamic().slice())\n}\n\n/**\n * Returns new array which is a copy

of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\npublic actual fun CharArray.copyOf(): CharArray {\n   return withType(\"CharArray\", this.asDynamic().slice())\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun ByteArray.copyOf(newSize: Int): ByteArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return fillFrom(this, ByteArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the

given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun ShortArray.copyOf(newSize: Int): ShortArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return fillFrom(this, ShortArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra

elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun IntArray.copyOf(newSize: Int): IntArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return fillFrom(this, IntArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun LongArray.copyOf(newSize: Int): LongArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return withType(\"LongArray\",

arrayCopyResize(this, newSize, 0L))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun FloatArray.copyOf(newSize: Int): FloatArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return fillFrom(this, FloatArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the

original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun DoubleArray.copyOf(newSize: Int): DoubleArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return fillFrom(this, DoubleArray(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with `false` values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with `false` values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun BooleanArray.copyOf(newSize: Int): BooleanArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return withType(\"BooleanArray\", arrayCopyResize(this, newSize, false))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with null char (`\\u0000`) values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with null char (`\\u0000`) values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n */\npublic actual fun CharArray.copyOf(newSize: Int): CharArray {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return withType(\"CharArray\", fillFrom(this, CharArray(newSize)))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with `null` values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with `null` values.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.resizingCopyOf\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\")\npublic actual fun <T> Array<out T>.copyOf(newSize: Int): Array<T?> {\n   require(newSize >= 0) { \"Invalid new array size: $newSize.\" }\n   return arrayCopyResize(this, newSize, null)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\")\npublic actual fun <T> Array<out T>.copyOfRange(fromIndex: Int, toIndex: Int): Array<T> {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun ByteArray.copyOfRange(fromIndex: Int, toIndex: Int): ByteArray {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun ShortArray.copyOfRange(fromIndex: Int, toIndex: Int): ShortArray {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun IntArray.copyOfRange(fromIndex: Int, toIndex: Int): IntArray {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun LongArray.copyOfRange(fromIndex: Int, toIndex: Int): LongArray {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return withType(\"LongArray\", this.asDynamic().slice(fromIndex, toIndex))\n}\n\n/**\n

 * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun FloatArray.copyOfRange(fromIndex: Int, toIndex: Int): FloatArray {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n

 * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun DoubleArray.copyOfRange(fromIndex: Int, toIndex: Int): DoubleArray {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun BooleanArray.copyOfRange(fromIndex: Int, toIndex: Int): BooleanArray {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return withType(\"BooleanArray\", this.asDynamic().slice(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which

 is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\npublic actual fun CharArray.copyOfRange(fromIndex: Int, toIndex: Int): CharArray {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   return withType(\"CharArray\", this.asDynamic().slice(fromIndex, toIndex))\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size

 of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun <T> Array<T>.fill(element: T, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n

*/\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun ByteArray.fill(element: Byte, fromIndex:

 Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun ShortArray.fill(element: Short, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified

[element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun IntArray.fill(element: Int, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException

if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun LongArray.fill(element: Long, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic

actual fun FloatArray.fill(element: Float, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun DoubleArray.fill(element: Double, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n

* Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun BooleanArray.fill(element: Boolean, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param

fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to
fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*/\n@SinceKotlin(\"1.3\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun CharArray.fill(element: Char, fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\", \"NOTHING_TO_INLINE\")\npublic actual inline operator fun <T> Array<out T>.plus(element: T): Array<T> {\n   return this.asDynamic().concat(arrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic
actual inline operator fun ByteArray.plus(element: Byte): ByteArray {\n   return plus(byteArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun ShortArray.plus(element: Short): ShortArray {\n   return plus(shortArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun IntArray.plus(element: Int): IntArray {\n   return plus(intArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun LongArray.plus(element: Long): LongArray {\n   return plus(longArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given
[element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun FloatArray.plus(element: Float): FloatArray {\n   return plus(floatArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun DoubleArray.plus(element: Double): DoubleArray {\n   return plus(doubleArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun BooleanArray.plus(element: Boolean): BooleanArray {\n   return plus(booleanArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun CharArray.plus(element: Char): CharArray {\n   return plus(charArrayOf(element))\n}\n\n/**\n * Returns
an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\")\npublic actual operator fun <T> Array<out T>.plus(elements: Collection<T>): Array<T> {\n   return arrayPlusCollection(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun ByteArray.plus(elements: Collection<Byte>): ByteArray {\n   return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun ShortArray.plus(elements: Collection<Short>): ShortArray {\n   return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and
then all elements of the given [elements] collection.\n */\npublic actual operator fun IntArray.plus(elements: Collection<Int>): IntArray {\n   return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun LongArray.plus(elements: Collection<Long>): LongArray {\n   return arrayPlusCollection(this, elements)\n}\n\n/**\n * Returns an array containing all elements of

the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun FloatArray.plus(elements: Collection<Float>): FloatArray {\n   return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun DoubleArray.plus(elements: Collection<Double>): DoubleArray {\n   return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun BooleanArray.plus(elements: Collection<Boolean>): BooleanArray {\n   return arrayPlusCollection(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\npublic actual operator fun CharArray.plus(elements: Collection<Char>): CharArray {\n   return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\", \"NOTHING_TO_INLINE\")\npublic actual inline operator fun <T> Array<out T>.plus(elements: Array<out T>): Array<T> {\n   return this.asDynamic().concat(elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun ByteArray.plus(elements: ByteArray): ByteArray {\n   return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun ShortArray.plus(elements: ShortArray): ShortArray {\n   return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun IntArray.plus(elements: IntArray): IntArray {\n   return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun LongArray.plus(elements: LongArray): LongArray {\n   return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun FloatArray.plus(elements: FloatArray): FloatArray {\n   return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun DoubleArray.plus(elements: DoubleArray): DoubleArray {\n   return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun BooleanArray.plus(elements: BooleanArray): BooleanArray {\n   return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline operator fun CharArray.plus(elements: CharArray): CharArray {\n   return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress(\"ACTUAL_WITHOUT_EXPECT\", \"NOTHING_TO_INLINE\")\npublic actual inline fun <T> Array<out T>.plusElement(element: T): Array<T> {\n   return this.asDynamic().concat(arrayOf(element))\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@library(\"primitiveArraySort\")\npublic actual fun IntArray.sort(): Unit {\n   definedExternally\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\npublic actual fun LongArray.sort(): Unit {\n   @Suppress(\"DEPRECATION\")\n   if (size > 1) sort { a: Long, b: Long -> a.compareTo(b) }\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@library(\"primitiveArraySort\")\npublic actual fun

ByteArray.sort(): Unit {\n   definedExternally\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@library(\"primitiveArraySort\")\npublic actual fun ShortArray.sort(): Unit {\n   definedExternally\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@library(\"primitiveArraySort\")\npublic actual fun DoubleArray.sort(): Unit {\n   definedExternally\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@library(\"primitiveArraySort\")\npublic
 actual fun FloatArray.sort(): Unit {\n   definedExternally\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@library(\"primitiveArraySort\")\npublic actual fun CharArray.sort(): Unit {\n   definedExternally\n}\n\n/**\n * Sorts the array in-place according to the natural order of its elements.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @sample samples.collections.Arrays.Sorting.sortArrayOfComparable\n */\npublic actual fun <T : Comparable<T>> Array<out T>.sort(): Unit {\n   if (size > 1) sortArray(this)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n@Deprecated(\"Use sortWith instead\", ReplaceWith(\"this.sortWith(Comparator(comparison))\"))\n@DeprecatedSinceKotlin(warningSince
 = \"1.6\")\npublic fun <T> Array<out T>.sort(comparison: (a: T, b: T) -> Int): Unit {\n   if (size > 1) sortArrayWith(this, comparison)\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArrayOfComparable\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun <T : Comparable<T>> Array<out T>.sort(fromIndex: Int = 0, toIndex: Int = size):
 Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArrayWith(this, fromIndex, toIndex, naturalOrder())\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun ByteArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val subarray = this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<ByteArray>()\n   subarray.sort()\n}\n\n/**\n * Sorts a range
 in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun ShortArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val subarray = this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<ShortArray>()\n   subarray.sort()\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive)
 to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater

than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun IntArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val subarray = this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<IntArray>()\n   subarray.sort()\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun LongArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArrayWith(this.unsafeCast<Array<Long>>(), fromIndex, toIndex, naturalOrder())\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun FloatArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val subarray = this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<FloatArray>()\n   subarray.sort()\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun DoubleArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val subarray = this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<DoubleArray>()\n   subarray.sort()\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun CharArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   val subarray = this.asDynamic().subarray(fromIndex, toIndex).unsafeCast<CharArray>()\n   subarray.sort()\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.sort(noinline comparison: (a: Byte, b: Byte) -> Int): Unit {\n   asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.sort(noinline comparison: (a: Short, b: Short) -> Int): Unit {\n asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.sort(noinline comparison: (a: Int, b: Int) -> Int): Unit {\n   asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.sort(noinline comparison: (a: Long, b: Long) -> Int): Unit {\n asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.sort(noinline comparison: (a: Float, b: Float) -> Int): Unit {\n asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.sort(noinline comparison: (a: Double, b: Double) -> Int): Unit {\n asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparison] function.\n */\n@Deprecated(\"Use other sorting functions from the Standard Library\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.sort(noinline comparison: (a: Char, b: Char) -> Int): Unit {\n asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic actual fun <T> Array<out T>.sortWith(comparator: Comparator<in T>): Unit {\n   if (size > 1) sortArrayWith(this, comparator)\n}\n\n/**\n * Sorts a range in the array in-place with the given [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun <T> Array<out T>.sortWith(comparator: Comparator<in T>, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArrayWith(this, fromIndex, toIndex, comparator)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic actual fun ByteArray.toTypedArray(): Array<Byte> {\n   return js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic actual fun ShortArray.toTypedArray(): Array<Short> {\n   return js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic actual fun IntArray.toTypedArray(): Array<Int> {\n   return js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic actual fun LongArray.toTypedArray(): Array<Long> {\n   return js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic actual fun FloatArray.toTypedArray(): Array<Float> {\n   return js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic actual fun DoubleArray.toTypedArray(): Array<Double> {\n   return js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic actual fun BooleanArray.toTypedArray(): Array<Boolean> {\n   return js(\"[]\").slice.call(this)\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\npublic actual fun

CharArray.toTypedArray(): Array<Char> {\n   return Array(size) { index -> this[index] }\n}\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n@file:kotlin.jvm.JvmName(\"ComparisonsKt\")\n@file:kotlin.jvm.JvmMultifileClass\n\npackage kotlin.comparisons\n\n/**\n * Compares
 two values using the specified functions [selectors] to calculate the result of the comparison.\n * The functions are called sequentially, receive the given values [a] and [b] and return [Comparable]\n * objects. As soon as the [Comparable] instances returned by a function for [a] and [b] values do not\n * compare as equal, the result of that comparison is returned.\n *\n * @sample samples.comparisons.Comparisons.compareValuesByWithSelectors\n */\npublic fun <T> compareValuesBy(a: T, b: T, vararg selectors: (T) -> Comparable<*>?): Int {\n   require(selectors.size > 0)\n   return compareValuesByImpl(a, b, selectors)\n}\n\nprivate fun <T> compareValuesByImpl(a: T, b: T, selectors: Array<out (T) -> Comparable<*>?>): Int {\n   for (fn in selectors) {\n   val v1 = fn(a)\n   val v2 = fn(b)\n   val diff = compareValues(v1, v2)\n   if (diff != 0) return diff\n   }\n   return 0\n}\n\n/**\n * Compares two values using the specified [selector] function to calculate the
 result of the comparison.\n * The function is applied to the given values [a] and [b] and return [Comparable] objects.\n * The result of comparison of these [Comparable] instances is returned.\n *\n * @sample samples.comparisons.Comparisons.compareValuesByWithSingleSelector\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> compareValuesBy(a: T, b: T, selector: (T) -> Comparable<*>?): Int {\n   return compareValues(selector(a), selector(b))\n}\n\n/**\n * Compares two values using the specified [selector] function to calculate the result of the comparison.\n * The function is applied to the given values [a] and [b] and return objects of type K which are then being\n * compared with the given [comparator].\n *\n * @sample samples.comparisons.Comparisons.compareValuesByWithComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T, K> compareValuesBy(a: T, b: T, comparator: Comparator<in K>, selector: (T) -> K): Int {\n   return comparator.compare(selector(a), selector(b))\n}\n\n////
 Not so useful without type inference for receiver of expression\n//// compareValuesWith(v1, v2, compareBy { it.prop1 } thenByDescending { it.prop2 })\n///**\n// * Compares two values using the specified [comparator].\n// */\n//@Suppress(\"NOTHING_TO_INLINE\")\n//public inline fun <T> compareValuesWith(a: T, b: T, comparator: Comparator<T>): Int = comparator.compare(a, b)\n//\n\n\n/**\n * Compares two nullable [Comparable] values. Null is considered less than any value.\n *\n * @sample samples.comparisons.Comparisons.compareValues\n */\npublic fun <T : Comparable<*>> compareValues(a: T?, b: T?): Int {\n   if (a === b) return 0\n   if (a == null) return -1\n   if (b == null) return 1\n\n   @Suppress(\"UNCHECKED_CAST\")\n   return (a as Comparable<Any>).compareTo(b)\n}\n\n/**\n * Creates a comparator using the sequence of functions to calculate a result of comparison.\n * The functions are called sequentially, receive the given values `a` and `b` and return [Comparable]\n
 * objects. As soon as the [Comparable] instances returned by a function for `a` and `b` values do not\n * compare as equal, the result of that comparison is returned from the [Comparator].\n *\n * @sample samples.comparisons.Comparisons.compareByWithSelectors\n */\npublic fun <T> compareBy(vararg selectors: (T) -> Comparable<*>?): Comparator<T> {\n   require(selectors.size > 0)\n   return Comparator { a, b -> compareValuesByImpl(a, b, selectors) }\n}\n\n\n/**\n * Creates a comparator using the function to transform value to a [Comparable] instance for comparison.\n *\n * @sample samples.comparisons.Comparisons.compareByWithSingleSelector\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> compareBy(crossinline selector: (T) -> Comparable<*>?): Comparator<T> =\n   Comparator { a, b -> compareValuesBy(a, b, selector) }\n\n/**\n * Creates a comparator using the [selector] function to transform values being compared and then applying\n * the specified [comparator] to compare transformed
 values.\n *\n * @sample samples.comparisons.Comparisons.compareByWithComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T, K> compareBy(comparator: Comparator<in K>, crossinline selector: (T) -> K): Comparator<T> =\n   Comparator { a, b -> compareValuesBy(a, b, comparator, selector) }\n\n/**\n * Creates a descending comparator using the function to transform value to a [Comparable] instance for

comparison.\n *\n * @sample samples.comparisons.Comparisons.compareByDescendingWithSingleSelector\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> compareByDescending(crossinline selector: (T) -> Comparable<*>?): Comparator<T> =\n   Comparator { a, b -> compareValuesBy(b, a, selector) }\n\n/**\n * Creates a descending comparator using the [selector] function to transform values being compared and then applying\n * the specified [comparator] to compare transformed values.\n *\n * Note that an order of [comparator] is reversed by this wrapper.\n *\n * @sample samples.comparisons.Comparisons.compareByDescendingWithComparator\n
 */\n@kotlin.internal.InlineOnly\npublic inline fun <T, K> compareByDescending(comparator: Comparator<in K>, crossinline selector: (T) -> K): Comparator<T> =\n   Comparator { a, b -> compareValuesBy(b, a, comparator, selector) }\n\n/**\n * Creates a comparator comparing values after the primary comparator defined them equal. It uses\n * the function to transform value to a [Comparable] instance for comparison.\n *\n * @sample samples.comparisons.Comparisons.thenBy\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Comparator<T>.thenBy(crossinline selector: (T) -> Comparable<*>?): Comparator<T> =\n   Comparator { a, b ->\n   val previousCompare = this@thenBy.compare(a, b)\n   if (previousCompare != 0) previousCompare else compareValuesBy(a, b, selector)\n   }\n\n/**\n * Creates a comparator comparing values after the primary comparator defined them equal. It uses\n * the [selector] function to transform values
 and then compares them with the given [comparator].\n *\n * @sample samples.comparisons.Comparisons.thenByWithComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T, K> Comparator<T>.thenBy(comparator: Comparator<in K>, crossinline selector: (T) -> K): Comparator<T> =\n   Comparator { a, b ->\n   val previousCompare = this@thenBy.compare(a, b)\n   if (previousCompare != 0) previousCompare else compareValuesBy(a, b, comparator, selector)\n   }\n\n/**\n * Creates a descending comparator using the primary comparator and\n * the function to transform value to a [Comparable] instance for comparison.\n *\n * @sample samples.comparisons.Comparisons.thenByDescending\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Comparator<T>.thenByDescending(crossinline selector: (T) -> Comparable<*>?): Comparator<T> =\n   Comparator { a, b ->\n   val previousCompare = this@thenByDescending.compare(a, b)\n   if (previousCompare != 0) previousCompare else compareValuesBy(b,
 a, selector)\n   }\n\n/**\n * Creates a descending comparator comparing values after the primary comparator defined them equal. It uses\n * the [selector] function to transform values and then compares them with the given [comparator].\n *\n * @sample samples.comparisons.Comparisons.thenByDescendingWithComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T, K> Comparator<T>.thenByDescending(comparator: Comparator<in K>, crossinline selector: (T) -> K): Comparator<T> =\n   Comparator { a, b ->\n   val previousCompare = this@thenByDescending.compare(a, b)\n   if (previousCompare != 0) previousCompare else compareValuesBy(b, a, comparator, selector)\n   }\n\n\n/**\n * Creates a comparator using the primary comparator and function to calculate a result of comparison.\n *\n * @sample samples.comparisons.Comparisons.thenComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Comparator<T>.thenComparator(crossinline comparison: (a: T, b: T) -> Int):
 Comparator<T> =\n   Comparator { a, b ->\n   val previousCompare = this@thenComparator.compare(a, b)\n
  if (previousCompare != 0) previousCompare else comparison(a, b)\n   }\n\n/**\n * Combines this comparator and the given [comparator] such that the latter is applied only\n * when the former considered values equal.\n *\n * @sample samples.comparisons.Comparisons.then\n */\npublic infix fun <T> Comparator<T>.then(comparator: Comparator<in T>): Comparator<T> =\n   Comparator { a, b ->\n   val previousCompare = this@then.compare(a, b)\n   if (previousCompare != 0) previousCompare else comparator.compare(a, b)\n   }\n\n/**\n * Combines this comparator and the given [comparator] such that the latter is applied only\n * when the former considered values equal.\n *\n * @sample samples.comparisons.Comparisons.thenDescending\n */\npublic infix fun <T> Comparator<T>.thenDescending(comparator: Comparator<in T>): Comparator<T> =\n   Comparator<T> { a, b ->\n

val previousCompare = this@thenDescending.compare(a, b)\n if (previousCompare != 0) previousCompare else comparator.compare(b, a)\n }\n\n// Not so useful without type inference for receiver of expression\n/**\n * Extends the given [comparator] of non-nullable values to a comparator of nullable values\n * considering `null` value less than any other value.\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastWithComparator\n */\npublic fun <T : Any> nullsFirst(comparator: Comparator<in T>): Comparator<T?> =\n Comparator { a, b ->\n when {\n a === b -> 0\n a == null -> -1\n b == null -> 1\n else -> comparator.compare(a, b)\n }\n }\n\n/**\n * Provides a comparator of nullable [Comparable] values\n * considering `null` value less than any other value.\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T : Comparable<T>> nullsFirst(): Comparator<T?> = nullsFirst(naturalOrder())\n\n/**\n * Extends the given [comparator] of non-nullable values to a comparator of nullable values\n * considering `null` value greater than any other value.\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastWithComparator\n */\npublic fun <T : Any> nullsLast(comparator: Comparator<in T>): Comparator<T?> =\n Comparator { a, b ->\n when {\n a === b -> 0\n a == null -> 1\n b == null -> -1\n else -> comparator.compare(a, b)\n }\n }\n\n/**\n * Provides a comparator of nullable [Comparable] values\n * considering `null` value greater than any other value.\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastComparator\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T : Comparable<T>> nullsLast(): Comparator<T?> = nullsLast(naturalOrder())\n\n/**\n * Returns a comparator that compares [Comparable] objects in natural order.\n *\n * @sample samples.comparisons.Comparisons.naturalOrderComparator\n */\npublic fun <T : Comparable<T>> naturalOrder(): Comparator<T> = @Suppress(\"UNCHECKED_CAST\") (NaturalOrderComparator as Comparator<T>)\n\n/**\n * Returns a comparator that compares [Comparable] objects in reversed natural order.\n *\n * @sample samples.comparisons.Comparisons.nullsFirstLastWithComparator\n */\npublic fun <T : Comparable<T>> reverseOrder(): Comparator<T> = @Suppress(\"UNCHECKED_CAST\") (ReverseOrderComparator as Comparator<T>)\n\n/**\n * Returns a comparator that imposes the reverse ordering of this comparator.\n *\n * @sample samples.comparisons.Comparisons.reversed\n */\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\")\npublic fun <T> Comparator<T>.reversed(): Comparator<T> = when (this) {\n is ReversedComparator -> this.comparator\n NaturalOrderComparator -> @Suppress(\"UNCHECKED_CAST\") (ReverseOrderComparator as Comparator<T>)\n ReverseOrderComparator -> @Suppress(\"UNCHECKED_CAST\") (NaturalOrderComparator as Comparator<T>)\n else -> ReversedComparator(this)\n}\n\n\nprivate class ReversedComparator<T>(public val comparator: Comparator<T>) : Comparator<T> {\n override fun compare(a: T, b: T): Int = comparator.compare(b, a)\n @Suppress(\"VIRTUAL_MEMBER_HIDDEN\")\n fun reversed(): Comparator<T> = comparator\n}\n\nprivate object NaturalOrderComparator : Comparator<Comparable<Any>> {\n override fun compare(a: Comparable<Any>, b: Comparable<Any>): Int = a.compareTo(b)\n @Suppress(\"VIRTUAL_MEMBER_HIDDEN\")\n fun reversed(): Comparator<Comparable<Any>> = ReverseOrderComparator\n}\n\nprivate object ReverseOrderComparator : Comparator<Comparable<Any>> {\n override fun compare(a: Comparable<Any>, b: Comparable<Any>): Int = b.compareTo(a)\n @Suppress(\"VIRTUAL_MEMBER_HIDDEN\")\n fun reversed(): Comparator<Comparable<Any>> = NaturalOrderComparator\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StandardKt\")\npackage kotlin\n\nimport kotlin.contracts.*\n\n/**\n * An exception is thrown to indicate that a method body remains to be implemented.\n */\npublic class NotImplementedError(message: String = \"An operation is not implemented.\") : Error(message)\n\n/**\n * Always throws [NotImplementedError] stating that operation is not implemented.\n */\n\n@kotlin.internal.InlineOnly\npublic inline fun TODO(): Nothing = throw NotImplementedError()\n\n/**\n *

Always throws [NotImplementedError] stating that operation is not implemented.\n *\n * @param reason a string explaining why the implementation is missing.\n */\n@kotlin.internal.InlineOnly\npublic inline fun TODO(reason: String): Nothing = throw NotImplementedError(\"An operation is not implemented: $reason\")\n\n\n\n/**\n * Calls the specified function [block] and returns its result.\n
*\n * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#run).\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <R> run(block: () -> R): R {\n   contract {\n
callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n   return block()\n}\n\n/**\n * Calls the specified function [block] with `this` value as its receiver and returns its result.\n *\n * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#run).\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> T.run(block: T.() -> R): R {\n   contract {\n
callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n   return block()\n}\n\n/**\n * Calls the specified function [block] with the given [receiver] as its receiver and returns its result.\n *\n * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#with).\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> with(receiver: T, block: T.() -> R): R {\n   contract {\n
callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n   return receiver.block()\n}\n\n/**\n * Calls the specified function [block] with `this` value as its receiver and returns `this` value.\n *\n * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#apply).\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> T.apply(block: T.() -> Unit): T {\n
contract {\n   callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n   block()\n   return
this\n}\n\n/**\n * Calls the specified function [block] with `this` value as its argument and returns `this` value.\n *\n
* For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#also).\n
*/\n@kotlin.internal.InlineOnly\n@SinceKotlin(\"1.1\")\npublic
inline fun <T> T.also(block: (T) -> Unit): T {\n   contract {\n   callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n   block(this)\n   return this\n}\n\n/**\n * Calls the specified function [block] with `this` value as its argument and returns its result.\n *\n * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#let).\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> T.let(block: (T) -> R): R {\n   contract {\n
callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n   return block(this)\n}\n\n/**\n * Returns `this` value if it satisfies the given [predicate] or `null`, if it doesn't.\n *\n * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#takeif-and-takeunless).\n */\n@kotlin.internal.InlineOnly\n@SinceKotlin(\"1.1\")\npublic inline fun
<T> T.takeIf(predicate: (T) -> Boolean): T? {\n   contract {\n   callsInPlace(predicate, InvocationKind.EXACTLY_ONCE)\n   }\n   return if (predicate(this)) this else null\n}\n\n/**\n * Returns `this` value if it _does not_ satisfy the given [predicate] or `null`, if it does.\n *\n * For detailed usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-functions.html#takeif-and-takeunless).\n */\n@kotlin.internal.InlineOnly\n@SinceKotlin(\"1.1\")\npublic inline fun <T> T.takeUnless(predicate: (T) -> Boolean): T? {\n   contract {\n   callsInPlace(predicate, InvocationKind.EXACTLY_ONCE)\n   }\n   return if (!predicate(this)) this else null\n}\n\n/**\n * Executes the given function [action] specified number of [times].\n *\n * A zero-based index of current iteration is passed as a parameter to [action].\n *\n * @sample samples.misc.ControlFlow.repeat\n */\n@kotlin.internal.InlineOnly\npublic inline fun repeat(times: Int, action:
(Int) -> Unit) {\n   contract { callsInPlace(action) }\n\n   for (index in 0 until times) {\n   action(index)\n
}\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\npackage kotlin.comparisons\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport

kotlin.js.*\n\n/**\n * Returns the greater of two values.\n * \n * If values are equal, returns the first one.\n */\n@SinceKotlin(\"1.1\")\npublic actual fun <T : Comparable<T>> maxOf(a: T, b: T): T {\n   return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Byte, b: Byte): Byte {\n   return maxOf(a.toInt(), b.toInt()).unsafeCast<Byte>()\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Short, b: Short): Short {\n   return maxOf(a.toInt(), b.toInt()).unsafeCast<Short>()\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Int, b: Int): Int {\n   return JsMath.max(a, b)\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun maxOf(a: Long, b: Long): Long {\n   return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Float, b: Float): Float {\n   return JsMath.max(a, b)\n}\n\n/**\n * Returns the greater of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Double, b: Double): Double {\n   return JsMath.max(a, b)\n}\n\n/**\n * Returns the greater of three values.\n * \n * If there are multiple equal maximal values, returns the first of them.\n */\n@SinceKotlin(\"1.1\")\npublic actual fun <T : Comparable<T>> maxOf(a: T, b: T, c: T): T {\n   return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Byte, b: Byte, c: Byte): Byte {\n   return JsMath.max(a.toInt(), b.toInt(), c.toInt()).unsafeCast<Byte>()\n}\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Short, b: Short, c: Short): Short {\n   return JsMath.max(a.toInt(), b.toInt(), c.toInt()).unsafeCast<Short>()\n}\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Int, b: Int, c: Int): Int {\n   return JsMath.max(a, b, c)\n}\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Long, b: Long, c: Long): Long {\n   return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Float, b: Float, c: Float): Float {\n   return JsMath.max(a, b, c)\n}\n\n/**\n * Returns the greater of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun maxOf(a: Double, b: Double, c: Double): Double {\n   return JsMath.max(a, b, c)\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If there are multiple equal maximal values, returns the first of them.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun <T : Comparable<T>> maxOf(a: T, vararg other: T): T {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun maxOf(a: Byte, vararg other: Byte): Byte {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun maxOf(a: Short, vararg other: Short): Short {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun maxOf(a: Int, vararg other: Int): Int {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun maxOf(a: Long, vararg other: Long): Long {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun maxOf(a: Float, vararg other: Float): Float {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun maxOf(a: Double, vararg other: Double): Double {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the smaller of two values.\n * \n * If values are equal, returns the first one.\n */\n@SinceKotlin(\"1.1\")\npublic actual fun <T : Comparable<T>> minOf(a: T, b: T): T {\n   return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Byte, b: Byte): Byte {\n   return minOf(a.toInt(), b.toInt()).unsafeCast<Byte>()\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Short, b: Short): Short {\n   return minOf(a.toInt(), b.toInt()).unsafeCast<Short>()\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Int, b: Int): Int {\n   return JsMath.min(a, b)\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun minOf(a: Long, b: Long): Long {\n   return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Float, b: Float): Float {\n   return JsMath.min(a, b)\n}\n\n/**\n * Returns the smaller of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Double, b: Double): Double {\n   return JsMath.min(a, b)\n}\n\n/**\n * Returns the smaller of three values.\n * \n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin(\"1.1\")\npublic actual fun <T : Comparable<T>> minOf(a: T, b: T, c: T): T {\n   return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Byte, b: Byte, c: Byte): Byte {\n   return JsMath.min(a.toInt(), b.toInt(), c.toInt()).unsafeCast<Byte>()\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Short, b: Short, c: Short): Short {\n   return JsMath.min(a.toInt(), b.toInt(), c.toInt()).unsafeCast<Short>()\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Int, b: Int, c: Int): Int {\n   return JsMath.min(a, b, c)\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Long, b: Long, c: Long): Long {\n   return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Float, b: Float, c: Float): Float {\n   return JsMath.min(a, b, c)\n}\n\n/**\n * Returns the smaller of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic actual inline fun minOf(a: Double, b: Double, c: Double): Double {\n   return JsMath.min(a, b, c)\n}\n\n/**\n * Returns the smaller of the given values.\n * \n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun <T : Comparable<T>> minOf(a: T, vararg other: T): T {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun minOf(a: Byte, vararg other: Byte): Byte {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun minOf(a: Short, vararg other: Short): Short {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun minOf(a: Int, vararg other: Int): Int {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun minOf(a: Long, vararg other: Long): Long {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun minOf(a: Float, vararg other: Float): Float {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun minOf(a: Double, vararg other: Double): Double {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.experimental.*\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@JvmInline\npublic value class ULong @PublishedApi internal constructor(@PublishedApi internal val data: Long) : Comparable<ULong> {\n\n companion object {\n /**\n * A constant holding the minimum value an instance of ULong can have.\n */\n public const val MIN_VALUE: ULong = ULong(0)\n\n /**\n * A constant holding the maximum value an instance of ULong can have.\n */\n public const val MAX_VALUE: ULong = ULong(-1)\n\n /**\n * The number of bytes used to represent an instance of ULong in a binary form.\n */\n public const val SIZE_BYTES: Int = 8\n\n /**\n * The number of bits used to represent an instance of ULong in a binary form.\n */\n public const val SIZE_BITS: Int = 64\n }\n\n /**\n * Compares this value with the specified value for order.\n * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n * or a positive number if it's greater than other.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun compareTo(other: UByte): Int = this.compareTo(other.toULong())\n\n /**\n * Compares this value with the specified value for order.\n * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n * or a positive number if it's greater than other.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun compareTo(other: UShort): Int = this.compareTo(other.toULong())\n\n /**\n * Compares this value with the specified value for order.\n * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n * or a positive number if it's greater than other.\n */\n @kotlin.internal.InlineOnly\n public inline operator fun compareTo(other: UInt): Int = this.compareTo(other.toULong())\n\n /**\n * Compares this value with the specified value for order.\n * Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n * or a positive number if it's greater than other.\n */\n @kotlin.internal.InlineOnly\n @Suppress(\"OVERRIDE_BY_INLINE\")\n public override inline operator fun compareTo(other: ULong): Int = ulongCompare(this.data, other.data)\n\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: UByte): ULong = this.plus(other.toULong())\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: UShort): ULong = this.plus(other.toULong())\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: UInt): ULong = this.plus(other.toULong())\n /** Adds the other value to this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: ULong): ULong = ULong(this.data.plus(other.data))\n\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: UByte): ULong = this.minus(other.toULong())\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: UShort): ULong = this.minus(other.toULong())\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: UInt): ULong = this.minus(other.toULong())\n /** Subtracts the other value from this value. */\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: ULong): ULong = ULong(this.data.minus(other.data))\n\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: UByte): ULong = this.times(other.toULong())\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: UShort): ULong = this.times(other.toULong())\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: UInt): ULong = this.times(other.toULong())\n /** Multiplies this value by the other value. */\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: ULong): ULong = ULong(this.data.times(other.data))\n\n /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: UByte): ULong = this.div(other.toULong())\n /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n @kotlin.internal.InlineOnly\n public inline operator fun div(other: UShort): ULong = this.div(other.toULong())\n /** Divides this value by the other

value, truncating the result
 to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: UInt): ULong = this.div(other.toULong())\n   /** Divides this value by the other value, truncating the result to an integer that is closer to zero. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun div(other: ULong): ULong = ulongDivide(this, other)\n\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UByte): ULong = this.rem(other.toULong())\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UShort): ULong = this.rem(other.toULong())\n   /**\n   * Calculates the remainder
 of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: UInt): ULong = this.rem(other.toULong())\n   /**\n   * Calculates the remainder of truncating division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rem(other: ULong): ULong = ulongRemainder(this, other)\n\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UByte): ULong = this.floorDiv(other.toULong())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is
 closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UShort): ULong = this.floorDiv(other.toULong())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: UInt): ULong = this.floorDiv(other.toULong())\n   /**\n   * Divides this value by the other value, flooring the result to an integer that is closer to negative infinity.\n   * \n   * For unsigned types, the results of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun floorDiv(other: ULong): ULong = div(other)\n\n   /**\n   * Calculates
 the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UByte): UByte = this.mod(other.toULong()).toUByte()\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UShort): UShort = this.mod(other.toULong()).toUShort()\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division
 and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: UInt): UInt = this.mod(other.toULong()).toUInt()\n   /**\n   * Calculates the remainder of flooring division of this value by the other value.\n   * \n   * The result is always less than the divisor.\n   * \n   * For unsigned types, the remainders of flooring division and truncating division are the same.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun mod(other: ULong): ULong = rem(other)\n\n   /**\n   * Returns this value incremented by one.\n   *\n   * @sample samples.misc.Builtins.inc\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun inc(): ULong = ULong(data.inc())\n\n   /**\n   * Returns this value decremented by one.\n   *\n   * @sample samples.misc.Builtins.dec\n   */\n   @kotlin.internal.InlineOnly\n   public inline operator fun dec(): ULong = ULong(data.dec())\n\n   /** Creates a range from
 this value to the specified [other] value. */\n   @kotlin.internal.InlineOnly\n   public inline operator fun rangeTo(other: ULong): ULongRange = ULongRange(this, other)\n\n   /**\n   * Shifts this value left by the

[bitCount] number of bits.\n   *\n   * Note that only the six lowest-order bits of the [bitCount] are used as the shift distance.\n   * The shift distance actually used is therefore always in the range `0..63`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline infix fun shl(bitCount: Int): ULong = ULong(data shl bitCount)\n\n   /**\n   * Shifts this value right by the [bitCount] number of bits, filling the leftmost bits with zeros.\n   *\n   * Note that only the six lowest-order bits of the [bitCount] are used as the shift distance.\n   * The shift distance actually used is therefore always in the range `0..63`.\n   */\n   @kotlin.internal.InlineOnly\n   public inline infix fun shr(bitCount: Int): ULong = ULong(data ushr bitCount)\n\n   /**

Performs a bitwise AND operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun and(other: ULong): ULong = ULong(this.data and other.data)\n   /** Performs a bitwise OR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun or(other: ULong): ULong = ULong(this.data or other.data)\n   /** Performs a bitwise XOR operation between the two values. */\n   @kotlin.internal.InlineOnly\n   public inline infix fun xor(other: ULong): ULong = ULong(this.data xor other.data)\n   /** Inverts the bits in this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun inv(): ULong = ULong(data.inv())\n\n   /**\n   * Converts this [ULong] value to [Byte].\n   *\n   * If this value is less than or equals to [Byte.MAX_VALUE], the resulting `Byte` value represents\n   * the same numerical value as this `ULong`.\n   *\n   * The resulting `Byte` value is represented by the least significant 8 bits

of this `ULong` value.\n   * Note that the resulting `Byte` value may be negative.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toByte(): Byte = data.toByte()\n   /**\n   * Converts this [ULong] value to [Short].\n   *\n   * If this value is less than or equals to [Short.MAX_VALUE], the resulting `Short` value represents\n   * the same numerical value as this `ULong`.\n   *\n   * The resulting `Short` value is represented by the least significant 16 bits of this `ULong` value.\n   * Note that the resulting `Short` value may be negative.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toShort(): Short = data.toShort()\n   /**\n   * Converts this [ULong] value to [Int].\n   *\n   * If this value is less than or equals to [Int.MAX_VALUE], the resulting `Int` value represents\n   * the same numerical value as this `ULong`.\n   *\n   * The resulting `Int` value is represented by the least significant 32 bits of this `ULong`

value.\n   * Note that the resulting `Int` value may be negative.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toInt(): Int = data.toInt()\n   /**\n   * Converts this [ULong] value to [Long].\n   *\n   * If this value is less than or equals to [Long.MAX_VALUE], the resulting `Long` value represents\n   * the same numerical value as this `ULong`. Otherwise the result is negative.\n   *\n   * The resulting `Long` value has the same binary representation as this `ULong` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toLong(): Long = data\n\n   /**\n   * Converts this [ULong] value to [UByte].\n   *\n   * If this value is less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\n   * the same numerical value as this `ULong`.\n   *\n   * The resulting `UByte` value is represented by the least significant 8 bits of this `ULong` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline

fun toUByte(): UByte = data.toUByte()\n   /**\n   * Converts this [ULong] value to [UShort].\n   *\n   * If this value is less than or equals to [UShort.MAX_VALUE], the resulting `UShort` value represents\n   * the same numerical value as this `ULong`.\n   *\n   * The resulting `UShort` value is represented by the least significant 16 bits of this `ULong` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUShort(): UShort = data.toUShort()\n   /**\n   * Converts this [ULong] value to [UInt].\n   *\n   * If this value is less than or equals to [UInt.MAX_VALUE], the resulting `UInt` value represents\n   * the same numerical value as this `ULong`.\n   *\n   * The resulting `UInt` value is represented by the least significant 32 bits of this `ULong` value.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toUInt(): UInt = data.toUInt()\n   /** Returns this value. */\n   @kotlin.internal.InlineOnly\n   public inline fun toULong():

ULong = this\n\n   /**\n   * Converts this [ULong] value to [Float].\n   *\n   * The resulting value is the closest `Float` to this `ULong` value.\n   * In case when this `ULong` value is exactly between two `Float`s,\n   * the one with zero at least significant bit of mantissa is selected.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toFloat(): Float = this.toDouble().toFloat()\n   /**\n   * Converts this [ULong] value to [Double].\n   *\n   * The resulting value is the closest `Double` to this `ULong` value.\n   * In case when this `ULong` value is exactly between two `Double`s,\n   * the one with zero at least significant bit of mantissa is selected.\n   */\n   @kotlin.internal.InlineOnly\n   public inline fun toDouble(): Double = ulongToDouble(data)\n\n   public override fun toString(): String = ulongToString(data)\n\n}\n\n/**\n * Converts this [Byte] value to [ULong].\n *\n * If this value is positive, the resulting `ULong` value

represents the same numerical value as this `Byte`.\n *\n * The least significant 8 bits of the resulting `ULong` value are the same as the bits of this `Byte` value,\n * whereas the most significant 56 bits are filled with the sign bit of this value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.toULong(): ULong = ULong(this.toLong())\n/**\n * Converts this [Short] value to [ULong].\n *\n * If this value is positive, the resulting `ULong` value represents the same numerical value as this `Short`.\n *\n * The least significant 16 bits of the resulting `ULong` value are the same as the bits of this `Short` value,\n * whereas the most significant 48 bits are filled with the sign bit of this value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.toULong(): ULong = ULong(this.toLong())\n/**\n * Converts this [Int]

value to [ULong].\n *\n * If this value is positive, the resulting `ULong` value represents the same numerical value as this `Int`.\n *\n * The least significant 32 bits of the resulting `ULong` value are the same as the bits of this `Int` value,\n * whereas the most significant 32 bits are filled with the sign bit of this value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Int.toULong(): ULong = ULong(this.toLong())\n/**\n * Converts this [Long] value to [ULong].\n *\n * If this value is positive, the resulting `ULong` value represents the same numerical value as this `Long`.\n *\n * The resulting `ULong` value has the same binary representation as this `Long` value.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Long.toULong(): ULong = ULong(this)\n\n/**\n * Converts this [Float] value to [ULong].\n *\n * The fractional part,

if any, is rounded down towards zero.\n * Returns zero if this `Float` value is negative or `NaN`, [ULong.MAX_VALUE] if it's bigger than `ULong.MAX_VALUE`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Float.toULong(): ULong = doubleToULong(this.toDouble())\n/**\n * Converts this [Double] value to [ULong].\n *\n * The fractional part, if any, is rounded down towards zero.\n * Returns zero if this `Double` value is negative or `NaN`, [ULong.MAX_VALUE] if it's bigger than `ULong.MAX_VALUE`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun Double.toULong(): ULong = doubleToULong(this)\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CollectionsKt\")\n\npackage

kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns 1st *element* from the list.\n * \n * Throws an [IndexOutOfBoundsException] if the size of this list is less than 1.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component1(): T {\n   return get(0)\n}\n\n/**\n * Returns 2nd *element* from the list.\n * \n * Throws an [IndexOutOfBoundsException] if the size of this list is less than 2.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component2(): T {\n   return get(1)\n}\n\n/**\n * Returns 3rd *element* from the list.\n * \n * Throws an [IndexOutOfBoundsException] if the size of this list is less than 3.\n */\n@kotlin.internal.InlineOnly\npublic

inline operator fun <T> List<T>.component3(): T {\n   return get(2)\n}\n\n/**\n * Returns 4th *element* from the list.\n * \n * Throws an [IndexOutOfBoundsException] if the size of this list is less than 4.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component4(): T {\n   return get(3)\n}\n\n/**\n * Returns 5th *element* from the list.\n * \n * Throws an [IndexOutOfBoundsException] if the

size of this list is less than 5.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component5(): T {\n   return get(4)\n}\n\n/**\n * Returns `true` if [element] is found in the collection.\n */\npublic operator fun <@kotlin.internal.OnlyInputTypes T> Iterable<T>.contains(element: T): Boolean {\n   if (this is Collection)\n   return contains(element)\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this collection.\n * \n * @sample
 samples.collections.Collections.Elements.elementAt\n */\npublic fun <T> Iterable<T>.elementAt(index: Int): T {\n if (this is List)\n   return get(index)\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"Collection doesn't contain element at index $index.\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this list.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>.elementAt(index: Int): T {\n   return get(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this collection.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\npublic fun <T> Iterable<T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n   if (this is List)\n   return this.getOrElse(index,
 defaultValue)\n   if (index < 0)\n   return defaultValue(index)\n   val iterator = iterator()\n   var count = 0\n   while (iterator.hasNext()) {\n   val element = iterator.next()\n   if (index == count++)\n   return element\n   }\n   return defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this list.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this collection.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\npublic fun <T> Iterable<T>.elementAtOrNull(index: Int): T? {\n   if (this
 is List)\n   return this.getOrNull(index)\n   if (index < 0)\n   return null\n   val iterator = iterator()\n   var count = 0\n   while (iterator.hasNext()) {\n   val element = iterator.next()\n   if (index == count++)\n   return element\n   }\n   return null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this list.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>.elementAtOrNull(index: Int): T? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.find(predicate: (T) -> Boolean): T? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate],
 or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.findLast(predicate: (T) -> Boolean): T? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>.findLast(predicate: (T) -> Boolean): T? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the collection is empty.\n */\npublic fun <T> Iterable<T>.first(): T {\n   when (this) {\n   is List -> return this.first()\n   else -> {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   throw NoSuchElementException(\"Collection is empty.\")\n   return iterator.next()\n   }\n   }\n}\n\n/**\n
 * Returns first element.\n * @throws [NoSuchElementException] if the list is empty.\n */\npublic fun <T> List<T>.first(): T {\n   if (isEmpty())\n   throw NoSuchElementException(\"List is empty.\")\n   return this[0]\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun <T> Iterable<T>.first(predicate: (T)

-> Boolean): T {\n   for (element in this) if (predicate(element)) return element\n   throw
NoSuchElementException(\"Collection contains no element matching the predicate.\")\n}\n\n/**\n * Returns the
first non-null value produced by [transform] function being applied to elements of this collection in iteration order,\n
* or throws [NoSuchElementException] if no non-null value was produced.\n * \n * @sample
samples.collections.Collections.Transformations.firstNotNullOf\n
*/\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any>
Iterable<T>.firstNotNullOf(transform:
 (T) -> R?): R {\n   return firstNotNullOfOrNull(transform) ?: throw NoSuchElementException(\"No element of the
collection was transformed to a non-null value.\")\n}\n\n/**\n * Returns the first non-null value produced by
[transform] function being applied to elements of this collection in iteration order,\n * or `null` if no non-null value
was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n
*/\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any>
Iterable<T>.firstNotNullOfOrNull(transform: (T) -> R?): R? {\n   for (element in this) {\n   val result =
transform(element)\n   if (result != null) {\n   return result\n   }\n   }\n   return null\n}\n\n/**\n *
Returns the first element, or `null` if the collection is empty.\n */\npublic fun <T> Iterable<T>.firstOrNull(): T? {\n
when (this) {\n   is List -> {\n   if (isEmpty())\n
   return null\n   else\n   return this[0]\n   }\n   else -> {\n   val iterator = iterator()\n
if (!iterator.hasNext())\n   return null\n   return iterator.next()\n   }\n   }\n}\n\n/**\n * Returns the
first element, or `null` if the list is empty.\n */\npublic fun <T> List<T>.firstOrNull(): T? {\n   return if (isEmpty())
null else this[0]\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not
found.\n */\npublic inline fun <T> Iterable<T>.firstOrNull(predicate: (T) -> Boolean): T? {\n   for (element in this)
if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns an element at the given [index] or the
result of calling the [defaultValue] function if the [index] is out of bounds of this list.\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun <T> List<T>.getOrElse(index: Int, defaultValue: (Int) -> T): T
{\n   return if (index >= 0 && index
 <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if
the [index] is out of bounds of this list.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n
*/\npublic fun <T> List<T>.getOrNull(index: Int): T? {\n   return if (index >= 0 && index <= lastIndex) get(index)
else null\n}\n\n/**\n * Returns first index of [element], or -1 if the collection does not contain element.\n */\npublic
fun <@kotlin.internal.OnlyInputTypes T> Iterable<T>.indexOf(element: T): Int {\n   if (this is List) return
this.indexOf(element)\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (element
== item)\n   return index\n   index++\n   }\n   return -1\n}\n\n/**\n * Returns first index of [element], or -1
if the list does not contain element.\n */\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\") // false
warning, extension takes precedence in some cases\npublic fun <@kotlin.internal.OnlyInputTypes
 T> List<T>.indexOf(element: T): Int {\n   return indexOf(element)\n}\n\n/**\n * Returns index of the first element
matching the given [predicate], or -1 if the collection does not contain such element.\n */\npublic inline fun <T>
Iterable<T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n   var index = 0\n   for (item in this) {\n
checkIndexOverflow(index)\n   if (predicate(item))\n   return index\n   index++\n   }\n   return -
1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the list does not contain
such element.\n */\npublic inline fun <T> List<T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n   var index = 0\n
  for (item in this) {\n   if (predicate(item))\n   return index\n   index++\n   }\n   return -1\n}\n\n/**\n *
Returns index of the last element matching the given [predicate], or -1 if the collection does not contain such
element.\n */\npublic inline fun
 <T> Iterable<T>.indexOfLast(predicate: (T) -> Boolean): Int {\n   var lastIndex = -1\n   var index = 0\n   for (item
in this) {\n   checkIndexOverflow(index)\n   if (predicate(item))\n   lastIndex = index\n   index++\n
}\n   return lastIndex\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the list
does not contain such element.\n */\npublic inline fun <T> List<T>.indexOfLast(predicate: (T) -> Boolean): Int {\n
val iterator = this.listIterator(size)\n   while (iterator.hasPrevious()) {\n   if (predicate(iterator.previous())) {\n

return iterator.nextIndex()\n }\n }\n return -1\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the collection is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> Iterable<T>.last(): T {\n when (this) {\n is List -> return this.last()\n else -> {\n val iterator = iterator()\n if (!iterator.hasNext())\n throw NoSuchElementException(\"Collection is empty.\")\n var last = iterator.next()\n while (iterator.hasNext())\n last = iterator.next()\n return last\n }\n }\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the list is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> List<T>.last(): T {\n if (isEmpty())\n throw NoSuchElementException(\"List is empty.\")\n return this[lastIndex]\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Iterable<T>.last(predicate: (T) -> Boolean): T {\n var last: T? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n last = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Collection contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return last as T\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> List<T>.last(predicate: (T) -> Boolean): T {\n val iterator = this.listIterator(size)\n while (iterator.hasPrevious()) {\n val element = iterator.previous()\n if (predicate(element)) return element\n }\n throw NoSuchElementException(\"List contains no element matching the predicate.\")\n}\n\n/**\n * Returns last index of [element], or -1 if the collection does not contain element.\n */\npublic fun <@kotlin.internal.OnlyInputTypes T> Iterable<T>.lastIndexOf(element: T): Int {\n if (this is List) return this.lastIndexOf(element)\n var lastIndex = -1\n var index = 0\n for (item in this) {\n checkIndexOverflow(index)\n if (element == item)\n lastIndex = index\n index++\n }\n return lastIndex\n}\n\n/**\n * Returns last index of [element], or -1 if the list does not contain element.\n */\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\") // false warning, extension takes precedence in some cases\npublic fun <@kotlin.internal.OnlyInputTypes T> List<T>.lastIndexOf(element: T): Int {\n return lastIndexOf(element)\n}\n\n/**\n * Returns the last element, or `null` if the collection is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> Iterable<T>.lastOrNull(): T? {\n when (this) {\n is List -> return if (isEmpty()) null else this[size - 1]\n else -> {\n val iterator = iterator()\n if (!iterator.hasNext())\n return null\n var last = iterator.next()\n while (iterator.hasNext())\n last = iterator.next()\n return last\n }\n }\n}\n\n/**\n * Returns the last element, or `null` if the list is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> List<T>.lastOrNull(): T? {\n return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Iterable<T>.lastOrNull(predicate: (T) -> Boolean): T? {\n var last: T? = null\n for (element in this) {\n if (predicate(element)) {\n last = element\n }\n }\n return last\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> List<T>.lastOrNull(predicate: (T) -> Boolean): T? {\n val iterator = this.listIterator(size)\n while (iterator.hasPrevious()) {\n val element = iterator.previous()\n if (predicate(element)) return element\n }\n return null\n}\n\n/**\n * Returns a random element from this collection.\n * \n * @throws NoSuchElementException if this collection is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>.random(): T {\n return random(Random)\n}\n\n/**\n * Returns a random element from this collection using the specified source of randomness.\n * \n * @throws NoSuchElementException if this collection is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun <T> Collection<T>.random(random: Random): T {\n if (isEmpty())\n throw NoSuchElementException(\"Collection is empty.\")\n   return elementAt(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this collection, or `null` if this collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>.randomOrNull(): T? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this collection using the specified source of randomness, or `null` if this collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> Collection<T>.randomOrNull(random: Random): T? {\n   if (isEmpty())\n   return null\n   return elementAt(random.nextInt(size))\n}\n\n/**\n * Returns the single element, or throws an exception if the collection is empty or has more than one element.\n */\npublic fun <T> Iterable<T>.single(): T {\n   when (this) {\n   is List -> return this.single()\n   else -> {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n throw NoSuchElementException(\"Collection is empty.\")\n   val single = iterator.next()\n   if (iterator.hasNext())\n   throw IllegalArgumentException(\"Collection has more than one element.\")\n   return single\n }\n   }\n}\n\n/**\n * Returns the single element, or throws an exception if the list is empty or has more than one element.\n */\npublic fun <T> List<T>.single(): T {\n   return when (size) {\n   0 -> throw NoSuchElementException(\"List is empty.\")\n   1 -> this[0]\n   else -> throw IllegalArgumentException(\"List has more than one element.\")\n   }\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic inline fun <T> Iterable<T>.single(predicate: (T) -> Boolean): T {\n   var single: T? = null\n   var found = false\n for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Collection contains more than one matching element.\")\n   single = element\n found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Collection contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return single as T\n}\n\n/**\n * Returns single element, or `null` if the collection is empty or has more than one element.\n */\npublic fun <T> Iterable<T>.singleOrNull(): T? {\n   when (this) {\n   is List -> return if (size == 1) this[0] else null\n   else -> {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   return null\n   val single = iterator.next()\n   if (iterator.hasNext())\n   return null\n   return single\n   }\n   }\n}\n\n/**\n * Returns single element, or `null` if the list is empty or has more than one element.\n */\npublic fun <T> List<T>.singleOrNull(): T? {\n return if (size == 1) this[0] else null\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic inline fun <T> Iterable<T>.singleOrNull(predicate: (T) -> Boolean): T? {\n   var single: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n if (!found) return null\n   return single\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun <T> Iterable<T>.drop(n: Int): List<T> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return toList()\n   val list: ArrayList<T>\n   if (this is Collection<*>) {\n   val resultSize = size - n\n   if (resultSize <= 0)\n   return emptyList()\n   if (resultSize == 1)\n   return listOf(last())\n   list = ArrayList<T>(resultSize)\n   if (this is List<T>) {\n   if (this is RandomAccess) {\n   for (index in n until size)\n   list.add(this[index])\n   } else {\n   for (item in listIterator(n))\n   list.add(item)\n   }\n   return list\n   }\n   }\n   else {\n   list = ArrayList<T>()\n   }\n   var count = 0\n   for (item in this) {\n   if (count >= n) list.add(item) else ++count\n   }\n   return list.optimizeReadOnlyList()\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun <T> List<T>.dropLast(n: Int): List<T> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements

except last elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun <T> List<T>.dropLastWhile(predicate: (T) -> Boolean): List<T> {\n   if (!isEmpty()) {\n   val iterator = listIterator(size)\n   while (iterator.hasPrevious()) {\n   if (!predicate(iterator.previous())) {\n   return take(iterator.nextIndex() + 1)\n   }\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun <T> Iterable<T>.dropWhile(predicate: (T) -> Boolean): List<T> {\n   var yielding = false\n   val list = ArrayList<T>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding = true\n   }\n

return list\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun <T> Iterable<T>.filter(predicate: (T) -> Boolean): List<T> {\n   return filterTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun <T> Iterable<T>.filterIndexed(predicate: (index: Int, T) -> Boolean): List<T> {\n   return filterIndexedTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate

evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Iterable<T>.filterIndexedTo(destination: C, predicate: (index: Int, T) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Returns a list containing all elements that are instances of specified type parameter R.\n * \n * @sample samples.collections.Collections.Filtering.filterIsInstance\n */\npublic inline fun <reified R> Iterable<*>.filterIsInstance(): List<@kotlin.internal.NoInfer R> {\n   return filterIsInstanceTo(ArrayList<R>())\n}\n\n/**\n * Appends all elements that are instances of specified type parameter R to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterIsInstanceTo\n */\npublic inline fun <reified R, C : MutableCollection<in R>> Iterable<*>.filterIsInstanceTo(destination:

C): C {\n   for (element in this) if (element is R) destination.add(element)\n   return destination\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic inline fun <T> Iterable<T>.filterNot(predicate: (T) -> Boolean): List<T> {\n   return filterNotTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing all elements that are not `null`.\n * \n * @sample samples.collections.Collections.Filtering.filterNotNull\n */\npublic fun <T : Any> Iterable<T?>.filterNotNull(): List<T> {\n   return filterNotNullTo(ArrayList<T>())\n}\n\n/**\n * Appends all elements that are not `null` to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterNotNullTo\n */\npublic fun <C : MutableCollection<in T>, T : Any> Iterable<T?>.filterNotNullTo(destination: C): C {\n   for (element in this) if (element != null) destination.add(element)\n

return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Iterable<T>.filterNotTo(destination: C, predicate: (T) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample

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samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <T, C : MutableCollection<in T>>
Iterable<T>.filterTo(destination: C, predicate: (T) -> Boolean): C {\n    for (element in this) if (predicate(element))
destination.add(element)\n    return destination\n}\n\n/**\n * Returns a list containing elements at indices in the
specified [indices] range.\n */\npublic fun <T> List<T>.slice(indices: IntRange): List<T> {\n    if
(indices.isEmpty()) return
 listOf()\n    return this.subList(indices.start, indices.endInclusive + 1).toList()\n}\n\n/**\n * Returns a list
containing elements at specified [indices].\n */\npublic fun <T> List<T>.slice(indices: Iterable<Int>): List<T> {\n
val size = indices.collectionSizeOrDefault(10)\n    if (size == 0) return emptyList()\n    val list =
ArrayList<T>(size)\n    for (index in indices) {\n        list.add(get(index))\n    }\n    return list\n}\n\n/**\n * Returns
a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic fun <T> Iterable<T>.take(n: Int): List<T> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    if (this is
Collection<T>) {\n        if (n >= size) return toList()\n        if (n == 1) return listOf(first())\n    }\n    var count = 0\n
val list = ArrayList<T>(n)\n    for (item in this)
 {\n        list.add(item)\n        if (++count == n)\n            break\n    }\n    return
list.optimizeReadOnlyList()\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic fun <T> List<T>.takeLast(n: Int): List<T> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val size =
size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(last())\n    val list = ArrayList<T>(n)\n    if (this is
RandomAccess) {\n        for (index in size - n until size)\n            list.add(this[index])\n    } else {\n        for (item in
listIterator(size - n))\n            list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns a list containing last elements
satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic
 inline fun <T> List<T>.takeLastWhile(predicate: (T) -> Boolean): List<T> {\n    if (isEmpty())\n        return
emptyList()\n    val iterator = listIterator(size)\n    while (iterator.hasPrevious()) {\n        if
(!predicate(iterator.previous())) {\n            iterator.next()\n            val expectedSize = size - iterator.nextIndex()\n
    if (expectedSize == 0) return emptyList()\n            return ArrayList<T>(expectedSize).apply {\n                while
(iterator.hasNext())\n                    add(iterator.next())\n            }\n        }\n    }\n    return toList()\n}\n\n/**\n *
Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic inline fun <T> Iterable<T>.takeWhile(predicate:
(T) -> Boolean): List<T> {\n    val list = ArrayList<T>()\n    for (item in this) {\n        if (!predicate(item))\n
break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n
 * Reverses elements in the list in-place.\n */\npublic expect fun <T> MutableList<T>.reverse(): Unit\n\n/**\n *
Returns a list with elements in reversed order.\n */\npublic fun <T> Iterable<T>.reversed(): List<T> {\n    if (this is
Collection && size <= 1) return toList()\n    val list = toMutableList()\n    list.reverse()\n    return list\n}\n\n/**\n *
Randomly shuffles elements in this list in-place using the specified [random] instance as the source of
randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n
*/\n@SinceKotlin(\"1.3\")\npublic fun <T> MutableList<T>.shuffle(random: Random): Unit {\n    for (i in lastIndex
downTo 1) {\n        val j = random.nextInt(i + 1)\n        this[j] = this.set(i, this[j])\n    }\n}\n\n/**\n * Sorts elements
in the list in-place according to natural sort order of the value returned by specified [selector] function.\n * \n * The
sort is _stable_. It means that equal elements preserve their order
 relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>>
MutableList<T>.sortBy(crossinline selector: (T) -> R?): Unit {\n    if (size > 1)
sortWith(compareBy(selector))\n}\n\n/**\n * Sorts elements in the list in-place descending according to natural sort
order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal
elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>>
MutableList<T>.sortByDescending(crossinline selector: (T) -> R?): Unit {\n    if (size > 1)
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sortWith(compareByDescending(selector))\n}\n\n/**\n * Sorts elements in the list in-place descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> MutableList<T>.sortDescending(): Unit {\n   sortWith(reverseOrder())\n}\n\n/**\n * Returns a list
 of all elements sorted according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Iterable<T>.sorted(): List<T> {\n   if (this is Collection) {\n   if (size <= 1) return this.toList()\n   @Suppress(\"UNCHECKED_CAST\")\n   return (toTypedArray<Comparable<T>>() as Array<T>).apply { sort() }.asList()\n   }\n   return toMutableList().apply { sort() }\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <T, R : Comparable<R>> Iterable<T>.sortedBy(crossinline selector: (T) -> R?): List<T> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n *
 Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>> Iterable<T>.sortedByDescending(crossinline selector: (T) -> R?): List<T> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun <T : Comparable<T>> Iterable<T>.sortedDescending(): List<T> {\n   return sortedWith(reverseOrder())\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\npublic fun
 <T> Iterable<T>.sortedWith(comparator: Comparator<in T>): List<T> {\n   if (this is Collection) {\n   if (size <= 1) return this.toList()\n   @Suppress(\"UNCHECKED_CAST\")\n   return (toTypedArray<Any?>() as Array<T>).apply { sortWith(comparator) }.asList()\n   }\n   return toMutableList().apply { sortWith(comparator) }\n}\n\n/**\n * Returns an array of Boolean containing all of the elements of this collection.\n */\npublic fun Collection<Boolean>.toBooleanArray(): BooleanArray {\n   val result = BooleanArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of Byte containing all of the elements of this collection.\n */\npublic fun Collection<Byte>.toByteArray(): ByteArray {\n   val result = ByteArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of Char containing all of the elements of this
 collection.\n */\npublic fun Collection<Char>.toCharArray(): CharArray {\n   val result = CharArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of Double containing all of the elements of this collection.\n */\npublic fun Collection<Double>.toDoubleArray(): DoubleArray {\n   val result = DoubleArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of Float containing all of the elements of this collection.\n */\npublic fun Collection<Float>.toFloatArray(): FloatArray {\n   val result = FloatArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of Int containing all of the elements of this collection.\n */\npublic fun Collection<Int>.toIntArray(): IntArray {\n   val result = IntArray(size)\n   var index = 0\n   for
 (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of Long containing all of the elements of this collection.\n */\npublic fun Collection<Long>.toLongArray(): LongArray {\n   val result = LongArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of Short containing all of the elements of this collection.\n */\npublic fun Collection<Short>.toShortArray(): ShortArray {\n   val result = ShortArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given collection.\n * \n * If any of two pairs would

have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original collection.\n * \n * @sample samples.collections.Collections.Transformations.associate\n */\npublic inline fun <T, K, V> Iterable<T>.associate(transform: (T) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing the elements from the given collection indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original collection.\n * \n * @sample samples.collections.Collections.Transformations.associateBy\n */\npublic inline fun <T, K> Iterable<T>.associateBy(keySelector: (T) -> K): Map<K, T> {\n   val capacity = mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, T>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map]

containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given collection.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original collection.\n * \n * @sample samples.collections.Collections.Transformations.associateByWithValueTransform\n */\npublic inline fun <T, K, V> Iterable<T>.associateBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, V> {\n   val capacity = mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given collection\n * and value is the element itself.\n * \n * If any two elements would have the same

key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Collections.Transformations.associateByTo\n */\npublic inline fun <T, K, M : MutableMap<in K, in T>> Iterable<T>.associateByTo(destination: M, keySelector: (T) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given collection.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.collections.Collections.Transformations.associateByToWithValueTransform\n */\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Iterable<T>.associateByTo(destination: M, keySelector: (T) -> K, valueTransform: (T)

-> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given collection.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.collections.Collections.Transformations.associateTo\n */\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Iterable<T>.associateTo(destination: M, transform: (T) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Returns a [Map] where keys are elements from the given collection and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves

the entry iteration order of the original collection.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.3\")\npublic inline fun <K, V> Iterable<K>.associateWith(valueSelector: (K) -> V): Map<K, V> {\n   val result = LinkedHashMap<K, V>(mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given collection,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.3\")\npublic inline fun <K, V, M : MutableMap<in K, in V>> Iterable<K>.associateWithTo(destination: M, valueSelector: (K) -> V): M {\n for (element in this) {\n destination.put(element, valueSelector(element))\n }\n return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n */\npublic fun <T, C : MutableCollection<in T>> Iterable<T>.toCollection(destination: C): C {\n for (item in this) {\n destination.add(item)\n }\n return destination\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n */\npublic fun <T> Iterable<T>.toHashSet(): HashSet<T> {\n return toCollection(HashSet<T>(mapCapacity(collectionSizeOrDefault(12))))\n}\n\n/**\n * Returns a [List] containing all elements.\n */\npublic fun <T> Iterable<T>.toList(): List<T> {\n if (this is Collection) {\n return when (size) {\n 0 -> emptyList()\n 1 -> listOf(if (this is List) get(0) else iterator().next())\n else -> this.toMutableList()\n }\n }\n return this.toMutableList().optimizeReadOnlyList()\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this collection.\n */\npublic fun <T> Iterable<T>.toMutableList(): MutableList<T> {\n if (this is Collection<T>)\n return this.toMutableList()\n return toCollection(ArrayList<T>())\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this collection.\n */\npublic fun <T> Collection<T>.toMutableList(): MutableList<T> {\n return ArrayList(this)\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original collection.\n */\npublic fun <T> Iterable<T>.toSet(): Set<T> {\n if (this is Collection) {\n return when (size) {\n 0 -> emptySet()\n 1 -> setOf(if (this is List) this[0] else iterator().next())\n else -> toCollection(LinkedHashSet<T>(mapCapacity(size)))\n }\n }\n return toCollection(LinkedHashSet<T>()).optimizeReadOnlySet()\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original collection.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <T, R> Iterable<T>.flatMap(transform: (T) -> Iterable<R>): List<R> {\n return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original collection.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapSequence\")\npublic inline fun <T, R> Iterable<T>.flatMap(transform: (T) -> Sequence<R>): List<R> {\n return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original collection.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Iterable<T>.flatMapIndexed(transform: (index: Int, T) -> Iterable<R>): List<R> {\n return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original collection.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedSequence\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Iterable<T>.flatMapIndexed(transform: (index: Int, T) -> Sequence<R>): List<R> {\n return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original collection, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npubli

c inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.flatMapIndexedTo(destination: C, transform: (index: Int, T) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(checkIndexOverflow(index++), element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original collection, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedSequenceTo\")\n@kotlin.internal.InlineOnly\npu
blic
 inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.flatMapIndexedTo(destination: C, transform: (index: Int, T) -> Sequence<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(checkIndexOverflow(index++), element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original collection, to the given [destination].\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.flatMapTo(destination: C, transform: (T) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on
 each element of original collection, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapSequenceTo\")\npublic inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.flatMapTo(destination: C, transform: (T) -> Sequence<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original collection by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original collection.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K> Iterable<T>.groupBy(keySelector: (T) -> K): Map<K,
 List<T>> {\n   return groupByTo(LinkedHashMap<K, MutableList<T>>(), keySelector)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original collection\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original collection.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <T, K, V> Iterable<T>.groupBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups elements of the original collection by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list
 of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K, M : MutableMap<in K, MutableList<T>>> Iterable<T>.groupByTo(destination: M, keySelector: (T) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<T>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original collection\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <T, K, V, M : MutableMap<in K, MutableList<V>>> Iterable<T>.groupByTo(destination:
 M, keySelector: (T) -> K, valueTransform: (T) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n

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list.add(valueTransform(element))\n    }\n    return destination\n}\n\n/**\n * Creates a [Grouping] source from a
collection to be used later with one of group-and-fold operations\n * using the specified [keySelector] function to
extract a key from each element.\n * \n * @sample samples.collections.Grouping.groupingByEachCount\n
*/\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K> Iterable<T>.groupingBy(crossinline keySelector: (T) -> K):
Grouping<T, K> {\n    return object : Grouping<T, K> {\n        override fun sourceIterator(): Iterator<T> =
this@groupingBy.iterator()\n        override fun keyOf(element: T): K = keySelector(element)\n    }\n}\n\n/**\n *
Returns a list containing the results of applying the given [transform] function\n * to each element in the original
collection.\n
 * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic inline fun <T, R>
Iterable<T>.map(transform: (T) -> R): List<R> {\n    return mapTo(ArrayList<R>(collectionSizeOrDefault(10)),
transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each
element and its index in the original collection.\n * @param [transform] function that takes the index of an element
and the element itself\n * and returns the result of the transform applied to the element.\n */\npublic inline fun <T,
R> Iterable<T>.mapIndexed(transform: (index: Int, T) -> R): List<R> {\n    return
mapIndexedTo(ArrayList<R>(collectionSizeOrDefault(10)), transform)\n}\n\n/**\n * Returns a list containing only
the non-null results of applying the given [transform] function\n * to each element and its index in the original
collection.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns
the result
 of the transform applied to the element.\n */\npublic inline fun <T, R : Any>
Iterable<T>.mapIndexedNotNull(transform: (index: Int, T) -> R?): List<R> {\n    return
mapIndexedNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each
element and its index in the original collection\n * and appends only the non-null results to the given [destination].\n
* @param [transform] function that takes the index of an element and the element itself\n * and returns the result of
the transform applied to the element.\n */\npublic inline fun <T, R : Any, C : MutableCollection<in R>>
Iterable<T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R?): C {\n    forEachIndexed {
index, element -> transform(index, element)?.let { destination.add(it) } }\n    return destination\n}\n\n/**\n *
Applies the given [transform] function to each element and its index in the original collection\n * and appends the
results to the given [destination].\n * @param
 [transform] function that takes the index of an element and the element itself\n * and returns the result of the
transform applied to the element.\n */\npublic inline fun <T, R, C : MutableCollection<in R>>
Iterable<T>.mapIndexedTo(destination: C, transform: (index: Int, T) -> R): C {\n    var index = 0\n    for (item in
this)\n        destination.add(transform(checkIndexOverflow(index++), item))\n    return destination\n}\n\n/**\n *
Returns a list containing only the non-null results of applying the given [transform] function\n * to each element in
the original collection.\n * \n * @sample samples.collections.Collections.Transformations.mapNotNull\n */\npublic
inline fun <T, R : Any> Iterable<T>.mapNotNull(transform: (T) -> R?): List<R> {\n    return
mapNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each element in
the original collection\n * and appends only the non-null results to the given [destination].\n */\npublic inline fun
<T, R
 : Any, C : MutableCollection<in R>> Iterable<T>.mapNotNullTo(destination: C, transform: (T) -> R?): C {\n
forEach { element -> transform(element)?.let { destination.add(it) } }\n    return destination\n}\n\n/**\n * Applies
the given [transform] function to each element of the original collection\n * and appends the results to the given
[destination].\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.mapTo(destination: C,
transform: (T) -> R): C {\n    for (item in this)\n        destination.add(transform(item))\n    return
destination\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original collection\n * into an
[IndexedValue] containing the index of that element and the element itself.\n */\npublic fun <T>
Iterable<T>.withIndex(): Iterable<IndexedValue<T>> {\n    return IndexingIterable { iterator() }\n}\n\n/**\n *
Returns a list containing only distinct elements from the given collection.\n * \n * Among equal elements of the
given collection,
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only the first one will be present in the resulting list.\n * The elements in the resulting list are in the same order as they were in the source collection.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun <T> Iterable<T>.distinct(): List<T> {\n   return this.toMutableSet().toList()\n}\n\n/**\n * Returns a list containing only elements from the given collection\n * having distinct keys returned by the given [selector] function.\n * \n * Among elements of the given collection with equal keys, only the first one will be present in the resulting list.\n * The elements in the resulting list are in the same order as they were in the source collection.\n * \n * @sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic inline fun <T, K> Iterable<T>.distinctBy(selector: (T) -> K): List<T> {\n   val set = HashSet<K>()\n   val list = ArrayList<T>()\n for (e in this) {\n   val key = selector(e)\n
        if (set.add(key))\n   list.add(e)\n   }\n   return list\n}\n\n/**\n * Returns a set containing all elements that are contained by both this collection and the specified collection.\n * \n * The returned set preserves the element iteration order of the original collection.\n * \n * To get a set containing all elements that are contained at least in one of these collections use [union].\n */\npublic infix fun <T> Iterable<T>.intersect(other: Iterable<T>): Set<T> {\n   val set = this.toMutableSet()\n   set.retainAll(other)\n   return set\n}\n\n/**\n * Returns a set containing all elements that are contained by this collection and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original collection.\n */\npublic infix fun <T> Iterable<T>.subtract(other: Iterable<T>): Set<T> {\n   val set = this.toMutableSet()\n   set.removeAll(other)\n return set\n}\n\n/**\n * Returns a new [MutableSet] containing
all distinct elements from the given collection.\n * \n * The returned set preserves the element iteration order of the original collection.\n */\npublic fun <T> Iterable<T>.toMutableSet(): MutableSet<T> {\n   return when (this) {\n is Collection<T> -> LinkedHashSet(this)\n   else -> toCollection(LinkedHashSet<T>())\n   }\n}\n\n/**\n * Returns a set containing all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the original collection.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order of the [other] collection.\n * \n * To get a set containing all elements that are contained in both collections use [intersect].\n */\npublic infix fun <T> Iterable<T>.union(other: Iterable<T>): Set<T> {\n   val set = this.toMutableSet()\n   set.addAll(other)\n   return set\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n
*/\npublic inline fun <T> Iterable<T>.all(predicate: (T) -> Boolean): Boolean {\n   if (this is Collection && isEmpty()) return true\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if collection has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun <T> Iterable<T>.any(): Boolean {\n   if (this is Collection) return !isEmpty()\n   return iterator().hasNext()\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun <T> Iterable<T>.any(predicate: (T) -> Boolean): Boolean {\n   if (this is Collection && isEmpty()) return false\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns the number of elements in this collection.\n */\npublic fun <T> Iterable<T>.count():
Int {\n   if (this is Collection) return size\n   var count = 0\n   for (element in this) checkCountOverflow(++count)\n   return count\n}\n\n/**\n * Returns the number of elements in this collection.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun <T> Iterable<T>.count(predicate: (T) -> Boolean): Int {\n   if (this is Collection && isEmpty()) return 0\n   var count = 0\n   for (element in this) if (predicate(element)) checkCountOverflow(++count)\n   return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the collection is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n

*/\npublic inline fun <T, R> Iterable<T>.fold(initial: R, operation: (acc: R, T) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original collection.\n * \n * Returns the specified [initial] value if the collection is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\npublic inline fun <T, R> Iterable<T>.foldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(checkIndexOverflow(index++), accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with

[initial] value and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the list is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <T, R> List<T>.foldRight(initial: R, operation: (T, acc: R) -> R): R {\n   var accumulator = initial\n   if (!isEmpty()) {\n

val iterator = listIterator(size)\n   while (iterator.hasPrevious()) {\n   accumulator = operation(iterator.previous(), accumulator)\n   }\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original list and current accumulator value.\n * \n * Returns the specified [initial] value if the list is empty.\n * \n * @param [operation] function that takes the index of an element, the

element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <T, R> List<T>.foldRightIndexed(initial: R, operation: (index: Int, T, acc: R) -> R): R {\n   var accumulator = initial\n   if (!isEmpty()) {\n   val iterator = listIterator(size)\n   while (iterator.hasPrevious()) {\n   val index = iterator.previousIndex()\n   accumulator = operation(index, iterator.previous(), accumulator)\n   }\n

}\n   return accumulator\n}\n\n/**\n * Performs the given [action] on each element.\n */\n@kotlin.internal.HidesMembers\npublic inline fun <T> Iterable<T>.forEach(action: (T) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\npublic inline fun <T> Iterable<T>.forEachIndexed(action:

(index: Int, T) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(checkIndexOverflow(index++), item)\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Iterable<Double>.max(): Double? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Iterable<Float>.max(): Float? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T : Comparable<T>> Iterable<T>.max(): T? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince

= \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <T, R : Comparable<R>> Iterable<T>.maxBy(selector: (T) -> R): T? {\n   return maxByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R : Comparable<R>> Iterable<T>.maxByOrNull(selector: (T) -> R): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxElem = iterator.next()\n   if (!iterator.hasNext()) return maxElem\n   var maxValue = selector(maxElem)\n   do {\n   val e = iterator.next()\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   } while (iterator.hasNext())\n   return maxElem\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the collection.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.maxOf(selector: (T) -> Double): Double {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the collection.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result

is `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.maxOf(selector: (T) -> Float): Float {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the collection.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Iterable<T>.maxOf(selector:

(T) -> R): R {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the collection or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.maxOfOrNull(selector: (T) -> Double): Double? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext())

{\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the collection or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.maxOfOrNull(selector: (T) -> Float): Float? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each

element in the collection or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Iterable<T>.maxOfOrNull(selector: (T) -> R): R? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the collection.\n * \n * @throws

NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Iterable<T>.maxOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the collection or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Iterable<T>.maxOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Iterable<Double>.maxOrNull(): Double? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Iterable<Float>.maxOrNull(): Float? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   max = maxOf(max, e)\n   }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Iterable<T>.maxOrNull(): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (max < e) max = e\n   }\n   return max\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T> Iterable<T>.maxWith(comparator: Comparator<in T>): T? {\n   return maxWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Iterable<T>.maxWithOrNull(comparator: Comparator<in T>): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Iterable<Double>.min(): Double? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Iterable<Float>.min(): Float? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T : Comparable<T>> Iterable<T>.min(): T? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <T, R : Comparable<R>> Iterable<T>.minBy(selector: (T) -> R): T? {\n   return minByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R : Comparable<R>> Iterable<T>.minByOrNull(selector: (T) -> R): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minElem = iterator.next()\n   if (!iterator.hasNext()) return minElem\n   var minValue = selector(minElem)\n   do {\n   val e = iterator.next()\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   } while (iterator.hasNext())\n   return minElem\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the collection.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOf(selector: (T) -> Double): Double {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the collection.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOf(selector: (T) -> Float): Float {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the collection.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Iterable<T>.minOf(selector: (T) -> R): R {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the collection or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOfOrNull(selector: (T) -> Double): Double? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minValue = selector(iterator.next())\n while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   minValue = minOf(minValue, v)\n   }\n return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the collection or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minOfOrNull(selector: (T) -> Float): Float? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the collection or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Iterable<T>.minOfOrNull(selector: (T) -> R): R? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the collection.\n * \n * @throws NoSuchElementException if the collection is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Iterable<T>.minOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the collection or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Iterable<T>.minOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Iterable<Double>.minOrNull(): Double? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic fun Iterable<Float>.minOrNull(): Float? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Iterable<T>.minOrNull(): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (min > e) min = e\n   }\n   return min\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T> Iterable<T>.minWith(comparator: Comparator<in T>): T? {\n   return minWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Iterable<T>.minWithOrNull(comparator: Comparator<in T>): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns `true` if the collection has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun <T> Iterable<T>.none(): Boolean {\n   if (this is Collection) return isEmpty()\n   return !iterator().hasNext()\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun <T> Iterable<T>.none(predicate: (T) -> Boolean): Boolean {\n   if (this is Collection && isEmpty()) return true\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Performs the given [action] on each element and returns the collection itself afterwards.\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, C : Iterable<T>>

C.onEach(action: (T) -> Unit): C {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the collection itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, C : Iterable<T>> C.onEachIndexed(action: (index: Int, T) -> Unit): C {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this collection is empty.

If the collection can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun <S, T : S> Iterable<T>.reduce(operation: (acc: S, T) -> S): S {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) throw UnsupportedOperationException(\"Empty collection can't be reduced.\")\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original collection.\n * \n * Throws an exception if this collection is empty.

If the collection can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun <S, T : S> Iterable<T>.reduceIndexed(operation: (index: Int, acc: S, T) -> S): S {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) throw UnsupportedOperationException(\"Empty collection can't be reduced.\")\n   var index = 1\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(checkIndexOverflow(index++), accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element

with its index in the original collection.\n * \n * Returns `null` if the collection is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <S, T : S> Iterable<T>.reduceIndexedOrNull(operation: (index: Int, acc: S, T) -> S): S? {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) return null\n   var index = 1\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(checkIndexOverflow(index++), accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns `null` if the collection is empty.\n * \n * @param

[operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S> Iterable<T>.reduceOrNull(operation: (acc: S, T) -> S): S? {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) return null\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Throws an exception if this list is empty. If the list can be empty in an expected way,\n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes

an element and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun <S, T : S> List<T>.reduceRight(operation: (T, acc: S) -> S): S {\n   val iterator = listIterator(size)\n   if

(!iterator.hasPrevious())\n   throw UnsupportedOperationException(\"Empty list can't be reduced.\")\n   var accumulator: S = iterator.previous()\n   while (iterator.hasPrevious()) {\n   accumulator = operation(iterator.previous(), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original list and current accumulator value.\n * \n * Throws an exception if this list is empty. If the list can be empty in an expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation]
 function that takes the index of an element, the element itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun <S, T : S> List<T>.reduceRightIndexed(operation: (index: Int, T, acc: S) -> S): S {\n   val iterator = listIterator(size)\n   if (!iterator.hasPrevious())\n   throw UnsupportedOperationException(\"Empty list can't be reduced.\")\n   var accumulator: S = iterator.previous()\n   while (iterator.hasPrevious()) {\n   val index = iterator.previousIndex()\n   accumulator = operation(index, iterator.previous(), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element with its index in the original list and current accumulator value.\n * \n * Returns `null` if the list is empty.\n * \n * @param [operation] function that takes
 the index of an element, the element itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <S, T : S> List<T>.reduceRightIndexedOrNull(operation: (index: Int, T, acc: S) -> S): S? {\n   val iterator = listIterator(size)\n   if (!iterator.hasPrevious())\n   return null\n   var accumulator: S = iterator.previous()\n   while (iterator.hasPrevious()) {\n   val index = iterator.previousIndex()\n   accumulator = operation(index, iterator.previous(), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to left\n * to each element and current accumulator value.\n * \n * Returns `null` if the list is empty.\n * \n * @param [operation] function that takes an element and current accumulator value,\n * and calculates the next accumulator
 value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S> List<T>.reduceRightOrNull(operation: (T, acc: S) -> S): S? {\n   val iterator = listIterator(size)\n   if (!iterator.hasPrevious())\n   return null\n   var accumulator: S = iterator.previous()\n   while (iterator.hasPrevious()) {\n   accumulator = operation(iterator.previous(), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the
 next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R> Iterable<T>.runningFold(initial: R, operation: (acc: R, T) -> R): List<R> {\n   val estimatedSize = collectionSizeOrDefault(9)\n   if (estimatedSize == 0) return listOf(initial)\n   val result = ArrayList<R>(estimatedSize + 1).apply { add(initial) }\n   var accumulator = initial\n   for (element in this) {\n   accumulator = operation(accumulator, element)\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original collection and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation]
 function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R> Iterable<T>.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): List<R> {\n   val estimatedSize = collectionSizeOrDefault(9)\n   if (estimatedSize == 0)

return listOf(initial)\n   val result = ArrayList<R>(estimatedSize + 1).apply { add(initial) }\n   var index = 0\n   var accumulator = initial\n   for (element in this) {\n   accumulator = operation(index++, accumulator, element)\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this collection.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and the element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S> Iterable<T>.runningReduce(operation: (acc: S, T) -> S): List<S> {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) return emptyList()\n   var accumulator: S = iterator.next()\n   val result = ArrayList<S>(collectionSizeOrDefault(10)).apply { add(accumulator) }\n   while (iterator.hasNext()) {\n   accumulator = operation(accumulator, iterator.next())\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original collection and current accumulator value that starts with the first element of this collection.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <S, T : S> Iterable<T>.runningReduceIndexed(operation: (index: Int, acc: S, T) -> S): List<S> {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) return emptyList()\n   var accumulator: S = iterator.next()\n   val result = ArrayList<S>(collectionSizeOrDefault(10)).apply { add(accumulator) }\n   var index = 1\n   while (iterator.hasNext()) {\n   accumulator = operation(index++, accumulator, iterator.next())\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <T, R> Iterable<T>.scan(initial: R, operation: (acc: R, T) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original collection and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <T, R> Iterable<T>.scanIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun <T> Iterable<T>.sumBy(selector: (T) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun <T> Iterable<T>.sumByDouble(selector: (T) -> Double): Double {\n var sum: Double = 0.0\n for (element in this) {\n sum += selector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.sumOf(selector: (T) -> Double): Double {\n var sum: Double = 0.toDouble()\n for (element in this) {\n sum += selector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.sumOf(selector: (T) -> Int): Int {\n var sum: Int = 0.toInt()\n for (element in this) {\n sum += selector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.sumOf(selector: (T) -> Long): Long {\n var sum: Long = 0.toLong()\n for (element in this) {\n sum += selector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.sumOf(selector: (T) -> UInt): UInt {\n var sum: UInt = 0.toUInt()\n for (element in this) {\n sum += selector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.sumOf(selector: (T) -> ULong): ULong {\n var sum: ULong = 0.toULong()\n for (element in this) {\n sum += selector(element)\n }\n return sum\n}\n\n/**\n * Returns an original collection containing all the non-`null` elements, throwing an [IllegalArgumentException] if there are any `null` elements.\n */\npublic fun <T : Any> Iterable<T?>.requireNoNulls(): Iterable<T> {\n for (element in this) {\n if (element == null) {\n throw IllegalArgumentException(\"null element found in $this.\")\n }\n }\n @Suppress(\"UNCHECKED_CAST\")\n return this as Iterable<T>\n}\n\n/**\n * Returns an original collection containing all the non-`null` elements, throwing an [IllegalArgumentException] if there are any `null` elements.\n */\npublic fun <T : Any> List<T?>.requireNoNulls(): List<T> {\n for (element in this) {\n if (element == null) {\n throw IllegalArgumentException(\"null element found in $this.\")\n }\n }\n @Suppress(\"UNCHECKED_CAST\")\n return this as List<T>\n}\n\n/**\n * Splits this collection into a list of lists each not exceeding the given [size].\n * \n * The last list in the resulting list may have fewer elements than the given [size].\n * \n * @param size the number of elements to take in each list, must be positive and can be greater than the number of elements in this collection.\n * \n * @sample samples.collections.Collections.Transformations.chunked\n */\n@SinceKotlin(\"1.2\")\npublic fun <T> Iterable<T>.chunked(size: Int): List<List<T>> {\n return windowed(size, size, partialWindows = true)\n}\n\n/**\n * Splits this collection into several lists each not exceeding the given [size]\n * and applies the given [transform] function to an each.\n * \n * @return list of results of the [transform] applied to an each list.\n * \n * Note that the list passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * The last list may have fewer elements than the given [size].\n * \n * @param size the number of elements to take in each list, must be positive and can be greater than the number of elements in this collection.\n * \n * @sample samples.text.Strings.chunkedTransform\n */\n@SinceKotlin(\"1.2\")\npublic fun <T, R> Iterable<T>.chunked(size: Int, transform: (List<T>) -> R): List<R> {\n   return windowed(size, size, partialWindows = true, transform = transform)\n}\n\n/**\n * Returns a list containing all elements of the original collection without the first occurrence of the given [element].\n */\npublic operator fun <T> Iterable<T>.minus(element: T): List<T> {\n   val result = ArrayList<T>(collectionSizeOrDefault(10))\n   var removed = false\n   return this.filterTo(result) { if (!removed && it == element) { removed = true; false } else true }\n}\n\n/**\n * Returns

a list containing all elements of the original collection except the elements contained in the given [elements] array.\n * \n * Before Kotlin 1.6, the [elements] array may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n */\npublic operator fun <T> Iterable<T>.minus(elements: Array<out T>): List<T> {\n   if (elements.isEmpty()) return this.toList()\n   val other = elements.convertToSetForSetOperation()\n   return this.filterNot { it in other }\n}\n\n/**\n * Returns a list containing all elements of the original collection except the elements contained in the given [elements] collection.\n * \n * Before Kotlin 1.6, the [elements] collection may have been converted to a [HashSet] to

speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n */\npublic operator fun <T> Iterable<T>.minus(elements: Iterable<T>): List<T> {\n   val other = elements.convertToSetForSetOperationWith(this)\n   if (other.isEmpty())\n   return this.toList()\n   return this.filterNot { it in other }\n}\n\n/**\n * Returns a list containing all elements of the original collection except the elements contained in the given [elements] sequence.\n * \n * Before Kotlin 1.6, the [elements] sequence may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior

back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n */\npublic operator fun <T> Iterable<T>.minus(elements: Sequence<T>): List<T> {\n   val other = elements.convertToSetForSetOperation()\n   if (other.isEmpty())\n   return this.toList()\n   return this.filterNot { it in other }\n}\n\n/**\n * Returns a list containing all elements of the original collection without the first occurrence of the given [element].\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.minusElement(element: T): List<T> {\n   return minus(element)\n}\n\n/**\n * Splits the original collection into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n * \n * @sample samples.collections.Iterables.Operations.partition\n */\npublic inline fun <T> Iterable<T>.partition(predicate: (T) -> Boolean): Pair<List<T>, List<T>> {\n

val first = ArrayList<T>()\n   val second = ArrayList<T>()\n   for (element in this) {\n   if (predicate(element)) {\n   first.add(element)\n   } else {\n   second.add(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Returns a list containing all elements of the original collection and then the given [element].\n */\npublic operator fun <T> Iterable<T>.plus(element: T): List<T> {\n   if (this is Collection) return this.plus(element)\n   val result = ArrayList<T>()\n   result.addAll(this)\n   result.add(element)\n   return result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then the given [element].\n */\npublic operator fun <T> Collection<T>.plus(element: T): List<T> {\n   val result = ArrayList<T>(size + 1)\n   result.addAll(this)\n   result.add(element)\n   return result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then all elements of the given [elements] array.\n */\npublic operator fun <T> Iterable<T>.plus(elements: Array<out T>): List<T> {\n   if (this is Collection) return this.plus(elements)\n   val result = ArrayList<T>()\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then all elements of the given [elements] array.\n */\npublic operator fun <T> Collection<T>.plus(elements: Array<out T>): List<T> {\n   val result = ArrayList<T>(this.size + elements.size)\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then all elements of the given [elements] collection.\n */\npublic operator fun <T> Iterable<T>.plus(elements: Iterable<T>): List<T> {\n   if (this is Collection) return this.plus(elements)\n   val result = ArrayList<T>()\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then all elements of the given [elements] collection.\n */\npublic operator fun <T> Collection<T>.plus(elements: Iterable<T>): List<T> {\n   if (elements is Collection) {\n   val result = ArrayList<T>(this.size + elements.size)\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n   } else {\n   val result = ArrayList<T>(this)\n   result.addAll(elements)\n   return result\n   }\n}\n\n/**\n * Returns a list containing all elements of the original collection and then all elements of the given [elements] sequence.\n */\npublic operator fun <T> Iterable<T>.plus(elements: Sequence<T>): List<T> {\n   val result = ArrayList<T>()\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then all elements of the given [elements] sequence.\n */\npublic operator fun <T> Collection<T>.plus(elements: Sequence<T>): List<T> {\n   val result = ArrayList<T>(this.size + 10)\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then the given [element].\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.plusElement(element: T): List<T> {\n   return plus(element)\n}\n\n/**\n * Returns a list containing all elements of the original collection and then the given [element].\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Collection<T>.plusElement(element: T): List<T> {\n   return plus(element)\n}\n\n/**\n * Returns a list of snapshots of the window of the given [size]\n * sliding along this collection with the given [step], where each\n * snapshot is a list.\n * \n * Several last lists may have fewer elements than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in this collection.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.takeWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun <T> Iterable<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false): List<List<T>> {\n   checkWindowSizeStep(size, step)\n   if (this is RandomAccess && this is List) {\n   val thisSize = this.size\n   val resultCapacity = thisSize / step + if (thisSize % step == 0) 0 else 1\n   val result = ArrayList<List<T>>(resultCapacity)\n   var index = 0\n   while (index in 0 until thisSize) {\n   val windowSize = size.coerceAtMost(thisSize - index)\n   if (windowSize < size && !partialWindows) break\n   result.add(List(windowSize) { this[it + index] })\n   index += step\n   }\n   return result\n   }\n   val result = ArrayList<List<T>>()\n   windowedIterator(iterator(), size, step, partialWindows, reuseBuffer = false).forEach {\n   result.add(it)\n   }\n   return result\n}\n\n/**\n * Returns a list of results of applying the given [transform] function to\n * an each list representing a view over the window of the given [size]\n * sliding along this collection with the given [step].\n * \n * Note that the list passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * Several last lists may have fewer elements than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in this collection.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.averageWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun <T, R> Iterable<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false, transform: (List<T>) -> R): List<R> {\n   checkWindowSizeStep(size, step)\n   if (this is RandomAccess && this is List) {\n   val thisSize = this.size\n   val resultCapacity = thisSize / step + if (thisSize % step == 0) 0 else 1\n   val result = ArrayList<R>(resultCapacity)\n   val window = MovingSubList(this)\n   var index = 0\n   while (index in 0 until thisSize) {\n   val windowSize = size.coerceAtMost(thisSize - index)\n   if (!partialWindows && windowSize < size) break\n

window.move(index, index + windowSize)\n   result.add(transform(window))\n   index += step\n   }\n   return result\n   }\n   val result = ArrayList<R>()\n   windowedIterator(iterator(), size, step, partialWindows, reuseBuffer = true).forEach {\n   result.add(transform(it))\n   }\n   return result\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <T, R> Iterable<T>.zip(other: Array<out R>): List<Pair<T, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` collection and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <T, R, V> Iterable<T>.zip(other: Array<out R>, transform: (a: T, b: R) -> V): List<V> {\n   val arraySize = other.size\n   val list = ArrayList<V>(minOf(collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in this) {\n   if (i >= arraySize) break\n   list.add(transform(element, other[i++]))\n   }\n   return list\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] collection with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\npublic infix fun <T, R> Iterable<T>.zip(other: Iterable<R>): List<Pair<T, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` collection and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\npublic inline fun <T, R, V> Iterable<T>.zip(other: Iterable<R>, transform: (a: T, b: R) -> V): List<V> {\n   val first = iterator()\n   val second = other.iterator()\n   val list = ArrayList<V>(minOf(collectionSizeOrDefault(10), other.collectionSizeOrDefault(10)))\n   while (first.hasNext() && second.hasNext()) {\n   list.add(transform(first.next(), second.next()))\n   }\n   return list\n}\n\n/**\n * Returns a list of pairs of each two adjacent elements in this collection.\n * \n * The returned list is empty if this collection contains less than two elements.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNext\n */\n@SinceKotlin(\"1.2\")\npublic fun <T> Iterable<T>.zipWithNext(): List<Pair<T, T>> {\n   return zipWithNext { a, b -> a to b }\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to an each pair of two adjacent elements in this collection.\n * \n * The returned list is empty if this collection contains less than two elements.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNextToFindDeltas\n */\n@SinceKotlin(\"1.2\")\npublic inline fun <T, R> Iterable<T>.zipWithNext(transform: (a: T, b: T) -> R): List<R> {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return emptyList()\n   val result = mutableListOf<R>()\n   var current = iterator.next()\n   while (iterator.hasNext()) {\n   val next = iterator.next()\n   result.add(transform(current, next))\n   current = next\n   }\n   return result\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <T, A : Appendable> Iterable<T>.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): A

{\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   buffer.appendElement(element, transform)\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun <T> Iterable<T>.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Returns this collection as an [Iterable].\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.asIterable(): Iterable<T> {\n   return this\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original collection returning its elements when being iterated.\n * \n * @sample samples.collections.Sequences.Building.sequenceFromCollection\n */\npublic fun <T> Iterable<T>.asSequence(): Sequence<T> {\n   return Sequence { this.iterator() }\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName(\"averageOfByte\")\npublic fun Iterable<Byte>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName(\"averageOfShort\")\npublic fun Iterable<Short>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName(\"averageOfInt\")\npublic fun Iterable<Int>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName(\"averageOfLong\")\npublic fun Iterable<Long>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName(\"averageOfFloat\")\npublic fun Iterable<Float>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName(\"averageOfDouble\")\npublic fun Iterable<Double>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfByte\")\npublic fun Iterable<Byte>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfShort\")\npublic fun Iterable<Short>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfInt\")\npublic fun Iterable<Int>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfLong\")\npublic fun Iterable<Long>.sum(): Long {\n   var sum: Long = 0L\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfFloat\")\npublic fun Iterable<Float>.sum(): Float {\n   var sum: Float = 0.0f\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName(\"sumOfDouble\")\npublic fun Iterable<Double>.sum(): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\nimport kotlin.comparisons.naturalOrder\nimport kotlin.random.Random\n\n/**\n * Returns the array if it's not `null`, or an empty array otherwise.\n * @sample samples.collections.Arrays.Usage.arrayOrEmpty\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun <T> Array<out T>?.orEmpty(): Array<out T> = this ?: emptyArray<T>()\n\n/**\n * Returns a *typed* array containing all of the elements of this collection.\n *\n * Allocates an array of runtime type `T` having its size equal to the size of this collection\n * and populates the array with the elements of this collection.\n * @sample samples.collections.Collections.Collections.collectionToTypedArray\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun <T> Collection<T>.toTypedArray(): Array<T> = copyToArray(this)\n\n@JsName(\"copyToArray\")\n@PublishedApi\ninternal fun <T> copyToArray(collection: Collection<T>): Array<T> {\n   return if (collection.asDynamic().toArray !== undefined)\n   collection.asDynamic().toArray().unsafeCast<Array<T>>()\n   else\n   copyToArrayImpl(collection).unsafeCast<Array<T>>()\n}\n\n@JsName(\"copyToArrayImpl\")\ninternal actual fun copyToArrayImpl(collection: Collection<*>): Array<Any?> {\n   val array = emptyArray<Any?>()\n   val iterator = collection.iterator()\n   while (iterator.hasNext())\n   array.asDynamic().push(iterator.next())\n   return array\n}\n\n@JsName(\"copyToExistingArrayImpl\")\ninternal actual fun <T> copyToArrayImpl(collection: Collection<*>, array: Array<T>): Array<T> {\n   if (array.size < collection.size)\n   return copyToArrayImpl(collection).unsafeCast<Array<T>>()\n\n   val iterator = collection.iterator()\n   var index = 0\n   while (iterator.hasNext()) {\n   array[index++] = iterator.next().unsafeCast<T>()\n   }\n   if (index < array.size) {\n   array[index] = null.unsafeCast<T>()\n   }\n   return array\n}\n\n\n/**\n * Returns an immutable list containing only the specified object [element].\n */\npublic fun <T> listOf(element: T): List<T> = arrayListOf(element)\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <E> buildListInternal(builderAction: MutableList<E>.() -> Unit): List<E> {\n   return ArrayList<E>().apply(builderAction).build()\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <E> buildListInternal(capacity: Int, builderAction: MutableList<E>.() -> Unit): List<E> {\n   checkBuilderCapacity(capacity)\n   return ArrayList<E>(capacity).apply(builderAction).build()\n}\n\n\n/**\n * Returns an immutable set containing only the specified object [element].\n */\npublic fun <T> setOf(element: T): Set<T> = hashSetOf(element)\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <E> buildSetInternal(builderAction: MutableSet<E>.() -> Unit): Set<E> {\n   return LinkedHashSet<E>().apply(builderAction).build()\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <E> buildSetInternal(capacity: Int, builderAction: MutableSet<E>.() -> Unit): Set<E> {\n   return LinkedHashSet<E>(capacity).apply(builderAction).build()\n}\n\n\n/**\n * Returns an immutable map, mapping only the specified key to the\n * specified value.\n */\npublic fun <K, V> mapOf(pair: Pair<K, V>): Map<K, V> = hashMapOf(pair)\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <K, V> buildMapInternal(builderAction: MutableMap<K, V>.() -> Unit): Map<K, V> {\n   return LinkedHashMap<K, V>().apply(builderAction).build()\n}\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\ninternal actual inline fun <K, V> buildMapInternal(capacity: Int, builderAction: MutableMap<K, V>.() -> Unit): Map<K, V> {\n   return LinkedHashMap<K, V>(capacity).apply(builderAction).build()\n}\n\n\n/**\n * Fills the list with the provided [value].\n *\n *

Each element in the list gets replaced with the [value].\n */\n@SinceKotlin(\"1.2\")\npublic actual fun <T> MutableList<T>.fill(value: T): Unit {\n   for (index in 0..lastIndex) {\n   this[index] = value\n   }\n}\n\n/**\n * Randomly shuffles elements in this list.\n *\n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.2\")\npublic actual fun <T> MutableList<T>.shuffle(): Unit = shuffle(Random)\n\n/**\n * Returns a new list with the elements of this list randomly shuffled.\n */\n@SinceKotlin(\"1.2\")\npublic actual fun <T> Iterable<T>.shuffled(): List<T> = toMutableList().apply { shuffle() }\n\n/**\n * Sorts elements in the list in-place according to their natural sort order.\n *\n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * @sample samples.collections.Collections.Sorting.sortMutableList\n */\npublic actual fun <T : Comparable<T>> MutableList<T>.sort():

Unit {\n   collectionsSort(this, naturalOrder())\n}\n\n/**\n * Sorts elements in the list in-place according to the order specified with [comparator].\n *\n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * @sample samples.collections.Collections.Sorting.sortMutableListWith\n */\npublic actual fun <T> MutableList<T>.sortWith(comparator: Comparator<in T>): Unit {\n   collectionsSort(this, comparator)\n}\n\nprivate fun <T> collectionsSort(list: MutableList<T>, comparator: Comparator<in T>) {\n   if (list.size <= 1) return\n\n   val array = copyToArray(list)\n   sortArrayWith(array, comparator)\n\n   for (i in 0 until array.size) {\n   list[i] = array[i]\n   }\n}\n\ninternal actual fun <T> arrayOfNulls(reference: Array<T>, size: Int): Array<T> {\n   return arrayOfNulls<Any>(size).unsafeCast<Array<T>>()\n}\n\n@SinceKotlin(\"1.3\")\n@PublishedApi\n@JsName(\"arrayCopy\")\ninternal fun <T> arrayCopy(source:

Array<out T>, destination: Array<in T>, destinationOffset: Int, startIndex: Int, endIndex: Int) {\n   AbstractList.checkRangeIndexes(startIndex, endIndex, source.size)\n   val rangeSize = endIndex - startIndex\n   AbstractList.checkRangeIndexes(destinationOffset, destinationOffset + rangeSize, destination.size)\n\n   if (js(\"ArrayBuffer\").isView(destination) && js(\"ArrayBuffer\").isView(source)) {\n   val subrange = source.asDynamic().subarray(startIndex, endIndex)\n   destination.asDynamic().set(subrange, destinationOffset)\n   } else {\n   if (source !== destination || destinationOffset <= startIndex) {\n   for (index in 0 until rangeSize) {\n   destination[destinationOffset + index] = source[startIndex + index]\n   }\n   } else {\n   for (index in rangeSize - 1 downTo 0) {\n   destination[destinationOffset + index] = source[startIndex + index]\n   }\n   }\n   }\n}\n\n// no singleton

map implementation in js, return map as is\n@Suppress(\"NOTHING_TO_INLINE\")\ninternal actual inline fun <K, V> Map<K, V>.toSingletonMapOrSelf(): Map<K, V> = this\n\n@Suppress(\"NOTHING_TO_INLINE\")\ninternal actual inline fun <K, V> Map<out K, V>.toSingletonMap(): Map<K, V> = this.toMutableMap()\n\n\n@Suppress(\"NOTHING_TO_INLINE\")\ninternal actual inline fun <T> Array<out T>.copyToArrayOfAny(isVarargs: Boolean): Array<out Any?> =\n   if (isVarargs)\n   // no need to copy vararg array in JS\n   this\n   else\n   this.copyOf()\n\n\n\n@PublishedApi\ninternal actual fun checkIndexOverflow(index: Int): Int {\n   if (index < 0) {\n   throwIndexOverflow()\n   }\n   return index\n}\n\n@PublishedApi\ninternal actual fun checkCountOverflow(count: Int): Int {\n   if (count < 0) {\n   throwCountOverflow()\n   }\n   return count\n}\n\n\n/**\n * JS map and set implementations do not make use of capacities or load factors.\n */\n@PublishedApi\ninternal actual fun mapCapacity(expectedSize:

Int) = expectedSize\n\n/**\n * Checks a collection builder function capacity argument.\n * In JS no validation is made in Map/Set constructor yet.\n */\n@SinceKotlin(\"1.3\")\n@PublishedApi\ninternal fun checkBuilderCapacity(capacity: Int) {\n   require(capacity >= 0) { \"capacity must be non-negative.\" }\n}\n\ninternal actual fun brittleContainsOptimizationEnabled(): Boolean = false","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CollectionsKt\")\n\npackage kotlin.collections\n\n\n/**\n * Returns the given iterator itself. This allows to use an instance of iterator in a `for`

loop.\n * @sample samples.collections.Iterators.iterator\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Iterator<T>.iterator(): Iterator<T> =
this\n\n/**\n * Returns an [Iterator] that wraps each element produced by the original iterator\n * into an [IndexedValue] containing the index of that element and the element itself.\n *\n * @sample samples.collections.Iterators.withIndexIterator\n */\npublic fun <T> Iterator<T>.withIndex(): Iterator<IndexedValue<T>> = IndexingIterator(this)\n\n/**\n * Performs the given [operation] on each element of this [Iterator].\n * @sample samples.collections.Iterators.forEachIterator\n */\npublic inline fun <T> Iterator<T>.forEach(operation: (T) -> Unit): Unit {\n   for (element in this) operation(element)\n}\n\n/**\n * Iterator transforming original `iterator` into iterator of [IndexedValue], counting index from zero.\n */\ninternal class IndexingIterator<out T>(private val iterator: Iterator<T>) : Iterator<IndexedValue<T>> {\n   private var index = 0\n   final override fun hasNext(): Boolean = iterator.hasNext()\n   final override fun next(): IndexedValue<T> = IndexedValue(checkIndexOverflow(index++),
iterator.next())\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"ComparisonsKt\")\n\npackage kotlin.comparisons\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.\n\n/**\n * Returns the greater of two values.\n * \n * If values are equal, returns the first one.\n */\n@SinceKotlin(\"1.1\")\npublic expect fun <T : Comparable<T>> maxOf(a: T, b: T): T\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Byte, b: Byte): Byte\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic
expect inline fun maxOf(a: Short, b: Short): Short\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Int, b: Int): Int\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Long, b: Long): Long\n\n/**\n * Returns the greater of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Float, b: Float): Float\n\n/**\n * Returns the greater of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Double, b: Double): Double\n\n/**\n * Returns the greater of three values.\n * \n * If there are multiple equal maximal values, returns the first of them.\n */\n@SinceKotlin(\"1.1\")\npublic expect fun <T : Comparable<T>> maxOf(a: T,
b: T, c: T): T\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Byte, b: Byte, c: Byte): Byte\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Short, b: Short, c: Short): Short\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Int, b: Int, c: Int): Int\n\n/**\n * Returns the greater of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Long, b: Long, c: Long): Long\n\n/**\n * Returns the greater of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Float, b: Float, c: Float): Float\n\n/**\n * Returns the greater of three values.\n * \n * If any value is `NaN`, returns
`NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun maxOf(a: Double, b: Double, c: Double): Double\n\n/**\n * Returns the greater of three values according to the order specified by the given [comparator].\n * \n * If there are multiple equal maximal values, returns the first of them.\n */\n@SinceKotlin(\"1.1\")\npublic fun <T> maxOf(a: T, b: T, c: T, comparator: Comparator<in T>): T {\n   return maxOf(a, maxOf(b, c, comparator), comparator)\n}\n\n/**\n * Returns the greater of two values according to the order specified by the given [comparator].\n * \n * If values are equal, returns the first one.\n

*/\n@SinceKotlin(\"1.1\")\npublic fun <T> maxOf(a: T, b: T, comparator: Comparator<in T>): T {\n   return if (comparator.compare(a, b) >= 0) a else b\n}\n\n/**\n * Returns the greater of the given values.\n * \n * If there are multiple equal maximal values, returns the first of them.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T : Comparable<T>>
maxOf(a: T, vararg other: T): T\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun maxOf(a: Byte, vararg other: Byte): Byte\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun maxOf(a: Short, vararg other: Short): Short\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun maxOf(a: Int, vararg other: Int): Int\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun maxOf(a: Long, vararg other: Long): Long\n\n/**\n * Returns the greater of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun maxOf(a: Float, vararg other: Float): Float\n\n/**\n * Returns the greater of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun maxOf(a: Double, vararg other: Double): Double\n\n/**\n * Returns the
greater of the given values according to the order specified by the given [comparator].\n * \n * If there are multiple equal maximal values, returns the first of them.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> maxOf(a: T, vararg other: T, comparator: Comparator<in T>): T {\n   var max = a\n   for (e in other) if (comparator.compare(max, e) < 0) max = e\n   return max\n}\n\n/**\n * Returns the smaller of two values.\n * \n * If values are equal, returns the first one.\n */\n@SinceKotlin(\"1.1\")\npublic expect fun <T : Comparable<T>> minOf(a: T, b: T): T\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Byte, b: Byte): Byte\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Short, b: Short): Short\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic
expect inline fun minOf(a: Int, b: Int): Int\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Long, b: Long): Long\n\n/**\n * Returns the smaller of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Float, b: Float): Float\n\n/**\n * Returns the smaller of two values.\n * \n * If either value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Double, b: Double): Double\n\n/**\n * Returns the smaller of three values.\n * \n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin(\"1.1\")\npublic expect fun <T : Comparable<T>> minOf(a: T, b: T, c: T): T\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Byte, b:
Byte, c: Byte): Byte\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Short, b: Short, c: Short): Short\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Int, b: Int, c: Int): Int\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Long, b: Long, c: Long): Long\n\n/**\n * Returns the smaller of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Float, b: Float, c: Float): Float\n\n/**\n * Returns the smaller of three values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic expect inline fun minOf(a: Double, b: Double, c: Double): Double\n\n/**\n * Returns the
smaller of three values according to the order specified by the given [comparator].\n * \n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin(\"1.1\")\npublic fun <T> minOf(a: T, b: T, c: T, comparator: Comparator<in T>): T {\n   return minOf(a, minOf(b, c, comparator), comparator)\n}\n\n/**\n * Returns the smaller of two values according to the order specified by the given [comparator].\n * \n * If values are

equal, returns the first one.\n */\n@SinceKotlin(\"1.1\")\npublic fun <T> minOf(a: T, b: T, comparator: Comparator<in T>): T {\n   return if (comparator.compare(a, b) <= 0) a else b\n}\n\n/**\n * Returns the smaller of the given values.\n * \n * If there are multiple equal minimal values, returns the first of them.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun <T : Comparable<T>> minOf(a: T, vararg other: T): T\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun minOf(a: Byte, vararg other:
 Byte): Byte\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun minOf(a: Short, vararg other: Short): Short\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun minOf(a: Int, vararg other: Int): Int\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun minOf(a: Long, vararg other: Long): Long\n\n/**\n * Returns the smaller of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun minOf(a: Float, vararg other: Float): Float\n\n/**\n * Returns the smaller of the given values.\n * \n * If any value is `NaN`, returns `NaN`.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun minOf(a: Double, vararg other: Double): Double\n\n/**\n * Returns the smaller of the given values according to the order specified by the given [comparator].\n * \n * If there are multiple equal minimal values, returns the first
 of them.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> minOf(a: T, vararg other: T, comparator: Comparator<in T>): T {\n   var min = a\n   for (e in other) if (comparator.compare(min, e) > 0) min = e\n   return min\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"MapsKt\")\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to entries of this map in iteration order,\n * or throws [NoSuchElementException] if no non-null value was produced.\n * \n *
 @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Any> Map<out K, V>.firstNotNullOf(transform: (Map.Entry<K, V>) -> R?): R {\n   return firstNotNullOfOrNull(transform) ?: throw NoSuchElementException(\"No element of the map was transformed to a non-null value.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to entries of this map in iteration order,\n * or `null` if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Any> Map<out K, V>.firstNotNullOfOrNull(transform: (Map.Entry<K, V>) -> R?): R? {\n   for (element in this) {\n   val result = transform(element)\n   if (result != null) {\n   return result\n   }\n   }\n   return null\n}\n\n/**\n * Returns a [List]
 containing all key-value pairs.\n */\npublic fun <K, V> Map<out K, V>.toList(): List<Pair<K, V>> {\n   if (size == 0)\n   return emptyList()\n   val iterator = entries.iterator()\n   if (!iterator.hasNext())\n   return emptyList()\n   val first = iterator.next()\n   if (!iterator.hasNext())\n   return listOf(first.toPair())\n   val result = ArrayList<Pair<K, V>>(size)\n   result.add(first.toPair())\n   do {\n   result.add(iterator.next().toPair())\n   } while (iterator.hasNext())\n   return result\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each entry of original map.\n * \n * @sample samples.collections.Maps.Transformations.flatMap\n */\npublic inline fun <K, V, R> Map<out K, V>.flatMap(transform: (Map.Entry<K, V>) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function
 being invoked on each entry of original map.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n

*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapSequence\")\npublic inline fun <K, V, R> Map<out K, V>.flatMap(transform: (Map.Entry<K, V>) -> Sequence<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each entry of original map, to the given [destination].\n */\npublic inline fun <K, V, R, C : MutableCollection<in R>> Map<out K, V>.flatMapTo(destination: C, transform: (Map.Entry<K, V>) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each entry of original
 map, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapSequenceTo\")\npublic inline fun <K, V, R, C : MutableCollection<in R>> Map<out K, V>.flatMapTo(destination: C, transform: (Map.Entry<K, V>) -> Sequence<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each entry in the original map.\n * \n * @sample samples.collections.Maps.Transformations.mapToList\n */\npublic inline fun <K, V, R> Map<out K, V>.map(transform: (Map.Entry<K, V>) -> R): List<R> {\n   return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each entry in the original map.\n * \n * @sample
 samples.collections.Maps.Transformations.mapNotNull\n */\npublic inline fun <K, V, R : Any> Map<out K, V>.mapNotNull(transform: (Map.Entry<K, V>) -> R?): List<R> {\n   return mapNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each entry in the original map\n * and appends only the non-null results to the given [destination].\n */\npublic inline fun <K, V, R : Any, C : MutableCollection<in R>> Map<out K, V>.mapNotNullTo(destination: C, transform: (Map.Entry<K, V>) -> R?): C {\n   forEach { element -> transform(element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each entry of the original map\n * and appends the results to the given [destination].\n */\npublic inline fun <K, V, R, C : MutableCollection<in R>> Map<out K, V>.mapTo(destination: C, transform: (Map.Entry<K, V>) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n
 * Returns `true` if all entries match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun <K, V> Map<out K, V>.all(predicate: (Map.Entry<K, V>) -> Boolean): Boolean {\n   if (isEmpty()) return true\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if map has at least one entry.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun <K, V> Map<out K, V>.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if at least one entry matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun <K, V> Map<out K, V>.any(predicate: (Map.Entry<K, V>) -> Boolean): Boolean {\n   if (isEmpty()) return false\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns the number of entries in this map.\n */\n@kotlin.internal.InlineOnly\npublic
 inline fun <K, V> Map<out K, V>.count(): Int {\n   return size\n}\n\n/**\n * Returns the number of entries matching the given [predicate].\n */\npublic inline fun <K, V> Map<out K, V>.count(predicate: (Map.Entry<K, V>) -> Boolean): Int {\n   if (isEmpty()) return 0\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Performs the given [action] on each entry.\n */\n@kotlin.internal.HidesMembers\npublic inline fun <K, V> Map<out K, V>.forEach(action: (Map.Entry<K, V>) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.maxBy(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V>? {\n   return

maxByOrNull(selector)\n}\n\n/**\n
 * Returns the first entry yielding the largest value of the given function or `null` if there are no entries.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n
*/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.maxByOrNull(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V>? {\n   return entries.maxByOrNull(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the map is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxOf(selector: (Map.Entry<K, V>) -> Double): Double {\n   return entries.maxOf(selector)\n}\n\n/**\n * Returns
 the largest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the map is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxOf(selector: (Map.Entry<K, V>) -> Float): Float {\n   return entries.maxOf(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * @throws NoSuchElementException if the map is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.maxOf(selector: (Map.Entry<K, V>) -> R):
 R {\n   return entries.maxOf(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxOfOrNull(selector: (Map.Entry<K, V>) -> Double): Double? {\n   return entries.maxOfOrNull(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
 inline fun <K, V> Map<out K, V>.maxOfOrNull(selector: (Map.Entry<K, V>) -> Float): Float? {\n   return entries.maxOfOrNull(selector)\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.maxOfOrNull(selector: (Map.Entry<K, V>) -> R): R? {\n   return entries.maxOfOrNull(selector)\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each entry in the map.\n * \n * @throws NoSuchElementException if the map is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
 inline fun <K, V, R> Map<out K, V>.maxOfWith(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) -> R): R {\n   return entries.maxOfWith(comparator, selector)\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each entry in the map or `null` if there are no entries.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution

ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R> Map<out K, V>.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) -> R): R? {\n   return entries.maxOfWithOrNull(comparator, selector)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxWith(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V>? {\n   return maxWithOrNull(comparator)\n}\n\n/**\n * Returns the first entry having the largest value according to the provided [comparator] or `null` if there are no entries.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.maxWithOrNull(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V>? {\n   return entries.maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.minBy(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V>? {\n   return minByOrNull(selector)\n}\n\n/**\n * Returns the first entry yielding the smallest value of the given function or `null` if there are no entries.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.minByOrNull(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V>? {\n   return entries.minByOrNull(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.minOf(selector: (Map.Entry<K, V>) -> Double): Double {\n   return entries.minOf(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.minOf(selector: (Map.Entry<K, V>) -> Float): Float {\n   return entries.minOf(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each entry in the map.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.minOf(selector: (Map.Entry<K, V>) -> R): R {\n   return entries.minOf(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.minOfOrNull(selector: (Map.Entry<K, V>) -> Double): Double? {\n   return entries.minOfOrNull(selector)\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.minOfOrNull(selector: (Map.Entry<K, V>) -> Float): Float? {\n   return entries.minOfOrNull(selector)\n}\n\n/**\n * Returns

the smallest value among all values produced by [selector] function\n * applied to each entry in the map or `null` if there are no entries.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R : Comparable<R>> Map<out K, V>.minOfOrNull(selector: (Map.Entry<K, V>) -> R): R? {\n   return entries.minOfOrNull(selector)\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each entry in the map.\n * \n * @throws NoSuchElementException if the map is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R> Map<out K, V>.minOfWith(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) -> R): R {\n   return entries.minOfWith(comparator,
 selector)\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each entry in the map or `null` if there are no entries.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, R> Map<out K, V>.minOfWithOrNull(comparator: Comparator<in R>, selector: (Map.Entry<K, V>) -> R): R? {\n   return entries.minOfWithOrNull(comparator, selector)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <K, V> Map<out K, V>.minWith(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V>? {\n   return minWithOrNull(comparator)\n}\n\n/**\n * Returns the first entry having the smallest value according to the provided [comparator]
 or `null` if there are no entries.\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.minWithOrNull(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V>? {\n   return entries.minWithOrNull(comparator)\n}\n\n/**\n * Returns `true` if the map has no entries.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun <K, V> Map<out K, V>.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if no entries match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun <K, V> Map<out K, V>.none(predicate: (Map.Entry<K, V>) -> Boolean): Boolean {\n   if (isEmpty()) return true\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Performs the given [action] on each entry and returns the map itself afterwards.\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <K, V, M : Map<out K, V>> M.onEach(action:
 (Map.Entry<K, V>) -> Unit): M {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each entry, providing sequential index with the entry,\n * and returns the map itself afterwards.\n * @param [action] function that takes the index of an entry and the entry itself\n * and performs the action on the entry.\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <K, V, M : Map<out K, V>> M.onEachIndexed(action: (index: Int, Map.Entry<K, V>) -> Unit): M {\n   return apply { entries.forEachIndexed(action) }\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original map returning its entries when being iterated.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.asIterable(): Iterable<Map.Entry<K, V>> {\n   return entries\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original map returning its entries when being iterated.\n */\npublic fun <K, V> Map<out K, V>.asSequence(): Sequence<Map.Entry<K,
 V>> {\n   return entries.asSequence()\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\n// 10 mappings totally\ninternal fun Char.titlecaseImpl(): String {\n   val uppercase = uppercase()\n   if (uppercase.length > 1) {\n   return if (this == '\\u0149') uppercase else uppercase[0] + uppercase.substring(1).lowercase()\n   }\n   return

titlecaseChar().toString()\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant locale.\n */\n@Deprecated(\"Use lowercaseChar() instead.\", ReplaceWith(\"lowercaseChar()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@kotlin.internal.InlineOnly\npublic actual inline fun Char.toLowerCase(): Char = lowercaseChar()\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To support one-to-many character mapping use the [lowercase] function.\n * If this character has no mapping equivalent, the character itself is returned.\n *\n * @sample samples.text.Chars.lowercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun Char.lowercaseChar(): Char = lowercase()[0]\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many character mapping, thus the length of the returned string can be greater than one.\n * For example, `'\\u0130'.lowercase()` returns `\"\\u0069\\u0307\"`,\n * where `'\\u0130'` is the LATIN CAPITAL LETTER I WITH DOT ABOVE character (`\u0130`).\n * If this character has no lower case mapping, the result of `toString()` of this char is returned.\n *\n * @sample samples.text.Chars.lowercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun Char.lowercase(): String = toString().asDynamic().toLowerCase().unsafeCast<String>()\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the invariant locale.\n */\n@Deprecated(\"Use uppercaseChar() instead.\", ReplaceWith(\"uppercaseChar()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@kotlin.internal.InlineOnly\npublic actual inline fun Char.toUpperCase(): Char = uppercaseChar()\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To support one-to-many character mapping use the [uppercase] function.\n * If this character has no mapping equivalent, the character itself is returned.\n *\n * @sample samples.text.Chars.uppercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Char.uppercaseChar(): Char {\n   val uppercase = uppercase()\n   return if (uppercase.length > 1) this else uppercase[0]\n}\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many character mapping, thus the length of the returned string can be greater than one.\n * For example, `'\\uFB00'.uppercase()` returns `\"\\u0046\\u0046\"`,\n * where `'\\uFB00'` is the LATIN SMALL LIGATURE FF character (`\ufb00`).\n * If this character has no upper case mapping, the result of `toString()` of this char is returned.\n *\n * @sample samples.text.Chars.uppercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun Char.uppercase(): String = toString().asDynamic().toUpperCase().unsafeCast<String>()\n\n/**\n * Converts this character to title case using Unicode mapping rules of the invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To support one-to-many character mapping use the [titlecase] function.\n * If this character has no mapping equivalent, the result of calling [uppercaseChar] is returned.\n *\n * @sample samples.text.Chars.titlecase\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.titlecaseChar(): Char = titlecaseCharImpl()\n\n/**\n * Returns `true` if this character is a Unicode high-surrogate code unit (also known as leading-surrogate code unit).\n */\npublic actual fun Char.isHighSurrogate(): Boolean = this in Char.MIN_HIGH_SURROGATE..Char.MAX_HIGH_SURROGATE\n\n/**\n * Returns `true` if this character is a Unicode low-surrogate code unit (also known as trailing-surrogate code unit).\n */\npublic actual fun Char.isLowSurrogate(): Boolean = this in Char.MIN_LOW_SURROGATE..Char.MAX_LOW_SURROGATE\n\n/**\n * Returns the Unicode general category of this character.\n */\n@SinceKotlin(\"1.5\")\npublic actual val Char.category: CharCategory\n   get() =

CharCategory.valueOf(getCategoryValue())\n\n/**\n * Returns `true` if this character (Unicode code point) is defined in Unicode.\n *\n * A character is considered to be defined in Unicode if its [category] is not [CharCategory.UNASSIGNED].\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isDefined(): Boolean {\n   if (this < '\\u0080') {\n   return true\n   }\n   return getCategoryValue() != CharCategory.UNASSIGNED.value\n}\n\n/**\n * Returns `true` if this character is a letter.\n *\n * A character is considered to be a letter if its [category] is [CharCategory.UPPERCASE_LETTER],\n * [CharCategory.LOWERCASE_LETTER],
 [CharCategory.TITLECASE_LETTER], [CharCategory.MODIFIER_LETTER], or [CharCategory.OTHER_LETTER].\n *\n * @sample samples.text.Chars.isLetter\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isLetter(): Boolean {\n   if (this in 'a'..'z' || this in 'A'..'Z') {\n   return true\n   }\n   if (this < '\\u0080') {\n   return false\n   }\n   return isLetterImpl()\n}\n\n/**\n * Returns `true` if this character is a letter or digit.\n *\n * @see isLetter\n * @see isDigit\n *\n * @sample samples.text.Chars.isLetterOrDigit\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isLetterOrDigit(): Boolean {\n   if (this in 'a'..'z' || this in 'A'..'Z' || this in '0'..'9') {\n   return true\n   }\n   if (this < '\\u0080') {\n   return false\n   }\n\n   return isDigitImpl() || isLetterImpl()\n}\n\n/**\n * Returns `true` if this character is a digit.\n *\n * A character is considered to be a digit if its [category] is [CharCategory.DECIMAL_DIGIT_NUMBER].\n *\n * @sample samples.text.Chars.isDigit\n
 */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isDigit(): Boolean {\n   if (this in '0'..'9') {\n   return true\n   }\n   if (this < '\\u0080') {\n   return false\n   }\n   return isDigitImpl()\n}\n\n/**\n * Returns `true` if this character is upper case.\n *\n * A character is considered to be an upper case character if its [category] is [CharCategory.UPPERCASE_LETTER],\n * or it has contributory property `Other_Uppercase` as defined by the Unicode Standard.\n *\n * @sample samples.text.Chars.isUpperCase\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isUpperCase(): Boolean {\n   if (this in 'A'..'Z') {\n   return true\n   }\n   if (this < '\\u0080') {\n   return false\n   }\n   return isUpperCaseImpl()\n}\n\n/**\n * Returns `true` if this character is lower case.\n *\n * A character is considered to be a lower case character if its [category] is [CharCategory.LOWERCASE_LETTER],\n * or it has contributory property `Other_Lowercase`
 as defined by the Unicode Standard.\n *\n * @sample samples.text.Chars.isLowerCase\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isLowerCase(): Boolean {\n   if (this in 'a'..'z') {\n   return true\n   }\n   if (this < '\\u0080') {\n   return false\n   }\n   return isLowerCaseImpl()\n}\n\n/**\n * Returns `true` if this character is a title case letter.\n *\n * A character is considered to be a title case letter if its [category] is [CharCategory.TITLECASE_LETTER].\n *\n * @sample samples.text.Chars.isTitleCase\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isTitleCase(): Boolean {\n   if (this < '\\u0080') {\n   return false\n   }\n   return getCategoryValue() == CharCategory.TITLECASE_LETTER.value\n}\n\n/**\n * Returns `true` if this character is an ISO control character.\n *\n * A character is considered to be an ISO control character if its [category] is [CharCategory.CONTROL],\n * meaning the Char is in the range `'\\u0000'..'\\u001F'`
 or in the range `'\\u007F'..'\\u009F'`.\n *\n * @sample samples.text.Chars.isISOControl\n */\n@SinceKotlin(\"1.5\")\npublic actual fun Char.isISOControl(): Boolean {\n   return this <= '\\u001F' || this in '\\u007F'..'\\u009F'\n}\n\n/**\n * Determines whether a character is whitespace according to the Unicode standard.\n * Returns `true` if the character is whitespace.\n *\n * @sample samples.text.Chars.isWhitespace\n */\npublic actual fun Char.isWhitespace(): Boolean = isWhitespaceImpl()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\nimport kotlin.js.RegExp\n\n/**\n * Converts the characters in the specified array to a string.\n */\n@SinceKotlin(\"1.2\")\n@Deprecated(\"Use CharArray.concatToString() instead\",
ReplaceWith(\"chars.concatToString()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\",
 errorSince = \"1.5\")\npublic actual fun String(chars: CharArray): String {\n   var result = \"\"\n   for (char in chars) {\n   result += char\n   }\n   return result\n}\n\n/**\n * Converts the characters from a portion of the specified array to a string.\n *\n * @throws IndexOutOfBoundsException if either [offset] or [length] are less than

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zero\n * or `offset + length` is out of [chars] array bounds.\n */\n@SinceKotlin(\"1.2\")\n@Deprecated(\"Use
CharArray.concatToString(startIndex, endIndex) instead\", ReplaceWith(\"chars.concatToString(offset, offset +
length)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\")\npublic actual fun String(chars:
CharArray, offset: Int, length: Int): String {\n    if (offset < 0 || length < 0 || chars.size - offset < length)\n        throw
IndexOutOfBoundsException(\"size: ${chars.size}; offset: $offset; length: $length\")\n    var result = \"\"\n    for
(index in offset until offset + length) {\n        result += chars[index]\n
    }\n    return result\n}\n\n/**\n * Concatenates characters in this [CharArray] into a String.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun
CharArray.concatToString(): String {\n    var result = \"\"\n    for (char in this) {\n        result += char\n    }\n
return result\n}\n\n/**\n * Concatenates characters in this [CharArray] or its subrange into a String.\n *\n * @param
startIndex the beginning (inclusive) of the subrange of characters, 0 by default.\n * @param endIndex the end
(exclusive) of the subrange of characters, size of this array by default.\n *\n * @throws
IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex] is greater than the size of this array.\n *
@throws IllegalArgumentException if [startIndex] is greater than [endIndex].\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"ACTUAL_FUNCTI
ON_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun CharArray.concatToString(startIndex:
 Int = 0, endIndex: Int = this.size): String {\n    AbstractList.checkBoundsIndexes(startIndex, endIndex, this.size)\n
var result = \"\"\n    for (index in startIndex until endIndex) {\n        result += this[index]\n    }\n    return
result\n}\n\n/**\n * Returns a [CharArray] containing characters of this string.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun
String.toCharArray(): CharArray {\n    return CharArray(length) { get(it) }\n}\n\n/**\n * Returns a [CharArray]
containing characters of this string or its substring.\n *\n * @param startIndex the beginning (inclusive) of the
substring, 0 by default.\n * @param endIndex the end (exclusive) of the substring, length of this string by default.\n
*\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex] is greater than the length
of this string.\n * @throws IllegalArgumentException if [startIndex] is greater than [endIndex].\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"ACTUAL_FUNCTI
ON_WITH_DEFAULT_ARGUMENTS\")\npublic
 actual fun String.toCharArray(startIndex: Int = 0, endIndex: Int = this.length): CharArray {\n
AbstractList.checkBoundsIndexes(startIndex, endIndex, length)\n    return CharArray(endIndex - startIndex) {
get(startIndex + it) }\n}\n\n/**\n * Decodes a string from the bytes in UTF-8 encoding in this array.\n *\n *
Malformed byte sequences are replaced by the replacement char `\\uFFFD`.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun
ByteArray.decodeToString(): String {\n    return decodeUtf8(this, 0, size, false)\n}\n\n/**\n * Decodes a string from
the bytes in UTF-8 encoding in this array or its subrange.\n *\n * @param startIndex the beginning (inclusive) of the
subrange to decode, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to decode, size of this
array by default.\n * @param throwOnInvalidSequence
 specifies whether to throw an exception on malformed byte sequence or replace it by the replacement char
`\\uFFFD`.\n *\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex] is greater
than the size of this array.\n * @throws IllegalArgumentException if [startIndex] is greater than [endIndex].\n *
@throws CharacterCodingException if the byte array contains malformed UTF-8 byte sequence and
[throwOnInvalidSequence] is true.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"ACTUAL_FUNCTI
ON_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun ByteArray.decodeToString(\n    startIndex: Int = 0,\n
endIndex: Int = this.size,\n    throwOnInvalidSequence: Boolean = false\n): String {\n
AbstractList.checkBoundsIndexes(startIndex, endIndex, this.size)\n    return decodeUtf8(this, startIndex, endIndex,
throwOnInvalidSequence)\n}\n\n/**\n * Encodes this string to an array of bytes in UTF-8 encoding.\n *\n *
 Any malformed char sequence is replaced by the replacement byte sequence.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun
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String.encodeToByteArray(): ByteArray {\n   return encodeUtf8(this, 0, length, false)\n}\n\n/**\n * Encodes this string or its substring to an array of bytes in UTF-8 encoding.\n *\n * @param startIndex the beginning (inclusive) of the substring to encode, 0 by default.\n * @param endIndex the end (exclusive) of the substring to encode, length of this string by default.\n * @param throwOnInvalidSequence specifies whether to throw an exception on malformed char sequence or replace.\n *\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex] is greater than the length of this string.\n * @throws IllegalArgumentException if [startIndex] is greater than [endIndex].\n * @throws CharacterCodingException if this string contains malformed char sequence and [throwOnInvalidSequence] is true.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun String.encodeToByteArray(\n   startIndex: Int = 0,\n   endIndex: Int = this.length,\n   throwOnInvalidSequence: Boolean = false\n): ByteArray {\n   AbstractList.checkBoundsIndexes(startIndex, endIndex, length)\n   return encodeUtf8(this, startIndex, endIndex, throwOnInvalidSequence)\n}\n\n/**\n * Returns a copy of this string converted to upper case using the rules of the default locale.\n */\n@Deprecated(\"Use uppercase() instead.\", ReplaceWith(\"uppercase()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@kotlin.internal.InlineOnly\npublic actual inline fun String.toUpperCase(): String = asDynamic().toUpperCase()\n\n/**\n * Returns a copy of this string converted to upper case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many and many-to-one character mapping,\n * thus the length of the returned string can be different from the length of the original string.\n *\n * @sample samples.text.Strings.uppercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun String.uppercase(): String = asDynamic().toUpperCase()\n\n/**\n * Returns a copy of this string converted to lower case using the rules of the default locale.\n */\n@Deprecated(\"Use lowercase() instead.\", ReplaceWith(\"lowercase()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@kotlin.internal.InlineOnly\npublic actual inline fun String.toLowerCase(): String = asDynamic().toLowerCase()\n\n/**\n * Returns a copy of this string converted to lower case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many and many-to-one character mapping,\n * thus the length of the returned string can be different from the length of the original string.\n *\n * @sample samples.text.Strings.lowercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun String.lowercase(): String = asDynamic().toLowerCase()\n\n@kotlin.internal.InlineOnly\ninternal actual inline fun String.nativeIndexOf(str: String, fromIndex: Int): Int = asDynamic().indexOf(str, fromIndex)\n\n@kotlin.internal.InlineOnly\ninternal actual inline fun String.nativeLastIndexOf(str: String, fromIndex: Int): Int = asDynamic().lastIndexOf(str, fromIndex)\n\n@kotlin.internal.InlineOnly\ninternal inline fun String.nativeStartsWith(s: String, position: Int): Boolean = asDynamic().startsWith(s, position)\n\n@kotlin.internal.InlineOnly\ninternal inline fun String.nativeEndsWith(s: String): Boolean = asDynamic().endsWith(s)\n\n@kotlin.internal.InlineOnly\npublic actual inline fun String.substring(startIndex: Int): String = asDynamic().substring(startIndex)\n\n@kotlin.internal.InlineOnly\npublic actual inline fun String.substring(startIndex: Int, endIndex: Int): String = asDynamic().substring(startIndex, endIndex)\n\n@Deprecated(\"Use String.plus() instead\", ReplaceWith(\"this + str\"))\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun String.concat(str: String): String = asDynamic().concat(str)\n\n@Deprecated(\"Use Regex.findAll() instead or invoke matches() on String dynamically: this.asDynamic().match(regex)\")\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@kotlin.internal.InlineOnly\npublic inline fun String.match(regex: String): Array<String>? = asDynamic().match(regex)\n\n//native public fun String.trim(): String\n//TODO: String.replace to implement

effective trimLeading and trimTrailing\n\n@kotlin.internal.InlineOnly\ninternal inline fun
String.nativeReplace(pattern: RegExp, replacement: String): String = asDynamic().replace(pattern,
replacement)\n\n/**\n * Compares two strings lexicographically, optionally ignoring case differences.\n *\n * If
[ignoreCase] is true, the result of `Char.uppercaseChar().lowercaseChar()`
on each character is compared.\n
*/\n@SinceKotlin(\"1.2\")\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic
actual fun String.compareTo(other: String, ignoreCase: Boolean = false): Int {\n   if (ignoreCase) {\n   val n1 =
this.length\n   val n2 = other.length\n   val min = minOf(n1, n2)\n   if (min == 0) return n1 - n2\n   for
(index in 0 until min) {\n   var thisChar = this[index]\n   var otherChar = other[index]\n\n   if
(thisChar != otherChar) {\n   thisChar = thisChar.uppercaseChar()\n   otherChar =
otherChar.uppercaseChar()\n\n   if (thisChar != otherChar) {\n   thisChar =
thisChar.lowercaseChar()\n   otherChar = otherChar.lowercaseChar()\n\n   if (thisChar !=
otherChar) {\n   return thisChar.compareTo(otherChar)\n   }\n   }\n   }\n
}\n   return n1 - n2\n   } else {\n   return compareTo(other)\n   }\n}\n\n/**\n * Returns `true` if the
contents of this char sequence are equal to the contents of the specified [other],\n * i.e. both char sequences contain
the same number of the same characters in the same order.\n *\n * @sample samples.text.Strings.contentEquals\n
*/\n@SinceKotlin(\"1.5\")\npublic actual infix fun CharSequence?.contentEquals(other: CharSequence?): Boolean =
contentEqualsImpl(other)\n\n/**\n * Returns `true` if the contents of this char sequence are equal to the contents of
the specified [other], optionally ignoring case difference.\n *\n * @param ignoreCase `true` to ignore character case
when comparing contents.\n *\n * @sample samples.text.Strings.contentEquals\n */\n@SinceKotlin(\"1.5\")\npublic
actual fun CharSequence?.contentEquals(other: CharSequence?, ignoreCase: Boolean): Boolean {\n   return if
(ignoreCase)\n   this.contentEqualsIgnoreCaseImpl(other)\n   else\n
this.contentEqualsImpl(other)\n}\n\n\nprivate val STRING_CASE_INSENSITIVE_ORDER =
Comparator<String> { a, b -> a.compareTo(b, ignoreCase = true) }\n\n@SinceKotlin(\"1.2\")\npublic actual val
String.Companion.CASE_INSENSITIVE_ORDER: Comparator<String>\n   get() =
STRING_CASE_INSENSITIVE_ORDER\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CharsKt\")\n\npackage kotlin.text\n\n/**\n
* Returns the numeric value of the decimal digit that this Char represents.\n * Throws an exception if this Char is
not a valid decimal digit.\n *\n * A Char is considered to represent a decimal digit if [isDigit] is true for the Char.\n
* In this case, the Unicode decimal digit value of the character is returned.\n *\n * @sample
samples.text.Chars.digitToInt\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic
fun Char.digitToInt(): Int {\n   return digitOf(this, 10).also {\n   if (it < 0) throw
IllegalArgumentException(\"Char $this is not a decimal digit\")\n   }\n}\n\n/**\n * Returns the numeric value of the
digit that this Char represents in the specified [radix].\n * Throws an exception if the [radix] is not in the range
`2..36` or if this Char is not a valid digit in the specified [radix].\n *\n * A Char is considered to represent a digit in
the specified [radix] if at least one of the following is true:\n * - [isDigit] is `true` for the Char and the Unicode
decimal digit value of the character is less than the specified [radix]. In this case the decimal digit value is
returned.\n * - The Char is one of the uppercase Latin letters 'A' through 'Z' and its [code] is less than `radix +
'A'.code - 10`. In this case, `this.code - 'A'.code + 10` is returned.\n * - The Char is one of the lowercase Latin
letters 'a' through
'z' and its [code] is less than `radix + 'a'.code - 10`. In this case, `this.code - 'a'.code + 10` is returned.\n * - The
Char is one of the fullwidth Latin capital letters '\\uFF21' through '\\uFF3A' and its [code] is less than `radix +
0xFF21 - 10`. In this case, `this.code - 0xFF21 + 10` is returned.\n * - The Char is one of the fullwidth Latin small
letters '\\uFF41' through '\\uFF5A' and its [code] is less than `radix + 0xFF41 - 10`. In this case, `this.code - 0xFF41
+ 10` is returned.\n *\n * @sample samples.text.Chars.digitToInt\n

*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Char.digitToInt(radix: Int): Int {\n   return digitToIntOrNull(radix) ?: throw IllegalArgumentException(\"Char $this is not a digit in the given radix=$radix\")\n}\n\n/**\n *\n * Returns the numeric value of the decimal digit that this Char represents, or `null` if this Char is not a valid decimal digit.\n *\n * A Char is considered to represent a decimal digit
 if [isDigit] is true for the Char.\n * In this case, the Unicode decimal digit value of the character is returned.\n *\n * @sample samples.text.Chars.digitToIntOrNull\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Char.digitToIntOrNull(): Int? {\n   return digitOf(this, 10).takeIf { it >= 0 }\n}\n\n/**\n * Returns the numeric value of the digit that this Char represents in the specified [radix], or `null` if this Char is not a valid digit in the specified [radix].\n * Throws an exception if the [radix] is not in the range `2..36`.\n *\n * A Char is considered to represent a digit in the specified [radix] if at least one of the following is true:\n * - [isDigit] is `true` for the Char and the Unicode decimal digit value of the character is less than the specified [radix]. In this case the decimal digit value is returned.\n * - The Char is one of the uppercase Latin letters 'A' through 'Z' and its [code] is less than `radix + 'A'.code - 10`. In
 this case, `this.code - 'A'.code + 10` is returned.\n * - The Char is one of the lowercase Latin letters 'a' through 'z' and its [code] is less than `radix + 'a'.code - 10`. In this case, `this.code - 'a'.code + 10` is returned.\n * - The Char is one of the fullwidth Latin capital letters '\\uFF21' through '\\uFF3A' and its [code] is less than `radix + 0xFF21 - 10`. In this case, `this.code - 0xFF21 + 10` is returned.\n * - The Char is one of the fullwidth Latin small letters '\\uFF41' through '\\uFF5A' and its [code] is less than `radix + 0xFF41 - 10`. In this case, `this.code - 0xFF41 + 10` is returned.\n *\n * @sample samples.text.Chars.digitToIntOrNull\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Char.digitToIntOrNull(radix: Int): Int? {\n   checkRadix(radix)\n   return digitOf(this, radix).takeIf { it >= 0 }\n}\n\n/**\n * Returns the Char that represents this decimal digit.\n * Throws an exception if this value is not in the range
 `0..9`.\n *\n * If this value is in `0..9`, the decimal digit Char with code `'0'.code + this` is returned.\n *\n * @sample samples.text.Chars.digitToChar\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Int.digitToChar(): Char {\n   if (this in 0..9) {\n   return '0' + this\n   }\n   throw IllegalArgumentException(\"Int $this is not a decimal digit\")\n}\n\n/**\n * Returns the Char that represents this numeric digit value in the specified [radix].\n * Throws an exception if the [radix] is not in the range `2..36` or if this value is not in the range `0 until radix`.\n *\n * If this value is less than `10`, the decimal digit Char with code `'0'.code + this` is returned.\n * Otherwise, the uppercase Latin letter with code `'A'.code + this - 10` is returned.\n *\n * @sample samples.text.Chars.digitToChar\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Int.digitToChar(radix: Int): Char {\n   if (radix
 !in 2..36) {\n   throw IllegalArgumentException(\"Invalid radix: $radix. Valid radix values are in range 2..36\")\n   }\n   if (this < 0 || this >= radix) {\n   throw IllegalArgumentException(\"Digit $this does not represent a valid digit in radix $radix\")\n   }\n   return if (this < 10) {\n   '0' + this\n   } else {\n   'A' + this - 10\n   }\n}\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant locale.\n
*/\n@Deprecated(\"Use lowercaseChar() instead.\", ReplaceWith(\"lowercaseChar()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic expect fun Char.toLowerCase(): Char\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To support one-to-many character mapping use the [lowercase] function.\n * If this character has no mapping equivalent, the character itself is returned.\n *\n * @sample samples.text.Chars.lowercase\n
 */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Char.lowercaseChar(): Char\n\n/**\n * Converts this character to lower case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many character mapping, thus the length of the returned string can be greater than one.\n * For example, `'\\u0130'.lowercase()` returns `\"\\u0069\\u0307\"`,\n * where

`'\\u0130'` is the LATIN CAPITAL LETTER I WITH DOT ABOVE character (`\ufffd\ufffd`).\n * If this character has no lower case mapping, the result of `toString()` of this char is returned.\n *\n * @sample samples.text.Chars.lowercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Char.lowercase(): String\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the invariant locale.\n */\n@Deprecated(\"Use uppercaseChar() instead.\", ReplaceWith(\"uppercaseChar()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic expect fun Char.toUpperCase(): Char\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To support one-to-many character mapping use the [uppercase] function.\n * If this character has no mapping equivalent, the character itself is returned.\n *\n * @sample samples.text.Chars.uppercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Char.uppercaseChar(): Char\n\n/**\n * Converts this character to upper case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many character mapping, thus the length of the returned string can be greater than one.\n * For example, `'\\uFB00'.uppercase()` returns `\"\\u0046\\u0046\"`,\n * where `'\\uFB00'` is the LATIN SMALL LIGATURE FF character (`\ufffd\ufffd\ufffd`).\n * If this character has no upper case mapping, the result of `toString()` of this char is returned.\n *\n * @sample samples.text.Chars.uppercase\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Char.uppercase(): String\n\n/**\n * Converts this character to title case using Unicode mapping rules of the invariant locale.\n *\n * This function performs one-to-one character mapping.\n * To support one-to-many character mapping use the [titlecase] function.\n * If this character has no mapping equivalent, the result of calling [uppercaseChar] is returned.\n *\n * @sample samples.text.Chars.titlecase\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.titlecaseChar(): Char\n\n/**\n * Converts this character to title case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many character mapping, thus the length of the returned string can be greater than one.\n * For example, `'\\uFB00'.titlecase()` returns `\"\\u0046\\u0066\"`,\n * where `'\\uFB00'` is the LATIN SMALL LIGATURE FF character (`\ufffd\ufffd\ufffd`).\n * If this character has no title case mapping, the result of [uppercase] is returned instead.\n *\n * @sample samples.text.Chars.titlecase\n */\n@SinceKotlin(\"1.5\")\npublic fun Char.titlecase(): String = titlecaseImpl()\n\n/**\n * Concatenates this Char and a String.\n *\n * @sample samples.text.Chars.plus\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun Char.plus(other: String): String = this.toString() + other\n\n/**\n * Returns `true` if this character is equal to the [other] character, optionally ignoring character case.\n *\n * Two characters are considered equal ignoring case if `Char.uppercaseChar().lowercaseChar()` on each character produces the same result.\n *\n * @param ignoreCase `true` to ignore character case when comparing characters. By default `false`.\n * @sample samples.text.Chars.equals\n */\npublic fun Char.equals(other: Char, ignoreCase: Boolean = false): Boolean {\n   if (this == other) return true\n   if (!ignoreCase) return false\n\n   val thisUpper = this.uppercaseChar()\n   val otherUpper = other.uppercaseChar()\n\n   return thisUpper == otherUpper || thisUpper.lowercaseChar() == otherUpper.lowercaseChar()\n}\n\n/**\n * Returns `true` if this character is a Unicode surrogate code unit.\n */\npublic fun Char.isSurrogate(): Boolean = this in Char.MIN_SURROGATE..Char.MAX_SURROGATE\n\n/**\n * Returns the Unicode general category of this character.\n */\n@SinceKotlin(\"1.5\")\npublic expect val Char.category: CharCategory\n\n/**\n * Returns `true` if this character (Unicode code point) is defined in Unicode.\n *\n * A character is considered to be defined in Unicode if its [category] is not [CharCategory.UNASSIGNED].\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isDefined(): Boolean\n\n/**\n * Returns `true` if this character is a letter.\n *\n * A character is considered to be a letter if its [category] is [CharCategory.UPPERCASE_LETTER],\n * [CharCategory.LOWERCASE_LETTER],

[CharCategory.TITLECASE_LETTER], [CharCategory.MODIFIER_LETTER], or
[CharCategory.OTHER_LETTER].\n *\n * @sample samples.text.Chars.isLetter\n
*/\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isLetter(): Boolean\n\n/**\n * Returns `true` if this character is a
letter or digit.\n *\n * @see isLetter\n * @see isDigit\n *\n * @sample samples.text.Chars.isLetterOrDigit\n
*/\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isLetterOrDigit(): Boolean\n\n/**\n * Returns `true` if this
character is a digit.\n *\n * A character is considered to be a digit if its [category] is
[CharCategory.DECIMAL_DIGIT_NUMBER].\n *\n * @sample samples.text.Chars.isDigit\n
*/\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isDigit(): Boolean\n\n/**\n * Returns `true` if this character is
upper case.\n *\n * A character is considered to be an upper case character if its [category] is
[CharCategory.UPPERCASE_LETTER],\n * or it has contributory property `Other_Uppercase` as defined by the
Unicode Standard.\n *\n * @sample samples.text.Chars.isUpperCase\n */\n@SinceKotlin(\"1.5\")\npublic expect
fun Char.isUpperCase(): Boolean\n\n/**\n * Returns `true` if this character is lower case.\n *\n * A character is
considered to be a lower case character if its [category] is [CharCategory.LOWERCASE_LETTER],\n * or it has
contributory property `Other_Lowercase` as defined by the Unicode Standard.\n *\n * @sample
samples.text.Chars.isLowerCase\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isLowerCase():
Boolean\n\n/**\n * Returns `true` if this character is a title case letter.\n *\n * A character is considered to be a title
case letter if its [category] is [CharCategory.TITLECASE_LETTER].\n *\n * @sample
samples.text.Chars.isTitleCase\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isTitleCase(): Boolean\n\n/**\n
* Returns `true` if this character is an ISO control character.\n *\n * A character is considered to be an ISO control
character if its [category] is [CharCategory.CONTROL],\n
* meaning the Char is in the range `'\\u0000'..'\\u001F'` or in the range `'\\u007F'..'\\u009F'`.\n *\n * @sample
samples.text.Chars.isISOControl\n */\n@SinceKotlin(\"1.5\")\npublic expect fun Char.isISOControl():
Boolean\n\n/**\n * Determines whether a character is whitespace according to the Unicode standard.\n * Returns
`true` if the character is whitespace.\n *\n * @sample samples.text.Chars.isWhitespace\n */\npublic expect fun
Char.isWhitespace(): Boolean\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin\n\n\n\n/**\n * Creates a Char with the specified [code], or throws an
exception if the [code] is out of `Char.MIN_VALUE.code..Char.MAX_VALUE.code`.\n *\n * If the program that
calls this function is written in a way that only valid [code] is passed as the argument,\n * using the overload
that takes a [UShort] argument is preferable (`Char(intValue.toUShort())`).\n * That overload doesn't check validity
of the argument, and may improve program performance when the function is called routinely inside a loop.\n *\n *
@sample samples.text.Chars.charFromCode\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npubli
c inline fun Char(code: Int): Char {\n   if (code < Char.MIN_VALUE.code || code > Char.MAX_VALUE.code) {\n
    throw IllegalArgumentException(\"Invalid Char code: $code\")\n   }\n   return code.toChar()\n}\n\n/**\n *
Creates a Char with the specified [code].\n *\n * @sample samples.text.Chars.charFromCode\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"NO_ACTUAL_FOR
_EXPECT\")\npublic expect fun Char(code: UShort): Char\n\n/**\n * Returns the code of this Char.\n *\n * Code of
a Char is the value it was constructed with, and the UTF-16 code unit corresponding to
this Char.\n *\n * @sample samples.text.Chars.code\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\n@Su
ppress(\"DEPRECATION\")\npublic inline val Char.code: Int get() = this.toInt()\n","/*\n * Copyright 2010-2021
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"SequencesKt\")\n\npackage
kotlin.sequences\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n * Returns
`true` if [element] is found in the sequence.\n *\n * The operation is _terminal_.\n */\npublic operator fun

<@kotlin.internal.OnlyInputTypes T> Sequence<T>.contains(element: T): Boolean {\n   return indexOf(element) >= 0\n}\n\n/**\n * Returns
 an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic fun <T> Sequence<T>.elementAt(index: Int): T {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"Sequence doesn't contain element at index $index.\") }\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\npublic fun <T> Sequence<T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n   if (index < 0)\n   return defaultValue(index)\n   val iterator = iterator()\n   var count = 0\n   while (iterator.hasNext()) {\n   val element = iterator.next()\n   if (index == count++)\n
    return element\n   }\n   return defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\npublic fun <T> Sequence<T>.elementAtOrNull(index: Int): T? {\n   if (index < 0)\n   return null\n   val iterator = iterator()\n   var count = 0\n   while (iterator.hasNext()) {\n   val element = iterator.next()\n   if (index == count++)\n
 return element\n   }\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.find(predicate: (T) -> Boolean): T? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the
 given [predicate], or `null` if no such element was found.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.findLast(predicate: (T) -> Boolean): T? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the sequence is empty.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.first(): T {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   throw NoSuchElementException(\"Sequence is empty.\")\n   return iterator.next()\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.first(predicate: (T) -> Boolean): T {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Sequence
 contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to elements of this sequence in iteration order,\n * or throws [NoSuchElementException] if no non-null value was produced.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Any> Sequence<T>.firstNotNullOf(transform: (T) -> R?): R {\n   return firstNotNullOfOrNull(transform) ?: throw NoSuchElementException(\"No element of the sequence was transformed to a non-null value.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to elements of this sequence in iteration order,\n * or `null` if no non-null value was produced.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic
 inline fun <T, R : Any> Sequence<T>.firstNotNullOfOrNull(transform: (T) -> R?): R? {\n   for (element in this) {\n   val result = transform(element)\n   if (result != null) {\n   return result\n   }\n   }\n   return null\n}\n\n/**\n * Returns the first element, or `null` if the sequence is empty.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.firstOrNull(): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   return null\n   return iterator.next()\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element was not found.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T>

Sequence<T>.firstOrNull(predicate: (T) -> Boolean): T? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns first index of [element], or -1 if the sequence does not contain element.\n *\n * The operation is _terminal_.\n */\npublic fun <@kotlin.internal.OnlyInputTypes T> Sequence<T>.indexOf(element: T): Int {\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (element == item)\n   return index\n   index++\n   }\n   return -1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the sequence does not contain such element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (predicate(item))\n   return index\n   index++\n   }\n   return -1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the sequence does not contain such element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.indexOfLast(predicate: (T) -> Boolean): Int {\n   var lastIndex = -1\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (predicate(item))\n   lastIndex = index\n   index++\n   }\n   return lastIndex\n}\n\n/**\n * Returns the last element.\n *\n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if the sequence is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> Sequence<T>.last(): T {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   throw NoSuchElementException(\"Sequence is empty.\")\n   var last = iterator.next()\n   while (iterator.hasNext())\n   last = iterator.next()\n   return last\n}\n\n/**\n * Returns the last element matching the given [predicate].\n *\n * The operation is _terminal_.\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Sequence<T>.last(predicate: (T) -> Boolean): T {\n   var last: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   last = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Sequence contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return last as T\n}\n\n/**\n * Returns last index of [element], or -1 if the sequence does not contain element.\n *\n * The operation is _terminal_.\n */\npublic fun <@kotlin.internal.OnlyInputTypes T> Sequence<T>.lastIndexOf(element: T): Int {\n   var lastIndex = -1\n   var index = 0\n   for (item in this) {\n   checkIndexOverflow(index)\n   if (element == item)\n   lastIndex = index\n   index++\n   }\n   return lastIndex\n}\n\n/**\n * Returns the last element, or `null` if the sequence is empty.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic fun <T> Sequence<T>.lastOrNull(): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   return null\n   var last = iterator.next()\n   while (iterator.hasNext())\n   last = iterator.next()\n   return last\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Elements.last\n */\npublic inline fun <T> Sequence<T>.lastOrNull(predicate: (T) -> Boolean): T? {\n   var last: T? = null\n   for (element in this) {\n   if (predicate(element)) {\n   last = element\n   }\n   }\n   return last\n}\n\n/**\n * Returns the single element, or throws an exception if the sequence is empty or has more than one element.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.single(): T {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   throw NoSuchElementException(\"Sequence is empty.\")\n   val single = iterator.next()\n   if (iterator.hasNext())\n   throw IllegalArgumentException(\"Sequence has more than one element.\")\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.single(predicate: (T) -> Boolean): T {\n   var single: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Sequence contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Sequence contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return single as T\n}\n\n/**\n * Returns single element, or `null` if the

sequence is empty or has more than one element.\n *\n * The operation is _terminal_.\n */\npublic
fun <T> Sequence<T>.singleOrNull(): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext())\n   return null\n   val single = iterator.next()\n   if (iterator.hasNext())\n   return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.singleOrNull(predicate: (T) -> Boolean): T? {\n   var single: T? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns a sequence containing all elements except first [n] elements.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*/\npublic fun <T> Sequence<T>.drop(n: Int): Sequence<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return when {\n   n == 0 -> this\n   this is DropTakeSequence -> this.drop(n)\n   else -> DropSequence(this, n)\n   }\n}\n\n/**\n * Returns a sequence containing all elements except first elements that satisfy the given [predicate].\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun <T> Sequence<T>.dropWhile(predicate: (T) -> Boolean): Sequence<T> {\n   return DropWhileSequence(this, predicate)\n}\n\n/**\n * Returns a sequence containing only elements matching the given [predicate].\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic fun <T> Sequence<T>.filter(predicate: (T) -> Boolean): Sequence<T> {\n   return
FilteringSequence(this, true, predicate)\n}\n\n/**\n * Returns a sequence containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic fun <T> Sequence<T>.filterIndexed(predicate: (index: Int, T) -> Boolean): Sequence<T> {\n   // TODO: Rewrite with generalized MapFilterIndexingSequence\n   return TransformingSequence(FilteringSequence(IndexingSequence(this), true, { predicate(it.index, it.value) }), { it.value })\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n *\n * The operation is _terminal_.\n
* \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Sequence<T>.filterIndexedTo(destination: C, predicate: (index: Int, T) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Returns a sequence containing all elements that are instances of specified type parameter R.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Filtering.filterIsInstance\n */\npublic inline fun <reified R> Sequence<*>.filterIsInstance(): Sequence<@kotlin.internal.NoInfer R> {\n   @Suppress(\"UNCHECKED_CAST\")\n   return filter { it is R } as Sequence<R>\n}\n\n/**\n * Appends all elements that are instances of specified type parameter R to the given [destination].\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Filtering.filterIsInstanceTo\n
/\npublic inline fun <reified R, C : MutableCollection<in R>> Sequence<>.filterIsInstanceTo(destination: C): C {\n   for (element in this) if (element is R) destination.add(element)\n   return destination\n}\n\n/**\n * Returns a sequence containing all elements not matching the given [predicate].\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\npublic fun <T> Sequence<T>.filterNot(predicate: (T) -> Boolean): Sequence<T> {\n   return FilteringSequence(this, false, predicate)\n}\n\n/**\n * Returns a sequence containing all elements that are not `null`.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Filtering.filterNotNull\n */\npublic fun <T : Any> Sequence<T?>.filterNotNull(): Sequence<T> {\n

@Suppress(\"UNCHECKED_CAST\")\n   return filterNot { it == null } as Sequence<T>\n}\n\n/**\n * Appends all elements that are not `null`
 to the given [destination].\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Filtering.filterNotNullTo\n */\npublic fun <C : MutableCollection<in T>, T : Any> Sequence<T?>.filterNotNullTo(destination: C): C {\n   for (element in this) if (element != null) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <T, C : MutableCollection<in T>> Sequence<T>.filterNotTo(destination: C, predicate: (T) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun
 <T, C : MutableCollection<in T>> Sequence<T>.filterTo(destination: C, predicate: (T) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Returns a sequence containing first [n] elements.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun <T> Sequence<T>.take(n: Int): Sequence<T> {\n   require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   return when {\n   n == 0 -> emptySequence()\n   this is DropTakeSequence -> this.take(n)\n   else -> TakeSequence(this, n)\n   }\n}\n\n/**\n * Returns a sequence containing first elements satisfying the given [predicate].\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic fun <T> Sequence<T>.takeWhile(predicate:
 (T) -> Boolean): Sequence<T> {\n   return TakeWhileSequence(this, predicate)\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * The operation is _intermediate_ and _stateful_.\n */\npublic fun <T : Comparable<T>> Sequence<T>.sorted(): Sequence<T> {\n   return object : Sequence<T> {\n   override fun iterator(): Iterator<T> {\n   val sortedList = this@sorted.toMutableList()\n   sortedList.sort()\n   return sortedList.iterator()\n   }\n   }\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * The operation is
 intermediate and _stateful_.\n * \n * @sample samples.collections.Collections.Sorting.sortedBy\n */\npublic inline fun <T, R : Comparable<R>> Sequence<T>.sortedBy(crossinline selector: (T) -> R?): Sequence<T> {\n   return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted descending according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * The operation is _intermediate_ and _stateful_.\n */\npublic inline fun <T, R : Comparable<R>> Sequence<T>.sortedByDescending(crossinline selector: (T) -> R?): Sequence<T> {\n   return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative
 to each other after sorting.\n *\n * The operation is _intermediate_ and _stateful_.\n */\npublic fun <T : Comparable<T>> Sequence<T>.sortedDescending(): Sequence<T> {\n   return sortedWith(reverseOrder())\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted according to the specified [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n *\n * The operation is _intermediate_ and _stateful_.\n */\npublic fun <T> Sequence<T>.sortedWith(comparator: Comparator<in T>): Sequence<T> {\n   return object : Sequence<T> {\n   override fun iterator(): Iterator<T> {\n   val sortedList = this@sortedWith.toMutableList()\n

sortedList.sortWith(comparator)\n   return sortedList.iterator()\n   }\n   }\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to elements of the given sequence.\n * \n * If any
 of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associate\n */\npublic inline fun <T, K, V> Sequence<T>.associate(transform: (T) -> Pair<K, V>): Map<K, V> {\n   return associateTo(LinkedHashMap<K, V>(), transform)\n}\n\n/**\n * Returns a [Map] containing the elements from the given sequence indexed by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateBy\n */\npublic inline fun <T, K> Sequence<T>.associateBy(keySelector: (T) -> K): Map<K, T> {\n
    return associateByTo(LinkedHashMap<K, T>(), keySelector)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given sequence.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateByWithValueTransform\n */\npublic inline fun <T, K, V> Sequence<T>.associateBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, V> {\n   return associateByTo(LinkedHashMap<K, V>(), keySelector, valueTransform)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given sequence\n * and value is the element itself.\n * \n * If any
 two elements would have the same key returned by [keySelector] the last one gets added to the map.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateByTo\n */\npublic inline fun <T, K, M : MutableMap<in K, in T>> Sequence<T>.associateByTo(destination: M, keySelector: (T) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to elements of the given sequence.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateByToWithValueTransform\n */\npublic inline fun <T, K, V, M : MutableMap<in
 K, in V>> Sequence<T>.associateByTo(destination: M, keySelector: (T) -> K, valueTransform: (T) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given sequence.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateTo\n */\npublic inline fun <T, K, V, M : MutableMap<in K, in V>> Sequence<T>.associateTo(destination: M, transform: (T) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Returns a [Map] where keys are elements from the given sequence and values are\n * produced by the [valueSelector] function
 applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original sequence.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.3\")\npublic inline fun <K, V> Sequence<K>.associateWith(valueSelector: (K) -> V): Map<K, V> {\n   val result = LinkedHashMap<K, V>()\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given sequence,\n * where key is the element

itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.3\")\npublic inline fun <K, V, M : MutableMap<in K, in V>> Sequence<K>.associateWithTo(destination: M, valueSelector: (K) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Appends all elements to the given [destination] collection.\n *\n * The operation is _terminal_.\n */\npublic fun <T, C : MutableCollection<in T>> Sequence<T>.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Returns a new [HashSet] of all elements.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.toHashSet(): HashSet<T> {\n   return toCollection(HashSet<T>())\n}\n\n/**\n * Returns a [List] containing all elements.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.toList(): List<T> {\n   return this.toMutableList().optimizeReadOnlyList()\n}\n\n/**\n * Returns a new [MutableList] filled with all elements of this sequence.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.toMutableList(): MutableList<T> {\n   return toCollection(ArrayList<T>())\n}\n\n/**\n * Returns a [Set] of all elements.\n * \n * The returned set preserves the element iteration order of the original sequence.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.toSet(): Set<T> {\n   return toCollection(LinkedHashSet<T>()).optimizeReadOnlySet()\n}\n\n/**\n * Returns a single sequence of all elements from results of [transform] function being invoked on each element of original sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIterable\")\npublic fun <T, R> Sequence<T>.flatMap(transform: (T) -> Iterable<R>): Sequence<R> {\n   return FlatteningSequence(this, transform, Iterable<R>::iterator)\n}\n\n/**\n * Returns a single sequence of all elements from results of [transform] function being invoked on each element of original sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic fun <T, R> Sequence<T>.flatMap(transform: (T) -> Sequence<R>): Sequence<R> {\n   return FlatteningSequence(this, transform, Sequence<R>::iterator)\n}\n\n/**\n * Returns a single sequence of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\npublic fun <T, R> Sequence<T>.flatMapIndexed(transform: (index: Int, T) -> Iterable<R>): Sequence<R> {\n   return flatMapIndexed(this, transform, Iterable<R>::iterator)\n}\n\n/**\n * Returns a single sequence of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedSequence\")\npublic fun <T, R> Sequence<T>.flatMapIndexed(transform: (index: Int, T) -> Sequence<R>): Sequence<R> {\n   return flatMapIndexed(this, transform, Sequence<R>::iterator)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original sequence, to the given [destination].\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npubli

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c inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.flatMapIndexedTo(destination: C, transform:
(index: Int, T) -> Iterable<R>): C {\n    var index = 0\n    for (element in this) {\n        val list =
transform(checkIndexOverflow(index++), element)\n        destination.addAll(list)\n    }\n    return
destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each
element\n * and its index in the original sequence, to the given [destination].\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedSequenceTo\")\n@kotlin.internal.InlineOnly\npu
blic
 inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.flatMapIndexedTo(destination: C, transform: (index:
Int, T) -> Sequence<R>): C {\n    var index = 0\n    for (element in this) {\n        val list =
transform(checkIndexOverflow(index++), element)\n        destination.addAll(list)\n    }\n    return
destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each
element of original sequence, to the given [destination].\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIterableTo\")\npublic inline fun <T, R, C :
MutableCollection<in R>> Sequence<T>.flatMapTo(destination: C, transform: (T) -> Iterable<R>): C {\n    for
(element in this) {\n        val list = transform(element)\n        destination.addAll(list)\n    }\n    return
destination\n}\n\n/**\n * Appends all elements yielded from
 results of [transform] function being invoked on each element of original sequence, to the given [destination].\n *\n
 * The operation is _terminal_.\n */\npublic inline fun <T, R, C : MutableCollection<in R>>
Sequence<T>.flatMapTo(destination: C, transform: (T) -> Sequence<R>): C {\n    for (element in this) {\n        val
list = transform(element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Groups elements of
the original sequence by the key returned by the given [keySelector] function\n * applied to each element and
returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map
preserves the entry iteration order of the keys produced from the original sequence.\n *\n * The operation is
_terminal_.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T,
K> Sequence<T>.groupBy(keySelector: (T) -> K): Map<K, List<T>> {\n    return groupByTo(LinkedHashMap<K,
 MutableList<T>>(), keySelector)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to
each element of the original sequence\n * by the key returned by the given [keySelector] function applied to the
element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The
returned map preserves the entry iteration order of the keys produced from the original sequence.\n *\n * The
operation is _terminal_.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <T, K, V>
Sequence<T>.groupBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, List<V>> {\n    return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups elements
of the original sequence by the key returned by the given [keySelector] function\n * applied to each element and
puts to the [destination] map each group key associated with a list of corresponding
 elements.\n * \n * @return The [destination] map.\n *\n * The operation is _terminal_.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <T, K, M : MutableMap<in K,
MutableList<T>>> Sequence<T>.groupByTo(destination: M, keySelector: (T) -> K): M {\n    for (element in this)
{\n        val key = keySelector(element)\n        val list = destination.getOrPut(key) { ArrayList<T>() }\n
list.add(element)\n    }\n    return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function
applied to each element of the original sequence\n * by the key returned by the given [keySelector] function applied
to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n
* \n * @return The [destination] map.\n *\n * The operation is _terminal_.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <T, K, V, M :
MutableMap<in
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K, MutableList<V>>> Sequence<T>.groupByTo(destination: M, keySelector: (T) -> K, valueTransform: (T) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Creates a [Grouping] source from a sequence to be used later with one of group-and-fold operations\n * using the specified [keySelector] function to extract a key from each element.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K> Sequence<T>.groupingBy(crossinline keySelector: (T) -> K): Grouping<T, K> {\n   return object : Grouping<T, K> {\n   override fun sourceIterator(): Iterator<T> = this@groupingBy.iterator()\n   override fun keyOf(element: T): K = keySelector(element)\n   }\n}\n\n/**\n * Returns a sequence

containing the results of applying the given [transform] function\n * to each element in the original sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\npublic fun <T, R> Sequence<T>.map(transform: (T) -> R): Sequence<R> {\n   return TransformingSequence(this, transform)\n}\n\n/**\n * Returns a sequence containing the results of applying the given [transform] function\n * to each element and its index in the original sequence.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic fun <T, R> Sequence<T>.mapIndexed(transform: (index: Int, T) -> R): Sequence<R> {\n   return TransformingIndexedSequence(this, transform)\n}\n\n/**\n * Returns a sequence containing only the non-null results of applying the given [transform] function\n

* to each element and its index in the original sequence.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic fun <T, R : Any> Sequence<T>.mapIndexedNotNull(transform: (index: Int, T) -> R?): Sequence<R> {\n   return TransformingIndexedSequence(this, transform).filterNotNull()\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original sequence\n * and appends only the non-null results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R : Any, C : MutableCollection<in R>> Sequence<T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R?): C {\n   forEachIndexed

{ index, element -> transform(index, element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original sequence\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.mapIndexedTo(destination: C, transform: (index: Int, T) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(checkIndexOverflow(index++), item))\n   return destination\n}\n\n/**\n * Returns a sequence containing only the non-null results of applying the given [transform] function\n * to each element in the original sequence.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.mapNotNull\n

*/\npublic fun <T, R : Any> Sequence<T>.mapNotNull(transform: (T) -> R?): Sequence<R> {\n   return TransformingSequence(this, transform).filterNotNull()\n}\n\n/**\n * Applies the given [transform] function to each element in the original sequence\n * and appends only the non-null results to the given [destination].\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R : Any, C : MutableCollection<in R>> Sequence<T>.mapNotNullTo(destination: C, transform: (T) -> R?): C {\n   forEach { element -> transform(element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original sequence\n * and appends the results to the given [destination].\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.mapTo(destination: C, transform: (T) -> R): C {\n   for (item in this)\n

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destination.add(transform(item))\n
    return destination\n}\n\n/**\n * Returns a sequence that wraps each element of the original sequence\n * into an
[IndexedValue] containing the index of that element and the element itself.\n *\n * The operation is _intermediate_
and _stateless_.\n */\npublic fun <T> Sequence<T>.withIndex(): Sequence<IndexedValue<T>> {\n    return
IndexingSequence(this)\n}\n\n/**\n * Returns a sequence containing only distinct elements from the given
sequence.\n * \n * Among equal elements of the given sequence, only the first one will be present in the resulting
sequence.\n * The elements in the resulting sequence are in the same order as they were in the source sequence.\n
*\n * The operation is _intermediate_ and _stateful_.\n * \n * @sample
samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun <T>
Sequence<T>.distinct(): Sequence<T> {\n    return this.distinctBy { it }\n}\n\n/**\n * Returns a sequence
containing only elements from the given sequence\n * having distinct
 keys returned by the given [selector] function.\n * \n * Among elements of the given sequence with equal keys,
only the first one will be present in the resulting sequence.\n * The elements in the resulting sequence are in the
same order as they were in the source sequence.\n *\n * The operation is _intermediate_ and _stateful_.\n * \n *
@sample samples.collections.Collections.Transformations.distinctAndDistinctBy\n */\npublic fun <T, K>
Sequence<T>.distinctBy(selector: (T) -> K): Sequence<T> {\n    return DistinctSequence(this, selector)\n}\n\n/**\n
* Returns a new [MutableSet] containing all distinct elements from the given sequence.\n * \n * The returned set
preserves the element iteration order of the original sequence.\n *\n * The operation is _terminal_.\n */\npublic fun
<T> Sequence<T>.toMutableSet(): MutableSet<T> {\n    val set = LinkedHashSet<T>()\n    for (item in this)
set.add(item)\n    return set\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n
 *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic
inline fun <T> Sequence<T>.all(predicate: (T) -> Boolean): Boolean {\n    for (element in this) if
(!predicate(element)) return false\n    return true\n}\n\n/**\n * Returns `true` if sequence has at least one element.\n
*\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic
fun <T> Sequence<T>.any(): Boolean {\n    return iterator().hasNext()\n}\n\n/**\n * Returns `true` if at least one
element matches the given [predicate].\n *\n * The operation is _terminal_.\n * \n * @sample
samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun <T>
Sequence<T>.any(predicate: (T) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
true\n    return false\n}\n\n/**\n * Returns the number of elements in this sequence.\n *\n * The operation is
_terminal_.\n */\npublic fun
 <T> Sequence<T>.count(): Int {\n    var count = 0\n    for (element in this) checkCountOverflow(++count)\n
return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n *\n * The operation is
_terminal_.\n */\npublic inline fun <T> Sequence<T>.count(predicate: (T) -> Boolean): Int {\n    var count = 0\n
for (element in this) if (predicate(element)) checkCountOverflow(++count)\n    return count\n}\n\n/**\n *
Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator
value and each element.\n * \n * Returns the specified [initial] value if the sequence is empty.\n * \n * @param
[operation] function that takes current accumulator value and an element, and calculates the next accumulator
value.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R> Sequence<T>.fold(initial: R, operation:
(acc: R, T) -> R): R {\n    var accumulator = initial\n    for (element in this) accumulator = operation(accumulator,
 element)\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying
[operation] from left to right\n * to current accumulator value and each element with its index in the original
sequence.\n * \n * Returns the specified [initial] value if the sequence is empty.\n * \n * @param [operation]
function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the
next accumulator value.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T, R>
Sequence<T>.foldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): R {\n    var index = 0\n    var
accumulator = initial\n    for (element in this) accumulator = operation(checkIndexOverflow(index++), accumulator,
element)\n    return accumulator\n}\n\n/**\n * Performs the given [action] on each element.\n *\n * The operation is
_terminal_.\n */\npublic inline fun <T> Sequence<T>.forEach(action: (T) -> Unit): Unit {\n    for
```

 (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.forEachIndexed(action: (index: Int, T) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(checkIndexOverflow(index++), item)\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Sequence<Double>.max(): Double? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Sequence<Float>.max(): Float? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T : Comparable<T>> Sequence<T>.max(): T? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <T, R : Comparable<R>> Sequence<T>.maxBy(selector: (T) -> R): T? {\n   return maxByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R : Comparable<R>> Sequence<T>.maxByOrNull(selector: (T) -> R): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxElem = iterator.next()\n   if (!iterator.hasNext()) return maxElem\n   var maxValue = selector(maxElem)\n   do {\n   val e = iterator.next()\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   } while (iterator.hasNext())\n   return maxElem\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the sequence is empty.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.maxOf(selector: (T) -> Double): Double {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the sequence is empty.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.maxOf(selector: (T) -> Float): Float {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the sequence.\n * \n * @throws NoSuchElementException if the sequence is empty.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Sequence<T>.maxOf(selector: (T) -> R): R {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return

maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the sequence or `null` if there are no elements.\n
 * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.maxOfOrNull(selector: (T) -> Double): Double? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the sequence or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
 inline fun <T> Sequence<T>.maxOfOrNull(selector: (T) -> Float): Float? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the sequence or `null` if there are no elements.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R : Comparable<R>> Sequence<T>.maxOfOrNull(selector: (T) -> R): R? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue = selector(iterator.next())\n
    while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the sequence.\n * \n * @throws NoSuchElementException if the sequence is empty.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Sequence<T>.maxOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the sequence or `null` if there are no elements.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R> Sequence<T>.maxOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var maxValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   if (comparator.compare(maxValue, v) < 0) {\n
    maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN`
 returns `NaN`.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic fun Sequence<Double>.maxOrNull(): Double? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   max = maxOf(max, e)\n
 }\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic fun Sequence<Float>.maxOrNull(): Float? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   max = maxOf(max, e)\n

}\n   return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Sequence<T>.maxOrNull(): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (max < e) max = e\n   }\n   return max\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T> Sequence<T>.maxWith(comparator: Comparator<in T>): T? {\n   return maxWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Sequence<T>.maxWithOrNull(comparator: Comparator<in T>): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var max = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Sequence<Double>.min(): Double? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.1\")\npublic fun Sequence<Float>.min(): Float? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T : Comparable<T>> Sequence<T>.min(): T? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <T, R : Comparable<R>> Sequence<T>.minBy(selector: (T) -> R): T? {\n   return minByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <T, R : Comparable<R>> Sequence<T>.minByOrNull(selector: (T) -> R): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var minElem = iterator.next()\n   if (!iterator.hasNext()) return minElem\n   var minValue = selector(minElem)\n   do {\n   val e = iterator.next()\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   } while (iterator.hasNext())\n   return minElem\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the sequence is empty.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.minOf(selector: (T) -> Double): Double {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the sequence is empty.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.minOf(selector: (T) -> Float): Float {\n   val iterator = iterator()\n   if (!iterator.hasNext()) throw NoSuchElementException()\n   var minValue = selector(iterator.next())\n   while (iterator.hasNext()) {\n   val v = selector(iterator.next())\n

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minValue = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all
values produced by [selector] function\n * applied to each element in the sequence.\n * \n * @throws
NoSuchElementException if the sequence is empty.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
 inline fun <T, R : Comparable<R>> Sequence<T>.minOf(selector: (T) -> R): R {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) throw NoSuchElementException()\n    var minValue = selector(iterator.next())\n    while
(iterator.hasNext()) {\n        val v = selector(iterator.next())\n        if (minValue > v) {\n            minValue = v\n
}\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector]
function\n * applied to each element in the sequence or `null` if there are no elements.\n * \n * If any of values
produced by [selector] function is `NaN`, the returned result is `NaN`.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.minOfOrNull(selector:
(T) -> Double): Double? {\n    val iterator =
 iterator()\n    if (!iterator.hasNext()) return null\n    var minValue = selector(iterator.next())\n    while
(iterator.hasNext()) {\n        val v = selector(iterator.next())\n        minValue = minOf(minValue, v)\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
each element in the sequence or `null` if there are no elements.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.minOfOrNull(selector:
(T) -> Float): Float? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var minValue =
selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v = selector(iterator.next())\n        minValue
 = minOf(minValue, v)\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value among all values
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The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
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Sequence<T>.minOfOrNull(selector: (T) -> R): R? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return
null\n    var minValue = selector(iterator.next())\n    while (iterator.hasNext()) {\n        val v =
selector(iterator.next())\n        if (minValue > v) {\n            minValue = v\n        }\n    }\n    return
minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values
produced by [selector] function applied to each element in the sequence.\n * \n * @throws
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 if the sequence is empty.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <T, R>
Sequence<T>.minOfWith(comparator: Comparator<in R>, selector: (T) -> R): R {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) throw NoSuchElementException()\n    var minValue = selector(iterator.next())\n    while
(iterator.hasNext()) {\n        val v = selector(iterator.next())\n        if (comparator.compare(minValue, v) > 0) {\n
   minValue = v\n        }\n    }\n    return minValue\n}\n\n/**\n * Returns the smallest value according to the
provided [comparator]\n * among all values produced by [selector] function applied to each element in the sequence
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ByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic
 inline fun <T, R> Sequence<T>.minOfWithOrNull(comparator: Comparator<in R>, selector: (T) -> R): R? {\n
val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var minValue = selector(iterator.next())\n    while
(iterator.hasNext()) {\n        val v = selector(iterator.next())\n        if (comparator.compare(minValue, v) > 0) {\n
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minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic fun Sequence<Double>.minOrNull(): Double? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest
element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic fun Sequence<Float>.minOrNull(): Float? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   min = minOf(min, e)\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T : Comparable<T>> Sequence<T>.minOrNull(): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (min > e) min = e\n   }\n   return min\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince
= \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun <T> Sequence<T>.minWith(comparator: Comparator<in T>): T? {\n   return minWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n *\n * The operation is _terminal_.\n */\n@SinceKotlin(\"1.4\")\npublic fun <T> Sequence<T>.minWithOrNull(comparator: Comparator<in T>): T? {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return null\n   var min = iterator.next()\n   while (iterator.hasNext()) {\n   val e = iterator.next()\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns `true` if the sequence has no elements.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun <T> Sequence<T>.none(): Boolean {\n   return !iterator().hasNext()\n}\n\n/**\n * Returns `true` if no elements match the
given [predicate].\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun <T> Sequence<T>.none(predicate: (T) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns a sequence which performs the given [action] on each element of the original sequence as they pass through it.\n *\n * The operation is _intermediate_ and _stateless_.\n */\n@SinceKotlin(\"1.1\")\npublic fun <T> Sequence<T>.onEach(action: (T) -> Unit): Sequence<T> {\n   return map {\n   action(it)\n   it\n   }\n}\n\n/**\n * Returns a sequence which performs the given [action] on each element of the original sequence as they pass through it.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n *\n * The operation is _intermediate_ and _stateless_.\n */\n@SinceKotlin(\"1.4\")\npublic
fun <T> Sequence<T>.onEachIndexed(action: (index: Int, T) -> Unit): Sequence<T> {\n   return mapIndexed { index, element ->\n   action(index, element)\n   element\n   }\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this sequence is empty. If the sequence can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun <S, T : S> Sequence<T>.reduce(operation: (acc: S, T) -> S): S {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) throw UnsupportedOperationException(\"Empty sequence can't be reduced.\")\n
    var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original sequence.\n * \n * Throws an exception if this sequence is empty. If the sequence can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n *

@param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun <S, T : S> Sequence<T>.reduceIndexed(operation: (index: Int, acc: S, T) -> S): S {\n   val iterator = this.iterator()\n   if (!iterator.hasNext())

throw UnsupportedOperationException(\"Empty sequence can't be reduced.\")\n   var index = 1\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(checkIndexOverflow(index++), accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original sequence.\n * \n * Returns `null` if the sequence is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <S, T : S> Sequence<T>.reduceIndexedOrNull(operation: (index: Int, acc: S, T) -> S): S? {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) return null\n   var index = 1\n   var accumulator: S = iterator.next()\n   while (iterator.hasNext()) {\n   accumulator = operation(checkIndexOverflow(index++), accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns `null` if the sequence is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <S, T : S> Sequence<T>.reduceOrNull(operation: (acc: S, T) -> S): S? {\n   val iterator = this.iterator()\n   if (!iterator.hasNext()) return null\n   var accumulator: S = iterator.next()\n

while (iterator.hasNext()) {\n   accumulator = operation(accumulator, iterator.next())\n   }\n   return accumulator\n}\n\n/**\n * Returns a sequence containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n * The [initial] value should also be immutable (or should not be mutated)\n * as it may be passed to [operation] function later because of sequence's lazy nature.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic fun <T, R> Sequence<T>.runningFold(initial:

R, operation: (acc: R, T) -> R): Sequence<R> {\n   return sequence {\n   yield(initial)\n   var accumulator = initial\n   for (element in this@runningFold) {\n   accumulator = operation(accumulator, element)\n yield(accumulator)\n   }\n   }\n}\n\n/**\n * Returns a sequence containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original sequence and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n * The [initial] value should also be immutable (or should not be mutated)\n * as it may be passed to [operation] function later because of sequence's lazy nature.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates

the next accumulator value.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic fun <T, R> Sequence<T>.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): Sequence<R> {\n   return sequence {\n   yield(initial)\n   var index = 0\n   var accumulator = initial\n   for (element in this@runningFoldIndexed) {\n   accumulator = operation(checkIndexOverflow(index++), accumulator,

element)\n   yield(accumulator)\n   }\n   }\n}\n\n/**\n * Returns a sequence containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this sequence.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n * \n
 * @param [operation] function that takes current accumulator value and the element, and calculates the next accumulator value.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <S, T : S> Sequence<T>.runningReduce(operation: (acc: S, T) -> S): Sequence<S> {\n   return sequence {\n   val iterator = iterator()\n   if (iterator.hasNext()) {\n   var accumulator: S = iterator.next()\n   yield(accumulator)\n   while (iterator.hasNext()) {\n   accumulator = operation(accumulator, iterator.next())\n   yield(accumulator)\n   }\n   }\n   }\n}\n\n/**\n * Returns a sequence containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original sequence and current accumulator value that
 starts with the first element of this sequence.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\npublic fun <S, T : S> Sequence<T>.runningReduceIndexed(operation: (index: Int, acc: S, T) -> S): Sequence<S> {\n   return sequence {\n   val iterator = iterator()\n   if (iterator.hasNext()) {\n   var accumulator: S = iterator.next()\n   yield(accumulator)\n   var index = 1\n   while (iterator.hasNext()) {\n   accumulator = operation(checkIndexOverflow(index++), accumulator, iterator.next())\n   yield(accumulator)\n   }\n   }\n   }\n}\n\n/**\n * Returns a sequence containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n * The [initial] value should also be immutable (or should not be mutated)\n * as it may be passed to [operation] function later because of sequence's lazy nature.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T, R> Sequence<T>.scan(initial: R, operation: (acc: R, T) ->
 R): Sequence<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a sequence containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original sequence and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting sequence.\n * The [initial] value should also be immutable (or should not be mutated)\n * as it may be passed to [operation] function later because of sequence's lazy nature.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic
 fun <T, R> Sequence<T>.scanIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): Sequence<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the sequence.\n *\n * The operation is _terminal_.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline

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fun <T> Sequence<T>.sumBy(selector: (T) -> Int): Int {\n    var sum: Int = 0\n    for (element in this) {\n        sum
+= selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the sequence.\n *\n * The operation is _terminal_.\n */\n@Deprecated(\"Use
sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince =
\"1.5\")\npublic inline fun <T> Sequence<T>.sumByDouble(selector: (T) -> Double): Double {\n    var sum:
 Double = 0.0\n    for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns
the sum of all values produced by [selector] function applied to each element in the sequence.\n *\n * The operation
is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@kotlin.internal.InlineOnly\npublic inline fun
<T> Sequence<T>.sumOf(selector: (T) -> Double): Double {\n    var sum: Double = 0.toDouble()\n    for (element
in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced
by [selector] function applied to each element in the sequence.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic
 inline fun <T> Sequence<T>.sumOf(selector: (T) -> Int): Int {\n    var sum: Int = 0.toInt()\n    for (element in this)
{\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the sequence.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun
<T> Sequence<T>.sumOf(selector: (T) -> Long): Long {\n    var sum: Long = 0.toLong()\n    for (element in this)
{\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the sequence.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedType
s::class)\n@kotlin.internal.InlineOnly\npublic
 inline fun <T> Sequence<T>.sumOf(selector: (T) -> UInt): UInt {\n    var sum: UInt = 0.toUInt()\n    for (element
in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced
by [selector] function applied to each element in the sequence.\n *\n * The operation is _terminal_.\n
*/\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTy
pes::class)\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.sumOf(selector: (T) -> ULong):
ULong {\n    var sum: ULong = 0.toULong()\n    for (element in this) {\n        sum += selector(element)\n    }\n
return sum\n}\n\n/**\n * Returns an original collection containing all the non-`null` elements, throwing
 an [IllegalArgumentException] if there are any `null` elements.\n *\n * The operation is _intermediate_ and
_stateless_.\n */\npublic fun <T : Any> Sequence<T?>.requireNoNulls(): Sequence<T> {\n    return map { it ?:
throw IllegalArgumentException(\"null element found in $this.\") }\n}\n\n/**\n * Splits this sequence into a
sequence of lists each not exceeding the given [size].\n * \n * The last list in the resulting sequence may have fewer
elements than the given [size].\n * \n * @param size the number of elements to take in each list, must be positive
and can be greater than the number of elements in this sequence.\n *\n * The operation is _intermediate_ and
_stateful_.\n * \n * @sample samples.collections.Collections.Transformations.chunked\n
*/\n@SinceKotlin(\"1.2\")\npublic fun <T> Sequence<T>.chunked(size: Int): Sequence<List<T>> {\n    return
windowed(size, size, partialWindows = true)\n}\n\n/**\n * Splits this sequence into several lists each not exceeding
the given [size]\n *
 and applies the given [transform] function to an each.\n * \n * @return sequence of results of the [transform]
applied to an each list.\n * \n * Note that the list passed to the [transform] function is ephemeral and is valid only
inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of
it.\n * The last list may have fewer elements than the given [size].\n * \n * @param size the number of elements to
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take in each list, must be positive and can be greater than the number of elements in this sequence.\n *\n * The operation is _intermediate_ and _stateful_.\n * \n * @sample samples.text.Strings.chunkedTransform\n */\n@SinceKotlin(\"1.2\")\npublic fun <T, R> Sequence<T>.chunked(size: Int, transform: (List<T>) -> R): Sequence<R> {\n   return windowed(size, size, partialWindows = true, transform = transform)\n}\n\n/**\n * Returns a sequence containing all elements of the original sequence without the first occurrence of the given [element].\n
 *\n * The operation is _intermediate_ and _stateless_.\n */\npublic operator fun <T> Sequence<T>.minus(element: T): Sequence<T> {\n   return object: Sequence<T> {\n   override fun iterator(): Iterator<T> {\n   var removed = false\n   return this@minus.filter { if (!removed && it == element) { removed = true; false } else true }.iterator()\n   }\n   }\n}\n\n/**\n * Returns a sequence containing all elements of original sequence except the elements contained in the given [elements] array.\n * \n * Note that the source sequence and the array being subtracted are iterated only when an `iterator` is requested from\n * the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n * \n * Before Kotlin 1.6, the [elements] array may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between
 successive invocations.\n * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n *\n * The operation is _intermediate_ and _stateful_.\n */\npublic operator fun <T> Sequence<T>.minus(elements: Array<out T>): Sequence<T> {\n   if (elements.isEmpty()) return this\n   return object: Sequence<T> {\n   override fun iterator(): Iterator<T> {\n   val other = elements.convertToSetForSetOperation()\n   return this@minus.filterNot { it in other }.iterator()\n   }\n   }\n}\n\n/**\n * Returns a sequence containing all elements of original sequence except the elements contained in the given [elements] collection.\n * \n * Note that the source sequence and the collection being subtracted are iterated only when an `iterator` is requested from\n * the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n * \n * Before Kotlin 1.6, the
 [elements] collection may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n *\n * The operation is _intermediate_ and _stateful_.\n */\npublic operator fun <T> Sequence<T>.minus(elements: Iterable<T>): Sequence<T> {\n   return object: Sequence<T> {\n   override fun iterator(): Iterator<T> {\n   val other = elements.convertToSetForSetOperation()\n   if (other.isEmpty())\n   return this@minus.iterator()\n   else\n   return this@minus.filterNot { it in other }.iterator()\n   }\n   }\n}\n\n/**\n * Returns a sequence containing all elements of original sequence except the elements contained in the given [elements] sequence.\n * \n
 * Note that the source sequence and the sequence being subtracted are iterated only when an `iterator` is requested from\n * the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n * \n * The operation is _intermediate_ for this sequence and _terminal_ and _stateful_ for the [elements] sequence.\n * \n * Before Kotlin 1.6, the [elements] sequence may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n */\npublic operator fun <T> Sequence<T>.minus(elements: Sequence<T>): Sequence<T> {\n   return object: Sequence<T> {\n   override fun iterator(): Iterator<T> {\n   val other = elements.convertToSetForSetOperation()\n
 if (other.isEmpty())\n   return this@minus.iterator()\n   else\n   return this@minus.filterNot { it in other }.iterator()\n   }\n   }\n}\n\n/**\n * Returns a sequence containing all elements of the original sequence without the first occurrence of the given [element].\n *\n * The operation is _intermediate_ and _stateless_.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.minusElement(element: T): Sequence<T> {\n   return minus(element)\n}\n\n/**\n * Splits the original sequence into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for

which [predicate] yielded `false`.\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Sequences.Transformations.partition\n */\npublic inline fun <T> Sequence<T>.partition(predicate: (T) -> Boolean): Pair<List<T>, List<T>> {\n   val first = ArrayList<T>()\n   val second = ArrayList<T>()\n

   for (element in this) {\n   if (predicate(element)) {\n   first.add(element)\n   } else {\n   second.add(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Returns a sequence containing all elements of the original sequence and then the given [element].\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic operator fun <T> Sequence<T>.plus(element: T): Sequence<T> {\n   return sequenceOf(this, sequenceOf(element)).flatten()\n}\n\n/**\n * Returns a sequence containing all elements of original sequence and then all elements of the given [elements] array.\n * \n * Note that the source sequence and the array being added are iterated only when an `iterator` is requested from\n * the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic operator fun <T> Sequence<T>.plus(elements: Array<out T>): Sequence<T>

 {\n   return this.plus(elements.asList())\n}\n\n/**\n * Returns a sequence containing all elements of original sequence and then all elements of the given [elements] collection.\n * \n * Note that the source sequence and the collection being added are iterated only when an `iterator` is requested from\n * the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n *\n * The operation is _intermediate_ and _stateless_.\n */\npublic operator fun <T> Sequence<T>.plus(elements: Iterable<T>): Sequence<T> {\n   return sequenceOf(this, elements.asSequence()).flatten()\n}\n\n/**\n * Returns a sequence containing all elements of original sequence and then all elements of the given [elements] sequence.\n * \n * Note that the source sequence and the sequence being added are iterated only when an `iterator` is requested from\n * the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n *\n

 * The operation is _intermediate_ and _stateless_.\n */\npublic operator fun <T> Sequence<T>.plus(elements: Sequence<T>): Sequence<T> {\n   return sequenceOf(this, elements).flatten()\n}\n\n/**\n * Returns a sequence containing all elements of the original sequence and then the given [element].\n *\n * The operation is _intermediate_ and _stateless_.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.plusElement(element: T): Sequence<T> {\n   return plus(element)\n}\n\n/**\n * Returns a sequence of snapshots of the window of the given [size]\n * sliding along this sequence with the given [step], where each\n * snapshot is a list.\n * \n * Several last lists may have fewer elements than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in this sequence.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default

 1\n * @param partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.takeWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun <T> Sequence<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false): Sequence<List<T>> {\n   return windowedSequence(size, step, partialWindows, reuseBuffer = false)\n}\n\n/**\n * Returns a sequence of results of applying the given [transform] function to\n * an each list representing a view over the window of the given [size]\n * sliding along this sequence with the given [step].\n * \n * Note that the list passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * Several last lists may have fewer elements than the given [size].\n * \n * Both [size] and [step]

 must be positive and can be greater than the number of elements in this sequence.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.averageWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun <T, R> Sequence<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false, transform: (List<T>) -> R):

Sequence<R> {\n   return windowedSequence(size, step, partialWindows, reuseBuffer = true).map(transform)\n}\n\n/**\n * Returns a sequence of values built from the elements of `this` sequence and the [other] sequence with the same index.\n * The resulting sequence ends as soon as the shortest input sequence ends.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Sequences.Transformations.zip\n */\npublic infix fun <T, R> Sequence<T>.zip(other: Sequence<R>): Sequence<Pair<T, R>> {\n   return MergingSequence(this, other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a sequence of values built from the elements of `this` sequence and the [other] sequence with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The resulting sequence ends as soon as the shortest input sequence ends.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Sequences.Transformations.zipWithTransform\n */\npublic fun <T, R, V> Sequence<T>.zip(other: Sequence<R>, transform: (a: T, b: R) -> V): Sequence<V> {\n   return MergingSequence(this, other, transform)\n}\n\n/**\n * Returns a sequence of pairs of each two adjacent elements in this sequence.\n * \n * The returned sequence is empty if this sequence contains less than two elements.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNext\n */\n@SinceKotlin(\"1.2\")\npublic fun <T> Sequence<T>.zipWithNext(): Sequence<Pair<T, T>> {\n   return zipWithNext { a, b -> a to b }\n}\n\n/**\n * Returns a sequence containing the results of applying the given [transform] function\n * to an each pair of two adjacent elements in this sequence.\n * \n * The returned sequence is empty if this sequence contains less than two elements.\n *\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNextToFindDeltas\n */\n@SinceKotlin(\"1.2\")\npublic fun <T, R> Sequence<T>.zipWithNext(transform: (a: T, b: T) -> R): Sequence<R> {\n   return sequence result@ {\n   val iterator = iterator()\n   if (!iterator.hasNext()) return@result\n   var current = iterator.next()\n   while (iterator.hasNext()) {\n   val next = iterator.next()\n   yield(transform(current, next))\n   current = next\n   }\n   }\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <T, A : Appendable> Sequence<T>.joinTo(buffer: A, separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): A {\n   buffer.append(prefix)\n   var count = 0\n   for (element in this) {\n   if (++count > 1) buffer.append(separator)\n   if (limit < 0 || count <= limit) {\n   buffer.appendElement(element, transform)\n   } else break\n   }\n   if (limit >= 0 && count > limit) buffer.append(truncated)\n   buffer.append(postfix)\n   return buffer\n}\n\n/**\n * Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to \"...\").\n *\n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun <T> Sequence<T>.joinToString(separator: CharSequence = \", \", prefix: CharSequence = \"\", postfix: CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((T) -> CharSequence)? = null): String {\n   return joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original sequence returning its elements when being iterated.\n */\npublic fun <T> Sequence<T>.asIterable(): Iterable<T> {\n   return Iterable { this.iterator() }\n}\n\n/**\n * Returns this sequence as a [Sequence].\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.asSequence(): Sequence<T> {\n   return this\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"averageOfByte\")\npublic fun Sequence<Byte>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum /

count\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"averageOfShort\")\npublic fun Sequence<Short>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"averageOfInt\")\npublic fun Sequence<Int>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"averageOfLong\")\npublic fun Sequence<Long>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n   checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"averageOfFloat\")\npublic fun Sequence<Float>.average(): Double {\n var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"averageOfDouble\")\npublic fun Sequence<Double>.average(): Double {\n   var sum: Double = 0.0\n   var count: Int = 0\n   for (element in this) {\n   sum += element\n checkCountOverflow(++count)\n   }\n   return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfByte\")\npublic fun Sequence<Byte>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfShort\")\npublic fun Sequence<Short>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfInt\")\npublic fun Sequence<Int>.sum(): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfLong\")\npublic fun Sequence<Long>.sum(): Long {\n   var sum: Long = 0L\n for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfFloat\")\npublic fun Sequence<Float>.sum(): Float {\n   var sum: Float = 0.0f\n   for (element in this) {\n   sum += element\n   }\n return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfDouble\")\npublic fun Sequence<Double>.sum(): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"SetsKt\")\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns a set containing all elements of the original set except the given [element].\n * \n * The returned set preserves the element iteration order of the original set.\n */\npublic operator fun <T> Set<T>.minus(element: T): Set<T> {\n   val result = LinkedHashSet<T>(mapCapacity(size))\n   var removed = false\n   return this.filterTo(result) { if (!removed && it == element) { removed = true; false } else true }\n}\n\n/**\n * Returns a set containing all elements of the original set except the elements contained in the given [elements] array.\n * \n * The returned set preserves the element iteration order of the original set.\n * \n * Before Kotlin 1.6, the [elements] array may have been converted to a

[HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n
 * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n */\npublic operator fun <T> Set<T>.minus(elements: Array<out T>): Set<T> {\n   val result = LinkedHashSet<T>(this)\n result.removeAll(elements)\n   return result\n}\n\n/**\n * Returns a set containing all elements of the original set except the elements contained in the given [elements] collection.\n * \n * The returned set preserves the element iteration order of the original set.\n * \n * Before Kotlin 1.6, the [elements] collection may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n */\npublic operator fun <T> Set<T>.minus(elements: Iterable<T>):
 Set<T> {\n   val other = elements.convertToSetForSetOperationWith(this)\n   if (other.isEmpty())\n   return this.toSet()\n   if (other is Set)\n   return this.filterNotTo(LinkedHashSet<T>()) { it in other }\n   val result = LinkedHashSet<T>(this)\n   result.removeAll(other)\n   return result\n}\n\n/**\n * Returns a set containing all elements of the original set except the elements contained in the given [elements] sequence.\n * \n * The returned set preserves the element iteration order of the original set.\n * \n * Before Kotlin 1.6, the [elements] sequence may have been converted to a [HashSet] to speed up the operation, thus the elements were required to have\n * a correct and stable implementation of `hashCode()` that didn't change between successive invocations.\n * On JVM, you can enable this behavior back with the system property `kotlin.collections.convert_arg_to_set_in_removeAll` set to `true`.\n */\npublic operator fun <T> Set<T>.minus(elements: Sequence<T>):
 Set<T> {\n   val result = LinkedHashSet<T>(this)\n   result.removeAll(elements)\n   return result\n}\n\n/**\n * Returns a set containing all elements of the original set except the given [element].\n * \n * The returned set preserves the element iteration order of the original set.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Set<T>.minusElement(element: T): Set<T> {\n   return minus(element)\n}\n\n/**\n * Returns a set containing all elements of the original set and then the given [element] if it isn't already in this set.\n * \n * The returned set preserves the element iteration order of the original set.\n */\npublic operator fun <T> Set<T>.plus(element: T): Set<T> {\n   val result = LinkedHashSet<T>(mapCapacity(size + 1))\n   result.addAll(this)\n result.add(element)\n   return result\n}\n\n/**\n * Returns a set containing all elements of the original set and the given [elements] array,\n * which aren't already in this set.\n * \n * The returned set preserves
 the element iteration order of the original set.\n */\npublic operator fun <T> Set<T>.plus(elements: Array<out T>): Set<T> {\n   val result = LinkedHashSet<T>(mapCapacity(this.size + elements.size))\n   result.addAll(this)\n result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a set containing all elements of the original set and the given [elements] collection,\n * which aren't already in this set.\n * The returned set preserves the element iteration order of the original set.\n */\npublic operator fun <T> Set<T>.plus(elements: Iterable<T>): Set<T> {\n val result = LinkedHashSet<T>(mapCapacity(elements.collectionSizeOrNull()?.let { this.size + it } ?: this.size * 2))\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a set containing all elements of the original set and the given [elements] sequence,\n * which aren't already in this set.\n * \n * The returned set preserves the element iteration order of the original set.\n
 */\npublic operator fun <T> Set<T>.plus(elements: Sequence<T>): Set<T> {\n   val result = LinkedHashSet<T>(mapCapacity(this.size * 2))\n   result.addAll(this)\n   result.addAll(elements)\n   return result\n}\n\n/**\n * Returns a set containing all elements of the original set and then the given [element] if it isn't already in this set.\n * \n * The returned set preserves the element iteration order of the original set.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Set<T>.plusElement(element: T): Set<T> {\n   return plus(element)\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
 */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n\npackage

kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n * Returns a character at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this char sequence.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun CharSequence.elementAt(index: Int): Char\n\n/**\n * Returns a character at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this char sequence.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.elementAtOrElse(index: Int, defaultValue: (Int) -> Char): Char {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns a character at the given [index] or `null` if the [index] is out of bounds of this char sequence.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.elementAtOrNull(index: Int): Char? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns the first character matching the given [predicate], or `null` if no such character was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.find(predicate: (Char) -> Boolean): Char? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the last character matching the given [predicate], or `null` if no such character was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.findLast(predicate: (Char) -> Boolean): Char? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns first character.\n * @throws [NoSuchElementException] if the char sequence is empty.\n */\npublic fun CharSequence.first(): Char {\n   if (isEmpty())\n   throw NoSuchElementException(\"Char sequence is empty.\")\n   return this[0]\n}\n\n/**\n * Returns the first character matching the given [predicate].\n * @throws [NoSuchElementException] if no such character is found.\n */\npublic inline fun CharSequence.first(predicate: (Char) -> Boolean): Char {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Char sequence contains no character matching the predicate.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to characters of this char sequence in iteration order,\n * or throws [NoSuchElementException] if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <R : Any> CharSequence.firstNotNullOf(transform: (Char) -> R?): R {\n   return firstNotNullOfOrNull(transform) ?: throw NoSuchElementException(\"No element of the char sequence was transformed to a non-null value.\")\n}\n\n/**\n * Returns the first non-null value produced by [transform] function being applied to characters of this char sequence in iteration order,\n * or `null` if no non-null value was produced.\n * \n * @sample samples.collections.Collections.Transformations.firstNotNullOf\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun <R : Any> CharSequence.firstNotNullOfOrNull(transform: (Char) -> R?): R? {\n   for (element in this) {\n   val result = transform(element)\n   if (result != null) {\n   return result\n   }\n   }\n   return null\n}\n\n/**\n * Returns the first character, or `null` if the char sequence is empty.\n */\npublic fun CharSequence.firstOrNull(): Char? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first character matching the given [predicate], or `null` if character was not found.\n */\npublic inline fun CharSequence.firstOrNull(predicate: (Char) -> Boolean): Char? {\n   for (element in this) if (predicate(element)) return element\n   return null\n}\n\n/**\n * Returns a character at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this char sequence.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.getOrElse(index: Int, defaultValue: (Int) -> Char): Char {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns a character at the given [index] or `null` if the [index] is out of bounds of this char sequence.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\npublic fun CharSequence.getOrNull(index: Int): Char? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns index of the first character matching the given [predicate], or -1 if the char sequence does not contain such character.\n */\npublic inline fun CharSequence.indexOfFirst(predicate: (Char) -> Boolean): Int {\n for (index in indices) {\n if (predicate(this[index])) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns index of the last character matching the given [predicate], or -1 if the char sequence does not contain such character.\n */\npublic inline fun CharSequence.indexOfLast(predicate: (Char) -> Boolean): Int {\n for (index in indices.reversed()) {\n if (predicate(this[index])) {\n return index\n }\n }\n return -1\n}\n\n/**\n * Returns the last character.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n * \n * @sample samples.text.Strings.last\n */\npublic fun CharSequence.last(): Char {\n if (isEmpty())\n throw NoSuchElementException(\"Char sequence is empty.\")\n return this[lastIndex]\n}\n\n/**\n * Returns the last character matching the given [predicate].\n * \n * @throws NoSuchElementException if no such character is found.\n * \n * @sample samples.text.Strings.last\n */\npublic inline fun CharSequence.last(predicate: (Char) -> Boolean): Char {\n for (index in this.indices.reversed()) {\n val element = this[index]\n if (predicate(element)) return element\n }\n throw NoSuchElementException(\"Char sequence contains no character matching the predicate.\")\n}\n\n/**\n * Returns the last character, or `null` if the char sequence is empty.\n * \n * @sample samples.text.Strings.last\n */\npublic fun CharSequence.lastOrNull(): Char? {\n return if (isEmpty()) null else this[length - 1]\n}\n\n/**\n * Returns the last character matching the given [predicate], or `null` if no such character was found.\n * \n * @sample samples.text.Strings.last\n */\npublic inline fun CharSequence.lastOrNull(predicate: (Char) -> Boolean): Char? {\n for (index in this.indices.reversed()) {\n val element = this[index]\n if (predicate(element)) return element\n }\n return null\n}\n\n/**\n * Returns a random character from this char sequence.\n * \n * @throws NoSuchElementException if this char sequence is empty.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.random(): Char {\n return random(Random)\n}\n\n/**\n * Returns a random character from this char sequence using the specified source of randomness.\n * \n * @throws NoSuchElementException if this char sequence is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun CharSequence.random(random: Random): Char {\n if (isEmpty())\n throw NoSuchElementException(\"Char sequence is empty.\")\n return get(random.nextInt(length))\n}\n\n/**\n * Returns a random character from this char sequence, or `null` if this char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.randomOrNull(): Char? {\n return randomOrNull(Random)\n}\n\n/**\n * Returns a random character from this char sequence using the specified source of randomness, or `null` if this char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun CharSequence.randomOrNull(random: Random): Char? {\n if (isEmpty())\n return null\n return get(random.nextInt(length))\n}\n\n/**\n * Returns the single character, or throws an exception if the char sequence is empty or has more than one character.\n */\npublic fun CharSequence.single(): Char {\n return when (length) {\n 0 -> throw NoSuchElementException(\"Char sequence is empty.\")\n 1 -> this[0]\n else -> throw IllegalArgumentException(\"Char sequence has more than one element.\")\n }\n}\n\n/**\n * Returns the single character matching the given [predicate], or throws exception if there is no or more than one matching character.\n */\npublic inline fun CharSequence.single(predicate: (Char) -> Boolean): Char {\n var single: Char? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw IllegalArgumentException(\"Char sequence contains more than one matching element.\")\n single = element\n found = true\n }\n }\n if (!found) throw NoSuchElementException(\"Char sequence contains no character matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n return single as Char\n}\n\n/**\n * Returns single character, or `null` if the char sequence is empty or has more than one character.\n */\npublic fun CharSequence.singleOrNull(): Char? {\n return if (length == 1) this[0] else null\n}\n\n/**\n * Returns the single character matching the given [predicate], or `null` if character was not found or more than one character was found.\n */\npublic inline fun CharSequence.singleOrNull(predicate: (Char) -> Boolean): Char? {\n var single: Char? = null\n var found =

false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns a subsequence of this char sequence with the first [n] characters removed.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.drop\n */\npublic fun CharSequence.drop(n: Int): CharSequence {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   return subSequence(n.coerceAtMost(length), length)\n}\n\n/**\n * Returns a string with the first [n] characters removed.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.drop\n */\npublic fun String.drop(n: Int): String {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   return substring(n.coerceAtMost(length))\n}\n\n/**\n * Returns a subsequence of this char sequence with the last [n] characters removed.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.drop\n */\npublic fun CharSequence.dropLast(n: Int): CharSequence {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   return take((length - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a string with the last [n] characters removed.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.drop\n */\npublic fun String.dropLast(n: Int): String {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   return take((length - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a subsequence of this char sequence containing all characters except last characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.drop\n */\npublic inline fun CharSequence.dropLastWhile(predicate: (Char) -> Boolean): CharSequence {\n   for (index in lastIndex downTo 0)\n   if (!predicate(this[index]))\n   return subSequence(0, index + 1)\n   return \"\"\n}\n\n/**\n * Returns a string containing all characters except last characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.drop\n */\npublic inline fun String.dropLastWhile(predicate: (Char) -> Boolean): String {\n   for (index in lastIndex downTo 0)\n   if (!predicate(this[index]))\n   return substring(0, index + 1)\n   return \"\"\n}\n\n/**\n * Returns a subsequence of this char sequence containing all characters except first characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.drop\n */\npublic inline fun CharSequence.dropWhile(predicate: (Char) -> Boolean): CharSequence {\n   for (index in this.indices)\n   if (!predicate(this[index]))\n   return subSequence(index, length)\n   return \"\"\n}\n\n/**\n * Returns a string containing all characters except first characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.drop\n */\npublic inline fun String.dropWhile(predicate: (Char) -> Boolean): String {\n   for (index in this.indices)\n   if (!predicate(this[index]))\n   return substring(index)\n   return \"\"\n}\n\n/**\n * Returns a char sequence containing only those characters from the original char sequence that match the given [predicate].\n * \n * @sample samples.text.Strings.filter\n */\npublic inline fun CharSequence.filter(predicate: (Char) -> Boolean): CharSequence {\n   return filterTo(StringBuilder(), predicate)\n}\n\n/**\n * Returns a string containing only those characters from the original string that match the given [predicate].\n * \n * @sample samples.text.Strings.filter\n */\npublic inline fun String.filter(predicate: (Char) -> Boolean): String {\n   return filterTo(StringBuilder(), predicate).toString()\n}\n\n/**\n * Returns a char sequence containing only those characters from the original char sequence that match the given [predicate].\n * @param [predicate] function that takes the index of a character and the character itself\n * and returns the result of predicate evaluation on the character.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun CharSequence.filterIndexed(predicate: (index: Int, Char) -> Boolean): CharSequence {\n   return filterIndexedTo(StringBuilder(), predicate)\n}\n\n/**\n * Returns a string containing only those characters from the original string that match the given [predicate].\n * @param [predicate] function that takes the index of a character and the character itself\n * and returns the result of predicate evaluation on the character.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\npublic inline fun String.filterIndexed(predicate: (index: Int, Char) -> Boolean): String {\n   return filterIndexedTo(StringBuilder(), predicate).toString()\n}\n\n/**\n * Appends all characters matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of a character and the character itself\n * and returns the result of predicate evaluation on the character.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\npublic inline fun <C : Appendable> CharSequence.filterIndexedTo(destination: C, predicate: (index: Int, Char) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.append(element)\n   }\n   return destination\n}\n\n/**\n * Returns a char sequence containing only those characters from the original char sequence that do not match the given [predicate].\n * \n * @sample samples.text.Strings.filterNot\n */\npublic inline fun CharSequence.filterNot(predicate: (Char) -> Boolean): CharSequence {\n   return filterNotTo(StringBuilder(), predicate)\n}\n\n/**\n * Returns a string containing only those characters from the original string that do not match the given [predicate].\n * \n * @sample samples.text.Strings.filterNot\n */\npublic inline fun String.filterNot(predicate: (Char) -> Boolean): String {\n   return filterNotTo(StringBuilder(), predicate).toString()\n}\n\n/**\n * Appends all characters not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : Appendable> CharSequence.filterNotTo(destination: C, predicate: (Char) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.append(element)\n   return destination\n}\n\n/**\n * Appends all characters matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\npublic inline fun <C : Appendable> CharSequence.filterTo(destination: C, predicate: (Char) -> Boolean): C {\n   for (index in 0 until length) {\n   val element = get(index)\n   if (predicate(element)) destination.append(element)\n   }\n   return destination\n}\n\n/**\n * Returns a char sequence containing characters of the original char sequence at the specified range of [indices].\n */\npublic fun CharSequence.slice(indices: IntRange): CharSequence {\n   if (indices.isEmpty()) return \"\"\n   return subSequence(indices)\n}\n\n/**\n * Returns a string containing characters of the original string at the specified range of [indices].\n */\npublic fun String.slice(indices: IntRange): String {\n   if (indices.isEmpty()) return \"\"\n   return substring(indices)\n}\n\n/**\n * Returns a char sequence containing characters of the original char sequence at specified [indices].\n */\npublic fun CharSequence.slice(indices: Iterable<Int>): CharSequence {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return \"\"\n   val result = StringBuilder(size)\n   for (i in indices) {\n   result.append(get(i))\n   }\n   return result\n}\n\n/**\n * Returns a string containing characters of the original string at specified [indices].\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.slice(indices: Iterable<Int>): String {\n   return (this as CharSequence).slice(indices).toString()\n}\n\n/**\n * Returns a subsequence of this char sequence containing the first [n] characters from this char sequence, or the entire char sequence if this char sequence is shorter.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.take\n */\npublic fun CharSequence.take(n: Int): CharSequence {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   return subSequence(0, n.coerceAtMost(length))\n}\n\n/**\n * Returns a string containing the first [n] characters from this string, or the entire string if this string is shorter.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.take\n */\npublic fun String.take(n: Int): String {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   return substring(0, n.coerceAtMost(length))\n}\n\n/**\n * Returns a subsequence of this char sequence containing the last [n] characters from this char sequence, or the entire char sequence if this char sequence is shorter.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.take\n */\npublic fun CharSequence.takeLast(n: Int): CharSequence {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   val length = length\n   return subSequence(length - n.coerceAtMost(length), length)\n}\n\n/**\n * Returns a string containing the last [n] characters from this string, or the entire string if this string is shorter.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.take\n */\npublic fun String.takeLast(n: Int): String {\n   require(n >= 0) { \"Requested character count $n is less than zero.\" }\n   val length = length\n   return substring(length - n.coerceAtMost(length))\n}\n\n/**\n * Returns a subsequence of this char sequence containing last characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.take\n */\npublic inline fun CharSequence.takeLastWhile(predicate: (Char) -> Boolean): CharSequence {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return subSequence(index + 1, length)\n   }\n   }\n   return subSequence(0, length)\n}\n\n/**\n * Returns a string containing last characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.take\n */\npublic inline fun String.takeLastWhile(predicate: (Char) -> Boolean): String {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n   return substring(index + 1)\n   }\n   }\n   return this\n}\n\n/**\n * Returns a subsequence of this char sequence containing the first characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.take\n */\npublic inline fun CharSequence.takeWhile(predicate: (Char) -> Boolean): CharSequence {\n   for (index in 0 until length)\n   if (!predicate(get(index))) {\n   return subSequence(0, index)\n   }\n   return subSequence(0, length)\n}\n\n/**\n * Returns a string containing the first characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.take\n */\npublic inline fun String.takeWhile(predicate: (Char) -> Boolean): String {\n   for (index in 0 until length)\n   if (!predicate(get(index))) {\n   return substring(0, index)\n   }\n   return this\n}\n\n/**\n * Returns a char sequence with characters in reversed order.\n */\npublic fun CharSequence.reversed(): CharSequence {\n   return StringBuilder(this).reverse()\n}\n\n/**\n * Returns a string with characters in reversed order.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.reversed(): String {\n   return (this as CharSequence).reversed().toString()\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to characters of the given char sequence.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original char sequence.\n * \n * @sample samples.text.Strings.associate\n */\npublic inline fun <K, V> CharSequence.associate(transform: (Char) -> Pair<K, V>): Map<K, V> {\n   val capacity = mapCapacity(length).coerceAtLeast(16)\n   return associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing the characters from the given char sequence indexed by the key\n * returned from [keySelector] function applied to each character.\n * \n * If any two characters would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original char sequence.\n * \n * @sample samples.text.Strings.associateBy\n */\npublic inline fun <K> CharSequence.associateBy(keySelector: (Char) -> K): Map<K, Char> {\n   val capacity = mapCapacity(length).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, Char>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to characters of the given char sequence.\n * \n * If any two characters would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original char sequence.\n * \n * @sample samples.text.Strings.associateByWithValueTransform\n */\npublic inline fun <K, V> CharSequence.associateBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, V> {\n   val capacity = mapCapacity(length).coerceAtLeast(16)\n   return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function applied to each character of the given char sequence\n * and value is the character itself.\n * \n * If any two characters would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.text.Strings.associateByTo\n */\npublic inline fun <K, M : MutableMap<in K, in Char>> CharSequence.associateByTo(destination: M, keySelector: (Char) -> K): M {\n   for (element in this) {\n   destination.put(keySelector(element), element)\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n * and value is provided by the [valueTransform] function applied to characters of the given char sequence.\n * \n * If any two characters would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * @sample samples.text.Strings.associateByToWithValueTransform\n

*/\npublic inline fun <K, V, M : MutableMap<in K, in V>> CharSequence.associateByTo(destination: M, keySelector: (Char) -> K, valueTransform: (Char) -> V): M {\n   for (element in this) {\n   destination.put(keySelector(element), valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs\n * provided by [transform] function applied to each character of the given char sequence.\n * \n * If any of two pairs would have the same key the last one gets added to the map.\n * \n * @sample samples.text.Strings.associateTo\n */\npublic inline fun <K, V, M : MutableMap<in K, in V>> CharSequence.associateTo(destination: M, transform: (Char) -> Pair<K, V>): M {\n   for (element in this) {\n   destination += transform(element)\n   }\n   return destination\n}\n\n/**\n * Returns a [Map] where keys are characters from the given char sequence and values are\n * produced by the [valueSelector]

function applied to each character.\n * \n * If any two characters are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original char sequence.\n * \n * @sample samples.text.Strings.associateWith\n */\n@SinceKotlin(\"1.3\")\npublic inline fun <V> CharSequence.associateWith(valueSelector: (Char) -> V): Map<Char, V> {\n   val result = LinkedHashMap<Char, V>(mapCapacity(length.coerceAtMost(128)).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each character of the given char sequence,\n * where key is the character itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two characters are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.text.Strings.associateWithTo\n */\n@SinceKotlin(\"1.3\")\npublic inline fun <V, M : MutableMap<in

Char, in V>> CharSequence.associateWithTo(destination: M, valueSelector: (Char) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Appends all characters to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Char>> CharSequence.toCollection(destination: C): C {\n   for (item in this) {\n   destination.add(item)\n   }\n   return destination\n}\n\n/**\n * Returns a new [HashSet] of all characters.\n */\npublic fun CharSequence.toHashSet(): HashSet<Char> {\n   return toCollection(HashSet<Char>(mapCapacity(length.coerceAtMost(128))))\n}\n\n/**\n * Returns a [List] containing all characters.\n */\npublic fun CharSequence.toList(): List<Char> {\n   return when (length) {\n   0 -> emptyList()\n   1 -> listOf(this[0])\n   else -> this.toMutableList()\n   }\n}\n\n/**\n * Returns a new [MutableList] filled with all characters of this char sequence.\n

*/\npublic fun CharSequence.toMutableList(): MutableList<Char> {\n   return toCollection(ArrayList<Char>(length))\n}\n\n/**\n * Returns a [Set] of all characters.\n * \n * The returned set preserves the element iteration order of the original char sequence.\n */\npublic fun CharSequence.toSet(): Set<Char> {\n   return when (length) {\n   0 -> emptySet()\n   1 -> setOf(this[0])\n   else -> toCollection(LinkedHashSet<Char>(mapCapacity(length.coerceAtMost(128))))\n   }\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each character of original char sequence.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\npublic inline fun <R> CharSequence.flatMap(transform: (Char) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each character\n

* and its index in the original char sequence.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterable\")\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharSequence.flatMapIndexed(transform: (index: Int, Char) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each character\n * and its index in the original char sequence, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"flatMapIndexedIterableTo\")\n@kotlin.internal.InlineOnly\npubli

c inline fun <R, C : MutableCollection<in R>> CharSequence.flatMapIndexedTo(destination: C, transform: (index: Int, Char) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each character of original char sequence, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> CharSequence.flatMapTo(destination: C, transform: (Char) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Groups characters of the original char sequence by the key returned by the given [keySelector] function\n * applied to each character and returns a map where each group key is associated with a list of corresponding characters.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original char sequence.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K> CharSequence.groupBy(keySelector: (Char) -> K): Map<K, List<Char>> {\n   return groupByTo(LinkedHashMap<K, MutableList<Char>>(), keySelector)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each character of the original char sequence\n * by the key returned by the given [keySelector] function applied to the character\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original char sequence.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V> CharSequence.groupBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups characters of the original char sequence by the key returned by the given [keySelector] function\n * applied to each character and puts to the [destination] map each group key associated with a list of corresponding characters.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline fun <K, M : MutableMap<in K, MutableList<Char>>> CharSequence.groupByTo(destination: M, keySelector: (Char) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<Char>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each character of the original char sequence\n * by the key returned by the given [keySelector] function applied to the character\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> CharSequence.groupByTo(destination: M, keySelector: (Char) -> K, valueTransform: (Char) -> V): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<V>() }\n   list.add(valueTransform(element))\n   }\n   return destination\n}\n\n/**\n * Creates a [Grouping] source from a char sequence to be used later with one of group-and-fold operations\n * using the specified [keySelector] function to extract a key from each character.\n * \n * @sample samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <K> CharSequence.groupingBy(crossinline keySelector: (Char) -> K): Grouping<Char, K> {\n   return object : Grouping<Char, K> {\n   override fun sourceIterator(): Iterator<Char> = this@groupingBy.iterator()\n   override fun keyOf(element: Char): K = keySelector(element)\n   }\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each character in the original char sequence.\n * \n * @sample samples.text.Strings.map\n */\npublic inline fun <R> CharSequence.map(transform: (Char) -> R): List<R> {\n   return mapTo(ArrayList<R>(length), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each character and its index in the original char sequence.\n * @param [transform] function that takes the index of a character and the character itself\n * and returns the result of the transform applied to the character.\n */\npublic inline fun <R> CharSequence.mapIndexed(transform: (index: Int, Char) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(length), transform)\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each character and its index in the original char sequence.\n * @param [transform] function that takes the index of a character and the character itself\n * and returns the result of the transform applied to the character.\n */\npublic inline fun <R : Any> CharSequence.mapIndexedNotNull(transform: (index: Int, Char) -> R?): List<R> {\n   return mapIndexedNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each character and its index in the original char sequence\n * and appends only the non-null results to the given [destination].\n * @param [transform] function that takes the index of a character and the character itself\n * and returns the result of the transform applied to the character.\n */\npublic inline fun <R : Any, C : MutableCollection<in R>> CharSequence.mapIndexedNotNullTo(destination: C, transform: (index: Int, Char) -> R?): C {\n   forEachIndexed { index, element -> transform(index, element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each character and its index in the original char sequence\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of a character and the character itself\n * and returns the result of the transform applied to the character.\n */\npublic inline fun <R, C : MutableCollection<in R>> CharSequence.mapIndexedTo(destination: C, transform: (index: Int, Char) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform] function\n * to each character in the original char sequence.\n * \n * @sample samples.collections.Collections.Transformations.mapNotNull\n */\npublic inline fun <R : Any> CharSequence.mapNotNull(transform: (Char) -> R?): List<R> {\n   return mapNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each character in the original char sequence\n * and appends only the non-null results to the given [destination].\n */\npublic inline fun <R : Any, C : MutableCollection<in R>> CharSequence.mapNotNullTo(destination: C, transform: (Char) -> R?): C {\n   forEach { element -> transform(element)?.let { destination.add(it) } }\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each character of the original char sequence\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> CharSequence.mapTo(destination: C, transform: (Char) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each character of the original char sequence\n * into an [IndexedValue] containing the index of that character and the character itself.\n */\npublic fun CharSequence.withIndex(): Iterable<IndexedValue<Char>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns `true` if all characters match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun CharSequence.all(predicate: (Char) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if char sequence has at least one character.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun CharSequence.any(): Boolean {\n   return !isEmpty()\n}\n\n/**\n * Returns `true` if at least one character matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun CharSequence.any(predicate: (Char) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns the length of this char sequence.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.count(): Int {\n   return length\n}\n\n/**\n * Returns the number of characters matching the given [predicate].\n */\npublic inline fun CharSequence.count(predicate: (Char) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each character.\n * \n * Returns the specified [initial] value if the char sequence is empty.\n * \n * @param [operation] function that takes current accumulator value and a character, and calculates the next accumulator value.\n */\npublic inline fun <R> CharSequence.fold(initial: R, operation: (acc: R, Char) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each character with its index in the original char sequence.\n * \n * Returns the specified [initial] value if the char sequence is empty.\n * \n * @param [operation] function that takes the index of a character, current accumulator value\n * and the character itself, and calculates the next accumulator value.\n */\npublic inline fun <R> CharSequence.foldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each character and current accumulator value.\n * \n * Returns the specified [initial] value if the char sequence is empty.\n * \n * @param [operation] function that takes a character and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> CharSequence.foldRight(initial: R, operation: (Char, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each character with its index in the original char sequence and current accumulator value.\n * \n * Returns the specified [initial] value if the char sequence is empty.\n * \n * @param [operation] function that takes the index of a character, the character itself\n * and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R> CharSequence.foldRightIndexed(initial: R, operation: (index: Int, Char, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Performs the given [action] on each character.\n */\npublic inline fun CharSequence.forEach(action: (Char) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each character, providing sequential index with the character.\n * @param [action] function that takes the index of a character and the character itself\n * and performs the action on the character.\n */\npublic inline fun CharSequence.forEachIndexed(action: (index: Int, Char) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun CharSequence.max(): Char? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> CharSequence.maxBy(selector: (Char) -> R): Char? {\n   return maxByOrNull(selector)\n}\n\n/**\n * Returns the first character yielding the largest value of the given function or `null` if there are no characters.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> CharSequence.maxByOrNull(selector: (Char) -> R): Char? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.maxOf(selector: (Char) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.maxOf(selector: (Char) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> CharSequence.maxOf(selector: (Char) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.maxOfOrNull(selector: (Char) -> Double): Double? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.maxOfOrNull(selector: (Char) -> Float): Float? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> CharSequence.maxOfOrNull(selector: (Char) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each character in the char sequence.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharSequence.maxOfWith(comparator: Comparator<in R>, selector: (Char) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each character in the char sequence or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharSequence.maxOfWithOrNull(comparator: Comparator<in R>, selector: (Char) -> R): R? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(maxValue, v) < 0) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest character or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharSequence.maxOrNull(): Char? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex)

{\n   val e = this[i]\n   if (max < e) max = e\n   }\n   return max\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun CharSequence.maxWith(comparator: Comparator<in Char>): Char? {\n   return maxWithOrNull(comparator)\n}\n\n/**\n * Returns the first character having the largest value according to the provided [comparator] or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharSequence.maxWithOrNull(comparator: Comparator<in Char>): Char? {\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun CharSequence.min(): Char? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use minByOrNull instead.\", ReplaceWith(\"this.minByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic inline fun <R : Comparable<R>> CharSequence.minBy(selector: (Char) -> R): Char? {\n   return minByOrNull(selector)\n}\n\n/**\n * Returns the first character yielding the smallest value of the given function or `null` if there are no characters.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R : Comparable<R>> CharSequence.minByOrNull(selector: (Char) -> R): Char? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOf(selector: (Char) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOf(selector: (Char) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> CharSequence.minOf(selector: (Char) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOfOrNull(selector:

(Char) -> Double): Double? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.minOfOrNull(selector: (Char) -> Float): Float? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each character in the char sequence or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> CharSequence.minOfOrNull(selector: (Char) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each character in the char sequence.\n * \n * @throws NoSuchElementException if the char sequence is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharSequence.minOfWith(comparator: Comparator<in R>, selector: (Char) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each character in the char sequence or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.internal.InlineOnly\npublic inline fun <R> CharSequence.minOfWithOrNull(comparator: Comparator<in R>, selector: (Char) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest character or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharSequence.minOrNull(): Char? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\npublic fun CharSequence.minWith(comparator: Comparator<in Char>): Char? {\n   return minWithOrNull(comparator)\n}\n\n/**\n * Returns the first character having the smallest value according to the provided [comparator] or `null` if there are no characters.\n */\n@SinceKotlin(\"1.4\")\npublic fun CharSequence.minWithOrNull(comparator: Comparator<in Char>): Char? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns `true` if the char sequence has no characters.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\npublic fun CharSequence.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if no characters match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun CharSequence.none(predicate: (Char) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Performs the given [action] on each character and returns the char sequence itself

afterwards.\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <S : CharSequence> S.onEach(action: (Char) -> Unit): S {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each character, providing sequential index with the character,\n * and returns the char sequence itself afterwards.\n * @param [action] function that takes the index of
 a character and the character itself\n * and performs the action on the character.\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <S : CharSequence> S.onEachIndexed(action: (index: Int, Char) -> Unit): S {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Accumulates value starting with the first character and applying [operation] from left to right\n * to current accumulator value and each character.\n * \n * Throws an exception if this char sequence is empty. If the char sequence can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and a character,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun CharSequence.reduce(operation: (acc: Char, Char) -> Char): Char {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty char sequence can't
 be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first character and applying [operation] from left to right\n * to current accumulator value and each character with its index in the original char sequence.\n * \n * Throws an exception if this char sequence is empty. If the char sequence can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of a character, current accumulator value and the character itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\npublic inline fun CharSequence.reduceIndexed(operation: (index: Int, acc: Char, Char) -> Char): Char {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty
 char sequence can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first character and applying [operation] from left to right\n * to current accumulator value and each character with its index in the original char sequence.\n * \n * Returns `null` if the char sequence is empty.\n * \n * @param [operation] function that takes the index of a character, current accumulator value and the character itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun CharSequence.reduceIndexedOrNull(operation: (index: Int, acc: Char, Char) -> Char): Char? {\n   if (isEmpty())\n   return null\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index,
 accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first character and applying [operation] from left to right\n * to current accumulator value and each character.\n * \n * Returns `null` if the char sequence is empty.\n * \n * @param [operation] function that takes current accumulator value and a character,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun CharSequence.reduceOrNull(operation: (acc: Char, Char) -> Char): Char? {\n   if (isEmpty())\n   return null\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last character and applying [operation] from right to left\n * to each character and current accumulator
 value.\n * \n * Throws an exception if this char sequence is empty. If the char sequence can be empty in an expected way,\n * please use [reduceRightOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes a character and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun CharSequence.reduceRight(operation: (Char, acc: Char) -> Char): Char {\n   var index = lastIndex\n   if (index

< 0) throw UnsupportedOperationException(\"Empty char sequence can't be reduced.\")\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last character and applying [operation] from right to left\n * to each character with its index in the original char sequence and current accumulator value.\n * \n * Throws an exception if this char sequence is empty. If the char sequence can be empty in an expected way,\n * please use [reduceRightIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of a character, the character itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRight\n */\npublic inline fun CharSequence.reduceRightIndexed(operation: (index: Int, Char, acc: Char) -> Char): Char {\n   var index = lastIndex\n   if (index < 0) throw UnsupportedOperationException(\"Empty char sequence can't be reduced.\")\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last character and applying [operation] from right to left\n * to each character with its index in the original char sequence and current accumulator value.\n * \n * Returns `null` if the char sequence is empty.\n * \n * @param [operation] function that takes the index of a character, the character itself and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n@SinceKotlin(\"1.4\")\npublic inline fun CharSequence.reduceRightIndexedOrNull(operation: (index: Int, Char, acc: Char) -> Char): Char? {\n   var index = lastIndex\n   if (index < 0) return null\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the last character and applying [operation] from right to left\n * to each character and current accumulator value.\n * \n * Returns `null` if the char sequence is empty.\n * \n * @param [operation] function that takes a character and current accumulator value,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceRightOrNull\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun CharSequence.reduceRightOrNull(operation: (Char, acc: Char) -> Char): Char? {\n   var index = lastIndex\n   if (index < 0) return null\n   var accumulator = get(index--)\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return accumulator\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each character and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and a character, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R> CharSequence.runningFold(initial: R, operation: (acc: R, Char) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(length + 1).apply { add(initial) }\n   var accumulator = initial\n   for (element in this) {\n   accumulator = operation(accumulator, element)\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each character, its index in the original char sequence and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of a character, current accumulator value\n * and the character itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\npublic inline fun <R> CharSequence.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(length + 1).apply { add(initial) }\n   var accumulator = initial\n   for (index in indices) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n *

Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each character and current accumulator value that starts with the first character of this char sequence.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and a character, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\npublic inline fun CharSequence.runningReduce(operation: (acc: Char, Char) -> Char): List<Char> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Char>(length).apply { add(accumulator) }\n   for (index in 1 until length) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each character, its index in the original char sequence and current accumulator value that starts with the first character of this char sequence.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of a character, current accumulator value\n * and the character itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\npublic inline fun CharSequence.runningReduceIndexed(operation: (index: Int, acc: Char, Char) -> Char): List<Char> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<Char>(length).apply { add(accumulator) }\n   for (index in 1 until length) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each character and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and a character, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <R> CharSequence.scan(initial: R, operation: (acc: R, Char) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each character, its index in the original char sequence and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of a character, current accumulator value\n * and the character itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <R> CharSequence.scanIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun CharSequence.sumBy(selector: (Char) -> Int): Int {\n   var sum: Int = 0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic inline fun CharSequence.sumByDouble(selector: (Char) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.sumOf(selector: (Char) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.sumOf(selector: (Char) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.sumOf(selector: (Char) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.sumOf(selector: (Char) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each character in the char sequence.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.sumOf(selector: (Char) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Splits this char sequence into a list of strings each not exceeding the given [size].\n * \n * The last string in the resulting list may have fewer characters than the given [size].\n * \n * @param size the number of elements to take in each string, must be positive and can be greater than the number of elements in this char sequence.\n * \n * @sample samples.text.Strings.chunked\n */\n@SinceKotlin(\"1.2\")\npublic fun CharSequence.chunked(size: Int): List<String> {\n   return windowed(size, size, partialWindows = true)\n}\n\n/**\n * Splits this char sequence into several char sequences each not exceeding the given [size]\n * and applies the given [transform] function to an each.\n * \n * @return list of results of the [transform] applied to an each char sequence.\n * \n * Note that the char sequence passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * The last char sequence may have fewer characters than the given [size].\n * \n * @param size the number of elements to take in each char sequence, must be positive and can be greater than the number of elements in this char sequence.\n * \n * @sample samples.text.Strings.chunkedTransform\n */\n@SinceKotlin(\"1.2\")\npublic fun <R> CharSequence.chunked(size: Int, transform: (CharSequence) -> R): List<R> {\n   return windowed(size, size, partialWindows = true, transform = transform)\n}\n\n/**\n * Splits this char sequence into a sequence of strings each not exceeding the given [size].\n * \n * The last string in the resulting sequence may have fewer characters than the given [size].\n * \n * @param size the number of elements to take in each string, must be positive and can be greater than the number of elements in this char sequence.\n * \n * @sample samples.collections.Collections.Transformations.chunked\n */\n@SinceKotlin(\"1.2\")\npublic fun CharSequence.chunkedSequence(size: Int): Sequence<String> {\n   return chunkedSequence(size) { it.toString() }\n}\n\n/**\n * Splits this char sequence into several char sequences each not exceeding the given [size]\n * and applies the given [transform] function to an

each.\n * \n * @return sequence of results of the [transform] applied to an each char sequence.\n * \n * Note that the char sequence passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * The last char sequence may have fewer characters than the given [size].\n * \n * @param size the number of elements to take in each char sequence, must be positive and can be greater than the number of elements in this char sequence.\n * \n * @sample samples.text.Strings.chunkedTransformToSequence\n */\n@SinceKotlin(\"1.2\")\npublic fun <R> CharSequence.chunkedSequence(size: Int, transform: (CharSequence) -> R): Sequence<R> {\n   return windowedSequence(size, size, partialWindows = true, transform = transform)\n}\n\n/**\n * Splits the original char sequence into pair of char sequences,\n * where *first* char sequence contains characters for which [predicate] yielded `true`,\n * while *second* char sequence contains characters for which [predicate] yielded `false`.\n * \n * @sample samples.text.Strings.partition\n */\npublic inline fun CharSequence.partition(predicate: (Char) -> Boolean): Pair<CharSequence, CharSequence> {\n   val first = StringBuilder()\n   val second = StringBuilder()\n   for (element in this) {\n   if (predicate(element)) {\n   first.append(element)\n   } else {\n   second.append(element)\n   }\n   }\n   return Pair(first, second)\n}\n\n/**\n * Splits the original string into pair of strings,\n * where *first* string contains characters for which [predicate] yielded `true`,\n * while *second* string contains characters for which [predicate] yielded
`false`.\n * \n * @sample samples.text.Strings.partition\n */\npublic inline fun String.partition(predicate: (Char) -> Boolean): Pair<String, String> {\n   val first = StringBuilder()\n   val second = StringBuilder()\n   for (element in this) {\n   if (predicate(element)) {\n   first.append(element)\n   } else {\n   second.append(element)\n   }\n   }\n   return Pair(first.toString(), second.toString())\n}\n\n/**\n * Returns a list of snapshots of the window of the given [size]\n * sliding along this char sequence with the given [step], where each\n * snapshot is a string.\n * \n * Several last strings may have fewer characters than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in this char sequence.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows
controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.takeWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun CharSequence.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false): List<String> {\n   return windowed(size, step, partialWindows) { it.toString() }\n}\n\n/**\n * Returns a list of results of applying the given [transform] function to\n * an each char sequence representing a view over the window of the given [size]\n * sliding along this char sequence with the given [step].\n * \n * Note that the char sequence passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * Several last char sequences may have fewer characters than the given [size].\n * \n * Both [size] and [step] must be positive and
can be greater than the number of elements in this char sequence.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.averageWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun <R> CharSequence.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false, transform: (CharSequence) -> R): List<R> {\n   checkWindowSizeStep(size, step)\n   val thisSize = this.length\n   val resultCapacity = thisSize / step + if (thisSize % step == 0) 0 else 1\n   val result = ArrayList<R>(resultCapacity)\n   var index = 0\n   while (index in 0 until thisSize) {\n   val end = index + size\n   val coercedEnd = if (end < 0 || end > thisSize) { if (partialWindows)
thisSize else break } else end\n   result.add(transform(subSequence(index, coercedEnd)))\n   index += step\n   }\n   return result\n}\n\n/**\n * Returns a sequence of snapshots of the window of the given [size]\n * sliding along this char sequence with the given [step], where each\n * snapshot is a string.\n * \n * Several last strings may have fewer characters than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the

number of elements in this char sequence.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.takeWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun CharSequence.windowedSequence(size: Int,
 step: Int = 1, partialWindows: Boolean = false): Sequence<String> {\n   return windowedSequence(size, step, partialWindows) { it.toString() }\n}\n\n/**\n * Returns a sequence of results of applying the given [transform] function to\n * an each char sequence representing a view over the window of the given [size]\n * sliding along this char sequence with the given [step].\n * \n * Note that the char sequence passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * Several last char sequences may have fewer characters than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in this char sequence.\n * @param size the number of elements to take in each window\n * @param step the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls whether
 or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.averageWindows\n */\n@SinceKotlin(\"1.2\")\npublic fun <R> CharSequence.windowedSequence(size: Int, step: Int = 1, partialWindows: Boolean = false, transform: (CharSequence) -> R): Sequence<R> {\n   checkWindowSizeStep(size, step)\n   val windows = (if (partialWindows) indices else 0 until length - size + 1) step step\n   return windows.asSequence().map { index ->\n   val end = index + size\n   val coercedEnd = if (end < 0 || end > length) length else end\n   transform(subSequence(index, coercedEnd))\n   }\n}\n\n/**\n * Returns a list of pairs built from the characters of `this` and the [other] char sequences with the same index\n * The returned list has length of the shortest char sequence.\n * \n * @sample samples.text.Strings.zip\n */\npublic infix fun CharSequence.zip(other: CharSequence):
 List<Pair<Char, Char>> {\n   return zip(other) { c1, c2 -> c1 to c2 }\n}\n\n/**\n * Returns a list of values built from the characters of `this` and the [other] char sequences with the same index\n * using the provided [transform] function applied to each pair of characters.\n * The returned list has length of the shortest char sequence.\n * \n * @sample samples.text.Strings.zipWithTransform\n */\npublic inline fun <V> CharSequence.zip(other: CharSequence, transform: (a: Char, b: Char) -> V): List<V> {\n   val length = minOf(this.length, other.length)\n   val list = ArrayList<V>(length)\n   for (i in 0 until length) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of pairs of each two adjacent characters in this char sequence.\n * \n * The returned list is empty if this char sequence contains less than two characters.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNext\n */\n@SinceKotlin(\"1.2\")\npublic
 fun CharSequence.zipWithNext(): List<Pair<Char, Char>> {\n   return zipWithNext { a, b -> a to b }\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to an each pair of two adjacent characters in this char sequence.\n * \n * The returned list is empty if this char sequence contains less than two characters.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNextToFindDeltas\n */\n@SinceKotlin(\"1.2\")\npublic inline fun <R> CharSequence.zipWithNext(transform: (a: Char, b: Char) -> R): List<R> {\n   val size = length - 1\n   if (size < 1) return emptyList()\n   val result = ArrayList<R>(size)\n   for (index in 0 until size) {\n   result.add(transform(this[index], this[index + 1]))\n   }\n   return result\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original char sequence returning its characters when being iterated.\n */\npublic fun CharSequence.asIterable(): Iterable<Char> {\n
 if (this is String && isEmpty()) return emptyList()\n   return Iterable { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original char sequence returning its characters when being iterated.\n */\npublic fun CharSequence.asSequence(): Sequence<Char> {\n   if (this is String && isEmpty()) return emptySequence()\n   return Sequence { this.iterator() }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the

license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n\npackage
kotlin.text\n\nimport kotlin.contracts.contract\nimport kotlin.jvm.JvmName\n\n/**\n * Returns a copy of this string converted to upper case using the rules of the default locale.\n */\n@Deprecated(\"Use uppercase() instead.\", ReplaceWith(\"uppercase()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic
expect fun String.toUpperCase(): String\n\n/**\n * Returns a copy of this string converted to upper case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many and many-to-one character mapping,\n * thus the length of the returned string can be different from the length of the original string.\n *\n * @sample samples.text.Strings.uppercase\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun String.uppercase(): String\n\n/**\n * Returns a copy of this string converted to lower case using the rules of the default locale.\n */\n@Deprecated(\"Use lowercase() instead.\",
ReplaceWith(\"lowercase()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic expect fun String.toLowerCase(): String\n\n/**\n * Returns a copy of this string converted to lower case using Unicode mapping rules of the invariant locale.\n *\n * This function supports one-to-many and many-to-one character mapping,\n * thus the
length of the returned string can be different from the length of the original string.\n *\n * @sample samples.text.Strings.lowercase\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun String.lowercase(): String\n\n/**\n * Returns a copy of this string having its first letter titlecased using the rules of the default locale,\n * or the original string if it's empty or already starts with a title case letter.\n *\n * The title case of a character is usually the same as its upper case with several exceptions.\n * The particular list of characters with the special title case form depends on the underlying platform.\n *\n * @sample samples.text.Strings.capitalize\n */\n@Deprecated(\"Use replaceFirstChar instead.\", ReplaceWith(\"replaceFirstChar { if (it.isLowerCase()) it.titlecase() else it.toString() }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic expect fun String.capitalize(): String\n\n/**\n * Returns a copy of this string having
its first letter lowercased using the rules of the default locale,\n * or the original string if it's empty or already starts with a lower case letter.\n *\n * @sample samples.text.Strings.decapitalize\n */\n@Deprecated(\"Use replaceFirstChar instead.\", ReplaceWith(\"replaceFirstChar { it.lowercase() }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic expect fun String.decapitalize(): String\n\n/**\n * Returns a sub sequence of this char sequence having leading and trailing characters matching the [predicate] removed.\n */\npublic inline fun CharSequence.trim(predicate: (Char) -> Boolean): CharSequence {\n   var startIndex = 0\n   var endIndex = length - 1\n   var startFound = false\n\n   while (startIndex <= endIndex) {\n   val index = if (!startFound) startIndex else endIndex\n   val match = predicate(this[index])\n\n   if (!startFound) {\n   if (!match)\n   startFound = true\n   else\n   startIndex += 1\n   } else {\n   if (!match)\n   break\n   else\n   endIndex -= 1\n   }\n   }\n\n   return subSequence(startIndex, endIndex + 1)\n}\n\n/**\n * Returns a string having leading and trailing characters matching the [predicate] removed.\n */\npublic inline fun String.trim(predicate: (Char) -> Boolean): String =\n   (this as CharSequence).trim(predicate).toString()\n\n/**\n * Returns a sub sequence of this char sequence having leading characters matching the [predicate] removed.\n */\npublic inline fun CharSequence.trimStart(predicate: (Char) -> Boolean): CharSequence {\n   for (index in this.indices)\n   if (!predicate(this[index]))\n   return subSequence(index, length)\n\n   return \"\"\n}\n\n/**\n * Returns a string having leading characters matching the [predicate] removed.\n */\npublic inline fun String.trimStart(predicate: (Char) -> Boolean): String =\n   (this as CharSequence).trimStart(predicate).toString()\n\n/**\n
* Returns a sub sequence of this char sequence having trailing characters matching the [predicate] removed.\n */\npublic inline fun CharSequence.trimEnd(predicate: (Char) -> Boolean): CharSequence {\n   for (index in this.indices.reversed())\n   if (!predicate(this[index]))\n   return subSequence(0, index + 1)\n\n   return \"\"\n}\n\n/**\n * Returns a string having trailing characters matching the [predicate] removed.\n */\npublic inline

fun String.trimEnd(predicate: (Char) -> Boolean): String =\n   (this as CharSequence).trimEnd(predicate).toString()\n\n/**\n * Returns a sub sequence of this char sequence having leading and trailing characters from the [chars] array removed.\n */\npublic fun CharSequence.trim(vararg chars: Char): CharSequence = trim { it in chars }\n\n/**\n * Returns a string having leading and trailing characters from the [chars] array removed.\n */\npublic fun String.trim(vararg chars: Char): String = trim { it in chars }\n\n/**\n * Returns a sub

sequence of this char sequence having leading characters from the [chars] array removed.\n */\npublic fun CharSequence.trimStart(vararg chars: Char): CharSequence = trimStart { it in chars }\n\n/**\n * Returns a string having leading characters from the [chars] array removed.\n */\npublic fun String.trimStart(vararg chars: Char): String = trimStart { it in chars }\n\n/**\n * Returns a sub sequence of this char sequence having trailing characters from the [chars] array removed.\n */\npublic fun CharSequence.trimEnd(vararg chars: Char): CharSequence = trimEnd { it in chars }\n\n/**\n * Returns a string having trailing characters from the [chars] array removed.\n */\npublic fun String.trimEnd(vararg chars: Char): String = trimEnd { it in chars }\n\n/**\n * Returns a sub sequence of this char sequence having leading and trailing whitespace removed.\n */\npublic fun CharSequence.trim(): CharSequence = trim(Char::isWhitespace)\n\n/**\n * Returns a string having leading and trailing whitespace

removed.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.trim(): String = (this as CharSequence).trim().toString()\n\n/**\n * Returns a sub sequence of this char sequence having leading whitespace removed.\n */\npublic fun CharSequence.trimStart(): CharSequence = trimStart(Char::isWhitespace)\n\n/**\n * Returns a string having leading whitespace removed.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.trimStart(): String = (this as CharSequence).trimStart().toString()\n\n/**\n * Returns a sub sequence of this char sequence having trailing whitespace removed.\n */\npublic fun CharSequence.trimEnd(): CharSequence = trimEnd(Char::isWhitespace)\n\n/**\n * Returns a string having trailing whitespace removed.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.trimEnd(): String = (this as CharSequence).trimEnd().toString()\n\n/**\n * Returns a char sequence with content of this char sequence padded at the beginning\n * to the specified [length] with the specified

character or space.\n *\n * @param length the desired string length.\n * @param padChar the character to pad string with, if it has length less than the [length] specified. Space is used by default.\n * @return Returns a char sequence of length at least [length] consisting of `this` char sequence prepended with [padChar] as many times\n * as are necessary to reach that length.\n * @sample samples.text.Strings.padStart\n */\npublic fun CharSequence.padStart(length: Int, padChar: Char = ' '): CharSequence {\n   if (length < 0)\n   throw IllegalArgumentException(\"Desired length $length is less than zero.\")\n   if (length <= this.length)\n   return this.subSequence(0, this.length)\n\n   val sb = StringBuilder(length)\n   for (i in 1..(length - this.length))\n   sb.append(padChar)\n   sb.append(this)\n   return sb\n}\n\n/**\n * Pads the string to the specified [length] at the beginning with the specified character or space.\n *\n * @param length the desired string

length.\n * @param padChar the character to pad string with, if it has length less than the [length] specified. Space is used by default.\n * @return Returns a string of length at least [length] consisting of `this` string prepended with [padChar] as many times\n * as are necessary to reach that length.\n * @sample samples.text.Strings.padStart\n */\npublic fun String.padStart(length: Int, padChar: Char = ' '): String =\n   (this as CharSequence).padStart(length, padChar).toString()\n\n/**\n * Returns a char sequence with content of this char sequence padded at the end\n * to the specified [length] with the specified character or space.\n *\n * @param length the desired string length.\n * @param padChar the character to pad string with, if it has length less than the [length] specified. Space is used by default.\n * @return Returns a char sequence of length at least [length] consisting of `this` char sequence appended with [padChar] as many times\n * as are necessary to reach that

length.\n * @sample samples.text.Strings.padEnd\n */\npublic fun CharSequence.padEnd(length: Int, padChar: Char = ' '): CharSequence {\n   if (length < 0)\n   throw IllegalArgumentException(\"Desired length $length is less than zero.\")\n   if (length <= this.length)\n   return this.subSequence(0, this.length)\n\n   val sb = StringBuilder(length)\n   sb.append(this)\n   for (i in 1..(length - this.length))\n   sb.append(padChar)\n   return sb\n}\n\n/**\n * Pads the string to the specified [length] at the end with the specified character or space.\n *\n * @param length the desired string length.\n * @param padChar the character to pad string with, if it has length less than the [length] specified. Space is used by default.\n * @return Returns a string of length at least [length] consisting of `this` string appended with [padChar] as many times\n * as are necessary to reach that length.\n * @sample samples.text.Strings.padEnd\n */\npublic fun String.padEnd(length: Int, padChar: Char = ' '): String =\n   (this as CharSequence).padEnd(length, padChar).toString()\n\n/**\n * Returns `true` if this nullable char sequence is either `null` or empty.\n *\n * @sample samples.text.Strings.stringIsNullOrEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence?.isNullOrEmpty(): Boolean {\n   contract {\n   returns(false) implies (this@isNullOrEmpty != null)\n   }\n\n   return this == null || this.length == 0\n}\n\n/**\n * Returns `true` if this char sequence is empty (contains no characters).\n *\n * @sample samples.text.Strings.stringIsEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.isEmpty(): Boolean = length == 0\n\n/**\n * Returns `true` if this char sequence is not empty.\n *\n * @sample samples.text.Strings.stringIsNotEmpty\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.isNotEmpty(): Boolean = length > 0\n\n// implemented differently in JVM and JS\n//public fun String.isBlank(): Boolean = length() == 0 || all { it.isWhitespace() }\n\n\n/**\n * Returns `true` if this char sequence is not empty and contains some characters except of whitespace characters.\n *\n * @sample samples.text.Strings.stringIsNotBlank\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.isNotBlank(): Boolean = !isBlank()\n\n/**\n * Returns `true` if this nullable char sequence is either `null` or empty or consists solely of whitespace characters.\n *\n * @sample samples.text.Strings.stringIsNullOrBlank\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence?.isNullOrBlank(): Boolean {\n   contract {\n   returns(false) implies (this@isNullOrBlank != null)\n   }\n\n   return this == null || this.isBlank()\n}\n\n/**\n * Iterator for characters of the given char sequence.\n */\npublic operator fun CharSequence.iterator(): CharIterator = object : CharIterator() {\n   private var index = 0\n\n   public override fun nextChar(): Char = get(index++)\n\n   public override fun hasNext(): Boolean = index < length\n}\n\n/** Returns the string if it is not `null`, or the empty string otherwise. */\n@kotlin.internal.InlineOnly\npublic inline fun String?.orEmpty(): String = this ?: \"\"\n\n/**\n * Returns this char sequence if it's not empty\n * or the result of calling [defaultValue] function if the char sequence is empty.\n *\n * @sample samples.text.Strings.stringIfEmpty\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <C, R> C.ifEmpty(defaultValue: () -> R): R where C : CharSequence, C : R =\n   if (isEmpty()) defaultValue() else this\n\n/**\n * Returns this char sequence if it is not empty and doesn't consist solely of whitespace characters,\n * or the result of calling [defaultValue] function otherwise.\n *\n * @sample samples.text.Strings.stringIfBlank\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun <C, R> C.ifBlank(defaultValue: () -> R): R where C : CharSequence, C : R =\n   if (isBlank()) defaultValue() else this\n\n/**\n * Returns the range of valid character indices for this char sequence.\n */\npublic val CharSequence.indices: IntRange\n   get() = 0..length - 1\n\n/**\n * Returns the index of the last character in the char sequence or -1 if it is empty.\n */\npublic val CharSequence.lastIndex: Int\n   get() = this.length - 1\n\n/**\n * Returns `true` if this CharSequence has Unicode surrogate pair at the specified [index].\n */\npublic fun CharSequence.hasSurrogatePairAt(index: Int): Boolean {\n   return index in 0..length - 2\n   && this[index].isHighSurrogate()\n   && this[index + 1].isLowSurrogate()\n}\n\n/**\n * Returns a substring specified by the given [range] of indices.\n */\npublic fun String.substring(range: IntRange): String = substring(range.start, range.endInclusive + 1)\n\n/**\n * Returns a subsequence of this char sequence specified by the given [range] of indices.\n */\npublic fun CharSequence.subSequence(range: IntRange): CharSequence = subSequence(range.start, range.endInclusive + 1)\n\n/**\n * Returns a subsequence of this char sequence.\n *\n * This extension is chosen only for invocation with old-named parameters.\n * Replace parameter names with the same as those of [CharSequence.subSequence].\n */\n@kotlin.internal.InlineOnly\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\") // false warning\n@Deprecated(\"Use parameters named startIndex and endIndex.\", ReplaceWith(\"subSequence(startIndex

= start, endIndex = end)\"))\npublic inline fun String.subSequence(start: Int, end: Int): CharSequence = subSequence(start, end)\n\n/**\n * Returns a substring of chars from a range of this char sequence starting at the [startIndex] and ending right before the [endIndex].\n *\n * @param startIndex the start index (inclusive).\n * @param endIndex the end index (exclusive). If not specified, the length of the char sequence is used.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.substring(startIndex: Int, endIndex: Int = length): String = subSequence(startIndex, endIndex).toString()\n\n/**\n * Returns a substring of chars at indices from the specified [range] of this char sequence.\n */\npublic fun CharSequence.substring(range: IntRange): String = subSequence(range.start, range.endInclusive + 1).toString()\n\n/**\n * Returns a substring before the first occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringBefore(delimiter: Char, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(0, index)\n}\n\n/**\n * Returns a substring before the first occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringBefore(delimiter: String, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(0, index)\n}\n\n/**\n * Returns a substring after the first occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringAfter(delimiter: Char, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(index + 1, length)\n}\n\n/**\n * Returns a substring after the first occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringAfter(delimiter: String, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(index + delimiter.length, length)\n}\n\n/**\n * Returns a substring before the last occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringBeforeLast(delimiter: Char, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(0, index)\n}\n\n/**\n * Returns a substring before the last occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringBeforeLast(delimiter: String, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(0, index)\n}\n\n/**\n * Returns a substring after the last occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringAfterLast(delimiter: Char, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(index + 1, length)\n}\n\n/**\n * Returns a substring after the last occurrence of [delimiter].\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.substringAfterLast(delimiter: String, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else substring(index + delimiter.length, length)\n}\n\n/**\n * Returns a char sequence with content of this char sequence where its part at the given range\n * is replaced with the [replacement] char sequence.\n * @param startIndex the index of the first character to be replaced.\n * @param endIndex the index of the first character after the replacement to keep in the string.\n */\npublic fun CharSequence.replaceRange(startIndex: Int, endIndex: Int, replacement: CharSequence): CharSequence {\n   if (endIndex < startIndex)\n   throw IndexOutOfBoundsException(\"End index ($endIndex) is less than start index ($startIndex).\")\n   val sb = StringBuilder()\n   sb.appendRange(this, 0, startIndex)\n   sb.append(replacement)\n   sb.appendRange(this, endIndex, length)\n   return sb\n}\n\n/**\n * Replaces the part of the string at the given range with the [replacement] char sequence.\n * @param startIndex the index of the first character to be replaced.\n * @param endIndex the index of the first character after the replacement to keep in the string.\n

*/\n@kotlin.internal.InlineOnly\npublic inline fun String.replaceRange(startIndex: Int, endIndex: Int, replacement: CharSequence): String =\n   (this as CharSequence).replaceRange(startIndex, endIndex, replacement).toString()\n\n/**\n * Returns a char sequence with content of this char sequence where its part at the given [range]\n * is replaced with the [replacement] char sequence.\n *\n * The end index of the [range] is included in the part to be replaced.\n */\npublic fun CharSequence.replaceRange(range: IntRange, replacement: CharSequence): CharSequence =\n replaceRange(range.start, range.endInclusive + 1, replacement)\n\n/**\n * Replace the part of string at the given [range] with the [replacement] string.\n *\n * The end index of the [range] is included in the part to be replaced.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.replaceRange(range: IntRange, replacement: CharSequence): String =\n   (this as CharSequence).replaceRange(range, replacement).toString()\n\n/**\n * Returns a char sequence with content of this char sequence where its part at the given range is removed.\n *\n * @param startIndex the index of the first character to be removed.\n * @param endIndex the index of the first character after the removed part to keep in the string.\n *\n * [endIndex] is not included in the removed part.\n */\npublic fun CharSequence.removeRange(startIndex: Int, endIndex: Int): CharSequence {\n   if (endIndex < startIndex)\n throw IndexOutOfBoundsException(\"End index ($endIndex) is less than start index ($startIndex).\")\n\n   if (endIndex == startIndex)\n   return this.subSequence(0, length)\n\n   val sb = StringBuilder(length - (endIndex - startIndex))\n   sb.appendRange(this, 0, startIndex)\n   sb.appendRange(this, endIndex, length)\n   return sb\n}\n\n/**\n * Removes the part of a string at a given range.\n * @param startIndex the index of the first character to be removed.\n * @param endIndex the index of the first character after the removed part to keep in the string.\n *\n * [endIndex] is not included in the removed part.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.removeRange(startIndex: Int, endIndex: Int): String =\n   (this as CharSequence).removeRange(startIndex, endIndex).toString()\n\n/**\n * Returns a char sequence with content of this char sequence where its part at the given [range] is removed.\n *\n * The end index of the [range] is included in the removed part.\n */\npublic fun CharSequence.removeRange(range: IntRange): CharSequence = removeRange(range.start, range.endInclusive + 1)\n\n/**\n * Removes the part of a string at the given [range].\n *\n * The end index of the [range] is included in the removed part.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.removeRange(range: IntRange): String =\n   (this as CharSequence).removeRange(range).toString()\n\n/**\n * If this char sequence starts with the given [prefix], returns a new char sequence\n * with the prefix removed. Otherwise, returns a new char sequence with the same characters.\n */\npublic fun CharSequence.removePrefix(prefix: CharSequence): CharSequence {\n   if (startsWith(prefix)) {\n   return subSequence(prefix.length, length)\n   }\n   return subSequence(0, length)\n}\n\n/**\n * If this string starts with the given [prefix], returns a copy of this string\n * with the prefix removed. Otherwise, returns this string.\n */\npublic fun String.removePrefix(prefix: CharSequence): String {\n   if (startsWith(prefix)) {\n   return substring(prefix.length)\n   }\n   return this\n}\n\n/**\n * If this char sequence ends with the given [suffix], returns a new char sequence\n * with the suffix removed. Otherwise, returns a new char sequence with the same characters.\n */\npublic fun CharSequence.removeSuffix(suffix: CharSequence): CharSequence {\n   if (endsWith(suffix)) {\n   return subSequence(0, length - suffix.length)\n   }\n   return subSequence(0, length)\n}\n\n/**\n * If this string ends with the given [suffix], returns a copy of this string\n * with the suffix removed. Otherwise, returns this string.\n */\npublic fun String.removeSuffix(suffix: CharSequence): String {\n   if (endsWith(suffix)) {\n   return substring(0, length - suffix.length)\n   }\n   return this\n}\n\n/**\n * When this char sequence starts with the given [prefix] and ends with the given [suffix],\n * returns a new char sequence having both the given [prefix] and [suffix] removed.\n * Otherwise returns a new char sequence with the same characters.\n */\npublic fun CharSequence.removeSurrounding(prefix: CharSequence, suffix: CharSequence): CharSequence {\n   if ((length >= prefix.length + suffix.length) && startsWith(prefix) && endsWith(suffix)) {\n   return subSequence(prefix.length, length - suffix.length)\n   }\n   return subSequence(0, length)\n}\n\n/**\n * Removes from a string both the given [prefix] and [suffix] if and only if\n * it starts with the [prefix] and ends with the [suffix].\n * Otherwise returns this string unchanged.\n */\npublic fun String.removeSurrounding(prefix:

CharSequence, suffix: CharSequence): String {\n   if ((length >= prefix.length + suffix.length) && startsWith(prefix) &&
 endsWith(suffix)) {\n   return substring(prefix.length, length - suffix.length)\n   }\n   return this\n}\n\n/**\n * When this char sequence starts with and ends with the given [delimiter],\n * returns a new char sequence having this [delimiter] removed both from the start and end.\n * Otherwise returns a new char sequence with the same characters.\n */\npublic fun CharSequence.removeSurrounding(delimiter: CharSequence): CharSequence = removeSurrounding(delimiter, delimiter)\n\n/**\n * Removes the given [delimiter] string from both the start and the end of this string\n * if and only if it starts with and ends with the [delimiter].\n * Otherwise returns this string unchanged.\n */\npublic fun String.removeSurrounding(delimiter: CharSequence): String = removeSurrounding(delimiter, delimiter)\n\n/**\n * Replace part of string before the first occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue]
 which defaults to the original string.\n */\npublic fun String.replaceBefore(delimiter: Char, replacement: String, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(0, index, replacement)\n}\n\n/**\n * Replace part of string before the first occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceBefore(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(0, index, replacement)\n}\n\n/**\n * Replace part of string after the first occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the
 original string.\n */\npublic fun String.replaceAfter(delimiter: Char, replacement: String, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(index + 1, length, replacement)\n}\n\n/**\n * Replace part of string after the first occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceAfter(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {\n   val index = indexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(index + delimiter.length, length, replacement)\n}\n\n/**\n * Replace part of string after the last occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults
 to the original string.\n */\npublic fun String.replaceAfterLast(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(index + delimiter.length, length, replacement)\n}\n\n/**\n * Replace part of string after the last occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceAfterLast(delimiter: Char, replacement: String, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(index + 1, length, replacement)\n}\n\n/**\n * Replace part of string before the last occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue]
 which defaults to the original string.\n */\npublic fun String.replaceBeforeLast(delimiter: Char, replacement: String, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n   return if (index == -1) missingDelimiterValue else replaceRange(0, index, replacement)\n}\n\n/**\n * Replace part of string before the last occurrence of given delimiter with the [replacement] string.\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\n */\npublic fun String.replaceBeforeLast(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {\n   val index = lastIndexOf(delimiter)\n
 return if (index == -1) missingDelimiterValue else replaceRange(0, index, replacement)\n}\n\n\n// public fun String.replace(oldChar: Char, newChar: Char, ignoreCase: Boolean): String // JVM- and JS-specific\n// public fun String.replace(oldValue: String, newValue: String, ignoreCase:

Boolean): String // JVM- and JS-specific\n\n/**\n * Returns a new string obtained by replacing each substring of this char sequence that matches the given regular expression\n * with the given [replacement].\n *\n * The [replacement] can consist of any combination of literal text and $-substitutions. To treat the replacement string\n * literally escape it with the [kotlin.text.Regex.Companion.escapeReplacement] method.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.replace(regex: Regex, replacement: String): String = regex.replace(this, replacement)\n\n/**\n * Returns a new string obtained by replacing each substring of this char sequence that matches the given regular expression\n * with the result of the given function [transform] that takes [MatchResult] and returns a string to be used as a\n * replacement for that match.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.replace(regex: Regex, noinline transform: (MatchResult) -> CharSequence): String
=\n   regex.replace(this, transform)\n\n/**\n * Replaces the first occurrence of the given regular expression [regex] in this char sequence with specified [replacement] expression.\n *\n * @param replacement A replacement expression that can include substitutions. See [Regex.replaceFirst] for details.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.replaceFirst(regex: Regex, replacement: String): String = regex.replaceFirst(this, replacement)\n\n/**\n * Returns a copy of this string having its first character replaced with the result of the specified [transform],\n * or the original string if it's empty.\n *\n * @param transform function that takes the first character and returns the result of the transform applied to the character.\n *\n * @sample samples.text.Strings.replaceFirstChar\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@JvmName(\"replaceFirstCharWithChar\")\n@kotlin.internal.InlineOnly\npublic
inline fun String.replaceFirstChar(transform: (Char) -> Char): String {\n   return if (isNotEmpty()) transform(this[0]) + substring(1) else this\n}\n\n/**\n * Returns a copy of this string having its first character replaced with the result of the specified [transform],\n * or the original string if it's empty.\n *\n * @param transform function that takes the first character and returns the result of the transform applied to the character.\n *\n * @sample samples.text.Strings.replaceFirstChar\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@JvmName(\"replaceFirstCharWithCharSequence\")\n@kotlin.internal.InlineOnly\npublic inline fun String.replaceFirstChar(transform: (Char) -> CharSequence): String {\n   return if (isNotEmpty()) transform(this[0]).toString() + substring(1) else this\n}\n\n\n/**\n
* Returns `true` if this char sequence matches the given regular expression.\n */\n@kotlin.internal.InlineOnly\npublic inline infix fun CharSequence.matches(regex: Regex): Boolean = regex.matches(this)\n\n/**\n * Implementation of [regionMatches] for CharSequences.\n * Invoked when it's already known that arguments are not Strings, so that no additional type checks are performed.\n */\ninternal fun CharSequence.regionMatchesImpl(thisOffset: Int, other: CharSequence, otherOffset: Int, length: Int, ignoreCase: Boolean): Boolean {\n   if ((otherOffset < 0) || (thisOffset < 0) || (thisOffset > this.length - length) || (otherOffset > other.length - length)) {\n   return false\n   }\n\n   for (index in 0 until length) {\n   if (!this[thisOffset + index].equals(other[otherOffset + index], ignoreCase))\n   return false\n   }\n   return true\n}\n\n/**\n * Returns `true` if this char sequence starts with the specified character.\n */\npublic fun CharSequence.startsWith(char:
Char, ignoreCase: Boolean = false): Boolean =\n   this.length > 0 && this[0].equals(char, ignoreCase)\n\n/**\n * Returns `true` if this char sequence ends with the specified character.\n */\npublic fun CharSequence.endsWith(char: Char, ignoreCase: Boolean = false): Boolean =\n   this.length > 0 && this[lastIndex].equals(char, ignoreCase)\n\n/**\n * Returns `true` if this char sequence starts with the specified prefix.\n */\npublic fun CharSequence.startsWith(prefix: CharSequence, ignoreCase: Boolean = false): Boolean {\n   if (!ignoreCase && this is String && prefix is String)\n   return this.startsWith(prefix)\n   else\n   return regionMatchesImpl(0, prefix, 0, prefix.length, ignoreCase)\n}\n\n/**\n * Returns `true` if a substring of this char sequence starting at the

specified offset [startIndex] starts with the specified prefix.\n */\npublic fun CharSequence.startsWith(prefix: CharSequence, startIndex: Int, ignoreCase: Boolean = false): Boolean {\n if (!ignoreCase && this is String && prefix is String)\n return this.startsWith(prefix, startIndex)\n else\n return regionMatchesImpl(startIndex, prefix, 0, prefix.length, ignoreCase)\n}\n\n/**\n * Returns `true` if this char sequence ends with the specified suffix.\n */\npublic fun CharSequence.endsWith(suffix: CharSequence, ignoreCase: Boolean = false): Boolean {\n if (!ignoreCase && this is String && suffix is String)\n return this.endsWith(suffix)\n else\n return regionMatchesImpl(length - suffix.length, suffix, 0, suffix.length, ignoreCase)\n}\n\n\n// common prefix and suffix\n\n/**\n * Returns the longest string `prefix` such that this char sequence and [other] char sequence both start with this prefix,\n * taking care not to split surrogate pairs.\n * If this and [other] have no common prefix, returns the empty string.\n\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @sample samples.text.Strings.commonPrefixWith\n */\npublic fun CharSequence.commonPrefixWith(other: CharSequence, ignoreCase: Boolean = false): String {\n val shortestLength = minOf(this.length, other.length)\n\n var i = 0\n while (i < shortestLength && this[i].equals(other[i], ignoreCase = ignoreCase)) {\n i++\n }\n if (this.hasSurrogatePairAt(i - 1) || other.hasSurrogatePairAt(i - 1)) {\n i--\n }\n return subSequence(0, i).toString()\n}\n\n/**\n * Returns the longest string `suffix` such that this char sequence and [other] char sequence both end with this suffix,\n * taking care not to split surrogate pairs.\n * If this and [other] have no common suffix, returns the empty string.\n\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @sample samples.text.Strings.commonSuffixWith\n */\npublic fun CharSequence.commonSuffixWith(other: CharSequence, ignoreCase: Boolean = false): String {\n val thisLength = this.length\n val otherLength = other.length\n val shortestLength = minOf(thisLength, otherLength)\n\n var i = 0\n while (i < shortestLength && this[thisLength - i - 1].equals(other[otherLength - i - 1], ignoreCase = ignoreCase)) {\n i++\n }\n if (this.hasSurrogatePairAt(thisLength - i - 1) || other.hasSurrogatePairAt(otherLength - i - 1)) {\n i--\n }\n return subSequence(thisLength - i, thisLength).toString()\n}\n\n\n// indexOfAny()\n\n/**\n * Finds the index of the first occurrence of any of the specified [chars] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n *\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @return An index of the first occurrence of matched character from [chars] or -1 if none of [chars] are found.\n *\n */\npublic fun CharSequence.indexOfAny(chars: CharArray, startIndex: Int = 0, ignoreCase: Boolean = false): Int {\n if (!ignoreCase && chars.size == 1 && this is String) {\n val char = chars.single()\n return nativeIndexOf(char, startIndex)\n }\n\n for (index in startIndex.coerceAtLeast(0)..lastIndex) {\n val charAtIndex = get(index)\n if (chars.any { it.equals(charAtIndex, ignoreCase) })\n return index\n }\n return -1\n}\n\n/**\n * Finds the index of the last occurrence of any of the specified [chars] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n *\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @return An index of the last occurrence of matched character from [chars] or -1 if none of [chars] are found.\n *\n */\npublic fun CharSequence.lastIndexOfAny(chars: CharArray, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Int {\n if (!ignoreCase && chars.size == 1 && this is String) {\n val char = chars.single()\n return nativeLastIndexOf(char, startIndex)\n }\n\n\n for (index in startIndex.coerceAtMost(lastIndex) downTo 0) {\n val charAtIndex = get(index)\n if (chars.any { it.equals(charAtIndex, ignoreCase) })\n return index\n }\n\n return -1\n}\n\n\nprivate fun CharSequence.indexOf(other: CharSequence, startIndex: Int, endIndex: Int, ignoreCase: Boolean, last: Boolean = false): Int {\n val indices = if (!last)\n startIndex.coerceAtLeast(0)..endIndex.coerceAtMost(length)\n else\n startIndex.coerceAtMost(lastIndex) downTo endIndex.coerceAtLeast(0)\n\n if (this is String && other is String) { // smart cast\n for (index in indices) {\n if (other.regionMatches(0, this, index, other.length, ignoreCase))\n return index\n }\n } else {\n for (index in indices) {\n if (other.regionMatchesImpl(0, this, index, other.length, ignoreCase))\n return index\n }\n }\n return -1\n}\n\nprivate fun CharSequence.findAnyOf(strings: Collection<String>, startIndex: Int, ignoreCase: Boolean, last: Boolean): Pair<Int, String>? {\n if (!ignoreCase && strings.size == 1) {\n val string = strings.single()\n val index = if (!last) indexOf(string, startIndex) else lastIndexOf(string, startIndex)\n return if (index < 0) null else index to string\n }\n\n val indices = if (!last) startIndex.coerceAtLeast(0)..length else startIndex.coerceAtMost(lastIndex) downTo 0\n\n if (this is String) {\n for (index in indices) {\n val matchingString = strings.firstOrNull { it.regionMatches(0, this, index, it.length, ignoreCase) }\n if (matchingString != null)\n return index to matchingString\n }\n } else {\n for (index in indices) {\n val matchingString = strings.firstOrNull { it.regionMatchesImpl(0, this, index, it.length, ignoreCase) }\n if (matchingString != null)\n return index to matchingString\n }\n }\n\n return null\n}\n\n/**\n * Finds the first occurrence of any of the specified [strings] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n *\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return A pair of an index of the first occurrence of matched string from [strings] and the string matched\n * or `null` if none of [strings] are found.\n *\n * To avoid ambiguous results when strings in [strings] have characters in common, this method proceeds from\n * the beginning to the end of this string, and finds at each position the first element in [strings]\n * that matches this string at that position.\n */\npublic fun CharSequence.findAnyOf(strings: Collection<String>, startIndex: Int = 0, ignoreCase: Boolean = false): Pair<Int, String>? =\n findAnyOf(strings, startIndex, ignoreCase, last = false)\n\n/**\n * Finds the last occurrence of any of the specified [strings] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n *\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return A pair of an index of the last occurrence of matched string from [strings] and the string matched or `null` if none of [strings] are found.\n *\n * To avoid ambiguous results when strings in [strings] have characters in common, this method proceeds from\n * the end toward the beginning of this string, and finds at each position the first element in [strings]\n * that matches this string at that position.\n */\npublic fun CharSequence.findLastAnyOf(strings: Collection<String>, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Pair<Int, String>? =\n findAnyOf(strings, startIndex, ignoreCase, last = true)\n\n/**\n * Finds the index of the first occurrence of any of the specified [strings] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n *\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return An index of the first occurrence of matched string from [strings] or -1 if none of [strings] are found.\n *\n * To avoid ambiguous results when strings in [strings] have characters in common, this method proceeds from\n * the beginning to the end of this string, and finds at each position the first element in [strings]\n * that matches this string at that position.\n */\npublic fun CharSequence.indexOfAny(strings: Collection<String>, startIndex: Int = 0, ignoreCase: Boolean = false): Int =\n findAnyOf(strings, startIndex, ignoreCase, last = false)?.first ?: -1\n\n/**\n * Finds the index of the last occurrence of any of the specified [strings] in this char sequence,\n * starting from the specified [startIndex] and optionally ignoring the case.\n *\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return An index of the last occurrence of matched string from [strings] or -1 if none of [strings] are found.\n *\n * To avoid ambiguous results when strings in [strings] have characters in common, this method proceeds from\n * the end toward the beginning of this string, and finds at each position the first element in [strings]\n * that matches this string at that position.\n */\npublic fun CharSequence.lastIndexOfAny(strings: Collection<String>, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Int =\n findAnyOf(strings, startIndex, ignoreCase, last = true)?.first ?: -1\n\n\n// indexOf\n\n/**\n * Returns the index within this string of the first occurrence of the specified character, starting from the specified [startIndex].\n *\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @return An index of the first occurrence of [char] or -1 if none is found.\n */\npublic fun CharSequence.indexOf(char: Char, startIndex: Int = 0, ignoreCase: Boolean = false): Int {\n return if (ignoreCase || this !is String)\n indexOfAny(charArrayOf(char), startIndex, ignoreCase)\n else\n nativeIndexOf(char, startIndex)\n}\n\n/**\n * Returns the index within this char sequence of the first occurrence of the specified [string],\n * starting from the specified [startIndex].\n *\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return An index of the first occurrence of [string] or `-1` if none is found.\n * @sample samples.text.Strings.indexOf\n */\npublic fun CharSequence.indexOf(string: String, startIndex: Int = 0, ignoreCase: Boolean = false): Int {\n return if (ignoreCase || this !is String)\n indexOf(string, startIndex, length, ignoreCase)\n else\n nativeIndexOf(string, startIndex)\n}\n\n/**\n * Returns the index within this char sequence of the last occurrence of the specified character,\n * starting from the specified [startIndex].\n *\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to ignore character case when matching a character. By default `false`.\n * @return An index of the last occurrence of [char] or -1 if none is found.\n */\npublic fun CharSequence.lastIndexOf(char: Char, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Int {\n return if (ignoreCase || this !is String)\n lastIndexOfAny(charArrayOf(char), startIndex, ignoreCase)\n else\n nativeLastIndexOf(char, startIndex)\n}\n\n/**\n * Returns the index within this char sequence of the last occurrence of the specified [string],\n * starting from the specified [startIndex].\n *\n * @param startIndex The index of character to start searching at. The search proceeds backward toward the beginning of the string.\n * @param ignoreCase `true` to ignore character case when matching a string. By default `false`.\n * @return An index of the last occurrence of [string] or -1 if none is found.\n */\npublic fun CharSequence.lastIndexOf(string: String, startIndex: Int = lastIndex, ignoreCase: Boolean = false): Int {\n return if (ignoreCase || this !is String)\n indexOf(string, startIndex, 0, ignoreCase, last = true)\n else\n nativeLastIndexOf(string, startIndex)\n}\n\n/**\n * Returns `true` if this char sequence contains the specified [other] sequence of characters as a substring.\n *\n * @param ignoreCase `true` to ignore character case when comparing strings. By default `false`.\n */\n@Suppress(\"INAPPLICABLE_OPERATOR_MODIFIER\")\npublic operator fun CharSequence.contains(other: CharSequence, ignoreCase: Boolean = false): Boolean =\n if (other is String)\n indexOf(other, ignoreCase = ignoreCase) >= 0\n else\n indexOf(other, 0, length, ignoreCase) >= 0\n\n\n\n/**\n * Returns `true` if this char sequence contains the specified character [char].\n *\n * @param ignoreCase `true` to ignore character case when comparing characters. By default `false`.\n */\n@Suppress(\"INAPPLICABLE_OPERATOR_MODIFIER\")\npublic operator fun CharSequence.contains(char: Char, ignoreCase: Boolean = false): Boolean =\n indexOf(char, ignoreCase = ignoreCase) >= 0\n\n/**\n * Returns `true` if this char sequence contains at least one match of the specified regular expression [regex].\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun CharSequence.contains(regex: Regex): Boolean = regex.containsMatchIn(this)\n\n\n// rangesDelimitedBy\n\n\nprivate class DelimitedRangesSequence(\n private val input: CharSequence,\n private val startIndex: Int,\n private val limit: Int,\n private val getNextMatch: CharSequence.(currentIndex: Int) -> Pair<Int, Int>?\n) : Sequence<IntRange> {\n\n override fun iterator(): Iterator<IntRange> = object : Iterator<IntRange> {\n var nextState: Int = -1 // -1 for unknown, 0 for done, 1 for continue\n var currentStartIndex: Int = startIndex.coerceIn(0, input.length)\n var nextSearchIndex: Int = currentStartIndex\n var nextItem: IntRange? = null\n var counter: Int = 0\n\n private fun calcNext() {\n if (nextSearchIndex < 0) {\n nextState = 0\n nextItem = null\n } else {\n if (limit > 0 && ++counter >= limit || nextSearchIndex > input.length) {\n nextItem = currentStartIndex..input.lastIndex\n nextSearchIndex = -1\n } else {\n val match = input.getNextMatch(nextSearchIndex)\n if (match == null) {\n nextItem = currentStartIndex..input.lastIndex\n nextSearchIndex = -1\n } else {\n val (index, length) = match\n nextItem = currentStartIndex until index\n currentStartIndex = index + length\n nextSearchIndex = currentStartIndex + if (length ==

0) 1 else 0\n }\n }\n nextState = 1\n }\n }\n\n override fun next(): IntRange {\n if (nextState == -1)\n calcNext()\n if (nextState == 0)\n throw NoSuchElementException()\n val result = nextItem as IntRange\n // Clean next to avoid keeping reference on yielded instance\n nextItem = null\n nextState = -1\n return result\n }\n\n override fun hasNext(): Boolean {\n if (nextState == -1)\n calcNext()\n return nextState == 1\n }\n }\n}\n\n/**\n * Returns a sequence of index ranges of substrings in this char sequence around occurrences of the specified [delimiters].\n *\n * @param delimiters One or more characters to be used as delimiters.\n * @param startIndex The index to start searching delimiters from.\n * No range having its start value less than [startIndex] is returned.\n * [startIndex] is coerced to be non-negative and not greater than length of this string.\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return. Zero by default means no limit is set.\n */\nprivate fun CharSequence.rangesDelimitedBy(delimiters: CharArray, startIndex: Int = 0, ignoreCase: Boolean = false, limit: Int = 0): Sequence<IntRange> {\n requireNonNegativeLimit(limit)\n\n return DelimitedRangesSequence(this, startIndex, limit, { currentIndex ->\n indexOfAny(delimiters, currentIndex, ignoreCase = ignoreCase).let { if (it < 0) null else it to 1 }\n })\n}\n\n\n/**\n * Returns a sequence of index ranges of substrings in this char sequence around occurrences of the specified [delimiters].\n *\n * @param delimiters One or more strings to be used as delimiters.\n * @param startIndex The index to start searching delimiters from.\n * No range having its start value less than [startIndex] is returned.\n * [startIndex] is coerced to be non-negative and not greater than length of this string.\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return. Zero by default means no limit is set.\n *\n * To avoid ambiguous results when strings in [delimiters] have characters in common, this method proceeds from\n * the beginning to the end of this string, and finds at each position the first element in [delimiters]\n * that matches this string at that position.\n */\nprivate fun CharSequence.rangesDelimitedBy(delimiters: Array<out String>, startIndex: Int = 0, ignoreCase: Boolean = false, limit: Int = 0): Sequence<IntRange> {\n requireNonNegativeLimit(limit)\n val delimitersList = delimiters.asList()\n\n return DelimitedRangesSequence(this, startIndex, limit, { currentIndex -> findAnyOf(delimitersList, currentIndex, ignoreCase = ignoreCase, last = false)?.let { it.first to it.second.length } })\n\n}\n\ninternal fun requireNonNegativeLimit(limit: Int) =\n require(limit >= 0) { \"Limit must be non-negative, but was $limit\" }\n\n\n// split\n\n/**\n * Splits this char sequence to a sequence of strings around occurrences of the specified [delimiters].\n *\n * @param delimiters One or more strings to be used as delimiters.\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return. Zero by default means no limit is set.\n *\n * To avoid ambiguous results when strings in [delimiters] have characters in common, this method proceeds from\n * the beginning to the end of this string, and finds at each position the first element in [delimiters]\n * that matches this string at that position.\n */\npublic fun CharSequence.splitToSequence(vararg delimiters: String, ignoreCase: Boolean = false, limit: Int = 0): Sequence<String> =\n rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).map { substring(it) }\n\n/**\n * Splits this char sequence to a list of strings around occurrences of the specified [delimiters].\n *\n * @param delimiters One or more strings to be used as delimiters.\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return. Zero by default means no limit is set.\n *\n * To avoid ambiguous results when strings in [delimiters] have characters in common, this method proceeds from\n * the beginning to the end of this string, and matches at each position the first element in [delimiters]\n * that is equal to a delimiter in this instance at that position.\n */\npublic fun CharSequence.split(vararg delimiters: String, ignoreCase: Boolean = false, limit: Int = 0): List<String> {\n if (delimiters.size == 1) {\n val delimiter = delimiters[0]\n if (!delimiter.isEmpty()) {\n return split(delimiter, ignoreCase, limit)\n }\n }\n\n return rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).asIterable().map { substring(it) }\n}\n\n/**\n * Splits this char sequence to a sequence of

strings around occurrences of the specified [delimiters].\n *\n * @param delimiters One or more characters to be used as delimiters.\n * @param ignoreCase `true` to ignore character
case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return.\n */\npublic fun CharSequence.splitToSequence(vararg delimiters: Char, ignoreCase: Boolean = false, limit: Int = 0): Sequence<String> =\n   rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).map { substring(it) }\n\n/**\n * Splits this char sequence to a list of strings around occurrences of the specified [delimiters].\n *\n * @param delimiters One or more characters to be used as delimiters.\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return.\n */\npublic fun CharSequence.split(vararg delimiters: Char, ignoreCase: Boolean = false, limit: Int = 0): List<String> {\n   if (delimiters.size == 1) {\n   return split(delimiters[0].toString(), ignoreCase, limit)\n   }\n\n   return rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).asIterable().map
{ substring(it) }\n}\n\n/**\n * Splits this char sequence to a list of strings around occurrences of the specified [delimiter].\n * This is specialized version of split which receives single non-empty delimiter and offers better performance\n *\n * @param delimiter String used as delimiter\n * @param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.\n * @param limit The maximum number of substrings to return.\n */\nprivate fun CharSequence.split(delimiter: String, ignoreCase: Boolean, limit: Int): List<String> {\n requireNonNegativeLimit(limit)\n\n   var currentOffset = 0\n   var nextIndex = indexOf(delimiter, currentOffset, ignoreCase)\n   if (nextIndex == -1 || limit == 1) {\n   return listOf(this.toString())\n   }\n\n   val isLimited = limit > 0\n   val result = ArrayList<String>(if (isLimited) limit.coerceAtMost(10) else 10)\n   do {\n result.add(substring(currentOffset, nextIndex))\n   currentOffset
= nextIndex + delimiter.length\n   // Do not search for next occurrence if we're reaching limit\n   if (isLimited && result.size == limit - 1) break\n   nextIndex = indexOf(delimiter, currentOffset, ignoreCase)\n   } while (nextIndex != -1)\n\n   result.add(substring(currentOffset, length))\n   return result\n}\n\n/**\n * Splits this char sequence to a list of strings around matches of the given regular expression.\n *\n * @param limit Non-negative value specifying the maximum number of substrings to return.\n * Zero by default means no limit is set.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.split(regex: Regex, limit: Int = 0): List<String> = regex.split(this, limit)\n\n/**\n * Splits this char sequence to a sequence of strings around matches of the given regular expression.\n *\n * @param limit Non-negative value specifying the maximum number of substrings to return.\n * Zero by default means no limit is set.\n * @sample samples.text.Strings.splitToSequence\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.splitToSequence(regex: Regex, limit: Int = 0): Sequence<String> = regex.splitToSequence(this, limit)\n\n/**\n * Splits this char sequence to a sequence of lines delimited by any of the following character sequences: CRLF, LF or CR.\n *\n * The lines returned do not include terminating line separators.\n */\npublic fun CharSequence.lineSequence(): Sequence<String> = splitToSequence(\"\\r\\n\", \"\\n\", \"\\r\")\n\n/**\n * Splits this char sequence to a list of lines delimited by any of the following character sequences: CRLF, LF or CR.\n *\n * The lines returned do not include terminating line separators.\n */\npublic fun CharSequence.lines(): List<String> = lineSequence().toList()\n\n/**\n * Returns `true` if the contents of this char sequence are equal to the contents of the specified [other],\n * i.e. both char sequences contain
the same number of the same characters in the same order.\n *\n * @sample samples.text.Strings.contentEquals\n */\n@SinceKotlin(\"1.5\")\npublic expect infix fun CharSequence?.contentEquals(other: CharSequence?): Boolean\n\n/**\n * Returns `true` if the contents of this char sequence are equal to the contents of the specified [other], optionally ignoring case difference.\n *\n * @param ignoreCase `true` to ignore character case when comparing contents.\n *\n * @sample samples.text.Strings.contentEquals\n */\n@SinceKotlin(\"1.5\")\npublic expect fun CharSequence?.contentEquals(other: CharSequence?, ignoreCase: Boolean): Boolean\n\ninternal fun CharSequence?.contentEqualsIgnoreCaseImpl(other: CharSequence?): Boolean {\n   if (this is String && other is String) {\n   return this.equals(other, ignoreCase = true)\n   }\n\n   if (this === other) return true\n   if (this == null || other == null || this.length != other.length) return false\n\n   for (i in 0 until length) {\n

if (!this[i].equals(other[i], ignoreCase = true)) {\n   return false\n   }\n   }\n\n   return true\n}\n\ninternal fun CharSequence?.contentEqualsImpl(other: CharSequence?): Boolean {\n   if (this is String && other is String) {\n   return this == other\n   }\n\n   if (this === other) return true\n   if (this == null || other == null || this.length != other.length) return false\n\n   for (i in 0 until length) {\n   if (this[i] != other[i]) {\n   return false\n   }\n   }\n\n   return true\n}\n\n/**\n * Returns `true` if the content of this string is equal to the word \"true\", `false` if it is equal to \"false\",\n * and throws an exception otherwise.\n *\n * There is also a lenient version of the function available on nullable String, [String?.toBoolean].\n * Note that this function is case-sensitive.\n *\n * @sample samples.text.Strings.toBooleanStrict\n */\n@SinceKotlin(\"1.5\")\npublic fun String.toBooleanStrict(): Boolean = when (this)

{\n   \"true\" -> true\n   \"false\" -> false\n   else -> throw IllegalArgumentException(\"The string doesn't represent a boolean value: $this\")\n}\n\n/**\n * Returns `true` if the content of this string is equal to the word \"true\", `false` if it is equal to \"false\",\n * and `null` otherwise.\n *\n * There is also a lenient version of the function available on nullable String, [String?.toBoolean].\n * Note that this function is case-sensitive.\n *\n * @sample samples.text.Strings.toBooleanStrictOrNull\n */\n@SinceKotlin(\"1.5\")\npublic fun String.toBooleanStrictOrNull(): Boolean? = when (this) {\n   \"true\" -> true\n   \"false\" -> false\n   else -> null\n}","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@JvmInline\npublic

value class UByteArray\n@PublishedApi\ninternal constructor(@PublishedApi internal val storage: ByteArray) : Collection<UByte> {\n\n   /** Creates a new array of the specified [size], with all elements initialized to zero. */\n   public constructor(size: Int) : this(ByteArray(size))\n\n   /**\n   * Returns the array element at the given [index]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun get(index: Int): UByte = storage[index].toUByte()\n\n   /**\n   * Sets the element at the given [index] to the given [value]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n

*/\n   public operator fun set(index: Int, value: UByte) {\n   storage[index] = value.toByte()\n   }\n\n   /** Returns the number of elements in the array. */\n   public override val size: Int get() = storage.size\n\n   /** Creates an iterator over the elements of the array. */\n   public override operator fun iterator(): kotlin.collections.Iterator<UByte> = Iterator(storage)\n\n   @Suppress(\"DEPRECATION_ERROR\")\n   private class Iterator(private val array: ByteArray) : UByteIterator() {\n   private var index = 0\n   override fun hasNext() = index < array.size\n   override fun nextUByte() = if (index < array.size) array[index++].toUByte() else throw NoSuchElementException(index.toString())\n   }\n\n   override fun contains(element: UByte): Boolean {\n   // TODO: Eliminate this check after KT-30016 gets fixed.\n   // Currently JS BE does not generate special bridge method for this method.\n   @Suppress(\"USELESS_CAST\")\n   if ((element

as Any?) !is UByte) return false\n\n   return storage.contains(element.toByte())\n   }\n\n   override fun containsAll(elements: Collection<UByte>): Boolean {\n   return (elements as Collection<*>).all { it is UByte && storage.contains(it.toByte()) }\n   }\n\n   override fun isEmpty(): Boolean = this.storage.size == 0\n}\n\n/**\n * Creates a new array of the specified [size], where each element is calculated by calling the specified\n * [init] function.\n *\n * The function [init] is called for each array element sequentially starting from the first one.\n * It should return the value for an array element given its index.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray(size: Int, init: (Int) -> UByte): UByteArray {\n   return UByteArray(ByteArray(size) { index -> init(index).toByte()

})\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ubyteArrayOf(vararg

elements: UByte): UByteArray = elements\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@JvmInline\npublic value class UIntArray\n@PublishedApi\ninternal constructor(@PublishedApi internal val storage: IntArray) : Collection<UInt> {\n\n   /** Creates a new array of the specified [size], with all elements initialized to zero. */\n   public constructor(size: Int) : this(IntArray(size))\n\n   /**\n   * Returns the array element at the given [index]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public
operator fun get(index: Int): UInt = storage[index].toUInt()\n\n   /**\n   * Sets the element at the given [index] to the given [value]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun set(index: Int, value: UInt) {\n   storage[index] = value.toInt()\n   }\n\n   /** Returns the number of elements in the array. */\n   public override val size: Int get() = storage.size\n\n   /** Creates an iterator over the elements of the array. */\n   public override operator fun iterator(): kotlin.collections.Iterator<UInt> = Iterator(storage)\n\n   @Suppress(\"DEPRECATION_ERROR\")\n   private class Iterator(private val array: IntArray) : UIntIterator() {\n   private var index = 0\n   override fun hasNext() = index < array.size\n   override fun nextUInt() = if (index < array.size)
array[index++].toUInt() else throw NoSuchElementException(index.toString())\n   }\n\n   override fun contains(element: UInt): Boolean {\n   // TODO: Eliminate this check after KT-30016 gets fixed.\n   // Currently JS BE does not generate special bridge method for this method.\n
@Suppress(\"USELESS_CAST\")\n   if ((element as Any?) !is UInt) return false\n\n   return storage.contains(element.toInt())\n   }\n\n   override fun containsAll(elements: Collection<UInt>): Boolean {\n   return (elements as Collection<*>).all { it is UInt && storage.contains(it.toInt()) }\n   }\n\n   override fun isEmpty(): Boolean = this.storage.size == 0\n}\n\n/**\n * Creates a new array of the specified [size], where each element is calculated by calling the specified\n * [init] function.\n *\n * The function [init] is called for each array element sequentially starting from the first one.\n * It should return the value for an array element given its index.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UIntArray(size: Int, init: (Int) -> UInt): UIntArray {\n   return UIntArray(IntArray(size) { index -> init(index).toInt()
})\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun uintArrayOf(vararg elements: UInt): UIntArray = elements\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@JvmInline\npublic value class ULongArray\n@PublishedApi\ninternal constructor(@PublishedApi internal val storage: LongArray) : Collection<ULong> {\n\n   /** Creates a new array of the specified [size], with all elements initialized to zero. */\n
public constructor(size:
Int) : this(LongArray(size))\n\n   /**\n   * Returns the array element at the given [index]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun get(index: Int): ULong = storage[index].toULong()\n\n   /**\n   * Sets the element at the given [index] to the given [value]. This method can be called using the index operator.\n   *\n   * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n   * where the behavior is unspecified.\n   */\n   public operator fun set(index: Int, value: ULong) {\n   storage[index] = value.toLong()\n   }\n\n   /** Returns the number of elements in the array. */\n   public override val size: Int get() = storage.size\n\n   /** Creates an iterator over the elements of the array. */\n

public override operator fun iterator(): kotlin.collections.Iterator<ULong> = Iterator(storage)\n\n @Suppress(\"DEPRECATION_ERROR\")\n private class Iterator(private val array: LongArray) : ULongIterator() {\n private var index = 0\n override fun hasNext() = index < array.size\n override fun nextULong() = if (index < array.size) array[index++].toULong() else throw NoSuchElementException(index.toString())\n }\n\n override fun contains(element: ULong): Boolean {\n // TODO: Eliminate this check after KT-30016 gets fixed.\n // Currently JS BE does not generate special bridge method for this method.\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is ULong) return false\n\n return storage.contains(element.toLong())\n }\n\n override fun containsAll(elements: Collection<ULong>): Boolean {\n return (elements as Collection<*>).all { it is ULong && storage.contains(it.toLong()) }\n }\n\n override fun isEmpty(): Boolean = this.storage.size == 0\n}\n\n/**\n * Creates a new array of the specified [size], where each element is calculated by calling the specified\n * [init] function.\n *\n * The function [init] is called for each array element sequentially starting from the first one.\n * It should return the value for an array element given its index.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray(size: Int, init: (Int) -> ULong): ULongArray {\n return ULongArray(LongArray(size) { index -> init(index).toLong() })\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ulongArrayOf(vararg elements: ULong): ULongArray = elements\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport kotlin.jvm.*\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@JvmInline\npublic value class UShortArray\n@PublishedApi\ninternal constructor(@PublishedApi internal val storage: ShortArray) : Collection<UShort> {\n\n /** Creates a new array of the specified [size], with all elements initialized to zero. */\n public constructor(size: Int) : this(ShortArray(size))\n\n /**\n * Returns the array element at the given [index]. This method can be called using the index operator.\n *\n * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n public operator fun get(index: Int): UShort = storage[index].toUShort()\n\n /**\n * Sets the element at the given [index] to the given [value]. This method can be called using the index operator.\n *\n * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n public operator fun set(index: Int, value: UShort) {\n storage[index] = value.toShort()\n }\n\n /** Returns the number of elements in the array. */\n public override val size: Int get() = storage.size\n\n /** Creates an iterator over the elements of the array. */\n public override operator fun iterator(): kotlin.collections.Iterator<UShort> = Iterator(storage)\n\n @Suppress(\"DEPRECATION_ERROR\")\n private class Iterator(private val array: ShortArray) : UShortIterator() {\n private var index = 0\n override fun hasNext() = index < array.size\n override fun nextUShort() = if (index < array.size) array[index++].toUShort() else throw NoSuchElementException(index.toString())\n }\n\n override fun contains(element: UShort): Boolean {\n // TODO: Eliminate this check after KT-30016 gets fixed.\n // Currently JS BE does not generate special bridge method for this method.\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is UShort) return false\n\n return storage.contains(element.toShort())\n }\n\n override fun containsAll(elements: Collection<UShort>): Boolean {\n return (elements as Collection<*>).all { it is UShort && storage.contains(it.toShort()) }\n }\n\n override fun isEmpty(): Boolean = this.storage.size == 0\n}\n\n/**\n * Creates a new array of the specified [size], where each element is calculated by calling the specified\n * [init] function.\n *\n * The function [init] is called for each array element sequentially starting from the first one.\n * It should return the value for an array element given its index.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray(size: Int, init: (Int) -> UShort): UShortArray {\n return UShortArray(ShortArray(size) { index ->

init(index).toShort()
})\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ushortArrayOf(vararg elements: UShort): UShortArray = elements\n","/*\n * Copyright 2010-2021
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"UArraysKt\")\n@file:kotlin.jvm.JvmPackageName(\"kotlin.collections.unsigned\")\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\nimport
kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns 1st *element* from the array.\n * \n * If the
size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior
is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline operator fun UIntArray.component1(): UInt {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the
array.\n * \n * If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n
* where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
ULongArray.component1(): ULong {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n *
If the size of this array is less than 1, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the
behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UByteArray.component1(): UByte {\n   return get(0)\n}\n\n/**\n * Returns 1st *element* from the array.\n * \n * If
the size of this array is less than 1, throws an [IndexOutOfBoundsException]
except in Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UShortArray.component1(): UShort {\n   return get(0)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n *
If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the
behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UIntArray.component2(): UInt {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n * If
the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the
behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
ULongArray.component2(): ULong {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element*
from the array.\n * \n * If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in
Kotlin/JS\n * where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UByteArray.component2(): UByte {\n   return get(1)\n}\n\n/**\n * Returns 2nd *element* from the array.\n * \n *
If the size of this array is less than 2, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the
behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UShortArray.component2(): UShort {\n   return get(1)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n *
If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the
behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
operator fun UIntArray.component3(): UInt {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the
array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n
* where the behavior is unspecified.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun

ULongArray.component3(): ULong {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.component3(): UByte {\n   return get(2)\n}\n\n/**\n * Returns 3rd *element* from the array.\n * \n * If the size of this array is less than 3, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.component3(): UShort {\n   return get(2)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntArray.component4(): UInt {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.component4(): ULong {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.component4(): UByte {\n   return get(3)\n}\n\n/**\n * Returns 4th *element* from the array.\n * \n * If the size of this array is less than 4, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.component4(): UShort {\n   return get(3)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntArray.component5(): UInt {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.component5(): ULong {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.component5(): UByte {\n   return get(4)\n}\n\n/**\n * Returns 5th *element* from the array.\n * \n * If the size of this array is less than 5, throws an [IndexOutOfBoundsException] except in Kotlin/JS\n * where the behavior is unspecified.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.component5(): UShort {\n   return get(4)\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun UIntArray.elementAt(index: Int): UInt\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun ULongArray.elementAt(index: Int): ULong\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun UByteArray.elementAt(index: Int): UByte\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun UShortArray.elementAt(index: Int): UShort\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.elementAtOrElse(index: Int, defaultValue: (Int) -> UInt): UInt {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.elementAtOrElse(index: Int, defaultValue: (Int) -> ULong): ULong {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.elementAtOrElse(index: Int, defaultValue: (Int) -> UByte): UByte {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.elementAtOrElse(index: Int, defaultValue: (Int) -> UShort): UShort {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.elementAtOrNull(index: Int): UInt? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.elementAtOrNull(index: Int): ULong? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.elementAtOrNull(index: Int): UByte? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.elementAtOrNull(index: Int): UShort? {\n   return this.getOrNull(index)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.find(predicate: (UInt) -> Boolean): UInt? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.find(predicate: (ULong) -> Boolean): ULong? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.find(predicate: (UByte) -> Boolean): UByte? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching
 the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.find(predicate: (UShort) -> Boolean): UShort? {\n   return firstOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.findLast(predicate: (UInt) -> Boolean): UInt? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.findLast(predicate:
 (ULong) -> Boolean): ULong? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.findLast(predicate: (UByte) -> Boolean): UByte? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.find\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.findLast(predicate: (UShort) -> Boolean): UShort? {\n   return lastOrNull(predicate)\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun UIntArray.first(): UInt {\n   return storage.first().toUInt()\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.first(): ULong {\n   return storage.first().toULong()\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.first(): UByte {\n   return storage.first().toUByte()\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.first(): UShort {\n   return storage.first().toUShort()\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no
 such element is found.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.first(predicate: (UInt) -> Boolean): UInt {\n   for (element in this) if (predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

ULongArray.first(predicate: (ULong) -> Boolean): ULong {\n   for (element in this) if (predicate(element)) return
element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n *
Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such
element is found.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun UByteArray.first(predicate: (UByte) -> Boolean): UByte {\n   for (element in this) if
(predicate(element)) return element\n   throw NoSuchElementException(\"Array contains no element matching the
predicate.\")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws
[NoSuchElementException] if no such element is found.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.first(predicate: (UShort) -> Boolean): UShort {\n   for (element in this) if (predicate(element)) return
element\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n *
Returns the first element, or `null` if the array is empty.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.firstOrNull(): UInt? {\n   return
if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
 fun ULongArray.firstOrNull(): ULong? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first
element, or `null` if the array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun
UByteArray.firstOrNull(): UByte? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first
element, or `null` if the array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun
UShortArray.firstOrNull(): UShort? {\n   return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first
element matching the given [predicate], or `null` if element was not found.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.firstOrNull(predicate: (UInt) -> Boolean): UInt? {\n   for (element in this) if (predicate(element)) return
element\n   return null\n}\n\n/**\n * Returns the first element matching the given
 [predicate], or `null` if element was not found.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.firstOrNull(predicate: (ULong) -> Boolean): ULong? {\n   for (element in this) if (predicate(element))
return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if
element was not found.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.firstOrNull(predicate: (UByte) -> Boolean): UByte? {\n   for (element in this) if (predicate(element))
return element\n   return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if
element was not found.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.firstOrNull(predicate: (UShort) -> Boolean): UShort? {\n   for (element in this) if (predicate(element))
return
 element\n   return null\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the
[defaultValue] function if the [index] is out of bounds of this array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.getOrElse(index: Int, defaultValue: (Int) -> UInt): UInt {\n   return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.getOrElse(index: Int, defaultValue: (Int) -> ULong): ULong {\n   return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this

array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.getOrElse(index: Int, defaultValue: (Int) -> UByte): UByte {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.getOrElse(index: Int, defaultValue: (Int) -> UShort): UShort {\n   return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.getOrNull(index: Int): UInt? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.getOrNull(index: Int): ULong? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.getOrNull(index: Int): UByte? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.getOrNull\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.getOrNull(index: Int): UShort? {\n   return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.indexOf(element: UInt): Int {\n   return storage.indexOf(element.toInt())\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.indexOf(element: ULong): Int {\n   return storage.indexOf(element.toLong())\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.indexOf(element: UByte): Int {\n   return storage.indexOf(element.toByte())\n}\n\n/**\n * Returns first index of [element], or -1 if the array does not contain element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.indexOf(element: UShort): Int {\n   return storage.indexOf(element.toShort())\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.indexOfFirst(predicate: (UInt) -> Boolean): Int {\n   return storage.indexOfFirst { predicate(it.toUInt()) }\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.indexOfFirst(predicate: (ULong) -> Boolean): Int {\n   return storage.indexOfFirst { predicate(it.toULong()) }\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.indexOfFirst(predicate: (UByte) -> Boolean): Int {\n   return storage.indexOfFirst { predicate(it.toUByte()) }\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.indexOfFirst(predicate: (UShort) -> Boolean): Int {\n   return storage.indexOfFirst {

predicate(it.toUShort()) }\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.indexOfLast(predicate: (UInt) -> Boolean): Int {\n   return storage.indexOfLast { predicate(it.toUInt()) }\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.indexOfLast(predicate: (ULong) -> Boolean): Int {\n   return storage.indexOfLast { predicate(it.toULong()) }\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.indexOfLast(predicate: (UByte) -> Boolean): Int {\n   return storage.indexOfLast { predicate(it.toUByte()) }\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain such element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.indexOfLast(predicate: (UShort) -> Boolean): Int {\n   return storage.indexOfLast { predicate(it.toUShort()) }\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.last(): UInt {\n   return storage.last().toUInt()\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.last(): ULong {\n   return storage.last().toULong()\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.last(): UByte {\n   return storage.last().toUByte()\n}\n\n/**\n * Returns the last element.\n * \n * @throws NoSuchElementException if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.last(): UShort {\n   return storage.last().toUShort()\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.last(predicate: (UInt) -> Boolean): UInt {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.last(predicate: (ULong) -> Boolean): ULong {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.last(predicate: (UByte) -> Boolean): UByte {\n for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * \n * @throws NoSuchElementException if no such element is found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.last(predicate: (UShort) -> Boolean): UShort {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.lastIndexOf(element: UInt): Int {\n   return storage.lastIndexOf(element.toInt())\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.lastIndexOf(element: ULong): Int {\n   return storage.lastIndexOf(element.toLong())\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.lastIndexOf(element: UByte): Int {\n   return storage.lastIndexOf(element.toByte())\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.lastIndexOf(element: UShort): Int {\n   return storage.lastIndexOf(element.toShort())\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.lastOrNull(): UInt? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.lastOrNull(): ULong? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.lastOrNull(): UByte? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.lastOrNull(): UShort? {\n   return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.lastOrNull(predicate: (UInt) -> Boolean): UInt? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.lastOrNull(predicate: (ULong) -> Boolean): ULong? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.lastOrNull(predicate: (UByte) -> Boolean): UByte? {\n   for (index in this.indices.reversed()) {\n val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n * \n * @sample samples.collections.Collections.Elements.last\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.lastOrNull(predicate: (UShort) -> Boolean): UShort? {\n   for (index in this.indices.reversed()) {\n   val element = this[index]\n   if (predicate(element)) return element\n   }\n   return null\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.random(): UInt {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.random(): ULong {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.random(): UByte {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.random(): UShort {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.random(random: Random): UInt {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.random(random: Random): ULong {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.random(random: Random): UByte {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.random(random: Random): UShort {\n   if (isEmpty())\n   throw NoSuchElementException(\"Array is empty.\")\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.randomOrNull(): UInt? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.randomOrNull(): ULong? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.randomOrNull(): UByte? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.randomOrNull(): UShort?

{\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun UIntArray.randomOrNull(random: Random): UInt? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun ULongArray.randomOrNull(random: Random): ULong? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\npublic

fun UByteArray.randomOrNull(random: Random): UByte? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of randomness, or `null` if this array is empty.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun UShortArray.randomOrNull(random: Random): UShort? {\n   if (isEmpty())\n   return null\n   return get(random.nextInt(size))\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.single(): UInt {\n   return storage.single().toUInt()\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

inline fun ULongArray.single(): ULong {\n   return storage.single().toULong()\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.single(): UByte {\n   return storage.single().toUByte()\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.single(): UShort {\n   return storage.single().toUShort()\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.single(predicate: (UInt) -> Boolean): UInt {\n

var single: UInt? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return single as UInt\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.single(predicate: (ULong) -> Boolean): ULong {\n   var single: ULong? = null\n   var found = false\n

for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n

single = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n   @Suppress(\"UNCHECKED_CAST\")\n   return single as ULong\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

UByteArray.single(predicate: (UByte) -> Boolean): UByte {\n   var single: UByte? = null\n   var found = false\n for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n   return single as UByte\n}\n\n/**\n
 * Returns the single element matching the given [predicate], or throws exception if there is no or more than one matching element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.single(predicate: (UShort) -> Boolean): UShort {\n   var single: UShort? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) throw IllegalArgumentException(\"Array contains more than one matching element.\")\n   single = element\n   found = true\n   }\n   }\n   if (!found) throw NoSuchElementException(\"Array contains no element matching the predicate.\")\n @Suppress(\"UNCHECKED_CAST\")\n   return single as UShort\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.singleOrNull(): UInt? {\n return if (size == 1) this[0]
 else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.singleOrNull(): ULong? {\n return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.singleOrNull(): UByte? {\n   return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.singleOrNull(): UShort? {\n return if (size == 1) this[0] else null\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun UIntArray.singleOrNull(predicate: (UInt) -> Boolean): UInt? {\n   var single: UInt? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.singleOrNull(predicate: (ULong) -> Boolean): ULong? {\n   var single: ULong? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns the single element matching the given
 [predicate], or `null` if element was not found or more than one element was found.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.singleOrNull(predicate: (UByte) -> Boolean): UByte? {\n   var single: UByte? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.singleOrNull(predicate: (UShort) -> Boolean): UShort? {\n   var single: UShort? = null\n   var found = false\n   for (element in this) {\n   if (predicate(element)) {\n   if (found) return null\n   single = element\n   found = true\n   }\n   }\n   if (!found) return null\n   return single\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.drop(n: Int): List<UInt> {\n

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require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.drop(n: Int): List<ULong> {\n
  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n
 * Returns a list containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n]
is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.drop(n: Int): List<UByte> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.drop(n: Int): List<UShort> {\n
  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException
 if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.dropLast(n: Int): List<UInt> {\n
 require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.dropLast(n: Int):
List<ULong> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
 fun UByteArray.dropLast(n: Int): List<UByte> {\n    require(n >= 0) { \"Requested element count $n is less than
zero.\" }\n    return take((size - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last
[n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.dropLast(n: Int):
List<UShort> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given
[predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.dropLastWhile(predicate: (UInt) -> Boolean):
 List<UInt> {\n    for (index in lastIndex downTo 0) {\n        if (!predicate(this[index])) {\n            return take(index
+ 1)\n        }\n    }\n    return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements
that satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.dropLastWhile(predicate: (ULong) -> Boolean): List<ULong> {\n    for (index in lastIndex downTo 0)
{\n        if (!predicate(this[index])) {\n            return take(index + 1)\n        }\n    }\n    return emptyList()\n}\n\n/**\n
* Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
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*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.dropLastWhile(predicate:
 (UByte) -> Boolean): List<UByte> {\n   for (index in lastIndex downTo 0) {\n   if (!predicate(this[index])) {\n
      return take(index + 1)\n   }\n   }\n   return emptyList()\n}\n\n/**\n * Returns a list containing all elements
except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.dropLastWhile(predicate: (UShort) -> Boolean): List<UShort> {\n   for (index in lastIndex downTo
0) {\n   if (!predicate(this[index])) {\n   return take(index + 1)\n   }\n   }\n   return
emptyList()\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given
[predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun UIntArray.dropWhile(predicate: (UInt) -> Boolean): List<UInt> {\n   var yielding = false\n   val list =
ArrayList<UInt>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n
         list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing all
elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.dropWhile(predicate: (ULong) -> Boolean): List<ULong> {\n   var yielding = false\n   val list =
ArrayList<ULong>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item))
{\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing all
elements except
 first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.dropWhile(predicate: (UByte) -> Boolean): List<UByte> {\n   var yielding = false\n   val list =
ArrayList<UByte>()\n   for (item in this)\n   if (yielding)\n   list.add(item)\n   else if (!predicate(item))
{\n   list.add(item)\n   yielding = true\n   }\n   return list\n}\n\n/**\n * Returns a list containing all
elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.dropWhile(predicate: (UShort) -> Boolean): List<UShort> {\n   var yielding = false\n   val list =
ArrayList<UShort>()\n   for (item in this)\n
     if (yielding)\n   list.add(item)\n   else if (!predicate(item)) {\n   list.add(item)\n   yielding =
true\n   }\n   return list\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n *
\n * @sample samples.collections.Collections.Filtering.filter\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.filter(predicate: (UInt) -> Boolean): List<UInt> {\n   return filterTo(ArrayList<UInt>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.filter(predicate: (ULong) -> Boolean): List<ULong> {\n   return filterTo(ArrayList<ULong>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n *
 \n * @sample samples.collections.Collections.Filtering.filter\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.filter(predicate: (UByte) -> Boolean): List<UByte> {\n   return filterTo(ArrayList<UByte>(),
predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @sample
samples.collections.Collections.Filtering.filter\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.filter(predicate: (UShort) -> Boolean): List<UShort> {\n   return filterTo(ArrayList<UShort>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun UIntArray.filterIndexed(predicate: (index: Int, UInt) -> Boolean): List<UInt> {\n   return filterIndexedTo(ArrayList<UInt>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.filterIndexed(predicate: (index: Int, ULong) -> Boolean): List<ULong> {\n   return filterIndexedTo(ArrayList<ULong>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation
 on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.filterIndexed(predicate: (index: Int, UByte) -> Boolean): List<UByte> {\n   return filterIndexedTo(ArrayList<UByte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexed\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.filterIndexed(predicate: (index: Int, UShort) -> Boolean): List<UShort> {\n   return filterIndexedTo(ArrayList<UShort>(), predicate)\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n
 * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UInt>> UIntArray.filterIndexedTo(destination: C, predicate: (index: Int, UInt) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun <C : MutableCollection<in ULong>> ULongArray.filterIndexedTo(destination: C, predicate: (index: Int, ULong) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n * @sample samples.collections.Collections.Filtering.filterIndexedTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UByte>> UByteArray.filterIndexedTo(destination: C, predicate: (index: Int, UByte) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Appends all
 elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n * \n *

@sample samples.collections.Collections.Filtering.filterIndexedTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UShort>> UShortArray.filterIndexedTo(destination: C, predicate: (index: Int, UShort) -> Boolean): C {\n   forEachIndexed { index, element ->\n   if (predicate(index, element)) destination.add(element)\n   }\n   return destination\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.filterNot(predicate: (UInt) -> Boolean): List<UInt> {\n   return filterNotTo(ArrayList<UInt>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.filterNot(predicate: (ULong) -> Boolean): List<ULong> {\n   return filterNotTo(ArrayList<ULong>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.filterNot(predicate: (UByte) -> Boolean): List<UByte> {\n   return filterNotTo(ArrayList<UByte>(), predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n * \n * @sample samples.collections.Collections.Filtering.filter\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.filterNot(predicate: (UShort) -> Boolean): List<UShort> {\n   return filterNotTo(ArrayList<UShort>(), predicate)\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UInt>> UIntArray.filterNotTo(destination: C, predicate: (UInt) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in ULong>> ULongArray.filterNotTo(destination: C, predicate: (ULong) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UByte>> UByteArray.filterNotTo(destination: C, predicate: (UByte) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements not matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UShort>> UShortArray.filterNotTo(destination: C, predicate: (UShort) -> Boolean): C {\n   for (element in this) if (!predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UInt>> UIntArray.filterTo(destination: C, predicate: (UInt) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :

MutableCollection<in ULong>> ULongArray.filterTo(destination: C, predicate: (ULong) -> Boolean): C {\n   for (element in this) if (predicate(element))
 destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UByte>> UByteArray.filterTo(destination: C, predicate: (UByte) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * \n * @sample samples.collections.Collections.Filtering.filterTo\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UShort>> UShortArray.filterTo(destination: C, predicate: (UShort) -> Boolean): C {\n   for (element in this) if (predicate(element)) destination.add(element)\n   return destination\n}\n\n/**\n
 * Returns a list containing elements at indices in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.slice(indices: IntRange): List<UInt> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.slice(indices: IntRange): List<ULong> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.slice(indices: IntRange): List<UByte> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n
 * Returns a list containing elements at indices in the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.slice(indices: IntRange): List<UShort> {\n   if (indices.isEmpty()) return listOf()\n   return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.slice(indices: Iterable<Int>): List<UInt> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<UInt>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.slice(indices: Iterable<Int>): List<ULong> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size ==
 0) return emptyList()\n   val list = ArrayList<ULong>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.slice(indices: Iterable<Int>): List<UByte> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<UByte>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.slice(indices: Iterable<Int>): List<UShort> {\n   val size = indices.collectionSizeOrDefault(10)\n   if (size == 0) return emptyList()\n   val list = ArrayList<UShort>(size)\n   for (index in indices) {\n   list.add(get(index))\n   }\n   return list\n}\n\n/**\n * Returns an array
 containing elements of this array at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sliceArray(indices: Collection<Int>): UIntArray {\n   return UIntArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sliceArray(indices: Collection<Int>): ULongArray {\n   return ULongArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array

containing elements of this array at specified [indices].\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sliceArray(indices:
Collection<Int>): UByteArray {\n   return UByteArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array
containing elements of this array at specified [indices].\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sliceArray(indices:
Collection<Int>): UShortArray {\n
    return UShortArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements at indices in
the specified [indices] range.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun
UIntArray.sliceArray(indices: IntRange): UIntArray {\n   return UIntArray(storage.sliceArray(indices))\n}\n\n/**\n
* Returns an array containing elements at indices in the specified [indices] range.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sliceArray(indices: IntRange):
ULongArray {\n   return ULongArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing
elements at indices in the specified [indices] range.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sliceArray(indices: IntRange):
UByteArray {\n   return UByteArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing
elements at indices in the specified [indices] range.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
 fun UShortArray.sliceArray(indices: IntRange): UShortArray {\n   return
UShortArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n *
@throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.take(n: Int): List<UInt> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >=
size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<UInt>(n)\n   for
(item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns
a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
 fun ULongArray.take(n: Int): List<ULong> {\n   require(n >= 0) { \"Requested element count $n is less than
zero.\" }\n   if (n == 0) return emptyList()\n   if (n >= size) return toList()\n   if (n == 1) return listOf(this[0])\n
var count = 0\n   val list = ArrayList<ULong>(n)\n   for (item in this) {\n   list.add(item)\n   if (++count ==
n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.take(n: Int): List<UByte> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >=
size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<UByte>(n)\n
    for (item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n *
Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n *
@sample samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.take(n: Int): List<UShort> {\n
  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n   if (n == 0) return emptyList()\n   if (n >=
size) return toList()\n   if (n == 1) return listOf(this[0])\n   var count = 0\n   val list = ArrayList<UShort>(n)\n   for
(item in this) {\n   list.add(item)\n   if (++count == n)\n   break\n   }\n   return list\n}\n\n/**\n * Returns
a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic

fun UIntArray.takeLast(n: Int): List<UInt> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n if (n == 0) return emptyList()\n val size = size\n if (n >= size) return toList()\n if (n == 1) return listOf(this[size - 1])\n val list = ArrayList<UInt>(n)\n for (index in size - n until size)\n list.add(this[index])\n return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.takeLast(n: Int): List<ULong> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n if (n == 0) return emptyList()\n val size = size\n if (n >= size) return toList()\n if (n == 1) return listOf(this[size - 1])\n val list = ArrayList<ULong>(n)\n for (index in size - n

until size)\n list.add(this[index])\n return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.takeLast(n: Int): List<UByte> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n if (n == 0) return emptyList()\n val size = size\n if (n >= size) return toList()\n if (n == 1) return listOf(this[size - 1])\n val list = ArrayList<UByte>(n)\n for (index in size - n until size)\n list.add(this[index])\n return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.takeLast(n: Int): List<UShort>

{\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n if (n == 0) return emptyList()\n val size = size\n if (n >= size) return toList()\n if (n == 1) return listOf(this[size - 1])\n val list = ArrayList<UShort>(n)\n for (index in size - n until size)\n list.add(this[index])\n return list\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.takeLastWhile(predicate: (UInt) -> Boolean): List<UInt> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return drop(index + 1)\n }\n }\n return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

inline fun ULongArray.takeLastWhile(predicate: (ULong) -> Boolean): List<ULong> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return drop(index + 1)\n }\n }\n return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.takeLastWhile(predicate: (UByte) -> Boolean): List<UByte> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return drop(index + 1)\n }\n }\n return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

inline fun UShortArray.takeLastWhile(predicate: (UShort) -> Boolean): List<UShort> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return drop(index + 1)\n }\n }\n return toList()\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.takeWhile(predicate: (UInt) -> Boolean): List<UInt> {\n val list = ArrayList<UInt>()\n for (item in this) {\n if (!predicate(item))\n break\n list.add(item)\n }\n return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.takeWhile(predicate: (ULong) -> Boolean): List<ULong> {\n   val list = ArrayList<ULong>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.takeWhile(predicate: (UByte) -> Boolean): List<UByte> {\n   val list = ArrayList<UByte>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.takeWhile(predicate: (UShort) -> Boolean): List<UShort> {\n   val list = ArrayList<UShort>()\n   for (item in this) {\n   if (!predicate(item))\n   break\n   list.add(item)\n   }\n   return list\n}\n\n/**\n * Reverses elements in the array in-place.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reverse(): Unit {\n   storage.reverse()\n}\n\n/**\n * Reverses elements in the array in-place.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reverse(): Unit {\n   storage.reverse()\n}\n\n/**\n * Reverses elements in the array in-place.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reverse(): Unit {\n   storage.reverse()\n}\n\n/**\n * Reverses elements in the array in-place.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reverse(): Unit {\n   storage.reverse()\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   storage.reverse(fromIndex, toIndex)\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   storage.reverse(fromIndex, toIndex)\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   storage.reverse(fromIndex, toIndex)\n}\n\n/**\n * Reverses elements of the array in the specified range in-place.\n * \n * @param fromIndex the start of the range (inclusive) to reverse.\n * @param toIndex the end of the range (exclusive) to reverse.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n

*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reverse(fromIndex: Int, toIndex: Int): Unit {\n   storage.reverse(fromIndex, toIndex)\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.reversed(): List<UInt> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.reversed(): List<ULong> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.reversed(): List<UByte> {\n if (isEmpty()) return emptyList()\n   val list = toMutableList()\n   list.reverse()\n   return list\n}\n\n/**\n * Returns a list with elements in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.reversed(): List<UShort> {\n   if (isEmpty()) return emptyList()\n   val list = toMutableList()\n list.reverse()\n   return list\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reversedArray(): UIntArray {\n   return UIntArray(storage.reversedArray())\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reversedArray(): ULongArray {\n   return ULongArray(storage.reversedArray())\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reversedArray(): UByteArray {\n   return UByteArray(storage.reversedArray())\n}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reversedArray(): UShortArray {\n   return UShortArray(storage.reversedArray())\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.shuffle(): Unit {\n shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.shuffle(): Unit {\n   shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.shuffle(): Unit {\n shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.shuffle(): Unit {\n shuffle(Random)\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See: https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.shuffle(random: Random):

Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n
    }\n}\n\n/**\n * Randomly shuffles elements in this array in-place using the specified [random] instance as the source of randomness.\n * \n * See:
https://en.wikipedia.org/wiki/Fisher%E2%80%93Yates_shuffle#The_modern_algorithm\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.shuffle(random: Random): Unit {\n   for (i in lastIndex downTo 1) {\n   val j = random.nextInt(i + 1)\n   val copy = this[i]\n   this[i] = this[j]\n   this[j] = copy\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sortDescending(): Unit {\n   if (size > 1)
 {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sortDescending(): Unit {\n   if (size > 1) {\n   sort()\n   reverse()\n   }\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sorted(): List<UInt> {\n   return copyOf().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sorted():
 List<ULong> {\n   return copyOf().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sorted(): List<UByte> {\n   return copyOf().apply { sort() }.asList()\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sorted(): List<UShort> {\n   return copyOf().apply { sort() }.asList()\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sortedArray(): UIntArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
 fun ULongArray.sortedArray(): ULongArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sortedArray(): UByteArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according to their natural sort order.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sortedArray(): UShortArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sort() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sortedArrayDescending(): UIntArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply
 { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sortedArrayDescending(): ULongArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun

UByteArray.sortedArrayDescending(): UByteArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to their natural sort order.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sortedArrayDescending(): UShortArray {\n   if (isEmpty()) return this\n   return this.copyOf().apply { sortDescending() }\n}\n\n/**\n
 * Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sortedDescending(): List<UInt> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sortedDescending(): List<ULong> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
 fun UByteArray.sortedDescending(): List<UByte> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sortedDescending(): List<UShort> {\n   return copyOf().apply { sort() }.reversed()\n}\n\n/**\n * Returns an array of type [ByteArray], which is a view of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.asByteArray(): ByteArray {\n   return storage\n}\n\n/**\n * Returns an array of type [IntArray], which is a view of this array where each element is a signed reinterpretation\n
 * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.asIntArray(): IntArray {\n   return storage\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun UIntArray.asList(): List<UInt>\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun ULongArray.asList(): List<ULong>\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun UByteArray.asList(): List<UByte>\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic expect fun UShortArray.asList(): List<UShort>\n\n/**\n * Returns an array of type [LongArray], which is a view of this array where each element is a signed reinterpretation\n
 * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.asLongArray(): LongArray {\n   return storage\n}\n\n/**\n * Returns an array of type [ShortArray], which is a view of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.asShortArray(): ShortArray {\n   return storage\n}\n\n/**\n * Returns an array of type [UByteArray], which is a view of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.asUByteArray(): UByteArray {\n   return UByteArray(this)\n}\n\n/**\n * Returns an array of type [UIntArray], which is a view of this array where
 each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

IntArray.asUIntArray(): UIntArray {\n   return UIntArray(this)\n}\n\n/**\n * Returns an array of type [ULongArray], which is a view of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.asULongArray(): ULongArray {\n   return ULongArray(this)\n}\n\n/**\n * Returns an array of type [UShortArray], which is a view of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.asUShortArray(): UShortArray {\n   return UShortArray(this)\n}\n\n/**\n * Returns `true`
 if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun UIntArray.contentEquals(other: UIntArray): Boolean {\n
 return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun ULongArray.contentEquals(other: ULongArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain
 the same number of the same elements in the same order.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun UByteArray.contentEquals(other: UByteArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun UShortArray.contentEquals(other: UShortArray): Boolean {\n   return this.contentEquals(other)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic
 infix fun UIntArray?.contentEquals(other: UIntArray?): Boolean {\n   return this?.storage.contentEquals(other?.storage)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun ULongArray?.contentEquals(other: ULongArray?): Boolean {\n   return this?.storage.contentEquals(other?.storage)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun UByteArray?.contentEquals(other: UByteArray?): Boolean {\n   return this?.storage.contentEquals(other?.storage)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number
 of the same elements in the same order.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic infix fun UShortArray?.contentEquals(other: UShortArray?): Boolean {\n   return this?.storage.contentEquals(other?.storage)\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n

*/\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.contentHashCode(): Int {\n   return this.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray?.contentHashCode(): Int {\n return this?.storage.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray?.contentHashCode(): Int {\n   return this?.storage.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray?.contentHashCode(): Int {\n return this?.storage.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray?.contentHashCode(): Int {\n   return this?.storage.contentHashCode()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@SinceKotlin(\"1.3\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.contentToString(): String {\n   return this.contentToString()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray?.contentToString(): String {\n return this?.joinToString(\", \", \"[\", \"]\") ?: \"null\"\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray?.contentToString(): String

{\n   return this?.joinToString(\", \", \"[\", \"]\") ?: \"null\"\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray?.contentToString(): String {\n   return this?.joinToString(\", \", \"[\", \"]\") ?: \"null\"\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray?.contentToString(): String {\n   return this?.joinToString(\", \", \"[\", \"]\") ?: \"null\"\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.copyInto(destination: UIntArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): UIntArray {\n   storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.copyInto(destination: ULongArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ULongArray {\n   storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.copyInto(destination: UByteArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): UByteArray {\n   storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n *

It's allowed to pass the same array in the [destination] and even
specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.copyInto(destination: UShortArray, destinationOffset:
Int = 0, startIndex: Int = 0, endIndex: Int = size): UShortArray {\n   storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)\n   return destination\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.copyOf(): UIntArray {\n   return UIntArray(storage.copyOf())\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.copyOf(): ULongArray {\n   return ULongArray(storage.copyOf())\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UByteArray.copyOf(): UByteArray {\n   return UByteArray(storage.copyOf())\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOf\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.copyOf(): UShortArray {\n   return UShortArray(storage.copyOf())\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.copyOf(newSize:
Int): UIntArray {\n   return UIntArray(storage.copyOf(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.copyOf(newSize: Int): ULongArray {\n   return ULongArray(storage.copyOf(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the original array, the copy array is truncated
to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.copyOf(newSize: Int): UByteArray {\n   return UByteArray(storage.copyOf(newSize))\n}\n\n/**\n * Returns new array which is a copy of the original array, resized to the given [newSize].\n * The copy is either truncated or padded at the end with zero values if necessary.\n * \n * - If [newSize] is less than the size of the

original array, the copy array is truncated to the [newSize].\n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.copyOf(newSize: Int): UShortArray {\n   return UShortArray(storage.copyOf(newSize))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.copyOfRange(fromIndex: Int, toIndex: Int): UIntArray {\n   return UIntArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.copyOfRange(fromIndex: Int, toIndex: Int): ULongArray {\n   return ULongArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.copyOfRange(fromIndex: Int, toIndex: Int): UByteArray {\n   return UByteArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Returns a new array which is a copy of the specified range of the original array.\n * \n * @param fromIndex the start of the range (inclusive) to copy.\n * @param toIndex the end of the range (exclusive) to copy.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.copyOfRange(fromIndex: Int, toIndex: Int): UShortArray {\n   return UShortArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.fill(element: UInt, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   storage.fill(element.toInt(), fromIndex, toIndex)\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.fill(element: ULong, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   storage.fill(element.toLong(), fromIndex, toIndex)\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.fill(element: UByte, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   storage.fill(element.toByte(), fromIndex, toIndex)\n}\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive) to fill, 0 by default.\n * @param toIndex the end of the range (exclusive) to fill, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.fill(element: UShort, fromIndex: Int = 0, toIndex: Int = size): Unit {\n   storage.fill(element.toShort(), fromIndex, toIndex)\n}\n\n/**\n * Returns the range of valid indices for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val UIntArray.indices: IntRange\n   get() = storage.indices\n\n/**\n * Returns the range of valid indices for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val ULongArray.indices: IntRange\n   get() = storage.indices\n\n/**\n * Returns the range of valid indices for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val UByteArray.indices: IntRange\n   get() = storage.indices\n\n/**\n * Returns the range of valid indices for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val UShortArray.indices: IntRange\n   get() = storage.indices\n\n/**\n * Returns the last valid index for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val UIntArray.lastIndex: Int\n   get() = storage.lastIndex\n\n/**\n * Returns the last valid index for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val ULongArray.lastIndex: Int\n   get() = storage.lastIndex\n\n/**\n * Returns the last valid index for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val UByteArray.lastIndex: Int\n   get() = storage.lastIndex\n\n/**\n * Returns the last valid index for the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic inline val UShortArray.lastIndex: Int\n   get() = storage.lastIndex\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntArray.plus(element: UInt): UIntArray {\n   return UIntArray(storage + element.toInt())\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.plus(element: ULong): ULongArray {\n   return ULongArray(storage + element.toLong())\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.plus(element: UByte): UByteArray {\n   return UByteArray(storage + element.toByte())\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.plus(element: UShort): UShortArray {\n   return UShortArray(storage + element.toShort())\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic operator fun UIntArray.plus(elements: Collection<UInt>): UIntArray {\n   var index = size\n   val result = storage.copyOf(size + elements.size)\n   for (element in elements) result[index++] = element.toInt()\n   return UIntArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic operator fun ULongArray.plus(elements: Collection<ULong>): ULongArray {\n   var index = size\n   val result = storage.copyOf(size + elements.size)\n   for (element in elements) result[index++] = element.toLong()\n   return ULongArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic operator fun UByteArray.plus(elements:

Collection<UByte>): UByteArray {\n   var index = size\n   val result = storage.copyOf(size + elements.size)\n   for (element in elements) result[index++] = element.toByte()\n   return UByteArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic operator fun UShortArray.plus(elements: Collection<UShort>): UShortArray {\n   var index = size\n   val result = storage.copyOf(size + elements.size)\n   for (element in elements) result[index++] = element.toShort()\n   return UShortArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array
 and then all elements of the given [elements] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntArray.plus(elements: UIntArray): UIntArray {\n   return UIntArray(storage + elements.storage)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongArray.plus(elements: ULongArray): ULongArray {\n   return ULongArray(storage + elements.storage)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UByteArray.plus(elements: UByteArray): UByteArray {\n   return UByteArray(storage + elements.storage)\n}\n\n/**\n * Returns an array containing
 all elements of the original array and then all elements of the given [elements] array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun UShortArray.plus(elements: UShortArray): UShortArray {\n   return UShortArray(storage + elements.storage)\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sort(): Unit {\n   if (size > 1) sortArray(this, 0, size)\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sort(): Unit {\n   if (size > 1) sortArray(this, 0, size)\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sort(): Unit {\n   if (size >
 1) sortArray(this, 0, size)\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample samples.collections.Arrays.Sorting.sortArray\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sort(): Unit {\n   if (size > 1) sortArray(this, 0, size)\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArray(this, fromIndex,
 toIndex)\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample samples.collections.Arrays.Sorting.sortRangeOfArray\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArray(this, fromIndex, toIndex)\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array

by default.\n * \n * @throws IndexOutOfBoundsException
 if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws
IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n * @sample
samples.collections.Arrays.Sorting.sortRangeOfArray\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sort(fromIndex: Int = 0,
toIndex: Int = size): Unit {\n   AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArray(this,
fromIndex, toIndex)\n}\n\n/**\n * Sorts a range in the array in-place.\n * \n * @param fromIndex the start of the
range (inclusive) to sort, 0 by default.\n * @param toIndex the end of the range (exclusive) to sort, size of this array
by default.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater
than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n * \n *
@sample samples.collections.Arrays.Sorting.sortRangeOfArray\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic
 fun UShortArray.sort(fromIndex: Int = 0, toIndex: Int = size): Unit {\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n   sortArray(this, fromIndex, toIndex)\n}\n\n/**\n *
Sorts elements of the array in the specified range in-place.\n * The elements are sorted descending according to their
natural sort order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end
of the range (exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or
[toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than
[toIndex].\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun
UIntArray.sortDescending(fromIndex: Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex,
toIndex)\n}\n\n/**\n * Sorts elements of the array in the specified range in-place.\n * The elements
 are sorted descending according to their natural sort order.\n * \n * @param fromIndex the start of the range
(inclusive) to sort.\n * @param toIndex the end of the range (exclusive) to sort.\n * \n * @throws
IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n *
@throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sortDescending(fromIndex:
Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements
of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort
order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range
(exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is
greater than the size
 of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sortDescending(fromIndex:
Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Sorts elements
of the array in the specified range in-place.\n * The elements are sorted descending according to their natural sort
order.\n * \n * @param fromIndex the start of the range (inclusive) to sort.\n * @param toIndex the end of the range
(exclusive) to sort.\n * \n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is
greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sortDescending(fromIndex:
Int, toIndex: Int): Unit {\n   sort(fromIndex, toIndex)\n   reverse(fromIndex, toIndex)\n}\n\n/**\n * Returns
 an array of type [ByteArray], which is a copy of this array where each element is a signed reinterpretation\n * of the
corresponding element of this array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.toByteArray(): ByteArray {\n   return storage.copyOf()\n}\n\n/**\n * Returns an array of type
[IntArray], which is a copy of this array where each element is a signed reinterpretation\n * of the corresponding
element of this array.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.toIntArray(): IntArray {\n   return storage.copyOf()\n}\n\n/**\n * Returns an array of type [LongArray],

which is a copy of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.toLongArray(): LongArray {\n   return
 storage.copyOf()\n}\n\n/**\n * Returns an array of type [ShortArray], which is a copy of this array where each element is a signed reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.toShortArray(): ShortArray {\n   return storage.copyOf()\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.toTypedArray(): Array<UInt> {\n   return Array(size) { index -> this[index] }\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.toTypedArray(): Array<ULong> {\n   return Array(size) { index -> this[index] }\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic
 fun UByteArray.toTypedArray(): Array<UByte> {\n   return Array(size) { index -> this[index] }\n}\n\n/**\n * Returns a *typed* object array containing all of the elements of this primitive array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.toTypedArray(): Array<UShort> {\n   return Array(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of UByte containing all of the elements of this generic array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Array<out UByte>.toUByteArray(): UByteArray {\n   return UByteArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type [UByteArray], which is a copy of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.toUByteArray(): UByteArray {\n
    return UByteArray(this.copyOf())\n}\n\n/**\n * Returns an array of UInt containing all of the elements of this generic array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Array<out UInt>.toUIntArray(): UIntArray {\n   return UIntArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type [UIntArray], which is a copy of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.toUIntArray(): UIntArray {\n   return UIntArray(this.copyOf())\n}\n\n/**\n * Returns an array of ULong containing all of the elements of this generic array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Array<out ULong>.toULongArray(): ULongArray {\n   return ULongArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type [ULongArray], which is a copy of this array where
 each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.toULongArray(): ULongArray {\n   return ULongArray(this.copyOf())\n}\n\n/**\n * Returns an array of UShort containing all of the elements of this generic array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Array<out UShort>.toUShortArray(): UShortArray {\n   return UShortArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type [UShortArray], which is a copy of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.toUShortArray(): UShortArray {\n   return UShortArray(this.copyOf())\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values
 are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n *

\n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V> UIntArray.associateWith(valueSelector: (UInt) -> V): Map<UInt, V> {\n   val result = LinkedHashMap<UInt, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V> ULongArray.associateWith(valueSelector: (ULong) -> V): Map<ULong, V> {\n   val result = LinkedHashMap<ULong, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V> UByteArray.associateWith(valueSelector: (UByte) -> V): Map<UByte, V> {\n   val result = LinkedHashMap<UByte, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Returns a [Map] where keys are elements from the given array and values are\n * produced by the [valueSelector] function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n * \n * @sample samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V> UShortArray.associateWith(valueSelector: (UShort) -> V): Map<UShort, V> {\n   val result = LinkedHashMap<UShort, V>(mapCapacity(size).coerceAtLeast(16))\n   return associateWithTo(result, valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in UInt, in V>> UIntArray.associateWithTo(destination: M, valueSelector: (UInt) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in ULong, in V>> ULongArray.associateWithTo(destination: M, valueSelector: (ULong) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in UByte, in V>> UByteArray.associateWithTo(destination: M, valueSelector: (UByte) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each element of the given array,\n * where key is the element itself and value is provided by the [valueSelector] function applied to that key.\n * \n * If any two elements are equal, the last one overwrites the former value in the map.\n * \n * @sample samples.collections.Collections.Transformations.associateWithTo\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V, M : MutableMap<in UShort, in V>> UShortArray.associateWithTo(destination: M, valueSelector: (UShort) -> V): M {\n   for (element in this) {\n   destination.put(element, valueSelector(element))\n   }\n   return destination\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.flatMap(transform: (UInt) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.flatMap(transform: (ULong) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.flatMap(transform: (UByte) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMap\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.flatMap(transform: (UShort) -> Iterable<R>): List<R> {\n   return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.flatMapIndexed(transform: (index: Int, UInt) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.flatMapIndexed(transform: (index: Int, ULong) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.flatMapIndexed(transform: (index: Int, UByte) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array.\n * \n * @sample samples.collections.Collections.Transformations.flatMapIndexed\n

*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.flatMapIndexed(transform: (index: Int, UShort) -> Iterable<R>): List<R> {\n   return flatMapIndexedTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UIntArray.flatMapIndexedTo(destination: C, transform: (index: Int, UInt) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> ULongArray.flatMapIndexedTo(destination: C, transform: (index: Int, ULong) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UByteArray.flatMapIndexedTo(destination: C, transform: (index: Int, UByte) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element\n * and its index in the original array, to the given [destination].\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UShortArray.flatMapIndexedTo(destination: C, transform: (index: Int, UShort) -> Iterable<R>): C {\n   var index = 0\n   for (element in this) {\n   val list = transform(index++, element)\n destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UIntArray.flatMapTo(destination: C, transform: (UInt) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> ULongArray.flatMapTo(destination: C, transform: (ULong) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UByteArray.flatMapTo(destination: C, transform: (UByte) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each element of original array, to the given

[destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UShortArray.flatMapTo(destination: C, transform: (UShort) -> Iterable<R>): C {\n   for (element in this) {\n   val list = transform(element)\n   destination.addAll(list)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K> UIntArray.groupBy(keySelector: (UInt) -> K): Map<K, List<UInt>> {\n   return groupByTo(LinkedHashMap<K, MutableList<UInt>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K> ULongArray.groupBy(keySelector: (ULong) -> K): Map<K, List<ULong>> {\n   return groupByTo(LinkedHashMap<K, MutableList<ULong>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the 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keySelector)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> UIntArray.groupBy(keySelector: (UInt) -> K, valueTransform: (UInt) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> ULongArray.groupBy(keySelector: (ULong) -> K, valueTransform: (ULong) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> UByteArray.groupBy(keySelector: (UByte) -> K, valueTransform: (UByte) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> UShortArray.groupBy(keySelector: (UShort) -> K, valueTransform: (UShort) -> V): Map<K, List<V>> {\n   return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M : MutableMap<in K, MutableList<UInt>>> UIntArray.groupByTo(destination: M, keySelector: (UInt) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<UInt>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M : MutableMap<in K, MutableList<ULong>>> ULongArray.groupByTo(destination: M, keySelector: (ULong) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<ULong>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M : MutableMap<in K, MutableList<UByte>>> UByteArray.groupByTo(destination: M, keySelector: (UByte) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<UByte>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M : MutableMap<in K, MutableList<UShort>>> UShortArray.groupByTo(destination: M, keySelector: (UShort) -> K): M {\n   for (element in this) {\n   val key = keySelector(element)\n   val list = destination.getOrPut(key) { ArrayList<UShort>() }\n   list.add(element)\n   }\n   return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V,

M : MutableMap<in K, MutableList<V>>> UIntArray.groupByTo(destination: M, keySelector: (UInt) -> K, valueTransform: (UInt) -> V): M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n }\n return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> ULongArray.groupByTo(destination: M, keySelector: (ULong) -> K, valueTransform: (ULong) -> V): M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n }\n return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> UByteArray.groupByTo(destination: M, keySelector: (UByte) -> K, valueTransform: (UByte) -> V): M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n }\n return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V, M : MutableMap<in K, MutableList<V>>> UShortArray.groupByTo(destination: M, keySelector: (UShort) -> K, valueTransform: (UShort) -> V): M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n }\n return destination\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.map(transform: (UInt) -> R): List<R> {\n return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.map(transform: (ULong) -> R): List<R> {\n return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic 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R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.mapIndexed(transform: (index: Int, ULong) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.mapIndexed(transform: (index: Int, UByte) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.mapIndexed(transform: (index: Int, UShort) -> R): List<R> {\n   return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an 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this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UByteArray.mapIndexedTo(destination: C, transform: (index: Int, UByte) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n * and appends the results to the given [destination].\n * @param [transform] function that takes the index of an element and the element itself\n * and returns the result of the transform applied to the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UShortArray.mapIndexedTo(destination: C, transform: (index: Int, UShort) -> R): C {\n   var index = 0\n   for (item in this)\n   destination.add(transform(index++, item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UIntArray.mapTo(destination: C, transform: (UInt) -> R): C {\n   for (item in this)\n destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> ULongArray.mapTo(destination: C, transform: (ULong) -> R): C {\n for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UByteArray.mapTo(destination: C, transform: (UByte) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Applies the given [transform] function to each element of the original array\n * and appends the results to the given [destination].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C : MutableCollection<in R>> UShortArray.mapTo(destination: C, transform: (UShort) -> R): C {\n   for (item in this)\n   destination.add(transform(item))\n   return destination\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.withIndex(): Iterable<IndexedValue<UInt>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.withIndex(): Iterable<IndexedValue<ULong>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.withIndex(): Iterable<IndexedValue<UByte>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.withIndex(): Iterable<IndexedValue<UShort>> {\n   return IndexingIterable { iterator() }\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.all(predicate: (UInt) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.all(predicate: (ULong) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.all(predicate: (UByte) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.all(predicate: (UShort) -> Boolean): Boolean {\n   for (element in this) if (!predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.any(): Boolean {\n   return storage.any()\n}\n\n/**\n * Returns `true` if array has at least one element.\n

* \n * @sample samples.collections.Collections.Aggregates.any\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.any(): Boolean {\n   return storage.any()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.any(): Boolean {\n   return storage.any()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.any(): Boolean {\n   return storage.any()\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.any(predicate: (UInt) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.any(predicate: (ULong) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.any(predicate: (UByte) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.any(predicate: (UShort) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return true\n   return false\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.count(predicate: (UInt) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.count(predicate: (ULong) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.count(predicate: (UByte) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.count(predicate: (UShort) -> Boolean): Int {\n   var count = 0\n   for (element in this) if (predicate(element)) ++count\n   return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.fold(initial: R, operation: (acc: R, UInt) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n

 * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.fold(initial: R, operation: (acc: R, ULong) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.fold(initial: R, operation: (acc: R, UByte) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.fold(initial: R, operation: (acc: R, UShort) -> R): R {\n   var accumulator = initial\n   for (element in this) accumulator = operation(accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.foldIndexed(initial: R, operation: (index: Int, acc: R, UInt) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.foldIndexed(initial: R, operation: (index: Int, acc: R, ULong) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.foldIndexed(initial: R, operation: (index: Int, acc: R, UByte) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.foldIndexed(initial: R, operation: (index: Int, acc: R, UShort) -> R): R {\n   var index = 0\n   var accumulator = initial\n   for (element in this) accumulator = operation(index++, accumulator, element)\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n

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 * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is
empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the
next accumulator value.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.foldRight(initial: R, operation: (UInt, acc: R) -> R): R {\n    var index = lastIndex\n    var accumulator =
initial\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to
left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is
empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the
next accumulator value.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun <R> ULongArray.foldRight(initial: R, operation: (ULong, acc: R) -> R): R {\n    var index = lastIndex\n
var accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n
 return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right
to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if the array is
empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and calculates the
next accumulator value.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UByteArray.foldRight(initial: R, operation: (UByte, acc: R) -> R): R {\n    var index = lastIndex\n    var
accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n
    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation]
from right to left\n * to each element and current accumulator value.\n * \n * Returns the specified [initial] value if
the array is empty.\n * \n * @param [operation] function that takes an element and current accumulator value, and
calculates the next accumulator value.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UShortArray.foldRight(initial: R, operation: (UShort, acc: R) -> R): R {\n    var index = lastIndex\n    var
accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n
return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right
to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the
specified [initial] value if the
 array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and
current accumulator value, and calculates the next accumulator value.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.foldRightIndexed(initial: R, operation: (index: Int, UInt, acc: R) -> R): R {\n    var index = lastIndex\n
var accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(index, get(index), accumulator)\n
    --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying
[operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n
* \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the
index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator
 value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun <R> ULongArray.foldRightIndexed(initial: R, operation: (index: Int, ULong, acc: R) -> R): R {\n    var index =
lastIndex\n    var accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(index, get(index),
accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial]
value and applying [operation] from right to left\n * to each element with its index in the original array and current
accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation]
function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the
next accumulator value.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
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UByteArray.foldRightIndexed(initial: R, operation: (index: Int, UByte, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n * \n * Returns the specified [initial] value if the array is empty.\n * \n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.foldRightIndexed(initial: R, operation: (index: Int, UShort, acc: R) -> R): R {\n   var index = lastIndex\n   var accumulator = initial\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n   }\n   return accumulator\n}\n\n/**\n * Performs the given [action] on each element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.forEach(action: (UInt) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.forEach(action: (ULong) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.forEach(action: (UByte) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.forEach(action: (UShort) -> Unit): Unit {\n   for (element in this) action(element)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.forEachIndexed(action: (index: Int, UInt) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.forEachIndexed(action: (index: Int, ULong) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.forEachIndexed(action: (index: Int, UByte) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.forEachIndexed(action: (index: Int, UShort) -> Unit): Unit {\n   var index = 0\n   for (item in this) action(index++, item)\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.max(): UInt? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.max(): ULong? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.max(): UByte? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxOrNull instead.\", ReplaceWith(\"this.maxOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.max(): UShort? {\n   return maxOrNull()\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UIntArray.maxBy(selector: (UInt) -> R): UInt? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ULongArray.maxBy(selector: (ULong) -> R): ULong? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UByteArray.maxBy(selector: (UByte) -> R): UByte? {\n   return maxByOrNull(selector)\n}\n\n@Deprecated(\"Use maxByOrNull instead.\", ReplaceWith(\"this.maxByOrNull(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UShortArray.maxBy(selector: (UShort) -> R): UShort? {\n   return maxByOrNull(selector)\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UIntArray.maxByOrNull(selector: (UInt) -> R): UInt? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ULongArray.maxByOrNull(selector: (ULong) -> R): ULong? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UByteArray.maxByOrNull(selector: (UByte) -> R): UByte? {\n   if (isEmpty()) return null\n   var maxElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return maxElem\n   var maxValue = selector(maxElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (maxValue < v) {\n   maxElem = e\n   maxValue = v\n   }\n   }\n   return maxElem\n}\n\n/**\n * Returns the first

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 element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.maxByOrNull\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UShortArray.maxByOrNull(selector: (UShort) -> R): UShort? {\n    if (isEmpty()) return null\n
var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxValue =
selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxValue < v)
{\n            maxElem = e\n            maxValue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the largest
value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of
values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if
 the array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.maxOf(selector: (UInt) -> Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n
var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue =
maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector]
function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
 ULongArray.maxOf(selector: (ULong) -> Double): Double {\n    if (isEmpty()) throw
NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the
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ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.maxOf(selector: (UByte) -> Double): Double {\n    if (isEmpty()) throw NoSuchElementException()\n
var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue
 = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values
produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by
[selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is
empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.maxOf(selector: (UShort) -> Double): Double {\n    if (isEmpty()) throw
NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the
largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If
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ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.maxOf(selector: (UInt) -> Float): Float {\n    if (isEmpty()) throw NoSuchElementException()\n    var
maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue =
maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector]
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function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun ULongArray.maxOf(selector: (ULong) -> Float): Float {\n    if (isEmpty()) throw
NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the
largest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If
any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.maxOf(selector: (UByte) -> Float): Float {\n    if (isEmpty()) throw NoSuchElementException()\n    var
maxValue = selector(this[0])\n
    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue = maxOf(maxValue, v)\n    }\n    return
maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to
each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is
`NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
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ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.maxOf(selector: (UShort) -> Float): Float {\n    if (isEmpty()) throw NoSuchElementException()\n
var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v = selector(this[i])\n        maxValue =
maxOf(maxValue, v)\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values produced
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 function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is
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*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UIntArray.maxOf(selector: (UInt) -> R): R {\n    if (isEmpty()) throw
NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        if (maxValue < v) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n *
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*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun <R : Comparable<R>> ULongArray.maxOf(selector: (ULong) -> R): R {\n    if (isEmpty()) throw
NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        if (maxValue < v) {\n            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n *
Returns the largest value among all values produced by [selector] function\n * applied to each element in the
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*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UByteArray.maxOf(selector: (UByte) -> R): R {\n    if (isEmpty()) throw
NoSuchElementException()\n    var maxValue = selector(this[0])\n    for (i in 1..lastIndex) {\n        val v =
selector(this[i])\n        if (maxValue < v) {\n
            maxValue = v\n        }\n    }\n    return maxValue\n}\n\n/**\n * Returns the largest value among all values
produced by [selector] function\n * applied to each element in the array.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
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ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UShortArray.maxOf(selector: (UShort) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (maxValue < v) {\n   maxValue = v\n   }\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.maxOfOrNull(selector: (UInt) -> Double): Double? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.maxOfOrNull(selector: (ULong) -> Double): Double? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.maxOfOrNull(selector: (UByte) -> Double): Double? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.maxOfOrNull(selector: (UShort) -> Double): Double? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.maxOfOrNull(selector: (UInt) -> Float): Float? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.maxOfOrNull(selector: (ULong) -> Float): Float? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.maxOfOrNull(selector: (UByte) -> Float): Float? {\n   if (isEmpty()) return null\n   var maxValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   maxValue = maxOf(maxValue, v)\n   }\n   return maxValue\n}\n\n/**\n * Returns the largest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.maxOfOrNull(selector: (UShort) -> Float): Float? 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*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.maxOfWithOrNull(comparator: Comparator<in R>, selector: (UShort) -> R): R? {\n if (isEmpty()) return null\n var maxValue = selector(this[0])\n for (i in 1..lastIndex) {\n val v = selector(this[i])\n if (comparator.compare(maxValue, v) < 0) {\n maxValue = v\n }\n }\n return maxValue\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.maxOrNull(): UInt? {\n if (isEmpty()) return null\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (max < e) max = e\n }\n return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.maxOrNull(): ULong? {\n if (isEmpty()) return null\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (max < e) max = e\n }\n return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.maxOrNull(): UByte? {\n if (isEmpty()) return null\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (max < e) max = e\n }\n return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.maxOrNull(): UShort? {\n if (isEmpty()) return null\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (max < e) max = e\n }\n return max\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.maxWith(comparator: Comparator<in UInt>): UInt? {\n return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.maxWith(comparator: Comparator<in ULong>): ULong? {\n return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.maxWith(comparator: Comparator<in UByte>): UByte? {\n return maxWithOrNull(comparator)\n}\n\n@Deprecated(\"Use maxWithOrNull instead.\", ReplaceWith(\"this.maxWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.maxWith(comparator: Comparator<in UShort>): UShort? {\n return maxWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.maxWithOrNull(comparator: Comparator<in UInt>): UInt? {\n if (isEmpty()) return null\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (comparator.compare(max, e) < 0) max = e\n }\n return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.maxWithOrNull(comparator: Comparator<in ULong>): ULong? {\n if (isEmpty()) return null\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (comparator.compare(max, e) < 0) max = e\n }\n return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.maxWithOrNull(comparator: Comparator<in UByte>): UByte? {\n if (isEmpty()) return null\n var max = this[0]\n for (i in 1..lastIndex) {\n val e = this[i]\n if (comparator.compare(max, e) < 0) max = e\n }\n return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n

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{\n   if (isEmpty()) return null\n   var max = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(max, e) < 0) max = e\n   }\n   return max\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.min(): UInt? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.min(): ULong? {\n   return minOrNull()\n}\n\n@Deprecated(\"Use minOrNull instead.\", ReplaceWith(\"this.minOrNull()\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun
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if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UIntArray.minByOrNull(selector: (UInt) -> R): UInt? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ULongArray.minByOrNull(selector:

(ULong) -> R): ULong? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UByteArray.minByOrNull(selector: (UByte) -> R): UByte? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minByOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UShortArray.minByOrNull(selector: (UShort) -> R): UShort? {\n   if (isEmpty()) return null\n   var minElem = this[0]\n   val lastIndex = this.lastIndex\n   if (lastIndex == 0) return minElem\n   var minValue = selector(minElem)\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   val v = selector(e)\n   if (minValue > v) {\n   minElem = e\n   minValue = v\n   }\n   }\n   return minElem\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.minOf(selector: (UInt) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.minOf(selector: (ULong) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.minOf(selector: (UByte) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.minOf(selector: (UShort) -> Double): Double {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue =

minOf(minValue, v)\n
    }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector]
function\n * applied to each element in the array.\n * \n * If any of values produced by [selector] function is `NaN`,
the returned result is `NaN`.\n * \n * @throws NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.minOf(selector: (UInt) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n   var
minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue =
minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
by [selector] function\n * applied to each element in the array.\n * \n * If any of values produced by [selector]
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*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.minOf(selector: (ULong) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n
var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue =
minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced
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selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest
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values produced by [selector] function is `NaN`, the returned result is `NaN`.\n * \n * @throws
NoSuchElementException if the array is empty.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.minOf(selector: (UShort) -> Float): Float {\n   if (isEmpty()) throw NoSuchElementException()\n
var minValue = selector(this[0])\n   for (i
 in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return
minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to
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ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UIntArray.minOf(selector: (UInt) -> R): R {\n   if (isEmpty()) throw
NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v =
selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n *
Returns the smallest value among all values produced by [selector] function\n * applied to each element in the
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*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> ULongArray.minOf(selector: (ULong) -> R): R {\n   if (isEmpty()) throw
NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v =
selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n *
Returns the smallest value among all values produced by [selector] function\n * applied to each element in the

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-> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UShortArray.minOf(selector: (UShort) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns

the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.minOfOrNull(selector: (UInt) -> Double): Double? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

inline fun ULongArray.minOfOrNull(selector: (ULong) -> Double): Double? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.minOfOrNull(selector: (UByte) -> Double): Double? {\n   if (isEmpty())

return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.minOfOrNull(selector: (UShort) -> Double): Double? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector]

function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.minOfOrNull(selector: (UInt) -> Float): Float? {\n   if (isEmpty()) return null\n   var minValue =

selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.minOfOrNull(selector: (ULong) -> Float): Float? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.minOfOrNull(selector: (UByte) -> Float): Float? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n * \n * If any of values produced by [selector] function is `NaN`, the returned result is `NaN`.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.minOfOrNull(selector: (UShort) -> Float): Float? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   minValue = minOf(minValue, v)\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UIntArray.minOfOrNull(selector: (UInt) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ULongArray.minOfOrNull(selector: (ULong) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UByteArray.minOfOrNull(selector: (UByte) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value among all values produced by [selector] function\n * applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :

Comparable<R>> UShortArray.minOfOrNull(selector: (UShort) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (minValue > v) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.minOfWith(comparator: Comparator<in R>, selector: (UInt) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.minOfWith(comparator: Comparator<in R>, selector: (ULong) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.minOfWith(comparator: Comparator<in R>, selector: (UByte) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array.\n * \n * @throws NoSuchElementException if the array is empty.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.minOfWith(comparator: Comparator<in R>, selector: (UShort) -> R): R {\n   if (isEmpty()) throw NoSuchElementException()\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (UInt) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (ULong) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (UByte) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest value according to the provided [comparator]\n * among all values produced by [selector] function applied to each element in the array or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.minOfWithOrNull(comparator: Comparator<in R>, selector: (UShort) -> R): R? {\n   if (isEmpty()) return null\n   var minValue = selector(this[0])\n   for (i in 1..lastIndex) {\n   val v = selector(this[i])\n   if (comparator.compare(minValue, v) > 0) {\n   minValue = v\n   }\n   }\n   return minValue\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.minOrNull(): UInt? {\n   if (isEmpty()) return null\n   var min = this[0]\n for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.minOrNull(): ULong? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.minOrNull(): UByte? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.minOrNull(): UShort? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (min > e) min = e\n   }\n   return min\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.minWith(comparator: Comparator<in UInt>): UInt? {\n   return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.minWith(comparator: Comparator<in ULong>): ULong? {\n   return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.minWith(comparator: Comparator<in UByte>): UByte? {\n   return minWithOrNull(comparator)\n}\n\n@Deprecated(\"Use minWithOrNull instead.\", ReplaceWith(\"this.minWithOrNull(comparator)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.5\", hiddenSince = \"1.6\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.minWith(comparator: Comparator<in UShort>): UShort? {\n   return minWithOrNull(comparator)\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.minWithOrNull(comparator: Comparator<in UInt>): UInt? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n

val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.minWithOrNull(comparator: Comparator<in ULong>): ULong? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.minWithOrNull(comparator: Comparator<in UByte>): UByte? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns the first element having
the smallest value according to the provided [comparator] or `null` if there are no elements.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.minWithOrNull(comparator: Comparator<in UShort>): UShort? {\n   if (isEmpty()) return null\n   var min = this[0]\n   for (i in 1..lastIndex) {\n   val e = this[i]\n   if (comparator.compare(min, e) > 0) min = e\n   }\n   return min\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns
`true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.none(): Boolean {\n   return isEmpty()\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.none(predicate: (UInt) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n
* \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.none(predicate: (ULong) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.none(predicate: (UByte) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.none(predicate:
(UShort) -> Boolean): Boolean {\n   for (element in this) if (predicate(element)) return false\n   return true\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.onEach(action: (UInt) -> Unit): UIntArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

ULongArray.onEach(action: (ULong) -> Unit): ULongArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.onEach(action: (UByte) -> Unit): UByteArray

 {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element and returns the array itself afterwards.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.onEach(action: (UShort) -> Unit): UShortArray {\n   return apply { for (element in this) action(element) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.onEachIndexed(action: (index: Int, UInt) -> Unit): UIntArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n

 * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.onEachIndexed(action: (index: Int, ULong) -> Unit): ULongArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.onEachIndexed(action: (index: Int, UByte) -> Unit): UByteArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with the

 element,\n * and returns the array itself afterwards.\n * @param [action] function that takes the index of an element and the element itself\n * and performs the action on the element.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.onEachIndexed(action: (index: Int, UShort) -> Unit): UShortArray {\n   return apply { forEachIndexed(action) }\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

 inline fun UIntArray.reduce(operation: (acc: UInt, UInt) -> UInt): UInt {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic

 inline fun ULongArray.reduce(operation: (acc: ULong, ULong) -> ULong): ULong {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reduce(operation: (acc: UByte, UByte) -> UByte): UByte {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes current accumulator value and an element,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reduce(operation: (acc: UShort, UShort) -> UShort): UShort {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reduceIndexed(operation: (index: Int, acc: UInt, UInt) -> UInt): UInt {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. 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It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.reduceIndexed(operation: (index: Int, acc: ULong, ULong) -> ULong): ULong {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduce\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.reduceIndexed(operation: (index: Int, acc: UByte, UByte) -> UByte): UByte {\n   if (isEmpty())\n   throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = this[0]\n   for

(index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Throws an exception if this array is empty. If the array can be empty in an expected way,\n * please use [reduceIndexedOrNull] instead. It returns `null` when its receiver is empty.\n * \n * @param [operation] function that takes the index of an element,
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 calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.reduceIndexedOrNull(operation: (index: Int, acc: UInt, UInt) -> UInt): UInt? {\n   if (isEmpty())\n   return null\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
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 (index: Int, acc: UByte, UByte) -> UByte): UByte? {\n   if (isEmpty())\n   return null\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original array.\n * \n * Returns `null` if the array is empty.\n * \n * @param [operation] function that takes the index of an element, current accumulator value and the element itself,\n * and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.reduceOrNull\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.reduceIndexedOrNull(operation: (index: Int, acc: UShort, UShort) -> UShort): UShort? {\n   if (isEmpty())\n
    return null\n   var accumulator = this[0]\n   for (index in 1..lastIndex) {\n   accumulator = operation(index, accumulator, this[index])\n   }\n   return accumulator\n}\n\n/**\n * Accumulates value starting with the first

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*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.reduceRight(operation: (ULong, acc: ULong) -> ULong): ULong {\n   var index = lastIndex\n   if
(index < 0) throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator =
get(index--)\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return
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< 0) throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator = get(index--)\n
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*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.reduceRight(operation: (UShort, acc: UShort) -> UShort): UShort {\n   var index = lastIndex\n   if
(index < 0) throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator =
get(index--)\n   while (index >= 0) {\n   accumulator = operation(get(index--), accumulator)\n   }\n   return
accumulator\n}\n\n/**\n * Accumulates value starting with the last element and applying [operation] from right to
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*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.reduceRightIndexed(operation: (index: Int, UInt, acc: UInt) -> UInt): UInt {\n   var index = lastIndex\n
if (index < 0) throw UnsupportedOperationException(\"Empty array can't be reduced.\")\n   var accumulator =
get(index--)\n   while (index >= 0) {\n   accumulator = operation(index, get(index), accumulator)\n   --index\n
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[operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.runningFold(initial: R, operation: (acc: R, UInt) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (element in this) {\n   accumulator = operation(accumulator, element)\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting 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accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningFold\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.runningFoldIndexed(initial: R, operation: (index: Int, acc: R, UShort) -> R): List<R> {\n   if (isEmpty()) return listOf(initial)\n   val result = ArrayList<R>(size + 1).apply { add(initial) }\n   var accumulator = initial\n   for (index in indices) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.runningReduce(operation: (acc: UInt, UInt) -> UInt): List<UInt> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<UInt>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n

*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.runningReduce(operation: (acc: ULong, ULong) -> ULong): List<ULong> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<ULong>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n
 * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.runningReduce(operation: (acc: UByte, UByte) -> UByte): List<UByte> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<UByte>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.runningReduce(operation: (acc: UShort, UShort) -> UShort): List<UShort> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<UShort>(size).apply { add(accumulator) }\n   for (index in 1 until size)
 {\n   accumulator = operation(accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.runningReduceIndexed(operation: (index: Int, acc: UInt, UInt) -> UInt): List<UInt> {\n   if (isEmpty()) return
 emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<UInt>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
 inline fun ULongArray.runningReduceIndexed(operation: (index: Int, acc: ULong, ULong) -> ULong): List<ULong> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<ULong>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator =

operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.runningReduceIndexed(operation: (index: Int, acc: UByte, UByte) -> UByte): List<UByte> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<UByte>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with the first element of this array.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.runningReduce\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.runningReduceIndexed(operation: (index: Int, acc: UShort, UShort) -> UShort): List<UShort> {\n   if (isEmpty()) return emptyList()\n   var accumulator = this[0]\n   val result = ArrayList<UShort>(size).apply { add(accumulator) }\n   for (index in 1 until size) {\n   accumulator = operation(index, accumulator, this[index])\n   result.add(accumulator)\n   }\n   return result\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> UIntArray.scan(initial: R, operation: (acc: R, UInt) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.scan(initial: R, operation: (acc: R, ULong) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes current accumulator value and an element, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> UByteArray.scan(initial: R, operation: (acc: R, UByte) -> R): List<R> {\n   return runningFold(initial, operation)\n}\n\n/**\n * Returns a list containing successive 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function should not be mutated;\n * otherwise it would affect the previous value in resulting list.\n * \n * @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> ULongArray.scanIndexed(initial: R, operation: (index: Int, acc: R, ULong) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns a list containing successive accumulation values generated by applying [operation] from left to right\n * to each element, its index in the original array and current accumulator value that starts with [initial] value.\n * \n * Note that `acc` value passed to [operation] function should not be mutated;\n * otherwise it would affect the previous 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the index of an element, current accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * @sample samples.collections.Collections.Aggregates.scan\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun <R> UShortArray.scanIndexed(initial: R, operation: (index: Int, acc: R, UShort) -> R): List<R> {\n   return runningFoldIndexed(initial, operation)\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince

= \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumBy(selector: (UInt) -> UInt): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumBy(selector: (ULong) -> UInt): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumBy(selector: (UByte) -> UInt): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumBy(selector: (UShort) -> UInt): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumByDouble(selector: (UInt) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumByDouble(selector: (ULong) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumByDouble(selector: (UByte) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@Deprecated(\"Use sumOf instead.\", ReplaceWith(\"this.sumOf(selector)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumByDouble(selector: (UShort) -> Double): Double {\n   var sum: Double = 0.0\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumOf(selector: (UInt) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumOf(selector:

(ULong) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return
sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumOf(selector: (UByte) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfDouble\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumOf(selector: (UShort) -> Double): Double {\n   var sum: Double = 0.toDouble()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumOf(selector: (UInt) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.sumOf(selector: (ULong) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfInt\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumOf(selector: (UByte) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n
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inline fun UShortArray.sumOf(selector: (UShort) -> Int): Int {\n   var sum: Int = 0.toInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumOf(selector: (UInt) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced
by [selector] function applied to each element in the array.\n
*/\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfLong\")

\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumOf(selector: (ULong) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumOf(selector: (UByte) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.4\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfLong\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumOf(selector: (UShort) -> Long): Long {\n   var sum: Long = 0.toLong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumOf(selector: (UInt) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sumOf(selector: (ULong) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sumOf(selector: (UByte) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sumOf(selector: (UShort) -> UInt): UInt {\n   var sum: UInt = 0.toUInt()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolutionByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sumOf(selector: (UInt) -> ULong): ULong {\n   var sum: ULong = 0.toULong()\n   for (element in this) {\n   sum += selector(element)\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the array.\n

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*/\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfULong\
")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inli
neOnly\npublic
 inline fun ULongArray.sumOf(selector: (ULong) -> ULong): ULong {\n    var sum: ULong = 0.toULong()\n    for
(element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n
*/\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfULong\
")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inli
neOnly\npublic inline fun UByteArray.sumOf(selector: (UByte) -> ULong): ULong {\n    var sum: ULong =
0.toULong()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns
the sum of all values
 produced by [selector] function applied to each element in the array.\n
*/\n@SinceKotlin(\"1.5\")\n@OptIn(kotlin.experimental.ExperimentalTypeInference::class)\n@OverloadResolution
ByLambdaReturnType\n@Suppress(\"INAPPLICABLE_JVM_NAME\")\n@kotlin.jvm.JvmName(\"sumOfULong\
")\n@ExperimentalUnsignedTypes\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.Inli
neOnly\npublic inline fun UShortArray.sumOf(selector: (UShort) -> ULong): ULong {\n    var sum: ULong =
0.toULong()\n    for (element in this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns a
list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has
length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UIntArray.zip(other: Array<out
R>): List<Pair<UInt, R>> {\n    return zip(other) { t1, t2 ->
 t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the
same index.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> ULongArray.zip(other:
Array<out R>): List<Pair<ULong, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of
pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has
length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UByteArray.zip(other: Array<out
R>): List<Pair<UByte, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built
from the elements of `this` array and the [other] array with the same index.\n
 * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UShortArray.zip(other:
Array<out R>): List<Pair<UShort, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of
values built from the elements of `this` array and the [other] array with the same index\n * using the provided
[transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n *
\n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
UIntArray.zip(other: Array<out R>, transform: (a: UInt, b: R) -> V): List<V> {\n    val size = minOf(size,
other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i], other[i]))\n
    }\n    return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned
list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
```

ULongArray.zip(other: Array<out R>, transform: (a: ULong, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n
 * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> UByteArray.zip(other: Array<out R>, transform: (a: UByte, b: R) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> UShortArray.zip(other: Array<out R>, transform: (a: UShort, b: R) -> V): List<V> {\n
  val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UIntArray.zip(other: Iterable<R>): List<Pair<UInt, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> ULongArray.zip(other: Iterable<R>): List<Pair<ULong, R>> {\n
    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UByteArray.zip(other: Iterable<R>): List<Pair<UByte, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UShortArray.zip(other: Iterable<R>): List<Pair<UShort, R>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and
 the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> UIntArray.zip(other: Iterable<R>, transform: (a: UInt, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
 */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> ULongArray.zip(other: Iterable<R>, transform: (a: ULong, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other)

{\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> UByteArray.zip(other: Iterable<R>,
 transform: (a: UByte, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] collection with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V> UShortArray.zip(other: Iterable<R>, transform: (a: UShort, b: R) -> V): List<V> {\n   val arraySize = size\n   val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n   var i = 0\n   for (element in
 other) {\n   if (i >= arraySize) break\n   list.add(transform(this[i++], element))\n   }\n   return list\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun UIntArray.zip(other: UIntArray): List<Pair<UInt, UInt>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun ULongArray.zip(other: ULongArray): List<Pair<ULong, ULong>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns
 a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun UByteArray.zip(other: UByteArray): List<Pair<UByte, UByte>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic infix fun UShortArray.zip(other: UShortArray): List<Pair<UShort, UShort>> {\n   return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform]
 function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V> UIntArray.zip(other: UIntArray, transform: (a: UInt, b: UInt) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
 ULongArray.zip(other: ULongArray, transform: (a: ULong, b: ULong) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned

list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V> UByteArray.zip(other: UByteArray, transform: (a: UByte, b: UByte) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns a list

of values built from the elements of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V> UShortArray.zip(other: UShortArray, transform: (a: UShort, b: UShort) -> V): List<V> {\n   val size = minOf(size, other.size)\n   val list = ArrayList<V>(size)\n   for (i in 0 until size) {\n   list.add(transform(this[i], other[i]))\n   }\n   return list\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Array<out UInt>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n

* Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Array<out ULong>.sum(): ULong {\n   var sum: ULong = 0uL\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfUByte\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Array<out UByte>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName(\"sumOfUShort\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Array<out UShort>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all

elements in the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.sum(): UInt {\n   return storage.sum().toUInt()\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.sum(): ULong {\n   return storage.sum().toULong()\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UByteArray.sum(): UInt {\n   return sumOf { it.toUInt() }\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UShortArray.sum(): UInt {\n   return sumOf { it.toUInt() }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed

by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"UCollectionsKt\")\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns an array of UByte containing all of the elements of this collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Collection<UByte>.toUByteArray(): UByteArray {\n   val result = UByteArray(size)\n   var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of UInt containing all of the elements of this collection.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Collection<UInt>.toUIntArray(): UIntArray {\n   val result = UIntArray(size)\n

var index = 0\n   for (element in this)\n   result[index++] = element\n   return result\n}\n\n/**\n * Returns an array of ULong containing all of the elements of this collection.\n

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*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Collection<ULong>.toULongArray():
ULongArray {\n    val result = ULongArray(size)\n    var index = 0\n    for (element in this)\n        result[index++] =
element\n    return result\n}\n\n/**\n * Returns an array of UShort containing all of the elements of this collection.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Collection<UShort>.toUShortArray():
UShortArray {\n    val result = UShortArray(size)\n    var index = 0\n    for (element in this)\n        result[index++] =
element\n    return result\n}\n\n/**\n * Returns the sum of all elements in the collection.\n
*/\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedT
ypes::class)\npublic fun Iterable<UInt>.sum():
 UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n *
Returns the sum of all elements in the collection.\n
*/\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsigned
Types::class)\npublic fun Iterable<ULong>.sum(): ULong {\n    var sum: ULong = 0uL\n    for (element in this) {\n
     sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n
*/\n@kotlin.jvm.JvmName(\"sumOfUByte\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsigned
Types::class)\npublic fun Iterable<UByte>.sum(): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n
sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n
*/\n@kotlin.jvm.JvmName(\"sumOfUShort\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsigned
Types::class)\npublic fun Iterable<UShort>.sum(): UInt {\n
  var sum: UInt = 0u\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n","/*\n * Copyright
2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"UComparisonsKt\")\n\npackage
kotlin.comparisons\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n * Returns the
greater of two values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun maxOf(a: UInt, b:
UInt): UInt {\n    return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun maxOf(a: ULong,
b: ULong): ULong {\n    return
 if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun maxOf(a: UByte,
b: UByte): UByte {\n    return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun maxOf(a: UShort,
b: UShort): UShort {\n    return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of three values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\
npublic inline fun maxOf(a: UInt, b: UInt, c: UInt): UInt {\n    return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns
the greater of three values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\
npublic inline fun maxOf(a: ULong, b: ULong, c: ULong): ULong {\n    return maxOf(a, maxOf(b, c))\n}\n\n/**\n *
Returns the greater of three values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\
npublic inline fun maxOf(a: UByte, b: UByte, c: UByte): UByte {\n    return maxOf(a, maxOf(b, c))\n}\n\n/**\n *
Returns the greater of three values.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\
npublic inline fun maxOf(a: UShort, b: UShort, c: UShort): UShort {\n    return maxOf(a, maxOf(b, c))\n}\n\n/**\n
* Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun
maxOf(a: UInt, vararg other: UInt): UInt {\n    var max = a\n    for (e in other) max = maxOf(max, e)\n    return
max\n}\n\n/**\n * Returns the greater of the given values.\n
```

*/\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun maxOf(a: ULong, vararg other: ULong): ULong {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun maxOf(a: UByte, vararg other: UByte): UByte {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the greater of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun maxOf(a: UShort, vararg other: UShort): UShort {\n   var max = a\n   for (e in other) max = maxOf(max, e)\n   return max\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun minOf(a: UInt, b: UInt): UInt {\n   return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun minOf(a: ULong, b: ULong): ULong {\n   return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun minOf(a: UByte, b: UByte): UByte {\n   return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun minOf(a: UShort, b: UShort): UShort {\n   return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun minOf(a: UInt, b: UInt, c: UInt): UInt {\n   return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun minOf(a: ULong, b: ULong, c: ULong): ULong {\n   return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun minOf(a: UByte, b: UByte, c: UByte): UByte {\n   return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of three values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun minOf(a: UShort, b: UShort, c: UShort): UShort {\n   return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: UInt, vararg other: UInt): UInt {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: ULong, vararg other: ULong): ULong {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: UByte, vararg other: UByte): UByte {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n/**\n * Returns the smaller of the given values.\n */\n@SinceKotlin(\"1.4\")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: UShort, vararg other: UShort): UShort {\n   var min = a\n   for (e in other) min = minOf(min, e)\n   return min\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"URangesKt\")\n\npackage kotlin.ranges\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n * Returns a random element from this range.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntRange.random(): UInt {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this range.\n * \n * @throws IllegalArgumentException if this range is empty.\n

*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULongRange.random(): ULong {\n   return random(Random)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UIntRange.random(random: Random): UInt {\n   try {\n   return random.nextUInt(this)\n   } catch(e: IllegalArgumentException) {\n   throw NoSuchElementException(e.message)\n   }\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range
 is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun ULongRange.random(random: Random): ULong {\n   try {\n   return random.nextULong(this)\n   } catch(e: IllegalArgumentException) {\n   throw NoSuchElementException(e.message)\n   }\n}\n\n/**\n * Returns a random element from this range, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UIntRange.randomOrNull(): UInt? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULongRange.randomOrNull(): ULong? {\n   return randomOrNull(Random)\n}\n\n/**\n * Returns a random element from this range using the specified
 source of randomness, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\npublic fun UIntRange.randomOrNull(random: Random): UInt? {\n   if (isEmpty())\n   return null\n   return random.nextUInt(this)\n}\n\n/**\n * Returns a random element from this range using the specified source of randomness, or `null` if this range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\npublic fun ULongRange.randomOrNull(random: Random): ULong? {\n   if (isEmpty())\n   return null\n   return random.nextULong(this)\n}\n\n/**\n * Returns `true` if this range contains the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline operator fun UIntRange.contains(element: UInt?): Boolean
 {\n   return element != null && contains(element)\n}\n\n/**\n * Returns `true` if this range contains the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline operator fun ULongRange.contains(element: ULong?): Boolean {\n   return element != null && contains(element)\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun UIntRange.contains(value: UByte): Boolean {\n   return contains(value.toUInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun ULongRange.contains(value: UByte): Boolean {\n   return contains(value.toULong())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic
 operator fun ULongRange.contains(value: UInt): Boolean {\n   return contains(value.toULong())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun UIntRange.contains(value: ULong): Boolean {\n   return (value shr UInt.SIZE_BITS) == 0uL && contains(value.toUInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun

UIntRange.contains(value: UShort): Boolean {\n   return contains(value.toUInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic operator fun ULongRange.contains(value: UShort): Boolean {\n   return contains(value.toULong())\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UByte.downTo(to: UByte): UIntProgression {\n   return UIntProgression.fromClosedRange(this.toUInt(), to.toUInt(), -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UInt.downTo(to: UInt): UIntProgression {\n   return UIntProgression.fromClosedRange(this, to, -1)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun ULong.downTo(to: ULong): ULongProgression {\n   return ULongProgression.fromClosedRange(this, to, -1L)\n}\n\n/**\n * Returns a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal to `this` value.\n * If the [to] value is greater than `this` value the returned progression is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UShort.downTo(to: UShort): UIntProgression {\n   return UIntProgression.fromClosedRange(this.toUInt(), to.toUInt(), -1)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the same step.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UIntProgression.reversed(): UIntProgression {\n   return UIntProgression.fromClosedRange(last, first, -step)\n}\n\n/**\n * Returns a progression that goes over the same range in the opposite direction with the same step.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun ULongProgression.reversed(): ULongProgression {\n   return ULongProgression.fromClosedRange(last, first, -step)\n}\n\n/**\n * Returns a progression that goes over the same range with the given step.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UIntProgression.step(step: Int): UIntProgression {\n   checkStepIsPositive(step > 0, step)\n   return UIntProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/**\n * Returns a progression that goes over the same range with the given step.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun ULongProgression.step(step: Long): ULongProgression {\n   checkStepIsPositive(step > 0, step)\n   return ULongProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UByte.until(to: UByte): UIntRange {\n   if (to <= UByte.MIN_VALUE) return UIntRange.EMPTY\n   return this.toUInt() .. (to - 1u).toUInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UInt.until(to: UInt): UIntRange {\n   if (to <= UInt.MIN_VALUE) return UIntRange.EMPTY\n   return this .. (to - 1u).toUInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned

range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun ULong.until(to: ULong): ULongRange {\n   if (to <= ULong.MIN_VALUE) return ULongRange.EMPTY\n   return this .. (to - 1u).toULong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic infix fun UShort.until(to: UShort): UIntRange {\n   if (to <= UShort.MIN_VALUE) return UIntRange.EMPTY\n return this.toUInt() .. (to - 1u).toUInt()\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n
 * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UInt.coerceAtLeast(minimumValue: UInt): UInt {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun ULong.coerceAtLeast(minimumValue: ULong): ULong {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or
 equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UByte.coerceAtLeast(minimumValue: UByte): UByte {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UShort.coerceAtLeast(minimumValue: UShort): UShort {\n   return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue]
 otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMostUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UInt.coerceAtMost(maximumValue: UInt): UInt {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMostUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun ULong.coerceAtMost(maximumValue: ULong): ULong {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMostUnsigned\n
 */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UByte.coerceAtMost(maximumValue: UByte): UByte {\n   return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMostUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UShort.coerceAtMost(maximumValue: UShort): UShort {\n   return if (this > maximumValue) maximumValue

else this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UInt.coerceIn(minimumValue: UInt, maximumValue: UInt): UInt {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun ULong.coerceIn(minimumValue: ULong, maximumValue: ULong): ULong {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UByte.coerceIn(minimumValue: UByte, maximumValue: UByte): UByte {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UShort.coerceIn(minimumValue: UShort, maximumValue: UShort): UShort {\n   if (minimumValue > maximumValue) throw IllegalArgumentException(\"Cannot coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.\")\n   if (this < minimumValue) return minimumValue\n   if (this > maximumValue) return maximumValue\n   return this\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n * @return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun UInt.coerceIn(range: ClosedRange<UInt>): UInt {\n   if (range is ClosedFloatingPointRange) {\n   return this.coerceIn<UInt>(range)\n   }\n   if (range.isEmpty()) throw IllegalArgumentException(\"Cannot coerce value to an empty range: $range.\")\n   return when {\n   this < range.start -> range.start\n   this > range.endInclusive -> range.endInclusive\n   else -> this\n   }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n * @return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive` if this value is greater than `range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun ULong.coerceIn(range: ClosedRange<ULong>): ULong {\n   if (range is ClosedFloatingPointRange) {\n   return this.coerceIn<ULong>(range)\n   }\n   if (range.isEmpty()) throw IllegalArgumentException(\"Cannot coerce value to an empty range: $range.\")\n   return when {\n   this < range.start -> range.start\n   this > range.endInclusive -> range.endInclusive\n   else -> this\n   }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"USequencesKt\")\n\npackage kotlin.sequences\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.random.*\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfUInt\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Sequence<UInt>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfULong\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Sequence<ULong>.sum(): ULong {\n   var sum: ULong = 0uL\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfUByte\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Sequence<UByte>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n *\n * The operation is _terminal_.\n */\n@kotlin.jvm.JvmName(\"sumOfUShort\")\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Sequence<UShort>.sum(): UInt {\n   var sum: UInt = 0u\n   for (element in this) {\n   sum += element\n   }\n   return sum\n}\n\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n\npublic expect open class Error : Throwable {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class Exception : Throwable {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class RuntimeException : Exception {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class IllegalArgumentException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class IllegalStateException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class IndexOutOfBoundsException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n}\n\npublic expect open class ConcurrentModificationException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n   @Deprecated(\"The constructor is not supported on all platforms and will be removed from kotlin-stdlib-common soon.\", level = DeprecationLevel.ERROR)\n   constructor(message: String?, cause: Throwable?)\n   @Deprecated(\"The constructor is not supported on all platforms and will be removed from kotlin-stdlib-common soon.\", level = DeprecationLevel.ERROR)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class UnsupportedOperationException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\npublic expect open class NumberFormatException : IllegalArgumentException {\n   constructor()\n   constructor(message: String?)\n}\n\npublic expect open class NullPointerException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n}\n\npublic expect open class ClassCastException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n}\n\npublic expect open class AssertionError : Error {\n   constructor()\n   constructor(message: Any?)\n}\n\npublic expect open class NoSuchElementException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n}\n\n@SinceKotlin(\"1.3\")\npublic expect open class ArithmeticException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n}\n\n@Deprecated(\"This exception type is not supposed to be thrown or caught in common code and will be removed from kotlin-stdlib-common soon.\", level = DeprecationLevel.ERROR)\npublic expect open class NoWhenBranchMatchedException : RuntimeException {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\n@Deprecated(\"This exception type is not supposed to be thrown or caught in common code and will be removed from kotlin-stdlib-common soon.\", level = DeprecationLevel.ERROR)\npublic expect class UninitializedPropertyAccessException

: RuntimeException {\n   constructor()\n   constructor(message: String?)\n   constructor(message: String?, cause: Throwable?)\n   constructor(cause: Throwable?)\n}\n\n/**\n * Thrown after invocation of a function or property that was expected to return `Nothing`, but returned something instead.\n */\n@SinceKotlin(\"1.4\")\n@PublishedApi\ninternal class KotlinNothingValueException : RuntimeException {\n   constructor() : super()\n   constructor(message: String?) : super(message)\n   constructor(message: String?, cause: Throwable?) : super(message, cause)\n   constructor(cause: Throwable?) : super(cause)\n}\n\n\n/**\n * Returns the detailed description of this throwable with its stack trace.\n *\n * The detailed description includes:\n * - the short description (see [Throwable.toString]) of this throwable;\n * - the complete stack trace;\n * - detailed descriptions of the exceptions that were [suppressed][suppressedExceptions] in order to deliver this exception;\n

* - the detailed description of each throwable in the [Throwable.cause] chain.\n */\n@SinceKotlin(\"1.4\")\npublic expect fun Throwable.stackTraceToString(): String\n\n/**\n * Prints the [detailed description][Throwable.stackTraceToString] of this throwable to the standard output or standard error output.\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\")\npublic expect fun Throwable.printStackTrace(): Unit\n\n/**\n * When supported by the platform, adds the specified exception to the list of exceptions that were\n * suppressed in order to deliver this exception.\n */\n@SinceKotlin(\"1.4\")\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\")\npublic expect fun Throwable.addSuppressed(exception: Throwable)\n\n/**\n * Returns a list of all exceptions that were suppressed in order to deliver this exception.\n *\n * The list can be empty:\n * - if no exceptions were suppressed;\n * - if the platform doesn't support suppressed exceptions;\n * - if this [Throwable] instance has

disabled the suppression.\n */\n@SinceKotlin(\"1.4\")\npublic expect val Throwable.suppressedExceptions: List<Throwable>\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\nimport kotlin.annotation.AnnotationTarget.*\n\n/**\n * Gives a declaration (a function, a property or a class) specific name in JavaScript.\n */\n@Target(CLASS, FUNCTION, PROPERTY, CONSTRUCTOR, PROPERTY_GETTER, PROPERTY_SETTER)\n@OptionalExpectation\npublic expect annotation class JsName(val name: String)\n\n/**\n * Marks experimental JS export annotations.\n *\n * Note that behavior of these annotations will likely be changed in the future.\n *\n * Usages of such annotations will be reported as warnings unless an explicit opt-in with\n * the [OptIn] annotation, e.g. `@OptIn(ExperimentalJsExport::class)`,\n * or with the `-opt-in=kotlin.js.ExperimentalJsExport`

compiler option is given.\n */\n@RequiresOptIn(level = RequiresOptIn.Level.WARNING)\n@MustBeDocumented\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.4\")\npublic annotation class ExperimentalJsExport\n\n/**\n * Exports top-level declaration on JS platform.\n *\n * Compiled module exposes declarations that are marked with this annotation without name mangling.\n *\n * This annotation can be applied to either files or top-level declarations.\n *\n * It is currently prohibited to export the following kinds of declarations:\n *\n *   * `expect` declarations\n *   * inline functions with reified type parameters\n *   * suspend functions\n *   * secondary constructors without `@JsName`\n *   * extension properties\n *   * enum classes\n *   * annotation classes\n *\n * Signatures of exported declarations must only contain \"exportable\" types:\n *\n *   * `dynamic`, `Any`, `String`, `Boolean`, `Byte`, `Short`, `Int`, `Float`,

`Double`\n *   * `BooleanArray`,
 `ByteArray`, `ShortArray`, `IntArray`, `FloatArray`, `DoubleArray`\n *   * `Array<exportable-type>`\n *   * Function types with exportable parameters and return types\n *   * `external` or `@JsExport` classes and interfaces\n *   * Nullable counterparts of types above\n *   * Unit return type. Must not be nullable\n *\n * This annotation is experimental, meaning that restrictions mentioned above are subject to change.\n */\n@ExperimentalJsExport\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\n@SinceKotlin(\"1.4\")\n@OptionalExpectation\npublic expect annotation class JsExport()","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.io\n\n\n/** Prints the line separator to the standard output stream. */\npublic expect fun println()\n\n/** Prints the given [message]
 and the line separator to the standard output stream. */\npublic expect fun println(message: Any?)\n\n/** Prints the given [message] to the standard output stream. */\npublic expect fun print(message: Any?)\n\n/**\n * Reads a line of input from the standard input stream and returns it,\n * or throws a [RuntimeException] if EOF has already been reached when [readln] is called.\n *\n * LF or CRLF is treated as the line terminator. Line terminator is not included in the returned string.\n *\n * Currently this function is not supported in Kotlin/JS and throws [UnsupportedOperationException].\n */\n@SinceKotlin(\"1.6\")\npublic expect fun readln(): String\n\n/**\n * Reads a line of input from the standard input stream and returns it,\n * or return `null` if EOF has already been reached when [readlnOrNull] is called.\n *\n * LF or CRLF is treated as the line terminator. Line terminator is not included in the returned string.\n *\n * Currently this function is not supported in Kotlin/JS and throws
 [UnsupportedOperationException].\n */\n@SinceKotlin(\"1.6\")\npublic expect fun readlnOrNull(): String?\n\ninternal class ReadAfterEOFException(message: String?) : RuntimeException(message)\n\n\ninternal expect interface Serializable\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\nimport kotlin.internal.PlatformDependent\n\n/**\n * Classes that inherit from this interface can be represented as a sequence of elements that can\n * be iterated over.\n * @param T the type of element being iterated over. The iterator is covariant in its element type.\n */\npublic interface Iterable<out T> {\n   /**\n   * Returns an iterator over the elements of this object.\n   */\n   public operator fun iterator(): Iterator<T>\n}\n\n/**\n * Classes that inherit from this interface can be represented
 as a sequence of elements that can\n * be iterated over and that supports removing elements during iteration.\n * @param T the type of element being iterated over. The mutable iterator is invariant in its element type.\n */\npublic interface MutableIterable<out T> : Iterable<T> {\n   /**\n   * Returns an iterator over the elements of this sequence that supports removing elements during iteration.\n   */\n   override fun iterator(): MutableIterator<T>\n}\n\n/**\n * A generic collection of elements. Methods in this interface support only read-only access to the collection;\n * read/write access is supported through the [MutableCollection] interface.\n * @param E the type of elements contained in the collection. The collection is covariant in its element type.\n */\npublic interface Collection<out E> : Iterable<E> {\n   // Query Operations\n   /**\n   * Returns the size of the collection.\n   */\n   public val size: Int\n\n   /**\n   * Returns `true` if the collection is
 empty (contains no elements), `false` otherwise.\n   */\n   public fun isEmpty(): Boolean\n\n   /**\n   * Checks if the specified element is contained in this collection.\n   */\n   public operator fun contains(element: @UnsafeVariance E): Boolean\n\n   override fun iterator(): Iterator<E>\n\n   // Bulk Operations\n   /**\n   * Checks if all elements in the specified collection are contained in this collection.\n   */\n   public fun containsAll(elements: Collection<@UnsafeVariance E>): Boolean\n}\n\n/**\n * A generic collection of elements that supports adding and removing elements.\n *\n * @param E the type of elements contained in the collection. The mutable collection is invariant in its element type.\n */\npublic interface MutableCollection<E> : Collection<E>, MutableIterable<E> {\n   // Query Operations\n   override fun iterator(): MutableIterator<E>\n\n   // Modification Operations\n   /**\n   * Adds the specified element to the collection.\n   *\n

* @return `true` if the element has been added, `false` if the collection does not support duplicates\n   * and the element is already contained in the collection.\n   */\n   public fun add(element: E): Boolean\n\n   /**\n   * Removes a single instance of the specified element from this\n   * collection, if it is present.\n   *\n   * @return `true` if the element has been successfully removed; `false` if it was not present in the collection.\n   */\n   public fun remove(element: E): Boolean\n\n   // Bulk Modification Operations\n   /**\n   * Adds all of the elements of the specified collection to this collection.\n   *\n   * @return `true` if any of the specified elements was added to the collection, `false` if the collection was not modified.\n   */\n   public fun addAll(elements: Collection<E>): Boolean\n\n   /**\n   * Removes all of this collection's elements that are also contained in the specified collection.\n   *\n   * @return `true` if any of the specified elements was removed from the collection, `false` if the collection was not modified.\n   */\n   public fun removeAll(elements: Collection<E>): Boolean\n\n   /**\n   * Retains only the elements in this collection that are contained in the specified collection.\n   *\n   * @return `true` if any element was removed from the collection, `false` if the collection was not modified.\n   */\n   public fun retainAll(elements: Collection<E>): Boolean\n\n   /**\n   * Removes all elements from this collection.\n   */\n   public fun clear(): Unit\n}\n\n/**\n * A generic ordered collection of elements. Methods in this interface support only read-only access to the list;\n * read/write access is supported through the [MutableList] interface.\n * @param E the type of elements contained in the list. The list is covariant in its element type.\n */\npublic interface List<out E> : Collection<E> {\n   // Query Operations\n\n   override val size: Int\n   override fun isEmpty(): Boolean\n   override fun contains(element: @UnsafeVariance E): Boolean\n   override fun iterator(): Iterator<E>\n\n   // Bulk Operations\n   override fun containsAll(elements: Collection<@UnsafeVariance E>): Boolean\n\n   // Positional Access Operations\n   /**\n   * Returns the element at the specified index in the list.\n   */\n   public operator fun get(index: Int): E\n\n   // Search Operations\n   /**\n   * Returns the index of the first occurrence of the specified element in the list, or -1 if the specified\n   * element is not contained in the list.\n   */\n   public fun indexOf(element: @UnsafeVariance E): Int\n\n   /**\n   * Returns the index of the last occurrence of the specified element in the list, or -1 if the specified\n   * element is not contained in the list.\n   */\n   public fun lastIndexOf(element: @UnsafeVariance E): Int\n\n   // List Iterators\n   /**\n   * Returns a list iterator over the elements in this list (in proper sequence).\n   */\n   public fun listIterator(): ListIterator<E>\n\n   /**\n   * Returns a list iterator over the elements in this list (in proper sequence), starting at the specified [index].\n   */\n   public fun listIterator(index: Int): ListIterator<E>\n\n   // View\n   /**\n   * Returns a view of the portion of this list between the specified [fromIndex] (inclusive) and [toIndex] (exclusive).\n   * The returned list is backed by this list, so non-structural changes in the returned list are reflected in this list, and vice-versa.\n   *\n   * Structural changes in the base list make the behavior of the view undefined.\n   */\n   public fun subList(fromIndex: Int, toIndex: Int): List<E>\n}\n\n/**\n * A generic ordered collection of elements that supports adding and removing elements.\n * @param E the type of elements contained in the list. The mutable list is invariant in its element type.\n */\npublic interface MutableList<E> : List<E>, MutableCollection<E> {\n   // Modification Operations\n   /**\n   * Adds the specified element to the end of this list.\n   *\n   * @return `true` because the list is always modified as the result of this operation.\n   */\n   override fun add(element: E): Boolean\n\n   override fun remove(element: E): Boolean\n\n   // Bulk Modification Operations\n   /**\n   * Adds all of the elements of the specified collection to the end of this list.\n   *\n   * The elements are appended in the order they appear in the [elements] collection.\n   *\n   * @return `true` if the list was changed as the result of the operation.\n   */\n   override fun addAll(elements: Collection<E>): Boolean\n\n   /**\n   * Inserts all of the elements of the specified collection [elements] into this list at the specified [index].\n   *\n   * @return `true` if the list was changed as the result of the operation.\n   */\n   public fun addAll(index: Int, elements: Collection<E>): Boolean\n\n   override fun removeAll(elements: Collection<E>): Boolean\n   override fun retainAll(elements: Collection<E>): Boolean\n   override fun clear(): Unit\n\n   // Positional Access Operations\n   /**\n   * Replaces the element at the specified position in this list with the specified element.\n   *\n   * @return the element previously at the specified position.\n   */\n   public

operator fun set(index: Int, element: E): E\n\n /**\n * Inserts an element into the list at the specified [index].\n */\n public fun add(index: Int, element: E): Unit\n\n /**\n * Removes an element at the specified [index] from the list.\n *\n * @return the element that has been removed.\n */\n public fun removeAt(index: Int): E\n\n // List Iterators\n override fun listIterator(): MutableListIterator<E>\n\n override fun listIterator(index: Int): MutableListIterator<E>\n\n // View\n override fun subList(fromIndex: Int, toIndex: Int): MutableList<E>\n}\n\n/**\n * A generic unordered collection of elements that does not support duplicate elements.\n * Methods in this interface support only read-only access to the set;\n * read/write access is supported through the [MutableSet] interface.\n * @param E the type of elements contained in the set. The set is covariant in its element type.\n */\npublic interface Set<out E> : Collection<E> {\n // Query Operations\n\n override val size: Int\n override fun isEmpty(): Boolean\n override fun contains(element: @UnsafeVariance E): Boolean\n override fun iterator(): Iterator<E>\n\n // Bulk Operations\n override fun containsAll(elements: Collection<@UnsafeVariance E>): Boolean\n}\n\n/**\n * A generic unordered collection of elements that does not support duplicate elements, and supports\n * adding and removing elements.\n * @param E the type of elements contained in the set. The mutable set is invariant in its element type.\n */\npublic interface MutableSet<E> : Set<E>, MutableCollection<E> {\n // Query Operations\n override fun iterator(): MutableIterator<E>\n\n // Modification Operations\n\n /**\n * Adds the specified element to the set.\n *\n * @return `true` if the element has been added, `false` if the element is already contained in the set.\n */\n override fun add(element: E): Boolean\n\n override fun remove(element: E): Boolean\n\n // Bulk Modification Operations\n\n override fun addAll(elements: Collection<E>): Boolean\n override fun removeAll(elements: Collection<E>): Boolean\n override fun retainAll(elements: Collection<E>): Boolean\n override fun clear(): Unit\n}\n\n/**\n * A collection that holds pairs of objects (keys and values) and supports efficiently retrieving\n * the value corresponding to each key. Map keys are unique; the map holds only one value for each key.\n * Methods in this interface support only read-only access to the map; read-write access is supported through\n * the [MutableMap] interface.\n * @param K the type of map keys. The map is invariant in its key type, as it\n * can accept key as a parameter (of [containsKey] for example) and return it in [keys] set.\n * @param V the type of map values. The map is covariant in its value type.\n */\npublic interface Map<K, out V> {\n // Query Operations\n /**\n * Returns the number of key/value pairs in the map.\n */\n public val size: Int\n\n /**\n * Returns `true` if the map is empty (contains no elements), `false` otherwise.\n */\n public fun isEmpty(): Boolean\n\n /**\n * Returns `true` if the map contains the specified [key].\n */\n public fun containsKey(key: K): Boolean\n\n /**\n * Returns `true` if the map maps one or more keys to the specified [value].\n */\n public fun containsValue(value: @UnsafeVariance V): Boolean\n\n /**\n * Returns the value corresponding to the given [key], or `null` if such a key is not present in the map.\n */\n public operator fun get(key: K): V?\n\n /**\n * Returns the value corresponding to the given [key], or [defaultValue] if such a key is not present in the map.\n *\n * @since JDK 1.8\n */\n @SinceKotlin(\"1.1\")\n @PlatformDependent\n public fun getOrDefault(key: K, defaultValue: @UnsafeVariance V): V {\n // See default implementation in JDK sources\n throw NotImplementedError()\n }\n\n // Views\n /**\n * Returns a read-only [Set] of all keys in this map.\n */\n public val keys: Set<K>\n\n /**\n * Returns a read-only [Collection] of all values in this map. Note that this collection may contain duplicate values.\n */\n public val values: Collection<V>\n\n /**\n * Returns a read-only [Set] of all key/value pairs in this map.\n */\n public val entries: Set<Map.Entry<K, V>>\n\n /**\n * Represents a key/value pair held by a [Map].\n */\n public interface Entry<out K, out V> {\n /**\n * Returns the key of this key/value pair.\n */\n public val key: K\n\n /**\n * Returns the value of this key/value pair.\n */\n public val value: V\n }\n}\n\n/**\n * A modifiable collection that holds pairs of objects (keys and values) and supports efficiently retrieving\n * the value corresponding to each key. Map keys are unique; the map holds only one value for each key.\n * @param K the type of map keys. The map is invariant in its key type.\n * @param V the type of map values. The mutable map is invariant in its value type.\n */\npublic interface MutableMap<K, V> : Map<K, V> {\n // Modification Operations\n /**\n * Associates the specified [value] with the specified [key] in the map.\n   *\n   * @return the previous value associated with the key, or `null` if the key was not present in the map.\n   */\n   public fun put(key: K, value: V): V?\n\n   /**\n   * Removes the specified key and its corresponding value from

this map.\n   *\n   * @return the previous value associated with the key, or `null` if the key was not present in the map.\n   */\n   public fun remove(key: K): V?\n\n   /**\n   * Removes the entry for the specified key only if it is mapped to the specified value.\n   *\n   * @return true if entry was removed\n   */\n   @SinceKotlin(\"1.1\")\n   @PlatformDependent\n   public fun remove(key: K, value: V): Boolean {\n   // See default implementation in JDK sources\n   return true\n   }\n\n   // Bulk Modification Operations\n   /**\n   * Updates this map with key/value pairs from the specified map [from].\n   */\n   public fun putAll(from: Map<out K, V>): Unit\n\n   /**\n   * Removes all elements from this map.\n   */\n   public fun clear(): Unit\n\n   // Views\n   /**\n   * Returns a [MutableSet] of all keys in this map.\n   */\n   override val keys: MutableSet<K>\n\n   /**\n   * Returns a [MutableCollection] of all values in this map.

Note that this collection may contain duplicate values.\n   */\n   override val values: MutableCollection<V>\n\n   /**\n   * Returns a [MutableSet] of all key/value pairs in this map.\n   */\n   override val entries: MutableSet<MutableMap.MutableEntry<K, V>>\n\n   /**\n   * Represents a key/value pair held by a [MutableMap].\n   */\n   public interface MutableEntry<K, V> : Map.Entry<K, V> {\n   /**\n   * Changes the value associated with the key of this entry.\n   *\n   * @return the previous value corresponding to the key.\n   */\n   public fun setValue(newValue: V): V\n   }\n}\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.collections\n\n/** An iterator over a sequence of values of type `Byte`. */\npublic abstract

class ByteIterator : Iterator<Byte> {\n   override final fun next() = nextByte()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextByte(): Byte\n}\n\n/** An iterator over a sequence of values of type `Char`. */\npublic abstract class CharIterator : Iterator<Char> {\n   override final fun next() = nextChar()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextChar(): Char\n}\n\n/** An iterator over a sequence of values of type `Short`. */\npublic abstract class ShortIterator : Iterator<Short> {\n   override final fun next() = nextShort()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextShort(): Short\n}\n\n/** An iterator over a sequence of values of type `Int`. */\npublic abstract class IntIterator : Iterator<Int> {\n   override final fun next() = nextInt()\n\n   /** Returns the next value in the sequence without boxing. */\n   public

abstract fun nextInt(): Int\n}\n\n/** An iterator over a sequence of values of type `Long`. */\npublic abstract class LongIterator : Iterator<Long> {\n   override final fun next() = nextLong()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextLong(): Long\n}\n\n/** An iterator over a sequence of values of type `Float`. */\npublic abstract class FloatIterator : Iterator<Float> {\n   override final fun next() = nextFloat()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextFloat(): Float\n}\n\n/** An iterator over a sequence of values of type `Double`. */\npublic abstract class DoubleIterator : Iterator<Double> {\n   override final fun next() = nextDouble()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextDouble(): Double\n}\n\n/** An iterator over a sequence of values of type `Boolean`. */\npublic abstract class BooleanIterator : Iterator<Boolean>

{\n   override final fun next() = nextBoolean()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextBoolean(): Boolean\n}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.ranges\n\n/**\n * An iterator over a progression of values of type `Char`.\n * @property step the number by which the value is incremented on each step.\n */\ninternal class CharProgressionIterator(first: Char, last: Char, val step: Int) : CharIterator() {\n   private val finalElement: Int = last.code\n   private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n   private var next: Int = if (hasNext) first.code else finalElement\n\n   override fun hasNext(): Boolean = hasNext\n\n   override fun nextChar(): Char {\n val value = next\n   if (value == finalElement) {\n   if (!hasNext) throw kotlin.NoSuchElementException()\n   hasNext = false\n   }\n   else {\n   next += step\n   }\n   return value.toChar()\n   }\n}\n\n/**\n * An iterator over a progression of values of type `Int`.\n * @property step the number by which the value is incremented on each step.\n */\ninternal class IntProgressionIterator(first: Int, last: Int, val step: Int) : IntIterator() {\n   private val finalElement: Int = last\n   private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n   private var next: Int = if (hasNext) first else finalElement\n\n   override fun hasNext(): Boolean = hasNext\n\n   override fun nextInt(): Int {\n   val value = next\n   if (value == finalElement) {\n   if (!hasNext) throw kotlin.NoSuchElementException()\n   hasNext = false\n   }\n   else {\n   next += step\n

}\n   return value\n   }\n}\n\n/**\n * An iterator over a progression of values of type `Long`.\n * @property step the number by which the value is incremented on each step.\n */\ninternal class LongProgressionIterator(first: Long, last: Long, val step: Long) : LongIterator() {\n   private val finalElement: Long = last\n   private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n   private var next: Long = if (hasNext) first else finalElement\n\n   override fun hasNext(): Boolean = hasNext\n\n   override fun nextLong(): Long {\n   val value = next\n   if (value == finalElement) {\n   if (!hasNext) throw kotlin.NoSuchElementException()\n   hasNext = false\n   }\n   else {\n   next += step\n   }\n   return value\n   }\n}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found

in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.ranges\n\nimport kotlin.internal.getProgressionLastElement\n\n/**\n * A progression of values of type `Char`.\n */\npublic open class CharProgression\n   internal constructor\n   (\n   start: Char,\n   endInclusive: Char,\n   step: Int\n   ) : Iterable<Char> {\n   init {\n   if (step == 0) throw kotlin.IllegalArgumentException(\"Step must be non-zero.\")\n   if (step == Int.MIN_VALUE) throw kotlin.IllegalArgumentException(\"Step must be greater than Int.MIN_VALUE to avoid overflow on negation.\")\n   }\n\n   /**\n   * The first element in the progression.\n   */\n   public val first: Char = start\n\n   /**\n   * The last element in the progression.\n   */\n   public val last: Char = getProgressionLastElement(start.code, endInclusive.code, step).toChar()\n\n   /**\n   * The step of the progression.\n   */\n   public val step: Int

= step\n\n   override fun iterator(): CharIterator = CharProgressionIterator(first, last, step)\n\n   /**\n   * Checks if the progression is empty.\n   *\n   * Progression with a positive step is empty if its first element is greater than the last element.\n   * Progression with a negative step is empty if its first element is less than the last element.\n   */\n   public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n   override fun equals(other: Any?): Boolean =\n   other is CharProgression && (isEmpty() && other.isEmpty() ||\n   first == other.first && last == other.last && step == other.step)\n\n   override fun hashCode(): Int =\n   if (isEmpty()) -1 else (31 * (31 * first.code + last.code) + step)\n\n   override fun toString(): String = if (step > 0) \"$first..$last step $step\" else \"$first downTo $last step ${-step}\"\n\n   companion object {\n   /**\n   * Creates CharProgression within the specified bounds

of a closed range.\n   *\n   * The progression starts with the [rangeStart] value and goes toward the [rangeEnd] value not excluding it, with the specified [step].\n   * In order to go backwards the [step] must be negative.\n   *\n   * [step] must be greater than `Int.MIN_VALUE` and not equal to zero.\n   */\n   public fun fromClosedRange(rangeStart: Char, rangeEnd: Char, step: Int): CharProgression = CharProgression(rangeStart, rangeEnd, step)\n   }\n}\n\n/**\n * A progression of values of type `Int`.\n */\npublic open class IntProgression\n   internal constructor\n   (\n   start: Int,\n   endInclusive: Int,\n   step: Int\n   ) : Iterable<Int> {\n   init {\n   if (step == 0) throw kotlin.IllegalArgumentException(\"Step must be non-zero.\")\n   if (step == Int.MIN_VALUE) throw kotlin.IllegalArgumentException(\"Step must be greater than Int.MIN_VALUE to avoid overflow on negation.\")\n   }\n\n   /**\n

* The first element in the progression.\n   */\n   public val first: Int = start\n\n   /**\n   * The last element in the progression.\n   */\n   public val last: Int = getProgressionLastElement(start, endInclusive, step)\n\n   /**\n   * The step of the progression.\n   */\n   public val step: Int = step\n\n   override fun iterator(): IntIterator =

IntProgressionIterator(first, last, step)\n\n /**\n * Checks if the progression is empty.\n *\n * Progression with a positive step is empty if its first element is greater than the last element.\n * Progression with a negative step is empty if its first element is less than the last element.\n */\n public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n override fun equals(other: Any?): Boolean =\n other is IntProgression && (isEmpty() && other.isEmpty() ||\n first == other.first && last == other.last && step == other.step)\n\n override fun hashCode(): Int =\n if (isEmpty()) -1 else (31 * (31 * first + last) + step)\n\n override fun toString(): String = if (step > 0) \"$first..$last step $step\" else \"$first downTo $last step ${-step}\"\n\n companion object {\n /**\n * Creates IntProgression within the specified bounds of a closed range.\n *\n * The progression starts with the [rangeStart] value and goes toward the [rangeEnd] value not excluding it, with the specified [step].\n * In order to go backwards the [step] must be negative.\n *\n * [step] must be greater than `Int.MIN_VALUE` and not equal to zero.\n */\n public fun fromClosedRange(rangeStart: Int, rangeEnd: Int, step: Int): IntProgression = IntProgression(rangeStart, rangeEnd, step)\n }\n}\n\n/**\n * A progression of values of type `Long`.\n */\npublic open class LongProgression\n internal constructor\n (\n start: Long,\n endInclusive: Long,\n step: Long\n) : Iterable<Long> {\n init {\n if (step == 0L) throw kotlin.IllegalArgumentException(\"Step must be non-zero.\")\n if (step == Long.MIN_VALUE) throw kotlin.IllegalArgumentException(\"Step must be greater than Long.MIN_VALUE to avoid overflow on negation.\")\n }\n\n /**\n * The first element in the progression.\n */\n public val first: Long = start\n\n /**\n * The last element in the progression.\n */\n public val last: Long = getProgressionLastElement(start, endInclusive, step)\n\n /**\n * The step of the progression.\n */\n public val step: Long = step\n\n override fun iterator(): LongIterator = LongProgressionIterator(first, last, step)\n\n /**\n * Checks if the progression is empty.\n *\n * Progression with a positive step is empty if its first element is greater than the last element.\n * Progression with a negative step is empty if its first element is less than the last element.\n */\n public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n override fun equals(other: Any?): Boolean =\n other is LongProgression && (isEmpty() && other.isEmpty() ||\n first == other.first && last == other.last && step == other.step)\n\n override fun hashCode(): Int =\n if (isEmpty()) -1 else (31 * (31 * (first xor (first ushr 32)) + (last xor (last ushr 32))) + (step xor (step ushr 32))).toInt()\n\n override fun toString(): String = if (step > 0) \"$first..$last step $step\" else \"$first downTo $last step ${-step}\"\n\n companion object {\n /**\n * Creates LongProgression within the specified bounds of a closed range.\n *\n * The progression starts with the [rangeStart] value and goes toward the [rangeEnd] value not excluding it, with the specified [step].\n * In order to go backwards the [step] must be negative.\n *\n * [step] must be greater than `Long.MIN_VALUE` and not equal to zero.\n */\n public fun fromClosedRange(rangeStart: Long, rangeEnd: Long, step: Long): LongProgression = LongProgression(rangeStart, rangeEnd, step)\n }\n}\n\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.ranges\n\n/**\n * Represents a range of values (for example, numbers or characters).\n * See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/ranges.html) for more information.\n */\npublic interface ClosedRange<T: Comparable<T>> {\n /**\n * The minimum value in the range.\n */\n public val start: T\n\n /**\n * The maximum value in the range (inclusive).\n */\n public val endInclusive: T\n\n /**\n * Checks whether the specified [value] belongs to the range.\n */\n public operator fun contains(value: T): Boolean = value >= start && value <= endInclusive\n\n /**\n * Checks whether the range is empty.\n *\n * The range is empty if its start value is greater than the end value.\n */\n public fun isEmpty(): Boolean = start > endInclusive\n}\n","/*\n * Copyright 2010-2015 JetBrains s.r.o.\n *\n * Licensed under the Apache License, Version 2.0 (the \"License\");\n * you may not use this file except in compliance with the License.\n * You may obtain a copy of the License at\n *\n * http://www.apache.org/licenses/LICENSE-2.0\n *\n * Unless required by applicable law or agreed to in writing, software\n * distributed under the License is distributed on an \"AS IS\"

BASIS,\n * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.\n * See the License for the specific language governing permissions and\n * limitations under the License.\n */\n\npackage kotlin\n\n\n/**\n * The type with only one value: the `Unit` object. This type corresponds to the
 `void` type in Java.\n */\npublic object Unit {\n   override fun toString() = \"kotlin.Unit\"\n}\n","/*\n * Copyright 2010-2015 JetBrains s.r.o.\n *\n * Licensed under the Apache License, Version 2.0 (the \"License\");\n * you may not use this file except in compliance with the License.\n * You may obtain a copy of the License at\n *\n * http://www.apache.org/licenses/LICENSE-2.0\n *\n * Unless required by applicable law or agreed to in writing, software\n * distributed under the License is distributed on an \"AS IS\" BASIS,\n * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.\n * See the License for the specific language governing permissions and\n * limitations under the License.\n */\n\npackage kotlin.annotation\n\nimport kotlin.annotation.AnnotationTarget.*\n\n/**\n * Contains the list of code elements which are the possible annotation targets\n */\npublic enum class AnnotationTarget {\n   /** Class, interface or object, annotation class is also included
 */\n   CLASS,\n   /** Annotation class only */\n   ANNOTATION_CLASS,\n   /** Generic type parameter */\n   TYPE_PARAMETER,\n   /** Property */\n   PROPERTY,\n   /** Field, including property's backing field */\n   FIELD,\n   /** Local variable */\n   LOCAL_VARIABLE,\n   /** Value parameter of a function or a constructor */\n   VALUE_PARAMETER,\n   /** Constructor only (primary or secondary) */\n   CONSTRUCTOR,\n   /** Function (constructors are not included) */\n   FUNCTION,\n   /** Property getter only */\n   PROPERTY_GETTER,\n   /** Property setter only */\n   PROPERTY_SETTER,\n   /** Type usage */\n   TYPE,\n   /** Any expression */\n   EXPRESSION,\n   /** File */\n   FILE,\n   /** Type alias */\n   @SinceKotlin(\"1.1\")\n   TYPEALIAS\n}\n\n/**\n * Contains the list of possible annotation's retentions.\n *\n * Determines how an annotation is stored in binary output.\n */\npublic enum class AnnotationRetention {\n   /** Annotation isn't stored in binary
 output */\n   SOURCE,\n   /** Annotation is stored in binary output, but invisible for reflection */\n   BINARY,\n   /** Annotation is stored in binary output and visible for reflection (default retention) */\n   RUNTIME\n}\n\n/**\n * This meta-annotation indicates the kinds of code elements which are possible targets of an annotation.\n *\n * If the target meta-annotation is not present on an annotation declaration, the annotation is applicable to the following elements:\n * [CLASS], [PROPERTY], [FIELD], [LOCAL_VARIABLE], [VALUE_PARAMETER], [CONSTRUCTOR], [FUNCTION], [PROPERTY_GETTER], [PROPERTY_SETTER].\n *\n * @property allowedTargets list of allowed annotation targets\n */\n@Target(AnnotationTarget.ANNOTATION_CLASS)\n@MustBeDocumented\npublic annotation class Target(vararg val allowedTargets: AnnotationTarget)\n\n/**\n * This meta-annotation determines whether an annotation is stored in binary output and visible for reflection. By default, both are true.\n *\n * @property value
 necessary annotation retention (RUNTIME, BINARY or SOURCE)\n */\n@Target(AnnotationTarget.ANNOTATION_CLASS)\npublic annotation class Retention(val value: AnnotationRetention = AnnotationRetention.RUNTIME)\n\n/**\n * This meta-annotation determines that an annotation is applicable twice or more on a single code element\n */\n@Target(AnnotationTarget.ANNOTATION_CLASS)\npublic annotation class Repeatable\n\n/**\n * This meta-annotation determines that an annotation is a part of public API and therefore should be included in the generated\n * documentation for the element to which the annotation is applied.\n */\n@Target(AnnotationTarget.ANNOTATION_CLASS)\npublic annotation class MustBeDocumented\n","/*\n * Copyright 2010-2016 JetBrains s.r.o.\n *\n * Licensed under the Apache License, Version 2.0 (the \"License\");\n * you may not use this file except in compliance with the License.\n * You may obtain a copy of the License at\n *\n * http://www.apache.org/licenses/LICENSE-2.0\n *\n *
 Unless required by applicable law or agreed to in writing, software\n * distributed under the License is distributed on an \"AS IS\" BASIS,\n * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.\n * See the License for the specific language governing permissions and\n * limitations under the License.\n */\n\npackage kotlin.internal\n\n/**\n * Specifies that the corresponding type parameter is not used for

unsafe operations such as casts or 'is' checks\n * That means it's completely safe to use generic types as argument for such parameter.\n */\n@Target(AnnotationTarget.TYPE_PARAMETER)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class PureReifiable\n\n/**\n * Specifies that the corresponding built-in method exists depending on platform.\n * Current implementation for JVM looks whether method with same JVM descriptor exists in the module JDK.\n * For example MutableMap.remove(K, V) available only if corresponding\n * method 'java/util/Map.remove(Ljava/lang/Object;Ljava/lang/Object;)Z' is defined in JDK (i.e. for major versions >= 8)\n */\n@Target(AnnotationTarget.FUNCTION)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class PlatformDependent\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.internal\n\n// a mod b (in arithmetical sense)\nprivate fun mod(a: Int, b: Int): Int {\n   val mod = a % b\n   return if (mod >= 0) mod else mod + b\n}\n\nprivate fun mod(a: Long, b: Long): Long {\n   val mod = a % b\n   return if (mod >= 0) mod else mod + b\n}\n\n// (a - b) mod c\nprivate fun differenceModulo(a: Int, b: Int, c: Int): Int {\n   return mod(mod(a, c) - mod(b, c), c)\n}\n\nprivate fun differenceModulo(a: Long, b: Long, c: Long): Long {\n   return mod(mod(a, c) - mod(b, c), c)\n}\n\n/**\n * Calculates the final element of a bounded arithmetic progression, i.e. the last element of the progression which is in the range\n * from [start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative\n * [step].\n *\n * No validation on passed parameters is performed. The given parameters should satisfy the condition:\n *\n * - either `step > 0` and `start <= end`,\n * - or `step < 0` and `start >= end`.\n *\n * @param start first element of the progression\n * @param end ending bound for the progression\n * @param step increment, or difference of successive elements in the progression\n * @return the final element of the progression\n * @suppress\n */\n@PublishedApi\ninternal fun getProgressionLastElement(start: Int, end: Int, step: Int): Int = when {\n   step > 0 -> if (start >= end) end else end - differenceModulo(end, start, step)\n   step < 0 -> if (start <= end) end else end + differenceModulo(start, end, -step)\n   else -> throw kotlin.IllegalArgumentException(\"Step is zero.\")\n}\n\n/**\n * Calculates the final element of a bounded arithmetic progression, i.e. the last element of the progression which is in the range\n * from [start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative\n * [step].\n *\n * No validation on passed parameters is performed. The given parameters should satisfy the condition:\n *\n * - either `step > 0` and `start <= end`,\n * - or `step < 0` and `start >= end`.\n *\n * @param start first element of the progression\n * @param end ending bound for the progression\n * @param step increment, or difference of successive elements in the progression\n * @return the final element of the progression\n * @suppress\n */\n@PublishedApi\ninternal fun getProgressionLastElement(start: Long, end: Long, step: Long): Long = when {\n   step > 0 -> if (start >= end) end else end - differenceModulo(end, start, step)\n   step < 0 -> if (start <= end) end else end + differenceModulo(start, end, -step)\n   else -> throw kotlin.IllegalArgumentException(\"Step is zero.\")\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@JsName(\"arrayIterator\")\ninternal fun arrayIterator(array: dynamic, type: String?) = when (type) {\n   null -> {\n   val arr: Array<dynamic> = array\n   object : Iterator<dynamic> {\n   var index = 0\n   override fun hasNext() = index < arr.size\n   override fun next() = if (index < arr.size) arr[index++] else throw NoSuchElementException(\"$index\")\n   }\n   }\n   \"BooleanArray\" -> booleanArrayIterator(array)\n   \"ByteArray\" -> byteArrayIterator(array)\n   \"ShortArray\" -> shortArrayIterator(array)\n   \"CharArray\" -> charArrayIterator(array)\n   \"IntArray\" -> intArrayIterator(array)\n   \"LongArray\" -> longArrayIterator(array)\n   \"FloatArray\" -> floatArrayIterator(array)\n   \"DoubleArray\" -> doubleArrayIterator(array)\n   else -> throw IllegalStateException(\"Unsupported type argument for arrayIterator: $type\")\n}\n\n@JsName(\"booleanArrayIterator\")\ninternal fun booleanArrayIterator(array: BooleanArray) = object : BooleanIterator() {\n   var index = 0\n   override fun

hasNext() = index < array.size\n   override fun nextBoolean() = if (index < array.size) array[index++] else throw
NoSuchElementException(\"$index\")\n}\n\n@JsName(\"byteArrayIterator\")\ninternal fun byteArrayIterator(array:
ByteArray) = object : ByteIterator() {\n   var index = 0\n   override fun hasNext() = index < array.size\n   override
fun nextByte() = if (index < array.size) array[index++] else throw
NoSuchElementException(\"$index\")\n}\n\n@JsName(\"shortArrayIterator\")\ninternal fun
shortArrayIterator(array: ShortArray) = object : ShortIterator() {\n   var index = 0\n   override fun hasNext() =
index < array.size\n   override fun nextShort()
 = if (index < array.size) array[index++] else throw
NoSuchElementException(\"$index\")\n}\n\n@JsName(\"charArrayIterator\")\ninternal fun charArrayIterator(array:
CharArray) = object : CharIterator() {\n   var index = 0\n   override fun hasNext() = index < array.size\n   override
fun nextChar() = if (index < array.size) array[index++] else throw
NoSuchElementException(\"$index\")\n}\n\n@JsName(\"intArrayIterator\")\ninternal fun intArrayIterator(array:
IntArray) = object : IntIterator() {\n   var index = 0\n   override fun hasNext() = index < array.size\n   override fun
nextInt() = if (index < array.size) array[index++] else throw
NoSuchElementException(\"$index\")\n}\n\n@JsName(\"floatArrayIterator\")\ninternal fun
floatArrayIterator(array: FloatArray) = object : FloatIterator() {\n   var index = 0\n   override fun hasNext() = index
< array.size\n   override fun nextFloat() = if (index < array.size) array[index++] else throw
NoSuchElementException(\"$index\")\n}\n\n@JsName(\"doubleArrayIterator\")\ninternal
 fun doubleArrayIterator(array: DoubleArray) = object : DoubleIterator() {\n   var index = 0\n   override fun
hasNext() = index < array.size\n   override fun nextDouble() = if (index < array.size) array[index++] else throw
NoSuchElementException(\"$index\")\n}\n\n@JsName(\"longArrayIterator\")\ninternal fun longArrayIterator(array:
LongArray) = object : LongIterator() {\n   var index = 0\n   override fun hasNext() = index < array.size\n
override fun nextLong() = if (index < array.size) array[index++] else throw
NoSuchElementException(\"$index\")\n}\n\n@JsName(\"PropertyMetadata\")\ninternal class
PropertyMetadata(@JsName(\"callableName\") val name:
String)\n\n@JsName(\"noWhenBranchMatched\")\ninternal fun noWhenBranchMatched(): Nothing = throw
NoWhenBranchMatchedException()\n\n@JsName(\"subSequence\")\ninternal fun subSequence(c: CharSequence,
startIndex: Int, endIndex: Int): CharSequence {\n   if (c is String) {\n   return c.substring(startIndex,
 endIndex)\n   } else {\n   return c.asDynamic().`subSequence_vux9f0$`(startIndex, endIndex)\n
}\n}\n\n@JsName(\"captureStack\")\ninternal fun captureStack(@Suppress(\"UNUSED_PARAMETER\")
baseClass: JsClass<in Throwable>, instance: Throwable) {\n   if (js(\"Error\").captureStackTrace) {\n   // Using
uncropped stack traces due to KT-37563.\n   // Precise stack traces are implemented in JS IR compiler and
stdlib\n   js(\"Error\").captureStackTrace(instance);\n   } else {\n   instance.asDynamic().stack = js(\"new
Error()\").stack;\n   }\n}\n\n@JsName(\"newThrowable\")\ninternal fun newThrowable(message: String?, cause:
Throwable?): Throwable {\n   val throwable = js(\"new Error()\")\n   throwable.message = if (jsTypeOf(message)
== \"undefined\") {\n   if (cause != null) cause.toString() else null\n   } else {\n   message\n   }\n
throwable.cause = cause\n   throwable.name = \"Throwable\"\n   return
throwable\n}\n\n@JsName(\"BoxedChar\")\ninternal
 class BoxedChar(val c: Int) : Comparable<Int> {\n   override fun equals(other: Any?): Boolean {\n   return
other is BoxedChar && c == other.c\n   }\n\n   override fun hashCode(): Int {\n   return c\n   }\n\n   override
fun toString(): String {\n   return js(\"this.c\").unsafeCast<Char>().toString()\n   }\n\n   override fun
compareTo(other: Int): Int {\n   return js(\"this.c - other\").unsafeCast<Int>()\n   }\n\n
@JsName(\"valueOf\")\n   public fun valueOf(): Int {\n   return c\n
}\n}\n\n@kotlin.internal.InlineOnly\ninternal inline fun <T> concat(args: Array<T>): T {\n   val typed =
js(\"Array\")(args.size)\n   for (i in args.indices) {\n   val arr = args[i]\n   if (arr !is Array<*>) {\n
typed[i] = js(\"[]\").slice.call(arr)\n   } else {\n   typed[i] = arr\n   }\n   }\n   return
js(\"[]\").concat.apply(js(\"[]\"), typed);\n}\n\n/** Concat regular Array's and TypedArray's into an Array.\n
*/\n@PublishedApi\n@JsName(\"arrayConcat\")\n@Suppress(\"UNUSED_PARAMETER\")\ninternal

```
 fun <T> arrayConcat(a: T, b: T): T {\n    return concat(js(\"arguments\"))\n}\n\n/** Concat primitive arrays. Main
use: prepare vararg arguments.\n *  For compatibility with 1.1.0 the arguments may be a mixture of Array's and
TypedArray's.\n *\n *  If the first argument is TypedArray (Byte-, Short-, Char-, Int-, Float-, and DoubleArray)
returns a TypedArray, otherwise an Array.\n *  If the first argument has the $type$ property (Boolean-, Char-, and
LongArray) copy its value to result.$type$.\n *  If the first argument is a regular Array without the $type$ property
default to arrayConcat.\n
*/\n@PublishedApi\n@JsName(\"primitiveArrayConcat\")\n@Suppress(\"UNUSED_PARAMETER\")\ninternal
fun <T> primitiveArrayConcat(a: T, b: T): T {\n    val args: Array<T> = js(\"arguments\")\n    if (a is Array<*> &&
a.asDynamic().`$type$` === undefined) {\n        return concat(args)\n    } else {\n        var size = 0\n
        for (i in args.indices) {\n            size += args[i].asDynamic().length as Int\n        }\n        val result = js(\"new
a.constructor(size)\")\n        kotlin.copyArrayType(a, result)\n        size = 0\n        for (i in args.indices) {\n            val
arr = args[i].asDynamic()\n            for (j in 0 until arr.length) {\n                result[size++] = arr[j]\n            }\n        }\n
      return result\n    }\n}\n\n@JsName(\"booleanArrayOf\")\ninternal fun booleanArrayOf() =
withType(\"BooleanArray\", js(\"[].slice.call(arguments)\"))\n\n@JsName(\"charArrayOf\") // The arguments have
to be slice'd here because of Rhino (see KT-16974)\ninternal fun charArrayOf() = withType(\"CharArray\", js(\"new
Uint16Array([].slice.call(arguments))\"))\n\n@JsName(\"longArrayOf\")\ninternal fun longArrayOf() =
withType(\"LongArray\",
js(\"[].slice.call(arguments)\"))\n\n@JsName(\"withType\")\n@kotlin.internal.InlineOnly\ninternal inline fun
withType(type: String, array: dynamic):
 dynamic {\n    array.`$type$` = type\n    return array\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n * Function corresponding to JavaScript's
`typeof` operator\n */\n@kotlin.internal.InlineOnly\n@Suppress(\"UNUSED_PARAMETER\")\npublic inline fun
jsTypeOf(a: Any?): String = js(\"typeof a\")\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\n */\n\n@file:Suppress(\"UNUSED_PARAMETER\",
\"NOTHING_TO_INLINE\")\n\npackage kotlin\n\n/**\n * Returns an empty array of the specified type [T].\n
*/\npublic inline fun <T> emptyArray(): Array<T> = js(\"[]\")\n\n@library\npublic fun <T> arrayOf(vararg
elements: T): Array<T> = definedExternally\n\n@library\npublic
 fun doubleArrayOf(vararg elements: Double): DoubleArray = definedExternally\n\n@library\npublic fun
floatArrayOf(vararg elements: Float): FloatArray = definedExternally\n\n@library\npublic fun longArrayOf(vararg
elements: Long): LongArray = definedExternally\n\n@library\npublic fun intArrayOf(vararg elements: Int):
IntArray = definedExternally\n\n@library\npublic fun charArrayOf(vararg elements: Char): CharArray =
definedExternally\n\n@library\npublic fun shortArrayOf(vararg elements: Short): ShortArray =
definedExternally\n\n@library\npublic fun byteArrayOf(vararg elements: Byte): ByteArray =
definedExternally\n\n@library\npublic fun booleanArrayOf(vararg elements: Boolean): BooleanArray =
definedExternally\n\n/**\n * Creates a new instance of the [Lazy] that uses the specified initialization function
[initializer].\n */\npublic actual fun <T> lazy(initializer: () -> T): Lazy<T> = UnsafeLazyImpl(initializer)\n\n/**\n *
Creates a new instance of the [Lazy] that uses
 the specified initialization function [initializer].\n *\n * The [mode] parameter is ignored. */\npublic actual fun <T>
lazy(mode: LazyThreadSafetyMode, initializer: () -> T): Lazy<T> = UnsafeLazyImpl(initializer)\n\n/**\n * Creates
a new instance of the [Lazy] that uses the specified initialization function [initializer].\n *\n * The [lock] parameter
is ignored.\n */\npublic actual fun <T> lazy(lock: Any?, initializer: () -> T): Lazy<T> =
UnsafeLazyImpl(initializer)\n\n\ninternal fun fillFrom(src: dynamic, dst: dynamic): dynamic {\n    val srcLen: Int =
src.length\n    val dstLen: Int = dst.length\n    var index: Int = 0\n    while (index < srcLen && index < dstLen)
dst[index] = src[index++]\n    return dst\n}\n\n\ninternal fun arrayCopyResize(source: dynamic, newSize: Int,
defaultValue: Any?): dynamic {\n    val result = source.slice(0, newSize)\n    copyArrayType(source, result)\n    var
index: Int = source.length\n    if (newSize > index) {\n        result.length = newSize\n
```

while (index < newSize) result[index++] = defaultValue\n }\n return result\n}\n\ninternal fun <T> arrayPlusCollection(array: dynamic, collection: Collection<T>): dynamic {\n val result = array.slice()\n result.length += collection.size\n copyArrayType(array, result)\n var index: Int = array.length\n for (element in collection) result[index++] = element\n return result\n}\n\ninternal fun <T> fillFromCollection(dst: dynamic, startIndex: Int, collection: Collection<T>): dynamic {\n var index = startIndex\n for (element in collection) dst[index++] = element\n return dst\n}\n\ninternal inline fun copyArrayType(from: dynamic, to: dynamic) {\n if (from.`$type$` !== undefined) {\n to.`$type$` = from.`$type$`\n }\n}\n\ninternal inline fun jsIsType(obj: dynamic, jsClass: dynamic) = js(\"Kotlin\").isType(obj, jsClass)","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by

the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n/**\n * Creates a Char with the specified [code].\n *\n * @sample samples.text.Chars.charFromCode\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun Char(code: UShort): Char {\n return code.toInt().toChar()\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\nimport kotlin.coroutines.intrinsics.COROUTINE_SUSPENDED\n\n@SinceKotlin(\"1.3\")\n@JsName(\"CoroutineImpl\")\ninternal abstract class CoroutineImpl(private val resultContinuation: Continuation<Any?>) : Continuation<Any?> {\n protected var state = 0\n protected var exceptionState = 0\n protected var result: Any? = null\n protected var exception:

Throwable? = null\n protected var finallyPath: Array<Int>? = null\n\n public override val context: CoroutineContext = resultContinuation.context\n\n private var intercepted_: Continuation<Any?>? = null\n\n public fun intercepted(): Continuation<Any?> =\n intercepted_\n ?: (context[ContinuationInterceptor]?.interceptContinuation(this) ?: this)\n .also { intercepted_ = it }\n\n override fun resumeWith(result: Result<Any?>) {\n var current = this\n var currentResult: Any? = result.getOrNull()\n var currentException: Throwable? = result.exceptionOrNull()\n\n // This loop unrolls recursion in current.resumeWith(param) to make saner and shorter stack traces on resume\n while (true) {\n with(current) {\n val completion = resultContinuation\n\n // Set result and exception fields in the current continuation\n if (currentException == null) {\n this.result = currentResult\n } else {\n state = exceptionState\n exception = currentException\n }\n\n try {\n val outcome = doResume()\n if (outcome === COROUTINE_SUSPENDED) return\n currentResult = outcome\n currentException = null\n } catch (exception: dynamic) { // Catch all exceptions\n currentResult = null\n

currentException = exception.unsafeCast<Throwable>()\n }\n\n releaseIntercepted() // this state machine instance is terminating\n\n if (completion is CoroutineImpl) {\n // unrolling recursion via loop\n current = completion\n } else {\n // top-level completion reached -- invoke and return\n currentException?.let {\n completion.resumeWithException(it)\n } ?: completion.resume(currentResult)\n return\n }\n }\n }\n }\n\n private fun releaseIntercepted() {\n val intercepted = intercepted_\n if (intercepted != null && intercepted !== this) {\n context[ContinuationInterceptor]!!.releaseInterceptedContinuation(intercepted)\n }\n this.intercepted_ = CompletedContinuation // just in case\n }\n\n protected abstract fun doResume(): Any?\n}\n\ninternal object CompletedContinuation : Continuation<Any?> {\n override val context: CoroutineContext\n get() = error(\"This continuation is already complete\")\n\n override fun resumeWith(result: Result<Any?>) {\n error(\"This continuation is already complete\")\n }\n\n override fun toString(): String = \"This continuation is already complete\"\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming

Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:Suppress(\"UNCHECKED_CAST\", \"RedundantVisibilityModifier\")\n\npackage kotlin\n\nimport kotlin.contracts.*\nimport kotlin.internal.InlineOnly\nimport kotlin.jvm.JvmField\nimport kotlin.jvm.JvmInline\nimport kotlin.jvm.JvmName\n\n/**\n * A discriminated union that encapsulates a successful outcome with a value of type [T]\n * or a failure with an arbitrary [Throwable] exception.\n */\n@SinceKotlin(\"1.3\")\n@JvmInline\npublic value class Result<out T> @PublishedApi internal constructor(\n   @PublishedApi\n   internal val value: Any?\n) : Serializable {\n   // discovery\n\n   /**\n   * Returns `true` if this instance represents a successful outcome.\n   * In this case [isFailure] returns `false`.\n   */\n   public val isSuccess: Boolean get() = value !is Failure\n\n   /**\n   * Returns `true` if this instance represents a failed outcome.\n   * In this case [isSuccess] returns `false`.\n   */\n   public val isFailure: Boolean get() = value is Failure\n\n   // value & exception retrieval\n\n   /**\n   * Returns the encapsulated value if this instance represents [success][Result.isSuccess] or `null`\n   * if it is [failure][Result.isFailure].\n   *\n   * This function is a shorthand for `getOrElse { null }` (see [getOrElse]) or\n   * `fold(onSuccess = { it }, onFailure = { null })` (see [fold]).\n   */\n   @InlineOnly\n   public inline fun getOrNull(): T? =\n   when {\n   isFailure -> null\n   else -> value as T\n   }\n\n   /**\n   * Returns the encapsulated [Throwable] exception if this instance represents [failure][isFailure] or `null`\n   * if it is [success][isSuccess].\n   *\n   * This function is a shorthand for `fold(onSuccess = { null }, onFailure = { it })` (see [fold]).\n   */\n   public fun exceptionOrNull(): Throwable? =\n   when (value) {\n   is Failure -> value.exception\n   else -> null\n   }\n\n   /**\n   * Returns a string `Success(v)` if this instance represents [success][Result.isSuccess]\n   * where `v` is a string representation of the value or a string `Failure(x)` if\n   * it is [failure][isFailure] where `x` is a string representation of the exception.\n   */\n   public override fun toString(): String =\n   when (value) {\n   is Failure -> value.toString() // \"Failure($exception)\"\n   else -> \"Success($value)\"\n   }\n\n   // companion with constructors\n\n   /**\n   * Companion object for [Result] class that contains its constructor functions\n   * [success] and [failure].\n   */\n   public companion object {\n   /**\n   * Returns an instance that encapsulates the given [value] as successful value.\n   */\n   @Suppress(\"INAPPLICABLE_JVM_NAME\")\n   @InlineOnly\n   @JvmName(\"success\")\n   public inline fun <T> success(value: T): Result<T> =\n   Result(value)\n\n   /**\n   * Returns an instance that encapsulates the given [Throwable] [exception] as failure.\n   */\n   @Suppress(\"INAPPLICABLE_JVM_NAME\")\n   @InlineOnly\n   @JvmName(\"failure\")\n   public inline fun <T> failure(exception: Throwable): Result<T> =\n   Result(createFailure(exception))\n   }\n\n   internal class Failure(\n   @JvmField\n   val exception: Throwable\n   ) : Serializable {\n   override fun equals(other: Any?): Boolean = other is Failure && exception == other.exception\n   override fun hashCode(): Int = exception.hashCode()\n   override fun toString(): String = \"Failure($exception)\"\n   }\n}\n\n/**\n * Creates an instance of internal marker [Result.Failure] class to\n * make sure that this class is not exposed in ABI.\n */\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal fun createFailure(exception: Throwable): Any =\n   Result.Failure(exception)\n\n/**\n * Throws exception if the result is failure. This internal function minimizes\n * inlined bytecode for [getOrThrow] and makes sure that in the future we can\n * add some exception-augmenting logic here (if needed).\n */\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal fun Result<*>.throwOnFailure() {\n   if (value is Result.Failure) throw value.exception\n}\n\n/**\n * Calls the specified function [block] and returns its encapsulated result if invocation was successful,\n * catching any [Throwable] exception that was thrown from the [block] function execution and encapsulating it as a failure.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R> runCatching(block: () -> R): Result<R> {\n   return try {\n   Result.success(block())\n   } catch (e: Throwable) {\n   Result.failure(e)\n   }\n}\n\n/**\n * Calls the specified function [block] with `this` value as its receiver and returns its encapsulated result if invocation was successful,\n * catching any [Throwable] exception that was thrown from the [block] function execution and encapsulating it as a failure.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <T, R> T.runCatching(block: T.() -> R): Result<R> {\n   return try {\n   Result.success(block())\n   } catch (e: Throwable) {\n   Result.failure(e)\n   }\n}\n\n// -- extensions ---\n\n/**\n * Returns the encapsulated value if this instance represents [success][Result.isSuccess] or throws the encapsulated [Throwable] exception\n * if it is [failure][Result.isFailure].\n *\n * This function is a shorthand for `getOrElse { throw it }` (see [getOrElse]).\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <T> Result<T>.getOrThrow(): T {\n throwOnFailure()\n   return value as T\n}\n\n/**\n * Returns the encapsulated value if this instance represents [success][Result.isSuccess] or the\n * result of [onFailure] function for the encapsulated [Throwable] exception if it is [failure][Result.isFailure].\n *\n * Note, that this function rethrows any [Throwable] exception thrown by [onFailure] function.\n *\n * This function is a shorthand for `fold(onSuccess = { it }, onFailure = onFailure)` (see [fold]).\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T : R> Result<T>.getOrElse(onFailure: (exception: Throwable) -> R): R {\n   contract {\n   callsInPlace(onFailure, InvocationKind.AT_MOST_ONCE)\n   }\n   return when (val exception = exceptionOrNull()) {\n   null -> value as T\n   else -> onFailure(exception)\n   }\n}\n\n/**\n * Returns the encapsulated value if this instance represents [success][Result.isSuccess] or the\n * [defaultValue] if it is [failure][Result.isFailure].\n *\n * This function is a shorthand for `getOrElse { defaultValue }` (see [getOrElse]).\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T : R> Result<T>.getOrDefault(defaultValue: R): R {\n   if (isFailure) return defaultValue\n   return value as T\n}\n\n/**\n * Returns the result of [onSuccess] for the encapsulated value if this instance represents [success][Result.isSuccess]\n * or the result of [onFailure] function for the encapsulated [Throwable] exception if it is [failure][Result.isFailure].\n *\n * Note, that this function rethrows any [Throwable] exception thrown by [onSuccess] or by [onFailure] function.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T> Result<T>.fold(\n   onSuccess: (value: T) -> R,\n   onFailure: (exception: Throwable) -> R\n): R {\n contract {\n   callsInPlace(onSuccess, InvocationKind.AT_MOST_ONCE)\n   callsInPlace(onFailure, InvocationKind.AT_MOST_ONCE)\n   }\n   return when (val exception = exceptionOrNull()) {\n   null -> onSuccess(value as T)\n   else -> onFailure(exception)\n   }\n}\n\n// transformation\n\n/**\n * Returns the encapsulated result of the given [transform] function applied to the encapsulated value\n * if this instance represents [success][Result.isSuccess] or the\n * original encapsulated [Throwable] exception if it is [failure][Result.isFailure].\n *\n * Note, that this function rethrows any [Throwable] exception thrown by [transform] function.\n * See [mapCatching] for an alternative that encapsulates exceptions.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T> Result<T>.map(transform: (value: T) -> R): Result<R> {\n   contract {\n   callsInPlace(transform, InvocationKind.AT_MOST_ONCE)\n   }\n   return when {\n   isSuccess -> Result.success(transform(value as T))\n   else -> Result(value)\n   }\n}\n\n/**\n * Returns the encapsulated result of the given [transform] function applied to the encapsulated value\n * if this instance represents [success][Result.isSuccess] or the\n * original encapsulated [Throwable] exception if it is [failure][Result.isFailure].\n *\n * This function catches any [Throwable] exception thrown by [transform] function and encapsulates it as a failure.\n * See [map] for an alternative that rethrows exceptions from `transform` function.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T> Result<T>.mapCatching(transform: (value: T) -> R): Result<R> {\n   return when {\n   isSuccess -> runCatching { transform(value as T) }\n   else -> Result(value)\n   }\n}\n\n/**\n * Returns the encapsulated result of the given [transform] function applied to the encapsulated [Throwable] exception\n * if this instance represents [failure][Result.isFailure] or the\n * original encapsulated value if it is [success][Result.isSuccess].\n *\n * Note, that this function rethrows any [Throwable] exception thrown by [transform] function.\n * See [recoverCatching] for an alternative that encapsulates exceptions.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T : R> Result<T>.recover(transform: (exception: Throwable) -> R): Result<R> {\n   contract {\n   callsInPlace(transform, InvocationKind.AT_MOST_ONCE)\n   }\n   return when (val exception = exceptionOrNull()) {\n   null -> this\n   else -> Result.success(transform(exception))\n   }\n}\n\n/**\n * Returns the encapsulated result of the given [transform] function applied to the encapsulated [Throwable] exception\n * if this instance represents [failure][Result.isFailure] or the\n * original encapsulated value if it is [success][Result.isSuccess].\n *\n * This function catches any [Throwable] exception thrown by [transform] function and encapsulates it as a failure.\n * See [recover] for an

alternative that rethrows exceptions.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <R, T : R> Result<T>.recoverCatching(transform: (exception: Throwable) -> R): Result<R> {\n   return when (val exception = exceptionOrNull()) {\n   null -> this\n   else -> runCatching { transform(exception) }\n   }\n}\n\n// \"peek\" onto value/exception and pipe\n\n/**\n * Performs the given [action] on the encapsulated

[Throwable] exception if this instance represents [failure][Result.isFailure].\n * Returns the original `Result` unchanged.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <T> Result<T>.onFailure(action: (exception: Throwable) -> Unit): Result<T> {\n   contract {\n   callsInPlace(action, InvocationKind.AT_MOST_ONCE)\n   }\n   exceptionOrNull()?.let { action(it) }\n   return this\n}\n\n/**\n * Performs the given [action] on the encapsulated value if this instance represents [success][Result.isSuccess].\n * Returns the original `Result` unchanged.\n */\n@InlineOnly\n@SinceKotlin(\"1.3\")\npublic inline fun <T> Result<T>.onSuccess(action: (value: T) -> Unit): Result<T> {\n   contract {\n   callsInPlace(action, InvocationKind.AT_MOST_ONCE)\n   }\n   if (isSuccess) action(value as T)\n   return this\n}\n\n// -------------------\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is

governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\nimport kotlin.contracts.*\nimport kotlin.coroutines.intrinsics.*\nimport kotlin.internal.InlineOnly\n\n/**\n * Interface representing a continuation after a suspension point that returns a value of type `T`.\n */\n@SinceKotlin(\"1.3\")\npublic interface Continuation<in T> {\n   /**\n   * The context of the coroutine that corresponds to this continuation.\n   */\n   public val context: CoroutineContext\n\n   /**\n   * Resumes the execution of the corresponding coroutine passing a successful or failed [result] as the\n   * return value of the last suspension point.\n   */\n   public fun resumeWith(result: Result<T>)\n}\n\n/**\n * Classes and interfaces marked with this annotation are restricted when used as receivers for extension\n * `suspend` functions. These `suspend` extensions can only invoke other member or extension `suspend` functions on this particular\n

* receiver and are restricted from calling arbitrary suspension functions.\n */\n@SinceKotlin(\"1.3\")\n@Target(AnnotationTarget.CLASS)\n@Retention(AnnotationRetention.BINARY)\npublic annotation class RestrictsSuspension\n\n/**\n * Resumes the execution of the corresponding coroutine passing [value] as the return value of the last suspension point.\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic inline fun <T> Continuation<T>.resume(value: T): Unit =\n   resumeWith(Result.success(value))\n\n/**\n * Resumes the execution of the corresponding coroutine so that the [exception] is re-thrown right after the\n * last suspension point.\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic inline fun <T> Continuation<T>.resumeWithException(exception: Throwable): Unit =\n resumeWith(Result.failure(exception))\n\n\n/**\n * Creates a [Continuation] instance with the given [context] and implementation of [resumeWith] method.\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic inline fun <T>

Continuation(\n   context: CoroutineContext,\n   crossinline resumeWith: (Result<T>) -> Unit\n): Continuation<T> =\n   object : Continuation<T> {\n   override val context: CoroutineContext\n   get() = context\n\n   override fun resumeWith(result: Result<T>) =\n   resumeWith(result)\n   }\n\n/**\n * Creates a coroutine without a receiver and with result type [T].\n * This function creates a new, fresh instance of suspendable computation every time it is invoked.\n *\n * To start executing the created coroutine, invoke `resume(Unit)` on the returned [Continuation] instance.\n * The [completion] continuation is invoked when the coroutine completes with a result or an exception.\n * Subsequent invocation of any resume function on the resulting continuation will produce an [IllegalStateException].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"UNCHECKED_CAST\")\npublic fun <T> (suspend () -> T).createCoroutine(\n   completion: Continuation<T>\n): Continuation<Unit>

=\n   SafeContinuation(createCoroutineUnintercepted(completion).intercepted(), COROUTINE_SUSPENDED)\n\n/**\n * Creates a coroutine with receiver type [R] and result type [T].\n * This function creates a new, fresh instance of suspendable computation every time it is invoked.\n *\n * To start executing the created coroutine, invoke `resume(Unit)` on the returned [Continuation] instance.\n * The [completion] continuation is invoked when the coroutine completes with a result or an exception.\n * Subsequent invocation of any resume function on the resulting continuation will produce an [IllegalStateException].\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"UNCHECKED_CAST\")\npublic fun <R, T> (suspend R.() -> T).createCoroutine(\n   receiver: R,\n   completion: Continuation<T>\n): Continuation<Unit> =\n SafeContinuation(createCoroutineUnintercepted(receiver, completion).intercepted(), COROUTINE_SUSPENDED)\n\n/**\n * Starts a coroutine without a receiver and with result type [T].\n * This

function creates and starts a new, fresh instance of suspendable computation every time it is invoked.\n * The [completion] continuation is invoked when the coroutine completes with a result or an exception.\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"UNCHECKED_CAST\")\npublic fun <T> (suspend () -> T).startCoroutine(\n   completion: Continuation<T>\n) {\n createCoroutineUnintercepted(completion).intercepted().resume(Unit)\n}\n\n/**\n * Starts a coroutine with receiver type [R] and result type [T].\n * This function creates and starts a new, fresh instance of suspendable computation every time it is invoked.\n * The [completion] continuation is invoked when the coroutine completes with a result or an exception.\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"UNCHECKED_CAST\")\npublic fun <R, T> (suspend R.() -> T).startCoroutine(\n   receiver: R,\n   completion: Continuation<T>\n) {\n createCoroutineUnintercepted(receiver, completion).intercepted().resume(Unit)\n}\n\n/**\n * Obtains

the current continuation instance inside suspend functions and suspends\n * the currently running coroutine.\n *\n * In this function both [Continuation.resume] and [Continuation.resumeWithException] can be used either synchronously in\n * the same stack-frame where the suspension function is run or asynchronously later in the same thread or\n * from a different thread of execution. Subsequent invocation of any resume function will produce an [IllegalStateException].\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic suspend inline fun <T> suspendCoroutine(crossinline block: (Continuation<T>) -> Unit): T {\n   contract { callsInPlace(block, InvocationKind.EXACTLY_ONCE) }\n   return suspendCoroutineUninterceptedOrReturn { c: Continuation<T> ->\n   val safe = SafeContinuation(c.intercepted())\n   block(safe)\n   safe.getOrThrow()\n   }\n}\n\n/**\n * Returns the context of the current coroutine.\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"WRONG_MODIFIER_TARGET\")\n@InlineOnly\npublic

suspend inline val coroutineContext: CoroutineContext\n   get() {\n   throw NotImplementedError(\"Implemented as intrinsic\")\n   }\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines.intrinsics\n\nimport kotlin.coroutines.*\nimport kotlin.internal.InlineOnly\n\n/**\n * Starts an unintercepted coroutine without a receiver and with result type [T] and executes it until its first suspension.\n * Returns the result of the coroutine or throws its exception if it does not suspend or [COROUTINE_SUSPENDED] if it suspends.\n * In the latter case, the [completion] continuation is invoked when the coroutine completes with a result or an exception.\n *\n * The coroutine is started directly in the invoker's thread without going through the [ContinuationInterceptor] that might\n * be present in

the completion's [CoroutineContext]. It is the invoker's responsibility to ensure that a proper invocation\n * context is established.\n *\n * This function is designed to be used from inside of [suspendCoroutineUninterceptedOrReturn] to resume the execution of the suspended\n * coroutine using a reference to the suspending function.\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic actual inline fun <T> (suspend () -> T).startCoroutineUninterceptedOrReturn(\n   completion: Continuation<T>\n): Any? = this.asDynamic()(completion, false)\n\n/**\n * Starts an unintercepted coroutine with receiver type [R] and result type [T] and executes it until its first suspension.\n * Returns the result of the coroutine or throws its exception if it does not suspend or [COROUTINE_SUSPENDED] if it suspends.\n * In the latter case, the [completion] continuation is invoked when the coroutine completes with a result or an exception.\n *\n * The coroutine is started directly in the invoker's thread without

going through the [ContinuationInterceptor] that might\n * be present in the completion's [CoroutineContext]. It is the invoker's responsibility to ensure that a proper invocation\n * context is established.\n *\n * This function is designed to be used from inside of [suspendCoroutineUninterceptedOrReturn] to resume the execution of the suspended\n * coroutine using a reference to the suspending function.\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic actual inline fun <R, T> (suspend R.() -> T).startCoroutineUninterceptedOrReturn(\n   receiver: R,\n   completion: Continuation<T>\n): Any? = this.asDynamic()(receiver, completion, false)\n\n@InlineOnly\ninternal actual inline fun <R, P, T> (suspend R.(P) -> T).startCoroutineUninterceptedOrReturn(\n   receiver: R,\n   param: P,\n   completion: Continuation<T>\n): Any? = this.asDynamic()(receiver, param, completion, false)\n\n/**\n * Creates unintercepted coroutine without receiver and with result type [T].\n * This function creates

a new, fresh instance of suspendable computation every time it is invoked.\n *\n * To start executing the created coroutine, invoke `resume(Unit)` on the returned [Continuation] instance.\n * The [completion] continuation is invoked when coroutine completes with result or exception.\n *\n * This function returns unintercepted continuation.\n * Invocation of `resume(Unit)` starts coroutine immediately in the invoker's call stack without going through the\n * [ContinuationInterceptor] that might be present in the completion's [CoroutineContext].\n * It is the invoker's responsibility to ensure that a proper invocation context is established.\n * Note that [completion] of this function may get invoked in an arbitrary context.\n *\n * [Continuation.intercepted] can be used to acquire the intercepted continuation.\n * Invocation of `resume(Unit)` on intercepted continuation guarantees that execution of\n * both the coroutine and [completion] happens in the invocation context established

by\n * [ContinuationInterceptor].\n *\n * Repeated invocation of any resume function on the resulting continuation corrupts the\n * state machine of the coroutine and may result in arbitrary behaviour or exception.\n */\n@SinceKotlin(\"1.3\")\npublic actual fun <T> (suspend () -> T).createCoroutineUnintercepted(\n   completion: Continuation<T>\n): Continuation<Unit> =\n   // Kotlin/JS suspend lambdas have an extra parameter `suspended`\n   if (this.asDynamic().length == 2) {\n   // When `suspended` is true the continuation is created, but not executed\n   this.asDynamic()(completion, true)\n   } else {\n   createCoroutineFromSuspendFunction(completion) {\n   this.asDynamic()(completion)\n   }\n   }\n\n/**\n * Creates unintercepted coroutine with receiver type [R] and result type [T].\n * This function creates a new, fresh instance of suspendable computation every time it is invoked.\n *\n * To start executing the created coroutine, invoke `resume(Unit)`

on the returned [Continuation] instance.\n * The [completion] continuation is invoked when coroutine completes with result or exception.\n *\n * This function returns unintercepted continuation.\n * Invocation of `resume(Unit)` starts coroutine immediately in the invoker's call stack without going through the\n * [ContinuationInterceptor] that might be present in the completion's [CoroutineContext].\n * It is the invoker's responsibility to ensure that a proper invocation context is established.\n * Note that [completion] of this function may get invoked in an arbitrary context.\n *\n * [Continuation.intercepted] can be used to acquire the intercepted continuation.\n * Invocation of `resume(Unit)` on intercepted continuation guarantees that execution of\n * both the coroutine and [completion] happens in the invocation context established by\n * [ContinuationInterceptor].\n *\n * Repeated invocation of any resume function on the resulting continuation corrupts the\n * state machine of

the coroutine and may result in arbitrary behaviour or exception.\n */\n@SinceKotlin(\"1.3\")\npublic actual fun <R, T> (suspend R.() -> T).createCoroutineUnintercepted(\n   receiver: R,\n   completion: Continuation<T>\n): Continuation<Unit> =\n   // Kotlin/JS suspend lambdas have an extra parameter `suspended`\n   if (this.asDynamic().length == 3) {\n   // When `suspended` is true the continuation is created, but not executed\n   this.asDynamic()(receiver, completion, true)\n   } else {\n   createCoroutineFromSuspendFunction(completion) {\n   this.asDynamic()(receiver, completion)\n   }\n   }\n\n/**\n * Intercepts this continuation with [ContinuationInterceptor].\n *\n * This function shall be used on the immediate result of [createCoroutineUnintercepted] or [suspendCoroutineUninterceptedOrReturn],\n * in which case it checks for [ContinuationInterceptor] in the continuation's [context][Continuation.context],\n * invokes [ContinuationInterceptor.interceptContinuation],

caches and returns the result.\n *\n * If this function is invoked on other [Continuation] instances it returns `this` continuation unchanged.\n */\n@SinceKotlin(\"1.3\")\npublic actual fun <T> Continuation<T>.intercepted(): Continuation<T> =\n   (this as? CoroutineImpl)?.intercepted() ?: this\n\n\nprivate inline fun <T>

```
createCoroutineFromSuspendFunction(\n    completion: Continuation<T>,\n    crossinline block: () -> Any?\n):
Continuation<Unit> {\n    @Suppress(\"UNCHECKED_CAST\")\n    return object : CoroutineImpl(completion as
Continuation<Any?>) {\n        override fun doResume(): Any? {\n            exception?.let { throw it }\n            return
block()\n        }\n    }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n// Mirrors signature from JS IR BE\n// Used for
js.translator/testData/box/number/mulInt32.kt\n@library\n@JsName(\"imulEmulated\")\n@Suppress(\"UNUSED_P
ARAMETER\")\ninternal fun imul(x: Int, y: Int): Int =
definedExternally\n\n@Suppress(\"NOTHING_TO_INLINE\")\ninternal inline fun isArrayish(o: dynamic) =
js(\"Kotlin\").isArrayish(o)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin\n\n// NOTE: Do not author your exceptions as they are written in
this file, instead use this template:\n/*\npublic open class MyException : Exception {\n    constructor() : super()\n
constructor(message: String?) : super(message)\n    constructor(message: String?, cause: Throwable?) :
super(message, cause)\n    constructor(cause: Throwable?) : super(cause)\n}\n*/\n\n\n// TODO: remove primary
constructors, make all secondary KT-22055\n\n@Suppress(\"USELESS_ELVIS_RIGHT_IS_NULL\")\npublic
 actual open class Error actual constructor(message: String?, cause: Throwable?) : Throwable(message, cause ?:
null) {\n    actual constructor() : this(null, null)\n    actual constructor(message: String?) : this(message, null)\n
actual constructor(cause: Throwable?) : this(undefined,
cause)\n}\n\n@Suppress(\"USELESS_ELVIS_RIGHT_IS_NULL\")\npublic actual open class Exception actual
constructor(message: String?, cause: Throwable?) : Throwable(message, cause ?: null) {\n    actual constructor() :
this(null, null)\n    actual constructor(message: String?) : this(message, null)\n    actual constructor(cause:
Throwable?) : this(undefined, cause)\n}\n\npublic actual open class RuntimeException actual constructor(message:
String?, cause: Throwable?) : Exception(message, cause) {\n    actual constructor() : this(null, null)\n    actual
constructor(message: String?) : this(message, null)\n    actual constructor(cause: Throwable?) : this(undefined,
cause)\n}\n\npublic actual open
 class IllegalArgumentException actual constructor(message: String?, cause: Throwable?) :
RuntimeException(message, cause) {\n    actual constructor() : this(null, null)\n    actual constructor(message:
String?) : this(message, null)\n    actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\npublic actual
open class IllegalStateException actual constructor(message: String?, cause: Throwable?) :
RuntimeException(message, cause) {\n    actual constructor() : this(null, null)\n    actual constructor(message:
String?) : this(message, null)\n    actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\npublic actual
open class IndexOutOfBoundsException actual constructor(message: String?) : RuntimeException(message) {\n
actual constructor() : this(null)\n}\n\npublic actual open class ConcurrentModificationException actual
constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\n    actual constructor() :
this(null, null)\n    actual
 constructor(message: String?) : this(message, null)\n    actual constructor(cause: Throwable?) : this(undefined,
cause)\n}\n\npublic actual open class UnsupportedOperationException actual constructor(message: String?, cause:
Throwable?) : RuntimeException(message, cause) {\n    actual constructor() : this(null, null)\n    actual
constructor(message: String?) : this(message, null)\n    actual constructor(cause: Throwable?) : this(undefined,
cause)\n}\n\n\npublic actual open class NumberFormatException actual constructor(message: String?) :
IllegalArgumentException(message) {\n    actual constructor() : this(null)\n}\n\n\npublic actual open class
NullPointerException actual constructor(message: String?) : RuntimeException(message) {\n    actual constructor() :
this(null)\n}\n\npublic actual open class ClassCastException actual constructor(message: String?) :
RuntimeException(message) {\n    actual constructor() : this(null)\n}\n\npublic actual open class
AssertionError\n@SinceKotlin(\"1.4\")\nconstructor(message:
 String?, cause: Throwable?) : Error(message, cause) {\n    actual constructor() : this(null)\n    constructor(message:
String?) : this(message, null)\n    actual constructor(message: Any?) : this(message.toString(), message as?
```

Throwable)\n}\n\npublic actual open class NoSuchElementException actual constructor(message: String?) : RuntimeException(message) {\n   actual constructor() : this(null)\n}\n\n@SinceKotlin(\"1.3\")\npublic actual open class ArithmeticException actual constructor(message: String?) : RuntimeException(message) {\n   actual constructor() : this(null)\n}\n\npublic actual open class NoWhenBranchMatchedException actual constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\n   actual constructor() : this(null, null)\n   actual constructor(message: String?) : this(message, null)\n   actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n\npublic actual open class UninitializedPropertyAccessException actual constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\n   actual constructor() : this(null, null)\n   actual constructor(message: String?) : this(message, null)\n   actual constructor(cause: Throwable?) : this(undefined, cause)\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. Use of this source code is governed by the Apache 2.0 license\n * that can be found in the license/LICENSE.txt file.\n */\n\n\n@file:Suppress(\"UNUSED_PARAMETER\")\n\npackage kotlin.js\n\n@kotlin.internal.InlineOnly\ninternal inline fun jsDeleteProperty(obj: Any, property: Any) {\n   js(\"delete obj[property]\")\n}\n\n@kotlin.internal.InlineOnly\ninternal inline fun jsBitwiseOr(lhs: Any?, rhs: Any?): Int =\n js(\"lhs | rhs\").unsafeCast<Int>()","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.math\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n *\n * If [sign] is `NaN` the sign of the result is undefined.\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Double.withSign(sign: Double): Double {\n   val thisSignBit = js(\"Kotlin\").doubleSignBit(this).unsafeCast<Int>()\n   val newSignBit = js(\"Kotlin\").doubleSignBit(sign).unsafeCast<Int>()\n   return if (thisSignBit == newSignBit) this else -this\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n\n\n/**\n * Returns a bit representation of the specified floating-point value as [Long]\n * according to the IEEE 754 floating-point \"double format\" bit layout.\n */\n@SinceKotlin(\"1.2\")\n@library(\"doubleToBits\")\npublic actual fun Double.toBits(): Long = definedExternally\n\n/**\n * Returns a bit representation of the specified floating-point value as [Long]\n * according to the IEEE 754 floating-point \"double format\" bit layout,\n * preserving `NaN` values exact layout.\n */\n@SinceKotlin(\"1.2\")\n@library(\"doubleToRawBits\")\npublic actual fun Double.toRawBits(): Long = definedExternally\n\n/**\n * Returns the [Double] value corresponding to a given bit representation.\n */\n@SinceKotlin(\"1.2\")\n@kotlin.internal.InlineOnly\npublic actual inline fun Double.Companion.fromBits(bits: Long): Double = js(\"Kotlin\").doubleFromBits(bits).unsafeCast<Double>()\n\n/**\n * Returns a bit representation of the specified floating-point value as [Int]\n * according to the IEEE 754 floating-point \"single format\" bit layout.\n *\n * Note that in Kotlin/JS [Float] range is wider than \"single format\" bit layout can represent,\n * so some [Float] values may overflow, underflow or loose their accuracy after conversion to bits and back.\n */\n@SinceKotlin(\"1.2\")\n@library(\"floatToBits\")\npublic actual fun Float.toBits(): Int = definedExternally\n\n/**\n * Returns a bit representation of the specified floating-point value as [Int]\n * according to the IEEE 754 floating-point \"single format\" bit layout,\n * preserving `NaN` values exact layout.\n *\n * Note that in Kotlin/JS [Float] range is wider than \"single format\" bit layout can represent,\n * so some [Float] values may overflow, underflow or loose their accuracy after conversion to bits and back.\n */\n@SinceKotlin(\"1.2\")\n@library(\"floatToRawBits\")\npublic actual fun Float.toRawBits(): Int = definedExternally\n\n/**\n * Returns the [Float] value corresponding to a given bit representation.\n */\n@SinceKotlin(\"1.2\")\n@kotlin.internal.InlineOnly\npublic actual inline fun Float.Companion.fromBits(bits: Int): Float = js(\"Kotlin\").floatFromBits(bits).unsafeCast<Float>()\n\n\n@Suppress(\"NOTHING_TO_INLINE\")\ninternal inline fun Long(low: Int, high: Int) = js(\"Kotlin\").Long.fromBits(low, high).unsafeCast<Long>()\ninternal

inline val Long.low: Int get() = this.asDynamic().getLowBits().unsafeCast<Int>()\ninternal inline val Long.high: Int get() = this.asDynamic().getHighBits().unsafeCast<Int>()\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\nimport kotlin.reflect.KClass\n\n@PublishedApi\ninternal fun <T : Annotation> KClass<*>.findAssociatedObject(@Suppress(\"UNUSED_PARAMETER\") annotationClass: KClass<T>): Any? {\n   // This API is not supported in js-v1. Return `null` to be source-compatible with js-ir.\n   return null\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/**\n * Returns a string representation of this [Long] value
in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Long.toString(radix: Int): String = asDynamic().toString(checkRadix(radix))","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\n// 1343 ranges totally\nprivate object Category {\n   val decodedRangeStart: IntArray\n   val decodedRangeCategory: IntArray\n   \n   init {\n   val toBase64 =
\"ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789+/\"\n   val fromBase64 = IntArray(128)\n   for (i in toBase64.indices) {\n   fromBase64[toBase64[i].code]
= i\n   }\n   \n   // rangeStartDiff.length = 1482\n   val rangeStartDiff =
\"gBCFEDCKCDCaDDaDBhBCEEDDDDDEDXBHYBH5BRwBGDCHDCIDFHDCHFDCDEIRTEE7BGHDDJl
CBbSEMOFGERwDEDDDDECEFCRBJhBFDCYFFCCzBvBjBBFC3BOhDBmBDGpBDDCtBBJIbEECLGDFC
LDCgBBKVKEDiDDHCFECECKCEODBebC5CLBOKhBJDDDDWEBHFCFCPBZDEL1BVBSLPBgBB2BDB
DICFBHKCCKCPDBHEDWBHEDDDDEDEDIBDGDCKCCGDDDCGECCWBFMDDCDEDDCHDDHKDDBK
DBHFCWBFGFDBDDFEDBPDDKCHBGDCHEDWBFGFDCEDEDBHDDGDCKCGJEGDBFDDFDDDDDME
FDBFDCGBOKDFDFDCGFCXBQDDDDDBEGEDFDDKHBHDDGFCXBKBFCEFCFCHCHECCKDNCCHFC
oBEDECFDDDDHDCCKJBGDCSDYBJEHBFDDEBIGKDCMuBFHEBGBIBKCkBFBFBXEIFJDFDGCKCEgB
BDPEDGKKGECIBkBEOBDFFLBkBBIBEFFEClBrBCEBEGDBKGGDDDDDCHDENDCFEKDDlBDDFrBCD
pKBECGEECpBBEChBBECGEECPB5BBECjCCDJUDQKG2CCGDsTCRBaCDrCDDIHNBEDLSDCJSCMLFC
CM0BDHGFLBFDDKGKGEFDDBKGjBB1BHFChBDFmCKfDDDDDDCGDCFDKeCFLsBEaGKBDiBXDDD1
BDGDEIGJEKGKGHBGCMF/BEBvBCEDDFHEKHKJJDDeDDGDKsBFEDCIEkBIICCDFKDDKeGCJHrBCDI
IDBNBHEBEFDBFsB/BNBiBlB6BBF1EIiDJIGCGCIIIIGCGCIIIIOCIIIIIIDFEDDBFEDDDDEBDIFDDFEDBLF
GCEEICFBJCDEDCLDKBFBKCCGDDKDDNDgBQNEBDMPFFDEDEBFFHECEBEEDFBEDDQjBCEDEFFC
CJHBeEEfsIIEUCHCxCBeZoBGlCZLV8BuCW3FBJB2BIvDB4HOesBFCfKQgIjEW/BEgBCiIwBVCGnBCgBBp
DvBBuBEDBHEFGCCjDCGEDCFCFlBDDF4BHCOBXJHBHBHBHBHBHBHBHBgBCECGHGEDIFBKCEDM
EtBaB5CM2GaMEDDCKCGFCJEDFDDDC2CDDDB6CDCFrBB+CDEKgBkBMQfBKeIBPgBKnBPgKguGgC9
vUDVB3jBD3BJoBGCsIBDQKCUuBDDKCcCCmCKCGIXJCNC/BBHGKDECEVFBEMCEEBqBDDGDFDXD
CEBDGEG0BEICyBQCICKGSGDEBKcICXLCLBdDDBvBDECCDNCKECFCJKFBpBFEDCJDBICCKCEQBG
DDByBEDCEFBYDCLEDDCKGCGCGJHBHBrBBEJDEwCjBIDCKGk9KMXExBEggCgoGuLCqDmBHMFFC
KBNBFBIsDQRrLCQgCC2BoBMCCQGEGQDCQDDDDFDGDECEEFBnEEBFEDCKCDCaDDaDBFCKBtBCf
DGCGCFEDDDDCECKDC\"\n
val diff = decodeVarLenBase64(rangeStartDiff, fromBase64, 1342)\n   val start = IntArray(diff.size + 1)\n   for (i in diff.indices) {\n   start[i + 1] = start[i] + diff[i]\n   }\n   decodedRangeStart = start\n   \n   // rangeCategory.length = 2033\n   val rangeCategory =
\"PsY44a41W54UYJYZYB14W7XC15WZPsYa84bl9Zw8b85Lr7C44brlerrYBZBCZCiBiBiBhCiiBhChiBhiCBhh
ChiCihBhChCChiBhChiClBCFhjCiBiBihDhiBhCCihBiBBhCCFCEbEbEb7EbGhCk7BixRkiCi4BRbh4BhRhCBR
BCiiBBCiBChiZBCBCiBcGHhChCiBRBxxEYC40Rx8c6RGUm4GRFRFYRQZ44acG4wRYFEFGJYllGFlYGwc
GmkEmcGFJFl8cYxwFGFGRFGFRJFGkkcYkxRm6aFGEGmmEmEGRYRFGxxYFRFRFRGQGIFmIFIGIooGF

GFGYJ4EFmoIRFlxRlxRFRFxlRxlFllRxmFIGxxIoxRomFRIRxlFlmGRJFaL86F4mRxmGoRFRFRFRFllRxGIGR
xmGxmGmxRxGRFlRRJmmFllGYRmmIRFllRlRFRFllRFxxGFIGmmRoxImxRFRllGmxRJ4aRFGxmIoRFlxRlxR
FRFllRFxxGlImoGmmRxoIxoIGRmmIRxlFlmGRJ8FLRxmFFRFllRllRxxFlRlxRxlFRFRFRooGRIooRomRxFRIR
JLc8aRmoIoGFllRlRFRFRlmGmoIooRGRGRxmGFRllGmxRJRYL8lGooYFllRlRFRFRFRmlIIxGooRGRIRlxFG
RJxlFRGIFllRlRFlmGIGxIooRomF8xRxxFllILFGRJLcFxmIoRFRFRFxlRFRxxGxxIooGmmRRIRJxxIoYRFllGG
RaFEGYJYRxlFRFRFlRFllGGlxRFxEGRJRFRFcY84c8mGcJL8G1WIFRFRGIGmmYFGRGRcGc88RYcYRFIGI
GmmIomGFJYFooGmlFllGmmFIFIFGFmoIGIomFJIm8cBhRRxxBC4ECFRFRFlRFRFRFRFRFRFlRFRFRFRFR
FRGYLRFcRBRCxxUF8YFMF1WRFYKFRFRFGRFGYRFGRFllRlRGRFmmIGIooGGY44E46FmxRJRLRY44
U44GmmQRJRFEFRFGFlGRFRFxmGmoIooGmoIoxRxxIoGIGRxxcx4YJFRFRFRFRJLRcFmmIomRx4YFoGG
mRomIGIGmxRJRJRYEYRGmmHRGIFmIGmIIooGFRJYcGcRmmIFomGmmIomGmlFJFmoGooGGIRYFIGIG
RYJRFJFEYCRBRBYRGYGIGFGFllGomGFRCECECEGRGhCCiBCBCRBRCBCBCRBRCxBCBCRCDCDCD
CiiRBj7CbCiiRBj7b7iCiiRxiCBRbCBbxxCiiRBj7bRMQUY9+V9+VYtOQMY9eY43X44Z1WY54XYMQRQrER
LZ12ELZ12RERaRGHGHGR88B88BihBhiChhC8hcZBc8BB8CBCFi8cihBZBC8Z8CLKhCKr8cRZcZc88ZcZc85
Z8ZcZc1WcZc1WcZcZcZcRcRLcLcZcZcZcZc1WLcZ1WZ1WZcZ1WZ1WZ1WZcZcZcRcRcBRCixBBCiBBihC
CEBhCCchCGhCRY44LCiRRxxCFRkYRGFRFRFRFRFRFRFRFRFRGY9eY49eY44U49e49e1WYEYUY04VY
48cRcRcRcRcRs4Y48ElK1Wc1W12U2cKGooUE88KqqEl4c8RFxxGm7bkkFUF4kEkFRFRFx8cLcFcRFcRLcLc
LcLcLcFcFRFEFRcRFEYFEYFJFRhClmHnnYG4EhCEGFKGYRbEbhCCiBECiBhCk7bhClBihCiBBCBhCRhiBh
hCCRhiFkkCFlGllGllGFooGmIcGRL88aRFYRIFIGRYJRGFYl4FGJFGYFGIRYFRGIFmoIGIGIYxEJRYFmEFJ
FRFGmoImoIGRFGFmIRJRYFEFcloGIFmlGmlFGFlmGFRllEYFomGo4YlkEoGRFRFRFRFRFRCbECk7bRCFo
oG4oGRJRFRFRFRTSFRFRCRCRlGFZFRFRlxFFbRF2VRFRFRF6cRGY41WRG40UX1W44V24Y44X33Y44R
44U1WY50Z5R46YRFRFxxQY44a41W54UYJYZYB14W7XC15WZ12YYFEFEFRFRFRFlxRllRxxa65b86axcZc
RQcR\"\n
decodedRangeCategory = decodeVarLenBase64(rangeCategory,
fromBase64, 1343)\n }\n}\n\nprivate fun categoryValueFrom(code: Int, ch: Int): Int {\n return when {\n
code < 0x20 -> code\n code < 0x400 -> if ((ch and 1) == 1) code shr 5 else code and 0x1f\n else ->\n
when (ch % 3) {\n 2 -> code shr 10\n 1 -> (code shr 5) and 0x1f\n else -> code and
0x1f\n }\n }\n}\n\n/**\n * Returns the Unicode general category of this character as an Int.\n */\ninternal
fun Char.getCategoryValue(): Int {\n val ch = this.code\n\n val index =
binarySearchRange(Category.decodedRangeStart, ch)\n val start = Category.decodedRangeStart[index]\n val
code = Category.decodedRangeCategory[index]\n val value = categoryValueFrom(code, ch - start)\n\n return if
(value == 17) CharCategory.UNASSIGNED.value else value\n}\n\ninternal fun decodeVarLenBase64(base64:
String, fromBase64: IntArray, resultLength: Int): IntArray {\n val result = IntArray(resultLength)\n
var index = 0\n var int = 0\n var shift = 0\n for (char in base64) {\n val sixBit =
fromBase64[char.code]\n int = int or ((sixBit and 0x1f) shl shift)\n if (sixBit < 0x20) {\n
result[index++] = int\n int = 0\n shift = 0\n } else {\n shift += 5\n }\n }\n return
result\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use
of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the
GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport
kotlin.js.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Reverses elements in the list in-place.\n */\npublic actual fun <T> MutableList<T>.reverse(): Unit {\n val midPoint
= (size / 2) - 1\n if (midPoint < 0) return\n var reverseIndex = lastIndex\n for (index in 0..midPoint) {\n
val tmp = this[index]\n this[index] = this[reverseIndex]\n this[reverseIndex] = tmp\n reverseIndex--\n
}\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of
this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n//
See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\n// 37 ranges totally\nprivate object Digit
{\n internal val rangeStart = intArrayOf(\n 0x0030, 0x0660, 0x06f0, 0x07c0, 0x0966, 0x09e6, 0x0a66,

0x0ae6, 0x0b66, 0x0be6, 0x0c66, 0x0ce6, 0x0d66, 0x0de6, 0x0e50, 0x0ed0, 0x0f20, 0x1040, 0x1090, 0x17e0, \n
0x1810, 0x1946, 0x19d0, 0x1a80, 0x1a90, 0x1b50, 0x1bb0, 0x1c40, 0x1c50, 0xa620,
0xa8d0, 0xa900, 0xa9d0, 0xa9f0, 0xaa50, 0xabf0, 0xff10, \n   )\n}\n\n/**\n * Returns the index of the largest
element in [array] smaller or equal to the specified [needle],\n * or -1 if [needle] is smaller than the smallest element
in [array].\n */\ninternal fun binarySearchRange(array: IntArray, needle: Int): Int {\n   var bottom = 0\n   var top =
array.size - 1\n   var middle = -1\n   var value = 0\n   while (bottom <= top) {\n   middle = (bottom + top) / 2\n
value = array[middle]\n   if (needle > value)\n   bottom = middle + 1\n   else if (needle == value)\n
return middle\n   else\n   top = middle - 1\n   }\n   return middle - (if (needle < value) 1 else
0)\n}\n\n/**\n * Returns an integer from 0..9 indicating the digit this character represents,\n * or -1 if this character
is not a digit.\n */\ninternal fun Char.digitToIntImpl(): Int {\n   val ch = this.code\n   val index =
binarySearchRange(Digit.rangeStart, ch)\n
val diff = ch - Digit.rangeStart[index]\n   return if (diff < 10) diff else -1\n}\n\n/**\n * Returns `true` if this
character is a digit.\n */\ninternal fun Char.isDigitImpl(): Boolean {\n   return digitToIntImpl() >= 0\n}\n","/*\n *
Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is
governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\n// 222 ranges totally\nprivate object Letter {\n
val decodedRangeStart: IntArray\n   val decodedRangeLength: IntArray\n   val decodedRangeCategory: IntArray\n
\n   init {\n   val toBase64 =
\"ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789+/\"\n   val fromBase64 =
IntArray(128)\n   for (i in toBase64.indices) {\n   fromBase64[toBase64[i].code]
= i\n   }\n   \n   // rangeStartDiff.length = 356\n   val rangeStartDiff =
\"hCgBpCQGYHZH5BRpBPPPPPPRMP5BPPlCPP6BkEPPPPcPXPzBvBrB3BOiDoBHwD+E3DauCnFmBmB2D
6E1BlBTiBmBlBP5BhBiBrBvBjBqBnBPRtBiCmCtBlB0BmB5BiB7BmBgEmChBZgCoEoGVpBSfRhBPqKQ2B
wBYoFgB4CJuTiEvBuCuDrF5DgEgFlJ1DgFmBQtBsBRGsB+BPiBlD1EIjDPRPPPQPPPPPGQSQS/DxENVNU+
B9zCwBwBPPCkDPNnBPqDYY1R8B7FkFgTgwGgwUwmBgKwBuBScmEP/BPPPPPPrBP8B7F1B/ErBqC6B7B
iBmBfQsBUwCw/KwqIwLwETPcPjQgJxFgBlBsD\"\n   val diff = decodeVarLenBase64(rangeStartDiff,
fromBase64, 222)\n   val start = IntArray(diff.size)\n   for (i in diff.indices) {\n   if (i == 0) start[i] =
diff[i]\n   else start[i] = start[i - 1] + diff[i]\n   }\n   decodedRangeStart = start\n   \n   //
rangeLength.length = 328\n   val rangeLength =
\"aaMBXHYH5BRpBPPPPPPRMP5BPPlCPPzBDOOPPcPXPzBvBjB3BOhDmBBpB7DoDYxB+EiBP1DoExBkB
QhBekBPmBgBhBctBiBMWOOXhCsBpBkBUV3Ba4BkB0DlCgBXgBtD4FSdBfPhBPpKP0BvBXjEQ2CGsT8Dh
BtCqDpFvD1D3E0IrD2EkBJrBDOBsB+BPiBlB1EIjDPPPPPPPPPPPGPPMNLsBNPNPKCvBvBPPCkDPBmBPh
DXXgD4B6FzEgDguG9vUtkB9JcuBSckEP/BPPPPPPBPf4FrBjEhBpC3B5BKaWPrBOwCk/KsCuLqDHPbPxPsFt
EaaqDL\"\n
decodedRangeLength = decodeVarLenBase64(rangeLength, fromBase64, 222)\n   \n   //
rangeCategory.length = 959\n   val rangeCategory =
\"GFjgggUHGGFFZZZmzpz5qB6s6020B60ptltB6smt2sB60mz22B1+vv+8BZZ5s2850BW5q1ymtB506smzBF3q1
q1qB1q1q1+Bgii4wDTm74g3KiggxqM60q1q1Bq1o1q1BF1qlrqrBZ2q5wprBGFZWWZGHFsjiooLowgmOowjkw
CkgoiIk7ligGogiioBkwkiYkzj2oNoi+sbkwj04DghhkQ8wgiYkgoioDsgnkwC4gikQ//v+85BkwvoIsgoyI4yguI0whiw
Eowri4CoghsJowgqYowgm4DkwgsY/nwnzPowhmYkg6wI8yggZswikwHgxgmIoxgqYkwgk4DkxgmIkgoioBsgsso
BgzgyI8g9gL8g9kI0wgwJoxgkoC0wgioFkw/wI0w53iF4gioYowjmgBHGq1qkgwBF1q1q8qBHwghuIwghyKk0go
QkwgoQk3goQHGFHkyg0pBgxj6IoinkxDswno7Ikwhz9Bo0gioB8z48Rwli0xN0mpjoX8w78pDwltoqKHFGGwwg
sIHFH3q1q16BFHWFZ1q10q1B2qlwq1B1q10q1B2q1yq1B6q1gq1Biq1qhxBir1qp1Bqt1q1qB1g1q1+B//3q16B///q
1qBH/qlqq9Bholqq9B1i00a1q10qD1op1HkwmigEigiy6Cptogq1Bixo1kDq7/j00B2qgoBWGFm1lz50B6s5q1+BG
WhggzhwBFFhgk4//Bo2jigE8wguI8wguI8wgugUog1qoB4qjmIwwi2KgkYHHH4lBgiFWkgIWoghssMmz5smrBZ
3q1y50B5sm7gzBtz1smzB5smz50BqzqtmzB5sgzqzBF2/9//5BowgoIwmnkzPkwgk4C8ys65BkgoqI0wgy6FghquZo
2giY0ghiIsgh24B4ghsQ8QF/v1q1OFs0O8iCHHF1qggz/B8wg6Iznv+//B08QgohsjK0QGFk7hsQ4gB\"\n

decodedRangeCategory = decodeVarLenBase64(rangeCategory, fromBase64, 222)\n }\n}\n\n/**\n * Returns `true` if this character is a letter.\n */\ninternal fun Char.isLetterImpl(): Boolean {\n return getLetterType() != 0\n}\n\n/**\n * Returns `true` if this character is a lower case letter, or it has contributory property `Other_Lowercase`.\n */\ninternal fun Char.isLowerCaseImpl(): Boolean {\n return getLetterType() == 1 || code.isOtherLowercase()\n}\n\n/**\n * Returns `true` if this character is an upper case letter, or it has contributory property `Other_Uppercase`.\n */\ninternal fun Char.isUpperCaseImpl(): Boolean {\n return getLetterType() == 2 || code.isOtherUppercase()\n}\n\n/**\n * Returns\n * - `1` if the character is a lower case letter,\n * - `2` if the character is an upper case letter,\n * - `3` if the character is a letter but not a lower or upper case letter,\n * - `0` otherwise.\n */\nprivate fun Char.getLetterType(): Int {\n val ch = this.code\n val index = binarySearchRange(Letter.decodedRangeStart, ch)\n\n val rangeStart = Letter.decodedRangeStart[index]\n val rangeEnd = rangeStart + Letter.decodedRangeLength[index] - 1\n val code = Letter.decodedRangeCategory[index]\n\n if (ch > rangeEnd) {\n return 0\n }\n\n val lastTwoBits = code and 0x3\n\n if (lastTwoBits == 0) { // gap pattern\n var shift = 2\n var threshold = rangeStart\n for (i in 0..1) {\n threshold += (code shr shift) and 0x7f\n if (threshold > ch) {\n return 3\n }\n shift += 7\n threshold += (code shr shift) and 0x7f\n if (threshold > ch) {\n return 0\n }\n shift += 7\n }\n return 3\n }\n\n if (code <= 0x7) {\n return lastTwoBits\n }\n\n val distance = (ch - rangeStart)\n val shift = if (code <= 0x1F) distance % 2 else distance\n return (code shr (2 * shift)) and 0x3\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nprivate object OtherLowercase {\n internal val otherLowerStart = intArrayOf(\n 0x00aa, 0x00ba, 0x02b0, 0x02c0, 0x02e0, 0x0345, 0x037a, 0x1d2c, 0x1d78, 0x1d9b, 0x2071, 0x207f, 0x2090, 0x2170, 0x24d0, 0x2c7c, 0xa69c, 0xa770, 0xa7f8, 0xab5c, \n)\n internal val otherLowerLength = intArrayOf(\n 1, 1, 9, 2, 5, 1, 1, 63, 1, 37, 1, 1, 13, 16, 26, 2, 2, 1, 2, 4, \n)\n}\n\ninternal fun Int.isOtherLowercase(): Boolean {\n val index = binarySearchRange(OtherLowercase.otherLowerStart, this)\n return index >= 0 && this < OtherLowercase.otherLowerStart[index] + OtherLowercase.otherLowerLength[index]\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\ninternal fun Int.isOtherUppercase(): Boolean {\n return this in 0x2160..0x216f\n || this in 0x24b6..0x24cf\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.js.*\n\n/**\n * Returns a character at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this char sequence.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic actual fun CharSequence.elementAt(index: Int): Char {\n return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, length: $length}\") }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\n// 4 ranges totally\ninternal fun Char.titlecaseCharImpl(): Char {\n val code = this.code\n // Letters repeating <Lu, Lt, Ll> sequence and code of the Lt is a multiple of 3, e.g. <\u01c4, \u01c5, \u01c6>\n if (code in 0x01c4..0x01cc || code in 0x01f1..0x01f3) {\n return (3 * ((code + 1) / 3)).toChar()\n }\n // Lower case letters whose title case mapping equivalent is equal to the original letter\n   if (code in 0x10d0..0x10fa || code in 0x10fd..0x10ff) {\n   return this\n   }\n   return uppercaseChar()\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\nimport kotlin.js.*\nimport kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun UIntArray.elementAt(index: Int): UInt {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun ULongArray.elementAt(index: Int): ULong {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun UByteArray.elementAt(index: Int): UByte {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun UShortArray.elementAt(index: Int): UShort {\n   return elementAtOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, size: $size}\") }\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun UIntArray.asList(): List<UInt> {\n   return object : AbstractList<UInt>(), RandomAccess {\n   override val size: Int get() = this@asList.size\n   override fun isEmpty(): Boolean = this@asList.isEmpty()\n   override fun contains(element: UInt): Boolean = this@asList.contains(element)\n   override fun get(index: Int): UInt {\n   AbstractList.checkElementIndex(index, size)\n   return this@asList[index]\n   }\n   override fun indexOf(element: UInt): Int {\n   @Suppress(\"USELESS_CAST\")\n   if ((element as Any?) !is UInt) return -1\n   return this@asList.indexOf(element)\n   }\n   override fun lastIndexOf(element: UInt): Int {\n   @Suppress(\"USELESS_CAST\")\n   if ((element as Any?) !is UInt) return -1\n   return this@asList.lastIndexOf(element)\n   }\n   }\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun ULongArray.asList(): List<ULong> {\n   return object : AbstractList<ULong>(), RandomAccess {\n   override val size: Int get() = this@asList.size\n   override fun isEmpty(): Boolean = this@asList.isEmpty()\n   override fun contains(element: ULong): Boolean = this@asList.contains(element)\n   override fun get(index: Int): ULong {\n   AbstractList.checkElementIndex(index, size)\n   return this@asList[index]\n   }\n   override fun indexOf(element: ULong): Int {\n   @Suppress(\"USELESS_CAST\")\n   if ((element as Any?) !is ULong) return -1\n   return this@asList.indexOf(element)\n   }\n   override fun lastIndexOf(element: ULong): Int {\n   @Suppress(\"USELESS_CAST\")\n   if ((element as Any?) !is ULong) return -1\n   return this@asList.lastIndexOf(element)\n   }\n   }\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic actual fun UByteArray.asList(): List<UByte> {\n   return object : AbstractList<UByte>(), RandomAccess {\n   override val size: Int get() = this@asList.size\n   override fun isEmpty(): Boolean = this@asList.isEmpty()\n   override fun contains(element: UByte): Boolean = this@asList.contains(element)\n override fun get(index: Int): UByte {\n AbstractList.checkElementIndex(index, size)\n return this@asList[index]\n }\n override fun indexOf(element: UByte): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is UByte) return -1\n return this@asList.indexOf(element)\n }\n override fun lastIndexOf(element: UByte): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is UByte) return -1\n return this@asList.lastIndexOf(element)\n }\n }\n}\n\n/**\n * Returns a [List] that wraps the original array.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic

actual fun UShortArray.asList(): List<UShort> {\n return object : AbstractList<UShort>(), RandomAccess {\n override val size: Int get() = this@asList.size\n override fun isEmpty(): Boolean = this@asList.isEmpty()\n override fun contains(element: UShort): Boolean = this@asList.contains(element)\n override fun get(index: Int): UShort {\n AbstractList.checkElementIndex(index, size)\n return this@asList[index]\n }\n override fun indexOf(element: UShort): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is UShort) return -1\n return this@asList.indexOf(element)\n }\n override fun lastIndexOf(element: UShort): Int {\n @Suppress(\"USELESS_CAST\")\n if ((element as Any?) !is UShort) return -1\n return this@asList.lastIndexOf(element)\n }\n }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language

contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n//\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateUnicodeData.kt\n// See: https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n//\n\n// 9 ranges totally\n/**\n * Returns `true` if this character is a whitespace.\n */\ninternal fun Char.isWhitespaceImpl(): Boolean {\n val ch = this.code\n return ch in 0x0009..0x000d\n || ch in 0x001c..0x0020\n || ch == 0x00a0\n || ch > 0x1000 && (\n ch == 0x1680\n || ch in 0x2000..0x200a\n || ch == 0x2028\n || ch == 0x2029\n || ch == 0x202f\n || ch == 0x205f\n || ch == 0x3000\n)\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache

2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n\npublic actual fun interface Comparator<T> {\n @JsName(\"compare\")\n public actual fun compare(a: T, b: T): Int\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\nimport kotlin.annotation.AnnotationTarget.*\n\n@Target(FUNCTION)\n@Deprecated(\"Use inline extension function with body using dynamic\")\npublic annotation class nativeGetter\n\n@Target(FUNCTION)\n@Deprecated(\"Use inline extension function with body using dynamic\")\npublic annotation class nativeSetter\n\n@Target(FUNCTION)\n@Deprecated(\"Use inline extension function with body using dynamic\")\npublic annotation class nativeInvoke\n\n@Target(CLASS, FUNCTION, PROPERTY)\ninternal annotation class library(public val name: String = \"\")\n\n@Target(CLASS)\ninternal

annotation class marker\n\n/**\n * Gives a declaration (a function, a property or a class) specific name in JavaScript.\n *\n * This may be useful in the following cases:\n *\n * * There are two functions for which the compiler gives same name in JavaScript, you can\n * mark one with `@JsName(...)` to prevent the compiler from reporting error.\n * * You are writing a JavaScript library in Kotlin. The compiler produces mangled names\n * for functions with parameters, which is unnatural for usual JavaScript developer.\n * You can put `@JsName(...)` on functions you want to be available from JavaScript.\n * * For some reason you want to rename declaration, e.g. there's common term in JavaScript\n * for a concept provided by the declaration, which in uncommon in Kotlin.\n *\n * Example:\n *\n * ``` kotlin\n * class Person(val name: String) {\n * fun hello() {\n * println(\"Hello $name!\")\n * }\n *\n * @JsName(\"helloWithGreeting\")\n

* fun hello(greeting: String) {\n * println(\"$greeting $name!\")\n * }\n * }\n * ```\n *\n * @property name the name which compiler uses both for declaration itself and for all references to the declaration.\n * It's required to denote a valid JavaScript identifier.\n *\n */\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, FUNCTION, PROPERTY, CONSTRUCTOR,

PROPERTY_GETTER, PROPERTY_SETTER)\npublic actual annotation class JsName(actual val name: String)\n\n/**\n * Denotes an `external` declaration that must be imported from native JavaScript library.\n *\n * The compiler produces the code relevant for the target module system, for example, in case of CommonJS,\n * it will import the declaration via the `require(...)` function.\n *\n * The annotation can be used on top-level external declarations (classes, properties, functions) and files.\n * In case of file (which can't be `external`) the following rule applies: all the declarations in\n
 * the file must be `external`. By applying `@JsModule(...)` on a file you tell the compiler to import a JavaScript object\n * that contain all the declarations from the file.\n *\n * Example:\n *\n * ``` kotlin\n * @JsModule(\"jquery\")\n * external abstract class JQuery() {\n *   // some declarations here\n * }\n *\n * @JsModule(\"jquery\")\n * external fun JQuery(element: Element): JQuery\n * ```\n *\n * @property import name of a module to import declaration from.\n *   It is not interpreted by the Kotlin compiler, it's passed as is directly to the target module system.\n *\n * @see JsNonModule\n */\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\npublic annotation class JsModule(val import: String)\n\n/**\n * Denotes an `external` declaration that can be used without module system.\n *\n * By default, an `external` declaration is available regardless your target module system.\n * However, by applying [JsModule] annotation you can make a
 declaration unavailable to *plain* module system.\n * Some JavaScript libraries are distributed both as a standalone downloadable piece of JavaScript and as a module available\n * as an npm package.\n * To tell the Kotlin compiler to accept both cases, you can augment [JsModule] with the `@JsNonModule` annotation.\n *\n * For example:\n *\n * ``` kotlin\n * @JsModule(\"jquery\")\n * @JsNonModule\n * @JsName(\"$\")\n * external abstract class JQuery() {\n *   // some declarations here\n * }\n *\n * @JsModule(\"jquery\")\n * @JsNonModule\n * @JsName(\"$\")\n * external fun JQuery(element: Element): JQuery\n * ```\n *\n * @see JsModule\n */\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\npublic annotation class JsNonModule\n\n/**\n * Adds prefix to `external` declarations in a source file.\n *\n * JavaScript does not have concept of packages (namespaces). They are usually emulated by nested objects.\n * The compiler turns references to `external` declarations
 either to plain unprefixed names (in case of *plain* modules)\n * or to plain imports.\n * However, if a JavaScript library provides its declarations in packages, you won't be satisfied with this.\n * You can tell the compiler to generate additional prefix before references to `external` declarations using the `@JsQualifier(...)`\n * annotation.\n *\n * Note that a file marked with the `@JsQualifier(...)` annotation can't contain non-`external` declarations.\n *\n * Example:\n *\n * ```\n * @file:JsQualifier(\"my.jsPackageName\")\n * package some.kotlinPackage\n *\n * external fun foo(x: Int)\n *\n * external fun bar(): String\n * ```\n *\n * @property value the qualifier to add to the declarations in the generated code.\n *   It must be a sequence of valid JavaScript identifiers separated by the `.` character.\n *   Examples of valid qualifiers are: `foo`, `bar.Baz`, `_.$0.f`.\n *\n * @see JsModule\n */\n@Retention(AnnotationRetention.BINARY)\n@Target(AnnotationTarget.FILE)\npublic
 annotation class JsQualifier(val value: String)\n\n/**\n * Exports top-level declaration on JS platform.\n *\n * Compiled module exposes declarations that are marked with this annotation without name mangling.\n *\n * This annotation can be applied to either files or top-level declarations.\n *\n * It is currently prohibited to export the following kinds of declarations:\n *\n *   * `expect` declarations\n *   * inline functions with reified type parameters\n *   * suspend functions\n *   * secondary constructors without `@JsName`\n *   * extension properties\n *   * enum classes\n *   * annotation classes\n *\n * Signatures of exported declarations must only contain \"exportable\" types:\n *\n *   * `dynamic`, `Any`, `String`, `Boolean`, `Byte`, `Short`, `Int`, `Float`, `Double`\n *   * `BooleanArray`, `ByteArray`, `ShortArray`, `IntArray`, `FloatArray`, `DoubleArray`\n *   * `Array<exportable-type>`\n *   * Function types with exportable parameters and return types\n
 *   * `external` or `@JsExport` classes and interfaces\n *   * Nullable counterparts of types above\n *   * Unit return type. Must not be nullable\n *\n * This annotation is experimental, meaning that restrictions mentioned above are subject to change.\n */\n@ExperimentalJsExport\n@Retention(AnnotationRetention.BINARY)\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\n@SinceKotlin(\"1.3\")\npublic actual annotation class JsExport\n\n/**\n *

Forces a top-level property to be initialized eagerly, opposed to lazily on the first access to file and/or property.\n */\n@ExperimentalStdlibApi\n@Retention(AnnotationRetention.BINARY)\n@Target(AnnotationTarget.PROPERTY)\n@SinceKotlin(\"1.6\")\n@Deprecated(\"This annotation is a temporal migration assistance and may be removed in the future releases, please consider filing an issue about the case where it is needed\")\npublic annotation class EagerInitialization\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n

* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.jvm\n\n// these are used in common generated code in stdlib\n\n// TODO: find how to deprecate these ones\n\n@Target(AnnotationTarget.FIELD)\n@Retention(AnnotationRetention.SOURCE)\npublic actual annotation class Volatile\n\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY_GETTER, AnnotationTarget.PROPERTY_SETTER)\n@Retention(AnnotationRetention.SOURCE)\npublic actual annotation class Synchronized\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the [MutableCollection] interface.\n *\n * @param E the type of elements contained in the collection. The collection is invariant in its element type.\n

*/\npublic actual abstract class AbstractMutableCollection<E> protected actual constructor() : AbstractCollection<E>(), MutableCollection<E> {\n\n   actual abstract override fun add(element: E): Boolean\n\n   actual override fun remove(element: E): Boolean {\n   checkIsMutable()\n   val iterator = iterator()\n   while (iterator.hasNext()) {\n   if (iterator.next() == element) {\n   iterator.remove()\n   return true\n   }\n   }\n   return false\n   }\n\n   actual override fun addAll(elements: Collection<E>): Boolean {\n   checkIsMutable()\n   var modified = false\n   for (element in elements) {\n   if (add(element)) modified = true\n   }\n   return modified\n   }\n\n   actual override fun removeAll(elements: Collection<E>): Boolean {\n   checkIsMutable()\n   return (this as MutableIterable<E>).removeAll { it in elements }\n   }\n\n   actual override fun retainAll(elements:

Collection<E>): Boolean {\n   checkIsMutable()\n   return (this as MutableIterable<E>).removeAll { it !in elements }\n   }\n\n   actual override fun clear(): Unit {\n   checkIsMutable()\n   val iterator = this.iterator()\n   while (iterator.hasNext()) {\n   iterator.next()\n   iterator.remove()\n   }\n   }\n\n   @Deprecated(\"Provided so that subclasses inherit this function\", level = DeprecationLevel.HIDDEN)\n   @JsName(\"toJSON\")\n   protected fun toJSON(): Any = this.toArray()\n\n\n   /**\n   * This method is called every time when a mutating method is called on this mutable collection.\n   * Mutable collections that are built (frozen) must throw `UnsupportedOperationException`.\n   */\n   internal open fun checkIsMutable(): Unit { }\n}\n\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be

found in the license/LICENSE.txt file.\n */\n\n/*\n * Based on GWT AbstractList\n * Copyright 2007 Google Inc.\n*/\n\n\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the [MutableList] interface.\n *\n * @param E the type of elements contained in the list. The list is invariant in its element type.\n */\npublic actual abstract class AbstractMutableList<E> protected actual constructor() : AbstractMutableCollection<E>(), MutableList<E> {\n   protected var modCount: Int = 0\n\n   abstract override fun add(index: Int, element: E): Unit\n   abstract override fun removeAt(index: Int): E\n   abstract override fun set(index: Int, element: E): E\n\n   /**\n   * Adds the specified element to the end of this list.\n   *\n   * @return `true` because the list is always modified as the result of this operation.\n   */\n   actual override fun add(element: E): Boolean {\n   checkIsMutable()\n   add(size, element)\n   return true\n   }\n\n

actual override fun addAll(index: Int, elements: Collection<E>): Boolean {\n   AbstractList.checkPositionIndex(index, size)\n\n   checkIsMutable()\n   var _index = index\n   var changed = false\n   for (e in elements) {\n   add(_index++, e)\n   changed = true\n   }\n   return changed\n   }\n\n   actual override fun clear() {\n   checkIsMutable()\n   removeRange(0, size)\n   }\n\n   actual override fun removeAll(elements: Collection<E>): Boolean {\n checkIsMutable()\n return removeAll { it in elements }\n }\n\n actual override fun retainAll(elements: Collection<E>): Boolean {\n checkIsMutable()\n return removeAll { it !in elements }\n }\n\n\n actual override fun iterator(): MutableIterator<E> = IteratorImpl()\n\n actual override fun contains(element: E): Boolean = indexOf(element) >= 0\n\n actual override fun indexOf(element: E): Int {\n for (index in 0..lastIndex) {\n if (get(index) == element) {\n return index\n }\n }\n return -1\n }\n\n actual override fun lastIndexOf(element: E): Int {\n for (index in lastIndex downTo 0) {\n if (get(index) == element) {\n return index\n }\n }\n return -1\n }\n\n actual override fun listIterator(): MutableListIterator<E> = listIterator(0)\n actual override fun listIterator(index: Int): MutableListIterator<E> = ListIteratorImpl(index)\n\n\n actual override fun subList(fromIndex: Int, toIndex: Int): MutableList<E> = SubList(this, fromIndex, toIndex)\n\n /**\n * Removes the range of elements from this list starting from [fromIndex] and ending with but not including [toIndex].\n */\n protected open fun removeRange(fromIndex: Int, toIndex: Int) {\n val iterator = listIterator(fromIndex)\n repeat(toIndex - fromIndex) {\n iterator.next()\n iterator.remove()\n }\n }\n\n /**\n * Compares this list with another list instance with the ordered structural equality.\n *\n * @return true, if [other] instance is a [List] of the same size, which contains the same elements in the same order.\n */\n override fun equals(other: Any?): Boolean {\n if (other === this) return true\n if (other !is List<*>) return false\n\n return AbstractList.orderedEquals(this, other)\n }\n\n /**\n * Returns the hash code value for this list.\n */\n override fun hashCode(): Int = AbstractList.orderedHashCode(this)\n\n\n private open inner class IteratorImpl : MutableIterator<E> {\n /** the index of the item that will be returned on the next call to [next]`()` */\n protected var index = 0\n /** the index of the item that was returned on the previous call to [next]`()`\n * or [ListIterator.previous]`()` (for `ListIterator`),\n * -1 if no such item exists\n */\n protected var last = -1\n\n override fun hasNext(): Boolean = index < size\n\n override fun next(): E {\n if (!hasNext()) throw NoSuchElementException()\n last = index++\n return get(last)\n }\n\n override fun remove() {\n check(last != -1) { \"Call next() or previous() before removing element from the iterator.\" }\n\n removeAt(last)\n index = last\n last = -1\n }\n }\n\n /**\n * Implementation of `MutableListIterator` for abstract lists.\n */\n private inner class ListIteratorImpl(index: Int) : IteratorImpl(), MutableListIterator<E> {\n\n init {\n AbstractList.checkPositionIndex(index, this@AbstractMutableList.size)\n this.index = index\n }\n\n override fun hasPrevious(): Boolean = index > 0\n\n override fun nextIndex(): Int = index\n\n override fun previous(): E {\n if (!hasPrevious()) throw NoSuchElementException()\n\n last = --index\n return get(last)\n }\n\n override fun previousIndex(): Int = index - 1\n\n override fun add(element: E) {\n add(index, element)\n index++\n last = -1\n }\n\n override fun set(element: E) {\n check(last != -1) { \"Call next() or previous() before updating element value with the iterator.\" }\n set(last, element)\n }\n }\n\n private class SubList<E>(private val list: AbstractMutableList<E>, private val fromIndex: Int, toIndex: Int) : AbstractMutableList<E>(), RandomAccess {\n private var _size: Int = 0\n\n init {\n AbstractList.checkRangeIndexes(fromIndex, toIndex, list.size)\n this._size = toIndex - fromIndex\n }\n\n override fun add(index: Int, element: E) {\n AbstractList.checkPositionIndex(index, _size)\n\n list.add(fromIndex + index, element)\n _size++\n }\n\n override fun get(index: Int): E {\n AbstractList.checkElementIndex(index, _size)\n\n return list[fromIndex + index]\n }\n\n override fun removeAt(index: Int): E {\n AbstractList.checkElementIndex(index, _size)\n\n val result = list.removeAt(fromIndex + index)\n _size--\n return result\n }\n\n override fun set(index: Int, element: E): E {\n AbstractList.checkElementIndex(index, _size)\n\n return list.set(fromIndex + index, element)\n }\n\n override val size: Int get() = _size\n\n internal override fun checkIsMutable(): Unit = list.checkIsMutable()\n }\n\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/*\n * Based on GWT AbstractMap\n * Copyright 2007 Google Inc.\n */\n\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the [MutableMap] interface.\n *\n * The implementor is required to implement [entries] property, which should return mutable set of map entries, and [put] function.\n *\n * @param K the type of map keys. The map is invariant in its key type.\n * @param V the type of map values. The map is invariant in its value type.\n */\npublic actual abstract class AbstractMutableMap<K, V> protected actual constructor() : AbstractMap<K, V>(), MutableMap<K, V> {\n\n /**\n * A mutable [Map.Entry] shared by several [Map] implementations.\n */\n internal open class SimpleEntry<K, V>(override val key: K, value: V) : MutableMap.MutableEntry<K, V> {\n constructor(entry: Map.Entry<K, V>) : this(entry.key, entry.value)\n\n private var _value = value\n\n override val value: V get() = _value\n\n override fun setValue(newValue: V): V {\n // Should check if the map containing this entry is mutable.\n // However, to not increase entry memory footprint it might be worthwhile not to check it here and\n // force subclasses that implement `build()` (freezing) operation to implement their own `MutableEntry`.\n// this@AbstractMutableMap.checkIsMutable()\n val oldValue = this._value\n this._value = newValue\n return oldValue\n }\n\n override fun hashCode(): Int = entryHashCode(this)\n override fun toString(): String = entryToString(this)\n override fun equals(other: Any?): Boolean = entryEquals(this, other)\n\n }\n\n // intermediate abstract class to workaround KT-43321\n internal abstract class AbstractEntrySet<E : Map.Entry<K, V>, K, V> : AbstractMutableSet<E>() {\n final override fun contains(element: E): Boolean = containsEntry(element)\n abstract fun containsEntry(element: Map.Entry<K, V>): Boolean\n final override fun remove(element: E): Boolean = removeEntry(element)\n abstract fun removeEntry(element: Map.Entry<K, V>): Boolean\n }\n\n actual override fun clear() {\n entries.clear()\n }\n\n private var _keys: MutableSet<K>? = null\n actual override val keys: MutableSet<K>\n get() {\n if (_keys == null) {\n _keys = object : AbstractMutableSet<K>() {\n override fun add(element: K): Boolean = throw UnsupportedOperationException(\"Add is not supported on keys\")\n override fun clear() {\n this@AbstractMutableMap.clear()\n }\n\n override operator fun contains(element: K): Boolean = containsKey(element)\n\n override operator fun iterator(): MutableIterator<K> {\n val entryIterator = entries.iterator()\n return object : MutableIterator<K> {\n override fun hasNext(): Boolean = entryIterator.hasNext()\n override fun next(): K = entryIterator.next().key\n override fun remove() = entryIterator.remove()\n }\n }\n\n override fun remove(element: K): Boolean {\n checkIsMutable()\n if (containsKey(element)) {\n this@AbstractMutableMap.remove(element)\n return true\n }\n return false\n }\n\n override val size: Int get() = this@AbstractMutableMap.size\n\n override fun checkIsMutable(): Unit = this@AbstractMutableMap.checkIsMutable()\n }\n }\n return _keys!!\n }\n\n actual abstract override fun put(key: K, value: V): V?\n\n actual override fun putAll(from: Map<out K, V>) {\n checkIsMutable()\n for ((key, value) in from) {\n put(key, value)\n }\n }\n\n private var _values: MutableCollection<V>? = null\n actual override val values: MutableCollection<V>\n get() {\n if (_values == null) {\n _values = object : AbstractMutableCollection<V>() {\n override fun add(element: V): Boolean = throw UnsupportedOperationException(\"Add is not supported on values\")\n override fun clear() = this@AbstractMutableMap.clear()\n\n override operator fun contains(element: V): Boolean = containsValue(element)\n\n override operator fun iterator(): MutableIterator<V> {\n val entryIterator = entries.iterator()\n return object : MutableIterator<V> {\n override fun hasNext(): Boolean = entryIterator.hasNext()\n override fun next(): V = entryIterator.next().value\n override fun remove() = entryIterator.remove()\n }\n }\n\n override val size: Int get() = this@AbstractMutableMap.size\n\n override fun checkIsMutable(): Unit = this@AbstractMutableMap.checkIsMutable()\n }\n }\n return _values!!\n }\n\n actual override fun remove(key: K): V? {\n checkIsMutable()\n val iter = entries.iterator()\n while (iter.hasNext()) {\n val entry = iter.next()\n val k = entry.key\n if (key == k) {\n val value = entry.value\n iter.remove()\n return value\n }\n }\n return null\n }\n\n\n /**\n * This method is called every time when a mutating method is called on this mutable map.\n * Mutable maps that are built (frozen) must throw `UnsupportedOperationException`.\n */\n internal open fun checkIsMutable(): Unit {}\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the [MutableSet] interface.\n *\n * @param E the type of elements contained in the set. The set is invariant in its element type.\n */\npublic actual abstract class AbstractMutableSet<E> protected actual constructor() : AbstractMutableCollection<E>(), MutableSet<E> {\n\n /**\n * Compares this set with another set instance with the unordered structural equality.\n *\n * @return `true`, if [other] instance is a [Set] of the same size, all elements of which are contained in this set.\n */\n override fun equals(other: Any?): Boolean {\n if (other === this) return true\n if (other !is Set<*>) return false\n return AbstractSet.setEquals(this, other)\n }\n\n /**\n * Returns the hash code value for this set.\n */\n override fun hashCode(): Int = AbstractSet.unorderedHashCode(this)\n\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n/**\n * Provides a [MutableList] implementation, which uses a resizable array as its backing storage.\n *\n * This implementation doesn't provide a way to manage capacity, as backing JS array is resizeable itself.\n * There is no speed advantage to pre-allocating array sizes in JavaScript, so this implementation does not include any of the\n * capacity and \"growth increment\" concepts.\n */\npublic actual open class ArrayList<E> internal constructor(private var array: Array<Any?>) : AbstractMutableList<E>(), MutableList<E>, RandomAccess {\n private var isReadOnly: Boolean = false\n\n /**\n * Creates an empty [ArrayList].\n */\n public actual constructor() : this(emptyArray()) {}\n\n /**\n * Creates an empty [ArrayList].\n * @param initialCapacity initial capacity (ignored)\n */\n public actual constructor(initialCapacity: Int) : this(emptyArray()) {}\n\n /**\n * Creates an [ArrayList] filled from the [elements] collection.\n */\n public actual constructor(elements: Collection<E>) : this(elements.toTypedArray<Any?>()) {}\n\n @PublishedApi\n internal fun build(): List<E> {\n checkIsMutable()\n isReadOnly = true\n return this\n }\n\n /** Does nothing in this ArrayList implementation. */\n public actual fun trimToSize() {}\n\n /** Does nothing in this ArrayList implementation. */\n public actual fun ensureCapacity(minCapacity: Int) {}\n\n actual override val size: Int get() = array.size\n @Suppress(\"UNCHECKED_CAST\")\n actual override fun get(index: Int): E = array[rangeCheck(index)] as E\n actual override fun set(index: Int, element: E): E {\n checkIsMutable()\n rangeCheck(index)\n @Suppress(\"UNCHECKED_CAST\")\n return array[index].apply { array[index] = element } as E\n }\n\n actual override fun add(element: E): Boolean {\n checkIsMutable()\n array.asDynamic().push(element)\n modCount++\n return true\n }\n\n actual override fun add(index: Int, element: E): Unit {\n checkIsMutable()\n array.asDynamic().splice(insertionRangeCheck(index), 0, element)\n modCount++\n }\n\n actual override fun addAll(elements: Collection<E>): Boolean {\n checkIsMutable()\n if (elements.isEmpty()) return false\n\n array += elements.toTypedArray<Any?>()\n modCount++\n return true\n }\n\n actual override fun addAll(index: Int, elements: Collection<E>): Boolean {\n checkIsMutable()\n insertionRangeCheck(index)\n\n if (index == size) return addAll(elements)\n if (elements.isEmpty()) return false\n when (index) {\n size -> return addAll(elements)\n 0 -> array = elements.toTypedArray<Any?>() + array\n else -> array = array.copyOfRange(0, index).asDynamic().concat(elements.toTypedArray<Any?>(), array.copyOfRange(index, size))\n }\n\n modCount++\n return true\n }\n\n actual override fun removeAt(index: Int): E {\n checkIsMutable()\n rangeCheck(index)\n modCount++\n return if (index == lastIndex)\n array.asDynamic().pop()\n else\n array.asDynamic().splice(index, 1)[0]\n }\n\n actual override fun remove(element: E): Boolean {\n checkIsMutable()\n for (index in array.indices) {\n if (array[index] == element) {\n array.asDynamic().splice(index, 1)\n modCount++\n return true\n }\n }\n return false\n }\n\n override fun removeRange(fromIndex: Int, toIndex: Int) {\n checkIsMutable()\n modCount++\n array.asDynamic().splice(fromIndex, toIndex - fromIndex)\n }\n\n actual override fun clear() {\n checkIsMutable()\n array = emptyArray()\n modCount++\n }\n\n\n actual override fun indexOf(element: E): Int = array.indexOf(element)\n\n actual override fun lastIndexOf(element: E): Int = array.lastIndexOf(element)\n\n override fun toString() = arrayToString(array)\n\n @Suppress(\"UNCHECKED_CAST\")\n override fun <T> toArray(array: Array<T>): Array<T> {\n if (array.size < size) {\n return toArray() as Array<T>\n }\n\n (this.array as Array<T>).copyInto(array)\n\n if (array.size > size) {\n array[size] = null as T // null-terminate\n }\n\n return array\n }\n\n override fun toArray(): Array<Any?> {\n return js(\"[]\").slice.call(array)\n }\n\n\n internal override fun checkIsMutable() {\n if (isReadOnly) throw UnsupportedOperationException()\n }\n\n private fun rangeCheck(index: Int) = index.apply {\n AbstractList.checkElementIndex(index, size)\n }\n\n private fun insertionRangeCheck(index: Int) = index.apply {\n AbstractList.checkPositionIndex(index, size)\n }\n}","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\ninternal fun <T> sortArrayWith(array: Array<out T>, comparison: (T, T) -> Int) {\n if (getStableSortingIsSupported()) {\n array.asDynamic().sort(comparison)\n } else {\n mergeSort(array.unsafeCast<Array<T>>(), 0, array.lastIndex, Comparator(comparison))\n }\n}\n\ninternal fun <T> sortArrayWith(array: Array<out T>, comparator: Comparator<in T>) {\n if (getStableSortingIsSupported()) {\n val comparison = { a: T, b: T -> comparator.compare(a, b) }\n array.asDynamic().sort(comparison)\n } else {\n mergeSort(array.unsafeCast<Array<T>>(), 0, array.lastIndex, comparator)\n }\n}\n\ninternal fun <T> sortArrayWith(array: Array<out T>, fromIndex: Int, toIndex: Int, comparator: Comparator<in T>) {\n if (fromIndex < toIndex - 1) {\n mergeSort(array.unsafeCast<Array<T>>(), fromIndex, toIndex - 1, comparator)\n }\n}\n\ninternal fun <T : Comparable<T>> sortArray(array: Array<out T>) {\n if (getStableSortingIsSupported()) {\n val comparison = { a: T, b: T -> a.compareTo(b) }\n array.asDynamic().sort(comparison)\n } else {\n mergeSort(array.unsafeCast<Array<T>>(), 0, array.lastIndex, naturalOrder())\n }\n}\n\nprivate var _stableSortingIsSupported: Boolean? = null\nprivate fun getStableSortingIsSupported(): Boolean {\n _stableSortingIsSupported?.let { return it }\n _stableSortingIsSupported = false\n\n val array = js(\"[]\").unsafeCast<Array<Int>>()\n // known implementations may use stable sort for arrays of up to 512 elements\n // so we create slightly more elements to test stability\n for (index in 0 until 600) array.asDynamic().push(index)\n val comparison = { a: Int, b: Int -> (a and 3) - (b and 3) }\n array.asDynamic().sort(comparison)\n for (index in 1 until array.size) {\n val a = array[index - 1]\n val b = array[index]\n if ((a and 3) == (b and 3) && a >= b) return false\n }\n _stableSortingIsSupported = true\n return true\n}\n\n\nprivate fun <T> mergeSort(array: Array<T>, start: Int, endInclusive: Int, comparator: Comparator<in T>) {\n val buffer = arrayOfNulls<Any?>(array.size).unsafeCast<Array<T>>()\n val result = mergeSort(array, buffer, start, endInclusive, comparator)\n if (result !== array) {\n for (i in start..endInclusive) array[i] = result[i]\n }\n}\n\n// Both start and end are inclusive indices.\nprivate fun <T> mergeSort(array: Array<T>, buffer: Array<T>, start: Int, end: Int, comparator: Comparator<in T>): Array<T> {\n if (start == end) {\n return array\n }\n\n val median = (start + end) / 2\n val left = mergeSort(array, buffer, start, median, comparator)\n val right = mergeSort(array, buffer, median + 1, end, comparator)\n\n val target = if (left === buffer) array else buffer\n\n // Merge.\n var leftIndex = start\n var rightIndex = median + 1\n for (i

in start..end) {\n when {\n leftIndex <= median && rightIndex <= end -> {\n val leftValue = left[leftIndex]\n val rightValue = right[rightIndex]\n\n if (comparator.compare(leftValue, rightValue) <= 0) {\n target[i] = leftValue\n leftIndex++\n } else {\n target[i]
= rightValue\n rightIndex++\n }\n }\n leftIndex <= median -> {\n target[i] = left[leftIndex]\n leftIndex++\n }\n else /* rightIndex <= end */ -> {\n target[i] = right[rightIndex]\n rightIndex++\n Unit // TODO: Fix KT-31506\n }\n }\n }\n\n return target\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n\n@OptIn(ExperimentalUnsignedTypes::class)\n@SinceKotlin(\"1.3\")\n@kotlin.js.JsName(\"contentDeepHashCodeImpl\")\ninternal fun <T> Array<out T>?.contentDeepHashCodeImpl(): Int {\n if (this == null) return 0\n var result = 1\n for (element in this) {\n val elementHash = when {\n element
== null -> 0\n isArrayish(element) -> (element.unsafeCast<Array<*>>()).contentDeepHashCodeImpl()\n\n element is UByteArray -> element.contentHashCode()\n element is UShortArray -> element.contentHashCode()\n element is UIntArray -> element.contentHashCode()\n element is ULongArray -> element.contentHashCode()\n\n else -> element.hashCode()\n }\n\n result = 31 * result + elementHash\n }\n return result\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\ninternal interface EqualityComparator {\n /**\n * Subclasses must override to return a value indicating\n * whether or not two keys or values are equal.\n */\n abstract fun equals(value1: Any?, value2: Any?): Boolean\n\n /**\n * Subclasses must override to return the hash code of a given key.\n */\n abstract fun getHashCode(value: Any?): Int\n\n\n object HashCode : EqualityComparator {\n override fun equals(value1: Any?, value2: Any?): Boolean = value1 == value2\n\n override fun getHashCode(value: Any?): Int = value?.hashCode() ?: 0\n }\n}","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/*\n * Based on GWT AbstractHashMap\n * Copyright 2008 Google Inc.\n */\n\npackage kotlin.collections\n\nimport kotlin.collections.MutableMap.MutableEntry\n\n/**\n * Hash table based implementation of the [MutableMap] interface.\n *\n * This implementation makes no guarantees regarding the order of enumeration of [keys], [values] and [entries] collections.\n */\n// Classes that extend HashMap and implement `build()`
(freezing) operation\n// have to make sure mutating methods check `checkIsMutable`.\npublic actual open class HashMap<K, V> : AbstractMutableMap<K, V>, MutableMap<K, V> {\n\n private inner class EntrySet : AbstractEntrySet<MutableEntry<K, V>, K, V>() {\n\n override fun add(element: MutableEntry<K, V>): Boolean = throw UnsupportedOperationException(\"Add is not supported on entries\")\n override fun clear() {\n this@HashMap.clear()\n }\n\n override fun containsEntry(element: Map.Entry<K, V>): Boolean = this@HashMap.containsEntry(element)\n\n override operator fun iterator(): MutableIterator<MutableEntry<K, V>> = internalMap.iterator()\n\n override fun removeEntry(element: Map.Entry<K, V>): Boolean {\n if (contains(element)) {\n this@HashMap.remove(element.key)\n return true\n }\n return false\n }\n\n override val size: Int get() = this@HashMap.size\n
}\n\n\n /**\n * Internal implementation of the map: either string-based or hashcode-based.\n */\n private val internalMap: InternalMap<K, V>\n\n private val equality: EqualityComparator\n\n internal constructor(internalMap: InternalMap<K, V>) : super() {\n this.internalMap = internalMap\n this.equality = internalMap.equality\n }\n\n /**\n * Constructs an empty [HashMap] instance.\n */\n actual constructor() : this(InternalHashCodeMap(EqualityComparator.HashCode))\n\n /**\n * Constructs an empty [HashMap] instance.\n *\n * @param initialCapacity the initial capacity (ignored)\n * @param loadFactor the load

factor (ignored)\n   *\n   * @throws IllegalArgumentException if the initial capacity or load factor are negative\n   */\n   actual constructor(initialCapacity: Int, loadFactor: Float) : this() {\n   // This implementation of HashMap has no need of load factors or capacities.\n   require(initialCapacity >= 0) { \"Negative initial capacity: $initialCapacity\" }\n   require(loadFactor >= 0) { \"Non-positive load factor: $loadFactor\" }\n   }\n\n   actual constructor(initialCapacity: Int) : this(initialCapacity, 0.0f)\n\n\n   /**\n   * Constructs an instance of [HashMap] filled with the contents of the specified [original] map.\n   */\n   actual constructor(original: Map<out K, V>) : this() {\n   this.putAll(original)\n   }\n\n   actual override fun clear() {\n   internalMap.clear()\n//   structureChanged(this)\n   }\n\n   actual override fun containsKey(key: K): Boolean = internalMap.contains(key)\n\n   actual override fun containsValue(value: V): Boolean = internalMap.any { equality.equals(it.value, value) }\n\n   private var _entries: MutableSet<MutableMap.MutableEntry<K, V>>? = null\n   actual override val entries: MutableSet<MutableMap.MutableEntry<K, V>>\n   get() {\n   if (_entries == null) {\n   _entries = createEntrySet()\n   }\n   return _entries!!\n   }\n\n   internal open fun createEntrySet(): MutableSet<MutableMap.MutableEntry<K, V>> = EntrySet()\n\n   actual override operator fun get(key: K): V? = internalMap.get(key)\n\n   actual override fun put(key: K, value: V): V? = internalMap.put(key, value)\n\n   actual override fun remove(key: K): V? = internalMap.remove(key)\n\n   actual override val size: Int get() = internalMap.size\n\n}\n\n/**\n * Constructs the specialized implementation of [HashMap] with [String] keys, which stores the keys as properties of\n * JS object without hashing them.\n */\npublic fun <V> stringMapOf(vararg pairs: Pair<String, V>): HashMap<String, V> {\n   return HashMap<String, V>(InternalStringMap(EqualityComparator.HashCode)).apply { putAll(pairs) }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n/*\n * Based on GWT HashSet\n * Copyright 2008 Google Inc.\n */\n\npackage kotlin.collections\n\n/**\n * The implementation of the [MutableSet] interface, backed by a [HashMap] instance.\n */\n// Classes that extend HashSet and implement `build()` (freezing) operation\n// have to make sure mutating methods check `checkIsMutable`.\npublic actual open class HashSet<E> : AbstractMutableSet<E>, MutableSet<E> {\n\n   internal val map: HashMap<E, Any>\n\n   /**\n   * Constructs a new empty [HashSet].\n   */\n   actual constructor() {\n   map = HashMap<E, Any>()\n   }\n\n   /**\n   * Constructs a new [HashSet] filled with the elements of the specified collection.\n   */\n   actual constructor(elements: Collection<E>) {\n   map = HashMap<E, Any>(elements.size)\n   addAll(elements)\n   }\n\n   /**\n   * Constructs a new empty [HashSet].\n   *\n   * @param initialCapacity the initial capacity (ignored)\n   * @param loadFactor   the load factor (ignored)\n   *\n   * @throws IllegalArgumentException if the initial capacity or load factor are negative\n   */\n   actual constructor(initialCapacity: Int, loadFactor: Float) {\n   map = HashMap<E, Any>(initialCapacity, loadFactor)\n   }\n\n   actual constructor(initialCapacity: Int) : this(initialCapacity, 0.0f)\n\n   /**\n   * Protected constructor to specify the underlying map. This is used by\n   * LinkedHashSet.\n\n   * @param map underlying map to use.\n   */\n   internal constructor(map: HashMap<E, Any>) {\n   this.map = map\n   }\n\n   actual override fun add(element: E): Boolean {\n   val old = map.put(element, this)\n   return old == null\n   }\n\n   actual override fun clear() {\n   map.clear()\n   }\n\n//   public override fun clone(): Any {\n//   return HashSet<E>(this)\n//   }\n\n   actual override operator fun contains(element: E): Boolean = map.containsKey(element)\n\n   actual override fun isEmpty(): Boolean = map.isEmpty()\n\n   actual override fun iterator(): MutableIterator<E> = map.keys.iterator()\n\n   actual override fun remove(element: E): Boolean = map.remove(element) != null\n\n   actual override val size: Int get() = map.size\n\n}\n\n/**\n * Creates a new instance of the specialized implementation of [HashSet] with the specified [String] elements,\n * which elements the keys as properties of JS object without hashing them.\n */\npublic fun stringSetOf(vararg elements: String): HashSet<String> {\n   return HashSet(stringMapOf<Any>()).apply { addAll(elements) }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that

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can be found in the license/LICENSE.txt file.\n */\n/*\n * Based on GWT InternalHashCodeMap\n * Copyright
2008 Google Inc.\n */\n\npackage kotlin.collections\n\nimport
kotlin.collections.MutableMap.MutableEntry\nimport kotlin.collections.AbstractMutableMap.SimpleEntry\n\n/**\n
 * A simple wrapper around JavaScriptObject to provide [java.util.Map]-like semantics for any\n * key type.\n *\n
*\n * Implementation notes:\n *\n *\n * A key's hashCode is the index in backingMap which should contain that
key. Since several keys may\n * have the same hash, each value in hashCodeMap is actually an array containing all
entries whose\n * keys share the same hash.\n */\ninternal class InternalHashCodeMap<K, V>(override val equality:
EqualityComparator) : InternalMap<K, V> {\n\n    private var backingMap: dynamic = createJsMap()\n    override
var size: Int = 0\n        private set\n\n    override fun put(key: K, value: V): V? {\n        val hashCode =
equality.getHashCode(key)\n        val chainOrEntry = getChainOrEntryOrNull(hashCode)\n        if (chainOrEntry
== null) {\n            // This is a new chain, put it to the map.\n            backingMap[hashCode] = SimpleEntry(key,
value)\n        } else {\n
 if (chainOrEntry !is Array<*>) {\n                // It is an entry\n                val entry: SimpleEntry<K, V> =
chainOrEntry\n                if (equality.equals(entry.key, key)) {\n                    return entry.setValue(value)\n
} else {\n                    backingMap[hashCode] = arrayOf(entry, SimpleEntry(key, value))\n                    size++\n
          return null\n                }\n            } else {\n                // Chain already exists, perhaps key also exists.\n
 val chain: Array<MutableEntry<K, V>> = chainOrEntry\n                val entry = chain.findEntryInChain(key)\n
     if (entry != null) {\n                    return entry.setValue(value)\n                }\n
chain.asDynamic().push(SimpleEntry(key, value))\n            }\n        }\n        size++\n//        structureChanged(host)\n
     return null\n    }\n\n    override fun remove(key: K): V? {\n        val hashCode = equality.getHashCode(key)\n
       val chainOrEntry = getChainOrEntryOrNull(hashCode) ?: return null\n        if (chainOrEntry !is Array<*>) {\n
        val entry: MutableEntry<K, V> = chainOrEntry\n            if (equality.equals(entry.key, key)) {\n
jsDeleteProperty(backingMap, hashCode)\n                size--\n                return entry.value\n            } else {\n
return null\n            }\n        } else {\n            val chain: Array<MutableEntry<K, V>> = chainOrEntry\n            for
(index in chain.indices) {\n                val entry = chain[index]\n                if (equality.equals(key, entry.key)) {\n
         if (chain.size == 1) {\n                        chain.asDynamic().length = 0\n                        // remove the whole
array\n                        jsDeleteProperty(backingMap, hashCode)\n                    } else {\n                        // splice out
the entry we're removing\n                        chain.asDynamic().splice(index,
 1)\n                    }\n                    size--\n//                structureChanged(host)\n                    return entry.value\n
  }\n            }\n        }\n        return null\n    }\n\n    override fun clear() {\n        backingMap = createJsMap()\n
size = 0\n    }\n\n    override fun contains(key: K): Boolean = getEntry(key) != null\n\n    override fun get(key: K):
V? = getEntry(key)?.value\n\n    private fun getEntry(key: K): MutableEntry<K, V>? {\n        val chainOrEntry =
getChainOrEntryOrNull(equality.getHashCode(key)) ?: return null\n        if (chainOrEntry !is Array<*>) {\n
val entry: MutableEntry<K, V> = chainOrEntry\n            if (equality.equals(entry.key, key)) {\n                return
entry\n            } else {\n                return null\n            }\n        } else {\n            val chain: Array<MutableEntry<K,
V>> = chainOrEntry\n            return chain.findEntryInChain(key)\n        }\n    }\n\n    private fun
 Array<MutableEntry<K, V>>.findEntryInChain(key: K): MutableEntry<K, V>? =\n        firstOrNull { entry ->
equality.equals(entry.key, key) }\n\n    override fun iterator(): MutableIterator<MutableEntry<K, V>> {\n\n
return object : MutableIterator<MutableEntry<K, V>> {\n            var state = -1 // -1 not ready, 0 - ready, 1 -
done\n\n            val keys: Array<String> = js(\"Object\").keys(backingMap)\n            var keyIndex = -1\n\n
var chainOrEntry: dynamic = null\n            var isChain = false\n            var itemIndex = -1\n            var lastEntry:
MutableEntry<K, V>? = null\n\n            private fun computeNext(): Int {\n                if (chainOrEntry != null &&
isChain) {\n                    val chainSize: Int = chainOrEntry.unsafeCast<Array<MutableEntry<K, V>>>().size\n
        if (++itemIndex < chainSize)\n                        return 0\n                }\n\n                if (++keyIndex < keys.size)
{\n                    chainOrEntry
 = backingMap[keys[keyIndex]]\n                    isChain = chainOrEntry is Array<*>\n                    itemIndex = 0\n
            return 0\n                } else {\n                    chainOrEntry = null\n                    return 1\n                }\n
}\n\n            override fun hasNext(): Boolean {\n                if (state == -1)\n                    state = computeNext()\n
```

return state == 0\n }\n\n override fun next(): MutableEntry<K, V> {\n if (!hasNext()) throw NoSuchElementException()\n val lastEntry = if (isChain) {\n chainOrEntry.unsafeCast<Array<MutableEntry<K, V>>>()[itemIndex]\n } else {\n chainOrEntry.unsafeCast<MutableEntry<K, V>>()\n }\n this.lastEntry = lastEntry\n state = -1\n return lastEntry\n }\n\n override fun remove() {\n checkNotNull(lastEntry)\n this@InternalHashCodeMap.remove(lastEntry!!.key)\n lastEntry = null\n // the chain being iterated just got modified by InternalHashCodeMap.remove\n itemIndex--\n }\n }\n }\n\n private fun getChainOrEntryOrNull(hashCode: Int): dynamic {\n val chainOrEntry = backingMap[hashCode]\n return if (chainOrEntry === undefined) null else chainOrEntry\n }\n\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n/**\n * The common interface of [InternalStringMap] and [InternalHashCodeMap].\n */\ninternal interface InternalMap<K, V> : MutableIterable<MutableMap.MutableEntry<K, V>> {\n val equality: EqualityComparator\n val size: Int\n operator fun contains(key: K): Boolean\n operator fun get(key: K): V?\n\n fun put(key: K, value: V): V?\n fun remove(key: K): V?\n fun clear(): Unit\n\n fun createJsMap(): dynamic {\n val result = js(\"Object.create(null)\")\n // force to switch object representation to dictionary mode\n result[\"foo\"] = 1\n jsDeleteProperty(result, \"foo\")\n return result\n }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n/*\n * Based on GWT InternalStringMap\n * Copyright 2008 Google Inc.\n */\npackage kotlin.collections\n\nimport kotlin.collections.MutableMap.MutableEntry\n\n/**\n * A simple wrapper around JavaScript Map for key type is string.\n *\n * Though this map is instantiated only with K=String, the K type is not fixed to String statically,\n * because we want to have it erased to Any? in order not to generate type-safe override bridges for\n * [get], [contains], [remove] etc, if they ever are generated.\n */\ninternal class InternalStringMap<K, V>(override val equality: EqualityComparator) : InternalMap<K, V> {\n\n private var backingMap: dynamic = createJsMap()\n override var size: Int = 0\n private set\n\n// /**\n// * A mod count to track 'value' replacements in map to ensure that the 'value' that we have in the\n// * iterator entry is guaranteed to be still correct.\n// * This is to optimize for the common scenario where the values are not modified during\n// * iterations where the entries are never stale.\n// */\n// private var valueMod: Int = 0\n\n override operator fun contains(key: K): Boolean {\n if (key !is String) return false\n return backingMap[key] !== undefined\n }\n\n override operator fun get(key: K): V? {\n if (key !is String) return null\n val value = backingMap[key]\n return if (value !== undefined) value.unsafeCast<V>() else null\n }\n\n\n override fun put(key: K, value: V): V? {\n require(key is String)\n val oldValue = backingMap[key]\n backingMap[key] = value\n\n if (oldValue === undefined) {\n size++\n// structureChanged(host)\n return null\n } else {\n// valueMod++\n return oldValue.unsafeCast<V>()\n }\n }\n\n override fun remove(key: K): V? {\n if (key !is String) return null\n val value = backingMap[key]\n if (value !== undefined) {\n jsDeleteProperty(backingMap, key)\n size--\n// structureChanged(host)\n return value.unsafeCast<V>()\n } else {\n// valueMod++\n return null\n }\n }\n\n\n override fun clear() {\n backingMap = createJsMap()\n size = 0\n }\n\n\n override fun iterator(): MutableIterator<MutableEntry<K, V>> {\n return object : MutableIterator<MutableEntry<K, V>> {\n private val keys: Array<String> = js(\"Object\").keys(backingMap)\n private val iterator = keys.iterator()\n private var lastKey: String? = null\n\n override fun hasNext(): Boolean = iterator.hasNext()\n\n override fun next(): MutableEntry<K, V> {\n val key = iterator.next()\n lastKey = key\n @Suppress(\"UNCHECKED_CAST\")\n return newMapEntry(key as K)\n }\n\n override fun remove() {\n @Suppress(\"UNCHECKED_CAST\")\n this@InternalStringMap.remove(checkNotNull(lastKey) as K)\n }\n }\n }\n\n private fun newMapEntry(key: K): MutableEntry<K, V> = object : MutableEntry<K, V> {\n override val key: K get() = key\n override val value: V get() = this@InternalStringMap[key].unsafeCast<V>()\n\n override fun setValue(newValue: V): V = this@InternalStringMap.put(key, newValue).unsafeCast<V>()\n\n override fun hashCode(): Int = AbstractMap.entryHashCode(this)\n override fun toString(): String = AbstractMap.entryToString(this)\n override fun equals(other: Any?): Boolean = AbstractMap.entryEquals(this, other)\n }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/*\n * Based on GWT LinkedHashMap\n * Copyright 2008 Google Inc.\n */\npackage kotlin.collections\n\nimport kotlin.collections.MutableMap.MutableEntry\n\n/**\n * Hash table based implementation of the [MutableMap] interface, which additionally preserves the insertion order\n * of entries during the iteration.\n *\n * The insertion order is preserved by maintaining a doubly-linked list of all of its entries.\n */\npublic actual open class LinkedHashMap<K, V> : HashMap<K, V>, MutableMap<K, V> {\n\n /**\n * The entry we use includes next/prev pointers for a doubly-linked circular\n * list with a head node. This reduces the special cases we have to deal with\n * in the list operations.\n\n * Note that we duplicate the key from the underlying hash map so we can find\n * the eldest entry. The alternative would have been to modify HashMap so more\n * of the code was directly usable here, but this would have added some\n * overhead to HashMap, or to reimplement most of the HashMap code here with\n * small modifications. Paying a small storage cost only if you use\n * LinkedHashMap and minimizing code size seemed like a better tradeoff\n */\n private inner class ChainEntry<K, V>(key: K, value: V) : AbstractMutableMap.SimpleEntry<K, V>(key, value) {\n internal var next: ChainEntry<K, V>? = null\n internal var prev: ChainEntry<K, V>? = null\n\n override fun setValue(newValue: V): V {\n this@LinkedHashMap.checkIsMutable()\n return super.setValue(newValue)\n }\n }\n\n private inner class EntrySet : AbstractEntrySet<MutableEntry<K, V>, K, V>() {\n\n private inner class EntryIterator : MutableIterator<MutableEntry<K, V>> {\n // The last entry that was returned from this iterator.\n private var last: ChainEntry<K, V>? = null\n\n // The next entry to return from this iterator.\n private var next: ChainEntry<K, V>? = null\n\n init {\n next = head\n// recordLastKnownStructure(map, this)\n }\n\n override fun hasNext(): Boolean {\n return next !== null\n }\n\n override fun next(): MutableEntry<K, V> {\n// checkStructuralChange(map, this)\n if (!hasNext()) throw NoSuchElementException()\n\n val current = next!!\n last = current\n next = current.next.takeIf { it !== head }\n return current\n }\n\n override fun remove() {\n check(last != null)\n this@EntrySet.checkIsMutable()\n// checkStructuralChange(map, this)\n\n last!!.remove()\n map.remove(last!!.key)\n// recordLastKnownStructure(map, this)\n last = null\n }\n }\n\n override fun add(element: MutableEntry<K, V>): Boolean = throw UnsupportedOperationException(\"Add is not supported on entries\")\n override fun clear() {\n this@LinkedHashMap.clear()\n }\n\n override fun containsEntry(element: Map.Entry<K, V>): Boolean = this@LinkedHashMap.containsEntry(element)\n\n override operator fun iterator(): MutableIterator<MutableEntry<K, V>> = EntryIterator()\n\n override fun removeEntry(element: Map.Entry<K, V>): Boolean {\n checkIsMutable()\n if (contains(element)) {\n this@LinkedHashMap.remove(element.key)\n return true\n }\n return false\n }\n\n override val size: Int get() = this@LinkedHashMap.size\n\n override fun checkIsMutable(): Unit = this@LinkedHashMap.checkIsMutable()\n }\n\n\n /*\n * The head of the insert order chain, which is a doubly-linked circular\n * list.\n *\n * The most recently inserted node is at the end of the chain, ie.\n * chain.prev.\n */\n private var head: ChainEntry<K, V>? = null\n\n /**\n * Add this node to the end of the chain.\n */\n private fun ChainEntry<K, V>.addToEnd() {\n // This entry is not in the list.\n check(next == null && prev == null)\n\n val _head = head\n if (_head == null) {\n head = this\n next = this\n prev = this\n } else {\n // Chain is valid.\n val _tail = checkNotNull(_head.prev)\n // Update me.\n prev = _tail\n next = _head\n // Update my new siblings: current head and old tail\n _head.prev = this\n _tail.next = this\n }\n }\n\n /**\n * Remove this node from the chain it is a part of.\n */\n private fun ChainEntry<K, V>.remove() {\n if (this.next === this) {\n // if this is single element, remove head\n head = null\n } else {\n if (head === this) {\n // if this is first element, move head to next\n head = next\n }\n next!!.prev = prev\n prev!!.next = next\n }\n next = null\n prev = null\n }\n\n /*\n * The hashmap that keeps track of our entries and the chain. Note that we\n * duplicate the key here to eliminate changes to HashMap and minimize the\n * code here, at the expense of additional space.\n */\n private val map: HashMap<K, ChainEntry<K, V>>\n\n private var isReadOnly: Boolean = false\n\n /**\n * Constructs an empty [LinkedHashMap] instance.\n */\n actual constructor() : super() {\n map = HashMap<K, ChainEntry<K, V>>()\n }\n\n internal constructor(backingMap: HashMap<K, Any>) : super() {\n @Suppress(\"UNCHECKED_CAST\") // expected to work due to erasure\n map = backingMap as HashMap<K, ChainEntry<K, V>>\n }\n\n /**\n * Constructs an empty [LinkedHashMap] instance.\n *\n * @param initialCapacity the initial capacity (ignored)\n * @param loadFactor the load factor (ignored)\n *\n * @throws IllegalArgumentException if the initial capacity or load factor are negative\n */\n actual constructor(initialCapacity: Int, loadFactor: Float) : super(initialCapacity, loadFactor) {\n map = HashMap<K, ChainEntry<K, V>>()\n }\n\n actual constructor(initialCapacity: Int) : this(initialCapacity, 0.0f)\n\n /**\n * Constructs an instance of [LinkedHashMap] filled with the contents of the specified [original] map.\n */\n actual constructor(original: Map<out K, V>) {\n map = HashMap<K, ChainEntry<K, V>>()\n this.putAll(original)\n }\n\n @PublishedApi\n internal fun build(): Map<K, V> {\n checkIsMutable()\n isReadOnly = true\n return this\n }\n\n actual override fun clear() {\n checkIsMutable()\n map.clear()\n head = null\n }\n\n\n// override fun clone(): Any {\n// return LinkedHashMap(this)\n// }\n\n\n actual override fun containsKey(key: K): Boolean = map.containsKey(key)\n\n actual override fun containsValue(value: V): Boolean {\n var node: ChainEntry<K, V> = head ?: return false\n do {\n if (node.value == value) {\n return true\n }\n node = node.next!!\n } while (node !== head)\n return false\n }\n\n\n internal override fun createEntrySet(): MutableSet<MutableMap.MutableEntry<K, V>> = EntrySet()\n\n actual override operator fun get(key: K): V? = map.get(key)?.value\n\n actual override fun put(key: K, value: V): V? {\n checkIsMutable()\n\n val old = map.get(key)\n if (old == null) {\n val newEntry = ChainEntry(key, value)\n map.put(key, newEntry)\n newEntry.addToEnd()\n return null\n } else {\n return old.setValue(value)\n }\n }\n\n actual override fun remove(key: K): V? {\n checkIsMutable()\n\n val entry = map.remove(key)\n if (entry != null) {\n entry.remove()\n return entry.value\n }\n return null\n }\n\n actual override val size: Int get() = map.size\n\n internal override fun checkIsMutable() {\n if (isReadOnly) throw UnsupportedOperationException()\n }\n}\n\n/**\n * Constructs the specialized implementation of [LinkedHashMap] with [String] keys, which stores the keys as properties of\n * JS object without hashing them.\n */\npublic fun <V> linkedStringMapOf(vararg pairs: Pair<String, V>): LinkedHashMap<String, V> {\n return LinkedHashMap<String, V>(stringMapOf<Any>()).apply { putAll(pairs) }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n/*\n * Based on GWT LinkedHashSet\n * Copyright 2008 Google Inc.\n */\n\npackage kotlin.collections\n\n/**\n * The implementation of the [MutableSet] interface, backed by a [LinkedHashMap] instance.\n *\n * This implementation preserves the insertion order of elements during the iteration.\n */\npublic actual open class LinkedHashSet<E> : HashSet<E>, MutableSet<E> {\n\n internal constructor(map: LinkedHashMap<E, Any>) : super(map)\n\n /**\n * Constructs a new empty [LinkedHashSet].\n */\n actual constructor() : super(LinkedHashMap<E, Any>())\n\n /**\n * Constructs a new [LinkedHashSet] filled with the elements of the specified collection.\n */\n actual constructor(elements:

Collection<E>) : super(LinkedHashMap<E, Any>()) {\n addAll(elements)\n }\n\n /**\n * Constructs a new empty [LinkedHashSet].\n *\n * @param initialCapacity the initial capacity (ignored)\n * @param loadFactor the load factor (ignored)\n *\n * @throws IllegalArgumentException if the initial capacity or load factor are negative\n */\n actual constructor(initialCapacity: Int, loadFactor: Float) : super(LinkedHashMap<E, Any>(initialCapacity, loadFactor))\n\n actual constructor(initialCapacity: Int) : this(initialCapacity, 0.0f)\n\n @PublishedApi\n internal fun build(): Set<E> {\n (map as LinkedHashMap<E, Any>).build()\n return this\n }\n\n internal override fun checkIsMutable(): Unit = map.checkIsMutable()\n\n// public override fun clone(): Any {\n// return LinkedHashSet(this)\n// }\n\n}\n\n/**\n * Creates a new instance of the specialized implementation of [LinkedHashSet] with the specified [String] elements,\n * which elements the keys as properties of JS object without hashing them.\n */\npublic fun linkedStringSetOf(vararg elements: String): LinkedHashSet<String> {\n return LinkedHashSet(linkedStringMapOf<Any>()).apply { addAll(elements) }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.contracts.*\n\n\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\n@Deprecated(\"Synchronization on any object is not supported in Kotlin/JS\", ReplaceWith(\"run(block)\"))\n@kotlin.internal.InlineOnly\n@Suppress(\"UNUSED_PARAMETER\")\npublic inline fun <R> synchronized(lock: Any, block: () -> R): R {\n contract {\n callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n }\n return block()\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.io\n\ninternal abstract class BaseOutput {\n open fun println() {\n print(\"\\n\")\n }\n\n open fun println(message: Any?) {\n print(message)\n println()\n }\n\n abstract fun print(message: Any?)\n\n open fun flush() {}\n}\n\n/** JsName used to make the declaration available outside of module to test it */\n@JsName(\"NodeJsOutput\")\ninternal class NodeJsOutput(val outputStream: dynamic) : BaseOutput() {\n override fun print(message: Any?) {\n // TODO: Using local variable because of bug in block decomposition lowering in IR backend\n val messageString = String(message)\n outputStream.write(messageString)\n }\n}\n\n/** JsName used to make the declaration available outside of module to test it */\n@JsName(\"OutputToConsoleLog\")\ninternal class OutputToConsoleLog : BaseOutput() {\n override fun print(message: Any?) {\n console.log(message)\n }\n\n override fun println(message: Any?) {\n console.log(message)\n }\n\n override fun println() {\n console.log(\"\")\n }\n}\n\n/** JsName used to make the declaration available outside of module to test it and use at try.kotl.in */\n@JsName(\"BufferedOutput\")\ninternal open class BufferedOutput : BaseOutput() {\n var buffer = \"\"\n\n override fun print(message: Any?) {\n buffer += String(message)\n }\n\n override fun flush() {\n buffer = \"\"\n }\n}\n\n/** JsName used to make the declaration available outside of module to test it */\n@JsName(\"BufferedOutputToConsoleLog\")\ninternal class BufferedOutputToConsoleLog : BufferedOutput() {\n override fun print(message: Any?) {\n var s = String(message)\n val i = s.nativeLastIndexOf(\"\\n\", 0)\n if (i >= 0) {\n buffer += s.substring(0, i)\n flush()\n s = s.substring(i + 1)\n }\n buffer += s\n }\n\n override fun flush() {\n console.log(buffer)\n buffer = \"\"\n }\n}\n\n/** JsName used to make the declaration available outside of module to test it and use at try.kotl.in */\n@JsName(\"output\")\ninternal var output = run {\n val isNode: Boolean = js(\"typeof process !== 'undefined' && process.versions && !!process.versions.node\")\n if (isNode) NodeJsOutput(js(\"process.stdout\")) else BufferedOutputToConsoleLog()\n}\n\n@kotlin.internal.InlineOnly\nprivate inline fun String(value: Any?): String = js(\"String\")(value)\n\n/** Prints the line separator to the standard output stream. */\npublic actual fun println() {\n output.println()\n}\n\n/** Prints the given [message] and the line separator to the standard output stream. */\npublic actual fun println(message: Any?) {\n output.println(message)\n}\n\n/** Prints the given [message] to the standard output stream. */\npublic actual fun print(message: Any?) {\n output.print(message)\n}\n\n@SinceKotlin(\"1.6\")\npublic actual fun readln():

String = throw UnsupportedOperationException(\"readln is not supported in Kotlin/JS\")\n\n@SinceKotlin(\"1.6\")\npublic actual fun readlnOrNull(): String? = throw UnsupportedOperationException(\"readlnOrNull is not supported in Kotlin/JS\")","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\nimport kotlin.coroutines.intrinsics.CoroutineSingletons.*\nimport kotlin.coroutines.intrinsics.COROUTINE_SUSPENDED\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal actual

class SafeContinuation<in T>\ninternal actual constructor(\n   private val delegate: Continuation<T>,\n   initialResult: Any?\n) : Continuation<T> {\n   @PublishedApi\n   internal actual constructor(delegate: Continuation<T>) : this(delegate, UNDECIDED)\n\n   public actual override val context: CoroutineContext\n   get() = delegate.context\n\n   private var result: Any? = initialResult\n\n   public actual override fun resumeWith(result: Result<T>) {\n   val cur = this.result\n   when {\n   cur === UNDECIDED -> {\n   this.result = result.value\n   }\n   cur === COROUTINE_SUSPENDED -> {\n   this.result = RESUMED\n   delegate.resumeWith(result)\n   }\n   else -> throw IllegalStateException(\"Already resumed\")\n   }\n   }\n\n   @PublishedApi\n   internal actual fun getOrThrow(): Any? {\n   if (result === UNDECIDED) {\n   result = COROUTINE_SUSPENDED\n   return COROUTINE_SUSPENDED\n   }\n   val result = this.result\n   return when {\n   result === RESUMED -> COROUTINE_SUSPENDED // already called continuation, indicate COROUTINE_SUSPENDED upstream\n   result is Result.Failure -> throw result.exception\n   else -> result // either COROUTINE_SUSPENDED or data\n   }\n   }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines.cancellation\n\n\n@SinceKotlin(\"1.4\")\npublic actual open class CancellationException : IllegalStateException {\n   actual constructor() : super()\n   actual constructor(message: String?) : super(message)\n   constructor(message: String?, cause: Throwable?) : super(message, cause)\n   constructor(cause: Throwable?) : super(cause)\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o.

and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines.js.internal\n\nimport kotlin.coroutines.Continuation\nimport kotlin.coroutines.EmptyCoroutineContext\n\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal val EmptyContinuation = Continuation<Any?>(EmptyCoroutineContext) { result ->\n   result.getOrThrow()\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n * Exposes the [Date API](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Date) to Kotlin.\n */\n@Suppress(\"NOT_DOCUMENTED\")\npublic external class Date() {\n   public constructor(milliseconds: Number)\n\n   public constructor(dateString: String)\n\n   public constructor(year:

Int, month: Int)\n\n   public constructor(year: Int, month: Int, day: Int)\n\n   public constructor(year: Int, month: Int, day: Int, hour: Int)\n\n   public constructor(year: Int, month: Int, day: Int, hour: Int, minute: Int)\n\n   public constructor(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int)\n\n   public constructor(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int, millisecond: Number)\n\n   public fun getDate(): Int\n\n   public fun getDay(): Int\n\n   public fun getFullYear(): Int\n\n   public fun getHours(): Int\n\n   public fun getMilliseconds(): Int\n\n   public fun getMinutes(): Int\n\n   public fun getMonth(): Int\n\n   public fun getSeconds(): Int\n\n   public fun getTime(): Double\n\n   public fun getTimezoneOffset(): Int\n\n   public fun getUTCDate(): Int\n\n   public fun getUTCDay(): Int\n\n   public fun getUTCFullYear(): Int\n\n   public fun getUTCHours(): Int\n\n   public fun getUTCMilliseconds():

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 Int\n\n    public fun getUTCMinutes(): Int\n\n    public fun getUTCMonth(): Int\n\n    public fun getUTCSeconds():
Int\n\n    public fun toDateString(): String\n\n    public fun toISOString(): String\n\n    public fun toJSON(): Json\n\n
  public fun toLocaleDateString(locales: Array<String> = definedExternally, options: LocaleOptions =
definedExternally): String\n\n    public fun toLocaleDateString(locales: String, options: LocaleOptions =
definedExternally): String\n\n    public fun toLocaleString(locales: Array<String> = definedExternally, options:
LocaleOptions = definedExternally): String\n\n    public fun toLocaleString(locales: String, options: LocaleOptions
= definedExternally): String\n\n    public fun toLocaleTimeString(locales: Array<String> = definedExternally,
options: LocaleOptions = definedExternally): String\n\n    public fun toLocaleTimeString(locales: String, options:
LocaleOptions = definedExternally): String\n\n    public fun toTimeString(): String\n\n    public
 fun toUTCString(): String\n\n    public companion object {\n        public fun now(): Double\n\n        public fun
parse(dateString: String): Double\n\n        public fun UTC(year: Int, month: Int): Double\n\n        public fun
UTC(year: Int, month: Int, day: Int): Double\n\n        public fun UTC(year: Int, month: Int, day: Int, hour: Int):
Double\n\n        public fun UTC(year: Int, month: Int, day: Int, hour: Int, minute: Int): Double\n\n        public fun
UTC(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int): Double\n\n        public fun UTC(year: Int,
month: Int, day: Int, hour: Int, minute: Int, second: Int, millisecond: Number): Double\n    }\n\n    public interface
LocaleOptions {\n        public var localeMatcher: String?\n\n        public var timeZone: String?\n\n        public var
hour12: Boolean?\n\n        public var formatMatcher: String?\n\n        public var weekday: String?\n\n        public var
era: String?\n\n        public var year: String?\n\n
        public var month: String?\n\n        public var day: String?\n\n        public var hour: String?\n\n        public var
minute: String?\n\n        public var second: String?\n\n        public var timeZoneName: String?\n    }\n}\n\npublic
inline fun dateLocaleOptions(init: Date.LocaleOptions.() -> Unit): Date.LocaleOptions {\n    val result = js(\"new
Object()\").unsafeCast<Date.LocaleOptions>()\n    init(result)\n    return result\n}","/*\n * Copyright 2010-2020
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.dom\n\nimport
org.w3c.dom.Document\nimport org.w3c.dom.Element\nimport
kotlin.internal.LowPriorityInOverloadResolution\nimport kotlinx.dom.appendElement as
newAppendElement\nimport kotlinx.dom.createElement as newCreateElement\n\n/**\n * Creates a new element
with the specified [name].\n *\n * The element is initialized
 with the specified [init] function.\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n    message = \"This
API is moved to another package, use 'kotlinx.dom.createElement' instead.\",\n    replaceWith =
ReplaceWith(\"this.createElement(name, init)\",
\"kotlinx.dom.createElement\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic
inline fun Document.createElement(name: String, noinline init: Element.() -> Unit): Element =
this.newCreateElement(name, init)\n\n/**\n * Appends a newly created element with the specified [name] to this
element.\n *\n * The element is initialized with the specified [init] function.\n
*/\n@LowPriorityInOverloadResolution\n@Deprecated(\n    message = \"This API is moved to another package,
use 'kotlinx.dom.appendElement' instead.\",\n    replaceWith = ReplaceWith(\"this.appendElement(name, init)\",
\"kotlinx.dom.appendElement\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic
inline fun Element.appendElement(name:
 String, noinline init: Element.() -> Unit): Element = this.newAppendElement(name, init)\n\n","/*\n * Copyright
2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.dom\n\nimport
org.w3c.dom.Element\nimport kotlin.internal.LowPriorityInOverloadResolution\nimport kotlinx.dom.addClass as
newAddClass\nimport kotlinx.dom.hasClass as newHasClass\nimport kotlinx.dom.removeClass as
newRemoveClass\n\n/** Returns true if the element has the given CSS class style in its 'class' attribute
*/\n@LowPriorityInOverloadResolution\n@Deprecated(\n    message = \"This API is moved to another package,
use 'kotlinx.dom.hasClass' instead.\",\n    replaceWith = ReplaceWith(\"this.hasClass(cssClass)\",
\"kotlinx.dom.hasClass\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\ninline fun
```

Element.hasClass(cssClass:
String): Boolean = this.newHasClass(cssClass)\n\n/**\n * Adds CSS class to element. Has no effect if all specified
classes are already in class attribute of the element\n *\n * @return true if at least one class has been added\n
*/\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to another package,
use 'kotlinx.dom.addClass' instead.\",\n   replaceWith = ReplaceWith(\"this.addClass(cssClasses)\",
\"kotlinx.dom.addClass\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\ninline fun
Element.addClass(vararg cssClasses: String): Boolean = this.newAddClass(*cssClasses)\n\n/**\n * Removes all
[cssClasses] from element. Has no effect if all specified classes are missing in class attribute of the element\n *\n *
@return true if at least one class has been removed\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n
message = \"This API is moved to another package, use 'kotlinx.dom.removeClass' instead.\",\n   replaceWith
= ReplaceWith(\"this.removeClass(cssClasses)\",
\"kotlinx.dom.removeClass\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\ninline
fun Element.removeClass(vararg cssClasses: String): Boolean = this.newRemoveClass(*cssClasses)","/*\n *
Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is
governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.dom\n\nimport org.w3c.dom.Element\nimport org.w3c.dom.Node\nimport
kotlin.internal.LowPriorityInOverloadResolution\nimport kotlinx.dom.isElement as newIsElement\nimport
kotlinx.dom.isText as newIsText\n\n/**\n * Gets a value indicating whether this node is a TEXT_NODE or a
CDATA_SECTION_NODE.\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API
is moved to another package, use 'kotlinx.dom.isText' instead.\",\n   replaceWith = ReplaceWith(\"this.isText\",
\"kotlinx.dom.isText\")\n)\n@DeprecatedSinceKotlin(warningSince
= \"1.4\", errorSince = \"1.6\")\npublic val Node.isText: Boolean\n   inline get() = this.newIsText\n\n/**\n * Gets a
value indicating whether this node is an [Element].\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n
message = \"This API is moved to another package, use 'kotlinx.dom.isElement' instead.\",\n   replaceWith =
ReplaceWith(\"this.isElement\", \"kotlinx.dom.isElement\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\",
errorSince = \"1.6\")\npublic val Node.isElement: Boolean\n   inline get() = this.newIsElement\n","/*\n * Copyright
2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
org.w3c.dom.events\n\npublic fun EventListener(handler: (Event) -> Unit): EventListener =
EventListenerHandler(handler)\n\nprivate class EventListenerHandler(private val handler: (Event) ->
Unit) : EventListener {\n   public override fun handleEvent(event: Event) {\n   handler(event)\n   }\n\n   public
override fun toString(): String = \"EventListenerHandler($handler)\"\n}\n","/*\n * Copyright 2010-2018 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n */\n\npackage org.w3c.dom\n\npublic external interface
ItemArrayLike<out T> {\n   val length: Int\n   fun item(index: Int): T?\n}\n\n/**\n * Returns the view of this
`ItemArrayLike<T>` collection as `List<T>`\n */\npublic fun <T> ItemArrayLike<T>.asList(): List<T> = object :
AbstractList<T>() {\n   override val size: Int get() = this@asList.length\n\n   override fun get(index: Int): T = when
(index) {\n   in 0..lastIndex -> this@asList.item(index).unsafeCast<T>()\n   else -> throw
IndexOutOfBoundsException(\"index $index is not in range [0..$lastIndex]\")\n   }\n}","/*\n
* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.dom\n\nimport org.w3c.dom.Element\nimport org.w3c.dom.Node\nimport
kotlin.internal.LowPriorityInOverloadResolution\nimport kotlinx.dom.appendText as newAppendText\nimport
kotlinx.dom.clear as newClear\n\n/** Removes all the children from this node.
*/\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to another package,
use 'kotlinx.dom.clear' instead.\",\n   replaceWith = ReplaceWith(\"this.clear()\",
\"kotlinx.dom.clear\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\npublic inline fun
Node.clear() = this.newClear()\n\n/**\n * Creates text node and append it to the element.\n *\n * @return this

element\n */\n@LowPriorityInOverloadResolution\n@Deprecated(\n   message = \"This API is moved to another package,
 use 'kotlinx.dom.appendText' instead.\",\n   replaceWith = ReplaceWith(\"this.appendText(text)\", \"kotlinx.dom.appendText\")\n)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\ninline fun Element.appendText(text: String): Element = this.newAppendText(text)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n * Reinterprets this value as a value of the [dynamic type](/docs/reference/dynamic-type.html).\n */\n@kotlin.internal.InlineOnly\npublic inline fun Any?.asDynamic(): dynamic = this\n\n/**\n * Reinterprets this value as a value of the specified type [T] without any actual type checking.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Any?.unsafeCast(): @kotlin.internal.NoInfer T = this.asDynamic()\n\n/**\n * Reinterprets this `dynamic` value as a value of
 the specified type [T] without any actual type checking.\n */\n@kotlin.internal.DynamicExtension\n@JsName(\"unsafeCastDynamic\")\n@kotlin.internal.InlineOnly\npublic inline fun <T> dynamic.unsafeCast(): @kotlin.internal.NoInfer T = this\n\n/**\n * Allows to iterate this `dynamic` object in the following cases:\n * - when it has an `iterator` function,\n * - when it is an array\n * - when it is an instance of [kotlin.collections.Iterable]\n */\n@kotlin.internal.DynamicExtension\npublic operator fun dynamic.iterator(): Iterator<dynamic> {\n   val r: Any? = this\n\n   return when {\n   this[\"iterator\"] != null ->\n   this[\"iterator\"]()\n   isArrayish(r) ->\n   r.unsafeCast<Array<*>>().iterator()\n\n   else ->\n   (r as Iterable<*>).iterator()\n   }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt
 file.\n */\n\n// a package is omitted to get declarations directly under the module\n\n@JsName(\"throwNPE\")\ninternal fun throwNPE(message: String) {\n   throw NullPointerException(message)\n}\n\n@JsName(\"throwCCE\")\ninternal fun throwCCE() {\n   throw ClassCastException(\"Illegal cast\")\n}\n\n@JsName(\"throwISE\")\ninternal fun throwISE(message: String) {\n   throw IllegalStateException(message)\n}\n\n@JsName(\"throwUPAE\")\ninternal fun throwUPAE(propertyName: String) {\n   throw UninitializedPropertyAccessException(\"lateinit property ${propertyName} has not been initialized\")\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.collections\n\n/**\n * Groups elements from the [Grouping] source by key and counts elements in each group.\n *\n * @return a [Map] associating the key of
 each group with the count of elements in the group.\n *\n * @sample samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin(\"1.1\")\npublic actual fun <T, K> Grouping<T, K>.eachCount(): Map<K, Int> =\n   fold(0) { acc, _ -> acc + 1 }\n\n/*\n/**\n * Groups elements from the [Grouping] source by key and sums values provided by the [valueSelector] function for elements in each group.\n *\n * @return a [Map] associating the key of each group with the count of element in the group.\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K> Grouping<T, K>.eachSumOf(valueSelector: (T) -> Int): Map<K, Int> =\n   fold(0) { acc, e -> acc + valueSelector(e) }\n*/","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"GroupingKt\")\n@file:kotlin.jvm.JvmMultifileClass\n\npackage kotlin.collections\n\n/**\n
 * Represents a source of elements with a [keyOf] function, which can be applied to each element to get its key.\n *\n * A [Grouping] structure serves as an intermediate step in group-and-fold operations:\n * they group elements by their keys and then fold each group with some aggregating operation.\n *\n * It is created by attaching `keySelector: (T) -> K` function to a source of elements.\n * To get an instance of [Grouping] use one of `groupingBy` extension functions:\n * - [Iterable.groupingBy]\n * - [Sequence.groupingBy]\n * - [Array.groupingBy]\n * - [CharSequence.groupingBy]\n *\n * For the list of group-and-fold operations available, see the [extension

functions](#extension-functions) for `Grouping`.\n */\n@SinceKotlin(\"1.1\")\npublic interface Grouping<T, out K> {\n   /** Returns an [Iterator] over the elements of the source of this grouping. */\n   fun sourceIterator(): Iterator<T>\n   /** Extracts the key of an [element]. */\n   fun keyOf(element: T): K\n}\n\n/**\n
 * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current element as arguments, and stores the results in a new map.\n *\n * The key for each element is provided by the [Grouping.keyOf] function.\n *\n * @param operation function is invoked on each element with the following parameters:\n * - `key`: the key of the group this element belongs to;\n * - `accumulator`: the current value of the accumulator of the group, can be `null` if it's the first `element` encountered in the group;\n * - `element`: the element from the source being aggregated;\n * - `first`: indicates whether it's the first `element` encountered in the group.\n *\n * @return a [Map] associating the key of each group with the result of aggregation of the group elements.\n * @sample samples.collections.Grouping.aggregateByRadix\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, R> Grouping<T,
 K>.aggregate(\n   operation: (key: K, accumulator: R?, element: T, first: Boolean) -> R\n): Map<K, R> {\n   return aggregateTo(mutableMapOf<K, R>(), operation)\n}\n\n/**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current element as arguments,\n * and stores the results in the given [destination] map.\n *\n * The key for each element is provided by the [Grouping.keyOf] function.\n *\n * @param operation a function that is invoked on each element with the following parameters:\n * - `key`: the key of the group this element belongs to;\n * - `accumulator`: the current value of the accumulator of the group, can be `null` if it's the first `element` encountered in the group;\n * - `element`: the element from the source being aggregated;\n * - `first`: indicates whether it's the first `element` encountered in the group.\n *\n * If the [destination] map
 already has a value corresponding to some key,\n * then the elements being aggregated for that key are never considered as `first`.\n *\n * @return the [destination] map associating the key of each group with the result of aggregation of the group elements.\n * @sample samples.collections.Grouping.aggregateByRadixTo\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, R, M : MutableMap<in K, R>> Grouping<T, K>.aggregateTo(\n   destination: M,\n   operation: (key: K, accumulator: R?, element: T, first: Boolean) -> R\n): M {\n   for (e in this.sourceIterator()) {\n   val key = keyOf(e)\n   val accumulator = destination[key]\n   destination[key] = operation(key, accumulator, e, accumulator == null && !destination.containsKey(key))\n   }\n   return destination\n}\n\n/**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current element as arguments,
 and stores the results in a new map.\n * An initial value of accumulator is provided by [initialValueSelector] function.\n *\n * @param initialValueSelector a function that provides an initial value of accumulator for each group.\n * It's invoked with parameters:\n * - `key`: the key of the group;\n * - `element`: the first element being encountered in that group.\n *\n * @param operation a function that is invoked on each element with the following parameters:\n * - `key`: the key of the group this element belongs to;\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being accumulated.\n *\n * @return a [Map] associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.foldByEvenLengthWithComputedInitialValue\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, R> Grouping<T, K>.fold(\n   initialValueSelector: (key: K, element: T) -> R,\n
 operation: (key: K, accumulator: R, element: T) -> R\n): Map<K, R> =\n   @Suppress(\"UNCHECKED_CAST\")\n   aggregate { key, acc, e, first -> operation(key, if (first) initialValueSelector(key, e) else acc as R, e) }\n\n/**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current element as arguments,\n * and stores the results in the given [destination] map.\n * An initial value of accumulator is provided by [initialValueSelector] function.\n *\n * @param initialValueSelector a function that provides an initial value of accumulator for each group.\n * It's invoked with parameters:\n * - `key`: the key of the

group;\n * - `element`: the first element being encountered in that group.\n *\n * If the [destination] map already has a value corresponding to some key, that value is used as an initial value of\n * the accumulator for that group and the [initialValueSelector]
function is not called for that group.\n *\n * @param operation a function that is invoked on each element with the following parameters:\n * - `key`: the key of the group this element belongs to;\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being accumulated.\n *\n * @return the [destination] map associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.foldByEvenLengthWithComputedInitialValueTo\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, R, M : MutableMap<in K, R>> Grouping<T, K>.foldTo(\n destination: M,\n   initialValueSelector: (key: K, element: T) -> R,\n   operation: (key: K, accumulator: R, element: T) -> R\n): M =\n   @Suppress(\"UNCHECKED_CAST\")\n   aggregateTo(destination) { key, acc, e, first -> operation(key, if (first) initialValueSelector(key, e) else acc as R, e) }\n\n\n/**\n * Groups elements from the
[Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current element as arguments, and stores the results in a new map.\n * An initial value of accumulator is the same [initialValue] for each group.\n *\n * @param operation a function that is invoked on each element with the following parameters:\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being accumulated.\n *\n * @return a [Map] associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.foldByEvenLengthWithConstantInitialValue\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, R> Grouping<T, K>.fold(\n   initialValue: R,\n   operation: (accumulator: R, element: T) -> R\n): Map<K, R> =\n   @Suppress(\"UNCHECKED_CAST\")\n   aggregate { _, acc, e, first -> operation(if (first) initialValue else
acc as R, e) }\n\n/**\n * Groups elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\n * passing the previously accumulated value and the current element as arguments,\n * and stores the results in the given [destination] map.\n * An initial value of accumulator is the same [initialValue] for each group.\n *\n * If the [destination] map already has a value corresponding to the key of some group,\n * that value is used as an initial value of the accumulator for that group.\n *\n * @param operation a function that is invoked on each element with the following parameters:\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being accumulated.\n *\n * @return the [destination] map associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.foldByEvenLengthWithConstantInitialValueTo\n */\n@SinceKotlin(\"1.1\")\npublic
inline fun <T, K, R, M : MutableMap<in K, R>> Grouping<T, K>.foldTo(\n   destination: M,\n   initialValue: R,\n   operation: (accumulator: R, element: T) -> R\n): M =\n   @Suppress(\"UNCHECKED_CAST\")\n   aggregateTo(destination) { _, acc, e, first -> operation(if (first) initialValue else acc as R, e) }\n\n\n/**\n * Groups elements from the [Grouping] source by key and applies the reducing [operation] to the elements of each group\n * sequentially starting from the second element of the group,\n * passing the previously accumulated value and the current element as arguments,\n * and stores the results in a new map.\n * An initial value of accumulator is the first element of the group.\n *\n * @param operation a function that is invoked on each subsequent element of the group with the following parameters:\n * - `key`: the key of the group this element belongs to;\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element
from the source being accumulated.\n *\n * @return a [Map] associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.reduceByMaxVowels\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <S, T : S, K> Grouping<T, K>.reduce(\n   operation: (key: K, accumulator: S, element: T) -> S\n): Map<K, S> =\n   aggregate { key, acc, e, first ->\n   @Suppress(\"UNCHECKED_CAST\")\n   if (first) e else operation(key, acc as S, e)\n   }\n\n/**\n * Groups elements from the [Grouping] source by key and applies the reducing [operation] to the elements of each group\n * sequentially starting from the second element of the group,\n * passing the previously accumulated value and the

current element as arguments,\n * and stores the results in the given [destination] map.\n * An initial value of accumulator is the first element of the group.\n *\n * If the [destination] map already has a value corresponding to the key of some group,\n

* that value is used as an initial value of the accumulator for that group and the first element of that group is also\n * subjected to the [operation].\n\n * @param operation a function that is invoked on each subsequent element of the group with the following parameters:\n * - `accumulator`: the current value of the accumulator of the group;\n * - `element`: the element from the source being folded;\n *\n * @return the [destination] map associating the key of each group with the result of accumulating the group elements.\n * @sample samples.collections.Grouping.reduceByMaxVowelsTo\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <S, T : S, K, M : MutableMap<in K, S>> Grouping<T, K>.reduceTo(\n   destination: M,\n   operation: (key: K, accumulator: S, element: T) -> S\n): M =\n   aggregateTo(destination) { key, acc, e, first ->\n   @Suppress(\"UNCHECKED_CAST\")\n   if (first) e else operation(key, acc as S, e)\n   }\n\n\n/**\n * Groups elements from the [Grouping] source

by key and counts elements in each group to the given [destination] map.\n *\n * If the [destination] map already has a value corresponding to the key of some group,\n * that value is used as an initial value of the counter for that group.\n *\n * @return the [destination] map associating the key of each group with the count of elements in the group.\n *\n * @sample samples.collections.Grouping.groupingByEachCount\n */\n@SinceKotlin(\"1.1\")\npublic fun <T, K, M : MutableMap<in K, Int>> Grouping<T, K>.eachCountTo(destination: M): M =\n   foldTo(destination, 0) { acc, _ -> acc + 1 }\n\n/*\n/**\n * Groups elements from the [Grouping] source by key and sums values provided by the [valueSelector] function for elements in each group\n * to the given [destination] map.\n *\n *\n * If the [destination] map already has a value corresponding to the key of some group,\n * that value is used as an initial value of the sum for that group.\n *\n * @return the [destination] map associating the

key of each group with the sum of elements in the group.\n */\n@SinceKotlin(\"1.1\")\npublic inline fun <T, K, M : MutableMap<in K, Int>> Grouping<T, K>.eachSumOfTo(destination: M, valueSelector: (T) -> Int): M =\n   foldTo(destination, 0) { acc, e -> acc + valueSelector(e)}\n*/\n\n\n/*\n// TODO: sum by long and by double overloads\n\npublic inline fun <T, K, M : MutableMap<in K, Long>> Grouping<T, K>.sumEachByLongTo(destination: M, valueSelector: (T) -> Long): M =\n   foldTo(destination, 0L) { acc, e -> acc + valueSelector(e)}\n\npublic inline fun <T, K> Grouping<T, K>.sumEachByLong(valueSelector: (T) -> Long): Map<K, Long> =\n   fold(0L) { acc, e -> acc + valueSelector(e)}\n\npublic inline fun <T, K, M : MutableMap<in K, Double>> Grouping<T, K>.sumEachByDoubleTo(destination: M, valueSelector: (T) -> Double): M =\n   foldTo(destination, 0.0) { acc, e -> acc + valueSelector(e)}\n\npublic inline fun <T, K> Grouping<T, K>.sumEachByDouble(valueSelector: (T) -> Double):

Map<K, Double> =\n   fold(0.0) { acc, e -> acc + valueSelector(e)}\n*/\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n@Retention(AnnotationRetention.BINARY)\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY)\ninternal annotation class JsNativeImplementation(val implementation: String)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\n/**\n * An interface for indexing access to a collection of key-value pairs, where type of key is [String] and type of value is [Any?][Any].\n */\npublic external interface Json {\n   /**\n   * Calls to the function will be translated to indexing operation (square

brackets) on the receiver with [propertyName] as the argument.\n   *\n   * E.g. for next code:\n   * ```kotlin\n   * fun test(j: Json, p: String) = j[\"prop\"] + j.get(p)\n   * ```\n   *\n   * will be generated:\n   * ```js\n   * function test(j, p) {\n   *   return j[\"prop\"] + j[p];\n   * }\n   * ```\n   */\n   operator fun get(propertyName: String): Any?\n\n   /**\n   * Calls of the function will be translated to an assignment of [value] to the receiver indexed (with square brackets/index operation) with [propertyName].\n   *\n   * E.g. for the following code:\n   * ```kotlin\n   * fun test(j: Json, p: String, newValue: Any) {\n   *   j[\"prop\"] = 1\n   *   j.set(p, newValue)\n

* }\n   * ```\n   *\n   * will be generated:\n   * ```js\n   * function test(j, p, newValue) {\n   *   j[\"prop\"] = 1;\n   *   j[p] = newValue;\n   * }\n   * }\n   * ```\n   */\n   operator fun set(propertyName: String, value: Any?): Unit\n}\n\n/**\n * Returns a simple JavaScript object (as [Json]) using provided key-value pairs as names and values of its properties.\n */\npublic fun json(vararg pairs: Pair<String, Any?>): Json {\n   val res: dynamic = js(\"({})\")\n   for ((name, value) in pairs) {\n   res[name] = value\n   }\n   return res\n}\n\n/**\n * Adds key-value pairs from [other] to [this].\n * Returns the original receiver.\n */\npublic fun Json.add(other: Json): Json {\n   val keys: Array<String> = js(\"Object\").keys(other)\n   for (key in keys) {\n   if (other.asDynamic().hasOwnProperty(key)) {\n   this[key] = other[key];\n   }\n   }\n   return this\n}\n\n/**\n * Exposes the JavaScript [JSON object](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/JSON) to Kotlin.\n */\n@Suppress(\"NOT_DOCUMENTED\")\npublic external object JSON {\n   public fun stringify(o: Any?): String\n   public fun stringify(o: Any?, replacer: ((key: String, value: Any?) -> Any?)): String\n   public fun stringify(o: Any?, replacer: ((key: String, value: Any?) -> Any?)? = definedExternally, space: Int): String\n   public fun stringify(o: Any?, replacer: ((key: String, value: Any?) -> Any?)? = definedExternally, space: String): String\n   public fun stringify(o: Any?, replacer: Array<String>): String\n   public fun stringify(o: Any?, replacer: Array<String>, space: Int): String\n   public fun stringify(o: Any?, replacer: Array<String>, space: String): String\n\n   public fun <T> parse(text: String): T\n   public fun <T> parse(text: String, reviver: ((key: String, value: Any?) -> Any?)): T\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.math\n\n\nimport kotlin.internal.InlineOnly\nimport kotlin.js.JsMath as nativeMath\n\n\n\n// region ================ Double Math ==\n\n/** Computes the sine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `sin(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sin(x: Double): Double = nativeMath.sin(x)\n\n/** Computes the cosine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `cos(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun cos(x: Double): Double = nativeMath.cos(x)\n\n/** Computes the tangent of the angle [x] given in radians.\n *\n * Special cases:\n *   - `tan(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun tan(x: Double): Double = nativeMath.tan(x)\n\n/**\n * Computes the arc sine of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `asin(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun asin(x: Double): Double = nativeMath.asin(x)\n\n/**\n * Computes the arc cosine of the value [x];\n * the returned value is an angle in the range from `0.0` to `PI` radians.\n *\n * Special cases:\n *   - `acos(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun acos(x: Double): Double = nativeMath.acos(x)\n\n/**\n * Computes the arc tangent of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `atan(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun atan(x: Double): Double = nativeMath.atan(x)\n\n/**\n * Returns the angle `theta` of the polar coordinates `(r, theta)` that correspond\n * to the rectangular coordinates `(x, y)` by computing the arc tangent of the value [y] / [x];\n * the returned value is an angle in the range from `-PI` to `PI` radians.\n *\n * Special cases:\n *   - `atan2(0.0, 0.0)` is `0.0`\n *   - `atan2(0.0, x)` is `0.0` for `x > 0` and `PI` for `x < 0`\n *   - `atan2(-0.0, x)` is `-0.0` for 'x > 0` and `-PI` for `x < 0`\n *   - `atan2(y, +Inf)` is `0.0` for `0 < y < +Inf` and `-0.0` for '-Inf < y < 0`\n *   - `atan2(y, -Inf)` is `PI` for `0 < y < +Inf` and `-PI` for `-Inf < y < 0`\n *   - `atan2(y, 0.0)` is `PI/2` for `y > 0` and `-PI/2` for `y < 0`\n *   - `atan2(+Inf, x)` is `PI/2` for finite `x`y\n *   - `atan2(-Inf, x)` is `-PI/2` for finite `x`\n *   - `atan2(NaN, x)` and `atan2(y, NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun atan2(y: Double, x: Double): Double = nativeMath.atan2(y, x)\n\n/**\n * Computes the hyperbolic sine of the value [x].\n *\n * Special cases:\n *   - `sinh(NaN)` is `NaN`\n *   - `sinh(+Inf)` is `+Inf`\n *   - `sinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sinh(x: Double): Double =

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nativeMath.sinh(x)\n\n/**\n * Computes the hyperbolic
 cosine of the value [x].\n *\n * Special cases:\n *   - `cosh(NaN)` is `NaN`\n *   - `cosh(+Inf|-Inf)` is `+Inf`\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun cosh(x: Double): Double =
nativeMath.cosh(x)\n\n/**\n * Computes the hyperbolic tangent of the value [x].\n *\n * Special cases:\n *   -
`tanh(NaN)` is `NaN`\n *   - `tanh(+Inf)` is `1.0`\n *   - `tanh(-Inf)` is `-1.0`\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun tanh(x: Double): Double =
nativeMath.tanh(x)\n\n/**\n * Computes the inverse hyperbolic sine of the value [x].\n *\n * The returned value is
`y` such that `sinh(y) == x`.\n *\n * Special cases:\n *   - `asinh(NaN)` is `NaN`\n *   - `asinh(+Inf)` is `+Inf`\n *   -
`asinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun asinh(x: Double): Double
= nativeMath.asinh(x)\n\n/**\n * Computes the inverse hyperbolic cosine of the value [x].\n *\n * The returned
value is positive `y` such that `cosh(y) ==
 x`.\n *\n * Special cases:\n *   - `acosh(NaN)` is `NaN`\n *   - `acosh(x)` is `NaN` when `x < 1`\n *   - `acosh(+Inf)`
is `+Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun acosh(x: Double): Double =
nativeMath.acosh(x)\n\n/**\n * Computes the inverse hyperbolic tangent of the value [x].\n *\n * The returned value
is `y` such that `tanh(y) == x`.\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(x)` is `NaN` when `x
> 1` or `x < -1`\n *   - `tanh(1.0)` is `+Inf`\n *   - `tanh(-1.0)` is `-Inf`\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun atanh(x: Double): Double =
nativeMath.atanh(x)\n\n/**\n * Computes `sqrt(x^2 + y^2)` without intermediate overflow or underflow.\n *\n *
Special cases:\n *   - returns `+Inf` if any of arguments is infinite\n *   - returns `NaN` if any of arguments is `NaN`
and the other is not infinite\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun hypot(x: Double, y:
Double): Double =
 nativeMath.hypot(x, y)\n\n/**\n * Computes the positive square root of the value [x].\n *\n * Special cases:\n *   -
`sqrt(x)` is `NaN` when `x < 0` or `x` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun
sqrt(x: Double): Double = nativeMath.sqrt(x)\n\n/**\n * Computes Euler's number `e` raised to the power of the
value [x].\n *\n * Special cases:\n *   - `exp(NaN)` is `NaN`\n *   - `exp(+Inf)` is `+Inf`\n *   - `exp(-Inf)` is `0.0`\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun exp(x: Double): Double =
nativeMath.exp(x)\n\n/**\n * Computes `exp(x) - 1`.\n *\n * This function can be implemented to produce more
precise result for [x] near zero.\n *\n * Special cases:\n *   - `expm1(NaN)` is `NaN`\n *   - `expm1(+Inf)` is `+Inf`\n
*   - `expm1(-Inf)` is `-1.0`\n *\n * @see [exp] function.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual
inline fun expm1(x: Double): Double = nativeMath.expm1(x)\n\n/**\n * Computes the logarithm of the
 value [x] to the given [base].\n *\n * Special cases:\n *   - `log(x, b)` is `NaN` if either `x` or `b` are `NaN`\n *   -
`log(x, b)` is `NaN` when `x < 0` or `b <= 0` or `b == 1.0`\n *   - `log(+Inf, +Inf)` is `NaN`\n *   - `log(+Inf, b)` is
`+Inf` for `b > 1` and `-Inf` for `b < 1`\n *   - `log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b > 1`\n *\n * See also
logarithm functions for common fixed bases: [ln], [log10] and [log2].\n */\n@SinceKotlin(\"1.2\")\npublic actual
fun log(x: Double, base: Double): Double {\n    if (base <= 0.0 || base == 1.0) return Double.NaN\n    return
nativeMath.log(x) / nativeMath.log(base)\n}\n\n/**\n * Computes the natural logarithm (base `E`) of the value [x].\n
*\n * Special cases:\n *   - `ln(NaN)` is `NaN`\n *   - `ln(x)` is `NaN` when `x < 0.0`\n *   - `ln(+Inf)` is `+Inf`\n *   -
`ln(0.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun ln(x: Double): Double =
nativeMath.log(x)\n\n/**\n * Computes the common logarithm
 (base 10) of the value [x].\n *\n * @see [ln] function for special cases.\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun log10(x: Double): Double =
nativeMath.log10(x)\n\n/**\n * Computes the binary logarithm (base 2) of the value [x].\n *\n * @see [ln] function
for special cases.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun log2(x: Double): Double =
nativeMath.log2(x)\n\n/**\n * Computes `ln(x + 1)`.\n *\n * This function can be implemented to produce more
precise result for [x] near zero.\n *\n * Special cases:\n *   - `ln1p(NaN)` is `NaN`\n *   - `ln1p(x)` is `NaN` where `x
< -1.0`\n *   - `ln1p(-1.0)` is `-Inf`\n *   - `ln1p(+Inf)` is `+Inf`\n *\n * @see [ln] function\n * @see [expm1]
function\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun ln1p(x: Double): Double =
nativeMath.log1p(x)\n\n/**\n * Rounds the given value [x] to an integer towards positive infinity.\n\n * @return the
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smallest double value that is greater
 than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `ceil(x)` is `x` where
`x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun ceil(x: Double): Double =
nativeMath.ceil(x)\n\n/**\n * Rounds the given value [x] to an integer towards negative infinity.\n\n * @return the
largest double value that is smaller than or equal to the given value [x] and is a mathematical integer.\n *\n * Special
cases:\n *   - `floor(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun floor(x: Double): Double =
nativeMath.floor(x)\n\n/**\n * Rounds the given value [x] to an integer towards zero.\n *\n * @return the value [x]
having its fractional part truncated.\n *\n * Special cases:\n *   - `truncate(x)` is `x` where `x` is `NaN` or `+Inf` or `-
Inf` or already a mathematical integer.\n
 */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun truncate(x: Double): Double =
nativeMath.trunc(x)\n\n/**\n * Rounds the given value [x] towards the closest integer with ties rounded towards
even integer.\n *\n * Special cases:\n *   - `round(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a
mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic actual fun round(x: Double): Double {\n    if (x % 0.5 !=
0.0) {\n        return nativeMath.round(x)\n    }\n    val floor = floor(x)\n    return if (floor % 2 == 0.0) floor else
ceil(x)\n}\n\n/**\n * Returns the absolute value of the given value [x].\n *\n * Special cases:\n *   - `abs(NaN)` is
`NaN`\n *\n * @see absoluteValue extension property for [Double]\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun abs(x: Double): Double =
nativeMath.abs(x)\n\n/**\n * Returns the sign of the given value [x]:\n *   - `-1.0` if the value is negative,\n *   - zero
if the value is zero,\n *   - `1.0` if
 the value is positive\n *\n * Special case:\n *   - `sign(NaN)` is `NaN`\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sign(x: Double): Double =
nativeMath.sign(x)\n\n\n/**\n * Returns the smaller of two values.\n *\n * If either value is `NaN`, then the result is
`NaN`.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun min(a: Double, b: Double): Double =
nativeMath.min(a, b)\n\n/**\n * Returns the greater of two values.\n *\n * If either value is `NaN`, then the result is
`NaN`.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun max(a: Double, b: Double): Double =
nativeMath.max(a, b)\n\n// extensions\n\n/**\n * Raises this value to the power [x].\n *\n * Special cases:\n *   -
`b.pow(0.0)` is `1.0`\n *   - `b.pow(1.0) == b`\n *   - `b.pow(NaN)` is `NaN`\n *   - `NaN.pow(x)` is `NaN` for `x !=
0.0`\n *   - `b.pow(Inf)` is `NaN` for `abs(b) == 1.0`\n *   - `b.pow(x)` is `NaN` for `b < 0` and `x` is finite and not
an integer\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic
 actual inline fun Double.pow(x: Double): Double = nativeMath.pow(this, x)\n\n/**\n * Raises this value to the
integer power [n].\n *\n * See the other overload of [pow] for details.\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Double.pow(n: Int): Double =
nativeMath.pow(this, n.toDouble())\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n *   -
`NaN.absoluteValue` is `NaN`\n *\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual
inline val Double.absoluteValue: Double get() = nativeMath.abs(this)\n\n/**\n * Returns the sign of this value:\n *
- `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special
case:\n *   - `NaN.sign` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline val Double.sign:
Double get() = nativeMath.sign(this)\n\n/**\n * Returns this value with the sign bit same as
 of the [sign] value.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Double.withSign(sign: Int):
Double = this.withSign(sign.toDouble())\n\n/**\n * Returns the ulp (unit in the last place) of this value.\n *\n * An
ulp is a positive distance between this value and the next nearest [Double] value larger in magnitude.\n *\n * Special
Cases:\n *   - `NaN.ulp` is `NaN`\n *   - `x.ulp` is `+Inf` when `x` is `+Inf` or `-Inf`\n *   - `0.0.ulp` is
`Double.MIN_VALUE`\n */\n@SinceKotlin(\"1.2\")\npublic actual val Double.ulp: Double get() = when {\n    this
< 0 -> (-this).ulp\n    this.isNaN() || this == Double.POSITIVE_INFINITY -> this\n    this ==
Double.MAX_VALUE -> this - this.nextDown()\n    else -> this.nextUp() - this\n}\n\n/**\n * Returns the [Double]
value nearest to this value in direction of positive infinity.\n */\n@SinceKotlin(\"1.2\")\npublic actual fun
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Double.nextUp(): Double = when {\n   this.isNaN() || this == Double.POSITIVE_INFINITY -> this\n   this == 0.0 -> Double.MIN_VALUE\n   else -> Double.fromBits(this.toRawBits() + if (this > 0) 1 else -1)\n}\n\n/**\n * Returns the [Double] value nearest to this value in direction of negative infinity.\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Double.nextDown(): Double = when {\n   this.isNaN() || this == Double.NEGATIVE_INFINITY -> this\n   this == 0.0 -> -Double.MIN_VALUE\n   else -> Double.fromBits(this.toRawBits() + if (this > 0) -1 else 1)\n}\n\n\n/**\n * Returns the [Double] value nearest to this value in direction from this value towards the value [to].\n *\n * Special cases:\n *   - `x.nextTowards(y)` is `NaN` if either `x` or `y` are `NaN`\n *   - `x.nextTowards(x) == x`\n *\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Double.nextTowards(to: Double): Double = when {\n   this.isNaN() || to.isNaN() -> Double.NaN\n   to == this -> to\n   to > this -> this.nextUp()\n   else /* to < this */ -> this.nextDown()\n}\n\n\n/**\n * Rounds this [Double] value to the nearest integer and

converts the result to [Int].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToInt() == Int.MAX_VALUE` when `x > Int.MAX_VALUE`\n *   - `x.roundToInt() == Int.MIN_VALUE` when `x < Int.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Double.roundToInt(): Int = when {\n   isNaN() -> throw IllegalArgumentException(\"Cannot round NaN value.\")\n   this > Int.MAX_VALUE -> Int.MAX_VALUE\n   this < Int.MIN_VALUE -> Int.MIN_VALUE\n   else -> nativeMath.round(this).toInt()\n}\n\n/**\n * Rounds this [Double] value to the nearest integer and converts the result to [Long].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToLong() == Long.MAX_VALUE` when `x > Long.MAX_VALUE`\n *   - `x.roundToLong() == Long.MIN_VALUE` when `x < Long.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic

actual fun Double.roundToLong(): Long = when {\n   isNaN() -> throw IllegalArgumentException(\"Cannot round NaN value.\")\n   this > Long.MAX_VALUE -> Long.MAX_VALUE\n   this < Long.MIN_VALUE -> Long.MIN_VALUE\n   else -> nativeMath.round(this).toLong()\n}\n\n// endregion\n\n\n\n// region ================ Float Math ==\n\n/** Computes the sine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `sin(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sin(x: Float): Float = nativeMath.sin(x.toDouble()).toFloat()\n\n/** Computes the cosine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `cos(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun cos(x: Float): Float = nativeMath.cos(x.toDouble()).toFloat()\n\n/** Computes the tangent of the angle [x] given in radians.\n *\n * Special cases:\n *   - `tan(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic

actual inline fun tan(x: Float): Float = nativeMath.tan(x.toDouble()).toFloat()\n\n/**\n * Computes the arc sine of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `asin(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun asin(x: Float): Float = nativeMath.asin(x.toDouble()).toFloat()\n\n/**\n * Computes the arc cosine of the value [x];\n * the returned value is an angle in the range from `0.0` to `PI` radians.\n *\n * Special cases:\n *   - `acos(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun acos(x: Float): Float = nativeMath.acos(x.toDouble()).toFloat()\n\n/**\n * Computes the arc tangent of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `atan(NaN)` is `NaN`\n

*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun atan(x: Float): Float = nativeMath.atan(x.toDouble()).toFloat()\n\n/**\n * Returns the angle `theta` of the polar coordinates `(r, theta)` that correspond\n * to the rectangular coordinates `(x, y)` by computing the arc tangent of the value [y] / [x];\n * the returned value is an angle in the range from `-PI` to `PI` radians.\n *\n * Special cases:\n *   - `atan2(0.0, 0.0)` is `0.0`\n *   - `atan2(0.0, x)` is `0.0` for `x > 0` and `PI` for `x < 0`\n *   - `atan2(-0.0, x)` is `-0.0` for 'x > 0` and `-PI` for `x < 0`\n *   - `atan2(y, +Inf)` is `0.0` for `0 < y < +Inf` and `-0.0` for '-Inf < y < 0`\n *   - `atan2(y, -Inf)` is `PI` for `0 < y < +Inf` and `-PI` for `-Inf < y < 0`\n *   - `atan2(y, 0.0)` is `PI/2` for `y > 0` and `-PI/2` for `y < 0`\n *   -

`atan2(+Inf, x)` is `PI/2` for finite `x`y\n *   - `atan2(-Inf, x)` is `-PI/2` for finite `x`\n *   - `atan2(NaN, x)` and `atan2(y, NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic

actual inline fun atan2(y: Float, x: Float): Float = nativeMath.atan2(y.toDouble(), x.toDouble()).toFloat()\n\n/**\n * Computes the hyperbolic sine of the value [x].\n *\n * Special cases:\n *   - `sinh(NaN)` is `NaN`\n *   - `sinh(+Inf)` is `+Inf`\n *   - `sinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sinh(x: Float): Float = nativeMath.sinh(x.toDouble()).toFloat()\n\n/**\n * Computes the hyperbolic cosine of the value [x].\n *\n * Special cases:\n *   - `cosh(NaN)` is `NaN`\n *   - `cosh(+Inf|-Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun cosh(x: Float): Float = nativeMath.cosh(x.toDouble()).toFloat()\n\n/**\n * Computes the hyperbolic tangent of the value [x].\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(+Inf)` is `1.0`\n *   - `tanh(-Inf)` is `-1.0`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun tanh(x: Float): Float = nativeMath.tanh(x.toDouble()).toFloat()\n\n/**\n

* Computes the inverse hyperbolic sine of the value [x].\n *\n * The returned value is `y` such that `sinh(y) == x`.\n *\n * Special cases:\n *   - `asinh(NaN)` is `NaN`\n *   - `asinh(+Inf)` is `+Inf`\n *   - `asinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun asinh(x: Float): Float = nativeMath.asinh(x.toDouble()).toFloat()\n\n/**\n * Computes the inverse hyperbolic cosine of the value [x].\n *\n * The returned value is positive `y` such that `cosh(y) == x`.\n *\n * Special cases:\n *   - `acosh(NaN)` is `NaN`\n *   - `acosh(x)` is `NaN` when `x < 1`\n *   - `acosh(+Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun acosh(x: Float): Float = nativeMath.acosh(x.toDouble()).toFloat()\n\n/**\n * Computes the inverse hyperbolic tangent of the value [x].\n *\n * The returned value is `y` such that `tanh(y) == x`.\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(x)` is `NaN`

when `x > 1` or `x < -1`\n *   - `tanh(1.0)` is `+Inf`\n *   - `tanh(-1.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun atanh(x: Float): Float = nativeMath.atanh(x.toDouble()).toFloat()\n\n/**\n * Computes `sqrt(x^2 + y^2)` without intermediate overflow or underflow.\n *\n * Special cases:\n *   - returns `+Inf` if any of arguments is infinite\n *   - returns `NaN` if any of arguments is `NaN` and the other is not infinite\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun hypot(x: Float, y: Float): Float = nativeMath.hypot(x.toDouble(), y.toDouble()).toFloat()\n\n/**\n * Computes the positive square root of the value [x].\n *\n * Special cases:\n *   - `sqrt(x)` is `NaN` when `x < 0` or `x` is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sqrt(x: Float): Float = nativeMath.sqrt(x.toDouble()).toFloat()\n\n/**\n * Computes Euler's number `e` raised to the power of the value [x].\n *\n * Special cases:\n *   - `exp(NaN)`

is `NaN`\n *   - `exp(+Inf)` is `+Inf`\n *   - `exp(-Inf)` is `0.0`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun exp(x: Float): Float = nativeMath.exp(x.toDouble()).toFloat()\n\n/**\n * Computes `exp(x) - 1`.\n *\n * This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `expm1(NaN)` is `NaN`\n *   - `expm1(+Inf)` is `+Inf`\n *   - `expm1(-Inf)` is `-1.0`\n *\n * @see [exp] function.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun expm1(x: Float): Float = nativeMath.expm1(x.toDouble()).toFloat()\n\n/**\n * Computes the logarithm of the value [x] to the given [base].\n *\n * Special cases:\n *   - `log(x, b)` is `NaN` if either `x` or `b` are `NaN`\n *   - `log(x, b)` is `NaN` when `x < 0` or `b <= 0` or `b == 1.0`\n *   - `log(+Inf, +Inf)` is `NaN`\n *   - `log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1`\n *   - `log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b >

1`\n *\n * See also logarithm functions for common fixed bases: [ln], [log10] and [log2].\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun log(x: Float, base: Float): Float = log(x.toDouble(), base.toDouble()).toFloat()\n\n/**\n * Computes the natural logarithm (base `E`) of the value [x].\n *\n * Special cases:\n *   - `ln(NaN)` is `NaN`\n *   - `ln(x)` is `NaN` when `x < 0.0`\n *   - `ln(+Inf)` is `+Inf`\n *   - `ln(0.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun ln(x: Float): Float = nativeMath.log(x.toDouble()).toFloat()\n\n/**\n * Computes the common logarithm (base 10) of the value [x].\n *\n * @see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun log10(x: Float): Float = nativeMath.log10(x.toDouble()).toFloat()\n\n/**\n * Computes the binary logarithm (base 2) of the

value [x].\n *\n * @see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual
 inline fun log2(x: Float): Float = nativeMath.log2(x.toDouble()).toFloat()\n\n/**\n * Computes `ln(a + 1)`.\n *\n *
This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   -
`ln1p(NaN)` is `NaN`\n *   - `ln1p(x)` is `NaN` where `x < -1.0`\n *   - `ln1p(-1.0)` is `-Inf`\n *   - `ln1p(+Inf)` is
`+Inf`\n *\n * @see [ln] function\n * @see [expm1] function\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic
actual inline fun ln1p(x: Float): Float = nativeMath.log1p(x.toDouble()).toFloat()\n\n/**\n * Rounds the given value
[x] to an integer towards positive infinity.\n\n * @return the smallest Float value that is greater than or equal to the
given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `ceil(x)` is `x` where `x` is `NaN` or
`+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline
fun ceil(x: Float): Float = nativeMath.ceil(x.toDouble()).toFloat()\n\n/**\n
 * Rounds the given value [x] to an integer towards negative infinity.\n\n * @return the largest Float value that is
smaller than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `floor(x)` is
`x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun floor(x: Float): Float =
nativeMath.floor(x.toDouble()).toFloat()\n\n/**\n * Rounds the given value [x] to an integer towards zero.\n *\n *
@return the value [x] having its fractional part truncated.\n *\n * Special cases:\n *   - `truncate(x)` is `x` where `x`
is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic
actual inline fun truncate(x: Float): Float = truncate(x.toDouble()).toFloat()\n\n/**\n * Rounds the given value [x]
towards the closest integer with ties rounded towards even integer.\n *\n * Special cases:\n *   - `round(x)` is `x`
where
 `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun round(x: Float): Float =
round(x.toDouble()).toFloat()\n\n\n/**\n * Returns the absolute value of the given value [x].\n *\n * Special cases:\n
*   - `abs(NaN)` is `NaN`\n *\n * @see absoluteValue extension property for [Float]\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun abs(x: Float): Float =
nativeMath.abs(x.toDouble()).toFloat()\n\n/**\n * Returns the sign of the given value [x]:\n *   - `-1.0` if the value is
negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `sign(NaN)`
is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun sign(x: Float): Float =
nativeMath.sign(x.toDouble()).toFloat()\n\n\n\n/**\n * Returns the smaller of two values.\n *\n * If either value is
`NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic
 actual inline fun min(a: Float, b: Float): Float = nativeMath.min(a, b)\n\n/**\n * Returns the greater of two
values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic
actual inline fun max(a: Float, b: Float): Float = nativeMath.max(a, b)\n\n// extensions\n\n\n/**\n * Raises this value
to the power [x].\n *\n * Special cases:\n *   - `b.pow(0.0)` is `1.0`\n *   - `b.pow(1.0) == b`\n *   - `b.pow(NaN)` is
`NaN`\n *   - `NaN.pow(x)` is `NaN` for `x != 0.0`\n *   - `b.pow(Inf)` is `NaN` for `abs(b) == 1.0`\n *   - `b.pow(x)`
is `NaN` for `b < 0` and `x` is finite and not an integer\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual
inline fun Float.pow(x: Float): Float = nativeMath.pow(this.toDouble(), x.toDouble()).toFloat()\n\n/**\n * Raises
this value to the integer power [n].\n *\n * See the other overload of [pow] for details.\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Float.pow(n: Int): Float
 = nativeMath.pow(this.toDouble(), n.toDouble()).toFloat()\n\n/**\n * Returns the absolute value of this value.\n *\n
* Special cases:\n *   - `NaN.absoluteValue` is `NaN`\n *\n * @see abs function\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline val Float.absoluteValue: Float get() =
nativeMath.abs(this.toDouble()).toFloat()\n\n/**\n * Returns the sign of this value:\n *   - `-1.0` if the value is
negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `NaN.sign` is
`NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline val Float.sign: Float get() =
nativeMath.sign(this.toDouble()).toFloat()\n\n/**\n * Returns this value with the sign bit same as of the [sign]
value.\n *\n * If [sign] is `NaN` the sign of the result is undefined.\n
*/\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Float.withSign(sign: Float): Float =

this.toDouble().withSign(sign.toDouble()).toFloat()\n\n/**\n * Returns
 this value with the sign bit same as of the [sign] value.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Float.withSign(sign: Int): Float = this.toDouble().withSign(sign.toDouble()).toFloat()\n\n\n/**\n * Rounds this [Float] value to the nearest integer and converts the result to [Int].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToInt() == Int.MAX_VALUE` when `x > Int.MAX_VALUE`\n *   - `x.roundToInt() == Int.MIN_VALUE` when `x < Int.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Float.roundToInt(): Int = toDouble().roundToInt()\n\n/**\n * Rounds this [Float] value to the nearest integer and converts the result to [Long].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToLong() == Long.MAX_VALUE` when `x > Long.MAX_VALUE`\n *   - `x.roundToLong() == Long.MIN_VALUE` when `x < Long.MIN_VALUE`\n
 *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun Float.roundToLong(): Long = toDouble().roundToLong()\n\n\n// endregion\n\n// region ================ Integer Math ==\n\n\n/**\n * Returns the absolute value of the given value [n].\n *\n * Special cases:\n *   - `abs(Int.MIN_VALUE)` is `Int.MIN_VALUE` due to an overflow\n *\n * @see absoluteValue extension property for [Int]\n */\n// TODO: remove manual 'or' when KT-19290 is fixed\n@SinceKotlin(\"1.2\")\npublic actual fun abs(n: Int): Int = if (n < 0) (-n or 0) else n\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun min(a: Int, b: Int): Int = nativeMath.min(a, b)\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline fun max(a: Int, b: Int): Int = nativeMath.max(a, b)\n\n/**\n * Returns the absolute
 value of this value.\n *\n * Special cases:\n *   - `Int.MIN_VALUE.absoluteValue` is `Int.MIN_VALUE` due to an overflow\n *\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline val Int.absoluteValue: Int get() = abs(this)\n\n/**\n * Returns the sign of this value:\n *   - `-1` if the value is negative,\n *   - `0` if the value is zero,\n *   - `1` if the value is positive\n */\n@SinceKotlin(\"1.2\")\npublic actual val Int.sign: Int get() = when {\n   this < 0 -> -1\n   this > 0 -> 1\n   else -> 0\n}\n\n\n\n/**\n * Returns the absolute value of the given value [n].\n *\n * Special cases:\n *   - `abs(Long.MIN_VALUE)` is `Long.MIN_VALUE` due to an overflow\n *\n * @see absoluteValue extension property for [Long]\n */\n@SinceKotlin(\"1.2\")\npublic actual fun abs(n: Long): Long = if (n < 0) -n else n\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.2\")\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun min(a: Long, b: Long):
 Long = if (a <= b) a else b\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.2\")\n@Suppress(\"NOTHING_TO_INLINE\")\npublic actual inline fun max(a: Long, b: Long): Long = if (a >= b) a else b\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n *   - `Long.MIN_VALUE.absoluteValue` is `Long.MIN_VALUE` due to an overflow\n *\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\npublic actual inline val Long.absoluteValue: Long get() = abs(this)\n\n/**\n * Returns the sign of this value:\n *   - `-1` if the value is negative,\n *   - `0` if the value is zero,\n *   - `1` if the value is positive\n */\n@SinceKotlin(\"1.2\")\npublic actual val Long.sign: Int get() = when {\n   this < 0 -> -1\n   this > 0 -> 1\n   else -> 0\n}\n\n\n// endregion\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt
 file.\n */\n\npackage kotlin\n\n/**\n * Returns `true` if the specified number is a\n * Not-a-Number (NaN) value, `false` otherwise.\n */\npublic actual fun Double.isNaN(): Boolean = this != this\n\n/**\n * Returns `true` if the specified number is a\n * Not-a-Number (NaN) value, `false` otherwise.\n */\npublic actual fun Float.isNaN(): Boolean = this != this\n\n/**\n * Returns `true` if this value is infinitely large in magnitude.\n */\npublic actual fun Double.isInfinite(): Boolean = this == Double.POSITIVE_INFINITY || this == Double.NEGATIVE_INFINITY\n\n/**\n * Returns `true` if this value is infinitely large in magnitude.\n */\npublic

actual fun Float.isInfinite(): Boolean = this == Float.POSITIVE_INFINITY || this == Float.NEGATIVE_INFINITY\n\n/**\n * Returns `true` if the argument is a finite floating-point value; returns `false` otherwise (for `NaN` and infinity arguments).\n */\npublic actual fun Double.isFinite(): Boolean = !isInfinite() && !isNaN()\n\n/**\n *

Returns `true` if the argument is a finite floating-point value; returns `false` otherwise (for `NaN` and infinity arguments).\n */\npublic actual fun Float.isFinite(): Boolean = !isInfinite() && !isNaN()\n\n\n/**\n * Counts the number of set bits in the binary representation of this [Int] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Int.countOneBits(): Int {\n   // Hacker's Delight 5-1 algorithm\n   var v = this\n   v = (v and 0x55555555) + (v.ushr(1) and 0x55555555)\n   v = (v and 0x33333333) + (v.ushr(2) and 0x33333333)\n   v = (v and 0x0F0F0F0F) + (v.ushr(4) and 0x0F0F0F0F)\n   v = (v and 0x00FF00FF) + (v.ushr(8) and 0x00FF00FF)\n   v = (v and 0x0000FFFF) + (v.ushr(16))\n   return v\n}\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Int] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic

actual inline fun Int.countLeadingZeroBits(): Int = JsMath.clz32(this)\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Int] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Int.countTrailingZeroBits(): Int =\n   // Hacker's Delight 5-4 algorithm for expressing countTrailingZeroBits with countLeadingZeroBits\n   Int.SIZE_BITS - (this or -this).inv().countLeadingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [Int] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Int.takeHighestOneBit(): Int =\n   if (this == 0) 0 else 1.shl(Int.SIZE_BITS - 1 - countLeadingZeroBits())\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Int] number,\n *

or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Int.takeLowestOneBit(): Int =\n   // Hacker's Delight 2-1 algorithm for isolating rightmost 1-bit\n   this and -this\n\n/**\n * Rotates the binary representation of this [Int] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Int.SIZE_BITS] (32) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 32)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Int.rotateLeft(bitCount: Int): Int =\n   shl(bitCount) or ushr(Int.SIZE_BITS - bitCount)\n\n\n/**\n

* Rotates the binary representation of this [Int] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Int.SIZE_BITS] (32) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 32)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Int.rotateRight(bitCount: Int): Int =\n   shl(Int.SIZE_BITS - bitCount) or ushr(bitCount)\n\n\n/**\n * Counts the number of set bits in the binary representation of this [Long] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Long.countOneBits(): Int =\n   high.countOneBits() + low.countOneBits()\n\n/**\n

* Counts the number of consecutive most significant bits that are zero in the binary representation of this [Long] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Long.countLeadingZeroBits(): Int =\n   when (val high = this.high) {\n   0 -> Int.SIZE_BITS + low.countLeadingZeroBits()\n   else -> high.countLeadingZeroBits()\n   }\n\n/**\n * Counts the number of

consecutive least significant bits that are zero in the binary representation of this [Long] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Long.countTrailingZeroBits(): Int =\n   when (val low = this.low) {\n   0 -> Int.SIZE_BITS + high.countTrailingZeroBits()\n   else -> low.countTrailingZeroBits()\n   }\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [Long] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic

actual fun Long.takeHighestOneBit(): Long =\n   when (val high = this.high) {\n   0 -> Long(low.takeHighestOneBit(), 0)\n   else -> Long(0, high.takeHighestOneBit())\n   }\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Long] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Long.takeLowestOneBit(): Long =\n   when (val low = this.low) {\n   0 -> Long(0, high.takeLowestOneBit())\n   else -> Long(low.takeLowestOneBit(), 0)\n   }\n\n/**\n * Rotates the binary representation of this [Long] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as

rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Long.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 64)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual fun Long.rotateLeft(bitCount: Int): Long {\n   if ((bitCount and 31) != 0) {\n   val low = this.low\n   val high = this.high\n   val newLow = low.shl(bitCount) or high.ushr(-bitCount)\n   val newHigh = high.shl(bitCount) or low.ushr(-bitCount)\n   return if ((bitCount and 32) == 0) Long(newLow, newHigh) else Long(newHigh, newLow)\n   } else {\n   return if ((bitCount and 32) == 0) this else Long(high, low)\n   }\n}\n\n\n/**\n * Rotates the binary representation of this [Long] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the

most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Long.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 64)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic actual inline fun Long.rotateRight(bitCount: Int): Long = rotateLeft(-bitCount)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\nimport kotlin.internal.LowPriorityInOverloadResolution\n\n/**\n * Exposes the JavaScript [Promise object](https://developer.mozilla.org/en/docs/Web/JavaScript/Reference/Global_Objects/Promise) to Kotlin.\n

*/\n@Suppress(\"NOT_DOCUMENTED\")\npublic open external class Promise<out T>(executor: (resolve: (T) -> Unit, reject: (Throwable) -> Unit) -> Unit) {\n   @LowPriorityInOverloadResolution\n   public open fun <S> then(onFulfilled: ((T) -> S)?): Promise<S>\n\n   @LowPriorityInOverloadResolution\n   public open fun <S> then(onFulfilled: ((T) -> S)?, onRejected: ((Throwable) -> S)?): Promise<S>\n\n   public open fun <S> catch(onRejected: (Throwable) -> S): Promise<S>\n\n   public open fun finally(onFinally: () -> Unit): Promise<T>\n\n   companion object {\n   public fun <S> all(promise: Array<out Promise<S>>): Promise<Array<out S>>\n\n   public fun <S> race(promise: Array<out Promise<S>>): Promise<S>\n\n   public fun reject(e: Throwable): Promise<Nothing>\n\n   public fun <S> resolve(e: S): Promise<S>\n   public fun <S> resolve(e: Promise<S>): Promise<S>\n   }\n}\n\n// It's workaround for KT-19672 since we can fix it properly until KT-11265 isn't fixed.\ninline

fun <T, S> Promise<Promise<T>>.then(\n   noinline onFulfilled: ((T) -> S)?\n): Promise<S> {\n   return this.unsafeCast<Promise<T>>().then(onFulfilled)\n}\n\ninline fun <T, S> Promise<Promise<T>>.then(\n   noinline onFulfilled: ((T) -> S)?,\n   noinline onRejected: ((Throwable) -> S)?\n): Promise<S> {\n   return

this.unsafeCast<Promise<T>>().then(onFulfilled, onRejected)\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.random\n\nimport kotlin.math.pow\n\ninternal actual fun defaultPlatformRandom(): Random =\n   Random(js(\"(Math.random() * Math.pow(2, 32)) | 0\").unsafeCast<Int>())\n\n\nprivate val INV_2_26: Double = 2.0.pow(-26)\nprivate val INV_2_53: Double = 2.0.pow(-53)\ninternal actual fun doubleFromParts(hi26: Int, low27: Int): Double =\n   hi26 * INV_2_26 + low27 * INV_2_53","/*\n
 * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect\n\nimport findAssociatedObject\n\n/**\n * The experimental marker for associated objects API.\n *\n * Any usage of a declaration annotated with `@ExperimentalAssociatedObjects` must be accepted either by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalAssociatedObjects::class)`,\n * or by using the compiler argument `-opt-in=kotlin.reflect.ExperimentalAssociatedObjects`.\n */\n@RequiresOptIn(level = RequiresOptIn.Level.ERROR)\n@Retention(value = AnnotationRetention.BINARY)\npublic annotation class ExperimentalAssociatedObjects\n\n/**\n * Makes the annotated annotation class an associated object key.\n *\n * An associated object key annotation should have single [KClass] parameter.\n * When applied to a class with reference
 to an object declaration as an argument, it binds\n * the object to the class, making this binding discoverable at runtime using [findAssociatedObject].\n */\n@ExperimentalAssociatedObjects\n@Retention(AnnotationRetention.BINARY)\n@Target(AnnotationTarget.ANNOTATION_CLASS)\npublic annotation class AssociatedObjectKey\n\n/**\n * If [T] is an @[AssociatedObjectKey]-annotated annotation class and [this] class is annotated with @[T] (`S::class`),\n * returns object `S`.\n *\n * Otherwise returns `null`.\n */\n@ExperimentalAssociatedObjects\npublic inline fun <reified T : Annotation> KClass<*>.findAssociatedObject(): Any? =\n   this.findAssociatedObject(T::class)","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.js\n\nimport getKClass\nimport kotlin.reflect.KClass\nimport kotlin.reflect.js.internal.KClassImpl\n\n/**\n
 * Represents the constructor of a class. Instances of `JsClass` can be passed to JavaScript APIs that expect a constructor reference.\n */\nexternal interface JsClass<T : Any> {\n   /**\n   * Returns the unqualified name of the class represented by this instance.\n   */\n   val name: String\n}\n\n/**\n * Obtains a constructor reference for the given `KClass`.\n */\nval <T : Any> KClass<T>.js: JsClass<T>\n   get() = (this as KClassImpl<T>).jClass\n\n/**\n * Obtains a `KClass` instance for the given constructor reference.\n */\nval <T : Any> JsClass<T>.kotlin: KClass<T>\n   get() = getKClass(this)\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect.js.internal\n\nimport kotlin.reflect.*\n\ninternal abstract class KClassImpl<T : Any>(\n   internal open val jClass: JsClass<T>\n) : KClass<T>
 {\n\n   override val qualifiedName: String?\n   get() = TODO()\n\n   override fun equals(other: Any?): Boolean {\n   return other is KClassImpl<*> && jClass == other.jClass\n   }\n\n   // TODO: use FQN\n   override fun hashCode(): Int = simpleName?.hashCode() ?: 0\n\n   override fun toString(): String {\n   // TODO: use FQN\n   return \"class $simpleName\"\n   }\n}\n\ninternal class SimpleKClassImpl<T : Any>(jClass: JsClass<T>) : KClassImpl<T>(jClass) {\n   override val simpleName: String? = jClass.asDynamic().`$metadata$`?.simpleName.unsafeCast<String?>()\n\n   override fun isInstance(value: Any?): Boolean {\n   return jsIsType(value, jClass)\n   }\n}\n\ninternal class PrimitiveKClassImpl<T : Any>(\n   jClass: JsClass<T>,\n   private val givenSimpleName: String,\n   private val isInstanceFunction: (Any?) -> Boolean\n) : KClassImpl<T>(jClass) {\n   override fun equals(other: Any?): Boolean {\n   if (other !is PrimitiveKClassImpl<*>) return
 false\n   return super.equals(other) && givenSimpleName == other.givenSimpleName\n   }\n\n   override val simpleName: String? get() = givenSimpleName\n\n   override fun isInstance(value: Any?): Boolean {\n   return

isInstanceFunction(value)\n }\n}\n\ninternal object NothingKClassImpl : KClassImpl<Nothing>(js(\"Object\")) {\n override val simpleName: String = \"Nothing\"\n\n override fun isInstance(value: Any?): Boolean = false\n\n override val jClass: JsClass<Nothing>\n get() = throw UnsupportedOperationException(\"There's no native JS class for Nothing type\")\n\n override fun equals(other: Any?): Boolean = other === this\n\n override fun hashCode(): Int = 0\n}\n\ninternal class ErrorKClass : KClass<Nothing> {\n override val simpleName: String? get() = error(\"Unknown simpleName for ErrorKClass\")\n override val qualifiedName: String? get() = error(\"Unknown qualifiedName for ErrorKClass\")\n\n override fun isInstance(value: Any?): Boolean = error(\"Can's check isInstance on ErrorKClass\")\n\n override fun equals(other: Any?): Boolean = other === this\n\n override fun hashCode(): Int = 0\n}","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect\n\ninternal actual inline val KClass<*>.qualifiedOrSimpleName: String?\n get() = simpleName","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// a package is omitted to get declarations directly under the module\n\n// TODO: Remove once JsReflectionAPICallChecker supports more reflection types\n@file:Suppress(\"Unsupported\")\n\nimport kotlin.reflect.*\nimport kotlin.reflect.js.internal.*\n\n@JsName(\"createKType\")\ninternal fun createKType(\n classifier: KClassifier,\n arguments: Array<KTypeProjection>,\n isMarkedNullable: Boolean\n) =\n KTypeImpl(classifier, arguments.asList(), isMarkedNullable)\n\n@JsName(\"createDynamicKType\")\ninternal fun createDynamicKType(): KType = DynamicKType\n\n@JsName(\"markKTypeNullable\")\ninternal fun markKTypeNullable(kType: KType) = KTypeImpl(kType.classifier!!, kType.arguments, true)\n\n@JsName(\"createKTypeParameter\")\ninternal fun createKTypeParameter(\n name: String,\n upperBounds: Array<KType>,\n variance: String\n): KTypeParameter {\n val kVariance = when (variance) {\n \"in\" -> KVariance.IN\n \"out\" -> KVariance.OUT\n else -> KVariance.INVARIANT\n }\n\n return KTypeParameterImpl(name, upperBounds.asList(), kVariance, false)\n}\n\n@JsName(\"getStarKTypeProjection\")\ninternal fun getStarKTypeProjection(): KTypeProjection =\n KTypeProjection.STAR\n\n@JsName(\"createCovariantKTypeProjection\")\ninternal fun createCovariantKTypeProjection(type: KType): KTypeProjection =\n KTypeProjection.covariant(type)\n\n@JsName(\"createInvariantKTypeProjection\")\ninternal fun createInvariantKTypeProjection(type: KType): KTypeProjection =\n KTypeProjection.invariant(type)\n\n@JsName(\"createContravariantKTypeProjection\")\ninternal fun createContravariantKTypeProjection(type: KType): KTypeProjection =\n KTypeProjection.contravariant(type)\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect.js.internal\n\nimport kotlin.reflect.*\n\ninternal class KTypeImpl(\n override val classifier: KClassifier,\n override val arguments: List<KTypeProjection>,\n override val isMarkedNullable: Boolean\n) : KType {\n override fun equals(other: Any?): Boolean =\n other is KTypeImpl &&\n classifier == other.classifier && arguments == other.arguments && isMarkedNullable == other.isMarkedNullable\n\n override fun hashCode(): Int =\n (classifier.hashCode() * 31 + arguments.hashCode()) * 31 + isMarkedNullable.hashCode()\n\n override fun toString(): String {\n val kClass = (classifier as? KClass<*>)\n val classifierName = when {\n kClass == null -> classifier.toString()\n kClass.simpleName != null -> kClass.simpleName\n else -> \"(non-denotable type)\"\n }\n\n val args =\n if (arguments.isEmpty()) \"\"\n else arguments.joinToString(\", \", \"<\", \">\")\n val nullable = if (isMarkedNullable) \"?\" else \"\"\n\n return classifierName + args + nullable\n }\n}\n\ninternal object DynamicKType : KType {\n override val classifier: KClassifier? = null\n override val arguments: List<KTypeProjection> = emptyList()\n override val isMarkedNullable: Boolean = false\n override fun toString(): String = \"dynamic\"\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect.js.internal\n\nimport kotlin.reflect.*\n\ninternal data class KTypeParameterImpl(\n   override val name: String,\n   override val upperBounds: List<KType>,\n   override val variance: KVariance,\n   override val isReified: Boolean\n) : KTypeParameter {\n   override fun toString(): String = name\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect.js.internal\n\nimport kotlin.js.JsClass\n\n@JsName(\"PrimitiveClasses\")\ninternal object PrimitiveClasses {\n   @JsName(\"anyClass\")\n   val anyClass = PrimitiveKClassImpl(js(\"Object\").unsafeCast<JsClass<Any>>(), \"Any\", { it is Any })\n\n   @JsName(\"numberClass\")\n   val numberClass = PrimitiveKClassImpl(js(\"Number\").unsafeCast<JsClass<Number>>(), \"Number\", { it is Number })\n\n   @JsName(\"nothingClass\")\n   val nothingClass = NothingKClassImpl\n\n   @JsName(\"booleanClass\")\n   val booleanClass = PrimitiveKClassImpl(js(\"Boolean\").unsafeCast<JsClass<Boolean>>(), \"Boolean\", { it is Boolean })\n\n   @JsName(\"byteClass\")\n   val byteClass = PrimitiveKClassImpl(js(\"Number\").unsafeCast<JsClass<Byte>>(), \"Byte\", { it is Byte })\n\n   @JsName(\"shortClass\")\n   val shortClass = PrimitiveKClassImpl(js(\"Number\").unsafeCast<JsClass<Short>>(), \"Short\", { it is Short })\n\n   @JsName(\"intClass\")\n   val intClass = PrimitiveKClassImpl(js(\"Number\").unsafeCast<JsClass<Int>>(), \"Int\", { it is Int })\n\n   @JsName(\"floatClass\")\n   val floatClass = PrimitiveKClassImpl(js(\"Number\").unsafeCast<JsClass<Float>>(), \"Float\", { it is Float })\n\n   @JsName(\"doubleClass\")\n   val doubleClass = PrimitiveKClassImpl(js(\"Number\").unsafeCast<JsClass<Double>>(), \"Double\", { it is Double })\n\n   @JsName(\"arrayClass\")\n   val arrayClass = PrimitiveKClassImpl(js(\"Array\").unsafeCast<JsClass<Array<*>>>(), \"Array\", { it is Array<*> })\n\n   @JsName(\"stringClass\")\n   val stringClass = PrimitiveKClassImpl(js(\"String\").unsafeCast<JsClass<String>>(), \"String\", { it is String })\n\n   @JsName(\"throwableClass\")\n   val throwableClass = PrimitiveKClassImpl(js(\"Error\").unsafeCast<JsClass<Throwable>>(), \"Throwable\", { it is Throwable })\n\n   @JsName(\"booleanArrayClass\")\n   val booleanArrayClass = PrimitiveKClassImpl(js(\"Array\").unsafeCast<JsClass<BooleanArray>>(), \"BooleanArray\", { it is BooleanArray })\n\n   @JsName(\"charArrayClass\")\n   val charArrayClass = PrimitiveKClassImpl(js(\"Uint16Array\").unsafeCast<JsClass<CharArray>>(), \"CharArray\", { it is CharArray })\n\n

@JsName(\"byteArrayClass\")\n   val byteArrayClass = PrimitiveKClassImpl(js(\"Int8Array\").unsafeCast<JsClass<ByteArray>>(), \"ByteArray\", { it is ByteArray })\n\n   @JsName(\"shortArrayClass\")\n   val shortArrayClass = PrimitiveKClassImpl(js(\"Int16Array\").unsafeCast<JsClass<ShortArray>>(), \"ShortArray\", { it is ShortArray })\n\n   @JsName(\"intArrayClass\")\n   val intArrayClass = PrimitiveKClassImpl(js(\"Int32Array\").unsafeCast<JsClass<IntArray>>(), \"IntArray\", { it is IntArray })\n\n   @JsName(\"longArrayClass\")\n   val longArrayClass = PrimitiveKClassImpl(js(\"Array\").unsafeCast<JsClass<LongArray>>(), \"LongArray\", { it is LongArray })\n\n   @JsName(\"floatArrayClass\")\n   val floatArrayClass = PrimitiveKClassImpl(js(\"Float32Array\").unsafeCast<JsClass<FloatArray>>(), \"FloatArray\", { it is FloatArray })\n\n   @JsName(\"doubleArrayClass\")\n   val doubleArrayClass = PrimitiveKClassImpl(js(\"Float64Array\").unsafeCast<JsClass<DoubleArray>>(), \"DoubleArray\", { it is DoubleArray })\n\n   @JsName(\"functionClass\")\n   fun functionClass(arity: Int): KClassImpl<Any> {\n   return functionClasses.get(arity) ?: run {\n   val result = PrimitiveKClassImpl(js(\"Function\").unsafeCast<JsClass<Any>>(), \"Function$arity\",\n { jsTypeOf(it) === \"function\" && it.asDynamic().length === arity })\n   functionClasses.asDynamic()[arity]

= result\n result\n }\n }\n}\n\nprivate val functionClasses = arrayOfNulls<KClassImpl<Any>>(0)","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// a package is omitted to get declarations directly under the module\n\nimport kotlin.reflect.*\nimport kotlin.reflect.js.internal.*\n\n@JsName(\"getKClass\")\ninternal fun <T : Any> getKClass(jClass: Any /* JsClass<T>
 | Array<JsClass<T>> */): KClass<T> {\n return if (js(\"Array\").isArray(jClass)) {\n getKClassM(jClass.unsafeCast<Array<JsClass<T>>>())\n } else {\n getKClass1(jClass.unsafeCast<JsClass<T>>())\n }\n}\n\n@JsName(\"getKClassM\")\ninternal fun <T : Any> getKClassM(jClasses: Array<JsClass<T>>): KClass<T> = when (jClasses.size) {\n 1 -> getKClass1(jClasses[0])\n 0 -> NothingKClassImpl.unsafeCast<KClass<T>>()\n else -> ErrorKClass().unsafeCast<KClass<T>>()\n}\n\n@JsName(\"getKClassFromExpression\")\ninternal fun <T : Any> getKClassFromExpression(e: T): KClass<T> =\n when (jsTypeOf(e)) {\n \"string\" -> PrimitiveClasses.stringClass\n \"number\" -> if (jsBitwiseOr(e, 0).asDynamic() === e) PrimitiveClasses.intClass else PrimitiveClasses.doubleClass\n \"boolean\" -> PrimitiveClasses.booleanClass\n \"function\" -> PrimitiveClasses.functionClass(e.asDynamic().length)\n else -> {\n when {\n e is BooleanArray
 -> PrimitiveClasses.booleanArrayClass\n e is CharArray -> PrimitiveClasses.charArrayClass\n e is ByteArray -> PrimitiveClasses.byteArrayClass\n e is ShortArray -> PrimitiveClasses.shortArrayClass\n e is IntArray -> PrimitiveClasses.intArrayClass\n e is LongArray -> PrimitiveClasses.longArrayClass\n e is FloatArray -> PrimitiveClasses.floatArrayClass\n e is DoubleArray -> PrimitiveClasses.doubleArrayClass\n e is KClass<*> -> KClass::class\n e is Array<*> -> PrimitiveClasses.arrayClass\n else -> {\n val constructor = js(\"Object\").getPrototypeOf(e).constructor\n when {\n constructor === js(\"Object\") -> PrimitiveClasses.anyClass\n constructor === js(\"Error\") -> PrimitiveClasses.throwableClass\n else -> {\n val jsClass: JsClass<T> = constructor\n getKClass1(jsClass)\n }\n }\n }\n }\n }\n }.unsafeCast<KClass<T>>()\n\n@JsName(\"getKClass1\")\ninternal fun <T : Any> getKClass1(jClass: JsClass<T>): KClass<T> {\n if (jClass === js(\"String\")) return PrimitiveClasses.stringClass.unsafeCast<KClass<T>>()\n\n val metadata = jClass.asDynamic().`$metadata$`\n\n return if (metadata != null) {\n if (metadata.`$kClass$` == null) {\n val kClass = SimpleKClassImpl(jClass)\n metadata.`$kClass$` = kClass\n kClass\n } else {\n metadata.`$kClass$`\n }\n } else {\n SimpleKClassImpl(jClass)\n }\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
 kotlin.js\n\n/**\n * Exposes the JavaScript [RegExp object](https://developer.mozilla.org/en/docs/Web/JavaScript/Reference/Global_Objects/RegExp) to Kotlin.\n */\n@Suppress(\"NOT_DOCUMENTED\")\npublic external class RegExp(pattern: String, flags: String? = definedExternally) {\n\n public fun test(str: String): Boolean\n\n public fun exec(str: String): RegExpMatch?\n\n public override fun toString(): String\n\n /**\n * The lastIndex is a read/write integer property of regular expressions that specifies the index at which to start the next match.\n */\n public var lastIndex: Int\n\n public val global: Boolean\n public val ignoreCase: Boolean\n public val multiline: Boolean\n}\n\n/**\n * Resets the regular expression so that subsequent [RegExp.test] and [RegExp.exec] calls will match starting with the beginning of the input string.\n */\npublic fun RegExp.reset() {\n lastIndex = 0\n}\n\n// TODO: Inherit from array or introduce asArray() extension\n/**\n
 * Represents the return value of [RegExp.exec].\n */\n@Suppress(\"NOT_DOCUMENTED\")\npublic external interface RegExpMatch {\n public val index: Int\n public val input: String\n public val length: Int\n}\n\n/**\n * Returns the entire text matched by [RegExp.exec] if the [index] parameter is 0, or the text matched by the

```
capturing parenthesis\n * at the given index.\n */\npublic inline operator fun RegExpMatch.get(index: Int): String? =
asDynamic()[index]\n\n/**\n * Converts the result of [RegExp.exec] to an array where the first element contains the
entire matched text and each subsequent\n * element is the text matched by each capturing parenthesis.\n */\npublic
inline fun RegExpMatch.asArray(): Array<out String?> = unsafeCast<Array<out String?>>()\n","/*\n * Copyright
2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
 kotlin.sequences\n\ninternal actual class ConstrainedOnceSequence<T> actual constructor(sequence:
Sequence<T>) : Sequence<T> {\n    private var sequenceRef: Sequence<T>? = sequence\n\n    actual override fun
iterator(): Iterator<T> {\n        val sequence = sequenceRef ?: throw IllegalStateException(\"This sequence can be
consumed only once.\")\n        sequenceRef = null\n        return sequence.iterator()\n    }\n}\n","/*\n * Copyright
2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.text\n\n@SinceKotlin(\"1.5\")\npublic actual enum class CharCategory(internal val value: Int, public actual
val code: String) {\n    /**\n     * General category \"Cn\" in the Unicode specification.\n     */\n    UNASSIGNED(0,
\"Cn\"),\n\n    /**\n     * General category \"Lu\" in the Unicode specification.\n     */\n    UPPERCASE_LETTER(1,
\"Lu\"),\n\n
    /**\n     * General category \"Ll\" in the Unicode specification.\n     */\n    LOWERCASE_LETTER(2,
\"Ll\"),\n\n    /**\n     * General category \"Lt\" in the Unicode specification.\n     */\n    TITLECASE_LETTER(3,
\"Lt\"),\n\n    /**\n     * General category \"Lm\" in the Unicode specification.\n     */\n    MODIFIER_LETTER(4,
\"Lm\"),\n\n    /**\n     * General category \"Lo\" in the Unicode specification.\n     */\n    OTHER_LETTER(5,
\"Lo\"),\n\n    /**\n     * General category \"Mn\" in the Unicode specification.\n     */\n
NON_SPACING_MARK(6, \"Mn\"),\n\n    /**\n     * General category \"Me\" in the Unicode specification.\n
*/\n    ENCLOSING_MARK(7, \"Me\"),\n\n    /**\n     * General category \"Mc\" in the Unicode specification.\n
*/\n    COMBINING_SPACING_MARK(8, \"Mc\"),\n\n    /**\n     * General category \"Nd\" in the Unicode
specification.\n     */\n    DECIMAL_DIGIT_NUMBER(9, \"Nd\"),\n\n    /**\n     * General category \"Nl\" in the
Unicode specification.\n
     */\n    LETTER_NUMBER(10, \"Nl\"),\n\n    /**\n     * General category \"No\" in the Unicode specification.\n
*/\n    OTHER_NUMBER(11, \"No\"),\n\n    /**\n     * General category \"Zs\" in the Unicode specification.\n
*/\n    SPACE_SEPARATOR(12, \"Zs\"),\n\n    /**\n     * General category \"Zl\" in the Unicode specification.\n
*/\n    LINE_SEPARATOR(13, \"Zl\"),\n\n    /**\n     * General category \"Zp\" in the Unicode specification.\n
*/\n    PARAGRAPH_SEPARATOR(14, \"Zp\"),\n\n    /**\n     * General category \"Cc\" in the Unicode
specification.\n     */\n    CONTROL(15, \"Cc\"),\n\n    /**\n     * General category \"Cf\" in the Unicode
specification.\n     */\n    FORMAT(16, \"Cf\"),\n\n    /**\n     * General category \"Co\" in the Unicode
specification.\n     */\n    PRIVATE_USE(18, \"Co\"),\n\n    /**\n     * General category \"Cs\" in the Unicode
specification.\n     */\n    SURROGATE(19, \"Cs\"),\n\n    /**\n     * General category \"Pd\" in
 the Unicode specification.\n     */\n    DASH_PUNCTUATION(20, \"Pd\"),\n\n    /**\n     * General category \"Ps\"
in the Unicode specification.\n     */\n    START_PUNCTUATION(21, \"Ps\"),\n\n    /**\n     * General category
\"Pe\" in the Unicode specification.\n     */\n    END_PUNCTUATION(22, \"Pe\"),\n\n    /**\n     * General category
\"Pc\" in the Unicode specification.\n     */\n    CONNECTOR_PUNCTUATION(23, \"Pc\"),\n\n    /**\n     *
General category \"Po\" in the Unicode specification.\n     */\n    OTHER_PUNCTUATION(24, \"Po\"),\n\n    /**\n
 * General category \"Sm\" in the Unicode specification.\n     */\n    MATH_SYMBOL(25, \"Sm\"),\n\n    /**\n     *
General category \"Sc\" in the Unicode specification.\n     */\n    CURRENCY_SYMBOL(26, \"Sc\"),\n\n    /**\n
* General category \"Sk\" in the Unicode specification.\n     */\n    MODIFIER_SYMBOL(27, \"Sk\"),\n\n    /**\n
* General category \"So\" in the Unicode specification.\n     */\n    OTHER_SYMBOL(28, \"So\"),\n\n
    /**\n     * General category \"Pi\" in the Unicode specification.\n     */\n
INITIAL_QUOTE_PUNCTUATION(29, \"Pi\"),\n\n    /**\n     * General category \"Pf\" in the Unicode
specification.\n     */\n    FINAL_QUOTE_PUNCTUATION(30, \"Pf\");\n\n    /**\n     * Returns `true` if [char]
character belongs to this category.\n     */\n    public actual operator fun contains(char: Char): Boolean =
```

char.getCategoryValue() == this.value\n\n   companion object {\n   internal fun valueOf(category: Int): CharCategory =\n   when (category) {\n   in 0..16 -> values()[category]\n   in 18..30 -> values()[category - 1]\n   else -> throw IllegalArgumentException(\"Category #$category is not defined.\")\n   }\n   }\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage
kotlin.text\n\n/**\n * The exception thrown when a character encoding or decoding error occurs.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic actual open class CharacterCodingException(message: String?) : Exception(message) {\n   actual constructor() : this(null)\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/**\n * A mutable sequence of characters.\n *\n * String builder can be used to efficiently perform multiple string manipulation operations.\n */\npublic actual class StringBuilder actual constructor(content: String) : Appendable, CharSequence {\n   /**\n   * Constructs an empty string builder with the specified initial [capacity].\n   *\n   * In Kotlin/JS implementation of StringBuilder the initial capacity has no effect on the
further performance of operations.\n   */\n   actual constructor(capacity: Int) : this() {\n   }\n\n   /** Constructs a string builder that contains the same characters as the specified [content] char sequence. */\n   actual constructor(content: CharSequence) : this(content.toString()) {}\n\n   /** Constructs an empty string builder. */\n   actual constructor() : this(\"\")\n\n   private var string: String = if (content !== undefined) content else \"\"\n\n   actual override val length: Int\n   get() = string.asDynamic().length\n\n   actual override fun get(index: Int): Char =\n   string.getOrElse(index) { throw IndexOutOfBoundsException(\"index: $index, length: $length}\") }\n\n   actual override fun subSequence(startIndex: Int, endIndex: Int): CharSequence = string.substring(startIndex, endIndex)\n\n   actual override fun append(value: Char): StringBuilder {\n   string += value\n   return this\n   }\n\n   actual override fun append(value: CharSequence?):
StringBuilder {\n   string += value.toString()\n   return this\n   }\n\n   actual override fun append(value: CharSequence?, startIndex: Int, endIndex: Int): StringBuilder =\n   this.appendRange(value ?: \"null\", startIndex, endIndex)\n\n   /**\n   * Reverses the contents of this string builder and returns this instance.\n   *\n   * Surrogate pairs included in this string builder are treated as single characters.\n   * Therefore, the order of the high-low surrogates is never reversed.\n   *\n   * Note that the reverse operation may produce new surrogate pairs that were unpaired low-surrogates and high-surrogates before the operation.\n   * For example, reversing `\"\\uDC00\\uD800\"` produces `\"\\uD800\\uDC00\"` which is a valid surrogate pair.\n   */\n   actual fun reverse(): StringBuilder {\n   var reversed = \"\"\n   var index = string.length - 1\n   while (index >= 0) {\n   val low = string[index--]\n   if (low.isLowSurrogate()
&& index >= 0) {\n   val high = string[index--]\n   if (high.isHighSurrogate()) {\n   reversed = reversed + high + low\n   } else {\n   reversed = reversed + low + high\n   }\n   } else {\n   reversed += low\n   }\n   }\n   string = reversed\n   return this\n   }\n\n   /**\n   * Appends the string representation of the specified object [value] to this string builder and returns this instance.\n   *\n   * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n   * and then that string was appended to this string builder.\n   */\n   actual fun append(value: Any?): StringBuilder {\n   string += value.toString()\n   return this\n   }\n\n   /**\n   * Appends the string representation of the specified boolean [value] to this string builder and returns this instance.\n   *\n   * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n   * and then that string was appended to this string builder.\n   */\n   @SinceKotlin(\"1.3\")\n   actual fun append(value: Boolean): StringBuilder {\n   string += value\n   return this\n   }\n\n   /**\n   * Appends characters in the specified character array [value] to this string builder and returns this instance.\n   *\n   * Characters are appended in order, starting at the index 0.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun append(value: CharArray): StringBuilder {\n   string += value.concatToString()\n   return this\n   }\n\n   @Deprecated(\"Provided for binary compatibility.\",

level = DeprecationLevel.HIDDEN)\n   fun append(value: String): StringBuilder = append(value)\n\n   /**\n   * Appends the specified string [value] to this string builder and returns this instance.\n   *\n   * If [value] is `null`, then the four characters `\"null\"` are appended.\n   */\n   @SinceKotlin(\"1.3\")\n   actual fun append(value: String?): StringBuilder {\n   this.string += value ?: \"null\"\n   return this\n   }\n\n   /**\n   * Returns the current capacity of this string builder.\n   *\n   * The capacity is the maximum length this string builder can have before an allocation occurs.\n   *\n   * In Kotlin/JS implementation of StringBuilder the value returned from this method may not indicate the actual size of the backing storage.\n   */\n   @SinceKotlin(\"1.3\")\n//   @ExperimentalStdlibApi\n   @Deprecated(\"Obtaining StringBuilder capacity is not supported in JS and common code.\", level = DeprecationLevel.ERROR)\n   actual fun capacity(): Int = length\n\n   /**\n   * Ensures that the capacity of this string builder is at least equal to the specified [minimumCapacity].\n   *\n   * If the current capacity is less than the [minimumCapacity], a new backing storage is allocated with greater capacity.\n   * Otherwise, this method takes no action and simply returns.\n   *\n   * In Kotlin/JS implementation of StringBuilder the size of the backing storage is not extended to comply the given [minimumCapacity],\n   * thus calling this method has no effect on the further performance of operations.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun ensureCapacity(minimumCapacity: Int) {\n   }\n\n   /**\n   * Returns the index within this string builder of the first occurrence of the specified [string].\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun indexOf(string: String): Int = this.string.asDynamic().indexOf(string)\n\n   /**\n   * Returns the index within this string builder of the first occurrence of the specified [string],\n   * starting at the specified [startIndex].\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder starting at the specified [startIndex].\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun indexOf(string: String, startIndex: Int): Int = this.string.asDynamic().indexOf(string, startIndex)\n\n   /**\n   * Returns the index within this string builder of the last occurrence of the specified [string].\n   * The last occurrence of empty string `\"\"` is considered to be at the index equal to `this.length`.\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun lastIndexOf(string: String): Int = this.string.asDynamic().lastIndexOf(string)\n\n   /**\n   * Returns the index within this string builder of the last occurrence of the specified [string],\n   * starting from the specified [startIndex] toward the beginning.\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder starting at the specified [startIndex].\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun lastIndexOf(string: String, startIndex: Int): Int {\n   if (string.isEmpty() && startIndex < 0) return -1\n   return this.string.asDynamic().lastIndexOf(string, startIndex)\n   }\n\n   /**\n   * Inserts the string representation of the specified boolean [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n   * and then that string was inserted into this string builder at the specified [index].\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun insert(index: Int, value: Boolean): StringBuilder {\n   AbstractList.checkPositionIndex(index, length)\n\n   string = string.substring(0, index) + value + string.substring(index)\n   return this\n   }\n\n   /**\n   * Inserts the specified character [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun insert(index: Int, value: Char): StringBuilder {\n   AbstractList.checkPositionIndex(index, length)\n\n   string = string.substring(0, index) + value + string.substring(index)\n   return this\n   }\n\n   /**\n   * Inserts characters in the specified character array [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The inserted characters go in same order as in the [value] character array, starting at [index].\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun insert(index: Int, value: CharArray): StringBuilder {\n   AbstractList.checkPositionIndex(index, length)\n\n   string = string.substring(0, index) + value.concatToString() + string.substring(index)\n   return this\n   }\n\n   /**\n   * Inserts characters in the specified character sequence [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The inserted characters go in the same order as in the [value] character sequence, starting at [index].\n   *\n   * @param

index the position in this string builder to insert at.\n   * @param value the character sequence from which characters are inserted. If [value] is `null`, then the four characters `\"null\"` are inserted.\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun insert(index: Int, value: CharSequence?): StringBuilder {\n   AbstractList.checkPositionIndex(index, length)\n\n   string = string.substring(0, index) + value.toString() + string.substring(index)\n   return this\n   }\n\n   /**\n   * Inserts the string representation of the specified object [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n   * and then that string was inserted

into this string builder at the specified [index].\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun insert(index: Int, value: Any?): StringBuilder {\n   AbstractList.checkPositionIndex(index, length)\n\n   string = string.substring(0, index) + value.toString() + string.substring(index)\n   return this\n   }\n\n   @Deprecated(\"Provided for binary compatibility.\", level = DeprecationLevel.HIDDEN)\n   fun insert(index: Int, value: String): StringBuilder = insert(index, value)\n\n   /**\n   * Inserts the string [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * If [value] is `null`, then the four characters `\"null\"` are inserted.\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length

of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun insert(index: Int, value: String?): StringBuilder {\n   AbstractList.checkPositionIndex(index, length)\n\n   val toInsert = value ?: \"null\"\n   this.string = this.string.substring(0, index) + toInsert + this.string.substring(index)\n   return this\n   }\n\n   /**\n   * Sets the length of this string builder to the specified [newLength].\n   *\n   * If the [newLength] is less than the current length, it is changed to the specified [newLength].\n   * Otherwise, null characters '\\u0000' are appended to this string builder until its length is less than the [newLength].\n   *\n   * Note that in Kotlin/JS [set] operator function has non-constant execution time complexity.\n   * Therefore, increasing length of this string builder and then updating each character by index may slow down your program.\n   *\n   * @throws

IndexOutOfBoundsException or [IllegalArgumentException] if [newLength] is less than zero.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun setLength(newLength: Int) {\n   if (newLength < 0) {\n   throw IllegalArgumentException(\"Negative new length: $newLength.\")\n   }\n\n   if (newLength <= length) {\n   string = string.substring(0, newLength)\n   } else {\n   for (i in length until newLength) {\n   string += '\\u0000'\n   }\n   }\n   }\n\n   /**\n   * Returns a new [String] that contains characters in this string builder at [startIndex] (inclusive) and up to the [length] (exclusive).\n   *\n   * @throws IndexOutOfBoundsException if [startIndex] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun substring(startIndex: Int):

String {\n   AbstractList.checkPositionIndex(startIndex, length)\n\n   return string.substring(startIndex)\n   }\n\n   /**\n   * Returns a new [String] that contains characters in this string builder at [startIndex] (inclusive) and up to the [endIndex] (exclusive).\n   *\n   * @throws IndexOutOfBoundsException or

[IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun substring(startIndex: Int, endIndex: Int): String {\n   AbstractList.checkBoundsIndexes(startIndex, endIndex, length)\n\n   return string.substring(startIndex, endIndex)\n   }\n\n   /**\n   * Attempts to reduce storage used for this string builder.\n   *\n   * If the backing storage of this string builder is larger than necessary to hold its current contents,\n   * then it may be resized to become more space efficient.\n   * Calling this method may, but is not required to, affect the value of the [capacity] property.\n   *\n   * In Kotlin/JS implementation of StringBuilder the size of the backing storage is always equal to the length of the string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   actual fun trimToSize() {\n   }\n\n   override fun toString(): String = string\n\n   /**\n   * Clears the content of this string builder making it empty and returns this instance.\n   *\n   * @sample samples.text.Strings.clearStringBuilder\n   */\n   @SinceKotlin(\"1.3\")\n   public fun clear(): StringBuilder {\n   string = \"\"\n   return this\n   }\n\n   /**\n   * Sets the character at the specified [index] to the specified [value].\n   *\n   * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   public operator fun set(index: Int, value: Char) {\n   AbstractList.checkElementIndex(index, length)\n\n   string = string.substring(0, index) + value + string.substring(index + 1)\n   }\n\n   /**\n   * Replaces characters in the specified range of this string builder with characters in the specified string [value] and returns this instance.\n   *\n   * @param startIndex the beginning (inclusive) of the range to replace.\n   * @param endIndex the end (exclusive) of the range to replace.\n   * @param value the string to replace with.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] if [startIndex] is less than zero, greater than the length of this string builder, or `startIndex > endIndex`.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   public fun setRange(startIndex: Int, endIndex: Int, value: String): StringBuilder {\n   checkReplaceRange(startIndex, endIndex, length)\n\n   this.string = this.string.substring(0, startIndex) + value + this.string.substring(endIndex)\n   return this\n   }\n\n   private fun checkReplaceRange(startIndex: Int, endIndex: Int, length: Int) {\n   if (startIndex < 0 || startIndex > length) {\n   throw IndexOutOfBoundsException(\"startIndex: $startIndex, length: $length\")\n   }\n   if (startIndex > endIndex) {\n   throw IllegalArgumentException(\"startIndex($startIndex) > endIndex($endIndex)\")\n   }\n   }\n\n   /**\n   * Removes the character at the specified [index] from this string builder and returns this instance.\n   *\n   * If the `Char` at the specified [index] is part of a supplementary code point, this method does not remove the entire supplementary character.\n   *\n   * @param index the index of `Char` to remove.\n   *\n   * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   public fun deleteAt(index: Int): StringBuilder {\n   AbstractList.checkElementIndex(index, length)\n\n   string = string.substring(0, index) + string.substring(index + 1)\n   return this\n   }\n\n   /**\n   * Removes characters in the specified range from this string builder and returns this instance.\n   *\n   * @param startIndex the beginning (inclusive) of the range to remove.\n   * @param endIndex the end (exclusive) of the range to remove.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   public fun deleteRange(startIndex: Int, endIndex: Int): StringBuilder {\n   checkReplaceRange(startIndex, endIndex, length)\n\n   string = string.substring(0, startIndex) + string.substring(endIndex)\n   return this\n   }\n\n   /**\n   * Copies characters from this string builder into the [destination] character array.\n   *\n   * @param destination the array to copy to.\n   * @param destinationOffset the position in the array to copy to, 0 by default.\n   * @param startIndex the beginning (inclusive) of the range to copy, 0 by default.\n   * @param endIndex the end (exclusive) of the range to copy, length of this string builder by default.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n   * @throws

IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n   * or when that index is out of the [destination] array indices range.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   public
 fun toCharArray(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = this.length) {\n   AbstractList.checkBoundsIndexes(startIndex, endIndex, length)\n   AbstractList.checkBoundsIndexes(destinationOffset, destinationOffset + endIndex - startIndex, destination.size)\n\n   var dstIndex = destinationOffset\n   for (index in startIndex until endIndex) {\n   destination[dstIndex++] = string[index]\n   }\n   }\n\n   /**\n   * Appends characters in a subarray of the specified character array [value] to this string builder and returns this instance.\n   *\n   * Characters are appended in order, starting at specified [startIndex].\n   *\n   * @param value the array from which characters are appended.\n   * @param startIndex the beginning (inclusive) of the subarray to append.\n   * @param endIndex the end (exclusive) of the subarray to append.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException]
 when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   public fun appendRange(value: CharArray, startIndex: Int, endIndex: Int): StringBuilder {\n   string += value.concatToString(startIndex, endIndex)\n   return this\n   }\n\n   /**\n   * Appends a subsequence of the specified character sequence [value] to this string builder and returns this instance.\n   *\n   * @param value the character sequence from which a subsequence is appended.\n   * @param startIndex the beginning (inclusive) of the subsequence to append.\n   * @param endIndex the end (exclusive) of the subsequence to append.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   public fun appendRange(value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder {\n   val stringCsq = value.toString()\n   AbstractList.checkBoundsIndexes(startIndex, endIndex, stringCsq.length)\n\n   string += stringCsq.substring(startIndex, endIndex)\n   return this\n   }\n\n   /**\n   * Inserts characters in a subarray of the specified character array [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The inserted characters go in same order as in the [value] array, starting at [index].\n   *\n   * @param index the position in this string builder to insert at.\n   * @param value the array from which characters are inserted.\n   * @param startIndex the beginning (inclusive) of the subarray to insert.\n   * @param endIndex the end (exclusive) of the subarray to insert.\n   *\n   * @throws IndexOutOfBoundsException
 or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   public fun insertRange(index: Int, value: CharArray, startIndex: Int, endIndex: Int): StringBuilder {\n   AbstractList.checkPositionIndex(index, this.length)\n\n   string = string.substring(0, index) + value.concatToString(startIndex, endIndex) + string.substring(index)\n   return this\n   }\n\n   /**\n   * Inserts characters in a subsequence of the specified character sequence [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The inserted characters go in the same order as in the [value] character sequence, starting at [index].\n   *\n   * @param index the position
 in this string builder to insert at.\n   * @param value the character sequence from which a subsequence is inserted.\n   * @param startIndex the beginning (inclusive) of the subsequence to insert.\n   * @param endIndex the end (exclusive) of the subsequence to insert.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   public fun insertRange(index: Int, value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder {\n   AbstractList.checkPositionIndex(index, length)\n\n   val stringCsq = value.toString()\n   AbstractList.checkBoundsIndexes(startIndex, endIndex, stringCsq.length)\n\n

string =
string.substring(0, index) + stringCsq.substring(startIndex, endIndex) + string.substring(index)\n   return this\n }\n}\n\n\n/**\n * Clears the content of this string builder making it empty and returns this instance.\n *\n * @sample samples.text.Strings.clearStringBuilder\n
*/\n@SinceKotlin(\"1.3\")\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.clear(): StringBuilder = this.clear()\n\n/**\n * Sets the character at the specified [index] to the specified [value].\n *\n * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline operator fun StringBuilder.set(index: Int, value: Char) = this.set(index, value)\n\n/**\n * Replaces characters in the specified range of this string builder with characters in the specified string [value]
and returns this instance.\n *\n * @param startIndex the beginning (inclusive) of the range to replace.\n * @param endIndex the end (exclusive) of the range to replace.\n * @param value the string to replace with.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] if [startIndex] is less than zero, greater than the length of this string builder, or `startIndex > endIndex`.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.setRange(startIndex: Int, endIndex: Int, value: String): StringBuilder =\n   this.setRange(startIndex, endIndex, value)\n\n/**\n * Removes the character at the specified [index] from this string builder and returns this instance.\n *\n * If the `Char` at the specified [index] is part of a supplementary code point, this method does not remove the entire supplementary character.\n *\n * @param index the index of
`Char` to remove.\n *\n * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.deleteAt(index: Int): StringBuilder = this.deleteAt(index)\n\n/**\n * Removes characters in the specified range from this string builder and returns this instance.\n *\n * @param startIndex the beginning (inclusive) of the range to remove.\n * @param endIndex the end (exclusive) of the range to remove.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.deleteRange(startIndex: Int, endIndex: Int): StringBuilder
= this.deleteRange(startIndex, endIndex)\n\n/**\n * Copies characters from this string builder into the [destination] character array.\n *\n * @param destination the array to copy to.\n * @param destinationOffset the position in the array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the range to copy, 0 by default.\n * @param endIndex the end (exclusive) of the range to copy, length of this string builder by default.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\",
\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual inline fun StringBuilder.toCharArray(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = this.length) =\n   this.toCharArray(destination, destinationOffset, startIndex, endIndex)\n\n/**\n * Appends characters in a subarray of the specified character array [value] to this string builder and returns this instance.\n *\n * Characters are appended in order, starting at specified [startIndex].\n *\n * @param value the array from which

characters are appended.\n * @param startIndex the beginning (inclusive) of the subarray to append.\n * @param endIndex the end (exclusive) of the subarray to append.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.appendRange(value: CharArray, startIndex: Int, endIndex: Int): StringBuilder =\n   this.appendRange(value, startIndex, endIndex)\n\n/**\n * Appends a subsequence of the specified character sequence [value] to this string builder and returns this instance.\n *\n * @param value the character sequence from which a subsequence is appended.\n * @param startIndex the beginning (inclusive) of the subsequence to append.\n * @param endIndex the end (exclusive) of the subsequence to append.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.appendRange(value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder =\n   this.appendRange(value, startIndex, endIndex)\n\n/**\n * Inserts characters in a subarray of the specified character array [value] into this string builder at the specified [index] and returns this instance.\n *\n * The inserted characters go in same order as in the [value] array, starting at [index].\n *\n * @param index the position in this string builder to insert at.\n * @param value the array from which characters are inserted.\n * @param startIndex the beginning (inclusive) of the subarray to insert.\n * @param endIndex the end (exclusive) of the subarray to insert.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.insertRange(index: Int, value: CharArray, startIndex: Int, endIndex: Int): StringBuilder =\n   this.insertRange(index, value, startIndex, endIndex)\n\n/**\n * Inserts characters in a subsequence of the specified character sequence [value] into this string builder at the specified [index] and returns this instance.\n *\n * The inserted characters go in the same order as in the [value] character sequence, starting at [index].\n *\n * @param index the position in this string builder to insert at.\n * @param value the character sequence from which a subsequence is inserted.\n * @param startIndex the beginning (inclusive) of the subsequence to insert.\n * @param endIndex the end (exclusive) of the subsequence to insert.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\", \"NOTHING_TO_INLINE\")\npublic actual inline fun StringBuilder.insertRange(index: Int, value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder =\n   this.insertRange(index, value, startIndex, endIndex)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n\n/**\n * Returns `true` if the content of this string is equal to the word \"true\", ignoring case, and `false` otherwise.\n */\n@Deprecated(\"Use Kotlin compiler 1.4 to avoid deprecation warning.\")\n@DeprecatedSinceKotlin(hiddenSince = \"1.4\")\n@kotlin.internal.InlineOnly\npublic actual inline fun String.toBoolean(): Boolean = this.toBoolean()\n\n/**\n * Returns `true` if this string is not `null` and its content is equal to the word \"true\", ignoring case, and `false` otherwise.\n *\n * There are also strict versions of the function available on non-nullable String, [toBooleanStrict] and [toBooleanStrictOrNull].\n */\n@SinceKotlin(\"1.4\")\npublic actual fun String?.toBoolean(): Boolean = this != null && this.lowercase() == \"true\"\n\n/**\n * Parses the string as a signed [Byte] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\npublic actual fun String.toByte(): Byte = toByteOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a signed [Byte] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\npublic

actual fun String.toByte(radix: Int): Byte = toByteOrNull(radix) ?: numberFormatError(this)\n\n\n/**\n * Parses the string as a [Short] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\npublic actual fun String.toShort(): Short = toShortOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a [Short] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\npublic actual fun String.toShort(radix: Int): Short = toShortOrNull(radix) ?: numberFormatError(this)\n\n/**\n * Parses the string as an [Int] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\npublic actual fun String.toInt(): Int = toIntOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the

string as an [Int] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\npublic actual fun String.toInt(radix: Int): Int = toIntOrNull(radix) ?: numberFormatError(this)\n\n/**\n * Parses the string as a [Long] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\npublic actual fun String.toLong(): Long = toLongOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a [Long] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\npublic actual fun String.toLong(radix: Int): Long = toLongOrNull(radix) ?: numberFormatError(this)\n\n/**\n * Parses the string

as a [Double] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\npublic actual fun String.toDouble(): Double = (+(this.asDynamic())).unsafeCast<Double>().also {\n   if (it.isNaN() && !this.isNaN() || it == 0.0 && this.isBlank())\n   numberFormatError(this)\n}\n\n/**\n * Parses the string as a [Float] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun String.toFloat(): Float = toDouble().unsafeCast<Float>()\n\n/**\n * Parses the string as a [Double] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\npublic actual fun String.toDoubleOrNull(): Double? = (+(this.asDynamic())).unsafeCast<Double>().takeIf {\n   !(it.isNaN() && !this.isNaN() || it == 0.0 && this.isBlank())\n}\n\n/**\n * Parses the string as a [Float] number

and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@kotlin.internal.InlineOnly\npublic actual inline fun String.toFloatOrNull(): Float? = toDoubleOrNull().unsafeCast<Float?>()\n\n/**\n * Returns a string representation of this [Byte] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n */\n@SinceKotlin(\"1.2\")\n@kotlin.internal.InlineOnly\npublic actual inline fun Byte.toString(radix: Int): String = this.toInt().toString(radix)\n\n/**\n * Returns a string representation of this [Short] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n */\n@SinceKotlin(\"1.2\")\n@kotlin.internal.InlineOnly\npublic actual inline fun Short.toString(radix: Int): String = this.toInt().toString(radix)\n\n/**\n * Returns a string representation of this [Int] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n */\n@SinceKotlin(\"1.2\")\npublic actual fun Int.toString(radix: Int): String = asDynamic().toString(checkRadix(radix))\n\nprivate fun String.isNaN(): Boolean = when (this.lowercase()) {\n \"nan\", \"+nan\", \"-nan\" -> true\n   else -> false\n}\n\n/**\n * Checks whether the given [radix] is valid radix for string to number and number to string conversion.\n */\n@PublishedApi\ninternal actual fun checkRadix(radix: Int): Int {\n   if (radix !in 2..36) {\n   throw IllegalArgumentException(\"radix $radix was not in valid range 2..36\")\n   }\n   return radix\n}\n\ninternal actual fun digitOf(char: Char, radix: Int): Int = when {\n   char >= '0' && char <= '9' -> char - '0'\n   char >= 'A' && char <= 'Z' -> char - 'A' + 10\n   char >= 'a' && char <= 'z' -> char - 'a' + 10\n char < '\\u0080' -> -1\n   char >= '\\uFF21' && char <= '\\uFF3A' -> char - '\\uFF21' + 10 // full-width latin capital letter\n   char >= '\\uFF41' && char <= '\\uFF5A' -> char - '\\uFF41' + 10 // full-width latin small letter\n   else -> char.digitToIntImpl()\n}.let { if (it >= radix) -1 else it }\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\nimport kotlin.js.RegExp\n\n/**\n * Provides enumeration values to use to set regular expression options.\n */\npublic actual enum class RegexOption(val value: String) {\n   /** Enables case-insensitive matching. */\n IGNORE_CASE(\"i\"),\n   /** Enables multiline mode.\n   *\n   * In multiline mode the expressions `^` and `$` match just after or just before,\n   * respectively, a line terminator or the end of the input sequence. */\n MULTILINE(\"m\")\n}\n\nprivate fun Iterable<RegexOption>.toFlags(prepend: String): String = joinToString(\"\", prefix = prepend) { it.value }\n\n\n/**\n * Represents the results from a single capturing group within a [MatchResult] of [Regex].\n *\n * @param value The value of captured group.\n */\npublic actual data class MatchGroup(actual val value: String)\n\n\n/**\n * Represents a compiled regular expression.\n * Provides functions to match strings in text with a pattern, replace the found occurrences and split text around matches.\n *\n * For pattern syntax reference see [MDN RegExp](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/RegExp#Special_characters_meaning_in_regular_expressions)\n * and [http://www.w3schools.com/jsref/jsref_obj_regexp.asp](https://www.w3schools.com/jsref/jsref_obj_regexp.asp).\n *\n * Note that `RegExp` objects under the hood are constructed with [the \"u\" flag](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/RegExp/unicode)\n * that enables Unicode-related features in regular expressions. This also makes the pattern syntax more strict,\n * for example, prohibiting unnecessary escape sequences.\n *\n * @constructor Creates a regular expression from the specified [pattern] string and the specified set of [options].\n */\npublic actual class Regex actual constructor(pattern: String, options: Set<RegexOption>) {\n\n /** Creates a regular expression from the specified [pattern] string and the specified single [option]. */\n   public actual constructor(pattern: String, option: RegexOption) : this(pattern, setOf(option))\n\n   /** Creates a regular expression from the specified [pattern] string and the default options. */\n   public actual constructor(pattern: String) : this(pattern, emptySet())\n\n\n   /** The pattern string of this regular expression. */\n   public actual val pattern: String = pattern\n   /** The set of options that were used to create this regular expression. */\n   public actual val options: Set<RegexOption> = options.toSet()\n   private val nativePattern: RegExp = RegExp(pattern, options.toFlags(\"gu\"))\n   private var nativeStickyPattern: RegExp? = null\n   private fun initStickyPattern(): RegExp =\n   nativeStickyPattern ?: RegExp(pattern, options.toFlags(\"yu\")).also { nativeStickyPattern = it }\n\n   private var nativeMatchesEntirePattern: RegExp? = null\n   private fun initMatchesEntirePattern(): RegExp =\n   nativeMatchesEntirePattern ?: run {\n   if (pattern.startsWith('^') && pattern.endsWith('$'))\n   nativePattern\n   else\n   return RegExp(\"^${pattern.trimStart('^').trimEnd('$')}$\", options.toFlags(\"gu\"))\n   }.also { nativeMatchesEntirePattern = it }\n\n\n   /** Indicates whether the regular expression matches the entire [input]. */\n   public actual infix fun matches(input: CharSequence): Boolean {\n   nativePattern.reset()\n   val match = nativePattern.exec(input.toString())\n   return match != null && match.index

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 == 0 && nativePattern.lastIndex == input.length\n    }\n\n    /** Indicates whether the regular expression can find at
least one match in the specified [input]. */\n    public actual fun containsMatchIn(input: CharSequence): Boolean {\n
      nativePattern.reset()\n        return nativePattern.test(input.toString())\n    }\n\n    @SinceKotlin(\"1.5\")\n
@ExperimentalStdlibApi\n    public actual fun matchesAt(input: CharSequence, index: Int): Boolean {\n        if
(index < 0 || index > input.length) {\n            throw IndexOutOfBoundsException(\"index out of bounds: $index,
input length: ${input.length}\")\n        }\n        val pattern = initStickyPattern()\n        pattern.lastIndex = index\n
return pattern.test(input.toString())\n    }\n\n    /**\n     * Returns the first match of a regular expression in the
[input], beginning at the specified [startIndex].\n     *\n     * @param startIndex An index to start search with, by
default 0. Must be not less than zero and
 not greater than `input.length()`\n     * @return An instance of [MatchResult] if match was found or `null`
otherwise.\n     * @throws IndexOutOfBoundsException if [startIndex] is less than zero or greater than the length of
the [input] char sequence.\n     * @sample samples.text.Regexps.find\n     */\n
@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\n    public actual fun find(input:
CharSequence, startIndex: Int = 0): MatchResult? {\n        if (startIndex < 0 || startIndex > input.length) {\n
throw IndexOutOfBoundsException(\"Start index out of bounds: $startIndex, input length: ${input.length}\")\n
}\n        return nativePattern.findNext(input.toString(), startIndex, nativePattern)\n    }\n\n    /**\n     * Returns a
sequence of all occurrences of a regular expression within the [input] string, beginning at the specified
[startIndex].\n     *\n     * @throws IndexOutOfBoundsException if [startIndex] is less than zero or greater than the
length of the
 [input] char sequence.\n     *\n     * @sample samples.text.Regexps.findAll\n     */\n
@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\n    public actual fun findAll(input:
CharSequence, startIndex: Int = 0): Sequence<MatchResult> {\n        if (startIndex < 0 || startIndex > input.length)
{\n            throw IndexOutOfBoundsException(\"Start index out of bounds: $startIndex, input length:
${input.length}\")\n        }\n        return generateSequence({ find(input, startIndex) }, { match -> match.next() })\n
}\n\n    /**\n     * Attempts to match the entire [input] CharSequence against the pattern.\n     *\n     * @return An
instance of [MatchResult] if the entire input matches or `null` otherwise.\n     */\n    public actual fun
matchEntire(input: CharSequence): MatchResult? =\n        initMatchesEntirePattern().findNext(input.toString(), 0,
nativePattern)\n\n    @SinceKotlin(\"1.5\")\n    @ExperimentalStdlibApi\n    public actual fun matchAt(input:
CharSequence, index: Int):
 MatchResult? {\n        if (index < 0 || index > input.length) {\n            throw IndexOutOfBoundsException(\"index
out of bounds: $index, input length: ${input.length}\")\n        }\n        return
initStickyPattern().findNext(input.toString(), index, nativePattern)\n    }\n\n\n    /**\n     * Replaces all occurrences
of this regular expression in the specified [input] string with specified [replacement] expression.\n     *\n     * The
replacement string may contain references to the captured groups during a match. Occurrences of `$index`\n     * in
the replacement string will be substituted with the subsequences corresponding to the captured groups with the
specified index.\n     * The first digit after '$' is always treated as part of group reference. Subsequent digits are
incorporated\n     * into `index` only if they would form a valid group reference. Only the digits '0'..'9' are considered
as potential components\n     * of the group reference. Note that indexes of captured
 groups start from 1, and the group with index 0 is the whole match.\n     *\n     * Backslash character '\\' can be used
to include the succeeding character as a literal in the replacement string, e.g, `\\$` or `\\\\`.\n     *
[Regex.escapeReplacement] can be used if [replacement] have to be treated as a literal string.\n     *\n     * Note that
referring named capturing groups by name is currently not supported in Kotlin/JS.\n     * However, you can still
refer them by index.\n     *\n     * @param input the char sequence to find matches of this regular expression in\n
* @param replacement the expression to replace found matches with\n     * @return the result of replacing each
occurrence of this regular expression in [input] with the result of evaluating the [replacement] expression\n     *
@throws RuntimeException if [replacement] expression is malformed, or capturing group with specified `name` or
`index` does not exist\n     */\n    public actual fun replace(input: CharSequence,
```

replacement: String): String {\n   if (!replacement.contains('\\\\') && !replacement.contains('$')) {\n   return input.toString().nativeReplace(nativePattern, replacement)\n   }\n   return replace(input) { substituteGroupRefs(it, replacement) }\n   }\n\n   /**\n   * Replaces all occurrences of this regular expression in the specified [input] string with the result of\n   * the given function [transform] that takes [MatchResult] and returns a string to be used as a\n   * replacement for that match.\n   */\n   public actual fun replace(input: CharSequence, transform: (MatchResult) -> CharSequence): String {\n   var match = find(input)\n   if (match == null) return input.toString()\n\n   var lastStart = 0\n   val length = input.length\n   val sb = StringBuilder(length)\n   do {\n   val foundMatch = match!!\n   sb.append(input, lastStart, foundMatch.range.start)\n   sb.append(transform(foundMatch))\n

lastStart = foundMatch.range.endInclusive + 1\n   match = foundMatch.next()\n   } while (lastStart < length && match != null)\n\n   if (lastStart < length) {\n   sb.append(input, lastStart, length)\n   }\n\n   return sb.toString()\n   }\n\n   /**\n   * Replaces the first occurrence of this regular expression in the specified [input] string with specified [replacement] expression.\n   *\n   * The replacement string may contain references to the captured groups during a match. Occurrences of `$index`\n   * in the replacement string will be substituted with the subsequences corresponding to the captured groups with the specified index.\n   * The first digit after '$' is always treated as part of group reference. Subsequent digits are incorporated\n   * into `index` only if they would form a valid group reference. Only the digits '0'..'9' are considered as potential components\n   * of the group reference. Note that indexes

of captured groups start from 1, and the group with index 0 is the whole match.\n   *\n   * Backslash character '\\' can be used to include the succeeding character as a literal in the replacement string, e.g, `\\$` or `\\\\`.\n   * [Regex.escapeReplacement] can be used if [replacement] have to be treated as a literal string.\n   *\n   * Note that referring named capturing groups by name is not supported currently in Kotlin/JS.\n   * However, you can still refer them by index.\n   *\n   * @param input the char sequence to find a match of this regular expression in\n   * @param replacement the expression to replace the found match with\n   * @return the result of replacing the first occurrence of this regular expression in [input] with the result of evaluating the [replacement] expression\n   * @throws RuntimeException if [replacement] expression is malformed, or capturing group with specified `name` or `index` does not exist\n   */\n   public actual fun

replaceFirst(input: CharSequence, replacement: String): String {\n   if (!replacement.contains('\\\\') && !replacement.contains('$')) {\n   val nonGlobalOptions = options.toFlags(\"u\")\n   return input.toString().nativeReplace(RegExp(pattern, nonGlobalOptions), replacement)\n   }\n\n   val match = find(input) ?: return input.toString()\n\n   return buildString {\n   append(input.substring(0, match.range.first))\n   append(substituteGroupRefs(match, replacement))\n   append(input.substring(match.range.last + 1, input.length))\n   }\n   }\n\n   /**\n   * Splits the [input] CharSequence to a list of strings around matches of this regular expression.\n   *\n   * @param limit Non-negative value specifying the maximum number of substrings the string can be split to.\n   * Zero by default means no limit is set.\n   */\n   @Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\n   public actual fun split(input:

CharSequence, limit: Int = 0): List<String> {\n   requireNonNegativeLimit(limit)\n   val matches = findAll(input).let { if (limit == 0) it else it.take(limit - 1) }\n   val result = mutableListOf<String>()\n   var lastStart = 0\n\n   for (match in matches) {\n   result.add(input.subSequence(lastStart, match.range.start).toString())\n   lastStart = match.range.endInclusive + 1\n   }\n   result.add(input.subSequence(lastStart, input.length).toString())\n   return result\n   }\n\n   /**\n   * Splits the [input] CharSequence to a sequence of strings around matches of this regular expression.\n   *\n   * @param limit Non-negative value specifying the maximum number of substrings the string can be split to.\n   * Zero by default means no limit is set.\n   * @sample samples.text.Regexps.splitToSequence\n   */\n   @SinceKotlin(\"1.6\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   @Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\n public actual fun splitToSequence(input: CharSequence, limit: Int = 0): Sequence<String> {\n requireNonNegativeLimit(limit)\n\n return sequence {\n var match = find(input)\n if (match == null || limit == 1) {\n yield(input.toString())\n return@sequence\n }\n\n var nextStart = 0\n var splitCount = 0\n\n do {\n val foundMatch = match!!\n yield(input.substring(nextStart, foundMatch.range.first))\n nextStart = foundMatch.range.endInclusive + 1\n match = foundMatch.next()\n } while (++splitCount != limit - 1 && match != null)\n\n yield(input.substring(nextStart, input.length))\n }\n }\n\n\n /**\n * Returns the string representation of this regular expression, namely the [pattern] of this regular expression.\n *\n * Note that another regular expression

constructed from the same pattern string may have different [options]\n * and may match strings differently.\n */\n public override fun toString(): String = nativePattern.toString()\n\n actual companion object {\n /**\n * Returns a regular expression that matches the specified [literal] string literally.\n * No characters of that string will have special meaning when searching for an occurrence of the regular expression.\n */\n public actual fun fromLiteral(literal: String): Regex = Regex(escape(literal))\n\n /**\n * Returns a regular expression pattern string that matches the specified [literal] string literally.\n * No characters of that string will have special meaning when searching for an occurrence of the regular expression.\n */\n public actual fun escape(literal: String): String = literal.nativeReplace(patternEscape, \"\\\\$&\")\n\n /**\n * Returns a literal replacement

expression for the specified [literal] string.\n * No characters of that string will have special meaning when it is used as a replacement string in [Regex.replace] function.\n */\n public actual fun escapeReplacement(literal: String): String = literal.nativeReplace(replacementEscape, \"\\\\$&\")\n\n private val patternEscape = RegExp(\"\"\"[\\\\^$*+?.()|[\\]{}]\"\"\", \"g\")\n private val replacementEscape = RegExp(\"\"\"[\\\\$]\"\"\", \"g\")\n\n internal fun nativeEscapeReplacement(literal: String): String = literal.nativeReplace(nativeReplacementEscape, \"$$$$\")\n private val nativeReplacementEscape = RegExp(\"\"\"\\$\"\"\", \"g\")\n }\n}\n\n\n\nprivate fun RegExp.findNext(input: String, from: Int, nextPattern: RegExp): MatchResult? {\n this.lastIndex = from\n val match = exec(input)\n if (match == null) return null\n val range = match.index..lastIndex - 1\n\n return object : MatchResult {\n override val range:

IntRange = range\n override val value: String\n get() = match[0]!!\n\n override val groups: MatchGroupCollection = object : MatchGroupCollection, AbstractCollection<MatchGroup?>() {\n override val size: Int get() = match.length\n override fun iterator(): Iterator<MatchGroup?> = indices.asSequence().map { this[it] }.iterator()\n override fun get(index: Int): MatchGroup? = match[index]?.let { MatchGroup(it) }\n }\n\n\n private var groupValues_: List<String>? = null\n\n override val groupValues: List<String>\n get() {\n if (groupValues_ == null) {\n groupValues_ = object : AbstractList<String>() {\n override val size: Int get() = match.length\n override fun get(index: Int): String = match[index] ?: \"\"\n }\n }\n return groupValues_!!\n }\n\n override

fun next(): MatchResult? =\n nextPattern.findNext(input, if (range.isEmpty()) advanceToNextCharacter(range.start) else range.endInclusive + 1, nextPattern)\n\n private fun advanceToNextCharacter(index: Int): Int {\n if (index < input.lastIndex) {\n val code1 = input.asDynamic().charCodeAt(index).unsafeCast<Int>()\n if (code1 in 0xD800..0xDBFF) {\n val code2 = input.asDynamic().charCodeAt(index + 1).unsafeCast<Int>()\n if (code2 in 0xDC00..0xDFFF) {\n return index + 2\n }\n }\n }\n return index + 1\n }\n }\n}\n\n// The same code from K/N Regex.kt\nprivate fun substituteGroupRefs(match: MatchResult, replacement: String): String {\n var index = 0\n val result = StringBuilder(replacement.length)\n\n while (index < replacement.length) {\n val char = replacement[index++]\n if (char ==

'\\\\') {\n if (index == replacement.length)\n throw IllegalArgumentException(\"The Char to be escaped is missing\")\n\n result.append(replacement[index++])\n } else if (char == '$') {\n if (index == replacement.length)\n throw IllegalArgumentException(\"Capturing group index is

missing\")\n\n   if (replacement[index] == '{')\n   throw IllegalArgumentException(\"Named capturing group reference currently is not supported\")\n\n   if (replacement[index] !in '0'..'9')\n   throw IllegalArgumentException(\"Invalid capturing group reference\")\n\n   val endIndex = replacement.readGroupIndex(index, match.groupValues.size)\n   val groupIndex = replacement.substring(index, endIndex).toInt()\n\n   if (groupIndex >= match.groupValues.size)\n throw IndexOutOfBoundsException(\"Group with index $groupIndex does not exist\")\n\n result.append(match.groupValues[groupIndex])\n
            index = endIndex\n   } else {\n   result.append(char)\n   }\n   }\n   return result.toString()\n}\n\nprivate fun String.readGroupIndex(startIndex: Int, groupCount: Int): Int {\n   // at least one digit after '$' is always captured\n   var index = startIndex + 1\n   var groupIndex = this[startIndex] - '0'\n\n   // capture the largest valid group index\n   while (index < length && this[index] in '0'..'9') {\n   val newGroupIndex = (groupIndex * 10) + (this[index] - '0')\n   if (newGroupIndex in 0 until groupCount) {\n   groupIndex = newGroupIndex\n   index++\n   } else {\n   break\n   }\n   }\n   return index\n}","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n@file:Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\")\n\npackage
 kotlin.text\n\nimport kotlin.contracts.*\n\n/**\n * A mutable sequence of characters.\n *\n * String builder can be used to efficiently perform multiple string manipulation operations.\n */\nexpect class StringBuilder : Appendable, CharSequence {\n   /** Constructs an empty string builder. */\n   constructor()\n\n   /** Constructs an empty string builder with the specified initial [capacity]. */\n   constructor(capacity: Int)\n\n   /** Constructs a string builder that contains the same characters as the specified [content] char sequence. */\n   constructor(content: CharSequence)\n\n   /** Constructs a string builder that contains the same characters as the specified [content] string. */\n   @SinceKotlin(\"1.3\")\n//   @ExperimentalStdlibApi\n   constructor(content: String)\n\n   override val length: Int\n\n   override operator fun get(index: Int): Char\n\n   override fun subSequence(startIndex:
 Int, endIndex: Int): CharSequence\n\n   override fun append(value: Char): StringBuilder\n   override fun append(value: CharSequence?): StringBuilder\n   override fun append(value: CharSequence?, startIndex: Int, endIndex: Int): StringBuilder\n\n   /**\n   * Reverses the contents of this string builder and returns this instance.\n   *\n   * Surrogate pairs included in this string builder are treated as single characters.\n   * Therefore, the order of the high-low surrogates is never reversed.\n   *\n   * Note that the reverse operation may produce new surrogate pairs that were unpaired low-surrogates and high-surrogates before the operation.\n   * For example, reversing `\"\\uDC00\\uD800\"` produces `\"\\uD800\\uDC00\"` which is a valid surrogate pair.\n   */\n   fun reverse(): StringBuilder\n\n   /**\n   * Appends the string representation of the specified object [value] to this string builder and returns this instance.\n   *\n   * The overall
 effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n   * and then that string was appended to this string builder.\n   */\n   fun append(value: Any?): StringBuilder\n\n   /**\n   * Appends the string representation of the specified boolean [value] to this string builder and returns this instance.\n   *\n   * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n   * and then that string was appended to this string builder.\n   */\n   @SinceKotlin(\"1.3\")\n   fun append(value: Boolean): StringBuilder\n\n   /**\n   * Appends characters in the specified character array [value] to this string builder and returns this instance.\n   *\n   * Characters are appended in order, starting at the index 0.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun append(value: CharArray): StringBuilder\n\n   /**\n   * Appends the
 specified string [value] to this string builder and returns this instance.\n   *\n   * If [value] is `null`, then the four characters `\"null\"` are appended.\n   */\n   @SinceKotlin(\"1.3\")\n   fun append(value: String?): StringBuilder\n\n   /**\n   * Returns the current capacity of this string builder.\n   *\n   * The capacity is the maximum length this string builder can have before an allocation occurs.\n   */\n   @SinceKotlin(\"1.3\")\n//   @ExperimentalStdlibApi\n   @Deprecated(\"Obtaining StringBuilder capacity is not supported in JS and common

code.\", level = DeprecationLevel.ERROR)\n   fun capacity(): Int\n\n   /**\n   * Ensures that the capacity of this string builder is at least equal to the specified [minimumCapacity].\n   *\n   * If the current capacity is less than the [minimumCapacity], a new backing storage is allocated with greater capacity.\n   * Otherwise, this method takes no action and simply returns.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun ensureCapacity(minimumCapacity: Int)\n\n   /**\n   * Returns the index within this string builder of the first occurrence of the specified [string].\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun indexOf(string: String): Int\n\n   /**\n   * Returns the index within this string builder of the first occurrence of the specified [string],\n   * starting at the specified [startIndex].\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder starting at the specified [startIndex].\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun indexOf(string: String, startIndex: Int): Int\n\n   /**\n   * Returns the index within this string builder of the last occurrence of the specified [string].\n   *
 The last occurrence of empty string `\"\"` is considered to be at the index equal to `this.length`.\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun lastIndexOf(string: String): Int\n\n   /**\n   * Returns the index within this string builder of the last occurrence of the specified [string],\n   * starting from the specified [startIndex] toward the beginning.\n   *\n   * Returns `-1` if the specified [string] does not occur in this string builder starting at the specified [startIndex].\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun lastIndexOf(string: String, startIndex: Int): Int\n\n   /**\n   * Inserts the string representation of the specified boolean [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The overall effect is exactly as
 if the [value] were converted to a string by the `value.toString()` method,\n   * and then that string was inserted into this string builder at the specified [index].\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun insert(index: Int, value: Boolean): StringBuilder\n\n   /**\n   * Inserts the specified character [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun insert(index: Int, value: Char): StringBuilder\n\n   /**\n   * Inserts characters in the specified character array [value] into this string builder at the specified [index] and returns this
 instance.\n   *\n   * The inserted characters go in same order as in the [value] character array, starting at [index].\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun insert(index: Int, value: CharArray): StringBuilder\n\n   /**\n   * Inserts characters in the specified character sequence [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The inserted characters go in the same order as in the [value] character sequence, starting at [index].\n   *\n   * @param index the position in this string builder to insert at.\n   * @param value the character sequence from which characters are inserted. If [value] is `null`, then the four characters `\"null\"` are inserted.\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater
 than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun insert(index: Int, value: CharSequence?): StringBuilder\n\n   /**\n   * Inserts the string representation of the specified object [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * The overall effect is exactly as if the [value] were converted to a string by the `value.toString()` method,\n   * and then that string was inserted into this string builder at the specified [index].\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun insert(index: Int, value: Any?): StringBuilder\n\n   /**\n

* Inserts the string [value] into this string builder at the specified [index] and returns this instance.\n   *\n   * If [value]
 is `null`, then the four characters `\"null\"` are inserted.\n   *\n   * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun insert(index: Int, value: String?): StringBuilder\n\n   /**\n   * Sets the length of this string builder to the specified [newLength].\n   *\n   * If the [newLength] is less than the current length, it is changed to the specified [newLength].\n   * Otherwise, null characters '\\u0000' are appended to this string builder until its length is less than the [newLength].\n   *\n   * Note that in Kotlin/JS [set] operator function has non-constant execution time complexity.\n   * Therefore, increasing length of this string builder and then updating each character by index may slow down your program.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] if [newLength]
 is less than zero.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun setLength(newLength: Int)\n\n   /**\n   * Returns a new [String] that contains characters in this string builder at [startIndex] (inclusive) and up to the [length] (exclusive).\n   *\n   * @throws IndexOutOfBoundsException if [startIndex] is less than zero or greater than the length of this string builder.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun substring(startIndex: Int): String\n\n   /**\n   * Returns a new [String] that contains characters in this string builder at [startIndex] (inclusive) and up to the [endIndex] (exclusive).\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n
    fun substring(startIndex: Int, endIndex: Int): String\n\n   /**\n   * Attempts to reduce storage used for this string builder.\n   *\n   * If the backing storage of this string builder is larger than necessary to hold its current contents,\n   * then it may be resized to become more space efficient.\n   * Calling this method may, but is not required to, affect the value of the [capacity] property.\n   */\n   @SinceKotlin(\"1.4\")\n   @WasExperimental(ExperimentalStdlibApi::class)\n   fun trimToSize()\n}\n\n\n/**\n * Clears the content of this string builder making it empty and returns this instance.\n *\n * @sample samples.text.Strings.clearStringBuilder\n */\n@SinceKotlin(\"1.3\")\npublic expect fun StringBuilder.clear(): StringBuilder\n\n/**\n * Sets the character at the specified [index] to the specified [value].\n *\n * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic
 expect operator fun StringBuilder.set(index: Int, value: Char)\n\n/**\n * Replaces characters in the specified range of this string builder with characters in the specified string [value] and returns this instance.\n *\n * @param startIndex the beginning (inclusive) of the range to replace.\n * @param endIndex the end (exclusive) of the range to replace.\n * @param value the string to replace with.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] if [startIndex] is less than zero, greater than the length of this string builder, or `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.setRange(startIndex: Int, endIndex: Int, value: String): StringBuilder\n\n/**\n * Removes the character at the specified [index] from this string builder and returns this instance.\n *\n * If the `Char` at the specified [index] is part of a supplementary code point, this method
 does not remove the entire supplementary character.\n *\n * @param index the index of `Char` to remove.\n *\n * @throws IndexOutOfBoundsException if [index] is out of bounds of this string builder.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.deleteAt(index: Int): StringBuilder\n\n/**\n * Removes characters in the specified range from this string builder and returns this instance.\n *\n * @param startIndex the beginning (inclusive) of the range to remove.\n * @param endIndex the end (exclusive) of the range to remove.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun

StringBuilder.deleteRange(startIndex: Int, endIndex: Int): StringBuilder\n\n/**\n * Copies characters from this string builder into the [destination]
character array.\n *\n * @param destination the array to copy to.\n * @param destinationOffset the position in the array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the range to copy, 0 by default.\n * @param endIndex the end (exclusive) of the range to copy, length of this string builder by default.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this string builder indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.toCharArray(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = this.length)\n\n/**\n * Appends characters in
a subarray of the specified character array [value] to this string builder and returns this instance.\n *\n * Characters are appended in order, starting at specified [startIndex].\n *\n * @param value the array from which characters are appended.\n * @param startIndex the beginning (inclusive) of the subarray to append.\n * @param endIndex the end (exclusive) of the subarray to append.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.appendRange(value: CharArray, startIndex: Int, endIndex: Int): StringBuilder\n\n/**\n * Appends a subsequence of the specified character sequence [value] to this string builder and returns this instance.\n *\n * @param value the character sequence from which a subsequence is appended.\n * @param startIndex the beginning
(inclusive) of the subsequence to append.\n * @param endIndex the end (exclusive) of the subsequence to append.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.appendRange(value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder\n\n/**\n * Inserts characters in a subarray of the specified character array [value] into this string builder at the specified [index] and returns this instance.\n *\n * The inserted characters go in same order as in the [value] array, starting at [index].\n *\n * @param index the position in this string builder to insert at.\n * @param value the array from which characters are inserted.\n * @param startIndex the beginning (inclusive) of the subarray to insert.\n * @param endIndex the end (exclusive)
of the subarray to insert.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.insertRange(index: Int, value: CharArray, startIndex: Int, endIndex: Int): StringBuilder\n\n/**\n * Inserts characters in a subsequence of the specified character sequence [value] into this string builder at the specified [index] and returns this instance.\n *\n * The inserted characters go in the same order as in the [value] character sequence, starting at [index].\n *\n * @param index the position in this string builder to insert at.\n * @param value the character sequence from which a subsequence is inserted.\n * @param startIndex the beginning (inclusive)
of the subsequence to insert.\n * @param endIndex the end (exclusive) of the subsequence to insert.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException if [index] is less than zero or greater than the length of this string builder.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun StringBuilder.insertRange(index: Int, value: CharSequence, startIndex: Int, endIndex: Int): StringBuilder\n\n@Suppress(\"EXTENSION_SHADOWED_BY_MEMBER\")\n@Deprecated(\"Use

append(value: Any?) instead\", ReplaceWith(\"append(value = obj)\"), DeprecationLevel.WARNING)\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.append(obj: Any?): StringBuilder = this.append(obj)\n\n/**\n * Builds new string by populating newly created [StringBuilder] using provided [builderAction]\n
 * and then converting it to [String].\n */\n@kotlin.internal.InlineOnly\npublic inline fun buildString(builderAction: StringBuilder.() -> Unit): String {\n   contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n   return StringBuilder().apply(builderAction).toString()\n}\n\n/**\n * Builds new string by populating newly created [StringBuilder] initialized with the given [capacity]\n * using provided [builderAction] and then converting it to [String].\n */\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun buildString(capacity: Int, builderAction: StringBuilder.() -> Unit): String {\n   contract { callsInPlace(builderAction, InvocationKind.EXACTLY_ONCE) }\n   return StringBuilder(capacity).apply(builderAction).toString()\n}\n\n/**\n * Appends all arguments to the given StringBuilder.\n */\npublic fun StringBuilder.append(vararg value: String?): StringBuilder {\n   for (item in value)\n   append(item)\n   return this\n}\n\n/**\n * Appends
 all arguments to the given StringBuilder.\n */\npublic fun StringBuilder.append(vararg value: Any?): StringBuilder {\n   for (item in value)\n   append(item)\n   return this\n}\n\n/** Appends a line feed character (`\\n`) to this StringBuilder. */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(): StringBuilder = append('\\n')\n\n/** Appends [value] to this [StringBuilder], followed by a line feed character (`\\n`). */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(value: CharSequence?): StringBuilder = append(value).appendLine()\n\n/** Appends [value] to this [StringBuilder], followed by a line feed character (`\\n`). */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(value: String?): StringBuilder = append(value).appendLine()\n\n/** Appends [value] to this [StringBuilder], followed by a line feed character (`\\n`). */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic
 inline fun StringBuilder.appendLine(value: Any?): StringBuilder = append(value).appendLine()\n\n/** Appends [value] to this [StringBuilder], followed by a line feed character (`\\n`). */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(value: CharArray): StringBuilder = append(value).appendLine()\n\n/** Appends [value] to this [StringBuilder], followed by a line feed character (`\\n`). */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(value: Char): StringBuilder = append(value).appendLine()\n\n/** Appends [value] to this [StringBuilder], followed by a line feed character (`\\n`). */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun StringBuilder.appendLine(value: Boolean): StringBuilder = append(value).appendLine()\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source
 code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\nimport kotlin.js.RegExp\n\n@kotlin.internal.InlineOnly\ninternal actual inline fun String.nativeIndexOf(ch: Char, fromIndex: Int): Int = nativeIndexOf(ch.toString(), fromIndex)\n\n@kotlin.internal.InlineOnly\ninternal actual inline fun String.nativeLastIndexOf(ch: Char, fromIndex: Int): Int = nativeLastIndexOf(ch.toString(), fromIndex)\n\n/**\n * Returns `true` if this string starts with the specified prefix.\n */\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun String.startsWith(prefix: String, ignoreCase: Boolean = false): Boolean {\n   if (!ignoreCase)\n   return nativeStartsWith(prefix, 0)\n   else\n   return regionMatches(0, prefix, 0, prefix.length, ignoreCase)\n}\n\n/**\n * Returns `true` if a substring of this string starting at the specified offset [startIndex] starts with the specified prefix.\n */\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic
 actual fun String.startsWith(prefix: String, startIndex: Int, ignoreCase: Boolean = false): Boolean {\n   if (!ignoreCase)\n   return nativeStartsWith(prefix, startIndex)\n   else\n   return regionMatches(startIndex, prefix, 0, prefix.length, ignoreCase)\n}\n\n/**\n * Returns `true` if this string ends with the specified suffix.\n */\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun

```
String.endsWith(suffix: String, ignoreCase: Boolean = false): Boolean {\n    if (!ignoreCase)\n        return
nativeEndsWith(suffix)\n    else\n        return regionMatches(length - suffix.length, suffix, 0, suffix.length,
ignoreCase)\n}\n\n@Deprecated(\"Use Regex.matches() instead\",
ReplaceWith(\"regex.toRegex().matches(this)\"))\n@DeprecatedSinceKotlin(warningSince = \"1.6\")\npublic fun
String.matches(regex: String): Boolean {\n    @Suppress(\"DEPRECATION\")\n    val result = this.match(regex)\n
return result != null
 && result.size != 0\n}\n\n/**\n * Returns `true` if this string is empty or consists solely of whitespace characters.\n
*\n * @sample samples.text.Strings.stringIsBlank\n */\npublic actual fun CharSequence.isBlank(): Boolean = length
== 0 || indices.all { this[it].isWhitespace() }\n\n/**\n * Returns `true` if this string is equal to [other], optionally
ignoring character case.\n *\n * Two strings are considered to be equal if they have the same length and the same
character at the same index.\n * If [ignoreCase] is true, the result of `Char.uppercaseChar().lowercaseChar()` on
each character is compared.\n *\n * @param ignoreCase `true` to ignore character case when comparing strings. By
default `false`.\n */\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual
fun String?.equals(other: String?, ignoreCase: Boolean = false): Boolean {\n    if (this == null) return other == null\n
  if (other == null) return false\n    if (!ignoreCase) return this == other\n\n    if (this.length
 != other.length) return false\n\n    for (index in 0 until this.length) {\n        val thisChar = this[index]\n        val
otherChar = other[index]\n        if (!thisChar.equals(otherChar, ignoreCase)) {\n            return false\n        }\n    }\n\n
  return true\n}\n\n\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual
fun CharSequence.regionMatches(thisOffset: Int, other: CharSequence, otherOffset: Int, length: Int, ignoreCase:
Boolean = false): Boolean =\n    regionMatchesImpl(thisOffset, other, otherOffset, length, ignoreCase)\n\n\n/**\n *
Returns a copy of this string having its first letter titlecased using the rules of the default locale,\n * or the original
string if it's empty or already starts with a title case letter.\n *\n * The title case of a character is usually the same as
its upper case with several exceptions.\n * The particular list of characters with the special title case form depends
on the underlying platform.\n *\n * @sample samples.text.Strings.capitalize\n
 */\n@Deprecated(\"Use replaceFirstChar instead.\", ReplaceWith(\"replaceFirstChar { if (it.isLowerCase())
it.titlecase() else it.toString() }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic actual fun
String.capitalize(): String {\n    return if (isNotEmpty()) substring(0, 1).uppercase() + substring(1) else
this\n}\n\n/**\n * Returns a copy of this string having its first letter lowercased using the rules of the default
locale,\n * or the original string if it's empty or already starts with a lower case letter.\n *\n * @sample
samples.text.Strings.decapitalize\n */\n@Deprecated(\"Use replaceFirstChar instead.\",
ReplaceWith(\"replaceFirstChar { it.lowercase() }\"))\n@DeprecatedSinceKotlin(warningSince = \"1.5\")\npublic
actual fun String.decapitalize(): String {\n    return if (isNotEmpty()) substring(0, 1).lowercase() + substring(1) else
this\n}\n\n/**\n * Returns a string containing this char sequence repeated [n] times.\n * @throws
[IllegalArgumentException]
 when n < 0.\n * @sample samples.text.Strings.repeat\n */\npublic actual fun CharSequence.repeat(n: Int): String
{\n    require(n >= 0) { \"Count 'n' must be non-negative, but was $n.\" }\n    return when (n) {\n        0 -> \"\"\n
1 -> this.toString()\n        else -> {\n            var result = \"\"\n            if (!isEmpty()) {\n                var s =
this.toString()\n                var count = n\n                while (true) {\n                    if ((count and 1) == 1) {\n
    result += s\n                    }\n                    count = count ushr 1\n                    if (count == 0) {\n
break\n                    }\n                    s += s\n                }\n            }\n            return result\n        }\n    }\n}\n\n/**\n *
Returns a new string obtained by replacing all occurrences of the [oldValue] substring in this string\n * with the
specified [newValue] string.\n *\n * @sample samples.text.Strings.replace\n
 */\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun
String.replace(oldValue: String, newValue: String, ignoreCase: Boolean = false): String =\n
nativeReplace(RegExp(Regex.escape(oldValue), if (ignoreCase) \"gui\" else \"gu\"),
Regex.nativeEscapeReplacement(newValue))\n\n/**\n * Returns a new string with all occurrences of [oldChar]
replaced with [newChar].\n *\n * @sample samples.text.Strings.replace\n
*/\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun
```

String.replace(oldChar: Char, newChar: Char, ignoreCase: Boolean = false): String =\n nativeReplace(RegExp(Regex.escape(oldChar.toString()), if (ignoreCase) \"gui\" else \"gu\"), newChar.toString())\n\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic actual fun String.replaceFirst(oldValue: String, newValue: String, ignoreCase: Boolean = false): String =\n nativeReplace(RegExp(Regex.escape(oldValue), if (ignoreCase) \"ui\" else \"u\"), Regex.nativeEscapeReplacement(newValue))\n\n@Suppress(\"ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS\")\npublic

actual fun String.replaceFirst(oldChar: Char, newChar: Char, ignoreCase: Boolean = false): String =\n nativeReplace(RegExp(Regex.escape(oldChar.toString()), if (ignoreCase) \"ui\" else \"u\"), newChar.toString())\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/** Returns the negative [size] if [throwOnMalformed] is false, throws [CharacterCodingException] otherwise. */\nprivate fun malformed(size: Int, index: Int, throwOnMalformed: Boolean): Int {\n   if (throwOnMalformed) throw CharacterCodingException(\"Malformed sequence starting at ${index - 1}\")\n   return -size\n}\n\n/**\n * Returns code point corresponding to UTF-16 surrogate pair,\n * where the first of the pair is the [high] and the second

is in the [string] at the [index].\n * Returns zero if the pair is malformed and [throwOnMalformed] is false.\n *\n * @throws CharacterCodingException if the pair is malformed and [throwOnMalformed] is true.\n */\nprivate fun codePointFromSurrogate(string: String, high: Int, index: Int, endIndex: Int, throwOnMalformed: Boolean): Int {\n   if (high !in 0xD800..0xDBFF || index >= endIndex) {\n   return malformed(0, index, throwOnMalformed)\n   }\n   val low = string[index].code\n   if (low !in 0xDC00..0xDFFF) {\n   return malformed(0, index, throwOnMalformed)\n   }\n   return 0x10000 + ((high and 0x3FF) shl 10) or (low and 0x3FF)\n}\n\n/**\n * Returns code point corresponding to UTF-8 sequence of two bytes,\n * where the first byte of the sequence is the [byte1] and the second byte is in the [bytes] array at the [index].\n * Returns zero if the sequence is malformed and [throwOnMalformed] is false.\n *\n * @throws CharacterCodingException if the sequence of two bytes is

malformed and [throwOnMalformed] is true.\n */\nprivate fun codePointFrom2(bytes: ByteArray, byte1: Int, index: Int, endIndex: Int, throwOnMalformed: Boolean): Int {\n   if (byte1 and 0x1E == 0 || index >= endIndex) {\n   return malformed(0, index, throwOnMalformed)\n   }\n   val byte2 = bytes[index].toInt()\n   if (byte2 and 0xC0 != 0x80) {\n   return malformed(0, index, throwOnMalformed)\n   }\n   return (byte1 shl 6) xor byte2 xor 0xF80\n}\n\n/**\n * Returns code point corresponding to UTF-8 sequence of three bytes,\n * where the first byte of the sequence is the [byte1] and the others are in the [bytes] array starting from the [index].\n * Returns a non-positive value indicating number of bytes from [bytes] included in malformed sequence\n * if the sequence is malformed and [throwOnMalformed] is false.\n *\n * @throws CharacterCodingException if the sequence of three bytes is malformed and [throwOnMalformed] is true.\n */\nprivate fun codePointFrom3(bytes: ByteArray,

byte1: Int, index: Int, endIndex: Int, throwOnMalformed: Boolean): Int {\n   if (index >= endIndex) {\n   return malformed(0, index, throwOnMalformed)\n   }\n\n   val byte2 = bytes[index].toInt()\n   if (byte1 and 0xF == 0) {\n   if (byte2 and 0xE0 != 0xA0) {\n   // Non-shortest form\n   return malformed(0, index, throwOnMalformed)\n   }\n   } else if (byte1 and 0xF == 0xD) {\n   if (byte2 and 0xE0 != 0x80) {\n   // Surrogate code point\n   return malformed(0, index, throwOnMalformed)\n   }\n   } else if (byte2 and 0xC0 != 0x80) {\n   return malformed(0, index, throwOnMalformed)\n   }\n\n   if (index + 1 == endIndex) {\n   return malformed(1, index, throwOnMalformed)\n   }\n   val byte3 = bytes[index + 1].toInt()\n   if (byte3 and 0xC0 != 0x80) {\n   return malformed(1, index, throwOnMalformed)\n   }\n\n   return (byte1 shl 12) xor (byte2 shl 6) xor byte3 xor -0x1E080\n}\n\n/**\n * Returns code point

corresponding to UTF-8 sequence of four bytes,\n * where the first byte of the sequence is the [byte1] and the others are in the [bytes] array starting from the [index].\n * Returns a non-positive value indicating number of bytes from [bytes] included in malformed sequence\n * if the sequence is malformed and [throwOnMalformed] is false.\n *\n * @throws CharacterCodingException if the sequence of four bytes is malformed and [throwOnMalformed] is true.\n */\nprivate fun codePointFrom4(bytes: ByteArray, byte1: Int, index: Int, endIndex: Int, throwOnMalformed:

Boolean): Int {\n   if (index >= endIndex) {\n   malformed(0, index, throwOnMalformed)\n   }\n\n   val byte2 = bytes[index].toInt()\n   if (byte1 and 0xF == 0x0) {\n   if (byte2 and 0xF0 <= 0x80) {\n   // Non-shortest form\n   return malformed(0, index, throwOnMalformed)\n   }\n   } else if (byte1 and 0xF == 0x4) {\n   if (byte2 and 0xF0 != 0x80) {\n   // Out of Unicode code points
 domain (larger than U+10FFFF)\n   return malformed(0, index, throwOnMalformed)\n   }\n   } else if (byte1 and 0xF > 0x4) {\n   return malformed(0, index, throwOnMalformed)\n   } else if (byte2 and 0xC0 != 0x80) {\n   return malformed(0, index, throwOnMalformed)\n   }\n\n   if (index + 1 == endIndex) {\n   return malformed(1, index, throwOnMalformed)\n   }\n   val byte3 = bytes[index + 1].toInt()\n   if (byte3 and 0xC0 != 0x80) {\n   return malformed(1, index, throwOnMalformed)\n   }\n\n   if (index + 2 == endIndex) {\n   return malformed(2, index, throwOnMalformed)\n   }\n   val byte4 = bytes[index + 2].toInt()\n   if (byte4 and 0xC0 != 0x80) {\n   return malformed(2, index, throwOnMalformed)\n   }\n   return (byte1 shl 18) xor (byte2 shl 12) xor (byte3 shl 6) xor byte4 xor 0x381F80\n}\n\n/**\n * Maximum number of bytes needed to encode a single char.\n *\n * Code points in `0..0x7F` are encoded in a single byte.\n * Code
 points in `0x80..0x7FF` are encoded in two bytes.\n * Code points in `0x800..0xD7FF` or in `0xE000..0xFFFF` are encoded in three bytes.\n * Surrogate code points in `0xD800..0xDFFF` are not Unicode scalar values, therefore aren't encoded.\n * Code points in `0x10000..0x10FFFF` are represented by a pair of surrogate `Char`s and are encoded in four bytes.\n */\nprivate const val MAX_BYTES_PER_CHAR = 3\n\n/**\n * The byte sequence a malformed UTF-16 char sequence is replaced by.\n */\nprivate val REPLACEMENT_BYTE_SEQUENCE: ByteArray = byteArrayOf(0xEF.toByte(), 0xBF.toByte(), 0xBD.toByte())\n\n/**\n * Encodes the [string] using UTF-8 and returns the resulting [ByteArray].\n *\n * @param string the string to encode.\n * @param startIndex the start offset (inclusive) of the substring to encode.\n * @param endIndex the end offset (exclusive) of the substring to encode.\n * @param throwOnMalformed whether to throw on malformed char sequence or replace by the [REPLACEMENT_BYTE_SEQUENCE].\n *\n
 * @throws CharacterCodingException if the char sequence is malformed and [throwOnMalformed] is true.\n */\ninternal fun encodeUtf8(string: String, startIndex: Int, endIndex: Int, throwOnMalformed: Boolean): ByteArray {\n   require(startIndex >= 0 && endIndex <= string.length && startIndex <= endIndex)\n\n   val bytes = ByteArray((endIndex - startIndex) * MAX_BYTES_PER_CHAR)\n   var byteIndex = 0\n   var charIndex = startIndex\n\n   while (charIndex < endIndex) {\n   val code = string[charIndex++].code\n   when {\n   code < 0x80 ->\n   bytes[byteIndex++] = code.toByte()\n   code < 0x800 -> {\n   bytes[byteIndex++] = ((code shr 6) or 0xC0).toByte()\n   bytes[byteIndex++] = ((code and 0x3F) or 0x80).toByte()\n   }\n   code < 0xD800 || code >= 0xE000 -> {\n   bytes[byteIndex++] = ((code shr 12) or 0xE0).toByte()\n   bytes[byteIndex++] = (((code shr 6) and 0x3F) or 0x80).toByte()\n   bytes[byteIndex++] = ((code and 0x3F) or 0x80).toByte()\n   }\n   else -> { // Surrogate char value\n   val codePoint = codePointFromSurrogate(string, code, charIndex, endIndex, throwOnMalformed)\n   if (codePoint <= 0) {\n   bytes[byteIndex++] = REPLACEMENT_BYTE_SEQUENCE[0]\n   bytes[byteIndex++] = REPLACEMENT_BYTE_SEQUENCE[1]\n   bytes[byteIndex++] = REPLACEMENT_BYTE_SEQUENCE[2]\n   } else {\n   bytes[byteIndex++] = ((codePoint shr 18) or 0xF0).toByte()\n   bytes[byteIndex++] = (((codePoint shr 12) and 0x3F) or 0x80).toByte()\n   bytes[byteIndex++] = (((codePoint shr 6) and 0x3F) or 0x80).toByte()\n   bytes[byteIndex++] = ((codePoint and 0x3F) or 0x80).toByte()\n   charIndex++\n   }\n   }\n   }\n   }\n\n   return if (bytes.size == byteIndex) bytes
 else bytes.copyOf(byteIndex)\n}\n\n/**\n * The character a malformed UTF-8 byte sequence is replaced by.\n */\nprivate const val REPLACEMENT_CHAR = '\\uFFFD'\n\n/**\n * Decodes the UTF-8 [bytes] array and returns the resulting [String].\n *\n * @param bytes the byte array to decode.\n * @param startIndex the start offset (inclusive) of the array to be decoded.\n * @param endIndex the end offset (exclusive) of the array to be encoded.\n * @param throwOnMalformed whether to throw on malformed byte sequence or replace by the [REPLACEMENT_CHAR].\n *\n * @throws CharacterCodingException if the array is malformed UTF-8 byte

sequence and [throwOnMalformed] is true.\n */\ninternal fun decodeUtf8(bytes: ByteArray, startIndex: Int, endIndex: Int, throwOnMalformed: Boolean): String {\n require(startIndex >= 0 && endIndex <= bytes.size && startIndex <= endIndex)\n\n var byteIndex = startIndex\n val stringBuilder = StringBuilder()\n\n while (byteIndex < endIndex) {\n val byte
 = bytes[byteIndex++].toInt()\n when {\n byte >= 0 ->\n stringBuilder.append(byte.toChar())\n byte shr 5 == -2 -> {\n val code = codePointFrom2(bytes, byte, byteIndex, endIndex, throwOnMalformed)\n if (code <= 0) {\n stringBuilder.append(REPLACEMENT_CHAR)\n byteIndex += -code\n } else {\n stringBuilder.append(code.toChar())\n byteIndex += 1\n }\n }\n byte shr 4 == -2 -> {\n val code = codePointFrom3(bytes, byte, byteIndex, endIndex, throwOnMalformed)\n if (code <= 0) {\n stringBuilder.append(REPLACEMENT_CHAR)\n byteIndex += -code\n } else {\n stringBuilder.append(code.toChar())\n byteIndex += 2\n }\n }\n byte shr 3 == -2 -> {\n
 val code = codePointFrom4(bytes, byte, byteIndex, endIndex, throwOnMalformed)\n if (code <= 0) {\n stringBuilder.append(REPLACEMENT_CHAR)\n byteIndex += -code\n } else {\n val high = (code - 0x10000) shr 10 or 0xD800\n val low = (code and 0x3FF) or 0xDC00\n stringBuilder.append(high.toChar())\n stringBuilder.append(low.toChar())\n byteIndex += 3\n }\n }\n else -> {\n malformed(0, byteIndex, throwOnMalformed)\n stringBuilder.append(REPLACEMENT_CHAR)\n }\n }\n }\n\n return stringBuilder.toString()\n}","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n/**\n
 * Returns the detailed description of this throwable with its stack trace.\n *\n * The detailed description includes:\n * - the short description (see [Throwable.toString]) of this throwable;\n * - the complete stack trace;\n * - detailed descriptions of the exceptions that were [suppressed][suppressedExceptions] in order to deliver this exception;\n * - the detailed description of each throwable in the [Throwable.cause] chain.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun Throwable.stackTraceToString(): String = ExceptionTraceBuilder().buildFor(this)\n\n/**\n * Prints the [detailed description][Throwable.stackTraceToString] of this throwable to console error output.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun Throwable.printStackTrace() {\n console.error(this.stackTraceToString())\n}\n\n/**\n * Adds the specified exception to the list of exceptions that were\n * suppressed in order to deliver this exception.\n */\n@SinceKotlin(\"1.4\")\npublic actual fun Throwable.addSuppressed(exception:
 Throwable) {\n if (this !== exception) {\n val suppressed = this.asDynamic()._suppressed.unsafeCast<MutableList<Throwable>?>()\n if (suppressed == null) {\n this.asDynamic()._suppressed = mutableListOf(exception)\n } else {\n suppressed.add(exception)\n }\n }\n}\n\n/**\n * Returns a list of all exceptions that were suppressed in order to deliver this exception.\n */\n@SinceKotlin(\"1.4\")\npublic actual val Throwable.suppressedExceptions: List<Throwable>\n get() {\n return this.asDynamic()._suppressed?.unsafeCast<List<Throwable>>() ?: emptyList()\n }\n\n\nprivate class ExceptionTraceBuilder {\n private val target = StringBuilder()\n private val visited = arrayOf<Throwable>()\n private var topStack: String = \"\"\n private var topStackStart: Int = 0\n\n fun buildFor(exception: Throwable): String {\n exception.dumpFullTrace(\"\", \"\")\n return target.toString()\n }\n\n
 private fun hasSeen(exception: Throwable): Boolean = visited.any { it === exception }\n\n private fun Throwable.dumpFullTrace(indent: String, qualifier: String) {\n this.dumpSelfTrace(indent, qualifier) || return\n\n var cause = this.cause\n while (cause != null) {\n cause.dumpSelfTrace(indent, \"Caused by: \") || return\n cause = cause.cause\n }\n }\n\n private fun Throwable.dumpSelfTrace(indent: String, qualifier: String): Boolean {\n target.append(indent).append(qualifier)\n val shortInfo = this.toString()\n if (hasSeen(this)) {\n target.append(\"[CIRCULAR REFERENCE, SEE ABOVE: \").append(shortInfo).append(\"]\\n\")\n return false\n }\n visited.asDynamic().push(this)\n\n var

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stack = this.asDynamic().stack as String?\n        if (stack != null) {\n            val stackStart =
stack.indexOf(shortInfo).let { if (it < 0) 0 else it + shortInfo.length }\n
       if (stackStart == 0) target.append(shortInfo).append(\"\\n\")\n            if (topStack.isEmpty()) {\n
topStack = stack\n                topStackStart = stackStart\n            } else {\n                stack =
dropCommonFrames(stack, stackStart)\n            }\n            if (indent.isNotEmpty()) {\n                // indent stack, but
avoid indenting exception message lines\n                val messageLines = if (stackStart == 0) 0 else 1 +
shortInfo.count { c -> c == '\\n' }\n                stack.lineSequence().forEachIndexed { index: Int, line: String ->\n
          if (index >= messageLines) target.append(indent)\n                    target.append(line).append(\"\\n\")\n
}\n            } else {\n                target.append(stack).append(\"\\n\")\n            }\n        } else {\n
target.append(shortInfo).append(\"\\n\")\n        }\n\n        val suppressed = suppressedExceptions\n        if
(suppressed.isNotEmpty()) {\n
           val suppressedIndent = indent + \"    \"\n            for (s in suppressed) {\n
s.dumpFullTrace(suppressedIndent, \"Suppressed: \")\n            }\n        }\n        return true\n    }\n\n    private fun
dropCommonFrames(stack: String, stackStart: Int): String {\n        var commonFrames: Int = 0\n        var lastBreak:
Int = 0\n        var preLastBreak: Int = 0\n        for (pos in 0 until minOf(topStack.length - topStackStart, stack.length
- stackStart)) {\n            val c = stack[stack.lastIndex - pos]\n            if (c != topStack[topStack.lastIndex - pos])
break\n            if (c == '\\n') {\n                commonFrames += 1\n                preLastBreak = lastBreak\n
lastBreak = pos\n            }\n        }\n        if (commonFrames <= 1) return stack\n        while (preLastBreak > 0 &&
stack[stack.lastIndex - (preLastBreak - 1)] == ' ')\n            preLastBreak -= 1\n\n        // leave 1 common frame to
ease matching with the top exception
 stack\n        return stack.dropLast(preLastBreak) + \"... and ${commonFrames - 1} more common stack frames
skipped\"\n    }\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n
* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\npackage kotlin.time\n\nimport kotlin.js.json\nimport kotlin.math.*\n\ninternal actual inline val
durationAssertionsEnabled: Boolean get() = true\n\ninternal actual fun formatToExactDecimals(value: Double,
decimals: Int): String {\n    val rounded = if (decimals == 0) {\n        value\n    } else {\n        val pow =
10.0.pow(decimals)\n        JsMath.round(abs(value) * pow) / pow * sign(value)\n    }\n    return if (abs(rounded) <
1e21) {\n        // toFixed switches to scientific format after 1e21\n
rounded.asDynamic().toFixed(decimals).unsafeCast<String>()\n    } else {\n        // toPrecision outputs the specified
number of digits,
 but only for positive numbers\n        val positive = abs(rounded)\n        val positiveString =
positive.asDynamic().toPrecision(ceil(log10(positive)) + decimals).unsafeCast<String>()\n        if (rounded < 0) \"-
$positiveString\" else positiveString\n    }\n}\n\ninternal actual fun formatUpToDecimals(value: Double, decimals:
Int): String {\n    return value.asDynamic().toLocaleString(\"en-us\", json(\"maximumFractionDigits\" to
decimals)).unsafeCast<String>()\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage
kotlin.time\n\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\npublic actual enum class
DurationUnit(internal val scale: Double) {\n    /**\n     * Time unit representing one nanosecond, which is 1/1000 of
a microsecond.\n     */\n    NANOSECONDS(1e0),\n    /**\n     * Time unit representing
 one microsecond, which is 1/1000 of a millisecond.\n     */\n    MICROSECONDS(1e3),\n    /**\n     * Time unit
representing one millisecond, which is 1/1000 of a second.\n     */\n    MILLISECONDS(1e6),\n    /**\n     * Time
unit representing one second.\n     */\n    SECONDS(1e9),\n    /**\n     * Time unit representing one minute.\n     */\n
  MINUTES(60e9),\n    /**\n     * Time unit representing one hour.\n     */\n    HOURS(3600e9),\n    /**\n     * Time
unit representing one day, which is always equal to 24 hours.\n     */\n
DAYS(86400e9);\n}\n\n@SinceKotlin(\"1.3\")\ninternal actual fun convertDurationUnit(value: Double, sourceUnit:
DurationUnit, targetUnit: DurationUnit): Double {\n    val sourceCompareTarget =
sourceUnit.scale.compareTo(targetUnit.scale)\n    return when {\n        sourceCompareTarget > 0 -> value *
```

(sourceUnit.scale / targetUnit.scale)\n   sourceCompareTarget < 0 -> value / (targetUnit.scale / sourceUnit.scale)\n   else -> value\n
}\n}\n\n@SinceKotlin(\"1.5\")\ninternal actual fun convertDurationUnitOverflow(value: Long, sourceUnit: DurationUnit, targetUnit: DurationUnit): Long {\n   val sourceCompareTarget = sourceUnit.scale.compareTo(targetUnit.scale)\n   return when {\n   sourceCompareTarget > 0 -> value * (sourceUnit.scale / targetUnit.scale).toLong()\n   sourceCompareTarget < 0 -> value / (targetUnit.scale / sourceUnit.scale).toLong()\n   else -> value\n   }\n}\n\n@SinceKotlin(\"1.5\")\ninternal actual fun convertDurationUnit(value: Long, sourceUnit: DurationUnit, targetUnit: DurationUnit): Long {\n   val sourceCompareTarget = sourceUnit.scale.compareTo(targetUnit.scale)\n   return when {\n sourceCompareTarget > 0 -> {\n   val scale = (sourceUnit.scale / targetUnit.scale).toLong()\n   val result = value * scale\n   when {\n   result / scale == value -> result\n   value > 0 -> Long.MAX_VALUE\n   else -> Long.MIN_VALUE\n
            }\n   }\n   sourceCompareTarget < 0 -> value / (targetUnit.scale / sourceUnit.scale).toLong()\n else -> value\n   }\n}\n\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\nimport org.w3c.performance.GlobalPerformance\nimport org.w3c.performance.Performance\n\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\ninternal actual object MonotonicTimeSource : TimeSource {\n\n   private val actualSource: TimeSource = run {\n   val isNode: Boolean = js(\"typeof process !== 'undefined' && process.versions && !!process.versions.node\")\n\n   if (isNode)\n   HrTimeSource(js(\"process\").unsafeCast<Process>())\n   else\n js(\"self\").unsafeCast<GlobalPerformance?>()?.performance?.let(::PerformanceTimeSource)\n   ?: DateNowTimeSource\n\n
    }\n\n   override fun markNow(): TimeMark = actualSource.markNow()\n}\n\ninternal external interface Process {\n   fun hrtime(time: Array<Double> = definedExternally): Array<Double>\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\ninternal class HrTimeSource(val process: Process) : TimeSource {\n\n   override fun markNow(): TimeMark = object : TimeMark() {\n   val startedAt = process.hrtime()\n   override fun elapsedNow(): Duration =\n   process.hrtime(startedAt).let { (seconds, nanos) -> seconds.toDuration(DurationUnit.SECONDS) + nanos.toDuration(DurationUnit.NANOSECONDS) }\n }\n\n   override fun toString(): String = \"TimeSource(process.hrtime())\"\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\ninternal class PerformanceTimeSource(val performance: Performance) : AbstractDoubleTimeSource(unit = DurationUnit.MILLISECONDS) {\n   override fun read(): Double = performance.now()\n   override fun toString(): String = \"TimeSource(self.performance.now())\"\n}\n\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\ninternal
object DateNowTimeSource : AbstractDoubleTimeSource(unit = DurationUnit.MILLISECONDS) {\n   override fun read(): Double = kotlin.js.Date.now()\n   override fun toString(): String = \"TimeSource(Date.now())\"\n}","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlinx.dom\n\nimport org.w3c.dom.*\nimport kotlin.contracts.*\n\n/**\n * Creates a new element with the specified [name].\n *\n * The element is initialized with the specified [init] function.\n */\n@SinceKotlin(\"1.4\")\npublic fun Document.createElement(name: String, init: Element.() -> Unit): Element {\n   contract { callsInPlace(init, InvocationKind.EXACTLY_ONCE) }\n   return createElement(name).apply(init)\n}\n\n/**\n * Appends a newly created element with the specified [name] to this element.\n
*\n * The element is initialized with the specified [init] function.\n */\n@SinceKotlin(\"1.4\")\npublic fun Element.appendElement(name: String, init: Element.() -> Unit): Element {\n   contract { callsInPlace(init, InvocationKind.EXACTLY_ONCE) }\n   return ownerDocument!!.createElement(name, init).also { appendChild(it) }\n}\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the

license/LICENSE.txt file.\n */\n\npackage kotlinx.dom\n\nimport org.w3c.dom.*\n\n/** Returns true if the element has the given CSS class style in its 'class' attribute */\n@SinceKotlin(\"1.4\")\nfun Element.hasClass(cssClass: String): Boolean = className.matches(\"\"\"(^|.*\\s+)$cssClass($|\\s+.*)\"\"\".toRegex())\n\n/**\n * Adds CSS class to element. Has no effect if all specified classes are already in class attribute of the element\n *\n * @return true if at least one class has
been added\n */\n@SinceKotlin(\"1.4\")\nfun Element.addClass(vararg cssClasses: String): Boolean {\n val missingClasses = cssClasses.filterNot { hasClass(it) }\n if (missingClasses.isNotEmpty()) {\n val presentClasses = className.trim()\n className = buildString {\n append(presentClasses)\n if (!presentClasses.isEmpty()) {\n append(\" \")\n }\n missingClasses.joinTo(this, \" \")\n }\n return true\n }\n\n return false\n}\n\n/**\n * Removes all [cssClasses] from element. Has no effect if all specified classes are missing in class attribute of the element\n *\n * @return true if at least one class has been removed\n */\n@SinceKotlin(\"1.4\")\nfun Element.removeClass(vararg cssClasses: String): Boolean {\n if (cssClasses.any { hasClass(it) }) {\n val toBeRemoved = cssClasses.toSet()\n className = className.trim().split(\"\\\\s+\".toRegex()).filter { it !in toBeRemoved }.joinToString(\"
\")\n return true\n }\n\n return false\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n\npackage kotlin.text\n\n/**\n * Converts the string into a regular expression [Regex] with the default options.\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.toRegex(): Regex = Regex(this)\n\n/**\n * Converts the string into a regular expression [Regex] with the specified single [option].\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.toRegex(option: RegexOption): Regex = Regex(this, option)\n\n/**\n * Converts the string into a regular expression [Regex] with the specified set of [options].\n */\n@kotlin.internal.InlineOnly\npublic inline fun String.toRegex(options: Set<RegexOption>): Regex = Regex(this,
options)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlinx.dom\n\nimport org.w3c.dom.*\n\n/**\n * Gets a value indicating whether this node is a TEXT_NODE or a CDATA_SECTION_NODE.\n */\n@SinceKotlin(\"1.4\")\npublic val Node.isText: Boolean\n get() = nodeType == Node.TEXT_NODE || nodeType == Node.CDATA_SECTION_NODE\n\n/**\n * Gets a value indicating whether this node is an [Element].\n */\n@SinceKotlin(\"1.4\")\npublic val Node.isElement: Boolean\n get() = nodeType == Node.ELEMENT_NODE\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlinx.dom\n\nimport org.w3c.dom.*\n\n/** Removes all the children from this node. */\n@SinceKotlin(\"1.4\")\npublic
fun Node.clear() {\n while (hasChildNodes()) {\n removeChild(firstChild!!)\n }\n}\n\n/**\n * Creates text node and append it to the element.\n *\n * @return this element\n */\n@SinceKotlin(\"1.4\")\nfun Element.appendText(text: String): Element {\n appendChild(ownerDocument!!.createTextNode(text))\n return this\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage org.w3c.dom\n\n@Deprecated(\"Use UnionMessagePortOrWindowProxy instead.\", ReplaceWith(\"UnionMessagePortOrWindowProxy\"))\ntypealias UnionMessagePortOrWindow = UnionMessagePortOrWindowProxy\n\n@Deprecated(\"Use `as` instead.\", ReplaceWith(\"`as`\"))\nvar HTMLLinkElement.as_\n get() = `as`\n set(value) {\n `as` = value\n }\n\n@Deprecated(\"Use `is` instead.\", ReplaceWith(\"`is`\"))\nvar
ElementCreationOptions.is_\n get() = `is`\n set(value) {\n `is` = value\n }","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage

org.khronos.webgl\n\nimport kotlin.js.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\npublic external interface WebGLContextAttributes {\n   var alpha: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var depth: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var stencil: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var antialias: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var premultipliedAlpha: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var preserveDrawingBuffer: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var preferLowPowerToHighPerformance: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var failIfMajorPerformanceCaveat: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun WebGLContextAttributes(alpha: Boolean? = true, depth: Boolean? = true, stencil: Boolean? = false, antialias: Boolean? = true, premultipliedAlpha: Boolean? = true, preserveDrawingBuffer: Boolean? = false, preferLowPowerToHighPerformance: Boolean? = false, failIfMajorPerformanceCaveat: Boolean? = false): WebGLContextAttributes {\n   val o = js(\"({})\")\n   o[\"alpha\"] = alpha\n   o[\"depth\"] = depth\n   o[\"stencil\"] = stencil\n   o[\"antialias\"] = antialias\n   o[\"premultipliedAlpha\"] = premultipliedAlpha\n   o[\"preserveDrawingBuffer\"] = preserveDrawingBuffer\n   o[\"preferLowPowerToHighPerformance\"] = preferLowPowerToHighPerformance\n   o[\"failIfMajorPerformanceCaveat\"] = failIfMajorPerformanceCaveat\n   return o\n}\n\npublic external abstract class WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLBuffer](https://developer.mozilla.org/en/docs/Web/API/WebGLBuffer) to Kotlin\n */\npublic external abstract class WebGLBuffer : WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLFramebuffer](https://developer.mozilla.org/en/docs/Web/API/WebGLFramebuffer) to Kotlin\n */\npublic external abstract class WebGLFramebuffer : WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLProgram](https://developer.mozilla.org/en/docs/Web/API/WebGLProgram) to Kotlin\n */\npublic external abstract class WebGLProgram : WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLRenderbuffer](https://developer.mozilla.org/en/docs/Web/API/WebGLRenderbuffer) to Kotlin\n */\npublic external abstract class WebGLRenderbuffer : WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLShader](https://developer.mozilla.org/en/docs/Web/API/WebGLShader) to Kotlin\n */\npublic external abstract class WebGLShader : WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLTexture](https://developer.mozilla.org/en/docs/Web/API/WebGLTexture) to Kotlin\n */\npublic external abstract class WebGLTexture : WebGLObject\n\n/**\n * Exposes the JavaScript [WebGLUniformLocation](https://developer.mozilla.org/en/docs/Web/API/WebGLUniformLocation) to Kotlin\n */\npublic external abstract class WebGLUniformLocation\n\n/**\n * Exposes the JavaScript [WebGLActiveInfo](https://developer.mozilla.org/en/docs/Web/API/WebGLActiveInfo) to Kotlin\n */\npublic external abstract class WebGLActiveInfo {\n   open val size: Int\n   open val type: Int\n   open val name: String\n}\n\n/**\n * Exposes the JavaScript [WebGLShaderPrecisionFormat](https://developer.mozilla.org/en/docs/Web/API/WebGLShaderPrecisionFormat) to Kotlin\n */\npublic external abstract class WebGLShaderPrecisionFormat {\n   open val rangeMin: Int\n   open val rangeMax: Int\n   open val precision: Int\n}\n\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface WebGLRenderingContextBase {\n   val canvas: HTMLCanvasElement\n   val drawingBufferWidth: Int\n   val drawingBufferHeight: Int\n   fun getContextAttributes(): WebGLContextAttributes?\n   fun isContextLost(): Boolean\n   fun getSupportedExtensions(): Array<String>?\n   fun getExtension(name: String): dynamic\n   fun activeTexture(texture: Int)\n   fun attachShader(program: WebGLProgram?, shader: WebGLShader?)\n   fun bindAttribLocation(program: WebGLProgram?, index: Int, name: String)\n   fun bindBuffer(target: Int, buffer: WebGLBuffer?)\n   fun bindFramebuffer(target: Int, framebuffer: WebGLFramebuffer?)\n   fun bindRenderbuffer(target: Int, renderbuffer: WebGLRenderbuffer?)\n   fun bindTexture(target: Int, texture: WebGLTexture?)\n   fun blendColor(red: Float, green: Float, blue: Float, alpha: Float)\n   fun blendEquation(mode: Int)\n   fun blendEquationSeparate(modeRGB: Int, modeAlpha: Int)\n   fun blendFunc(sfactor: Int, dfactor: Int)\n   fun blendFuncSeparate(srcRGB: Int, dstRGB: Int, srcAlpha: Int, dstAlpha: Int)\n   fun bufferData(target: Int, size: Int, usage: Int)\n   fun bufferData(target: Int, data: BufferDataSource?, usage: Int)\n   fun bufferSubData(target: Int, offset: Int, data: BufferDataSource?)\n   fun checkFramebufferStatus(target: Int): Int\n   fun clear(mask: Int)\n   fun clearColor(red: Float, green: Float, blue: Float, alpha: Float)\n   fun clearDepth(depth: Float)\n   fun clearStencil(s: Int)\n   fun colorMask(red: Boolean, green: Boolean, blue: Boolean, alpha: Boolean)\n   fun compileShader(shader: WebGLShader?)\n

fun compressedTexImage2D(target: Int, level: Int, internalformat: Int, width: Int, height: Int, border: Int, data: ArrayBufferView)\n   fun compressedTexSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int, width: Int, height: Int, format: Int, data: ArrayBufferView)\n   fun copyTexImage2D(target: Int, level: Int, internalformat: Int, x: Int, y: Int, width: Int, height: Int, border: Int)\n   fun copyTexSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int, x: Int, y: Int, width: Int, height: Int)\n   fun createBuffer(): WebGLBuffer?\n   fun createFramebuffer(): WebGLFramebuffer?\n   fun createProgram(): WebGLProgram?\n   fun createRenderbuffer(): WebGLRenderbuffer?\n   fun createShader(type: Int): WebGLShader?\n   fun createTexture(): WebGLTexture?\n   fun cullFace(mode: Int)\n   fun deleteBuffer(buffer: WebGLBuffer?)\n   fun deleteFramebuffer(framebuffer: WebGLFramebuffer?)\n   fun deleteProgram(program: WebGLProgram?)\n   fun deleteRenderbuffer(renderbuffer: WebGLRenderbuffer?)\n   fun deleteShader(shader: WebGLShader?)\n   fun deleteTexture(texture: WebGLTexture?)\n   fun depthFunc(func: Int)\n   fun depthMask(flag: Boolean)\n   fun depthRange(zNear: Float, zFar: Float)\n   fun detachShader(program: WebGLProgram?, shader: WebGLShader?)\n   fun disable(cap: Int)\n   fun disableVertexAttribArray(index: Int)\n   fun drawArrays(mode: Int, first: Int, count: Int)\n   fun drawElements(mode: Int, count: Int, type: Int, offset: Int)\n   fun enable(cap: Int)\n   fun enableVertexAttribArray(index: Int)\n   fun finish()\n   fun flush()\n   fun framebufferRenderbuffer(target: Int, attachment: Int, renderbuffertarget: Int, renderbuffer: WebGLRenderbuffer?)\n   fun framebufferTexture2D(target: Int, attachment: Int, textarget: Int, texture: WebGLTexture?, level: Int)\n   fun frontFace(mode: Int)\n   fun generateMipmap(target: Int)\n   fun getActiveAttrib(program: WebGLProgram?, index: Int): WebGLActiveInfo?\n   fun getActiveUniform(program:

WebGLProgram?, index: Int): WebGLActiveInfo?\n   fun getAttachedShaders(program: WebGLProgram?): Array<WebGLShader>?\n   fun getAttribLocation(program: WebGLProgram?, name: String): Int\n   fun getBufferParameter(target: Int, pname: Int): Any?\n   fun getParameter(pname: Int): Any?\n   fun getError(): Int\n   fun getFramebufferAttachmentParameter(target: Int, attachment: Int, pname: Int): Any?\n   fun getProgramParameter(program: WebGLProgram?, pname: Int): Any?\n   fun getProgramInfoLog(program: WebGLProgram?): String?\n   fun getRenderbufferParameter(target: Int, pname: Int): Any?\n   fun getShaderParameter(shader: WebGLShader?, pname: Int): Any?\n   fun getShaderPrecisionFormat(shadertype: Int, precisiontype: Int): WebGLShaderPrecisionFormat?\n   fun getShaderInfoLog(shader: WebGLShader?): String?\n   fun getShaderSource(shader: WebGLShader?): String?\n   fun getTexParameter(target: Int, pname: Int): Any?\n   fun getUniform(program: WebGLProgram?,

location: WebGLUniformLocation?): Any?\n   fun getUniformLocation(program: WebGLProgram?, name: String): WebGLUniformLocation?\n   fun getVertexAttrib(index: Int, pname: Int): Any?\n   fun getVertexAttribOffset(index: Int, pname: Int): Int\n   fun hint(target: Int, mode: Int)\n   fun isBuffer(buffer: WebGLBuffer?): Boolean\n   fun isEnabled(cap: Int): Boolean\n   fun isFramebuffer(framebuffer: WebGLFramebuffer?): Boolean\n   fun isProgram(program: WebGLProgram?): Boolean\n   fun isRenderbuffer(renderbuffer: WebGLRenderbuffer?): Boolean\n   fun isShader(shader: WebGLShader?): Boolean\n   fun isTexture(texture: WebGLTexture?): Boolean\n   fun lineWidth(width: Float)\n   fun linkProgram(program: WebGLProgram?)\n   fun pixelStorei(pname: Int, param: Int)\n   fun polygonOffset(factor: Float, units: Float)\n   fun readPixels(x: Int, y: Int, width: Int, height: Int, format: Int, type: Int, pixels: ArrayBufferView?)\n   fun renderbufferStorage(target: Int, internalformat: Int, width: Int, height: Int)\n   fun sampleCoverage(value: Float, invert: Boolean)\n   fun scissor(x: Int, y: Int, width: Int, height: Int)\n   fun shaderSource(shader: WebGLShader?, source: String)\n   fun stencilFunc(func: Int, ref: Int, mask: Int)\n   fun stencilFuncSeparate(face: Int, func: Int, ref: Int, mask: Int)\n   fun stencilMask(mask: Int)\n   fun stencilMaskSeparate(face: Int, mask: Int)\n   fun stencilOp(fail: Int, zfail: Int, zpass: Int)\n   fun stencilOpSeparate(face: Int, fail: Int, zfail: Int, zpass: Int)\n   fun texImage2D(target: Int, level: Int, internalformat: Int, width: Int, height: Int, border: Int, format: Int, type: Int, pixels: ArrayBufferView?)\n   fun texImage2D(target: Int, level: Int, internalformat: Int, format: Int, type: Int, source: TexImageSource?)\n   fun texParameterf(target: Int, pname: Int, param: Float)\n   fun texParameteri(target: Int, pname: Int, param: Int)\n   fun texSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int,

width: Int, height: Int, format: Int, type: Int, pixels: ArrayBufferView?)\n   fun texSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int, format: Int, type: Int, source: TexImageSource?)\n   fun uniform1f(location: WebGLUniformLocation?, x: Float)\n   fun uniform1fv(location: WebGLUniformLocation?, v: Float32Array)\n   fun uniform1fv(location: WebGLUniformLocation?, v: Array<Float>)\n   fun uniform1i(location: WebGLUniformLocation?, x: Int)\n   fun uniform1iv(location: WebGLUniformLocation?, v: Int32Array)\n   fun uniform1iv(location: WebGLUniformLocation?, v: Array<Int>)\n   fun uniform2f(location: WebGLUniformLocation?, x: Float, y: Float)\n   fun uniform2fv(location: WebGLUniformLocation?, v: Float32Array)\n   fun uniform2fv(location: WebGLUniformLocation?, v: Array<Float>)\n   fun uniform2i(location: WebGLUniformLocation?, x: Int, y: Int)\n   fun uniform2iv(location: WebGLUniformLocation?, v: Int32Array)\n   fun uniform2iv(location: WebGLUniformLocation?,

v: Array<Int>)\n   fun uniform3f(location: WebGLUniformLocation?, x: Float, y: Float, z: Float)\n   fun uniform3fv(location: WebGLUniformLocation?, v: Float32Array)\n   fun uniform3fv(location: WebGLUniformLocation?, v: Array<Float>)\n   fun uniform3i(location: WebGLUniformLocation?, x: Int, y: Int, z: Int)\n   fun uniform3iv(location: WebGLUniformLocation?, v: Int32Array)\n   fun uniform3iv(location: WebGLUniformLocation?, v: Array<Int>)\n   fun uniform4f(location: WebGLUniformLocation?, x: Float, y: Float, z: Float, w: Float)\n   fun uniform4fv(location: WebGLUniformLocation?, v: Float32Array)\n   fun uniform4fv(location: WebGLUniformLocation?, v: Array<Float>)\n   fun uniform4i(location: WebGLUniformLocation?, x: Int, y: Int, z: Int, w: Int)\n   fun uniform4iv(location: WebGLUniformLocation?, v: Int32Array)\n   fun uniform4iv(location: WebGLUniformLocation?, v: Array<Int>)\n   fun uniformMatrix2fv(location: WebGLUniformLocation?, transpose: Boolean, value: Float32Array)\n

fun uniformMatrix2fv(location: WebGLUniformLocation?, transpose: Boolean, value: Array<Float>)\n   fun uniformMatrix3fv(location: WebGLUniformLocation?, transpose: Boolean, value: Float32Array)\n   fun uniformMatrix3fv(location: WebGLUniformLocation?, transpose: Boolean, value: Array<Float>)\n   fun uniformMatrix4fv(location: WebGLUniformLocation?, transpose: Boolean, value: Float32Array)\n   fun uniformMatrix4fv(location: WebGLUniformLocation?, transpose: Boolean, value: Array<Float>)\n   fun useProgram(program: WebGLProgram?)\n   fun validateProgram(program: WebGLProgram?)\n   fun vertexAttrib1f(index: Int, x: Float)\n   fun vertexAttrib1fv(index: Int, values: dynamic)\n   fun vertexAttrib2f(index: Int, x: Float, y: Float)\n   fun vertexAttrib2fv(index: Int, values: dynamic)\n   fun vertexAttrib3f(index: Int, x: Float, y: Float, z: Float)\n   fun vertexAttrib3fv(index: Int, values: dynamic)\n   fun vertexAttrib4f(index: Int, x: Float, y: Float, z: Float, w: Float)\n

fun vertexAttrib4fv(index: Int, values: dynamic)\n   fun vertexAttribPointer(index: Int, size: Int, type: Int, normalized: Boolean, stride: Int, offset: Int)\n   fun viewport(x: Int, y: Int, width: Int, height: Int)\n\n   companion object {\n   val DEPTH_BUFFER_BIT: Int\n   val STENCIL_BUFFER_BIT: Int\n   val COLOR_BUFFER_BIT: Int\n   val POINTS: Int\n   val LINES: Int\n   val LINE_LOOP: Int\n   val LINE_STRIP: Int\n   val TRIANGLES: Int\n   val TRIANGLE_STRIP: Int\n   val TRIANGLE_FAN: Int\n   val ZERO: Int\n   val ONE: Int\n   val SRC_COLOR: Int\n   val ONE_MINUS_SRC_COLOR: Int\n   val SRC_ALPHA: Int\n   val ONE_MINUS_SRC_ALPHA: Int\n   val DST_ALPHA: Int\n   val ONE_MINUS_DST_ALPHA: Int\n   val DST_COLOR: Int\n   val ONE_MINUS_DST_COLOR: Int\n   val SRC_ALPHA_SATURATE: Int\n   val FUNC_ADD: Int\n   val BLEND_EQUATION: Int\n   val

BLEND_EQUATION_RGB: Int\n
val BLEND_EQUATION_ALPHA: Int\n val FUNC_SUBTRACT: Int\n val
FUNC_REVERSE_SUBTRACT: Int\n val BLEND_DST_RGB: Int\n val BLEND_SRC_RGB: Int\n
val BLEND_DST_ALPHA: Int\n val BLEND_SRC_ALPHA: Int\n val CONSTANT_COLOR: Int\n
val ONE_MINUS_CONSTANT_COLOR: Int\n val CONSTANT_ALPHA: Int\n val
ONE_MINUS_CONSTANT_ALPHA: Int\n val BLEND_COLOR: Int\n val ARRAY_BUFFER: Int\n
val ELEMENT_ARRAY_BUFFER: Int\n val ARRAY_BUFFER_BINDING: Int\n val
ELEMENT_ARRAY_BUFFER_BINDING: Int\n val STREAM_DRAW: Int\n val STATIC_DRAW: Int\n
val DYNAMIC_DRAW: Int\n val BUFFER_SIZE: Int\n val BUFFER_USAGE: Int\n val
CURRENT_VERTEX_ATTRIB: Int\n val FRONT: Int\n val BACK: Int\n val FRONT_AND_BACK:
Int\n val CULL_FACE: Int\n val BLEND: Int\n val DITHER: Int\n val STENCIL_TEST: Int\n
val DEPTH_TEST: Int\n val
SCISSOR_TEST: Int\n val POLYGON_OFFSET_FILL: Int\n val SAMPLE_ALPHA_TO_COVERAGE:
Int\n val SAMPLE_COVERAGE: Int\n val NO_ERROR: Int\n val INVALID_ENUM: Int\n val
INVALID_VALUE: Int\n val INVALID_OPERATION: Int\n val OUT_OF_MEMORY: Int\n val CW:
Int\n val CCW: Int\n val LINE_WIDTH: Int\n val ALIASED_POINT_SIZE_RANGE: Int\n val
ALIASED_LINE_WIDTH_RANGE: Int\n val CULL_FACE_MODE: Int\n val FRONT_FACE: Int\n
val DEPTH_RANGE: Int\n val DEPTH_WRITEMASK: Int\n val DEPTH_CLEAR_VALUE: Int\n val
DEPTH_FUNC: Int\n val STENCIL_CLEAR_VALUE: Int\n val STENCIL_FUNC: Int\n val
STENCIL_FAIL: Int\n val STENCIL_PASS_DEPTH_FAIL: Int\n val STENCIL_PASS_DEPTH_PASS:
Int\n val STENCIL_REF: Int\n val STENCIL_VALUE_MASK: Int\n val STENCIL_WRITEMASK:
Int\n val STENCIL_BACK_FUNC: Int\n val STENCIL_BACK_FAIL: Int\n
val STENCIL_BACK_PASS_DEPTH_FAIL: Int\n val STENCIL_BACK_PASS_DEPTH_PASS: Int\n
val STENCIL_BACK_REF: Int\n val STENCIL_BACK_VALUE_MASK: Int\n val
STENCIL_BACK_WRITEMASK: Int\n val VIEWPORT: Int\n val SCISSOR_BOX: Int\n val
COLOR_CLEAR_VALUE: Int\n val COLOR_WRITEMASK: Int\n val UNPACK_ALIGNMENT: Int\n
val PACK_ALIGNMENT: Int\n val MAX_TEXTURE_SIZE: Int\n val MAX_VIEWPORT_DIMS: Int\n
val SUBPIXEL_BITS: Int\n val RED_BITS: Int\n val GREEN_BITS: Int\n val BLUE_BITS: Int\n
val ALPHA_BITS: Int\n val DEPTH_BITS: Int\n val STENCIL_BITS: Int\n val
POLYGON_OFFSET_UNITS: Int\n val POLYGON_OFFSET_FACTOR: Int\n val
TEXTURE_BINDING_2D: Int\n val SAMPLE_BUFFERS: Int\n val SAMPLES: Int\n val
SAMPLE_COVERAGE_VALUE: Int\n val SAMPLE_COVERAGE_INVERT: Int\n val
COMPRESSED_TEXTURE_FORMATS: Int\n val DONT_CARE:
Int\n val FASTEST: Int\n val NICEST: Int\n val GENERATE_MIPMAP_HINT: Int\n val BYTE:
Int\n val UNSIGNED_BYTE: Int\n val SHORT: Int\n val UNSIGNED_SHORT: Int\n val INT:
Int\n val UNSIGNED_INT: Int\n val FLOAT: Int\n val DEPTH_COMPONENT: Int\n val
ALPHA: Int\n val RGB: Int\n val RGBA: Int\n val LUMINANCE: Int\n val
LUMINANCE_ALPHA: Int\n val UNSIGNED_SHORT_4_4_4_4: Int\n val
UNSIGNED_SHORT_5_5_5_1: Int\n val UNSIGNED_SHORT_5_6_5: Int\n val
FRAGMENT_SHADER: Int\n val VERTEX_SHADER: Int\n val MAX_VERTEX_ATTRIBS: Int\n
val MAX_VERTEX_UNIFORM_VECTORS: Int\n val MAX_VARYING_VECTORS: Int\n val
MAX_COMBINED_TEXTURE_IMAGE_UNITS: Int\n val MAX_VERTEX_TEXTURE_IMAGE_UNITS:
Int\n val MAX_TEXTURE_IMAGE_UNITS: Int\n val MAX_FRAGMENT_UNIFORM_VECTORS: Int\n
val SHADER_TYPE: Int\n val DELETE_STATUS:
Int\n val LINK_STATUS: Int\n val VALIDATE_STATUS: Int\n val ATTACHED_SHADERS: Int\n
val ACTIVE_UNIFORMS: Int\n val ACTIVE_ATTRIBUTES: Int\n val
SHADING_LANGUAGE_VERSION: Int\n val CURRENT_PROGRAM: Int\n val NEVER: Int\n val
LESS: Int\n val EQUAL: Int\n val LEQUAL: Int\n val GREATER: Int\n val NOTEQUAL: Int\n

val GEQUAL: Int\n val ALWAYS: Int\n val KEEP: Int\n val REPLACE: Int\n val INCR: Int\n val DECR: Int\n val INVERT: Int\n val INCR_WRAP: Int\n val DECR_WRAP: Int\n val VENDOR: Int\n val RENDERER: Int\n val VERSION: Int\n val NEAREST: Int\n val LINEAR: Int\n val NEAREST_MIPMAP_NEAREST: Int\n val LINEAR_MIPMAP_NEAREST: Int\n val NEAREST_MIPMAP_LINEAR: Int\n val LINEAR_MIPMAP_LINEAR: Int\n val TEXTURE_MAG_FILTER: Int\n val TEXTURE_MIN_FILTER: Int\n
val TEXTURE_WRAP_S: Int\n val TEXTURE_WRAP_T: Int\n val TEXTURE_2D: Int\n val TEXTURE: Int\n val TEXTURE_CUBE_MAP: Int\n val TEXTURE_BINDING_CUBE_MAP: Int\n val TEXTURE_CUBE_MAP_POSITIVE_X: Int\n val TEXTURE_CUBE_MAP_NEGATIVE_X: Int\n val TEXTURE_CUBE_MAP_POSITIVE_Y: Int\n val TEXTURE_CUBE_MAP_NEGATIVE_Y: Int\n val TEXTURE_CUBE_MAP_POSITIVE_Z: Int\n val TEXTURE_CUBE_MAP_NEGATIVE_Z: Int\n val MAX_CUBE_MAP_TEXTURE_SIZE: Int\n val TEXTURE0: Int\n val TEXTURE1: Int\n val TEXTURE2: Int\n val TEXTURE3: Int\n val TEXTURE4: Int\n val TEXTURE5: Int\n val TEXTURE6: Int\n val TEXTURE7: Int\n val TEXTURE8: Int\n val TEXTURE9: Int\n val TEXTURE10: Int\n val TEXTURE11: Int\n val TEXTURE12: Int\n val TEXTURE13: Int\n val TEXTURE14: Int\n val TEXTURE15: Int\n val TEXTURE16: Int\n val TEXTURE17: Int\n val TEXTURE18: Int\n val TEXTURE19: Int\n val TEXTURE20: Int\n val TEXTURE21: Int\n val TEXTURE22: Int\n val TEXTURE23: Int\n val TEXTURE24: Int\n val TEXTURE25: Int\n val TEXTURE26: Int\n val TEXTURE27: Int\n val TEXTURE28: Int\n val TEXTURE29: Int\n val TEXTURE30: Int\n val TEXTURE31: Int\n val ACTIVE_TEXTURE: Int\n val REPEAT: Int\n val CLAMP_TO_EDGE: Int\n val MIRRORED_REPEAT: Int\n val FLOAT_VEC2: Int\n val FLOAT_VEC3: Int\n val FLOAT_VEC4: Int\n val INT_VEC2: Int\n val INT_VEC3: Int\n val INT_VEC4: Int\n val BOOL: Int\n val BOOL_VEC2: Int\n val BOOL_VEC3: Int\n val BOOL_VEC4: Int\n val FLOAT_MAT2: Int\n val FLOAT_MAT3: Int\n val FLOAT_MAT4: Int\n val SAMPLER_2D: Int\n val SAMPLER_CUBE: Int\n val VERTEX_ATTRIB_ARRAY_ENABLED: Int\n
val VERTEX_ATTRIB_ARRAY_SIZE: Int\n val VERTEX_ATTRIB_ARRAY_STRIDE: Int\n val VERTEX_ATTRIB_ARRAY_TYPE: Int\n val VERTEX_ATTRIB_ARRAY_NORMALIZED: Int\n val VERTEX_ATTRIB_ARRAY_POINTER: Int\n val VERTEX_ATTRIB_ARRAY_BUFFER_BINDING: Int\n val IMPLEMENTATION_COLOR_READ_TYPE: Int\n val IMPLEMENTATION_COLOR_READ_FORMAT: Int\n val COMPILE_STATUS: Int\n val LOW_FLOAT: Int\n val MEDIUM_FLOAT: Int\n val HIGH_FLOAT: Int\n val LOW_INT: Int\n val MEDIUM_INT: Int\n val HIGH_INT: Int\n val FRAMEBUFFER: Int\n val RENDERBUFFER: Int\n val RGBA4: Int\n val RGB5_A1: Int\n val RGB565: Int\n val DEPTH_COMPONENT16: Int\n val STENCIL_INDEX: Int\n val STENCIL_INDEX8: Int\n val DEPTH_STENCIL: Int\n val RENDERBUFFER_WIDTH: Int\n val RENDERBUFFER_HEIGHT: Int\n val RENDERBUFFER_INTERNAL_FORMAT: Int\n val RENDERBUFFER_RED_SIZE: Int\n val RENDERBUFFER_GREEN_SIZE: Int\n val RENDERBUFFER_BLUE_SIZE: Int\n val RENDERBUFFER_ALPHA_SIZE: Int\n val RENDERBUFFER_DEPTH_SIZE: Int\n val RENDERBUFFER_STENCIL_SIZE: Int\n val FRAMEBUFFER_ATTACHMENT_OBJECT_TYPE: Int\n val FRAMEBUFFER_ATTACHMENT_OBJECT_NAME: Int\n val FRAMEBUFFER_ATTACHMENT_TEXTURE_LEVEL: Int\n val FRAMEBUFFER_ATTACHMENT_TEXTURE_CUBE_MAP_FACE: Int\n val COLOR_ATTACHMENT0: Int\n val DEPTH_ATTACHMENT: Int\n val STENCIL_ATTACHMENT: Int\n val DEPTH_STENCIL_ATTACHMENT: Int\n val NONE: Int\n val FRAMEBUFFER_COMPLETE: Int\n val FRAMEBUFFER_INCOMPLETE_ATTACHMENT: Int\n val FRAMEBUFFER_INCOMPLETE_MISSING_ATTACHMENT: Int\n val FRAMEBUFFER_INCOMPLETE_DIMENSIONS: Int\n val FRAMEBUFFER_UNSUPPORTED: Int\n

val FRAMEBUFFER_BINDING: Int\n   val RENDERBUFFER_BINDING: Int\n   val
MAX_RENDERBUFFER_SIZE: Int\n   val INVALID_FRAMEBUFFER_OPERATION:
 Int\n   val UNPACK_FLIP_Y_WEBGL: Int\n   val UNPACK_PREMULTIPLY_ALPHA_WEBGL: Int\n
val CONTEXT_LOST_WEBGL: Int\n   val UNPACK_COLORSPACE_CONVERSION_WEBGL: Int\n
val BROWSER_DEFAULT_WEBGL: Int\n   }\n}\n\n/**\n * Exposes the JavaScript
[WebGLRenderingContext](https://developer.mozilla.org/en/docs/Web/API/WebGLRenderingContext) to Kotlin\n
*/\npublic external abstract class WebGLRenderingContext : WebGLRenderingContextBase, RenderingContext {\n
 companion object {\n   val DEPTH_BUFFER_BIT: Int\n   val STENCIL_BUFFER_BIT: Int\n   val
COLOR_BUFFER_BIT: Int\n   val POINTS: Int\n   val LINES: Int\n   val LINE_LOOP: Int\n   val
LINE_STRIP: Int\n   val TRIANGLES: Int\n   val TRIANGLE_STRIP: Int\n   val TRIANGLE_FAN:
Int\n   val ZERO: Int\n   val ONE: Int\n   val SRC_COLOR: Int\n   val ONE_MINUS_SRC_COLOR:
Int\n   val SRC_ALPHA: Int\n   val ONE_MINUS_SRC_ALPHA:
 Int\n   val DST_ALPHA: Int\n   val ONE_MINUS_DST_ALPHA: Int\n   val DST_COLOR: Int\n   val
ONE_MINUS_DST_COLOR: Int\n   val SRC_ALPHA_SATURATE: Int\n   val FUNC_ADD: Int\n   val
BLEND_EQUATION: Int\n   val BLEND_EQUATION_RGB: Int\n   val BLEND_EQUATION_ALPHA:
Int\n   val FUNC_SUBTRACT: Int\n   val FUNC_REVERSE_SUBTRACT: Int\n   val
BLEND_DST_RGB: Int\n   val BLEND_SRC_RGB: Int\n   val BLEND_DST_ALPHA: Int\n   val
BLEND_SRC_ALPHA: Int\n   val CONSTANT_COLOR: Int\n   val ONE_MINUS_CONSTANT_COLOR:
Int\n   val CONSTANT_ALPHA: Int\n   val ONE_MINUS_CONSTANT_ALPHA: Int\n   val
BLEND_COLOR: Int\n   val ARRAY_BUFFER: Int\n   val ELEMENT_ARRAY_BUFFER: Int\n   val
ARRAY_BUFFER_BINDING: Int\n   val ELEMENT_ARRAY_BUFFER_BINDING: Int\n   val
STREAM_DRAW: Int\n   val STATIC_DRAW: Int\n   val DYNAMIC_DRAW: Int\n   val
BUFFER_SIZE: Int\n   val BUFFER_USAGE:
 Int\n   val CURRENT_VERTEX_ATTRIB: Int\n   val FRONT: Int\n   val BACK: Int\n   val
FRONT_AND_BACK: Int\n   val CULL_FACE: Int\n   val BLEND: Int\n   val DITHER: Int\n   val
STENCIL_TEST: Int\n   val DEPTH_TEST: Int\n   val SCISSOR_TEST: Int\n   val
POLYGON_OFFSET_FILL: Int\n   val SAMPLE_ALPHA_TO_COVERAGE: Int\n   val
SAMPLE_COVERAGE: Int\n   val NO_ERROR: Int\n   val INVALID_ENUM: Int\n   val
INVALID_VALUE: Int\n   val INVALID_OPERATION: Int\n   val OUT_OF_MEMORY: Int\n   val CW:
Int\n   val CCW: Int\n   val LINE_WIDTH: Int\n   val ALIASED_POINT_SIZE_RANGE: Int\n   val
ALIASED_LINE_WIDTH_RANGE: Int\n   val CULL_FACE_MODE: Int\n   val FRONT_FACE: Int\n
val DEPTH_RANGE: Int\n   val DEPTH_WRITEMASK: Int\n   val DEPTH_CLEAR_VALUE: Int\n   val
DEPTH_FUNC: Int\n   val STENCIL_CLEAR_VALUE: Int\n   val STENCIL_FUNC: Int\n   val
STENCIL_FAIL:
 Int\n   val STENCIL_PASS_DEPTH_FAIL: Int\n   val STENCIL_PASS_DEPTH_PASS: Int\n   val
STENCIL_REF: Int\n   val STENCIL_VALUE_MASK: Int\n   val STENCIL_WRITEMASK: Int\n   val
STENCIL_BACK_FUNC: Int\n   val STENCIL_BACK_FAIL: Int\n   val
STENCIL_BACK_PASS_DEPTH_FAIL: Int\n   val STENCIL_BACK_PASS_DEPTH_PASS: Int\n   val
STENCIL_BACK_REF: Int\n   val STENCIL_BACK_VALUE_MASK: Int\n   val
STENCIL_BACK_WRITEMASK: Int\n   val VIEWPORT: Int\n   val SCISSOR_BOX: Int\n   val
COLOR_CLEAR_VALUE: Int\n   val COLOR_WRITEMASK: Int\n   val UNPACK_ALIGNMENT: Int\n
  val PACK_ALIGNMENT: Int\n   val MAX_TEXTURE_SIZE: Int\n   val MAX_VIEWPORT_DIMS: Int\n
    val SUBPIXEL_BITS: Int\n   val RED_BITS: Int\n   val GREEN_BITS: Int\n   val BLUE_BITS: Int\n
   val ALPHA_BITS: Int\n   val DEPTH_BITS: Int\n   val STENCIL_BITS: Int\n   val
POLYGON_OFFSET_UNITS: Int\n
     val POLYGON_OFFSET_FACTOR: Int\n   val TEXTURE_BINDING_2D: Int\n   val
SAMPLE_BUFFERS: Int\n   val SAMPLES: Int\n   val SAMPLE_COVERAGE_VALUE: Int\n   val
SAMPLE_COVERAGE_INVERT: Int\n   val COMPRESSED_TEXTURE_FORMATS: Int\n   val

DONT_CARE: Int\n   val FASTEST: Int\n   val NICEST: Int\n   val GENERATE_MIPMAP_HINT: Int\n   val BYTE: Int\n   val UNSIGNED_BYTE: Int\n   val SHORT: Int\n   val UNSIGNED_SHORT: Int\n   val INT: Int\n   val UNSIGNED_INT: Int\n   val FLOAT: Int\n   val DEPTH_COMPONENT: Int\n   val ALPHA: Int\n   val RGB: Int\n   val RGBA: Int\n   val LUMINANCE: Int\n   val LUMINANCE_ALPHA: Int\n   val UNSIGNED_SHORT_4_4_4_4: Int\n   val UNSIGNED_SHORT_5_5_5_1: Int\n   val UNSIGNED_SHORT_5_6_5: Int\n   val FRAGMENT_SHADER: Int\n   val VERTEX_SHADER: Int\n   val MAX_VERTEX_ATTRIBS: Int\n   val MAX_VERTEX_UNIFORM_VECTORS: Int\n   val MAX_VARYING_VECTORS: Int\n   val MAX_COMBINED_TEXTURE_IMAGE_UNITS: Int\n   val MAX_VERTEX_TEXTURE_IMAGE_UNITS: Int\n   val MAX_TEXTURE_IMAGE_UNITS: Int\n   val MAX_FRAGMENT_UNIFORM_VECTORS: Int\n   val SHADER_TYPE: Int\n   val DELETE_STATUS: Int\n   val LINK_STATUS: Int\n   val VALIDATE_STATUS: Int\n   val ATTACHED_SHADERS: Int\n   val ACTIVE_UNIFORMS: Int\n   val ACTIVE_ATTRIBUTES: Int\n   val SHADING_LANGUAGE_VERSION: Int\n   val CURRENT_PROGRAM: Int\n   val NEVER: Int\n   val LESS: Int\n   val EQUAL: Int\n   val LEQUAL: Int\n   val GREATER: Int\n   val NOTEQUAL: Int\n   val GEQUAL: Int\n   val ALWAYS: Int\n   val KEEP: Int\n   val REPLACE: Int\n   val INCR: Int\n   val DECR: Int\n   val INVERT: Int\n   val INCR_WRAP: Int\n   val DECR_WRAP: Int\n   val VENDOR: Int\n   val RENDERER: Int\n   val VERSION: Int\n   val NEAREST: Int\n   val LINEAR: Int\n   val NEAREST_MIPMAP_NEAREST: Int\n   val LINEAR_MIPMAP_NEAREST: Int\n   val NEAREST_MIPMAP_LINEAR: Int\n   val LINEAR_MIPMAP_LINEAR: Int\n   val TEXTURE_MAG_FILTER: Int\n   val TEXTURE_MIN_FILTER: Int\n   val TEXTURE_WRAP_S: Int\n   val TEXTURE_WRAP_T: Int\n   val TEXTURE_2D: Int\n   val TEXTURE: Int\n   val TEXTURE_CUBE_MAP: Int\n   val TEXTURE_BINDING_CUBE_MAP: Int\n   val TEXTURE_CUBE_MAP_POSITIVE_X: Int\n   val TEXTURE_CUBE_MAP_NEGATIVE_X: Int\n   val TEXTURE_CUBE_MAP_POSITIVE_Y: Int\n   val TEXTURE_CUBE_MAP_NEGATIVE_Y: Int\n   val TEXTURE_CUBE_MAP_POSITIVE_Z: Int\n   val TEXTURE_CUBE_MAP_NEGATIVE_Z: Int\n   val MAX_CUBE_MAP_TEXTURE_SIZE: Int\n   val TEXTURE0: Int\n   val TEXTURE1: Int\n   val TEXTURE2: Int\n   val TEXTURE3: Int\n   val TEXTURE4: Int\n   val TEXTURE5: Int\n   val TEXTURE6: Int\n   val TEXTURE7: Int\n   val TEXTURE8: Int\n   val TEXTURE9: Int\n   val TEXTURE10: Int\n   val TEXTURE11: Int\n   val TEXTURE12: Int\n   val TEXTURE13: Int\n   val TEXTURE14: Int\n   val TEXTURE15: Int\n   val TEXTURE16: Int\n   val TEXTURE17: Int\n   val TEXTURE18: Int\n   val TEXTURE19: Int\n   val TEXTURE20: Int\n   val TEXTURE21: Int\n   val TEXTURE22: Int\n   val TEXTURE23: Int\n   val TEXTURE24: Int\n   val TEXTURE25: Int\n   val TEXTURE26: Int\n   val TEXTURE27: Int\n   val TEXTURE28: Int\n   val TEXTURE29: Int\n   val TEXTURE30: Int\n   val TEXTURE31: Int\n   val ACTIVE_TEXTURE: Int\n   val REPEAT: Int\n   val CLAMP_TO_EDGE: Int\n   val MIRRORED_REPEAT: Int\n   val FLOAT_VEC2: Int\n   val FLOAT_VEC3: Int\n   val FLOAT_VEC4: Int\n   val INT_VEC2: Int\n   val INT_VEC3: Int\n   val INT_VEC4: Int\n   val BOOL: Int\n   val BOOL_VEC2: Int\n   val BOOL_VEC3: Int\n   val BOOL_VEC4: Int\n   val FLOAT_MAT2: Int\n   val FLOAT_MAT3: Int\n   val FLOAT_MAT4: Int\n   val SAMPLER_2D: Int\n   val SAMPLER_CUBE: Int\n   val VERTEX_ATTRIB_ARRAY_ENABLED: Int\n   val VERTEX_ATTRIB_ARRAY_SIZE: Int\n   val VERTEX_ATTRIB_ARRAY_STRIDE: Int\n   val VERTEX_ATTRIB_ARRAY_TYPE: Int\n   val VERTEX_ATTRIB_ARRAY_NORMALIZED: Int\n   val VERTEX_ATTRIB_ARRAY_POINTER: Int\n   val VERTEX_ATTRIB_ARRAY_BUFFER_BINDING: Int\n   val IMPLEMENTATION_COLOR_READ_TYPE: Int\n   val IMPLEMENTATION_COLOR_READ_FORMAT: Int\n   val COMPILE_STATUS: Int\n   val LOW_FLOAT: Int\n   val MEDIUM_FLOAT: Int\n   val HIGH_FLOAT: Int\n   val LOW_INT: Int\n   val MEDIUM_INT: Int\n   val HIGH_INT: Int\n   val FRAMEBUFFER: Int\n   val RENDERBUFFER:

```
Int\n        val RGBA4: Int\n        val RGB5_A1: Int\n        val RGB565: Int\n        val
 DEPTH_COMPONENT16: Int\n        val STENCIL_INDEX: Int\n        val STENCIL_INDEX8: Int\n        val
DEPTH_STENCIL: Int\n        val RENDERBUFFER_WIDTH: Int\n        val RENDERBUFFER_HEIGHT: Int\n
  val RENDERBUFFER_INTERNAL_FORMAT: Int\n        val RENDERBUFFER_RED_SIZE: Int\n        val
RENDERBUFFER_GREEN_SIZE: Int\n        val RENDERBUFFER_BLUE_SIZE: Int\n        val
RENDERBUFFER_ALPHA_SIZE: Int\n        val RENDERBUFFER_DEPTH_SIZE: Int\n        val
RENDERBUFFER_STENCIL_SIZE: Int\n        val FRAMEBUFFER_ATTACHMENT_OBJECT_TYPE: Int\n
val FRAMEBUFFER_ATTACHMENT_OBJECT_NAME: Int\n        val
FRAMEBUFFER_ATTACHMENT_TEXTURE_LEVEL: Int\n        val
FRAMEBUFFER_ATTACHMENT_TEXTURE_CUBE_MAP_FACE: Int\n        val COLOR_ATTACHMENT0:
Int\n        val DEPTH_ATTACHMENT: Int\n        val STENCIL_ATTACHMENT: Int\n        val
DEPTH_STENCIL_ATTACHMENT: Int\n        val NONE: Int\n        val FRAMEBUFFER_COMPLETE: Int\n
val FRAMEBUFFER_INCOMPLETE_ATTACHMENT: Int\n        val
FRAMEBUFFER_INCOMPLETE_MISSING_ATTACHMENT:
 Int\n        val FRAMEBUFFER_INCOMPLETE_DIMENSIONS: Int\n        val
FRAMEBUFFER_UNSUPPORTED: Int\n        val FRAMEBUFFER_BINDING: Int\n        val
RENDERBUFFER_BINDING: Int\n        val MAX_RENDERBUFFER_SIZE: Int\n        val
INVALID_FRAMEBUFFER_OPERATION: Int\n        val UNPACK_FLIP_Y_WEBGL: Int\n        val
UNPACK_PREMULTIPLY_ALPHA_WEBGL: Int\n        val CONTEXT_LOST_WEBGL: Int\n        val
UNPACK_COLORSPACE_CONVERSION_WEBGL: Int\n        val BROWSER_DEFAULT_WEBGL: Int\n
}\n}\n\n/**\n * Exposes the JavaScript
[WebGLContextEvent](https://developer.mozilla.org/en/docs/Web/API/WebGLContextEvent) to Kotlin\n
*/\npublic external open class WebGLContextEvent(type: String, eventInit: WebGLContextEventInit =
definedExternally) : Event {\n    open val statusMessage: String\n\n    companion object {\n        val NONE: Short\n
     val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n
}\n}\n\npublic external
 interface WebGLContextEventInit : EventInit {\n    var statusMessage: String? /* = \"\" */\n        get() =
definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun
WebGLContextEventInit(statusMessage: String? = \"\", bubbles: Boolean? = false, cancelable: Boolean? = false,
composed: Boolean? = false): WebGLContextEventInit {\n    val o = js(\"({})\")\n    o[\"statusMessage\"] =
statusMessage\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n
return o\n}\n\n/**\n * Exposes the JavaScript
[ArrayBuffer](https://developer.mozilla.org/en/docs/Web/API/ArrayBuffer) to Kotlin\n */\npublic external open
class ArrayBuffer(length: Int) : BufferDataSource {\n    open val byteLength: Int\n    fun slice(begin: Int, end: Int =
definedExternally): ArrayBuffer\n\n    companion object {\n        fun isView(value: Any?): Boolean\n
}\n}\n\n/**\n
 * Exposes the JavaScript [ArrayBufferView](https://developer.mozilla.org/en/docs/Web/API/ArrayBufferView) to
Kotlin\n */\npublic external interface ArrayBufferView : BufferDataSource {\n    val buffer: ArrayBuffer\n    val
byteOffset: Int\n    val byteLength: Int\n}\n\n/**\n * Exposes the JavaScript
[Int8Array](https://developer.mozilla.org/en/docs/Web/API/Int8Array) to Kotlin\n */\npublic external open class
Int8Array : ArrayBufferView {\n    constructor(length: Int)\n    constructor(array: Int8Array)\n    constructor(array:
Array<Byte>)\n    constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int =
definedExternally)\n    open val length: Int\n    override val buffer: ArrayBuffer\n    override val byteOffset: Int\n
override val byteLength: Int\n    fun set(array: Int8Array, offset: Int = definedExternally)\n    fun set(array:
Array<Byte>, offset: Int = definedExternally)\n    fun subarray(start: Int, end: Int): Int8Array\n\n    companion
object {\n
```

val BYTES_PER_ELEMENT: Int\n   }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int8Array.get(index: Int): Byte = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int8Array.set(index: Int, value: Byte) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Uint8Array](https://developer.mozilla.org/en/docs/Web/API/Uint8Array) to Kotlin\n */\npublic external open class Uint8Array : ArrayBufferView {\n   constructor(length: Int)\n   constructor(array: Uint8Array)\n   constructor(array: Array<Byte>)\n   constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n   open val length: Int\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n   override val byteLength: Int\n   fun set(array: Uint8Array, offset: Int = definedExternally)\n   fun set(array: Array<Byte>, offset: Int = definedExternally)\n   fun subarray(start: Int, end: Int): Uint8Array\n\n   companion object {\n   val BYTES_PER_ELEMENT: Int\n   }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint8Array.get(index: Int): Byte = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint8Array.set(index: Int, value: Byte) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Uint8ClampedArray](https://developer.mozilla.org/en/docs/Web/API/Uint8ClampedArray) to Kotlin\n */\npublic external open class Uint8ClampedArray : ArrayBufferView {\n   constructor(length: Int)\n   constructor(array: Uint8ClampedArray)\n   constructor(array: Array<Byte>)\n   constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n   open val length: Int\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n   override val byteLength: Int\n   fun set(array: Uint8ClampedArray, offset: Int = definedExternally)\n   fun set(array: Array<Byte>, offset: Int = definedExternally)\n   fun subarray(start: Int, end: Int): Uint8ClampedArray\n\n   companion object {\n   val BYTES_PER_ELEMENT: Int\n   }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint8ClampedArray.get(index: Int): Byte = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint8ClampedArray.set(index: Int, value: Byte) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Int16Array](https://developer.mozilla.org/en/docs/Web/API/Int16Array) to Kotlin\n */\npublic external open class Int16Array : ArrayBufferView {\n   constructor(length: Int)\n   constructor(array: Int16Array)\n   constructor(array: Array<Short>)\n   constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n   open val length: Int\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n   override val byteLength: Int\n   fun set(array: Int16Array, offset: Int = definedExternally)\n   fun set(array: Array<Short>, offset: Int = definedExternally)\n   fun subarray(start: Int, end: Int): Int16Array\n\n   companion object {\n   val BYTES_PER_ELEMENT: Int\n   }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int16Array.get(index: Int): Short = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int16Array.set(index: Int, value: Short) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Uint16Array](https://developer.mozilla.org/en/docs/Web/API/Uint16Array) to Kotlin\n */\npublic external open class Uint16Array : ArrayBufferView {\n   constructor(length: Int)\n   constructor(array: Uint16Array)\n   constructor(array: Array<Short>)\n   constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n   open val length: Int\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n   override val byteLength: Int\n   fun set(array: Uint16Array, offset: Int = definedExternally)\n   fun set(array: Array<Short>, offset: Int = definedExternally)\n   fun subarray(start: Int, end: Int): Uint16Array\n\n   companion object {\n   val BYTES_PER_ELEMENT: Int\n

}\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint16Array.get(index: Int): Short = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint16Array.set(index: Int, value: Short) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Int32Array](https://developer.mozilla.org/en/docs/Web/API/Int32Array) to Kotlin\n */\npublic external open class Int32Array : ArrayBufferView {\n   constructor(length: Int)\n   constructor(array: Int32Array)\n constructor(array: Array<Int>)\n   constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n   open val length: Int\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n override val byteLength: Int\n   fun set(array: Int32Array, offset: Int = definedExternally)\n   fun set(array: Array<Int>, offset: Int = definedExternally)\n   fun subarray(start: Int, end: Int): Int32Array\n\n   companion object {\n   val BYTES_PER_ELEMENT: Int\n   }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int32Array.get(index: Int): Int = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Int32Array.set(index: Int, value: Int) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Uint32Array](https://developer.mozilla.org/en/docs/Web/API/Uint32Array) to Kotlin\n */\npublic external open class Uint32Array : ArrayBufferView {\n   constructor(length: Int)\n   constructor(array: Uint32Array)\n constructor(array: Array<Int>)\n   constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n   open val length: Int\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n override val byteLength: Int\n   fun set(array: Uint32Array, offset: Int = definedExternally)\n   fun set(array: Array<Int>, offset: Int = definedExternally)\n   fun subarray(start: Int, end: Int): Uint32Array\n\n   companion object {\n   val BYTES_PER_ELEMENT: Int\n   }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint32Array.get(index: Int): Int = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Uint32Array.set(index: Int, value: Int) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Float32Array](https://developer.mozilla.org/en/docs/Web/API/Float32Array) to Kotlin\n */\npublic external open class Float32Array : ArrayBufferView {\n   constructor(length: Int)\n   constructor(array: Float32Array)\n constructor(array: Array<Float>)\n   constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n   open val length: Int\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n   override val byteLength: Int\n   fun set(array: Float32Array, offset: Int = definedExternally)\n   fun set(array: Array<Float>, offset: Int = definedExternally)\n   fun subarray(start: Int, end: Int): Float32Array\n\n   companion object {\n   val BYTES_PER_ELEMENT: Int\n }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Float32Array.get(index: Int): Float = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Float32Array.set(index: Int, value: Float) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [Float64Array](https://developer.mozilla.org/en/docs/Web/API/Float64Array) to Kotlin\n */\npublic external open class Float64Array : ArrayBufferView {\n   constructor(length: Int)\n   constructor(array: Float64Array)\n constructor(array: Array<Double>)\n   constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\n   open val length: Int\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n   override val byteLength: Int\n   fun set(array: Float64Array, offset: Int = definedExternally)\n   fun set(array: Array<Double>, offset: Int = definedExternally)\n fun subarray(start: Int, end: Int): Float64Array\n\n   companion object {\n   val BYTES_PER_ELEMENT: Int\n

}\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Float64Array.get(index: Int): Double = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Float64Array.set(index: Int, value: Double) { asDynamic()[index] = value }\n\n/**\n * Exposes the JavaScript [DataView](https://developer.mozilla.org/en/docs/Web/API/DataView) to Kotlin\n */\npublic external open class DataView(buffer: ArrayBuffer, byteOffset: Int = definedExternally, byteLength: Int = definedExternally) : ArrayBufferView {\n   override val buffer: ArrayBuffer\n   override val byteOffset: Int\n   override val byteLength: Int\n   fun getInt8(byteOffset: Int): Byte\n   fun getUint8(byteOffset: Int): Byte\n   fun getInt16(byteOffset: Int, littleEndian: Boolean = definedExternally): Short\n   fun getUint16(byteOffset: Int, littleEndian: Boolean = definedExternally): Short\n   fun getInt32(byteOffset: Int, littleEndian: Boolean = definedExternally): Int\n   fun getUint32(byteOffset: Int, littleEndian: Boolean = definedExternally): Int\n   fun getFloat32(byteOffset: Int, littleEndian: Boolean = definedExternally): Float\n   fun getFloat64(byteOffset: Int, littleEndian: Boolean = definedExternally): Double\n   fun setInt8(byteOffset: Int, value: Byte)\n   fun setUint8(byteOffset: Int, value: Byte)\n   fun setInt16(byteOffset: Int, value: Short, littleEndian: Boolean = definedExternally)\n   fun setUint16(byteOffset: Int, value: Short, littleEndian: Boolean = definedExternally)\n   fun setInt32(byteOffset: Int, value: Int, littleEndian: Boolean = definedExternally)\n   fun setUint32(byteOffset: Int, value: Int, littleEndian: Boolean = definedExternally)\n   fun setFloat32(byteOffset: Int, value: Float, littleEndian: Boolean = definedExternally)\n   fun setFloat64(byteOffset: Int, value: Double, littleEndian: Boolean = definedExternally)\n}\n\npublic external interface BufferDataSource\n\npublic external interface TexImageSource","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.clipboard\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\npublic external interface ClipboardEventInit : EventInit {\n   var clipboardData: DataTransfer? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ClipboardEventInit(clipboardData: DataTransfer? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ClipboardEventInit {\n   val o = js(\"({})\")\n   o[\"clipboardData\"] = clipboardData\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [ClipboardEvent](https://developer.mozilla.org/en/docs/Web/API/ClipboardEvent) to Kotlin\n */\npublic external open class ClipboardEvent(type: String, eventInitDict: ClipboardEventInit = definedExternally) : Event {\n   open val clipboardData: DataTransfer?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [Clipboard](https://developer.mozilla.org/en/docs/Web/API/Clipboard) to Kotlin\n */\npublic external abstract class Clipboard : EventTarget {\n   fun read(): Promise<DataTransfer>\n   fun readText(): Promise<String>\n   fun write(data: DataTransfer): Promise<Unit>\n   fun writeText(data: String): Promise<Unit>\n}\n\npublic external interface ClipboardPermissionDescriptor {\n   var allowWithoutGesture: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ClipboardPermissionDescriptor(allowWithoutGesture: Boolean? = false): ClipboardPermissionDescriptor {\n   val o = js(\"({})\")\n   o[\"allowWithoutGesture\"] = allowWithoutGesture\n   return o\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the

Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat
for details\n\npackage org.w3c.dom.css\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\n\npublic external abstract class MediaList : ItemArrayLike<String> {\n   open var mediaText: String\n   fun appendMedium(medium: String)\n   fun deleteMedium(medium: String)\n   override fun item(index: Int): String?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun MediaList.get(index: Int): String? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [StyleSheet](https://developer.mozilla.org/en/docs/Web/API/StyleSheet) to Kotlin\n */\npublic external abstract class StyleSheet {\n   open val type: String\n   open val href: String?\n   open val ownerNode: UnionElementOrProcessingInstruction?\n   open val parentStyleSheet: StyleSheet?\n   open val title: String?\n   open val media: MediaList\n   open var disabled: Boolean\n}\n\n/**\n * Exposes the JavaScript [CSSStyleSheet](https://developer.mozilla.org/en/docs/Web/API/CSSStyleSheet)
to Kotlin\n */\npublic external abstract class CSSStyleSheet : StyleSheet {\n   open val ownerRule: CSSRule?\n   open val cssRules: CSSRuleList\n   fun insertRule(rule: String, index: Int): Int\n   fun deleteRule(index: Int)\n}\n\n/**\n * Exposes the JavaScript [StyleSheetList](https://developer.mozilla.org/en/docs/Web/API/StyleSheetList) to Kotlin\n */\npublic external abstract class StyleSheetList : ItemArrayLike<StyleSheet> {\n   override fun item(index: Int): StyleSheet?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun StyleSheetList.get(index: Int): StyleSheet? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [LinkStyle](https://developer.mozilla.org/en/docs/Web/API/LinkStyle) to Kotlin\n */\npublic external interface LinkStyle {\n   val sheet: StyleSheet?\n   get() = definedExternally\n}\n\n/**\n * Exposes the JavaScript [CSSRuleList](https://developer.mozilla.org/en/docs/Web/API/CSSRuleList)
to Kotlin\n */\npublic external abstract class CSSRuleList : ItemArrayLike<CSSRule> {\n   override fun item(index: Int): CSSRule?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun CSSRuleList.get(index: Int): CSSRule? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [CSSRule](https://developer.mozilla.org/en/docs/Web/API/CSSRule) to Kotlin\n */\npublic external abstract class CSSRule {\n   open val type: Short\n   open var cssText: String\n   open val parentRule: CSSRule?\n   open val parentStyleSheet: CSSStyleSheet?\n\n   companion object {\n   val STYLE_RULE: Short\n   val CHARSET_RULE: Short\n   val IMPORT_RULE: Short\n   val MEDIA_RULE: Short\n   val FONT_FACE_RULE: Short\n   val PAGE_RULE: Short\n   val MARGIN_RULE: Short\n   val NAMESPACE_RULE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [CSSStyleRule](https://developer.mozilla.org/en/docs/Web/API/CSSStyleRule)
to Kotlin\n */\npublic external abstract class CSSStyleRule : CSSRule {\n   open var selectorText: String\n   open val style: CSSStyleDeclaration\n\n   companion object {\n   val STYLE_RULE: Short\n   val CHARSET_RULE: Short\n   val IMPORT_RULE: Short\n   val MEDIA_RULE: Short\n   val FONT_FACE_RULE: Short\n   val PAGE_RULE: Short\n   val MARGIN_RULE: Short\n   val NAMESPACE_RULE: Short\n   }\n}\n\npublic external abstract class CSSImportRule : CSSRule {\n   open val href: String\n   open val media: MediaList\n   open val styleSheet: CSSStyleSheet\n\n   companion object {\n   val STYLE_RULE: Short\n   val CHARSET_RULE: Short\n   val IMPORT_RULE: Short\n   val MEDIA_RULE: Short\n   val FONT_FACE_RULE: Short\n   val PAGE_RULE: Short\n   val MARGIN_RULE: Short\n   val NAMESPACE_RULE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [CSSGroupingRule](https://developer.mozilla.org/en/docs/Web/API/CSSGroupingRule)
to Kotlin\n */\npublic external abstract class CSSGroupingRule : CSSRule {\n   open val cssRules: CSSRuleList\n
fun insertRule(rule: String, index: Int): Int\n   fun deleteRule(index: Int)\n\n   companion object {\n   val STYLE_RULE: Short\n   val CHARSET_RULE: Short\n   val IMPORT_RULE: Short\n   val

MEDIA_RULE: Short\n val FONT_FACE_RULE: Short\n val PAGE_RULE: Short\n val MARGIN_RULE: Short\n val NAMESPACE_RULE: Short\n }\n}\n\n/**\n * Exposes the JavaScript [CSSMediaRule](https://developer.mozilla.org/en/docs/Web/API/CSSMediaRule) to Kotlin\n */\npublic external abstract class CSSMediaRule : CSSGroupingRule {\n open val media: MediaList\n\n companion object {\n val STYLE_RULE: Short\n val CHARSET_RULE: Short\n val IMPORT_RULE: Short\n val MEDIA_RULE: Short\n val FONT_FACE_RULE: Short\n val PAGE_RULE: Short\n val MARGIN_RULE: Short\n val NAMESPACE_RULE: Short\n }\n}\n\n/**\n * Exposes the JavaScript [CSSPageRule](https://developer.mozilla.org/en/docs/Web/API/CSSPageRule) to Kotlin\n */\npublic external abstract class CSSPageRule : CSSGroupingRule {\n open var selectorText: String\n open val style: CSSStyleDeclaration\n\n companion object {\n val STYLE_RULE: Short\n val CHARSET_RULE: Short\n val IMPORT_RULE: Short\n val MEDIA_RULE: Short\n val FONT_FACE_RULE: Short\n val PAGE_RULE: Short\n val MARGIN_RULE: Short\n val NAMESPACE_RULE: Short\n }\n}\n\npublic external abstract class CSSMarginRule : CSSRule {\n open val name: String\n open val style: CSSStyleDeclaration\n\n companion object {\n val STYLE_RULE: Short\n val CHARSET_RULE: Short\n val IMPORT_RULE: Short\n val MEDIA_RULE: Short\n val FONT_FACE_RULE: Short\n val PAGE_RULE: Short\n val MARGIN_RULE: Short\n val NAMESPACE_RULE: Short\n }\n}\n\n/**\n * Exposes the JavaScript [CSSNamespaceRule](https://developer.mozilla.org/en/docs/Web/API/CSSNamespaceRule) to Kotlin\n */\npublic external abstract class CSSNamespaceRule : CSSRule {\n open val namespaceURI: String\n open val prefix: String\n\n companion object {\n val STYLE_RULE: Short\n val CHARSET_RULE: Short\n val IMPORT_RULE: Short\n val MEDIA_RULE: Short\n val FONT_FACE_RULE: Short\n val PAGE_RULE: Short\n val MARGIN_RULE: Short\n val NAMESPACE_RULE: Short\n }\n}\n\n/**\n * Exposes the JavaScript [CSSStyleDeclaration](https://developer.mozilla.org/en/docs/Web/API/CSSStyleDeclaration) to Kotlin\n */\npublic external abstract class CSSStyleDeclaration : ItemArrayLike<String> {\n open var cssText: String\n open val parentRule: CSSRule?\n open var cssFloat: String\n open var alignContent: String\n open var alignItems: String\n open var alignSelf: String\n open var animation: String\n open var animationDelay: String\n open var animationDirection: String\n open var animationDuration: String\n open var animationFillMode: String\n open var animationIterationCount: String\n open var animationName: String\n open var animationPlayState: String\n open var animationTimingFunction: String\n open var backfaceVisibility: String\n open var background: String\n open var backgroundAttachment: String\n open var backgroundClip: String\n open var backgroundColor: String\n open var backgroundImage: String\n open var backgroundOrigin: String\n open var backgroundPosition: String\n open var backgroundRepeat: String\n open var backgroundSize: String\n open var border: String\n open var borderBottom: String\n open var borderBottomColor: String\n open var borderBottomLeftRadius: String\n open var borderBottomRightRadius: String\n open var borderBottomStyle: String\n open var borderBottomWidth: String\n open var borderCollapse: String\n open var borderColor: String\n open var borderImage: String\n open var borderImageOutset: String\n open var borderImageRepeat: String\n open var borderImageSlice: String\n open var borderImageSource: String\n open var borderImageWidth: String\n open var borderLeft: String\n open var borderLeftColor: String\n open var borderLeftStyle: String\n open var borderLeftWidth: String\n open var borderRadius: String\n open var borderRight: String\n open var borderRightColor: String\n open var borderRightStyle: String\n open var borderRightWidth: String\n open var borderSpacing: String\n open var borderStyle: String\n open var borderTop: String\n open var borderTopColor: String\n open var borderTopLeftRadius: String\n open var borderTopRightRadius: String\n open var borderTopStyle: String\n open var borderTopWidth: String\n open var borderWidth: String\n open var bottom: String\n open var boxDecorationBreak: String\n open var boxShadow: String\n open var boxSizing: String\n open var breakAfter: String\n open var breakBefore: String\n open var breakInside: String\n   open var captionSide: String\n   open var clear: String\n   open var clip: String\n   open var color: String\n   open var columnCount: String\n   open var columnFill: String\n   open var columnGap: String\n   open var columnRule: String\n   open var columnRuleColor: String\n   open var columnRuleStyle: String\n   open var columnRuleWidth: String\n   open var columnSpan: String\n   open var columnWidth: String\n   open var columns: String\n   open var content: String\n   open var counterIncrement: String\n   open var counterReset: String\n   open var cursor: String\n   open var direction: String\n   open var display: String\n   open var emptyCells: String\n   open var filter: String\n   open var flex: String\n   open var flexBasis: String\n   open var flexDirection: String\n   open var flexFlow: String\n   open var flexGrow: String\n   open var flexShrink: String\n   open var flexWrap: String\n   open var font: String\n   open var fontFamily: String\n   open var fontFeatureSettings: String\n   open var fontKerning: String\n   open var fontLanguageOverride: String\n   open var fontSize: String\n   open var fontSizeAdjust: String\n   open var fontStretch: String\n   open var fontStyle: String\n   open var fontSynthesis: String\n   open var fontVariant: String\n   open var fontVariantAlternates: String\n   open var fontVariantCaps: String\n   open var fontVariantEastAsian: String\n   open var fontVariantLigatures: String\n   open var fontVariantNumeric: String\n   open var fontVariantPosition: String\n   open var fontWeight: String\n   open var hangingPunctuation: String\n   open var height: String\n   open var hyphens: String\n   open var imageOrientation: String\n   open var imageRendering: String\n   open var imageResolution: String\n   open var imeMode: String\n   open var justifyContent: String\n   open var left: String\n   open var letterSpacing: String\n   open var lineBreak: String\n   open var lineHeight: String\n   open var listStyle: String\n   open var listStyleImage: String\n   open var listStylePosition: String\n   open var listStyleType: String\n   open var margin: String\n   open var marginBottom: String\n   open var marginLeft: String\n   open var marginRight: String\n   open var marginTop: String\n   open var mark: String\n   open var markAfter: String\n   open var markBefore: String\n   open var marks: String\n   open var marqueeDirection: String\n   open var marqueePlayCount: String\n   open var marqueeSpeed: String\n   open var marqueeStyle: String\n   open var mask: String\n   open var maskType: String\n   open var maxHeight: String\n   open var maxWidth: String\n   open var minHeight: String\n   open var minWidth: String\n   open var navDown: String\n   open var navIndex: String\n   open var navLeft: String\n   open var navRight: String\n   open var navUp: String\n   open var objectFit: String\n   open var objectPosition: String\n   open var opacity: String\n   open var order: String\n   open var orphans: String\n   open var outline: String\n   open var outlineColor: String\n   open var outlineOffset: String\n   open var outlineStyle: String\n   open var outlineWidth: String\n   open var overflowWrap: String\n   open var overflowX: String\n   open var overflowY: String\n   open var padding: String\n   open var paddingBottom: String\n   open var paddingLeft: String\n   open var paddingRight: String\n   open var paddingTop: String\n   open var pageBreakAfter: String\n   open var pageBreakBefore: String\n   open var pageBreakInside: String\n   open var perspective: String\n   open var perspectiveOrigin: String\n   open var phonemes: String\n   open var position: String\n   open var quotes: String\n   open var resize: String\n   open var rest: String\n   open var restAfter: String\n   open var restBefore: String\n   open var right: String\n   open var tabSize: String\n   open var tableLayout: String\n   open var textAlign: String\n   open var textAlignLast: String\n   open var textCombineUpright: String\n   open var textDecoration: String\n   open var textDecorationColor: String\n   open var textDecorationLine: String\n   open var textDecorationStyle: String\n   open var textIndent: String\n   open var textJustify: String\n   open var textOrientation: String\n   open var textOverflow: String\n   open var textShadow: String\n   open var textTransform: String\n   open var textUnderlinePosition: String\n   open var top: String\n   open var transform: String\n   open var transformOrigin: String\n   open var transformStyle: String\n   open var transition: String\n   open var transitionDelay: String\n   open var transitionDuration: String\n   open var transitionProperty: String\n   open var transitionTimingFunction: String\n   open var unicodeBidi: String\n   open var verticalAlign: String\n   open var visibility: String\n   open var voiceBalance: String\n   open var voiceDuration: String\n   open var voicePitch: String\n   open var voicePitchRange: String\n   open var voiceRate: String\n   open var voiceStress: String\n   open var voiceVolume: String\n   open var whiteSpace: String\n   open var widows: String\n   open var width: String\n   open var

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wordBreak: String\n    open var wordSpacing: String\n    open var wordWrap: String\n    open var writingMode:
String\n    open var zIndex: String\n    open var _dashed_attribute: String\n    open var _camel_cased_attribute:
String\n    open var _webkit_cased_attribute: String\n    fun getPropertyValue(property: String): String\n    fun
getPropertyPriority(property: String): String\n    fun setProperty(property: String, value: String,
 priority: String = definedExternally)\n    fun setPropertyValue(property: String, value: String)\n    fun
setPropertyPriority(property: String, priority: String)\n    fun removeProperty(property: String): String\n    override
fun item(index: Int): String\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
CSSStyleDeclaration.get(index: Int): String? = asDynamic()[index]\n\npublic external interface
ElementCSSInlineStyle {\n    val style: CSSStyleDeclaration\n}\n\n/**\n * Exposes the JavaScript
[CSS](https://developer.mozilla.org/en/docs/Web/API/CSS) to Kotlin\n */\npublic external abstract class CSS {\n
companion object {\n        fun escape(ident: String): String\n    }\n}\n\npublic external interface
UnionElementOrProcessingInstruction","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in
 the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See
github.com/kotlin/dukat for details\n\npackage org.w3c.dom.encryptedmedia\n\nimport kotlin.js.*\nimport
org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\n/**\n * Exposes the JavaScript
[MediaKeySystemConfiguration](https://developer.mozilla.org/en/docs/Web/API/MediaKeySystemConfiguration)
to Kotlin\n */\npublic external interface MediaKeySystemConfiguration {\n    var label: String? /* = \"\" */\n
get() = definedExternally\n        set(value) = definedExternally\n    var initDataTypes: Array<String>? /* = arrayOf()
*/\n        get() = definedExternally\n        set(value) = definedExternally\n    var audioCapabilities:
Array<MediaKeySystemMediaCapability>? /* = arrayOf() */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var videoCapabilities: Array<MediaKeySystemMediaCapability>? /* = arrayOf() */\n
get() = definedExternally\n
        set(value) = definedExternally\n    var distinctiveIdentifier: MediaKeysRequirement? /* =
MediaKeysRequirement.OPTIONAL */\n        get() = definedExternally\n        set(value) = definedExternally\n
var persistentState: MediaKeysRequirement? /* = MediaKeysRequirement.OPTIONAL */\n        get() =
definedExternally\n        set(value) = definedExternally\n    var sessionTypes: Array<String>?\n        get() =
definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaKeySystemConfiguration(label:
String? = \"\", initDataTypes: Array<String>? = arrayOf(), audioCapabilities:
Array<MediaKeySystemMediaCapability>? = arrayOf(), videoCapabilities:
Array<MediaKeySystemMediaCapability>? = arrayOf(), distinctiveIdentifier: MediaKeysRequirement? =
MediaKeysRequirement.OPTIONAL, persistentState: MediaKeysRequirement? =
MediaKeysRequirement.OPTIONAL, sessionTypes: Array<String>?
 = undefined): MediaKeySystemConfiguration {\n    val o = js(\"({})\")\n    o[\"label\"] = label\n
o[\"initDataTypes\"] = initDataTypes\n    o[\"audioCapabilities\"] = audioCapabilities\n    o[\"videoCapabilities\"] =
videoCapabilities\n    o[\"distinctiveIdentifier\"] = distinctiveIdentifier\n    o[\"persistentState\"] = persistentState\n
o[\"sessionTypes\"] = sessionTypes\n    return o\n}\n\npublic external interface MediaKeySystemMediaCapability
{\n    var contentType: String? /* = \"\" */\n        get() = definedExternally\n        set(value) = definedExternally\n
var robustness: String? /* = \"\" */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun
MediaKeySystemMediaCapability(contentType: String? = \"\", robustness: String? = \"\"):
MediaKeySystemMediaCapability {\n    val o = js(\"({})\")\n    o[\"contentType\"] = contentType\n
    o[\"robustness\"] = robustness\n    return o\n}\n\n/**\n * Exposes the JavaScript
[MediaKeySystemAccess](https://developer.mozilla.org/en/docs/Web/API/MediaKeySystemAccess) to Kotlin\n
*/\npublic external abstract class MediaKeySystemAccess {\n    open val keySystem: String\n    fun
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getConfiguration(): MediaKeySystemConfiguration\n   fun createMediaKeys(): Promise<MediaKeys>\n}\n\n/**\n * Exposes the JavaScript [MediaKeys](https://developer.mozilla.org/en/docs/Web/API/MediaKeys) to Kotlin\n */\npublic external abstract class MediaKeys {\n   fun createSession(sessionType: MediaKeySessionType = definedExternally): MediaKeySession\n   fun setServerCertificate(serverCertificate: dynamic): Promise<Boolean>\n}\n\n/**\n * Exposes the JavaScript [MediaKeySession](https://developer.mozilla.org/en/docs/Web/API/MediaKeySession) to Kotlin\n */\npublic external abstract class MediaKeySession : EventTarget {\n   open val sessionId: String\n   open val expiration: Double\n   open val closed: Promise<Unit>\n   open val keyStatuses: MediaKeyStatusMap\n   open var onkeystatuseschange: ((Event) -> dynamic)?\n   open var onmessage: ((MessageEvent) -> dynamic)?\n   fun generateRequest(initDataType: String, initData: dynamic): Promise<Unit>\n   fun load(sessionId: String): Promise<Boolean>\n   fun update(response: dynamic): Promise<Unit>\n   fun close(): Promise<Unit>\n   fun remove(): Promise<Unit>\n}\n\n/**\n * Exposes the JavaScript [MediaKeyStatusMap](https://developer.mozilla.org/en/docs/Web/API/MediaKeyStatusMap) to Kotlin\n */\npublic external abstract class MediaKeyStatusMap {\n   open val size: Int\n   fun has(keyId: dynamic): Boolean\n   fun get(keyId: dynamic): Any?\n}\n\n/**\n * Exposes the JavaScript [MediaKeyMessageEvent](https://developer.mozilla.org/en/docs/Web/API/MediaKeyMessageEvent) to Kotlin\n */\npublic external open class MediaKeyMessageEvent(type: String, eventInitDict: MediaKeyMessageEventInit) : Event {\n   open val messageType: MediaKeyMessageType\n   open val message: ArrayBuffer\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface MediaKeyMessageEventInit : EventInit {\n   var messageType: MediaKeyMessageType?\n   var message: ArrayBuffer?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaKeyMessageEventInit(messageType: MediaKeyMessageType?, message: ArrayBuffer?, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): MediaKeyMessageEventInit {\n   val o = js(\"({})\")\n   o[\"messageType\"] = messageType\n   o[\"message\"] = message\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\npublic external open class MediaEncryptedEvent(type: String, eventInitDict: MediaEncryptedEventInit = definedExternally) : Event {\n   open val initDataType: String\n   open val initData: ArrayBuffer?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface MediaEncryptedEventInit : EventInit {\n   var initDataType: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var initData: ArrayBuffer? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaEncryptedEventInit(initDataType: String? = \"\", initData: ArrayBuffer? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): MediaEncryptedEventInit {\n   val o = js(\"({})\")\n   o[\"initDataType\"] = initDataType\n   o[\"initData\"] = initData\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface MediaKeysRequirement {\n   companion object\n}\n\npublic inline val MediaKeysRequirement.Companion.REQUIRED: MediaKeysRequirement get() = \"required\".asDynamic().unsafeCast<MediaKeysRequirement>()\n\npublic inline val MediaKeysRequirement.Companion.OPTIONAL: MediaKeysRequirement get() = \"optional\".asDynamic().unsafeCast<MediaKeysRequirement>()\n\npublic inline val MediaKeysRequirement.Companion.NOT_ALLOWED: MediaKeysRequirement get() = \"not-allowed\".asDynamic().unsafeCast<MediaKeysRequirement>()\n\n/* please, don't implement this interface!

/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface MediaKeySessionType {\n   companion object\n}\n\npublic inline val MediaKeySessionType.Companion.TEMPORARY: MediaKeySessionType get() = \"temporary\".asDynamic().unsafeCast<MediaKeySessionType>()\n\npublic inline val MediaKeySessionType.Companion.PERSISTENT_LICENSE: MediaKeySessionType get() = \"persistent-license\".asDynamic().unsafeCast<MediaKeySessionType>()\n\n/ please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface MediaKeyStatus {\n   companion object\n}\n\npublic inline val MediaKeyStatus.Companion.USABLE: MediaKeyStatus get() = \"usable\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val MediaKeyStatus.Companion.EXPIRED: MediaKeyStatus get() = \"expired\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val MediaKeyStatus.Companion.RELEASED: MediaKeyStatus get() = \"released\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val MediaKeyStatus.Companion.OUTPUT_RESTRICTED: MediaKeyStatus get() = \"output-restricted\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val MediaKeyStatus.Companion.OUTPUT_DOWNSCALED: MediaKeyStatus get() = \"output-downscaled\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val MediaKeyStatus.Companion.STATUS_PENDING: MediaKeyStatus get() = \"status-pending\".asDynamic().unsafeCast<MediaKeyStatus>()\n\npublic inline val MediaKeyStatus.Companion.INTERNAL_ERROR: MediaKeyStatus get() = \"internal-error\".asDynamic().unsafeCast<MediaKeyStatus>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface MediaKeyMessageType {\n   companion object\n}\n\npublic inline val MediaKeyMessageType.Companion.LICENSE_REQUEST: MediaKeyMessageType get() = \"license-request\".asDynamic().unsafeCast<MediaKeyMessageType>()\n\npublic inline val MediaKeyMessageType.Companion.LICENSE_RENEWAL: MediaKeyMessageType get() = \"license-renewal\".asDynamic().unsafeCast<MediaKeyMessageType>()\n\npublic inline val MediaKeyMessageType.Companion.LICENSE_RELEASE: MediaKeyMessageType get() = \"license-release\".asDynamic().unsafeCast<MediaKeyMessageType>()\n\npublic inline val MediaKeyMessageType.Companion.INDIVIDUALIZATION_REQUEST: MediaKeyMessageType get() = \"individualization-request\".asDynamic().unsafeCast<MediaKeyMessageType>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.events\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\n\n/**\n * Exposes the JavaScript [UIEvent](https://developer.mozilla.org/en/docs/Web/API/UIEvent) to Kotlin\n */\npublic external open class UIEvent(type: String, eventInitDict: UIEventInit = definedExternally) : Event {\n   open val view: Window?\n   open val detail: Int\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface UIEventInit : EventInit {\n   var view: Window? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var detail: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun UIEventInit(view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): UIEventInit {\n   val o = js(\"({})\")\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [FocusEvent](https://developer.mozilla.org/en/docs/Web/API/FocusEvent) to Kotlin\n */\npublic external open class

FocusEvent(type:

String, eventInitDict: FocusEventInit = definedExternally) : UIEvent {\n open val relatedTarget: EventTarget?\n\n companion object {\n val NONE: Short\n val CAPTURING_PHASE: Short\n val AT_TARGET: Short\n val BUBBLING_PHASE: Short\n }\n}\n\npublic external interface FocusEventInit : UIEventInit {\n var relatedTarget: EventTarget? /* = null */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun FocusEventInit(relatedTarget: EventTarget? = null, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): FocusEventInit {\n val o = js(\"({})\")\n o[\"relatedTarget\"] = relatedTarget\n o[\"view\"] = view\n o[\"detail\"] = detail\n o[\"bubbles\"] = bubbles\n o[\"cancelable\"] = cancelable\n o[\"composed\"] = composed\n return o\n}\n\n/**\n * Exposes the JavaScript [MouseEvent](https://developer.mozilla.org/en/docs/Web/API/MouseEvent) to Kotlin\n */\npublic external open class MouseEvent(type: String, eventInitDict: MouseEventInit = definedExternally) : UIEvent, UnionElementOrMouseEvent {\n open val screenX: Int\n open val screenY: Int\n open val clientX: Int\n open val clientY: Int\n open val ctrlKey: Boolean\n open val shiftKey: Boolean\n open val altKey: Boolean\n open val metaKey: Boolean\n open val button: Short\n open val buttons: Short\n open val relatedTarget: EventTarget?\n open val region: String?\n open val pageX: Double\n open val pageY: Double\n open val x: Double\n open val y: Double\n open val offsetX: Double\n open val offsetY: Double\n fun getModifierState(keyArg: String): Boolean\n\n companion object {\n val NONE: Short\n val CAPTURING_PHASE: Short\n val AT_TARGET: Short\n val BUBBLING_PHASE: Short\n }\n}\n\npublic

external interface MouseEventInit : EventModifierInit {\n var screenX: Int? /* = 0 */\n get() = definedExternally\n set(value) = definedExternally\n var screenY: Int? /* = 0 */\n get() = definedExternally\n set(value) = definedExternally\n var clientX: Int? /* = 0 */\n get() = definedExternally\n set(value) = definedExternally\n var clientY: Int? /* = 0 */\n get() = definedExternally\n set(value) = definedExternally\n var button: Short? /* = 0 */\n get() = definedExternally\n set(value) = definedExternally\n var buttons: Short? /* = 0 */\n get() = definedExternally\n set(value) = definedExternally\n var relatedTarget: EventTarget? /* = null */\n get() = definedExternally\n set(value) = definedExternally\n var region: String? /* = null */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MouseEventInit(screenX: Int? = 0, screenY: Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0, buttons: Short? = 0, relatedTarget: EventTarget? = null, region: String? = null, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): MouseEventInit {\n val o = js(\"({})\")\n o[\"screenX\"] = screenX\n o[\"screenY\"] = screenY\n o[\"clientX\"] = clientX\n o[\"clientY\"] = clientY\n

o[\"button\"] = button\n o[\"buttons\"] = buttons\n o[\"relatedTarget\"] = relatedTarget\n o[\"region\"] = region\n o[\"ctrlKey\"] = ctrlKey\n o[\"shiftKey\"] = shiftKey\n o[\"altKey\"] = altKey\n o[\"metaKey\"] = metaKey\n o[\"modifierAltGraph\"] = modifierAltGraph\n o[\"modifierCapsLock\"] = modifierCapsLock\n o[\"modifierFn\"] = modifierFn\n o[\"modifierFnLock\"] = modifierFnLock\n o[\"modifierHyper\"] = modifierHyper\n o[\"modifierNumLock\"] = modifierNumLock\n o[\"modifierScrollLock\"] = modifierScrollLock\n o[\"modifierSuper\"] = modifierSuper\n o[\"modifierSymbol\"] = modifierSymbol\n o[\"modifierSymbolLock\"] = modifierSymbolLock\n o[\"view\"] = view\n o[\"detail\"] = detail\n o[\"bubbles\"] = bubbles\n o[\"cancelable\"] = cancelable\n o[\"composed\"] = composed\n return

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o\n}\n\npublic external interface EventModifierInit : UIEventInit {\n    var ctrlKey: Boolean? /* = false */\n
get() = definedExternally\n
        set(value) = definedExternally\n    var shiftKey: Boolean? /* = false */\n        get() = definedExternally\n
set(value) = definedExternally\n    var altKey: Boolean? /* = false */\n        get() = definedExternally\n
set(value) = definedExternally\n    var metaKey: Boolean? /* = false */\n        get() = definedExternally\n
set(value) = definedExternally\n    var modifierAltGraph: Boolean? /* = false */\n        get() = definedExternally\n
  set(value) = definedExternally\n    var modifierCapsLock: Boolean? /* = false */\n        get() = definedExternally\n
     set(value) = definedExternally\n    var modifierFn: Boolean? /* = false */\n        get() = definedExternally\n
set(value) = definedExternally\n    var modifierFnLock: Boolean? /* = false */\n        get() = definedExternally\n
set(value) = definedExternally\n    var modifierHyper: Boolean? /* = false */\n        get() = definedExternally\n
set(value) = definedExternally\n
    var modifierNumLock: Boolean? /* = false */\n        get() = definedExternally\n        set(value) =
definedExternally\n    var modifierScrollLock: Boolean? /* = false */\n        get() = definedExternally\n
set(value) = definedExternally\n    var modifierSuper: Boolean? /* = false */\n        get() = definedExternally\n
set(value) = definedExternally\n    var modifierSymbol: Boolean? /* = false */\n        get() = definedExternally\n
set(value) = definedExternally\n    var modifierSymbolLock: Boolean? /* = false */\n        get() =
definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun EventModifierInit(ctrlKey: Boolean? =
false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph:
Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean?
 = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? =
false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false,
view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed:
Boolean? = false): EventModifierInit {\n    val o = js(\"({})\")\n    o[\"ctrlKey\"] = ctrlKey\n    o[\"shiftKey\"] =
shiftKey\n    o[\"altKey\"] = altKey\n    o[\"metaKey\"] = metaKey\n    o[\"modifierAltGraph\"] =
modifierAltGraph\n    o[\"modifierCapsLock\"] = modifierCapsLock\n    o[\"modifierFn\"] = modifierFn\n
o[\"modifierFnLock\"] = modifierFnLock\n    o[\"modifierHyper\"] = modifierHyper\n    o[\"modifierNumLock\"] =
modifierNumLock\n    o[\"modifierScrollLock\"] = modifierScrollLock\n    o[\"modifierSuper\"] = modifierSuper\n
 o[\"modifierSymbol\"] = modifierSymbol\n    o[\"modifierSymbolLock\"] = modifierSymbolLock\n    o[\"view\"] =
view\n    o[\"detail\"]
 = detail\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return
o\n}\n\n/**\n * Exposes the JavaScript [WheelEvent](https://developer.mozilla.org/en/docs/Web/API/WheelEvent)
to Kotlin\n */\npublic external open class WheelEvent(type: String, eventInitDict: WheelEventInit =
definedExternally) : MouseEvent {\n    open val deltaX: Double\n    open val deltaY: Double\n    open val deltaZ:
Double\n    open val deltaMode: Int\n\n    companion object {\n        val DOM_DELTA_PIXEL: Int\n        val
DOM_DELTA_LINE: Int\n        val DOM_DELTA_PAGE: Int\n        val NONE: Short\n        val
CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n
}\n}\n\npublic external interface WheelEventInit : MouseEventInit {\n    var deltaX: Double? /* = 0.0 */\n        get()
= definedExternally\n        set(value) = definedExternally\n    var deltaY: Double? /* = 0.0 */\n        get() =
definedExternally\n
        set(value) = definedExternally\n    var deltaZ: Double? /* = 0.0 */\n        get() = definedExternally\n
set(value) = definedExternally\n    var deltaMode: Int? /* = 0 */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun WheelEventInit(deltaX: Double? = 0.0,
deltaY: Double? = 0.0, deltaZ: Double? = 0.0, deltaMode: Int? = 0, screenX: Int? = 0, screenY: Int? = 0, clientX:
Int? = 0, clientY: Int? = 0, button: Short? = 0, buttons: Short? = 0, relatedTarget: EventTarget? = null, region:
String? = null, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean?
= false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false,
```

modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): WheelEventInit {\n   val o = js(\"({})\")\n   o[\"deltaX\"] = deltaX\n   o[\"deltaY\"] = deltaY\n   o[\"deltaZ\"] = deltaZ\n   o[\"deltaMode\"] = deltaMode\n   o[\"screenX\"] = screenX\n   o[\"screenY\"] = screenY\n   o[\"clientX\"] = clientX\n   o[\"clientY\"] = clientY\n   o[\"button\"] = button\n   o[\"buttons\"] = buttons\n   o[\"relatedTarget\"] = relatedTarget\n   o[\"region\"] = region\n   o[\"ctrlKey\"] = ctrlKey\n   o[\"shiftKey\"] = shiftKey\n   o[\"altKey\"] = altKey\n   o[\"metaKey\"] = metaKey\n   o[\"modifierAltGraph\"] = modifierAltGraph\n   o[\"modifierCapsLock\"] = modifierCapsLock\n   o[\"modifierFn\"] = modifierFn\n   o[\"modifierFnLock\"] = modifierFnLock\n   o[\"modifierHyper\"] = modifierHyper\n   o[\"modifierNumLock\"] = modifierNumLock\n   o[\"modifierScrollLock\"] = modifierScrollLock\n   o[\"modifierSuper\"] = modifierSuper\n   o[\"modifierSymbol\"] = modifierSymbol\n   o[\"modifierSymbolLock\"] = modifierSymbolLock\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [InputEvent](https://developer.mozilla.org/en/docs/Web/API/InputEvent) to Kotlin\n */\npublic external open class InputEvent(type: String, eventInitDict: InputEventInit = definedExternally) : UIEvent {\n   open val data: String\n   open val isComposing: Boolean\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface InputEventInit : UIEventInit {\n   var data: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var isComposing: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun InputEventInit(data: String? = \"\", isComposing: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): InputEventInit {\n   val o = js(\"({})\")\n   o[\"data\"] = data\n   o[\"isComposing\"] = isComposing\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [KeyboardEvent](https://developer.mozilla.org/en/docs/Web/API/KeyboardEvent) to Kotlin\n */\npublic external open class KeyboardEvent(type: String, eventInitDict: KeyboardEventInit = definedExternally) : UIEvent {\n   open val key: String\n   open val code: String\n   open val location: Int\n   open val ctrlKey: Boolean\n   open val shiftKey: Boolean\n   open val altKey: Boolean\n   open val metaKey: Boolean\n   open val repeat: Boolean\n   open val isComposing: Boolean\n   open val charCode: Int\n   open val keyCode: Int\n   open val which: Int\n   fun getModifierState(keyArg: String): Boolean\n\n   companion object {\n   val DOM_KEY_LOCATION_STANDARD: Int\n   val DOM_KEY_LOCATION_LEFT: Int\n   val DOM_KEY_LOCATION_RIGHT: Int\n   val DOM_KEY_LOCATION_NUMPAD: Int\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface KeyboardEventInit : EventModifierInit {\n   var key: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var code: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var location: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var repeat: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var isComposing: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun KeyboardEventInit(key: String? = \"\", code: String? = \"\", location: Int? = 0, repeat: Boolean? = false, isComposing: Boolean? = false, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph:

Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock:
Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): KeyboardEventInit {\n   val o = js(\"({})\")\n   o[\"key\"] = key\n   o[\"code\"] = code\n   o[\"location\"] = location\n   o[\"repeat\"] = repeat\n   o[\"isComposing\"] = isComposing\n   o[\"ctrlKey\"] = ctrlKey\n   o[\"shiftKey\"] = shiftKey\n   o[\"altKey\"] = altKey\n   o[\"metaKey\"] = metaKey\n   o[\"modifierAltGraph\"] = modifierAltGraph\n   o[\"modifierCapsLock\"] = modifierCapsLock\n   o[\"modifierFn\"] = modifierFn\n   o[\"modifierFnLock\"] = modifierFnLock\n   o[\"modifierHyper\"] = modifierHyper\n   o[\"modifierNumLock\"] = modifierNumLock\n   o[\"modifierScrollLock\"] = modifierScrollLock\n   o[\"modifierSuper\"] = modifierSuper\n   o[\"modifierSymbol\"] = modifierSymbol\n   o[\"modifierSymbolLock\"] = modifierSymbolLock\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n
o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [CompositionEvent](https://developer.mozilla.org/en/docs/Web/API/CompositionEvent) to Kotlin\n */\npublic external open class CompositionEvent(type: String, eventInitDict: CompositionEventInit = definedExternally) : UIEvent {\n   open val data: String\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface CompositionEventInit : UIEventInit {\n   var data: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CompositionEventInit(data: String? = \"\", view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): CompositionEventInit
{\n   val o = js(\"({})\")\n   o[\"data\"] = data\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [Event](https://developer.mozilla.org/en/docs/Web/API/Event) to Kotlin\n */\npublic external open class Event(type: String, eventInitDict: EventInit = definedExternally) {\n   open val type: String\n   open val target: EventTarget?\n   open val currentTarget: EventTarget?\n   open val eventPhase: Short\n   open val bubbles: Boolean\n   open val cancelable: Boolean\n   open val defaultPrevented: Boolean\n   open val composed: Boolean\n   open val isTrusted: Boolean\n   open val timeStamp: Number\n   fun composedPath(): Array<EventTarget>\n   fun stopPropagation()\n   fun stopImmediatePropagation()\n   fun preventDefault()\n   fun initEvent(type: String, bubbles: Boolean, cancelable: Boolean)\n\n   companion object
{\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [EventTarget](https://developer.mozilla.org/en/docs/Web/API/EventTarget) to Kotlin\n */\npublic external abstract class EventTarget {\n   fun addEventListener(type: String, callback: EventListener?, options: dynamic = definedExternally)\n   fun addEventListener(type: String, callback: ((Event) -> Unit)?, options: dynamic = definedExternally)\n   fun removeEventListener(type: String, callback: EventListener?, options: dynamic = definedExternally)\n   fun removeEventListener(type: String, callback: ((Event) -> Unit)?, options: dynamic = definedExternally)\n   fun dispatchEvent(event: Event): Boolean\n}\n\n/**\n * Exposes the JavaScript [EventListener](https://developer.mozilla.org/en/docs/Web/API/EventListener) to Kotlin\n */\npublic external interface EventListener {\n   fun handleEvent(event: Event)\n}","/*\n
* Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.clipboard.*\nimport org.w3c.dom.css.*\nimport org.w3c.dom.encryptedmedia.*\nimport org.w3c.dom.events.*\nimport org.w3c.dom.mediacapture.*\nimport org.w3c.dom.mediasource.*\nimport org.w3c.dom.pointerevents.*\nimport

org.w3c.dom.svg.*\nimport org.w3c.fetch.*\nimport org.w3c.files.*\nimport org.w3c.performance.*\nimport org.w3c.workers.*\nimport org.w3c.xhr.*\n\npublic external abstract class HTMLAllCollection {\n   open val length: Int\n   fun item(nameOrIndex: String = definedExternally): UnionElementOrHTMLCollection?\n   fun namedItem(name: String): UnionElementOrHTMLCollection?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLAllCollection.get(index: Int): Element? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLAllCollection.get(name: String): UnionElementOrHTMLCollection? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript [HTMLFormControlsCollection](https://developer.mozilla.org/en/docs/Web/API/HTMLFormControlsCollection) to Kotlin\n */\npublic external abstract class HTMLFormControlsCollection : HTMLCollection\n\n/**\n * Exposes the JavaScript [RadioNodeList](https://developer.mozilla.org/en/docs/Web/API/RadioNodeList) to Kotlin\n */\npublic external abstract class RadioNodeList : NodeList, UnionElementOrRadioNodeList {\n   open var value: String\n}\n\n/**\n * Exposes the JavaScript [HTMLOptionsCollection](https://developer.mozilla.org/en/docs/Web/API/HTMLOptionsCollection) to Kotlin\n */\npublic external abstract class HTMLOptionsCollection : HTMLCollection {\n   override var length: Int\n   open var selectedIndex: Int\n   fun add(element: UnionHTMLOptGroupElementOrHTMLOptionElement, before: dynamic = definedExternally)\n   fun remove(index: Int)\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLOptionsCollection.set(index: Int, option: HTMLOptionElement?) { asDynamic()[index] = option }\n\n/**\n * Exposes the JavaScript [HTMLElement](https://developer.mozilla.org/en/docs/Web/API/HTMLElement) to Kotlin\n */\npublic external abstract class HTMLElement : Element, GlobalEventHandlers, DocumentAndElementEventHandlers, ElementContentEditable, ElementCSSInlineStyle {\n   open var title: String\n   open var lang: String\n   open var translate: Boolean\n   open var dir: String\n   open val dataset: DOMStringMap\n   open var hidden: Boolean\n   open var tabIndex: Int\n   open var accessKey: String\n   open val accessKeyLabel: String\n   open var draggable: Boolean\n   open val dropzone: DOMTokenList\n   open var contextMenu: HTMLMenuElement?\n   open var spellcheck: Boolean\n   open var innerText: String\n   open val offsetParent: Element?\n   open val offsetTop: Int\n   open val offsetLeft: Int\n   open val offsetWidth: Int\n   open val offsetHeight: Int\n   fun click()\n   fun focus()\n   fun blur()\n   fun forceSpellCheck()\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLUnknownElement](https://developer.mozilla.org/en/docs/Web/API/HTMLUnknownElement) to Kotlin\n */\npublic external abstract class HTMLUnknownElement : HTMLElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING:

Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [DOMStringMap](https://developer.mozilla.org/en/docs/Web/API/DOMStringMap) to Kotlin\n */\npublic external abstract class DOMStringMap\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun DOMStringMap.get(name: String): String? = asDynamic()[name]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun DOMStringMap.set(name: String, value: String) { asDynamic()[name] = value }\n\n/**\n * Exposes the JavaScript [HTMLHtmlElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHtmlElement) to Kotlin\n */\npublic external abstract class HTMLHtmlElement : HTMLElement {\n   open var version: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLHeadElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHeadElement) to Kotlin\n */\npublic external abstract class HTMLHeadElement : HTMLElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTitleElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTitleElement) to Kotlin\n */\npublic external abstract class HTMLTitleElement : HTMLElement {\n   open var text: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLBaseElement](https://developer.mozilla.org/en/docs/Web/API/HTMLBaseElement) to Kotlin\n */\npublic external abstract class HTMLBaseElement : HTMLElement {\n   open var href: String\n   open var target: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLLinkElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLinkElement) to Kotlin\n */\npublic external abstract class HTMLLinkElement : HTMLElement, LinkStyle {\n open var href: String\n open var crossOrigin: String?\n open var rel: String\n open var `as`: RequestDestination\n open val relList: DOMTokenList\n open var media: String\n open var nonce: String\n open var hreflang: String\n open var type: String\n open val sizes: DOMTokenList\n open var referrerPolicy: String\n open var charset: String\n open var rev: String\n open var target: String\n open var scope: String\n open var workerType: WorkerType\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLMetaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMetaElement) to Kotlin\n */\npublic external abstract class HTMLMetaElement : HTMLElement {\n open var name: String\n open var httpEquiv: String\n open var content: String\n open var scheme: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLStyleElement](https://developer.mozilla.org/en/docs/Web/API/HTMLStyleElement) to Kotlin\n */\npublic external abstract class HTMLStyleElement : HTMLElement, LinkStyle {\n open var media: String\n open var nonce: String\n open var type: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLBodyElement](https://developer.mozilla.org/en/docs/Web/API/HTMLBodyElement) to Kotlin\n */\npublic external abstract class HTMLBodyElement : HTMLElement, WindowEventHandlers {\n open var text: String\n open var link: String\n   open var vLink: String\n   open var aLink: String\n   open var bgColor: String\n   open var background: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLHeadingElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHeadingElement) to Kotlin\n */\npublic external abstract class HTMLHeadingElement : HTMLElement {\n   open var align: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLParagraphElement](https://developer.mozilla.org/en/docs/Web/API/HTMLParagraphElement) to Kotlin\n */\npublic external abstract class HTMLParagraphElement : HTMLElement {\n   open var align: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLHRElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHRElement) to Kotlin\n */\npublic external abstract class HTMLHRElement : HTMLElement {\n   open var align: String\n   open var color: String\n   open var noShade: Boolean\n   open var size: String\n   open var width: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLPreElement](https://developer.mozilla.org/en/docs/Web/API/HTMLPreElement) to Kotlin\n */\npublic external abstract class HTMLPreElement : HTMLElement {\n open var width: Int\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLQuoteElement](https://developer.mozilla.org/en/docs/Web/API/HTMLQuoteElement) to Kotlin\n */\npublic external abstract class HTMLQuoteElement : HTMLElement {\n open var cite: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLOListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOListElement) to Kotlin\n */\npublic external abstract class HTMLOListElement : HTMLElement {\n open var reversed: Boolean\n open var start: Int\n open var type: String\n open var compact: Boolean\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLUListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLUListElement) to Kotlin\n */\npublic external abstract class HTMLUListElement : HTMLElement {\n open var compact: Boolean\n open var type: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLLIElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLIElement) to Kotlin\n */\npublic external abstract class HTMLLIElement : HTMLElement {\n open var value: Int\n open var type: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE:

Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val
ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val
PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val
DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val
DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript
[HTMLDListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDListElement)
to Kotlin\n */\npublic external abstract class HTMLDListElement : HTMLElement {\n   open var compact:
Boolean\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n
val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE:
Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val
COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n
val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript
[HTMLDivElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDivElement) to Kotlin\n */\npublic
external abstract class HTMLDivElement : HTMLElement {\n   open var align: String\n\n   companion object {\n
val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val
CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE:
Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val
DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val
DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript
[HTMLAnchorElement](https://developer.mozilla.org/en/docs/Web/API/HTMLAnchorElement) to Kotlin\n
*/\npublic external abstract class HTMLAnchorElement : HTMLElement, HTMLHyperlinkElementUtils {\n   open
var target: String\n   open var download: String\n   open var ping: String\n   open var rel: String\n   open val
relList: DOMTokenList\n   open var hreflang: String\n   open var type: String\n   open var text: String\n   open
var referrerPolicy: String\n   open var coords: String\n   open var charset: String\n   open var name: String\n
open var rev: String\n   open var shape: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n
val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n
val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val
PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val
DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n
val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript
[HTMLDataElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDataElement) to Kotlin\n */\npublic
external abstract class HTMLDataElement : HTMLElement {\n   open var value: String\n\n   companion object {\n

val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLTimeElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTimeElement) to Kotlin\n */\npublic external abstract class HTMLTimeElement : HTMLElement {\n open var dateTime: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLSpanElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSpanElement) to Kotlin\n */\npublic external abstract class HTMLSpanElement : HTMLElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLBRElement](https://developer.mozilla.org/en/docs/Web/API/HTMLBRElement) to Kotlin\n */\npublic external abstract class HTMLBRElement : HTMLElement {\n open var clear: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLHyperlinkElementUtils](https://developer.mozilla.org/en/docs/Web/API/HTMLHyperlinkElementUtils) to Kotlin\n */\npublic external interface HTMLHyperlinkElementUtils {\n var href: String\n val origin: String\n var protocol: String\n var username: String\n var password: String\n var host: String\n var hostname: String\n var port: String\n var pathname: String\n var search: String\n var hash: String\n}\n\n/**\n * Exposes the JavaScript [HTMLModElement](https://developer.mozilla.org/en/docs/Web/API/HTMLModElement) to Kotlin\n */\npublic external abstract class HTMLModElement : HTMLElement {\n   open var cite: String\n   open var dateTime: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLPictureElement](https://developer.mozilla.org/en/docs/Web/API/HTMLPictureElement) to Kotlin\n */\npublic external abstract class HTMLPictureElement : HTMLElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLSourceElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSourceElement) to Kotlin\n */\npublic external abstract class HTMLSourceElement : HTMLElement {\n   open var src: String\n   open var type: String\n   open var srcset: String\n   open var sizes: String\n   open var media: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLImageElement](https://developer.mozilla.org/en/docs/Web/API/HTMLImageElement) to Kotlin\n */\npublic external abstract class HTMLImageElement : HTMLElement, HTMLOrSVGImageElement, TexImageSource {\n   open var alt: String\n   open var src: String\n   open var srcset: String\n   open var sizes: String\n   open var crossOrigin: String?\n   open var useMap: String\n   open var isMap: Boolean\n   open var width: Int\n   open var height: Int\n   open val naturalWidth: Int\n   open val naturalHeight: Int\n   open val complete: Boolean\n   open val currentSrc: String\n   open var referrerPolicy: String\n   open var name: String\n   open var lowsrc: String\n   open var align: String\n   open var hspace: Int\n   open var vspace: Int\n   open var longDesc: String\n   open var border: String\n   open val x: Int\n   open val y: Int\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val

DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLIFrameElement](https://developer.mozilla.org/en/docs/Web/API/HTMLIFrameElement) to Kotlin\n */\npublic external abstract class HTMLIFrameElement : HTMLElement {\n   open var src: String\n   open var srcdoc: String\n   open var name: String\n   open val sandbox: DOMTokenList\n   open var allowFullscreen: Boolean\n   open var allowUserMedia: Boolean\n   open var width: String\n   open var height: String\n   open var referrerPolicy: String\n   open val contentDocument: Document?\n   open val contentWindow: Window?\n   open var align: String\n   open var scrolling: String\n   open var frameBorder: String\n   open var longDesc: String\n   open var marginHeight: String\n   open var marginWidth: String\n   fun getSVGDocument(): Document?\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLEmbedElement](https://developer.mozilla.org/en/docs/Web/API/HTMLEmbedElement) to Kotlin\n */\npublic external abstract class HTMLEmbedElement : HTMLElement {\n   open var src: String\n   open var type: String\n   open var width: String\n   open var height: String\n   open var align: String\n   open var name: String\n   fun getSVGDocument(): Document?\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLObjectElement](https://developer.mozilla.org/en/docs/Web/API/HTMLObjectElement) to Kotlin\n */\npublic external abstract class HTMLObjectElement : HTMLElement {\n   open var data: String\n   open var type: String\n   open var typeMustMatch: Boolean\n   open var name: String\n   open var useMap: String\n   open val form: HTMLFormElement?\n   open var width: String\n   open var height: String\n   open val contentDocument: Document?\n   open val contentWindow: Window?\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   open var align: String\n   open var archive: String\n   open var code: String\n   open var declare: Boolean\n   open var hspace: Int\n   open var standby: String\n   open var vspace: Int\n   open var codeBase: String\n   open var codeType: String\n   open var border: String\n   fun getSVGDocument(): Document?\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val

DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLParamElement](https://developer.mozilla.org/en/docs/Web/API/HTMLParamElement) to Kotlin\n */\npublic external abstract class HTMLParamElement : HTMLElement {\n   open var name: String\n   open var value: String\n   open var type: String\n   open var valueType: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLVideoElement](https://developer.mozilla.org/en/docs/Web/API/HTMLVideoElement) to Kotlin\n */\npublic external abstract class HTMLVideoElement : HTMLMediaElement, CanvasImageSource, TexImageSource {\n   open var width: Int\n   open var height: Int\n   open val videoWidth: Int\n   open val videoHeight: Int\n   open var poster: String\n   open var playsInline: Boolean\n\n   companion object {\n   val NETWORK_EMPTY: Short\n   val NETWORK_IDLE: Short\n   val NETWORK_LOADING: Short\n   val NETWORK_NO_SOURCE: Short\n   val HAVE_NOTHING: Short\n   val HAVE_METADATA: Short\n   val HAVE_CURRENT_DATA: Short\n   val HAVE_FUTURE_DATA: Short\n   val HAVE_ENOUGH_DATA: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLAudioElement](https://developer.mozilla.org/en/docs/Web/API/HTMLAudioElement) to Kotlin\n */\npublic external abstract class HTMLAudioElement : HTMLMediaElement {\n   companion object {\n   val NETWORK_EMPTY: Short\n   val NETWORK_IDLE: Short\n   val NETWORK_LOADING: Short\n   val NETWORK_NO_SOURCE: Short\n   val HAVE_NOTHING: Short\n   val HAVE_METADATA: Short\n   val HAVE_CURRENT_DATA: Short\n   val HAVE_FUTURE_DATA: Short\n   val HAVE_ENOUGH_DATA: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING:

Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLTrackElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTrackElement) to Kotlin\n */\npublic external abstract class HTMLTrackElement : HTMLElement {\n open var kind: String\n open var src: String\n open var srclang: String\n open var label: String\n open var default: Boolean\n open val readyState: Short\n open val track: TextTrack\n\n companion object {\n   val NONE: Short\n   val LOADING: Short\n   val LOADED: Short\n   val ERROR: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLMediaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMediaElement) to Kotlin\n */\npublic external abstract class HTMLMediaElement : HTMLElement {\n open val error: MediaError?\n open var src: String\n open var srcObject: MediaProvider?\n open val currentSrc: String\n open var crossOrigin: String?\n open val networkState: Short\n open var preload: String\n open val buffered: TimeRanges\n open val readyState: Short\n open val seeking: Boolean\n open var currentTime: Double\n open val duration: Double\n open val paused: Boolean\n open var defaultPlaybackRate: Double\n open var playbackRate: Double\n open val played: TimeRanges\n open val seekable: TimeRanges\n open val ended: Boolean\n open var autoplay: Boolean\n open var loop: Boolean\n open var controls: Boolean\n open var volume: Double\n open var muted: Boolean\n open var defaultMuted: Boolean\n open val audioTracks: AudioTrackList\n open val videoTracks: VideoTrackList\n open val textTracks: TextTrackList\n open val mediaKeys: MediaKeys?\n open var onencrypted: ((Event) -> dynamic)?\n open var onwaitingforkey: ((Event) -> dynamic)?\n fun load()\n fun canPlayType(type: String): CanPlayTypeResult\n fun fastSeek(time: Double)\n fun getStartDate(): dynamic\n fun play(): Promise<Unit>\n fun pause()\n fun addTextTrack(kind: TextTrackKind, label: String = definedExternally, language: String = definedExternally): TextTrack\n fun setMediaKeys(mediaKeys: MediaKeys?): Promise<Unit>\n\n companion object {\n   val NETWORK_EMPTY: Short\n   val NETWORK_IDLE: Short\n   val NETWORK_LOADING: Short\n   val NETWORK_NO_SOURCE: Short\n   val HAVE_NOTHING: Short\n   val HAVE_METADATA: Short\n   val HAVE_CURRENT_DATA: Short\n   val HAVE_FUTURE_DATA: Short\n   val HAVE_ENOUGH_DATA: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [MediaError](https://developer.mozilla.org/en/docs/Web/API/MediaError) to Kotlin\n */\npublic external abstract class MediaError {\n open val code: Short\n\n companion object {\n   val MEDIA_ERR_ABORTED: Short\n   val MEDIA_ERR_NETWORK: Short\n   val MEDIA_ERR_DECODE:

Short\n   val MEDIA_ERR_SRC_NOT_SUPPORTED: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [AudioTrackList](https://developer.mozilla.org/en/docs/Web/API/AudioTrackList) to Kotlin\n */\npublic external abstract class AudioTrackList : EventTarget {\n   open val length: Int\n   open var onchange: ((Event) -> dynamic)?\n   open var onaddtrack: ((TrackEvent) -> dynamic)?\n   open var onremovetrack: ((TrackEvent) -> dynamic)?\n

    fun getTrackById(id: String): AudioTrack?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun AudioTrackList.get(index: Int): AudioTrack? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [AudioTrack](https://developer.mozilla.org/en/docs/Web/API/AudioTrack) to Kotlin\n */\npublic external abstract class AudioTrack : UnionAudioTrackOrTextTrackOrVideoTrack {\n   open val id: String\n   open val kind: String\n   open val label: String\n   open val language: String\n   open var enabled: Boolean\n   open val sourceBuffer: SourceBuffer?\n}\n\n/**\n * Exposes the JavaScript [VideoTrackList](https://developer.mozilla.org/en/docs/Web/API/VideoTrackList) to Kotlin\n */\npublic external abstract class VideoTrackList : EventTarget {\n   open val length: Int\n   open val selectedIndex: Int\n   open var onchange: ((Event) -> dynamic)?\n   open var onaddtrack: ((TrackEvent) -> dynamic)?\n   open var onremovetrack:

 ((TrackEvent) -> dynamic)?\n   fun getTrackById(id: String): VideoTrack?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun VideoTrackList.get(index: Int): VideoTrack? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [VideoTrack](https://developer.mozilla.org/en/docs/Web/API/VideoTrack) to Kotlin\n */\npublic external abstract class VideoTrack : UnionAudioTrackOrTextTrackOrVideoTrack {\n   open val id: String\n   open val kind: String\n   open val label: String\n   open val language: String\n   open var selected: Boolean\n   open val sourceBuffer: SourceBuffer?\n}\n\npublic external abstract class TextTrackList : EventTarget {\n   open val length: Int\n   open var onchange: ((Event) -> dynamic)?\n   open var onaddtrack: ((TrackEvent) -> dynamic)?\n   open var onremovetrack: ((TrackEvent) -> dynamic)?\n   fun getTrackById(id: String): TextTrack?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic

 inline operator fun TextTrackList.get(index: Int): TextTrack? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [TextTrack](https://developer.mozilla.org/en/docs/Web/API/TextTrack) to Kotlin\n */\npublic external abstract class TextTrack : EventTarget, UnionAudioTrackOrTextTrackOrVideoTrack {\n   open val kind: TextTrackKind\n   open val label: String\n   open val language: String\n   open val id: String\n   open val inBandMetadataTrackDispatchType: String\n   open var mode: TextTrackMode\n   open val cues: TextTrackCueList?\n   open val activeCues: TextTrackCueList?\n   open var oncuechange: ((Event) -> dynamic)?\n   open val sourceBuffer: SourceBuffer?\n   fun addCue(cue: TextTrackCue)\n   fun removeCue(cue: TextTrackCue)\n}\n\npublic external abstract class TextTrackCueList {\n   open val length: Int\n   fun getCueById(id: String): TextTrackCue?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic

 inline operator fun TextTrackCueList.get(index: Int): TextTrackCue? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [TextTrackCue](https://developer.mozilla.org/en/docs/Web/API/TextTrackCue) to Kotlin\n */\npublic external abstract class TextTrackCue : EventTarget {\n   open val track: TextTrack?\n   open var id: String\n   open var startTime: Double\n   open var endTime: Double\n   open var pauseOnExit: Boolean\n   open var onenter: ((Event) -> dynamic)?\n   open var onexit: ((Event) -> dynamic)?\n}\n\n/**\n * Exposes the JavaScript [TimeRanges](https://developer.mozilla.org/en/docs/Web/API/TimeRanges) to Kotlin\n */\npublic external abstract class TimeRanges {\n   open val length: Int\n   fun start(index: Int): Double\n   fun end(index: Int): Double\n}\n\n/**\n * Exposes the JavaScript [TrackEvent](https://developer.mozilla.org/en/docs/Web/API/TrackEvent) to Kotlin\n */\npublic external open class TrackEvent(type: String, eventInitDict: TrackEventInit

= definedExternally) : Event {\n   open val track: UnionAudioTrackOrTextTrackOrVideoTrack?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface TrackEventInit : EventInit {\n   var track: UnionAudioTrackOrTextTrackOrVideoTrack? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun TrackEventInit(track: UnionAudioTrackOrTextTrackOrVideoTrack? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): TrackEventInit {\n   val o = js(\"({})\")\n   o[\"track\"] = track\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [HTMLMapElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMapElement) to Kotlin\n */\npublic external abstract class HTMLMapElement : HTMLElement {\n   open var name: String\n   open val areas: HTMLCollection\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLAreaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLAreaElement) to Kotlin\n */\npublic external abstract class HTMLAreaElement : HTMLElement, HTMLHyperlinkElementUtils {\n   open var alt: String\n   open var coords: String\n   open var shape: String\n   open var target: String\n   open var download: String\n   open var ping: String\n   open var rel: String\n   open val relList: DOMTokenList\n   open var referrerPolicy: String\n   open var noHref: Boolean\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTableElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableElement) to Kotlin\n */\npublic external abstract class HTMLTableElement : HTMLElement {\n   open var caption: HTMLTableCaptionElement?\n   open var tHead: HTMLTableSectionElement?\n   open var tFoot: HTMLTableSectionElement?\n   open val tBodies: HTMLCollection\n   open val rows: HTMLCollection\n   open var align: String\n   open var border: String\n   open var frame: String\n   open var rules: String\n   open var summary: String\n   open var width: String\n   open var bgColor: String\n   open var cellPadding: String\n   open var cellSpacing: String\n   fun createCaption(): HTMLTableCaptionElement\n   fun deleteCaption()\n   fun createTHead(): HTMLTableSectionElement\n   fun deleteTHead()\n   fun createTFoot(): HTMLTableSectionElement\n   fun deleteTFoot()\n   fun createTBody(): HTMLTableSectionElement\n   fun insertRow(index: Int = definedExternally): HTMLTableRowElement\n   fun deleteRow(index: Int)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE:

Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTableCaptionElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableCaptionElement) to Kotlin\n */\npublic external abstract class HTMLTableCaptionElement : HTMLElement {\n   open var align: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTableColElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableColElement) to Kotlin\n */\npublic external abstract class HTMLTableColElement : HTMLElement {\n   open var span: Int\n   open var align: String\n   open var ch: String\n   open var chOff: String\n   open var vAlign: String\n   open var width: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTableSectionElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableSectionElement) to Kotlin\n */\npublic external abstract class HTMLTableSectionElement : HTMLElement {\n   open val rows: HTMLCollection\n   open var align: String\n   open var ch: String\n   open var chOff: String\n   open var vAlign: String\n   fun insertRow(index: Int = definedExternally): HTMLElement\n   fun deleteRow(index: Int)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTableRowElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableRowElement) to Kotlin\n */\npublic external abstract class HTMLTableRowElement : HTMLElement {\n   open val rowIndex: Int\n   open

val sectionRowIndex: Int\n   open val cells: HTMLCollection\n   open var align: String\n   open var ch: String\n   open var chOff: String\n   open var vAlign: String\n   open var bgColor: String\n   fun insertCell(index: Int = definedExternally):
HTMLElement\n   fun deleteCell(index: Int)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTableCellElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableCellElement) to Kotlin\n */\npublic external
abstract class HTMLTableCellElement : HTMLElement {\n   open var colSpan: Int\n   open var rowSpan: Int\n   open var headers: String\n   open val cellIndex: Int\n   open var scope: String\n   open var abbr: String\n   open var align: String\n   open var axis: String\n   open var height: String\n   open var width: String\n   open var ch: String\n   open var chOff: String\n   open var noWrap: Boolean\n   open var vAlign: String\n   open var bgColor: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n
val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLFormElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFormElement) to Kotlin\n */\npublic external abstract class HTMLFormElement : HTMLElement {\n   open var acceptCharset: String\n   open var action: String\n   open var autocomplete: String\n   open var enctype: String\n   open var encoding: String\n   open var method: String\n   open var name: String\n   open var noValidate: Boolean\n   open var target: String\n   open val elements: HTMLFormControlsCollection\n   open val length: Int\n   fun submit()\n   fun reset()\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE:
Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n
}\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLFormElement.get(index: Int): Element? =

asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLFormElement.get(name: String): UnionElementOrRadioNodeList? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript [HTMLLabelElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLabelElement) to Kotlin\n */\npublic external abstract class HTMLLabelElement : HTMLElement {\n   open val form: HTMLFormElement?\n   open var htmlFor: String\n   open val control: HTMLElement?\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLInputElement](https://developer.mozilla.org/en/docs/Web/API/HTMLInputElement) to Kotlin\n */\npublic external abstract class HTMLInputElement : HTMLElement {\n   open var accept: String\n   open var alt: String\n   open var autocomplete: String\n   open var autofocus: Boolean\n   open var defaultChecked: Boolean\n   open var checked: Boolean\n   open var dirName: String\n   open var disabled: Boolean\n   open val form: HTMLFormElement?\n   open val files: FileList?\n   open var formAction: String\n   open var formEnctype: String\n   open var formMethod: String\n   open var formNoValidate: Boolean\n   open var formTarget: String\n   open var height: Int\n   open var indeterminate: Boolean\n   open var inputMode: String\n   open val list: HTMLElement?\n   open var max: String\n   open var maxLength: Int\n   open var min: String\n   open var minLength: Int\n   open var multiple: Boolean\n   open var name: String\n   open var pattern: String\n   open var placeholder: String\n   open var readOnly: Boolean\n   open var required: Boolean\n   open var size: Int\n   open var src: String\n   open var step: String\n   open var type: String\n   open var defaultValue: String\n   open var value: String\n   open var valueAsDate: dynamic\n   open var valueAsNumber: Double\n   open var width: Int\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   open val labels: NodeList\n   open var selectionStart: Int?\n   open var selectionEnd: Int?\n   open var selectionDirection: String?\n   open var align: String\n   open var useMap: String\n   fun stepUp(n: Int = definedExternally)\n   fun stepDown(n: Int = definedExternally)\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n   fun select()\n   fun setRangeText(replacement: String)\n   fun setRangeText(replacement: String, start: Int, end: Int, selectionMode: SelectionMode = definedExternally)\n   fun setSelectionRange(start: Int, end: Int, direction: String = definedExternally)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLButtonElement](https://developer.mozilla.org/en/docs/Web/API/HTMLButtonElement) to Kotlin\n */\npublic external abstract class HTMLButtonElement : HTMLElement {\n   open var autofocus: Boolean\n   open var disabled: Boolean\n   open val form: HTMLFormElement?\n   open var formAction: String\n

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  open var formEnctype: String\n    open var formMethod: String\n    open var formNoValidate: Boolean\n    open
var formTarget: String\n    open var name: String\n    open var type: String\n    open var value: String\n    open var
menu: HTMLMenuElement?\n    open val willValidate: Boolean\n    open val validity: ValidityState\n    open val
validationMessage: String\n    open val labels: NodeList\n    fun checkValidity(): Boolean\n    fun reportValidity():
Boolean\n    fun setCustomValidity(error: String)\n\n    companion object {\n        val ELEMENT_NODE:
 Short\n        val ATTRIBUTE_NODE: Short\n        val TEXT_NODE: Short\n        val
CDATA_SECTION_NODE: Short\n        val ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE:
Short\n        val PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
     val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[HTMLSelectElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSelectElement) to Kotlin\n */\npublic
external abstract class HTMLSelectElement : HTMLElement, ItemArrayLike<Element> {\n    open var
autocomplete: String\n
    open var autofocus: Boolean\n    open var disabled: Boolean\n    open val form: HTMLFormElement?\n    open
var multiple: Boolean\n    open var name: String\n    open var required: Boolean\n    open var size: Int\n    open val
type: String\n    open val options: HTMLOptionsCollection\n    override var length: Int\n    open val
selectedOptions: HTMLCollection\n    open var selectedIndex: Int\n    open var value: String\n    open val
willValidate: Boolean\n    open val validity: ValidityState\n    open val validationMessage: String\n    open val
labels: NodeList\n    fun namedItem(name: String): HTMLOptionElement?\n    fun add(element:
UnionHTMLOptGroupElementOrHTMLOptionElement, before: dynamic = definedExternally)\n    fun
remove(index: Int)\n    fun checkValidity(): Boolean\n    fun reportValidity(): Boolean\n    fun
setCustomValidity(error: String)\n    override fun item(index: Int): Element?\n\n    companion object {\n        val
ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE:
 Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
PROCESSING_INSTRUCTION_NODE: Short\n        val COMMENT_NODE: Short\n        val
DOCUMENT_NODE: Short\n        val DOCUMENT_TYPE_NODE: Short\n        val
DOCUMENT_FRAGMENT_NODE: Short\n        val NOTATION_NODE: Short\n        val
DOCUMENT_POSITION_DISCONNECTED: Short\n        val DOCUMENT_POSITION_PRECEDING: Short\n
    val DOCUMENT_POSITION_FOLLOWING: Short\n        val DOCUMENT_POSITION_CONTAINS: Short\n
     val DOCUMENT_POSITION_CONTAINED_BY: Short\n        val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n
}\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
HTMLSelectElement.get(index: Int): Element? =
asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun
HTMLSelectElement.set(index:
 Int, option: HTMLOptionElement?) { asDynamic()[index] = option }\n\n/**\n * Exposes the JavaScript
[HTMLDataListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDataListElement) to Kotlin\n
*/\npublic external abstract class HTMLDataListElement : HTMLElement {\n    open val options:
HTMLCollection\n\n    companion object {\n        val ELEMENT_NODE: Short\n        val ATTRIBUTE_NODE:
Short\n        val TEXT_NODE: Short\n        val CDATA_SECTION_NODE: Short\n        val
ENTITY_REFERENCE_NODE: Short\n        val ENTITY_NODE: Short\n        val
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PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val
DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val
DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript
[HTMLOptGroupElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOptGroupElement) to Kotlin\n
*/\npublic external abstract class HTMLOptGroupElement : HTMLElement,
UnionHTMLOptGroupElementOrHTMLOptionElement {\n   open var disabled: Boolean\n   open var label:
String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n
val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE:
Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val
COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n
val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS:
Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript
[HTMLOptionElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOptionElement) to Kotlin\n
*/\npublic external abstract class HTMLOptionElement : HTMLElement,
UnionHTMLOptGroupElementOrHTMLOptionElement {\n   open var disabled: Boolean\n   open val form:
HTMLFormElement?\n   open var label: String\n   open var defaultSelected: Boolean\n   open var selected:
Boolean\n   open var value: String\n   open var text: String\n   open val index: Int\n\n   companion object {\n
val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val
CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE:
Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n
val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE:
Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val
DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n
val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n
val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript
[HTMLTextAreaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTextAreaElement) to Kotlin\n
*/\npublic external abstract class HTMLTextAreaElement : HTMLElement {\n   open var autocomplete: String\n
open var autofocus: Boolean\n   open var cols: Int\n   open var dirName: String\n   open var disabled: Boolean\n
open val form: HTMLFormElement?\n   open var inputMode: String\n   open var maxLength: Int\n   open var
minLength: Int\n   open var name:
String\n   open var placeholder: String\n   open var readOnly: Boolean\n   open var required: Boolean\n   open
var rows: Int\n   open var wrap: String\n   open val type: String\n   open var defaultValue: String\n   open var
value: String\n   open val textLength: Int\n   open val willValidate: Boolean\n   open val validity: ValidityState\n
open val validationMessage: String\n   open val labels: NodeList\n   open var selectionStart: Int?\n   open var
selectionEnd: Int?\n   open var selectionDirection: String?\n   fun checkValidity(): Boolean\n   fun
reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n   fun select()\n   fun
setRangeText(replacement: String)\n   fun setRangeText(replacement: String, start: Int, end: Int, selectionMode:
SelectionMode = definedExternally)\n   fun setSelectionRange(start: Int, end: Int, direction: String =
definedExternally)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE:
Short\n

val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLKeygenElement](https://developer.mozilla.org/en/docs/Web/API/HTMLKeygenElement) to Kotlin\n */\npublic external abstract class HTMLKeygenElement : HTMLElement {\n   open var autofocus: Boolean\n   open var challenge: String\n   open var disabled: Boolean\n   open val form: HTMLFormElement?\n   open var keytype: String\n   open var name: String\n   open val type: String\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   open val labels: NodeList\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLOutputElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOutputElement) to Kotlin\n */\npublic external abstract class HTMLOutputElement : HTMLElement {\n   open val htmlFor: DOMTokenList\n   open val form: HTMLFormElement?\n   open var name: String\n   open val type: String\n   open var defaultValue: String\n   open var value: String\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   open val labels: NodeList\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLProgressElement](https://developer.mozilla.org/en/docs/Web/API/HTMLProgressElement) to Kotlin\n */\npublic external abstract class HTMLProgressElement : HTMLElement {\n   open var value: Double\n   open var max: Double\n   open val position: Double\n   open val labels: NodeList\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val

DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLMeterElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMeterElement) to Kotlin\n */\npublic external abstract class HTMLMeterElement : HTMLElement {\n   open var value: Double\n   open var min: Double\n   open var max: Double\n   open var low: Double\n   open var high: Double\n   open var optimum: Double\n   open val labels: NodeList\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLFieldSetElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFieldSetElement) to Kotlin\n */\npublic external abstract class HTMLFieldSetElement : HTMLElement {\n   open var disabled: Boolean\n   open val form: HTMLFormElement?\n   open var name: String\n   open val type: String\n   open val elements: HTMLCollection\n   open val willValidate: Boolean\n   open val validity: ValidityState\n   open val validationMessage: String\n   fun checkValidity(): Boolean\n   fun reportValidity(): Boolean\n   fun setCustomValidity(error: String)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLLegendElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLegendElement) to Kotlin\n */\npublic external abstract class HTMLLegendElement : HTMLElement {\n   open val form: HTMLFormElement?\n   open var align: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [ValidityState](https://developer.mozilla.org/en/docs/Web/API/ValidityState) to Kotlin\n */\npublic external abstract class ValidityState {\n   open val valueMissing: Boolean\n   open val typeMismatch: Boolean\n   open val patternMismatch: Boolean\n open val tooLong: Boolean\n open val tooShort: Boolean\n open val rangeUnderflow: Boolean\n open val rangeOverflow: Boolean\n open val stepMismatch: Boolean\n open val badInput: Boolean\n open val customError: Boolean\n open val valid: Boolean\n}\n\n/**\n * Exposes the JavaScript [HTMLDetailsElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDetailsElement) to Kotlin\n */\npublic external abstract class HTMLDetailsElement : HTMLElement {\n open var open: Boolean\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external abstract class HTMLMenuElement : HTMLElement {\n open var type: String\n open var label: String\n open var compact: Boolean\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external abstract class HTMLMenuItemElement : HTMLElement {\n open var type: String\n open var label: String\n open var icon: String\n open var disabled: Boolean\n open var checked: Boolean\n open var radiogroup: String\n open var default: Boolean\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external open class RelatedEvent(type: String, eventInitDict: RelatedEventInit = definedExternally) : Event {\n open val relatedTarget: EventTarget?\n\n companion object {\n val NONE: Short\n val CAPTURING_PHASE: Short\n val AT_TARGET: Short\n val BUBBLING_PHASE: Short\n }\n}\n\npublic external interface RelatedEventInit : EventInit {\n var relatedTarget: EventTarget? /* = null */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun RelatedEventInit(relatedTarget: EventTarget? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): RelatedEventInit {\n val o = js(\"({})\")\n o[\"relatedTarget\"] = relatedTarget\n o[\"bubbles\"] = bubbles\n o[\"cancelable\"] = cancelable\n o[\"composed\"] = composed\n return o\n}\n\n/**\n * Exposes the JavaScript [HTMLDialogElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDialogElement) to Kotlin\n

*/\npublic external abstract class HTMLDialogElement
: HTMLElement {\n   open var open: Boolean\n   open var returnValue: String\n   fun show(anchor: UnionElementOrMouseEvent = definedExternally)\n   fun showModal(anchor: UnionElementOrMouseEvent = definedExternally)\n   fun close(returnValue: String = definedExternally)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short
val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLScriptElement](https://developer.mozilla.org/en/docs/Web/API/HTMLScriptElement) to Kotlin\n */\npublic external abstract class HTMLScriptElement : HTMLElement, HTMLOrSVGScriptElement {\n   open var src: String\n   open var type: String\n   open var charset: String\n   open var async: Boolean\n   open var defer: Boolean\n   open var crossOrigin: String?\n   open var text: String\n   open var nonce: String\n   open var event: String\n   open var htmlFor: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE:
Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLTemplateElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTemplateElement) to Kotlin\n */\npublic external abstract class HTMLTemplateElement : HTMLElement {\n   open val content: DocumentFragment\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE:
Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLSlotElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSlotElement) to Kotlin\n */\npublic external abstract class HTMLSlotElement : HTMLElement {\n   open var name: String\n   fun assignedNodes(options: AssignedNodesOptions = definedExternally): Array<Node>\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short
val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n

val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external interface AssignedNodesOptions {\n   var flatten: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun AssignedNodesOptions(flatten: Boolean? = false): AssignedNodesOptions {\n   val o = js(\"({})\")\n   o[\"flatten\"] = flatten\n   return o\n}\n\n/**\n * Exposes the JavaScript [HTMLCanvasElement](https://developer.mozilla.org/en/docs/Web/API/HTMLCanvasElement) to Kotlin\n */\npublic external abstract class HTMLCanvasElement : HTMLElement, CanvasImageSource, TexImageSource {\n   open var width: Int\n   open var height: Int\n   fun getContext(contextId: String, vararg arguments: Any?): RenderingContext?\n   fun toDataURL(type: String = definedExternally, quality: Any? = definedExternally): String\n   fun toBlob(_callback: (Blob?) -> Unit, type: String = definedExternally, quality: Any? = definedExternally)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external interface CanvasRenderingContext2DSettings {\n   var alpha: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CanvasRenderingContext2DSettings(alpha: Boolean? = true): CanvasRenderingContext2DSettings {\n   val o = js(\"({})\")\n   o[\"alpha\"] = alpha\n   return o\n}\n\n/**\n * Exposes the JavaScript [CanvasRenderingContext2D](https://developer.mozilla.org/en/docs/Web/API/CanvasRenderingContext2D) to Kotlin\n */\npublic external abstract class CanvasRenderingContext2D : CanvasState, CanvasTransform, CanvasCompositing, CanvasImageSmoothing, CanvasFillStrokeStyles, CanvasShadowStyles, CanvasFilters, CanvasRect, CanvasDrawPath, CanvasUserInterface, CanvasText, CanvasDrawImage, CanvasHitRegion, CanvasImageData, CanvasPathDrawingStyles, CanvasTextDrawingStyles, CanvasPath, RenderingContext {\n   open val canvas: HTMLCanvasElement\n}\n\npublic external interface CanvasState {\n   fun save()\n   fun restore()\n}\n\npublic external interface CanvasTransform {\n   fun scale(x: Double, y: Double)\n   fun rotate(angle: Double)\n   fun translate(x: Double, y: Double)\n   fun transform(a: Double, b: Double, c: Double, d: Double, e: Double, f: Double)\n   fun getTransform(): DOMMatrix\n   fun setTransform(a: Double, b: Double, c: Double, d: Double, e: Double, f: Double)\n   fun setTransform(transform: dynamic = definedExternally)\n   fun resetTransform()\n}\n\npublic external interface CanvasCompositing {\n   var globalAlpha: Double\n   var globalCompositeOperation: String\n}\n\npublic external interface CanvasImageSmoothing {\n   var imageSmoothingEnabled: Boolean\n   var imageSmoothingQuality: ImageSmoothingQuality\n}\n\npublic external interface CanvasFillStrokeStyles {\n   var strokeStyle: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var fillStyle: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   fun createLinearGradient(x0: Double, y0: Double, x1: Double, y1: Double): CanvasGradient\n   fun createRadialGradient(x0: Double, y0: Double, r0: Double, x1: Double, y1: Double, r1: Double): CanvasGradient\n   fun createPattern(image: CanvasImageSource, repetition:

String): CanvasPattern?\n}\n\npublic external interface CanvasShadowStyles {\n   var shadowOffsetX: Double\n   var shadowOffsetY: Double\n   var shadowBlur: Double\n   var shadowColor: String\n}\n\npublic external interface CanvasFilters {\n   var filter: String\n}\n\npublic external interface CanvasRect {\n   fun clearRect(x: Double, y: Double,
 w: Double, h: Double)\n   fun fillRect(x: Double, y: Double, w: Double, h: Double)\n   fun strokeRect(x: Double, y: Double, w: Double, h: Double)\n}\n\npublic external interface CanvasDrawPath {\n   fun beginPath()\n   fun fill(fillRule: CanvasFillRule = definedExternally)\n   fun fill(path: Path2D, fillRule: CanvasFillRule = definedExternally)\n   fun stroke()\n   fun stroke(path: Path2D)\n   fun clip(fillRule: CanvasFillRule = definedExternally)\n   fun clip(path: Path2D, fillRule: CanvasFillRule = definedExternally)\n   fun resetClip()\n   fun isPointInPath(x: Double, y: Double, fillRule: CanvasFillRule = definedExternally): Boolean\n   fun isPointInPath(path: Path2D, x: Double, y: Double, fillRule: CanvasFillRule = definedExternally): Boolean\n   fun isPointInStroke(x: Double, y: Double): Boolean\n   fun isPointInStroke(path: Path2D, x: Double, y: Double): Boolean\n}\n\npublic external interface CanvasUserInterface {\n   fun drawFocusIfNeeded(element: Element)\n
 fun drawFocusIfNeeded(path: Path2D, element: Element)\n   fun scrollPathIntoView()\n   fun scrollPathIntoView(path: Path2D)\n}\n\npublic external interface CanvasText {\n   fun fillText(text: String, x: Double, y: Double, maxWidth: Double = definedExternally)\n   fun strokeText(text: String, x: Double, y: Double, maxWidth: Double = definedExternally)\n   fun measureText(text: String): TextMetrics\n}\n\npublic external interface CanvasDrawImage {\n   fun drawImage(image: CanvasImageSource, dx: Double, dy: Double)\n   fun drawImage(image: CanvasImageSource, dx: Double, dy: Double, dw: Double, dh: Double)\n   fun drawImage(image: CanvasImageSource, sx: Double, sy: Double, sw: Double, sh: Double, dx: Double, dy: Double, dw: Double, dh: Double)\n}\n\npublic external interface CanvasHitRegion {\n   fun addHitRegion(options: HitRegionOptions = definedExternally)\n   fun removeHitRegion(id: String)\n   fun clearHitRegions()\n}\n\npublic external interface CanvasImageData {\n   fun
 createImageData(sw: Double, sh: Double): ImageData\n   fun createImageData(imagedata: ImageData): ImageData\n   fun getImageData(sx: Double, sy: Double, sw: Double, sh: Double): ImageData\n   fun putImageData(imagedata: ImageData, dx: Double, dy: Double)\n   fun putImageData(imagedata: ImageData, dx: Double, dy: Double, dirtyX: Double, dirtyY: Double, dirtyWidth: Double, dirtyHeight: Double)\n}\n\npublic external interface CanvasPathDrawingStyles {\n   var lineWidth: Double\n   var lineCap: CanvasLineCap\n   var lineJoin: CanvasLineJoin\n   var miterLimit: Double\n   var lineDashOffset: Double\n   fun setLineDash(segments: Array<Double>)\n   fun getLineDash(): Array<Double>\n}\n\npublic external interface CanvasTextDrawingStyles {\n   var font: String\n   var textAlign: CanvasTextAlign\n   var textBaseline: CanvasTextBaseline\n   var direction: CanvasDirection\n}\n\npublic external interface CanvasPath {\n   fun closePath()\n   fun moveTo(x: Double, y: Double)\n   fun
 lineTo(x: Double, y: Double)\n   fun quadraticCurveTo(cpx: Double, cpy: Double, x: Double, y: Double)\n   fun bezierCurveTo(cp1x: Double, cp1y: Double, cp2x: Double, cp2y: Double, x: Double, y: Double)\n   fun arcTo(x1: Double, y1: Double, x2: Double, y2: Double, radius: Double)\n   fun arcTo(x1: Double, y1: Double, x2: Double, y2: Double, radiusX: Double, radiusY: Double, rotation: Double)\n   fun rect(x: Double, y: Double, w: Double, h: Double)\n   fun arc(x: Double, y: Double, radius: Double, startAngle: Double, endAngle: Double, anticlockwise: Boolean = definedExternally)\n   fun ellipse(x: Double, y: Double, radiusX: Double, radiusY: Double, rotation: Double, startAngle: Double, endAngle: Double, anticlockwise: Boolean = definedExternally)\n}\n\n/**\n * Exposes the JavaScript [CanvasGradient](https://developer.mozilla.org/en/docs/Web/API/CanvasGradient) to Kotlin\n */\npublic external abstract class CanvasGradient {\n   fun addColorStop(offset: Double, color: String)\n}\n\n/**\n
 * Exposes the JavaScript [CanvasPattern](https://developer.mozilla.org/en/docs/Web/API/CanvasPattern) to Kotlin\n */\npublic external abstract class CanvasPattern {\n   fun setTransform(transform: dynamic = definedExternally)\n}\n\n/**\n * Exposes the JavaScript
[TextMetrics](https://developer.mozilla.org/en/docs/Web/API/TextMetrics) to Kotlin\n */\npublic external abstract class TextMetrics {\n   open val width: Double\n   open val actualBoundingBoxLeft: Double\n   open val actualBoundingBoxRight: Double\n   open val fontBoundingBoxAscent: Double\n   open val

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fontBoundingBoxDescent: Double\n    open val actualBoundingBoxAscent: Double\n    open val
actualBoundingBoxDescent: Double\n    open val emHeightAscent: Double\n    open val emHeightDescent:
Double\n    open val hangingBaseline: Double\n    open val alphabeticBaseline: Double\n    open val
ideographicBaseline: Double\n}\n\npublic external interface HitRegionOptions {\n    var path: Path2D? /* = null
*/\n        get()
 = definedExternally\n        set(value) = definedExternally\n    var fillRule: CanvasFillRule? /* =
CanvasFillRule.NONZERO */\n        get() = definedExternally\n        set(value) = definedExternally\n    var id:
String? /* = \"\" */\n        get() = definedExternally\n        set(value) = definedExternally\n    var parentID: String? /*
= null */\n        get() = definedExternally\n        set(value) = definedExternally\n    var cursor: String? /* = \"inherit\"
*/\n        get() = definedExternally\n        set(value) = definedExternally\n    var control: Element? /* = null */\n
get() = definedExternally\n        set(value) = definedExternally\n    var label: String? /* = null */\n        get() =
definedExternally\n        set(value) = definedExternally\n    var role: String? /* = null */\n        get() =
definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun HitRegionOptions(path:
 Path2D? = null, fillRule: CanvasFillRule? = CanvasFillRule.NONZERO, id: String? = \"\", parentID: String? =
null, cursor: String? = \"inherit\", control: Element? = null, label: String? = null, role: String? = null):
HitRegionOptions {\n    val o = js(\"({})\")\n    o[\"path\"] = path\n    o[\"fillRule\"] = fillRule\n    o[\"id\"] = id\n
o[\"parentID\"] = parentID\n    o[\"cursor\"] = cursor\n    o[\"control\"] = control\n    o[\"label\"] = label\n
o[\"role\"] = role\n    return o\n}\n\n/**\n * Exposes the JavaScript
[ImageData](https://developer.mozilla.org/en/docs/Web/API/ImageData) to Kotlin\n */\npublic external open class
ImageData : ImageBitmapSource, TexImageSource {\n    constructor(sw: Int, sh: Int)\n    constructor(data:
Uint8ClampedArray, sw: Int, sh: Int = definedExternally)\n    open val width: Int\n    open val height: Int\n    open
val data: Uint8ClampedArray\n}\n\n/**\n * Exposes the JavaScript
[Path2D](https://developer.mozilla.org/en/docs/Web/API/Path2D)
 to Kotlin\n */\npublic external open class Path2D() : CanvasPath {\n    constructor(path: Path2D)\n
constructor(paths: Array<Path2D>, fillRule: CanvasFillRule = definedExternally)\n    constructor(d: String)\n    fun
addPath(path: Path2D, transform: dynamic = definedExternally)\n    override fun closePath()\n    override fun
moveTo(x: Double, y: Double)\n    override fun lineTo(x: Double, y: Double)\n    override fun
quadraticCurveTo(cpx: Double, cpy: Double, x: Double, y: Double)\n    override fun bezierCurveTo(cp1x: Double,
cp1y: Double, cp2x: Double, cp2y: Double, x: Double, y: Double)\n    override fun arcTo(x1: Double, y1: Double,
x2: Double, y2: Double, radius: Double)\n    override fun arcTo(x1: Double, y1: Double, x2: Double, y2: Double,
radiusX: Double, radiusY: Double, rotation: Double)\n    override fun rect(x: Double, y: Double, w: Double, h:
Double)\n    override fun arc(x: Double, y: Double, radius: Double, startAngle: Double, endAngle: Double,
anticlockwise:
 Boolean /* = definedExternally */)\n    override fun ellipse(x: Double, y: Double, radiusX: Double, radiusY:
Double, rotation: Double, startAngle: Double, endAngle: Double, anticlockwise: Boolean /* = definedExternally
*/)\n}\n\n/**\n * Exposes the JavaScript
[ImageBitmapRenderingContext](https://developer.mozilla.org/en/docs/Web/API/ImageBitmapRenderingContext)
to Kotlin\n */\npublic external abstract class ImageBitmapRenderingContext {\n    open val canvas:
HTMLCanvasElement\n    fun transferFromImageBitmap(bitmap: ImageBitmap?)\n}\n\npublic external interface
ImageBitmapRenderingContextSettings {\n    var alpha: Boolean? /* = true */\n        get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun
ImageBitmapRenderingContextSettings(alpha: Boolean? = true): ImageBitmapRenderingContextSettings {\n    val o
= js(\"({})\")\n    o[\"alpha\"] = alpha\n    return o\n}\n\n/**\n
 * Exposes the JavaScript
[CustomElementRegistry](https://developer.mozilla.org/en/docs/Web/API/CustomElementRegistry) to Kotlin\n
*/\npublic external abstract class CustomElementRegistry {\n    fun define(name: String, constructor: () -> dynamic,
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options: ElementDefinitionOptions = definedExternally)\n   fun get(name: String): Any?\n   fun whenDefined(name: String): Promise<Unit>\n}\n\npublic external interface ElementDefinitionOptions {\n   var extends: String?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ElementDefinitionOptions(extends: String? = undefined): ElementDefinitionOptions {\n   val o = js(\"({})\")\n   o[\"extends\"] = extends\n   return o\n}\n\npublic external interface ElementContentEditable {\n   var contentEditable: String\n   val isContentEditable: Boolean\n}\n\n/**\n * Exposes the JavaScript [DataTransfer](https://developer.mozilla.org/en/docs/Web/API/DataTransfer) to Kotlin\n */\npublic external abstract class DataTransfer {\n   open var dropEffect: String\n   open var effectAllowed: String\n   open val items: DataTransferItemList\n   open val types: Array<out String>\n   open val files: FileList\n   fun setDragImage(image: Element, x: Int, y: Int)\n   fun getData(format: String): String\n   fun setData(format: String, data: String)\n   fun clearData(format: String = definedExternally)\n}\n\n/**\n * Exposes the JavaScript [DataTransferItemList](https://developer.mozilla.org/en/docs/Web/API/DataTransferItemList) to Kotlin\n */\npublic external abstract class DataTransferItemList {\n   open val length: Int\n   fun add(data: String, type: String): DataTransferItem?\n   fun add(data: File): DataTransferItem?\n   fun remove(index: Int)\n   fun clear()\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun DataTransferItemList.get(index: Int): DataTransferItem? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [DataTransferItem](https://developer.mozilla.org/en/docs/Web/API/DataTransferItem) to Kotlin\n */\npublic external abstract class DataTransferItem {\n   open val kind: String\n   open val type: String\n   fun getAsString(_callback: ((String) -> Unit)?)\n   fun getAsFile(): File?\n}\n\n/**\n * Exposes the JavaScript [DragEvent](https://developer.mozilla.org/en/docs/Web/API/DragEvent) to Kotlin\n */\npublic external open class DragEvent(type: String, eventInitDict: DragEventInit = definedExternally) : MouseEvent {\n   open val dataTransfer: DataTransfer?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface DragEventInit : MouseEventInit {\n   var dataTransfer: DataTransfer? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun DragEventInit(dataTransfer: DataTransfer? = null, screenX: Int? = 0, screenY: Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0, buttons: Short? = 0, relatedTarget: EventTarget? = null, region: String? = null, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): DragEventInit {\n   val o = js(\"({})\")\n   o[\"dataTransfer\"] = dataTransfer\n   o[\"screenX\"] = screenX\n   o[\"screenY\"] = screenY\n   o[\"clientX\"] = clientX\n   o[\"clientY\"] = clientY\n   o[\"button\"] = button\n   o[\"buttons\"] = buttons\n   o[\"relatedTarget\"] = relatedTarget\n   o[\"region\"] = region\n   o[\"ctrlKey\"] = ctrlKey\n   o[\"shiftKey\"] = shiftKey\n   o[\"altKey\"] = altKey\n   o[\"metaKey\"] = metaKey\n   o[\"modifierAltGraph\"] = modifierAltGraph\n   o[\"modifierCapsLock\"] = modifierCapsLock\n   o[\"modifierFn\"] = modifierFn\n   o[\"modifierFnLock\"] = modifierFnLock\n   o[\"modifierHyper\"] = modifierHyper\n   o[\"modifierNumLock\"] = modifierNumLock\n   o[\"modifierScrollLock\"] = modifierScrollLock\n   o[\"modifierSuper\"] = modifierSuper\n   o[\"modifierSymbol\"] = modifierSymbol\n   o[\"modifierSymbolLock\"] = modifierSymbolLock\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [Window](https://developer.mozilla.org/en/docs/Web/API/Window) to Kotlin\n */\npublic external abstract class Window : EventTarget, GlobalEventHandlers, WindowEventHandlers, WindowOrWorkerGlobalScope, WindowSessionStorage, WindowLocalStorage, GlobalPerformance, UnionMessagePortOrWindowProxy {\n   open val window: Window\n   open val self: Window\n   open val document: Document\n   open var name: String\n   open val location: Location\n   open val history: History\n   open val customElements: CustomElementRegistry\n   open val locationbar: BarProp\n   open val menubar: BarProp\n   open val personalbar: BarProp\n   open val scrollbars: BarProp\n   open val statusbar: BarProp\n   open val toolbar: BarProp\n   open var status: String\n   open val closed: Boolean\n   open val frames: Window\n   open val length: Int\n   open val top: Window\n   open var opener: Any?\n   open val parent: Window\n   open val frameElement: Element?\n

open val navigator: Navigator\n   open val applicationCache: ApplicationCache\n   open val external: External\n   open val screen: Screen\n   open val innerWidth: Int\n   open val innerHeight: Int\n   open val scrollX: Double\n   open val pageXOffset: Double\n   open val scrollY: Double\n   open val pageYOffset: Double\n   open val screenX: Int\n   open val screenY: Int\n   open val outerWidth: Int\n   open val outerHeight: Int\n   open val devicePixelRatio: Double\n   fun close()\n   fun stop()\n   fun focus()\n   fun blur()\n   fun open(url: String = definedExternally, target: String = definedExternally, features: String = definedExternally): Window?\n   fun alert()\n   fun alert(message: String)\n   fun confirm(message: String = definedExternally): Boolean\n   fun prompt(message: String = definedExternally, default: String = definedExternally): String?\n   fun print()\n   fun requestAnimationFrame(callback: (Double) -> Unit): Int\n   fun cancelAnimationFrame(handle: Int)\n   fun postMessage(message: Any?, targetOrigin: String, transfer: Array<dynamic> = definedExternally)\n   fun captureEvents()\n   fun releaseEvents()\n   fun matchMedia(query: String): MediaQueryList\n   fun moveTo(x: Int, y: Int)\n   fun moveBy(x: Int, y: Int)\n   fun resizeTo(x: Int, y: Int)\n   fun resizeBy(x: Int, y: Int)\n   fun scroll(options: ScrollToOptions = definedExternally)\n   fun scroll(x: Double, y: Double)\n   fun scrollTo(options: ScrollToOptions = definedExternally)\n   fun scrollTo(x: Double, y: Double)\n   fun scrollBy(options: ScrollToOptions = definedExternally)\n   fun scrollBy(x: Double, y: Double)\n   fun getComputedStyle(elt: Element, pseudoElt: String? = definedExternally): CSSStyleDeclaration\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Window.get(name: String): dynamic = asDynamic()[name]\n\npublic external abstract class BarProp {\n   open val visible: Boolean\n}\n\n/**\n * Exposes the JavaScript [History](https://developer.mozilla.org/en/docs/Web/API/History) to Kotlin\n */\npublic external abstract class History {\n   open val length: Int\n   open var scrollRestoration: ScrollRestoration\n   open val state: Any?\n   fun go(delta: Int = definedExternally)\n   fun back()\n   fun forward()\n   fun pushState(data: Any?, title: String, url: String? = definedExternally)\n   fun replaceState(data: Any?, title: String, url: String? = definedExternally)\n}\n\n/**\n * Exposes the JavaScript [Location](https://developer.mozilla.org/en/docs/Web/API/Location) to Kotlin\n */\npublic external abstract class Location {\n   open var href: String\n   open val origin: String\n   open var protocol: String\n   open var host: String\n   open var hostname: String\n   open var port: String\n   open var pathname: String\n   open var search: String\n   open var hash: String\n   open val ancestorOrigins: Array<out String>\n   fun assign(url: String)\n   fun replace(url: String)\n   fun reload()\n}\n\n/**\n * Exposes the JavaScript [PopStateEvent](https://developer.mozilla.org/en/docs/Web/API/PopStateEvent) to Kotlin\n */\npublic external open class PopStateEvent(type: String, eventInitDict: PopStateEventInit = definedExternally) : Event {\n   open val state: Any?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface PopStateEventInit : EventInit {\n   var state: Any? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun PopStateEventInit(state: Any? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): PopStateEventInit {\n   val o = js(\"({})\")\n   o[\"state\"] = state\n   o[\"bubbles\"] = bubbles\n

    o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [HashChangeEvent](https://developer.mozilla.org/en/docs/Web/API/HashChangeEvent) to Kotlin\n */\npublic external open class HashChangeEvent(type: String, eventInitDict: HashChangeEventInit = definedExternally) : Event {\n   open val oldURL: String\n   open val newURL: String\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface HashChangeEventInit : EventInit {\n   var oldURL: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var newURL: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun HashChangeEventInit(oldURL: String?
 = \"\", newURL: String? = \"\", bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): HashChangeEventInit {\n   val o = js(\"({})\")\n   o[\"oldURL\"] = oldURL\n   o[\"newURL\"] = newURL\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [PageTransitionEvent](https://developer.mozilla.org/en/docs/Web/API/PageTransitionEvent) to Kotlin\n */\npublic external open class PageTransitionEvent(type: String, eventInitDict: PageTransitionEventInit = definedExternally) : Event {\n   open val persisted: Boolean\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface PageTransitionEventInit : EventInit {\n   var persisted: Boolean? /* = false */\n get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun PageTransitionEventInit(persisted: Boolean? = false, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): PageTransitionEventInit {\n   val o = js(\"({})\")\n   o[\"persisted\"] = persisted\n   o[\"bubbles\"] = bubbles\n o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [BeforeUnloadEvent](https://developer.mozilla.org/en/docs/Web/API/BeforeUnloadEvent) to Kotlin\n */\npublic external open class BeforeUnloadEvent : Event {\n   var returnValue: String\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external abstract class ApplicationCache : EventTarget {\n   open val status: Short\n   open var onchecking: ((Event) -> dynamic)?\n   open var onerror: ((Event) -> dynamic)?\n   open var onnoupdate: ((Event) -> dynamic)?\n   open var ondownloading: ((Event) -> dynamic)?\n   open var onprogress: ((ProgressEvent) -> dynamic)?\n   open var onupdateready: ((Event) -> dynamic)?\n   open var oncached: ((Event) -> dynamic)?\n   open var onobsolete: ((Event) -> dynamic)?\n   fun update()\n   fun abort()\n fun swapCache()\n\n   companion object {\n   val UNCACHED: Short\n   val IDLE: Short\n   val CHECKING: Short\n   val DOWNLOADING: Short\n   val UPDATEREADY: Short\n   val OBSOLETE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [NavigatorOnLine](https://developer.mozilla.org/en/docs/Web/API/NavigatorOnLine) to Kotlin\n */\npublic external interface NavigatorOnLine {\n   val onLine: Boolean\n}\n\n/**\n * Exposes the JavaScript [ErrorEvent](https://developer.mozilla.org/en/docs/Web/API/ErrorEvent) to Kotlin\n */\npublic external open class ErrorEvent(type: String, eventInitDict: ErrorEventInit = definedExternally)
 : Event {\n   open val message: String\n   open val filename: String\n   open val lineno: Int\n   open val colno: Int\n   open val error: Any?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface ErrorEventInit : EventInit {\n   var message: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var filename: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var lineno: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var colno: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var error: Any? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",

\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ErrorEventInit(message: String? = \"\", filename: String? = \"\", lineno: Int? = 0, colno: Int? = 0, error: Any? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ErrorEventInit {\n   val o = js(\"({})\")\n   o[\"message\"] = message\n   o[\"filename\"] = filename\n   o[\"lineno\"] = lineno\n   o[\"colno\"] = colno\n   o[\"error\"] = error\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [PromiseRejectionEvent](https://developer.mozilla.org/en/docs/Web/API/PromiseRejectionEvent) to Kotlin\n */\npublic external open class PromiseRejectionEvent(type: String, eventInitDict: PromiseRejectionEventInit) : Event {\n   open val promise: Promise<Any?>\n   open val reason: Any?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface PromiseRejectionEventInit : EventInit {\n   var promise: Promise<Any?>?\n   var reason: Any?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun PromiseRejectionEventInit(promise: Promise<Any?>?, reason: Any? = undefined, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): PromiseRejectionEventInit {\n   val o = js(\"({})\")\n   o[\"promise\"] = promise\n   o[\"reason\"] = reason\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [GlobalEventHandlers](https://developer.mozilla.org/en/docs/Web/API/GlobalEventHandlers) to Kotlin\n */\npublic external interface GlobalEventHandlers {\n   var onabort: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onblur: ((FocusEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var oncancel: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var oncanplay: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var oncanplaythrough: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onchange: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onclick: ((MouseEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onclose: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var oncontextmenu: ((MouseEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var oncuechange: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ondblclick: ((MouseEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ondrag: ((DragEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ondragend: ((DragEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ondragenter: ((DragEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ondragexit: ((DragEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ondragleave: ((DragEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ondragover: ((DragEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ondragstart: ((DragEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ondrop: ((DragEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ondurationchange: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onemptied: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onended: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onfocus: ((FocusEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var oninput: ((InputEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var oninvalid: ((Event) ->

dynamic)?\n   get() = definedExternally\n

set(value) = definedExternally\n   var onkeydown: ((KeyboardEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onkeypress: ((KeyboardEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onkeyup: ((KeyboardEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onload: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onloadeddata: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onloadedmetadata: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onloadend: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onloadstart: ((ProgressEvent) -> dynamic)?\n   get() = definedExternally\n   set(value)

= definedExternally\n   var onmousedown: ((MouseEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onmouseenter: ((MouseEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onmouseleave: ((MouseEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onmousemove: ((MouseEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onmouseout: ((MouseEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onmouseover: ((MouseEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onmouseup: ((MouseEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onwheel: ((WheelEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n

var onpause: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onplay: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onplaying: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onprogress: ((ProgressEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onratechange: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onreset: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onresize: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onscroll: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onseeked: ((Event) -> dynamic)?\n   get()

= definedExternally\n   set(value) = definedExternally\n   var onseeking: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onselect: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onshow: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onstalled: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onsubmit: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onsuspend: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ontimeupdate: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ontoggle: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n

var onvolumechange: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onwaiting: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ongotpointercapture: ((PointerEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onlostpointercapture: ((PointerEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onpointerdown: ((PointerEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onpointermove: ((PointerEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onpointerup: ((PointerEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n   var onpointercancel: ((PointerEvent) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n var onpointerover: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onpointerout: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onpointerenter: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onpointerleave: ((PointerEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n}\n\n/**\n * Exposes the JavaScript [WindowEventHandlers](https://developer.mozilla.org/en/docs/Web/API/WindowEventHandlers) to Kotlin\n */\npublic external interface WindowEventHandlers {\n var onafterprint: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onbeforeprint: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onbeforeunload: ((BeforeUnloadEvent) -> String?)?\n get() = definedExternally\n set(value) = definedExternally\n var onhashchange: ((HashChangeEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onlanguagechange: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onmessage: ((MessageEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onoffline: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var ononline: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onpagehide: ((PageTransitionEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onpageshow: ((PageTransitionEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onpopstate: ((PopStateEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onrejectionhandled: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onstorage: ((StorageEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onunhandledrejection: ((PromiseRejectionEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onunload: ((Event) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n}\n\npublic external interface DocumentAndElementEventHandlers {\n var oncopy: ((ClipboardEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var oncut: ((ClipboardEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n var onpaste: ((ClipboardEvent) -> dynamic)?\n get() = definedExternally\n set(value) = definedExternally\n}\n\n/**\n * Exposes the JavaScript [WindowOrWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/WindowOrWorkerGlobalScope) to Kotlin\n */\npublic external interface WindowOrWorkerGlobalScope {\n val origin: String\n val caches: CacheStorage\n fun btoa(data: String): String\n fun atob(data: String): String\n fun setTimeout(handler: dynamic, timeout: Int = definedExternally, vararg arguments: Any?): Int\n fun clearTimeout(handle: Int = definedExternally)\n fun setInterval(handler: dynamic, timeout: Int = definedExternally, vararg arguments: Any?): Int\n fun clearInterval(handle: Int = definedExternally)\n fun createImageBitmap(image: ImageBitmapSource, options: ImageBitmapOptions = definedExternally): Promise<ImageBitmap>\n fun createImageBitmap(image: ImageBitmapSource, sx: Int, sy: Int, sw: Int, sh: Int, options: ImageBitmapOptions = definedExternally): Promise<ImageBitmap>\n fun fetch(input: dynamic, init: RequestInit = definedExternally): Promise<Response>\n}\n\n/**\n * Exposes the JavaScript [Navigator](https://developer.mozilla.org/en/docs/Web/API/Navigator) to Kotlin\n */\npublic external abstract class Navigator : NavigatorID, NavigatorLanguage, NavigatorOnLine, NavigatorContentUtils, NavigatorCookies, NavigatorPlugins, NavigatorConcurrentHardware {\n open val clipboard: Clipboard\n open val mediaDevices: MediaDevices\n open val maxTouchPoints: Int\n open val serviceWorker: ServiceWorkerContainer\n fun requestMediaKeySystemAccess(keySystem: String, supportedConfigurations: Array<MediaKeySystemConfiguration>): Promise<MediaKeySystemAccess>\n fun getUserMedia(constraints: MediaStreamConstraints, successCallback: (MediaStream) -> Unit, errorCallback: (dynamic) -> Unit)\n fun vibrate(pattern: dynamic): Boolean\n}\n\n/**\n * Exposes the JavaScript [NavigatorID](https://developer.mozilla.org/en/docs/Web/API/NavigatorID) to Kotlin\n */\npublic external interface

NavigatorID {\n   val appCodeName: String\n   val appName: String\n   val appVersion: String\n   val platform: String\n   val product: String\n   val productSub: String\n   val userAgent: String\n   val vendor: String\n   val vendorSub: String\n   val oscpu: String\n   fun taintEnabled(): Boolean\n}\n\n/**\n * Exposes the JavaScript [NavigatorLanguage](https://developer.mozilla.org/en/docs/Web/API/NavigatorLanguage) to Kotlin\n */\npublic external interface NavigatorLanguage {\n   val language: String\n   val languages: Array<out String>\n}\n\npublic external interface NavigatorContentUtils {\n   fun registerProtocolHandler(scheme: String, url: String, title: String)\n   fun registerContentHandler(mimeType: String, url: String, title: String)\n   fun isProtocolHandlerRegistered(scheme: String, url: String): String\n   fun isContentHandlerRegistered(mimeType: String, url: String): String\n   fun unregisterProtocolHandler(scheme: String, url: String)\n   fun unregisterContentHandler(mimeType:

String, url: String)\n}\n\npublic external interface NavigatorCookies {\n   val cookieEnabled: Boolean\n}\n\n/**\n * Exposes the JavaScript [NavigatorPlugins](https://developer.mozilla.org/en/docs/Web/API/NavigatorPlugins) to Kotlin\n */\npublic external interface NavigatorPlugins {\n   val plugins: PluginArray\n   val mimeTypes: MimeTypeArray\n   fun javaEnabled(): Boolean\n}\n\n/**\n * Exposes the JavaScript [PluginArray](https://developer.mozilla.org/en/docs/Web/API/PluginArray) to Kotlin\n */\npublic external abstract class PluginArray : ItemArrayLike<Plugin> {\n   fun refresh(reload: Boolean = definedExternally)\n   override fun item(index: Int): Plugin?\n   fun namedItem(name: String): Plugin?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun PluginArray.get(index: Int): Plugin? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic

inline operator fun PluginArray.get(name: String): Plugin? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript [MimeTypeArray](https://developer.mozilla.org/en/docs/Web/API/MimeTypeArray) to Kotlin\n */\npublic external abstract class MimeTypeArray : ItemArrayLike<MimeType> {\n   override fun item(index: Int): MimeType?\n   fun namedItem(name: String): MimeType?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun MimeTypeArray.get(index: Int): MimeType? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun MimeTypeArray.get(name: String): MimeType? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript [Plugin](https://developer.mozilla.org/en/docs/Web/API/Plugin) to Kotlin\n */\npublic external abstract class Plugin : ItemArrayLike<MimeType> {\n   open val name: String\n   open val description: String\n   open

val filename: String\n   override fun item(index: Int): MimeType?\n   fun namedItem(name: String): MimeType?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Plugin.get(index: Int): MimeType? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Plugin.get(name: String): MimeType? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript [MimeType](https://developer.mozilla.org/en/docs/Web/API/MimeType) to Kotlin\n */\npublic external abstract class MimeType {\n   open val type: String\n   open val description: String\n   open val suffixes: String\n   open val enabledPlugin: Plugin\n}\n\n/**\n * Exposes the JavaScript [ImageBitmap](https://developer.mozilla.org/en/docs/Web/API/ImageBitmap) to Kotlin\n */\npublic external abstract class ImageBitmap : CanvasImageSource, TexImageSource {\n   open val width: Int\n   open val height:

Int\n   fun close()\n}\n\npublic external interface ImageBitmapOptions {\n   var imageOrientation: ImageOrientation? /* = ImageOrientation.NONE */\n   get() = definedExternally\n   set(value) = definedExternally\n   var premultiplyAlpha: PremultiplyAlpha? /* = PremultiplyAlpha.DEFAULT */\n   get() = definedExternally\n   set(value) = definedExternally\n   var colorSpaceConversion: ColorSpaceConversion? /* = ColorSpaceConversion.DEFAULT */\n   get() = definedExternally\n   set(value) = definedExternally\n   var resizeWidth: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n   var resizeHeight: Int?\n get() = definedExternally\n   set(value) = definedExternally\n   var resizeQuality: ResizeQuality? /* = ResizeQuality.LOW */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ImageBitmapOptions(imageOrientation: ImageOrientation? = ImageOrientation.NONE, premultiplyAlpha: PremultiplyAlpha? = PremultiplyAlpha.DEFAULT, colorSpaceConversion: ColorSpaceConversion? = ColorSpaceConversion.DEFAULT, resizeWidth: Int? = undefined, resizeHeight: Int? = undefined, resizeQuality: ResizeQuality? = ResizeQuality.LOW): ImageBitmapOptions {\n   val o = js(\"({})\")\n   o[\"imageOrientation\"] = imageOrientation\n   o[\"premultiplyAlpha\"] = premultiplyAlpha\n   o[\"colorSpaceConversion\"] = colorSpaceConversion\n   o[\"resizeWidth\"] = resizeWidth\n   o[\"resizeHeight\"] = resizeHeight\n   o[\"resizeQuality\"] = resizeQuality\n   return o\n}\n\n/**\n * Exposes the JavaScript [MessageEvent](https://developer.mozilla.org/en/docs/Web/API/MessageEvent) to Kotlin\n */\npublic external open class MessageEvent(type: String, eventInitDict: MessageEventInit = definedExternally) : Event {\n   open val data: Any?\n   open val origin: String\n   open val lastEventId: String\n   open val source: UnionMessagePortOrWindowProxy?\n   open val ports: Array<out MessagePort>\n   fun initMessageEvent(type: String, bubbles: Boolean, cancelable: Boolean, data: Any?, origin: String, lastEventId: String, source: UnionMessagePortOrWindowProxy?, ports: Array<MessagePort>)\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface MessageEventInit : EventInit {\n   var data: Any? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var origin: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var lastEventId: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var source: UnionMessagePortOrWindowProxy? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var ports: Array<MessagePort>? /* = arrayOf() */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MessageEventInit(data: Any? = null, origin: String? = \"\", lastEventId: String? = \"\", source: UnionMessagePortOrWindowProxy? = null, ports: Array<MessagePort>? = arrayOf(), bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): MessageEventInit {\n   val o = js(\"({})\")\n   o[\"data\"] = data\n   o[\"origin\"] = origin\n   o[\"lastEventId\"] = lastEventId\n   o[\"source\"] = source\n   o[\"ports\"] = ports\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [EventSource](https://developer.mozilla.org/en/docs/Web/API/EventSource) to Kotlin\n */\npublic external open class EventSource(url: String, eventSourceInitDict: EventSourceInit = definedExternally) : EventTarget {\n   open val url: String\n   open val withCredentials: Boolean\n   open val readyState: Short\n   var onopen: ((Event) -> dynamic)?\n   var onmessage: ((MessageEvent) -> dynamic)?\n   var onerror: ((Event) -> dynamic)?\n   fun close()\n\n   companion object {\n   val CONNECTING: Short\n   val OPEN: Short\n   val CLOSED: Short\n   }\n}\n\npublic external interface EventSourceInit {\n   var withCredentials: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun EventSourceInit(withCredentials: Boolean? = false): EventSourceInit {\n   val o = js(\"({})\")\n   o[\"withCredentials\"] = withCredentials\n   return o\n}\n\n/**\n * Exposes the JavaScript [WebSocket](https://developer.mozilla.org/en/docs/Web/API/WebSocket) to Kotlin\n */\npublic external open class WebSocket(url: String, protocols: dynamic = definedExternally) : EventTarget {\n   open val url: String\n   open val readyState: Short\n   open val bufferedAmount: Number\n   var onopen: ((Event) -> dynamic)?\n   var onerror: ((Event) -> dynamic)?\n   var onclose: ((Event) -> dynamic)?\n   open val extensions: String\n   open val protocol: String\n   var onmessage: ((MessageEvent) -> dynamic)?\n   var binaryType: BinaryType\n   fun close(code: Short =

definedExternally, reason: String = definedExternally)\n   fun send(data: String)\n   fun send(data: Blob)\n   fun send(data: ArrayBuffer)\n   fun send(data: ArrayBufferView)\n\n   companion object {\n   val CONNECTING: Short\n   val OPEN: Short\n   val CLOSING: Short\n   val CLOSED: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [CloseEvent](https://developer.mozilla.org/en/docs/Web/API/CloseEvent) to Kotlin\n */\npublic external open class CloseEvent(type: String, eventInitDict: CloseEventInit = definedExternally) : Event {\n   open val wasClean: Boolean\n   open val code: Short\n   open val reason: String\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface CloseEventInit : EventInit {\n   var wasClean: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var code: Short? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var reason: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CloseEventInit(wasClean: Boolean? = false, code: Short? = 0, reason: String? = \"\", bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): CloseEventInit {\n   val o = js(\"({})\")\n   o[\"wasClean\"] = wasClean\n   o[\"code\"] = code\n   o[\"reason\"] = reason\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [MessageChannel](https://developer.mozilla.org/en/docs/Web/API/MessageChannel) to Kotlin\n */\npublic external open class MessageChannel {\n   open val port1: MessagePort\n   open val port2: MessagePort\n}\n\n/**\n * Exposes the JavaScript [MessagePort](https://developer.mozilla.org/en/docs/Web/API/MessagePort) to Kotlin\n */\npublic external abstract class MessagePort : EventTarget, UnionMessagePortOrWindowProxy, UnionMessagePortOrServiceWorker, UnionClientOrMessagePortOrServiceWorker {\n   open var onmessage: ((MessageEvent) -> dynamic)?\n   fun postMessage(message: Any?, transfer: Array<dynamic> = definedExternally)\n   fun start()\n   fun close()\n}\n\n/**\n * Exposes the JavaScript [BroadcastChannel](https://developer.mozilla.org/en/docs/Web/API/BroadcastChannel) to Kotlin\n */\npublic external open class BroadcastChannel(name: String) : EventTarget {\n   open val name: String\n   var onmessage: ((MessageEvent) -> dynamic)?\n   fun postMessage(message: Any?)\n   fun close()\n}\n\n/**\n * Exposes the JavaScript [WorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/WorkerGlobalScope) to Kotlin\n */\npublic external abstract class WorkerGlobalScope : EventTarget, WindowOrWorkerGlobalScope, GlobalPerformance {\n   open val self: WorkerGlobalScope\n   open val location: WorkerLocation\n   open val navigator: WorkerNavigator\n   open var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n   open var onlanguagechange: ((Event) -> dynamic)?\n   open var onoffline: ((Event) -> dynamic)?\n   open var ononline: ((Event) -> dynamic)?\n   open var onrejectionhandled: ((Event) -> dynamic)?\n   open var onunhandledrejection: ((PromiseRejectionEvent) -> dynamic)?\n   fun importScripts(vararg urls: String)\n}\n\n/**\n * Exposes the JavaScript [DedicatedWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/DedicatedWorkerGlobalScope) to Kotlin\n */\npublic external abstract class DedicatedWorkerGlobalScope : WorkerGlobalScope {\n   open var onmessage: ((MessageEvent) -> dynamic)?\n   fun postMessage(message: Any?, transfer: Array<dynamic> = definedExternally)\n   fun close()\n}\n\n/**\n * Exposes the JavaScript [SharedWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/SharedWorkerGlobalScope) to Kotlin\n */\npublic external abstract class SharedWorkerGlobalScope : WorkerGlobalScope {\n   open val name: String\n   open val applicationCache: ApplicationCache\n   open var onconnect: ((Event) -> dynamic)?\n   fun close()\n}\n\n/**\n * Exposes the JavaScript [AbstractWorker](https://developer.mozilla.org/en/docs/Web/API/AbstractWorker) to Kotlin\n */\npublic external interface AbstractWorker {\n   var onerror: ((Event) -> dynamic)?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n/**\n * Exposes the JavaScript [Worker](https://developer.mozilla.org/en/docs/Web/API/Worker) to Kotlin\n */\npublic external open class Worker(scriptURL: String, options: WorkerOptions = definedExternally) : EventTarget, AbstractWorker {\n   var onmessage: ((MessageEvent) -> dynamic)?\n   override var onerror: ((Event) -> dynamic)?\n   fun terminate()\n fun postMessage(message: Any?, transfer: Array<dynamic> = definedExternally)\n}\n\npublic external interface WorkerOptions {\n   var type: WorkerType? /* = WorkerType.CLASSIC */\n   get() = definedExternally\n set(value) = definedExternally\n   var credentials: RequestCredentials? /* = RequestCredentials.OMIT */\n get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun WorkerOptions(type: WorkerType? = WorkerType.CLASSIC, credentials: RequestCredentials? = RequestCredentials.OMIT): WorkerOptions {\n   val o = js(\"({})\")\n   o[\"type\"] = type\n   o[\"credentials\"] = credentials\n   return o\n}\n\n/**\n * Exposes the JavaScript [SharedWorker](https://developer.mozilla.org/en/docs/Web/API/SharedWorker) to Kotlin\n */\npublic external open class SharedWorker(scriptURL: String, name: String = definedExternally, options: WorkerOptions = definedExternally) : EventTarget, AbstractWorker {\n   open val port: MessagePort\n   override var onerror: ((Event) -> dynamic)?\n}\n\n/**\n * Exposes the JavaScript [NavigatorConcurrentHardware](https://developer.mozilla.org/en/docs/Web/API/NavigatorConcurrentHardware) to Kotlin\n */\npublic external interface NavigatorConcurrentHardware {\n   val hardwareConcurrency: Number\n}\n\n/**\n * Exposes the JavaScript [WorkerNavigator](https://developer.mozilla.org/en/docs/Web/API/WorkerNavigator) to Kotlin\n */\npublic external abstract class WorkerNavigator : NavigatorID, NavigatorLanguage, NavigatorOnLine, NavigatorConcurrentHardware {\n   open val serviceWorker: ServiceWorkerContainer\n}\n\n/**\n * Exposes the JavaScript [WorkerLocation](https://developer.mozilla.org/en/docs/Web/API/WorkerLocation) to Kotlin\n */\npublic external abstract class WorkerLocation {\n   open val href: String\n   open val origin: String\n   open val protocol: String\n   open val host: String\n   open val hostname: String\n   open val port: String\n   open val pathname: String\n   open val search: String\n   open val hash: String\n}\n\n/**\n * Exposes the JavaScript [Storage](https://developer.mozilla.org/en/docs/Web/API/Storage) to Kotlin\n */\npublic external abstract class Storage {\n   open val length: Int\n   fun key(index: Int): String?\n   fun removeItem(key: String)\n   fun clear()\n fun getItem(key: String): String?\n   fun setItem(key: String, value: String)\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Storage.get(key: String): String? = asDynamic()[key]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Storage.set(key: String, value: String) { asDynamic()[key] = value }\n\n/**\n * Exposes the JavaScript [WindowSessionStorage](https://developer.mozilla.org/en/docs/Web/API/WindowSessionStorage) to Kotlin\n */\npublic external interface WindowSessionStorage {\n   val sessionStorage: Storage\n}\n\n/**\n * Exposes the JavaScript [WindowLocalStorage](https://developer.mozilla.org/en/docs/Web/API/WindowLocalStorage) to Kotlin\n */\npublic external interface WindowLocalStorage {\n   val localStorage: Storage\n}\n\n/**\n * Exposes the JavaScript [StorageEvent](https://developer.mozilla.org/en/docs/Web/API/StorageEvent) to Kotlin\n */\npublic external open class StorageEvent(type: String, eventInitDict: StorageEventInit = definedExternally) : Event {\n open val key: String?\n   open val oldValue: String?\n   open val newValue: String?\n   open val url: String\n   open val storageArea: Storage?\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface StorageEventInit : EventInit {\n   var key: String? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var oldValue: String? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var newValue: String? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var url: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var storageArea: Storage? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun StorageEventInit(key:

String? = null, oldValue: String? = null, newValue: String? = null, url: String? = \"\", storageArea: Storage? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): StorageEventInit {\n   val o = js(\"({})\")\n   o[\"key\"] = key\n   o[\"oldValue\"] = oldValue\n   o[\"newValue\"] = newValue\n   o[\"url\"] = url\n   o[\"storageArea\"] = storageArea\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\npublic external abstract class HTMLAppletElement : HTMLElement {\n   open var align: String\n   open var alt: String\n   open var archive: String\n   open var code: String\n   open var codeBase: String\n   open var height: String\n   open var hspace: Int\n   open var name: String\n   open var _object: String\n   open var vspace: Int\n   open var width: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLMarqueeElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMarqueeElement) to Kotlin\n */\npublic external abstract class HTMLMarqueeElement : HTMLElement {\n   open var behavior: String\n   open var bgColor: String\n   open var direction: String\n   open var height: String\n   open var hspace: Int\n   open var loop: Int\n   open var scrollAmount: Int\n   open var scrollDelay: Int\n   open var trueSpeed: Boolean\n   open var vspace: Int\n   open var width: String\n   open var onbounce: ((Event) -> dynamic)?\n   open var onfinish: ((Event) -> dynamic)?\n   open var onstart: ((Event) -> dynamic)?\n   fun start()\n   fun stop()\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [HTMLFrameSetElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFrameSetElement) to Kotlin\n */\npublic external abstract class HTMLFrameSetElement : HTMLElement, WindowEventHandlers {\n   open var cols: String\n   open var rows: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external abstract class HTMLFrameElement : HTMLElement {\n   open var name: String\n   open var scrolling: String\n   open var src: String\n   open var frameBorder: String\n   open var longDesc: String\n   open var noResize: Boolean\n   open val contentDocument: Document?\n   open val contentWindow: Window?\n   open var marginHeight: String\n   open var marginWidth: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external abstract class HTMLDirectoryElement : HTMLElement {\n open var compact: Boolean\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [HTMLFontElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFontElement) to Kotlin\n */\npublic external abstract class HTMLFontElement : HTMLElement {\n open var color: String\n open var face: String\n open var size: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external interface External {\n fun AddSearchProvider()\n fun IsSearchProviderInstalled()\n}\n\npublic external interface EventInit {\n var bubbles: Boolean? /* = false */\n get() = definedExternally\n set(value) = definedExternally\n var cancelable: Boolean? /* = false */\n get() = definedExternally\n set(value) = definedExternally\n var composed: Boolean? /* = false */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun EventInit(bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): EventInit {\n val o = js(\"({})\")\n o[\"bubbles\"] = bubbles\n o[\"cancelable\"] = cancelable\n o[\"composed\"] = composed\n return o\n}\n\n/**\n * Exposes the JavaScript [CustomEvent](https://developer.mozilla.org/en/docs/Web/API/CustomEvent) to Kotlin\n */\npublic external open class CustomEvent(type: String, eventInitDict: CustomEventInit = definedExternally) : Event {\n open val detail: Any?\n fun initCustomEvent(type: String, bubbles: Boolean, cancelable: Boolean, detail: Any?)\n\n companion object {\n val NONE: Short\n val CAPTURING_PHASE: Short\n val AT_TARGET: Short\n val BUBBLING_PHASE: Short\n }\n}\n\npublic external interface CustomEventInit : EventInit {\n var detail: Any? /* = null */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",

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\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic
 inline fun CustomEventInit(detail: Any? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed:
Boolean? = false): CustomEventInit {\n    val o = js(\"({})\")\n    o[\"detail\"] = detail\n    o[\"bubbles\"] = bubbles\n
 o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return o\n}\n\npublic external interface
EventListenerOptions {\n    var capture: Boolean? /* = false */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun EventListenerOptions(capture:
Boolean? = false): EventListenerOptions {\n    val o = js(\"({})\")\n    o[\"capture\"] = capture\n    return
o\n}\n\npublic external interface AddEventListenerOptions : EventListenerOptions {\n    var passive: Boolean? /* =
false */\n        get() = definedExternally\n        set(value) = definedExternally\n    var once: Boolean? /* = false */\n
   get() = definedExternally\n
        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun AddEventListenerOptions(passive:
Boolean? = false, once: Boolean? = false, capture: Boolean? = false): AddEventListenerOptions {\n    val o =
js(\"({})\")\n    o[\"passive\"] = passive\n    o[\"once\"] = once\n    o[\"capture\"] = capture\n    return o\n}\n\npublic
external interface NonElementParentNode {\n    fun getElementById(elementId: String): Element?\n}\n\n/**\n *
Exposes the JavaScript
[DocumentOrShadowRoot](https://developer.mozilla.org/en/docs/Web/API/DocumentOrShadowRoot) to Kotlin\n
*/\npublic external interface DocumentOrShadowRoot {\n    val fullscreenElement: Element?\n        get() =
definedExternally\n}\n\n/**\n * Exposes the JavaScript
[ParentNode](https://developer.mozilla.org/en/docs/Web/API/ParentNode) to Kotlin\n */\npublic external interface
ParentNode {\n    val children: HTMLCollection\n    val firstElementChild:
 Element?\n        get() = definedExternally\n    val lastElementChild: Element?\n        get() = definedExternally\n
val childElementCount: Int\n    fun prepend(vararg nodes: dynamic)\n    fun append(vararg nodes: dynamic)\n    fun
querySelector(selectors: String): Element?\n    fun querySelectorAll(selectors: String): NodeList\n}\n\n/**\n *
Exposes the JavaScript
[NonDocumentTypeChildNode](https://developer.mozilla.org/en/docs/Web/API/NonDocumentTypeChildNode) to
Kotlin\n */\npublic external interface NonDocumentTypeChildNode {\n    val previousElementSibling: Element?\n
    get() = definedExternally\n    val nextElementSibling: Element?\n        get() = definedExternally\n}\n\n/**\n *
Exposes the JavaScript [ChildNode](https://developer.mozilla.org/en/docs/Web/API/ChildNode) to Kotlin\n
*/\npublic external interface ChildNode {\n    fun before(vararg nodes: dynamic)\n    fun after(vararg nodes:
dynamic)\n    fun replaceWith(vararg nodes: dynamic)\n    fun remove()\n}\n\n/**\n
 * Exposes the JavaScript [Slotable](https://developer.mozilla.org/en/docs/Web/API/Slotable) to Kotlin\n */\npublic
external interface Slotable {\n    val assignedSlot: HTMLSlotElement?\n        get() = definedExternally\n}\n\n/**\n *
Exposes the JavaScript [NodeList](https://developer.mozilla.org/en/docs/Web/API/NodeList) to Kotlin\n */\npublic
external abstract class NodeList : ItemArrayLike<Node> {\n    override fun item(index: Int):
Node?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun NodeList.get(index: Int):
Node? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript
[HTMLCollection](https://developer.mozilla.org/en/docs/Web/API/HTMLCollection) to Kotlin\n */\npublic
external abstract class HTMLCollection : ItemArrayLike<Element>, UnionElementOrHTMLCollection {\n
override fun item(index: Int): Element?\n    fun namedItem(name: String):
Element?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic
 inline operator fun HTMLCollection.get(index: Int): Element? =
asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun HTMLCollection.get(name:
String): Element? = asDynamic()[name]\n\n/**\n * Exposes the JavaScript
```

[MutationObserver](https://developer.mozilla.org/en/docs/Web/API/MutationObserver) to Kotlin\n */\npublic external open class MutationObserver(callback: (Array<MutationRecord>, MutationObserver) -> Unit) {\n   fun observe(target: Node, options: MutationObserverInit = definedExternally)\n   fun disconnect()\n   fun takeRecords(): Array<MutationRecord>\n}\n\n/**\n * Exposes the JavaScript [MutationObserverInit](https://developer.mozilla.org/en/docs/Web/API/MutationObserverInit) to Kotlin\n */\npublic external interface MutationObserverInit {\n   var childList: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var attributes: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var characterData: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var subtree: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var attributeOldValue: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var characterDataOldValue: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var attributeFilter: Array<String>?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MutationObserverInit(childList: Boolean? = false, attributes: Boolean? = undefined, characterData: Boolean? = undefined, subtree: Boolean? = false, attributeOldValue: Boolean? = undefined, characterDataOldValue: Boolean? = undefined, attributeFilter: Array<String>? = undefined): MutationObserverInit {\n   val o = js(\"({})\")\n   o[\"childList\"] = childList\n   o[\"attributes\"] = attributes\n   o[\"characterData\"] = characterData\n   o[\"subtree\"] = subtree\n   o[\"attributeOldValue\"] = attributeOldValue\n   o[\"characterDataOldValue\"] = characterDataOldValue\n   o[\"attributeFilter\"] = attributeFilter\n   return o\n}\n\n/**\n * Exposes the JavaScript [MutationRecord](https://developer.mozilla.org/en/docs/Web/API/MutationRecord) to Kotlin\n */\npublic external abstract class MutationRecord {\n   open val type: String\n   open val target: Node\n   open val addedNodes: NodeList\n   open val removedNodes: NodeList\n   open val previousSibling: Node?\n   open val nextSibling: Node?\n   open val attributeName: String?\n   open val attributeNamespace: String?\n   open val oldValue: String?\n}\n\n/**\n * Exposes the JavaScript [Node](https://developer.mozilla.org/en/docs/Web/API/Node) to Kotlin\n */\npublic external abstract class Node : EventTarget {\n   open val nodeType: Short\n   open val nodeName: String\n   open val baseURI: String\n   open val isConnected: Boolean\n   open val ownerDocument: Document?\n   open val parentNode: Node?\n   open val parentElement: Element?\n   open val childNodes: NodeList\n   open val firstChild: Node?\n   open val lastChild: Node?\n   open val previousSibling: Node?\n   open val nextSibling: Node?\n   open var nodeValue: String?\n   open var textContent: String?\n   fun getRootNode(options: GetRootNodeOptions = definedExternally): Node\n   fun hasChildNodes(): Boolean\n   fun normalize()\n   fun cloneNode(deep: Boolean = definedExternally): Node\n   fun isEqualNode(otherNode: Node?): Boolean\n   fun isSameNode(otherNode: Node?): Boolean\n   fun compareDocumentPosition(other: Node): Short\n   fun contains(other: Node?): Boolean\n   fun lookupPrefix(namespace: String?): String?\n   fun lookupNamespaceURI(prefix: String?): String?\n   fun isDefaultNamespace(namespace: String?): Boolean\n   fun insertBefore(node: Node, child: Node?): Node\n   fun appendChild(node: Node): Node\n   fun replaceChild(node: Node, child: Node): Node\n   fun removeChild(child: Node): Node\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external interface GetRootNodeOptions {\n var composed: Boolean? /* = false */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun GetRootNodeOptions(composed: Boolean? = false): GetRootNodeOptions {\n val o = js(\"({})\")\n o[\"composed\"] = composed\n return o\n}\n\n/**\n * Exposes the JavaScript [Document](https://developer.mozilla.org/en/docs/Web/API/Document) to Kotlin\n */\npublic external open class Document : Node, GlobalEventHandlers, DocumentAndElementEventHandlers, NonElementParentNode, DocumentOrShadowRoot, ParentNode, GeometryUtils {\n open val implementation: DOMImplementation\n open val URL: String\n open val documentURI: String\n open val origin: String\n open val compatMode: String\n open val characterSet: String\n open val charset: String\n open val inputEncoding: String\n open val contentType: String\n open val doctype: DocumentType?\n open val documentElement: Element?\n open val location: Location?\n var domain: String\n open val referrer: String\n var cookie: String\n open val lastModified: String\n open val readyState: DocumentReadyState\n var title: String\n var dir: String\n var body: HTMLElement?\n open val head: HTMLHeadElement?\n open val images: HTMLCollection\n open val embeds: HTMLCollection\n open val plugins: HTMLCollection\n open val links: HTMLCollection\n open val forms: HTMLCollection\n open val scripts: HTMLCollection\n open val currentScript: HTMLOrSVGScriptElement?\n open val defaultView: Window?\n open val activeElement: Element?\n var designMode: String\n var onreadystatechange: ((Event) -> dynamic)?\n var fgColor: String\n var linkColor: String\n var vlinkColor: String\n var alinkColor: String\n var bgColor: String\n open val anchors: HTMLCollection\n open val applets: HTMLCollection\n open val all: HTMLAllCollection\n open val scrollingElement: Element?\n open val styleSheets: StyleSheetList\n open val rootElement: SVGSVGElement?\n open val fullscreenEnabled: Boolean\n open val fullscreen: Boolean\n var onfullscreenchange: ((Event) -> dynamic)?\n var onfullscreenerror: ((Event) -> dynamic)?\n override var onabort: ((Event) -> dynamic)?\n override var onblur: ((FocusEvent) -> dynamic)?\n override var oncancel: ((Event) -> dynamic)?\n override var oncanplay: ((Event) -> dynamic)?\n override var oncanplaythrough: ((Event) -> dynamic)?\n override var onchange: ((Event) -> dynamic)?\n override var onclick: ((MouseEvent) -> dynamic)?\n override var onclose: ((Event) -> dynamic)?\n override var oncontextmenu: ((MouseEvent) -> dynamic)?\n override var oncuechange: ((Event) -> dynamic)?\n override var ondblclick: ((MouseEvent) -> dynamic)?\n override var ondrag: ((DragEvent) -> dynamic)?\n override var ondragend: ((DragEvent) -> dynamic)?\n override var ondragenter: ((DragEvent) -> dynamic)?\n override var ondragexit: ((DragEvent) -> dynamic)?\n override var ondragleave: ((DragEvent) -> dynamic)?\n override var ondragover: ((DragEvent) -> dynamic)?\n override var ondragstart: ((DragEvent) -> dynamic)?\n override var ondrop: ((DragEvent) -> dynamic)?\n override var ondurationchange: ((Event) -> dynamic)?\n override var onemptied: ((Event) -> dynamic)?\n override var onended: ((Event) -> dynamic)?\n override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n override var onfocus: ((FocusEvent) -> dynamic)?\n override var oninput: ((InputEvent) -> dynamic)?\n override var oninvalid: ((Event) -> dynamic)?\n override var onkeydown: ((KeyboardEvent) -> dynamic)?\n override var onkeypress: ((KeyboardEvent) -> dynamic)?\n override var onkeyup: ((KeyboardEvent) -> dynamic)?\n override var onload: ((Event) -> dynamic)?\n override var onloadeddata: ((Event) -> dynamic)?\n override var onloadedmetadata: ((Event) -> dynamic)?\n override var onloadend: ((Event) -> dynamic)?\n override var onloadstart: ((ProgressEvent) -> dynamic)?\n override var onmousedown: ((MouseEvent) -> dynamic)?\n override var onmouseenter: ((MouseEvent) -> dynamic)?\n override var onmouseleave: ((MouseEvent) -> dynamic)?\n override var onmousemove: ((MouseEvent) -> dynamic)?\n override var onmouseout: ((MouseEvent) -> dynamic)?\n override var onmouseover: ((MouseEvent) -> dynamic)?\n override var onmouseup: ((MouseEvent) -> dynamic)?\n override var onwheel: ((WheelEvent) -> dynamic)?\n override var onpause: ((Event) -> dynamic)?\n override var onplay: ((Event) -> dynamic)?\n override var onplaying: ((Event) -> dynamic)?\n override var onprogress: ((ProgressEvent) -> dynamic)?\n override var onratechange:

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 ((Event) -> dynamic)?\n    override var onreset: ((Event) -> dynamic)?\n    override var onresize: ((Event) ->
dynamic)?\n    override var onscroll: ((Event) -> dynamic)?\n    override var onseeked: ((Event) -> dynamic)?\n
override var onseeking: ((Event) -> dynamic)?\n    override var onselect: ((Event) -> dynamic)?\n    override var
onshow: ((Event) -> dynamic)?\n    override var onstalled: ((Event) -> dynamic)?\n    override var onsubmit:
((Event) -> dynamic)?\n    override var onsuspend: ((Event) -> dynamic)?\n    override var ontimeupdate: ((Event) -
> dynamic)?\n    override var ontoggle: ((Event) -> dynamic)?\n    override var onvolumechange: ((Event) ->
dynamic)?\n    override var onwaiting: ((Event) -> dynamic)?\n    override var ongotpointercapture: ((PointerEvent)
-> dynamic)?\n    override var onlostpointercapture: ((PointerEvent) -> dynamic)?\n    override var onpointerdown:
((PointerEvent) -> dynamic)?\n    override var onpointermove: ((PointerEvent) -> dynamic)?\n
    override var onpointerup: ((PointerEvent) -> dynamic)?\n    override var onpointercancel: ((PointerEvent) ->
dynamic)?\n    override var onpointerover: ((PointerEvent) -> dynamic)?\n    override var onpointerout:
((PointerEvent) -> dynamic)?\n    override var onpointerenter: ((PointerEvent) -> dynamic)?\n    override var
onpointerleave: ((PointerEvent) -> dynamic)?\n    override var oncopy: ((ClipboardEvent) -> dynamic)?\n    override
var oncut: ((ClipboardEvent) -> dynamic)?\n    override var onpaste: ((ClipboardEvent) -> dynamic)?\n    override
val fullscreenElement: Element?\n    override val children: HTMLCollection\n    override val firstElementChild:
Element?\n    override val lastElementChild: Element?\n    override val childElementCount: Int\n    fun
getElementsByTagName(qualifiedName: String): HTMLCollection\n    fun
getElementsByTagNameNS(namespace: String?, localName: String): HTMLCollection\n    fun
getElementsByClassName(classNames: String): HTMLCollection\n    fun createElement(localName:
 String, options: ElementCreationOptions = definedExternally): Element\n    fun createElementNS(namespace:
String?, qualifiedName: String, options: ElementCreationOptions = definedExternally): Element\n    fun
createDocumentFragment(): DocumentFragment\n    fun createTextNode(data: String): Text\n    fun
createCDATASection(data: String): CDATASection\n    fun createComment(data: String): Comment\n    fun
createProcessingInstruction(target: String, data: String): ProcessingInstruction\n    fun importNode(node: Node,
deep: Boolean = definedExternally): Node\n    fun adoptNode(node: Node): Node\n    fun
createAttribute(localName: String): Attr\n    fun createAttributeNS(namespace: String?, qualifiedName: String):
Attr\n    fun createEvent(`interface`: String): Event\n    fun createRange(): Range\n    fun createNodeIterator(root:
Node, whatToShow: Int = definedExternally, filter: NodeFilter? = definedExternally): NodeIterator\n    fun
createNodeIterator(root: Node, whatToShow:
 Int = definedExternally, filter: ((Node) -> Short)? = definedExternally): NodeIterator\n    fun
createTreeWalker(root: Node, whatToShow: Int = definedExternally, filter: NodeFilter? = definedExternally):
TreeWalker\n    fun createTreeWalker(root: Node, whatToShow: Int = definedExternally, filter: ((Node) -> Short)?
= definedExternally): TreeWalker\n    fun getElementsByName(elementName: String): NodeList\n    fun open(type:
String = definedExternally, replace: String = definedExternally): Document\n    fun open(url: String, name: String,
features: String): Window\n    fun close()\n    fun write(vararg text: String)\n    fun writeln(vararg text: String)\n
fun hasFocus(): Boolean\n    fun execCommand(commandId: String, showUI: Boolean = definedExternally, value:
String = definedExternally): Boolean\n    fun queryCommandEnabled(commandId: String): Boolean\n    fun
queryCommandIndeterm(commandId: String): Boolean\n    fun queryCommandState(commandId: String):
Boolean\n    fun queryCommandSupported(commandId:
 String): Boolean\n    fun queryCommandValue(commandId: String): String\n    fun clear()\n    fun
captureEvents()\n    fun releaseEvents()\n    fun elementFromPoint(x: Double, y: Double): Element?\n    fun
elementsFromPoint(x: Double, y: Double): Array<Element>\n    fun caretPositionFromPoint(x: Double, y: Double):
CaretPosition?\n    fun createTouch(view: Window, target: EventTarget, identifier: Int, pageX: Int, pageY: Int,
screenX: Int, screenY: Int): Touch\n    fun createTouchList(vararg touches: Touch): TouchList\n    fun
exitFullscreen(): Promise<Unit>\n    override fun getElementById(elementId: String): Element?\n    override fun
prepend(vararg nodes: dynamic)\n    override fun append(vararg nodes: dynamic)\n    override fun
querySelector(selectors: String): Element?\n    override fun querySelectorAll(selectors: String): NodeList\n
override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n    override
```

fun convertQuadFromNode(quad:
dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING:
Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun Document.get(name: String): dynamic = asDynamic()[name]\n\n/**\n * Exposes the JavaScript [XMLDocument](https://developer.mozilla.org/en/docs/Web/API/XMLDocument) to Kotlin\n */\npublic external open class XMLDocument : Document {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external interface ElementCreationOptions {\n   var `is`: String?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ElementCreationOptions(`is`: String? = undefined): ElementCreationOptions {\n   val o = js(\"({})\")\n   o[\"is\"] = `is`\n   return o\n}\n\n/**\n * Exposes the JavaScript [DOMImplementation](https://developer.mozilla.org/en/docs/Web/API/DOMImplementation) to Kotlin\n */\npublic external abstract class DOMImplementation {\n   fun createDocumentType(qualifiedName: String, publicId: String, systemId: String):
DocumentType\n   fun createDocument(namespace: String?, qualifiedName: String, doctype: DocumentType? = definedExternally): XMLDocument\n   fun createHTMLDocument(title: String = definedExternally): Document\n   fun hasFeature(): Boolean\n}\n\n/**\n * Exposes the JavaScript [DocumentType](https://developer.mozilla.org/en/docs/Web/API/DocumentType) to Kotlin\n */\npublic external abstract class DocumentType : Node, ChildNode {\n   open val name: String\n   open val publicId: String\n   open val systemId: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val

DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [DocumentFragment](https://developer.mozilla.org/en/docs/Web/API/DocumentFragment) to Kotlin\n */\npublic external open class DocumentFragment : Node, NonElementParentNode, ParentNode {\n override val children: HTMLCollection\n override val firstElementChild: Element?\n override val lastElementChild: Element?\n override val childElementCount: Int\n override fun getElementById(elementId: String): Element?\n override fun prepend(vararg nodes: dynamic)\n override fun append(vararg nodes: dynamic)\n override fun querySelector(selectors: String): Element?\n override fun querySelectorAll(selectors: String): NodeList\n\n companion

object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [ShadowRoot](https://developer.mozilla.org/en/docs/Web/API/ShadowRoot) to Kotlin\n */\npublic external open class ShadowRoot : DocumentFragment, DocumentOrShadowRoot {\n open val mode: ShadowRootMode\n open val host: Element\n override val fullscreenElement: Element?\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [Element](https://developer.mozilla.org/en/docs/Web/API/Element) to Kotlin\n */\npublic external abstract class Element : Node, ParentNode, NonDocumentTypeChildNode, ChildNode, Slotable, GeometryUtils, UnionElementOrHTMLCollection, UnionElementOrRadioNodeList, UnionElementOrMouseEvent, UnionElementOrProcessingInstruction {\n open val namespaceURI: String?\n open val prefix: String?\n open val localName: String\n open val tagName: String\n open var id: String\n open var className: String\n open val classList: DOMTokenList\n open var slot: String\n open val attributes: NamedNodeMap\n open val shadowRoot: ShadowRoot?\n open var scrollTop: Double\n open var scrollLeft: Double\n open val scrollWidth: Int\n open val scrollHeight: Int\n open val clientTop: Int\n open val clientLeft: Int\n open val clientWidth: Int\n open val clientHeight: Int\n open var innerHTML: String\n open var outerHTML: String\n fun hasAttributes(): Boolean\n fun getAttributeNames(): Array<String>\n fun getAttribute(qualifiedName: String): String?\n

fun getAttributeNS(namespace: String?, localName: String): String?\n fun setAttribute(qualifiedName: String, value: String)\n fun setAttributeNS(namespace: String?, qualifiedName: String, value: String)\n fun removeAttribute(qualifiedName: String)\n fun removeAttributeNS(namespace: String?, localName: String)\n fun hasAttribute(qualifiedName: String): Boolean\n fun hasAttributeNS(namespace: String?, localName: String): Boolean\n fun getAttributeNode(qualifiedName: String): Attr?\n fun getAttributeNodeNS(namespace: String?, localName: String): Attr?\n   fun setAttributeNode(attr: Attr): Attr?\n   fun setAttributeNodeNS(attr: Attr): Attr?\n   fun removeAttributeNode(attr: Attr): Attr\n   fun attachShadow(init: ShadowRootInit): ShadowRoot\n   fun closest(selectors: String): Element?\n   fun matches(selectors: String): Boolean\n   fun webkitMatchesSelector(selectors: String): Boolean\n   fun getElementsByTagName(qualifiedName: String): HTMLCollection\n   fun getElementsByTagNameNS(namespace: String?, localName: String): HTMLCollection\n   fun getElementsByClassName(classNames: String): HTMLCollection\n   fun insertAdjacentElement(where: String, element: Element): Element?\n   fun insertAdjacentText(where: String, data: String)\n   fun getClientRects(): Array<DOMRect>\n   fun getBoundingClientRect(): DOMRect\n   fun scrollIntoView()\n   fun scrollIntoView(arg: dynamic)\n   fun scroll(options: ScrollToOptions = definedExternally)\n   fun scroll(x: Double, y: Double)\n   fun scrollTo(options: ScrollToOptions = definedExternally)\n   fun scrollTo(x: Double, y: Double)\n   fun scrollBy(options: ScrollToOptions = definedExternally)\n   fun scrollBy(x: Double, y: Double)\n   fun insertAdjacentHTML(position: String, text: String)\n   fun setPointerCapture(pointerId: Int)\n   fun releasePointerCapture(pointerId: Int)\n   fun hasPointerCapture(pointerId: Int): Boolean\n   fun requestFullscreen(): Promise<Unit>\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external interface ShadowRootInit {\n   var mode: ShadowRootMode?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ShadowRootInit(mode: ShadowRootMode?): ShadowRootInit {\n   val o = js(\"({})\")\n   o[\"mode\"] = mode\n   return o\n}\n\n/**\n * Exposes the JavaScript [NamedNodeMap](https://developer.mozilla.org/en/docs/Web/API/NamedNodeMap) to Kotlin\n */\npublic external abstract class NamedNodeMap : ItemArrayLike<Attr> {\n   fun getNamedItemNS(namespace: String?, localName: String): Attr?\n   fun setNamedItem(attr: Attr): Attr?\n   fun setNamedItemNS(attr: Attr): Attr?\n   fun removeNamedItem(qualifiedName: String): Attr\n   fun removeNamedItemNS(namespace: String?, localName: String): Attr\n   override fun item(index: Int): Attr?\n   fun getNamedItem(qualifiedName: String): Attr?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun NamedNodeMap.get(index: Int): Attr? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun NamedNodeMap.get(qualifiedName: String): Attr? = asDynamic()[qualifiedName]\n\n/**\n * Exposes the JavaScript [Attr](https://developer.mozilla.org/en/docs/Web/API/Attr) to Kotlin\n */\npublic external abstract class Attr : Node {\n   open val namespaceURI: String?\n   open val prefix: String?\n   open val localName: String\n   open val name: String\n   open var value: String\n   open val ownerElement: Element?\n   open val specified: Boolean\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [CharacterData](https://developer.mozilla.org/en/docs/Web/API/CharacterData) to Kotlin\n */\npublic external abstract class CharacterData : Node, NonDocumentTypeChildNode, ChildNode {\n   open var data: String\n   open val length: Int\n   fun substringData(offset: Int, count: Int): String\n   fun appendData(data: String)\n   fun insertData(offset: Int, data: String)\n   fun deleteData(offset: Int, count: Int)\n   fun replaceData(offset: Int, count: Int, data: String)\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [Text](https://developer.mozilla.org/en/docs/Web/API/Text) to Kotlin\n */\npublic external open class Text(data: String = definedExternally) : CharacterData, Slotable, GeometryUtils {\n   open val wholeText: String\n   override val assignedSlot: HTMLSlotElement?\n   override val previousElementSibling: Element?\n   override val nextElementSibling: Element?\n   fun splitText(offset: Int): Text\n   override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n   override fun convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n   override fun before(vararg nodes: dynamic)\n   override fun after(vararg nodes: dynamic)\n   override fun replaceWith(vararg nodes: dynamic)\n   override fun remove()\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [CDATASection](https://developer.mozilla.org/en/docs/Web/API/CDATASection) to Kotlin\n */\npublic external open class CDATASection : Text {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY:

Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [ProcessingInstruction](https://developer.mozilla.org/en/docs/Web/API/ProcessingInstruction) to Kotlin\n */\npublic external abstract class ProcessingInstruction : CharacterData, LinkStyle, UnionElementOrProcessingInstruction {\n   open val target: String\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [Comment](https://developer.mozilla.org/en/docs/Web/API/Comment) to Kotlin\n */\npublic external open class Comment(data: String = definedExternally) : CharacterData {\n   override val previousElementSibling: Element?\n   override val nextElementSibling: Element?\n   override fun before(vararg nodes: dynamic)\n   override fun after(vararg nodes: dynamic)\n   override fun replaceWith(vararg nodes: dynamic)\n   override fun remove()\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [Range](https://developer.mozilla.org/en/docs/Web/API/Range) to Kotlin\n */\npublic external open class Range {\n   open val startContainer: Node\n   open val startOffset: Int\n   open val endContainer: Node\n   open val endOffset: Int\n   open val collapsed: Boolean\n   open val commonAncestorContainer: Node\n   fun setStart(node: Node, offset: Int)\n   fun setEnd(node: Node, offset: Int)\n   fun setStartBefore(node: Node)\n   fun setStartAfter(node: Node)\n   fun setEndBefore(node: Node)\n   fun setEndAfter(node: Node)\n   fun collapse(toStart: Boolean = definedExternally)\n   fun selectNode(node: Node)\n   fun selectNodeContents(node: Node)\n   fun compareBoundaryPoints(how: Short, sourceRange: Range): Short\n   fun deleteContents()\n   fun extractContents(): DocumentFragment\n   fun cloneContents(): DocumentFragment\n   fun insertNode(node: Node)\n   fun surroundContents(newParent: Node)\n   fun cloneRange(): Range\n   fun detach()\n   fun isPointInRange(node: Node, offset: Int): Boolean\n   fun comparePoint(node: Node, offset: Int): Short\n   fun intersectsNode(node: Node): Boolean\n   fun getClientRects(): Array<DOMRect>\n   fun getBoundingClientRect(): DOMRect\n   fun createContextualFragment(fragment: String): DocumentFragment\n\n   companion object {\n   val START_TO_START: Short\n   val START_TO_END: Short\n   val END_TO_END: Short\n   val END_TO_START: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [NodeIterator](https://developer.mozilla.org/en/docs/Web/API/NodeIterator) to Kotlin\n */\npublic external abstract class NodeIterator {\n   open val root: Node\n   open val referenceNode: Node\n   open val pointerBeforeReferenceNode: Boolean\n   open val whatToShow: Int\n   open val filter: NodeFilter?\n   fun nextNode(): Node?\n   fun previousNode(): Node?\n   fun detach()\n}\n\n/**\n * Exposes the JavaScript [TreeWalker](https://developer.mozilla.org/en/docs/Web/API/TreeWalker) to Kotlin\n */\npublic external abstract class TreeWalker {\n   open val root: Node\n   open val whatToShow: Int\n   open val filter: NodeFilter?\n   open var currentNode: Node\n   fun parentNode(): Node?\n   fun firstChild(): Node?\n   fun lastChild(): Node?\n   fun previousSibling(): Node?\n   fun nextSibling(): Node?\n   fun previousNode(): Node?\n   fun nextNode(): Node?\n}\n\n/**\n * Exposes the JavaScript [NodeFilter](https://developer.mozilla.org/en/docs/Web/API/NodeFilter) to Kotlin\n */\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface NodeFilter {\n   fun acceptNode(node: Node): Short\n\n   companion object {\n   val FILTER_ACCEPT: Short\n   val FILTER_REJECT: Short\n   val FILTER_SKIP: Short\n   val SHOW_ALL: Int\n   val SHOW_ELEMENT: Int\n   val SHOW_ATTRIBUTE: Int\n   val SHOW_TEXT: Int\n   val SHOW_CDATA_SECTION: Int\n   val SHOW_ENTITY_REFERENCE: Int\n   val SHOW_ENTITY: Int\n   val SHOW_PROCESSING_INSTRUCTION: Int\n   val SHOW_COMMENT: Int\n   val SHOW_DOCUMENT: Int\n   val SHOW_DOCUMENT_TYPE: Int\n   val SHOW_DOCUMENT_FRAGMENT: Int\n   val SHOW_NOTATION: Int\n   }\n}\n\n/**\n * Exposes the JavaScript [DOMTokenList](https://developer.mozilla.org/en/docs/Web/API/DOMTokenList) to Kotlin\n */\npublic external abstract class DOMTokenList : ItemArrayLike<String> {\n   open var value: String\n   fun contains(token: String): Boolean\n   fun add(vararg tokens: String)\n   fun remove(vararg tokens: String)\n   fun toggle(token: String, force: Boolean = definedExternally): Boolean\n   fun replace(token: String, newToken: String)\n   fun supports(token: String): Boolean\n   override fun item(index: Int): String?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun DOMTokenList.get(index: Int): String? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [DOMPointReadOnly](https://developer.mozilla.org/en/docs/Web/API/DOMPointReadOnly) to Kotlin\n */\npublic external open class DOMPointReadOnly(x: Double, y: Double, z: Double, w: Double) {\n   open val x: Double\n   open val y: Double\n   open val z: Double\n   open val w: Double\n   fun matrixTransform(matrix: DOMMatrixReadOnly): DOMPoint\n}\n\n/**\n * Exposes the JavaScript [DOMPoint](https://developer.mozilla.org/en/docs/Web/API/DOMPoint) to Kotlin\n */\npublic external open class DOMPoint : DOMPointReadOnly {\n   constructor(point: DOMPointInit)\n   constructor(x: Double = definedExternally, y: Double = definedExternally, z: Double = definedExternally, w: Double = definedExternally)\n   override var x: Double\n   override var y: Double\n   override var z: Double\n   override var w: Double\n}\n\n/**\n * Exposes the JavaScript [DOMPointInit](https://developer.mozilla.org/en/docs/Web/API/DOMPointInit) to Kotlin\n */\npublic external interface DOMPointInit {\n   var x: Double? /* = 0.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var y: Double? /* = 0.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var z: Double? /* = 0.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var w: Double? /* = 1.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun DOMPointInit(x: Double? = 0.0, y: Double? = 0.0, z: Double? = 0.0, w: Double? = 1.0): DOMPointInit {\n   val o = js(\"({})\")\n   o[\"x\"] = x\n   o[\"y\"] = y\n   o[\"z\"] = z\n   o[\"w\"] = w\n   return o\n}\n\n/**\n * Exposes the JavaScript [DOMRect](https://developer.mozilla.org/en/docs/Web/API/DOMRect) to Kotlin\n */\npublic external open class DOMRect(x: Double = definedExternally, y: Double = definedExternally, width: Double = definedExternally, height: Double = definedExternally) : DOMRectReadOnly {\n   override var x: Double\n   override var y: Double\n   override var width: Double\n   override var height: Double\n}\n\n/**\n * Exposes the JavaScript [DOMRectReadOnly](https://developer.mozilla.org/en/docs/Web/API/DOMRectReadOnly) to Kotlin\n */\npublic external open class DOMRectReadOnly(x: Double, y: Double, width: Double, height: Double) {\n   open val x: Double\n   open val y: Double\n   open val width: Double\n   open val height: Double\n   open val top: Double\n   open val right: Double\n   open val bottom: Double\n   open val left: Double\n}\n\npublic external interface DOMRectInit

{\n   var x: Double? /* = 0.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var y: Double? /* = 0.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var width: Double? /* = 0.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var height: Double? /* = 0.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun DOMRectInit(x: Double? = 0.0, y: Double? = 0.0, width: Double? = 0.0, height: Double? = 0.0): DOMRectInit {\n   val o = js(\"({})\")\n   o[\"x\"] = x\n   o[\"y\"] = y\n   o[\"width\"] = width\n   o[\"height\"] = height\n   return o\n}\n\npublic external interface DOMRectList : ItemArrayLike<DOMRect> {\n   override fun item(index: Int): DOMRect?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun DOMRectList.get(index: Int): DOMRect? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [DOMQuad](https://developer.mozilla.org/en/docs/Web/API/DOMQuad) to Kotlin\n */\npublic external open class DOMQuad {\n   constructor(p1: DOMPointInit = definedExternally, p2: DOMPointInit = definedExternally, p3: DOMPointInit = definedExternally, p4: DOMPointInit = definedExternally)\n   constructor(rect: DOMRectInit)\n   open val p1: DOMPoint\n   open val p2: DOMPoint\n   open val p3: DOMPoint\n   open val p4: DOMPoint\n   open val bounds: DOMRectReadOnly\n}\n\n/**\n * Exposes the JavaScript [DOMMatrixReadOnly](https://developer.mozilla.org/en/docs/Web/API/DOMMatrixReadOnly) to Kotlin\n */\npublic external open class DOMMatrixReadOnly(numberSequence: Array<Double>) {\n   open val a: Double\n   open val b: Double\n   open val c: Double\n   open val d: Double\n   open val e: Double\n   open val f: Double\n   open val m11: Double\n   open val m12: Double\n   open val m13: Double\n   open val m14: Double\n   open val m21: Double\n   open val m22: Double\n   open val m23: Double\n   open val m24: Double\n   open val m31: Double\n   open val m32: Double\n   open val m33: Double\n   open val m34: Double\n   open val m41: Double\n   open val m42: Double\n   open val m43: Double\n   open val m44: Double\n   open val is2D: Boolean\n   open val isIdentity: Boolean\n   fun translate(tx: Double, ty: Double, tz: Double = definedExternally): DOMMatrix\n   fun scale(scale: Double, originX: Double = definedExternally, originY: Double = definedExternally): DOMMatrix\n   fun scale3d(scale: Double, originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double = definedExternally): DOMMatrix\n   fun scaleNonUniform(scaleX: Double, scaleY: Double = definedExternally, scaleZ: Double = definedExternally, originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double = definedExternally): DOMMatrix\n   fun rotate(angle: Double, originX: Double = definedExternally, originY: Double = definedExternally): DOMMatrix\n   fun rotateFromVector(x: Double, y: Double): DOMMatrix\n   fun rotateAxisAngle(x: Double, y: Double, z: Double, angle: Double): DOMMatrix\n   fun skewX(sx: Double): DOMMatrix\n   fun skewY(sy: Double): DOMMatrix\n   fun multiply(other: DOMMatrix): DOMMatrix\n   fun flipX(): DOMMatrix\n   fun flipY(): DOMMatrix\n   fun inverse(): DOMMatrix\n   fun transformPoint(point: DOMPointInit = definedExternally): DOMPoint\n   fun toFloat32Array(): Float32Array\n   fun toFloat64Array(): Float64Array\n}\n\n/**\n * Exposes the JavaScript [DOMMatrix](https://developer.mozilla.org/en/docs/Web/API/DOMMatrix) to Kotlin\n */\npublic external open class DOMMatrix() : DOMMatrixReadOnly {\n   constructor(transformList: String)\n   constructor(other: DOMMatrixReadOnly)\n   constructor(array32: Float32Array)\n   constructor(array64: Float64Array)\n   constructor(numberSequence: Array<Double>)\n   override var a: Double\n   override var b: Double\n   override var c: Double\n   override var d: Double\n   override var e: Double\n   override var f: Double\n   override var m11: Double\n   override var m12: Double\n   override var m13: Double\n   override var m14: Double\n   override var m21: Double\n   override var m22: Double\n   override var m23: Double\n   override var m24: Double\n   override var m31: Double\n   override var m32: Double\n   override var m33: Double\n   override var m34: Double\n   override var m41: Double\n   override var m42: Double\n   override var m43: Double\n   override var m44: Double\n   fun multiplySelf(other: DOMMatrix): DOMMatrix\n   fun preMultiplySelf(other: DOMMatrix): DOMMatrix\n   fun translateSelf(tx: Double, ty: Double, tz: Double = definedExternally):

DOMMatrix\n fun scaleSelf(scale: Double, originX: Double = definedExternally, originY: Double = definedExternally): DOMMatrix\n fun scale3dSelf(scale: Double, originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double = definedExternally): DOMMatrix\n fun scaleNonUniformSelf(scaleX: Double, scaleY: Double = definedExternally, scaleZ: Double = definedExternally, originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double = definedExternally): DOMMatrix\n fun rotateSelf(angle: Double, originX: Double = definedExternally, originY: Double = definedExternally): DOMMatrix\n fun rotateFromVectorSelf(x: Double, y: Double): DOMMatrix\n fun rotateAxisAngleSelf(x: Double, y: Double, z: Double, angle: Double): DOMMatrix\n fun skewXSelf(sx: Double): DOMMatrix\n fun skewYSelf(sy: Double): DOMMatrix\n fun invertSelf(): DOMMatrix\n fun setMatrixValue(transformList: String): DOMMatrix\n}\n\npublic external interface ScrollOptions {\n var behavior: ScrollBehavior? /* = ScrollBehavior.AUTO */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ScrollOptions(behavior: ScrollBehavior? = ScrollBehavior.AUTO): ScrollOptions {\n val o = js(\"({})\")\n o[\"behavior\"] = behavior\n return o\n}\n\n/**\n * Exposes the JavaScript [ScrollToOptions](https://developer.mozilla.org/en/docs/Web/API/ScrollToOptions) to Kotlin\n */\npublic external interface ScrollToOptions : ScrollOptions {\n var left: Double?\n get() = definedExternally\n set(value) = definedExternally\n var top: Double?\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ScrollToOptions(left: Double? = undefined, top: Double? = undefined, behavior: ScrollBehavior? = ScrollBehavior.AUTO): ScrollToOptions {\n val o = js(\"({})\")\n o[\"left\"] = left\n o[\"top\"] = top\n o[\"behavior\"] = behavior\n return o\n}\n\n/**\n * Exposes the JavaScript [MediaQueryList](https://developer.mozilla.org/en/docs/Web/API/MediaQueryList) to Kotlin\n */\npublic external abstract class MediaQueryList : EventTarget {\n open val media: String\n open val matches: Boolean\n open var onchange: ((Event) -> dynamic)?\n fun addListener(listener: EventListener?)\n fun addListener(listener: ((Event) -> Unit)?)\n fun removeListener(listener: EventListener?)\n fun removeListener(listener: ((Event) -> Unit)?)\n}\n\n/**\n * Exposes the JavaScript [MediaQueryListEvent](https://developer.mozilla.org/en/docs/Web/API/MediaQueryListEvent) to Kotlin\n */\npublic external open class MediaQueryListEvent(type: String, eventInitDict: MediaQueryListEventInit = definedExternally) : Event {\n open val media: String\n open val matches: Boolean\n\n companion object {\n val NONE: Short\n val CAPTURING_PHASE: Short\n val AT_TARGET: Short\n val BUBBLING_PHASE: Short\n }\n}\n\npublic external interface MediaQueryListEventInit : EventInit {\n var media: String? /* = \"\" */\n get() = definedExternally\n set(value) = definedExternally\n var matches: Boolean? /* = false */\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaQueryListEventInit(media: String? = \"\", matches: Boolean? = false, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): MediaQueryListEventInit {\n val o = js(\"({})\")\n o[\"media\"] = media\n o[\"matches\"] = matches\n o[\"bubbles\"] = bubbles\n o[\"cancelable\"] = cancelable\n o[\"composed\"] = composed\n return o\n}\n\n/**\n * Exposes the JavaScript [Screen](https://developer.mozilla.org/en/docs/Web/API/Screen) to Kotlin\n */\npublic external abstract class Screen {\n open val availWidth: Int\n open val availHeight: Int\n open val width: Int\n open val height: Int\n open val colorDepth: Int\n open val pixelDepth: Int\n}\n\n/**\n * Exposes the JavaScript [CaretPosition](https://developer.mozilla.org/en/docs/Web/API/CaretPosition) to Kotlin\n */\npublic external abstract class CaretPosition {\n open val offsetNode: Node\n open val offset: Int\n fun getClientRect(): DOMRect?\n}\n\npublic external interface ScrollIntoViewOptions : ScrollOptions {\n var block: ScrollLogicalPosition? /* = ScrollLogicalPosition.CENTER */\n get() = definedExternally\n set(value) = definedExternally\n var inline:

ScrollLogicalPosition? /* = ScrollLogicalPosition.CENTER */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ScrollIntoViewOptions(block: ScrollLogicalPosition? = ScrollLogicalPosition.CENTER, inline: ScrollLogicalPosition? = ScrollLogicalPosition.CENTER, behavior: ScrollBehavior? = ScrollBehavior.AUTO): ScrollIntoViewOptions {\n   val o = js(\"({})\")\n   o[\"block\"] = block\n   o[\"inline\"] = inline\n   o[\"behavior\"] = behavior\n   return o\n}\n\npublic external interface BoxQuadOptions {\n   var box: CSSBoxType? /* = CSSBoxType.BORDER */\n   get() = definedExternally\n   set(value) = definedExternally\n   var relativeTo: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun BoxQuadOptions(box: CSSBoxType? = CSSBoxType.BORDER, relativeTo: dynamic = undefined): BoxQuadOptions {\n   val o = js(\"({})\")\n   o[\"box\"] = box\n   o[\"relativeTo\"] = relativeTo\n   return o\n}\n\npublic external interface ConvertCoordinateOptions {\n   var fromBox: CSSBoxType? /* = CSSBoxType.BORDER */\n   get() = definedExternally\n   set(value) = definedExternally\n   var toBox: CSSBoxType? /* = CSSBoxType.BORDER */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConvertCoordinateOptions(fromBox: CSSBoxType? = CSSBoxType.BORDER, toBox: CSSBoxType? = CSSBoxType.BORDER): ConvertCoordinateOptions {\n   val o = js(\"({})\")\n   o[\"fromBox\"] = fromBox\n   o[\"toBox\"] = toBox\n   return o\n}\n\n/**\n * Exposes the JavaScript [GeometryUtils](https://developer.mozilla.org/en/docs/Web/API/GeometryUtils) to Kotlin\n */\npublic external interface GeometryUtils {\n   fun getBoxQuads(options: BoxQuadOptions = definedExternally): Array<DOMQuad>\n   fun convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions = definedExternally): DOMQuad\n   fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions = definedExternally): DOMQuad\n   fun convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions = definedExternally): DOMPoint\n}\n\n/**\n * Exposes the JavaScript [Touch](https://developer.mozilla.org/en/docs/Web/API/Touch) to Kotlin\n */\npublic external abstract class Touch {\n   open val identifier: Int\n   open val target: EventTarget\n   open val screenX: Int\n   open val screenY: Int\n   open val clientX: Int\n   open val clientY: Int\n   open val pageX: Int\n   open val pageY: Int\n   open val region: String?\n}\n\npublic external abstract class TouchList : ItemArrayLike<Touch> {\n   override fun item(index: Int): Touch?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun TouchList.get(index: Int): Touch? = asDynamic()[index]\n\npublic external open class TouchEvent : UIEvent {\n   open val touches: TouchList\n   open val targetTouches: TouchList\n   open val changedTouches: TouchList\n   open val altKey: Boolean\n   open val metaKey: Boolean\n   open val ctrlKey: Boolean\n   open val shiftKey: Boolean\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [Image](https://developer.mozilla.org/en/docs/Web/API/Image) to Kotlin\n */\npublic external open class Image(width: Int = definedExternally, height: Int = definedExternally) : HTMLImageElement {\n   override var onabort: ((Event) -> dynamic)?\n   override var onblur: ((FocusEvent) -> dynamic)?\n   override var oncancel: ((Event) -> dynamic)?\n   override var oncanplay: ((Event) -> dynamic)?\n   override var oncanplaythrough: ((Event) -> dynamic)?\n   override var onchange: ((Event) -> dynamic)?\n   override var onclick: ((MouseEvent) -> dynamic)?\n   override var onclose: ((Event) -> dynamic)?\n   override var oncontextmenu: ((MouseEvent) -> dynamic)?\n   override var oncuechange: ((Event) -> dynamic)?\n   override var ondblclick: ((MouseEvent) -> dynamic)?\n   override var ondrag: ((DragEvent) -> dynamic)?\n   override var ondragend: ((DragEvent) -> dynamic)?\n   override var ondragenter: ((DragEvent) -> dynamic)?\n   override var ondragexit: ((DragEvent) ->

dynamic)?\n   override var ondragleave: ((DragEvent) -> dynamic)?\n   override var ondragover: ((DragEvent) -> dynamic)?\n   override var ondragstart: ((DragEvent) -> dynamic)?\n   override var ondrop: ((DragEvent) -> dynamic)?\n   override var ondurationchange: ((Event) -> dynamic)?\n   override var onemptied: ((Event) -> dynamic)?\n

override var onended: ((Event) -> dynamic)?\n   override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n   override var onfocus: ((FocusEvent) -> dynamic)?\n   override var oninput: ((InputEvent) -> dynamic)?\n   override var oninvalid: ((Event) -> dynamic)?\n   override var onkeydown: ((KeyboardEvent) -> dynamic)?\n   override var onkeypress: ((KeyboardEvent) -> dynamic)?\n   override var onkeyup: ((KeyboardEvent) -> dynamic)?\n   override var onload: ((Event) -> dynamic)?\n   override var onloadeddata: ((Event) -> dynamic)?\n   override var onloadedmetadata: ((Event) -> dynamic)?\n   override var onloadend: ((Event) -> dynamic)?\n   override var onloadstart: ((ProgressEvent) -> dynamic)?\n   override var onmousedown: ((MouseEvent) -> dynamic)?\n   override var onmouseenter: ((MouseEvent) -> dynamic)?\n   override var onmouseleave: ((MouseEvent) -> dynamic)?\n   override var onmousemove: ((MouseEvent) -> dynamic)?\n   override var onmouseout: ((MouseEvent)

-> dynamic)?\n   override var onmouseover: ((MouseEvent) -> dynamic)?\n   override var onmouseup: ((MouseEvent) -> dynamic)?\n   override var onwheel: ((WheelEvent) -> dynamic)?\n   override var onpause: ((Event) -> dynamic)?\n   override var onplay: ((Event) -> dynamic)?\n   override var onplaying: ((Event) -> dynamic)?\n   override var onprogress: ((ProgressEvent) -> dynamic)?\n   override var onratechange: ((Event) -> dynamic)?\n   override var onreset: ((Event) -> dynamic)?\n   override var onresize: ((Event) -> dynamic)?\n   override var onscroll: ((Event) -> dynamic)?\n   override var onseeked: ((Event) -> dynamic)?\n   override var onseeking: ((Event) -> dynamic)?\n   override var onselect: ((Event) -> dynamic)?\n   override var onshow: ((Event) -> dynamic)?\n   override var onstalled: ((Event) -> dynamic)?\n   override var onsubmit: ((Event) -> dynamic)?\n   override var onsuspend: ((Event) -> dynamic)?\n   override var ontimeupdate: ((Event) -> dynamic)?\n   override var ontoggle: ((Event) -> dynamic)?\n   override var onvolumechange: ((Event) -> dynamic)?\n   override var onwaiting: ((Event) -> dynamic)?\n   override var ongotpointercapture: ((PointerEvent) -> dynamic)?\n   override var onlostpointercapture: ((PointerEvent) -> dynamic)?\n   override var onpointerdown: ((PointerEvent) -> dynamic)?\n   override var onpointermove: ((PointerEvent) -> dynamic)?\n   override var onpointerup: ((PointerEvent) -> dynamic)?\n   override var onpointercancel: ((PointerEvent) -> dynamic)?\n   override var onpointerover: ((PointerEvent) -> dynamic)?\n   override var onpointerout: ((PointerEvent) -> dynamic)?\n   override var onpointerenter: ((PointerEvent) -> dynamic)?\n   override var onpointerleave: ((PointerEvent) -> dynamic)?\n   override var oncopy: ((ClipboardEvent) -> dynamic)?\n   override var oncut: ((ClipboardEvent) -> dynamic)?\n   override var onpaste: ((ClipboardEvent) -> dynamic)?\n   override var contentEditable:

String\n   override val isContentEditable: Boolean\n   override val style: CSSStyleDeclaration\n   override val children: HTMLCollection\n   override val firstElementChild: Element?\n   override val lastElementChild: Element?\n   override val childElementCount: Int\n   override val previousElementSibling: Element?\n   override val nextElementSibling: Element?\n   override val assignedSlot: HTMLSlotElement?\n   override fun prepend(vararg nodes: dynamic)\n   override fun append(vararg nodes: dynamic)\n   override fun querySelector(selectors: String): Element?\n   override fun querySelectorAll(selectors: String): NodeList\n   override fun before(vararg nodes: dynamic)\n   override fun after(vararg nodes: dynamic)\n   override fun replaceWith(vararg nodes: dynamic)\n   override fun remove()\n   override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n   override fun convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions

/* = definedExternally */): DOMQuad\n   override fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val

ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external open class Audio(src: String = definedExternally) : HTMLAudioElement {\n   override var onabort: ((Event) -> dynamic)?\n   override var onblur: ((FocusEvent) -> dynamic)?\n   override var oncancel: ((Event) -> dynamic)?\n   override var oncanplay: ((Event) -> dynamic)?\n   override var oncanplaythrough: ((Event) -> dynamic)?\n   override var onchange: ((Event) -> dynamic)?\n   override var onclick: ((MouseEvent) -> dynamic)?\n   override var onclose: ((Event) -> dynamic)?\n   override var oncontextmenu: ((MouseEvent) -> dynamic)?\n   override var oncuechange: ((Event) -> dynamic)?\n   override var ondblclick: ((MouseEvent) -> dynamic)?\n   override var ondrag: ((DragEvent) -> dynamic)?\n   override var ondragend: ((DragEvent) -> dynamic)?\n   override var ondragenter: ((DragEvent) -> dynamic)?\n   override var ondragexit: ((DragEvent) -> dynamic)?\n   override var ondragleave: ((DragEvent) -> dynamic)?\n   override var ondragover: ((DragEvent) -> dynamic)?\n   override var ondragstart: ((DragEvent) -> dynamic)?\n   override var ondrop: ((DragEvent) -> dynamic)?\n   override var ondurationchange: ((Event) -> dynamic)?\n   override var onemptied: ((Event) -> dynamic)?\n   override var onended: ((Event) -> dynamic)?\n   override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n   override var onfocus: ((FocusEvent) -> dynamic)?\n   override var oninput: ((InputEvent) -> dynamic)?\n   override var oninvalid: ((Event) -> dynamic)?\n   override var onkeydown: ((KeyboardEvent) -> dynamic)?\n   override var onkeypress: ((KeyboardEvent) -> dynamic)?\n   override var onkeyup: ((KeyboardEvent) -> dynamic)?\n   override var onload: ((Event) -> dynamic)?\n   override var onloadeddata: ((Event) -> dynamic)?\n   override var onloadedmetadata: ((Event) -> dynamic)?\n   override var onloadend: ((Event) -> dynamic)?\n   override var onloadstart: ((ProgressEvent) -> dynamic)?\n   override var onmousedown: ((MouseEvent) -> dynamic)?\n   override var onmouseenter: ((MouseEvent) -> dynamic)?\n   override var onmouseleave: ((MouseEvent) -> dynamic)?\n   override var onmousemove: ((MouseEvent) -> dynamic)?\n   override var onmouseout: ((MouseEvent) -> dynamic)?\n   override var onmouseover: ((MouseEvent) -> dynamic)?\n   override var onmouseup: ((MouseEvent) -> dynamic)?\n   override var onwheel: ((WheelEvent) -> dynamic)?\n   override var onpause: ((Event) -> dynamic)?\n   override var onplay: ((Event) -> dynamic)?\n   override var onplaying: ((Event) -> dynamic)?\n   override var onprogress: ((ProgressEvent) -> dynamic)?\n   override var onratechange: ((Event) -> dynamic)?\n   override var onreset: ((Event) -> dynamic)?\n   override var onresize: ((Event) -> dynamic)?\n   override var onscroll: ((Event) -> dynamic)?\n   override var onseeked: ((Event) -> dynamic)?\n   override var onseeking: ((Event) -> dynamic)?\n   override var onselect: ((Event) -> dynamic)?\n   override var onshow: ((Event) -> dynamic)?\n   override var onstalled: ((Event) -> dynamic)?\n   override var onsubmit: ((Event) -> dynamic)?\n   override var onsuspend: ((Event) -> dynamic)?\n   override var ontimeupdate: ((Event) -> dynamic)?\n   override var ontoggle: ((Event) -> dynamic)?\n   override var onvolumechange: ((Event) -> dynamic)?\n   override var onwaiting: ((Event) -> dynamic)?\n   override var ongotpointercapture: ((PointerEvent) -> dynamic)?\n   override var onlostpointercapture: ((PointerEvent) -> dynamic)?\n   override var onpointerdown: ((PointerEvent) -> dynamic)?\n   override var onpointermove: ((PointerEvent) -> dynamic)?\n   override var onpointerup: ((PointerEvent) -> dynamic)?\n   override var onpointercancel: ((PointerEvent) -> dynamic)?\n   override var onpointerover: ((PointerEvent) -> dynamic)?\n   override var onpointerout: ((PointerEvent) -> dynamic)?\n   override var onpointerenter: ((PointerEvent) -> dynamic)?\n   override var onpointerleave: ((PointerEvent) -> dynamic)?\n   override var oncopy: ((ClipboardEvent) -> dynamic)?\n   override var oncut: ((ClipboardEvent) -> dynamic)?\n   override var onpaste: ((ClipboardEvent) -> dynamic)?\n   override var contentEditable: String\n   override val isContentEditable: Boolean\n   override val style: CSSStyleDeclaration\n   override val children: HTMLCollection\n   override val firstElementChild: Element?\n   override val lastElementChild: Element?\n   override val childElementCount: Int\n   override val previousElementSibling: Element?\n   override val nextElementSibling: Element?\n   override val assignedSlot: HTMLSlotElement?\n   override fun prepend(vararg nodes: dynamic)\n   override fun append(vararg nodes: dynamic)\n   override fun querySelector(selectors: String): Element?\n   override fun querySelectorAll(selectors: String): NodeList\n   override fun before(vararg nodes: dynamic)\n   override fun after(vararg nodes: dynamic)\n   override fun replaceWith(vararg nodes: dynamic)\n   override fun remove()\n   override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n   override fun convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n\n   companion object {\n   val NETWORK_EMPTY: Short\n   val NETWORK_IDLE: Short\n   val NETWORK_LOADING: Short\n   val NETWORK_NO_SOURCE: Short\n   val HAVE_NOTHING: Short\n   val HAVE_METADATA: Short\n   val HAVE_CURRENT_DATA: Short\n   val HAVE_FUTURE_DATA: Short\n   val HAVE_ENOUGH_DATA: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [Option](https://developer.mozilla.org/en/docs/Web/API/Option) to Kotlin\n */\npublic external open class Option(text: String = definedExternally, value: String = definedExternally, defaultSelected: Boolean = definedExternally, selected: Boolean = definedExternally) : HTMLOptionElement {\n   override var onabort: ((Event) -> dynamic)?\n   override var onblur: ((FocusEvent) -> dynamic)?\n   override var oncancel: ((Event) -> dynamic)?\n   override var oncanplay: ((Event) -> dynamic)?\n   override var oncanplaythrough: ((Event) -> dynamic)?\n   override var onchange: ((Event) -> dynamic)?\n   override var onclick: ((MouseEvent) -> dynamic)?\n   override var onclose: ((Event) -> dynamic)?\n   override var oncontextmenu: ((MouseEvent) -> dynamic)?\n   override var oncuechange: ((Event) -> dynamic)?\n   override var ondblclick: ((MouseEvent) -> dynamic)?\n   override var ondrag: ((DragEvent) -> dynamic)?\n   override var ondragend: ((DragEvent) -> dynamic)?\n   override var ondragenter: ((DragEvent) -> dynamic)?\n   override var ondragexit: ((DragEvent) -> dynamic)?\n   override var ondragleave: ((DragEvent) -> dynamic)?\n   override var ondragover: ((DragEvent) -> dynamic)?\n   override var ondragstart: ((DragEvent) -> dynamic)?\n   override var ondrop: ((DragEvent) -> dynamic)?\n   override var ondurationchange: ((Event) -> dynamic)?\n   override var onemptied: ((Event) -> dynamic)?\n   override var onended: ((Event) -> dynamic)?\n   override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\n   override var onfocus: ((FocusEvent) -> dynamic)?\n   override var oninput: ((InputEvent) -> dynamic)?\n   override var oninvalid: ((Event) -> dynamic)?\n   override var onkeydown: ((KeyboardEvent) -> dynamic)?\n   override var onkeypress: ((KeyboardEvent) -> dynamic)?\n   override var onkeyup: ((KeyboardEvent) -> dynamic)?\n   override var onload: ((Event) -> dynamic)?\n   override var onloadeddata: ((Event) -> dynamic)?\n   override var onloadedmetadata: ((Event) -> dynamic)?\n   override var onloadend: ((Event) -> dynamic)?\n   override var onloadstart: ((ProgressEvent) -> dynamic)?\n override var onmousedown: ((MouseEvent) -> dynamic)?\n   override var onmouseenter: ((MouseEvent) -> dynamic)?\n   override var onmouseleave: ((MouseEvent) -> dynamic)?\n   override var onmousemove: ((MouseEvent) -> dynamic)?\n   override var onmouseout: ((MouseEvent) -> dynamic)?\n   override var onmouseover: ((MouseEvent) -> dynamic)?\n   override var onmouseup: ((MouseEvent) -> dynamic)?\n   override var onwheel: ((WheelEvent) -> dynamic)?\n   override var onpause: ((Event) -> dynamic)?\n   override var onplay: ((Event) -> dynamic)?\n   override var onplaying: ((Event) -> dynamic)?\n   override var onprogress: ((ProgressEvent) -> dynamic)?\n   override var onratechange: ((Event) -> dynamic)?\n   override var onreset: ((Event) -> dynamic)?\n   override var onresize: ((Event) -> dynamic)?\n   override var onscroll: ((Event) -> dynamic)?\n   override var onseeked: ((Event) -> dynamic)?\n   override var onseeking: ((Event) -> dynamic)?\n   override var onselect: ((Event) -> dynamic)?\n   override var onshow: ((Event) -> dynamic)?\n   override var onstalled: ((Event) -> dynamic)?\n   override var onsubmit: ((Event) -> dynamic)?\n   override var onsuspend: ((Event) -> dynamic)?\n   override var ontimeupdate: ((Event) -> dynamic)?\n   override var ontoggle: ((Event) -> dynamic)?\n   override var onvolumechange: ((Event) -> dynamic)?\n   override var onwaiting: ((Event) -> dynamic)?\n   override var ongotpointercapture: ((PointerEvent) -> dynamic)?\n   override var onlostpointercapture: ((PointerEvent) -> dynamic)?\n   override var onpointerdown: ((PointerEvent) -> dynamic)?\n   override var onpointermove: ((PointerEvent) -> dynamic)?\n   override var onpointerup: ((PointerEvent) -> dynamic)?\n   override var onpointercancel: ((PointerEvent) -> dynamic)?\n   override var onpointerover: ((PointerEvent) -> dynamic)?\n   override var onpointerout: ((PointerEvent) -> dynamic)?\n   override var onpointerenter: ((PointerEvent) -> dynamic)?\n   override var onpointerleave: ((PointerEvent) -> dynamic)?\n   override var oncopy: ((ClipboardEvent) -> dynamic)?\n   override var oncut: ((ClipboardEvent) -> dynamic)?\n   override var onpaste: ((ClipboardEvent) -> dynamic)?\n   override var contentEditable: String\n   override val isContentEditable: Boolean\n   override val style: CSSStyleDeclaration\n   override val children: HTMLCollection\n   override val firstElementChild: Element?\n   override val lastElementChild: Element?\n   override val childElementCount: Int\n   override val previousElementSibling: Element?\n   override val nextElementSibling: Element?\n   override val assignedSlot: HTMLSlotElement?\n   override fun prepend(vararg nodes: dynamic)\n   override fun append(vararg nodes: dynamic)\n   override fun querySelector(selectors: String): Element?\n   override fun querySelectorAll(selectors: String): NodeList\n   override fun before(vararg nodes: dynamic)\n   override fun after(vararg nodes: dynamic)\n   override fun replaceWith(vararg nodes: dynamic)\n   override fun remove()\n   override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\n   override fun convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\n   override fun convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external interface UnionElementOrHTMLCollection\n\npublic external interface UnionElementOrRadioNodeList\n\npublic external interface UnionHTMLOptGroupElementOrHTMLOptionElement\n\npublic external interface UnionAudioTrackOrTextTrackOrVideoTrack\n\npublic external interface UnionElementOrMouseEvent\n\npublic external interface UnionMessagePortOrWindowProxy\n\npublic external interface MediaProvider\n\npublic

external interface RenderingContext\n\npublic external interface HTMLOrSVGImageElement :
CanvasImageSource\n\npublic external interface CanvasImageSource : ImageBitmapSource\n\npublic
external interface ImageBitmapSource\n\npublic external interface HTMLOrSVGScriptElement\n\n/* please, don't
implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface DocumentReadyState {\n   companion object\n}\n\npublic inline val
DocumentReadyState.Companion.LOADING: DocumentReadyState get() =
\"loading\".asDynamic().unsafeCast<DocumentReadyState>()\n\npublic inline val
DocumentReadyState.Companion.INTERACTIVE: DocumentReadyState get() =
\"interactive\".asDynamic().unsafeCast<DocumentReadyState>()\n\npublic inline val
DocumentReadyState.Companion.COMPLETE: DocumentReadyState get() =
\"complete\".asDynamic().unsafeCast<DocumentReadyState>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface CanPlayTypeResult {\n   companion object\n}\n\npublic inline val
CanPlayTypeResult.Companion.EMPTY: CanPlayTypeResult get() =
\"\".asDynamic().unsafeCast<CanPlayTypeResult>()\n\npublic
inline val CanPlayTypeResult.Companion.MAYBE: CanPlayTypeResult get() =
\"maybe\".asDynamic().unsafeCast<CanPlayTypeResult>()\n\npublic inline val
CanPlayTypeResult.Companion.PROBABLY: CanPlayTypeResult get() =
\"probably\".asDynamic().unsafeCast<CanPlayTypeResult>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface TextTrackMode {\n   companion object\n}\n\npublic inline val TextTrackMode.Companion.DISABLED:
TextTrackMode get() = \"disabled\".asDynamic().unsafeCast<TextTrackMode>()\n\npublic inline val
TextTrackMode.Companion.HIDDEN: TextTrackMode get() =
\"hidden\".asDynamic().unsafeCast<TextTrackMode>()\n\npublic inline val
TextTrackMode.Companion.SHOWING: TextTrackMode get() =
\"showing\".asDynamic().unsafeCast<TextTrackMode>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic
external interface TextTrackKind {\n   companion object\n}\n\npublic inline val
TextTrackKind.Companion.SUBTITLES: TextTrackKind get() =
\"subtitles\".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val
TextTrackKind.Companion.CAPTIONS: TextTrackKind get() =
\"captions\".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val
TextTrackKind.Companion.DESCRIPTIONS: TextTrackKind get() =
\"descriptions\".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val
TextTrackKind.Companion.CHAPTERS: TextTrackKind get() =
\"chapters\".asDynamic().unsafeCast<TextTrackKind>()\n\npublic inline val
TextTrackKind.Companion.METADATA: TextTrackKind get() =
\"metadata\".asDynamic().unsafeCast<TextTrackKind>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface SelectionMode {\n   companion object\n}\n\npublic inline val SelectionMode.Companion.SELECT:
SelectionMode get()
= \"select\".asDynamic().unsafeCast<SelectionMode>()\n\npublic inline val SelectionMode.Companion.START:
SelectionMode get() = \"start\".asDynamic().unsafeCast<SelectionMode>()\n\npublic inline val
SelectionMode.Companion.END: SelectionMode get() =
\"end\".asDynamic().unsafeCast<SelectionMode>()\n\npublic inline val SelectionMode.Companion.PRESERVE:
SelectionMode get() = \"preserve\".asDynamic().unsafeCast<SelectionMode>()\n\n/* please, don't implement this
interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic

external interface CanvasFillRule {\n   companion object\n}\n\npublic inline val CanvasFillRule.Companion.NONZERO: CanvasFillRule get() = \"nonzero\".asDynamic().unsafeCast<CanvasFillRule>()\n\npublic inline val CanvasFillRule.Companion.EVENODD: CanvasFillRule get() = \"evenodd\".asDynamic().unsafeCast<CanvasFillRule>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ImageSmoothingQuality {\n   companion object\n}\n\npublic inline val ImageSmoothingQuality.Companion.LOW: ImageSmoothingQuality get() = \"low\".asDynamic().unsafeCast<ImageSmoothingQuality>()\n\npublic inline val ImageSmoothingQuality.Companion.MEDIUM: ImageSmoothingQuality get() = \"medium\".asDynamic().unsafeCast<ImageSmoothingQuality>()\n\npublic inline val ImageSmoothingQuality.Companion.HIGH: ImageSmoothingQuality get() = \"high\".asDynamic().unsafeCast<ImageSmoothingQuality>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface CanvasLineCap {\n   companion object\n}\n\npublic inline val CanvasLineCap.Companion.BUTT: CanvasLineCap get() = \"butt\".asDynamic().unsafeCast<CanvasLineCap>()\n\npublic inline val CanvasLineCap.Companion.ROUND: CanvasLineCap get() = \"round\".asDynamic().unsafeCast<CanvasLineCap>()\n\npublic inline val CanvasLineCap.Companion.SQUARE: CanvasLineCap get() = \"square\".asDynamic().unsafeCast<CanvasLineCap>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface CanvasLineJoin {\n   companion object\n}\n\npublic inline val CanvasLineJoin.Companion.ROUND: CanvasLineJoin get() = \"round\".asDynamic().unsafeCast<CanvasLineJoin>()\n\npublic inline val CanvasLineJoin.Companion.BEVEL: CanvasLineJoin get() = \"bevel\".asDynamic().unsafeCast<CanvasLineJoin>()\n\npublic inline val CanvasLineJoin.Companion.MITER: CanvasLineJoin get() = \"miter\".asDynamic().unsafeCast<CanvasLineJoin>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface CanvasTextAlign {\n   companion object\n}\n\npublic inline val CanvasTextAlign.Companion.START: CanvasTextAlign get() = \"start\".asDynamic().unsafeCast<CanvasTextAlign>()\n\npublic inline val CanvasTextAlign.Companion.END: CanvasTextAlign get() = \"end\".asDynamic().unsafeCast<CanvasTextAlign>()\n\npublic inline val CanvasTextAlign.Companion.LEFT: CanvasTextAlign get() = \"left\".asDynamic().unsafeCast<CanvasTextAlign>()\n\npublic inline val CanvasTextAlign.Companion.RIGHT: CanvasTextAlign get() = \"right\".asDynamic().unsafeCast<CanvasTextAlign>()\n\npublic inline val CanvasTextAlign.Companion.CENTER: CanvasTextAlign get() = \"center\".asDynamic().unsafeCast<CanvasTextAlign>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface CanvasTextBaseline {\n   companion object\n}\n\npublic inline val CanvasTextBaseline.Companion.TOP: CanvasTextBaseline get() = \"top\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val CanvasTextBaseline.Companion.HANGING: CanvasTextBaseline get() = \"hanging\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val CanvasTextBaseline.Companion.MIDDLE: CanvasTextBaseline get() = \"middle\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val CanvasTextBaseline.Companion.ALPHABETIC: CanvasTextBaseline get() = \"alphabetic\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val CanvasTextBaseline.Companion.IDEOGRAPHIC: CanvasTextBaseline get() = \"ideographic\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\npublic inline val CanvasTextBaseline.Companion.BOTTOM: CanvasTextBaseline get() =

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\"bottom\".asDynamic().unsafeCast<CanvasTextBaseline>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface CanvasDirection {\n    companion object\n}\n\npublic inline val CanvasDirection.Companion.LTR:
CanvasDirection get() = \"ltr\".asDynamic().unsafeCast<CanvasDirection>()\n\npublic inline val
CanvasDirection.Companion.RTL: CanvasDirection get() =
\"rtl\".asDynamic().unsafeCast<CanvasDirection>()\n\npublic inline val CanvasDirection.Companion.INHERIT:
 CanvasDirection get() = \"inherit\".asDynamic().unsafeCast<CanvasDirection>()\n\n/* please, don't implement this
interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic
external interface ScrollRestoration {\n    companion object\n}\n\npublic inline val
ScrollRestoration.Companion.AUTO: ScrollRestoration get() =
\"auto\".asDynamic().unsafeCast<ScrollRestoration>()\n\npublic inline val
ScrollRestoration.Companion.MANUAL: ScrollRestoration get() =
\"manual\".asDynamic().unsafeCast<ScrollRestoration>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface ImageOrientation {\n    companion object\n}\n\npublic inline val ImageOrientation.Companion.NONE:
ImageOrientation get() = \"none\".asDynamic().unsafeCast<ImageOrientation>()\n\npublic inline val
ImageOrientation.Companion.FLIPY: ImageOrientation get() =
\"flipY\".asDynamic().unsafeCast<ImageOrientation>()\n\n/*
 please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface PremultiplyAlpha {\n    companion object\n}\n\npublic inline val PremultiplyAlpha.Companion.NONE:
PremultiplyAlpha get() = \"none\".asDynamic().unsafeCast<PremultiplyAlpha>()\n\npublic inline val
PremultiplyAlpha.Companion.PREMULTIPLY: PremultiplyAlpha get() =
\"premultiply\".asDynamic().unsafeCast<PremultiplyAlpha>()\n\npublic inline val
PremultiplyAlpha.Companion.DEFAULT: PremultiplyAlpha get() =
\"default\".asDynamic().unsafeCast<PremultiplyAlpha>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface ColorSpaceConversion {\n    companion object\n}\n\npublic inline val
ColorSpaceConversion.Companion.NONE: ColorSpaceConversion get() =
\"none\".asDynamic().unsafeCast<ColorSpaceConversion>()\n\npublic inline val
ColorSpaceConversion.Companion.DEFAULT:
 ColorSpaceConversion get() = \"default\".asDynamic().unsafeCast<ColorSpaceConversion>()\n\n/* please, don't
implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface ResizeQuality {\n    companion object\n}\n\npublic inline val ResizeQuality.Companion.PIXELATED:
ResizeQuality get() = \"pixelated\".asDynamic().unsafeCast<ResizeQuality>()\n\npublic inline val
ResizeQuality.Companion.LOW: ResizeQuality get() =
\"low\".asDynamic().unsafeCast<ResizeQuality>()\n\npublic inline val ResizeQuality.Companion.MEDIUM:
ResizeQuality get() = \"medium\".asDynamic().unsafeCast<ResizeQuality>()\n\npublic inline val
ResizeQuality.Companion.HIGH: ResizeQuality get() = \"high\".asDynamic().unsafeCast<ResizeQuality>()\n\n/*
please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface BinaryType {\n    companion object\n}\n\npublic inline
 val BinaryType.Companion.BLOB: BinaryType get() = \"blob\".asDynamic().unsafeCast<BinaryType>()\n\npublic
inline val BinaryType.Companion.ARRAYBUFFER: BinaryType get() =
\"arraybuffer\".asDynamic().unsafeCast<BinaryType>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface WorkerType {\n    companion object\n}\n\npublic inline val WorkerType.Companion.CLASSIC:
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WorkerType get() = \"classic\".asDynamic().unsafeCast<WorkerType>()\n\npublic inline val WorkerType.Companion.MODULE: WorkerType get() = \"module\".asDynamic().unsafeCast<WorkerType>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ShadowRootMode {\n   companion object\n}\n\npublic inline val ShadowRootMode.Companion.OPEN: ShadowRootMode get() = \"open\".asDynamic().unsafeCast<ShadowRootMode>()\n\npublic inline val ShadowRootMode.Companion.CLOSED: ShadowRootMode get() = \"closed\".asDynamic().unsafeCast<ShadowRootMode>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ScrollBehavior {\n   companion object\n}\n\npublic inline val ScrollBehavior.Companion.AUTO: ScrollBehavior get() = \"auto\".asDynamic().unsafeCast<ScrollBehavior>()\n\npublic inline val ScrollBehavior.Companion.INSTANT: ScrollBehavior get() = \"instant\".asDynamic().unsafeCast<ScrollBehavior>()\n\npublic inline val ScrollBehavior.Companion.SMOOTH: ScrollBehavior get() = \"smooth\".asDynamic().unsafeCast<ScrollBehavior>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ScrollLogicalPosition {\n   companion object\n}\n\npublic inline val ScrollLogicalPosition.Companion.START: ScrollLogicalPosition get() = \"start\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\npublic inline val ScrollLogicalPosition.Companion.CENTER: ScrollLogicalPosition get() = \"center\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\npublic inline val ScrollLogicalPosition.Companion.END: ScrollLogicalPosition get() = \"end\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\npublic inline val ScrollLogicalPosition.Companion.NEAREST: ScrollLogicalPosition get() = \"nearest\".asDynamic().unsafeCast<ScrollLogicalPosition>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface CSSBoxType {\n   companion object\n}\n\npublic inline val CSSBoxType.Companion.MARGIN: CSSBoxType get() = \"margin\".asDynamic().unsafeCast<CSSBoxType>()\n\npublic inline val CSSBoxType.Companion.BORDER: CSSBoxType get() = \"border\".asDynamic().unsafeCast<CSSBoxType>()\n\npublic inline val CSSBoxType.Companion.PADDING: CSSBoxType get() = \"padding\".asDynamic().unsafeCast<CSSBoxType>()\n\npublic inline val CSSBoxType.Companion.CONTENT: CSSBoxType get() = \"content\".asDynamic().unsafeCast<CSSBoxType>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.fetch\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.files.*\nimport org.w3c.xhr.*\n\n/**\n * Exposes the JavaScript [Headers](https://developer.mozilla.org/en/docs/Web/API/Headers) to Kotlin\n */\npublic external open class Headers(init: dynamic = definedExternally) {\n   fun append(name: String, value: String)\n   fun delete(name: String)\n   fun get(name: String): String?\n   fun has(name: String): Boolean\n   fun set(name: String, value: String)\n}\n\n/**\n * Exposes the JavaScript [Body](https://developer.mozilla.org/en/docs/Web/API/Body) to Kotlin\n */\npublic external interface Body {\n   val bodyUsed: Boolean\n   fun arrayBuffer(): Promise<ArrayBuffer>\n   fun blob(): Promise<Blob>\n   fun formData(): Promise<FormData>\n   fun json(): Promise<Any?>\n   fun text(): Promise<String>\n}\n\n/**\n * Exposes the JavaScript [Request](https://developer.mozilla.org/en/docs/Web/API/Request) to Kotlin\n */\npublic external open class Request(input: dynamic, init: RequestInit = definedExternally) : Body {\n   open val method: String\n   open val url: String\n   open val headers: Headers\n   open val type: RequestType\n   open val destination: RequestDestination\n   open val referrer: String\n   open val referrerPolicy: dynamic\n   open val mode: RequestMode\n   open val credentials: RequestCredentials\n   open val cache: RequestCache\n   open val redirect:

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RequestRedirect\n    open val integrity: String\n    open val keepalive: Boolean\n    override val bodyUsed:
Boolean\n    fun clone(): Request\n    override
 fun arrayBuffer(): Promise<ArrayBuffer>\n    override fun blob(): Promise<Blob>\n    override fun formData():
Promise<FormData>\n    override fun json(): Promise<Any?>\n    override fun text(): Promise<String>\n}\n\npublic
external interface RequestInit {\n    var method: String?\n        get() = definedExternally\n        set(value) =
definedExternally\n    var headers: dynamic\n        get() = definedExternally\n        set(value) = definedExternally\n
var body: dynamic\n        get() = definedExternally\n        set(value) = definedExternally\n    var referrer: String?\n
    get() = definedExternally\n        set(value) = definedExternally\n    var referrerPolicy: dynamic\n        get() =
definedExternally\n        set(value) = definedExternally\n    var mode: RequestMode?\n        get() =
definedExternally\n        set(value) = definedExternally\n    var credentials: RequestCredentials?\n        get() =
definedExternally\n        set(value) = definedExternally\n    var
 cache: RequestCache?\n        get() = definedExternally\n        set(value) = definedExternally\n    var redirect:
RequestRedirect?\n        get() = definedExternally\n        set(value) = definedExternally\n    var integrity: String?\n
   get() = definedExternally\n        set(value) = definedExternally\n    var keepalive: Boolean?\n        get() =
definedExternally\n        set(value) = definedExternally\n    var window: Any?\n        get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun RequestInit(method: String? =
undefined, headers: dynamic = undefined, body: dynamic = undefined, referrer: String? = undefined, referrerPolicy:
dynamic = undefined, mode: RequestMode? = undefined, credentials: RequestCredentials? = undefined, cache:
RequestCache? = undefined, redirect: RequestRedirect? = undefined, integrity: String? = undefined, keepalive:
Boolean? = undefined,
 window: Any? = undefined): RequestInit {\n    val o = js(\"({})\")\n    o[\"method\"] = method\n    o[\"headers\"] =
headers\n    o[\"body\"] = body\n    o[\"referrer\"] = referrer\n    o[\"referrerPolicy\"] = referrerPolicy\n
o[\"mode\"] = mode\n    o[\"credentials\"] = credentials\n    o[\"cache\"] = cache\n    o[\"redirect\"] = redirect\n
o[\"integrity\"] = integrity\n    o[\"keepalive\"] = keepalive\n    o[\"window\"] = window\n    return o\n}\n\n/**\n *
Exposes the JavaScript [Response](https://developer.mozilla.org/en/docs/Web/API/Response) to Kotlin\n */\npublic
external open class Response(body: dynamic = definedExternally, init: ResponseInit = definedExternally) : Body
{\n    open val type: ResponseType\n    open val url: String\n    open val redirected: Boolean\n    open val status:
Short\n    open val ok: Boolean\n    open val statusText: String\n    open val headers: Headers\n    open val body:
dynamic\n    open val trailer: Promise<Headers>\n    override val bodyUsed:
 Boolean\n    fun clone(): Response\n    override fun arrayBuffer(): Promise<ArrayBuffer>\n    override fun blob():
Promise<Blob>\n    override fun formData(): Promise<FormData>\n    override fun json(): Promise<Any?>\n
override fun text(): Promise<String>\n\n    companion object {\n        fun error(): Response\n        fun redirect(url:
String, status: Short = definedExternally): Response\n    }\n}\n\npublic external interface ResponseInit {\n    var
status: Short? /* = 200 */\n        get() = definedExternally\n        set(value) = definedExternally\n    var statusText:
String? /* = \"OK\" */\n        get() = definedExternally\n        set(value) = definedExternally\n    var headers:
dynamic\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ResponseInit(status: Short? = 200,
statusText: String? = \"OK\", headers: dynamic = undefined): ResponseInit
 {\n    val o = js(\"({})\")\n    o[\"status\"] = status\n    o[\"statusText\"] = statusText\n    o[\"headers\"] = headers\n
return o\n}\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface RequestType {\n    companion object\n}\n\npublic inline val RequestType.Companion.EMPTY:
RequestType get() = \"\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val
RequestType.Companion.AUDIO: RequestType get() =
\"audio\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.FONT:
RequestType get() = \"font\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val
```

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RequestType.Companion.IMAGE: RequestType get() =
\"image\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.SCRIPT:
RequestType get() = \"script\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val
RequestType.Companion.STYLE: RequestType get() =
\"style\".asDynamic().unsafeCast<RequestType>()\n\npublic
 inline val RequestType.Companion.TRACK: RequestType get() =
\"track\".asDynamic().unsafeCast<RequestType>()\n\npublic inline val RequestType.Companion.VIDEO:
RequestType get() = \"video\".asDynamic().unsafeCast<RequestType>()\n\n/* please, don't implement this
interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic
external interface RequestDestination {\n    companion object\n}\n\npublic inline val
RequestDestination.Companion.EMPTY: RequestDestination get() =
\"\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.DOCUMENT: RequestDestination get() =
\"document\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.EMBED: RequestDestination get() =
\"embed\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.FONT: RequestDestination get() =
\"font\".asDynamic().unsafeCast<RequestDestination>()\n\npublic
 inline val RequestDestination.Companion.IMAGE: RequestDestination get() =
\"image\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.MANIFEST: RequestDestination get() =
\"manifest\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.MEDIA: RequestDestination get() =
\"media\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.OBJECT: RequestDestination get() =
\"object\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.REPORT: RequestDestination get() =
\"report\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.SCRIPT: RequestDestination get() =
\"script\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.SERVICEWORKER: RequestDestination get() =
\"serviceworker\".asDynamic().unsafeCast<RequestDestination>()\n\npublic
 inline val RequestDestination.Companion.SHAREDWORKER: RequestDestination get() =
\"sharedworker\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.STYLE: RequestDestination get() =
\"style\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.WORKER: RequestDestination get() =
\"worker\".asDynamic().unsafeCast<RequestDestination>()\n\npublic inline val
RequestDestination.Companion.XSLT: RequestDestination get() =
\"xslt\".asDynamic().unsafeCast<RequestDestination>()\n\n/* please, don't implement this interface!
*/\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external
interface RequestMode {\n    companion object\n}\n\npublic inline val RequestMode.Companion.NAVIGATE:
RequestMode get() = \"navigate\".asDynamic().unsafeCast<RequestMode>()\n\npublic inline val
RequestMode.Companion.SAME_ORIGIN: RequestMode get() = \"same-
origin\".asDynamic().unsafeCast<RequestMode>()\n\npublic
 inline val RequestMode.Companion.NO_CORS: RequestMode get() = \"no-
cors\".asDynamic().unsafeCast<RequestMode>()\n\npublic inline val RequestMode.Companion.CORS:
RequestMode get() = \"cors\".asDynamic().unsafeCast<RequestMode>()\n\n/* please, don't implement this
```

interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface RequestCredentials {\n   companion object\n}\n\npublic inline val RequestCredentials.Companion.OMIT: RequestCredentials get() = \"omit\".asDynamic().unsafeCast<RequestCredentials>()\n\npublic inline val RequestCredentials.Companion.SAME_ORIGIN: RequestCredentials get() = \"same-origin\".asDynamic().unsafeCast<RequestCredentials>()\n\npublic inline val RequestCredentials.Companion.INCLUDE: RequestCredentials get() = \"include\".asDynamic().unsafeCast<RequestCredentials>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface RequestCache {\n   companion object\n}\n\npublic inline val RequestCache.Companion.DEFAULT: RequestCache get() = \"default\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val RequestCache.Companion.NO_STORE: RequestCache get() = \"no-store\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val RequestCache.Companion.RELOAD: RequestCache get() = \"reload\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val RequestCache.Companion.NO_CACHE: RequestCache get() = \"no-cache\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val RequestCache.Companion.FORCE_CACHE: RequestCache get() = \"force-cache\".asDynamic().unsafeCast<RequestCache>()\n\npublic inline val RequestCache.Companion.ONLY_IF_CACHED: RequestCache get() = \"only-if-cached\".asDynamic().unsafeCast<RequestCache>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface RequestRedirect {\n   companion object\n}\n\npublic inline val RequestRedirect.Companion.FOLLOW: RequestRedirect get() = \"follow\".asDynamic().unsafeCast<RequestRedirect>()\n\npublic inline val RequestRedirect.Companion.ERROR: RequestRedirect get() = \"error\".asDynamic().unsafeCast<RequestRedirect>()\n\npublic inline val RequestRedirect.Companion.MANUAL: RequestRedirect get() = \"manual\".asDynamic().unsafeCast<RequestRedirect>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ResponseType {\n   companion object\n}\n\npublic inline val ResponseType.Companion.BASIC: ResponseType get() = \"basic\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val ResponseType.Companion.CORS: ResponseType get() = \"cors\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val ResponseType.Companion.DEFAULT: ResponseType get() = \"default\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val ResponseType.Companion.ERROR: ResponseType get() = \"error\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val ResponseType.Companion.OPAQUE: ResponseType get() = \"opaque\".asDynamic().unsafeCast<ResponseType>()\n\npublic inline val ResponseType.Companion.OPAQUEREDIRECT: ResponseType get() = \"opaqueredirect\".asDynamic().unsafeCast<ResponseType>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.mediacapture\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\n/**\n * Exposes the JavaScript [MediaStream](https://developer.mozilla.org/en/docs/Web/API/MediaStream) to Kotlin\n */\npublic external open class MediaStream() : EventTarget, MediaProvider {\n   constructor(stream: MediaStream)\n   constructor(tracks: Array<MediaStreamTrack>)\n   open val id: String\n   open val active: Boolean\n   var onaddtrack: ((MediaStreamTrackEvent) -> dynamic)?\n   var onremovetrack: ((MediaStreamTrackEvent) -> dynamic)?\n   fun getAudioTracks(): Array<MediaStreamTrack>\n   fun getVideoTracks(): Array<MediaStreamTrack>\n   fun getTracks(): Array<MediaStreamTrack>\n   fun getTrackById(trackId: String): MediaStreamTrack?\n   fun addTrack(track: MediaStreamTrack)\n   fun removeTrack(track: MediaStreamTrack)\n   fun clone(): MediaStream\n}\n\n/**\n * Exposes the JavaScript [MediaStreamTrack](https://developer.mozilla.org/en/docs/Web/API/MediaStreamTrack) to Kotlin\n */\npublic external abstract class MediaStreamTrack : EventTarget {\n   open val kind: String\n   open val id: String\n   open val label: String\n   open var enabled: Boolean\n   open val muted: Boolean\n   open var onmute: ((Event) -> dynamic)?\n   open var onunmute: ((Event) -> dynamic)?\n   open val readyState: MediaStreamTrackState\n   open var onended: ((Event) -> dynamic)?\n   open var onoverconstrained: ((Event) -> dynamic)?\n   fun clone(): MediaStreamTrack\n   fun stop()\n   fun getCapabilities(): MediaTrackCapabilities\n   fun getConstraints(): MediaTrackConstraints\n   fun getSettings(): MediaTrackSettings\n   fun applyConstraints(constraints: MediaTrackConstraints = definedExternally): Promise<Unit>\n}\n\n/**\n * Exposes the JavaScript [MediaTrackSupportedConstraints](https://developer.mozilla.org/en/docs/Web/API/MediaTrackSupportedConstraints) to Kotlin\n */\npublic external interface MediaTrackSupportedConstraints {\n   var width: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var height: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var aspectRatio: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var frameRate: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var facingMode: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var resizeMode: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var volume: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var sampleRate: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var sampleSize: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var echoCancellation: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var autoGainControl: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var noiseSuppression: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var latency: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var channelCount: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var deviceId: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n   var groupId: Boolean? /* = true */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaTrackSupportedConstraints(width: Boolean? = true, height: Boolean? = true, aspectRatio: Boolean? = true, frameRate: Boolean? = true, facingMode: Boolean? = true, resizeMode: Boolean? = true, volume: Boolean? = true, sampleRate: Boolean? = true, sampleSize: Boolean? = true, echoCancellation: Boolean? = true, autoGainControl: Boolean? = true, noiseSuppression: Boolean? = true, latency: Boolean? = true, channelCount: Boolean? = true, deviceId: Boolean? = true, groupId: Boolean? = true): MediaTrackSupportedConstraints {\n   val o = js(\"({})\")\n   o[\"width\"] = width\n   o[\"height\"] = height\n   o[\"aspectRatio\"] = aspectRatio\n   o[\"frameRate\"] = frameRate\n   o[\"facingMode\"] = facingMode\n   o[\"resizeMode\"] = resizeMode\n   o[\"volume\"] = volume\n   o[\"sampleRate\"] = sampleRate\n   o[\"sampleSize\"] = sampleSize\n   o[\"echoCancellation\"] = echoCancellation\n   o[\"autoGainControl\"] = autoGainControl\n   o[\"noiseSuppression\"] = noiseSuppression\n   o[\"latency\"] = latency\n   o[\"channelCount\"] = channelCount\n   o[\"deviceId\"] = deviceId\n   o[\"groupId\"] = groupId\n   return o\n}\n\npublic external interface MediaTrackCapabilities {\n   var width: ULongRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var height: ULongRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var aspectRatio: DoubleRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var frameRate: DoubleRange?\n   get() = definedExternally\n   set(value) = definedExternally\n   var facingMode:

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Array<String>?\n        get() = definedExternally\n        set(value) = definedExternally\n    var resizeMode:
Array<String>?\n        get() = definedExternally\n        set(value) = definedExternally\n    var volume:
DoubleRange?\n        get() = definedExternally\n        set(value) = definedExternally\n    var sampleRate:
ULongRange?\n        get() = definedExternally\n        set(value) = definedExternally\n    var sampleSize:
ULongRange?\n        get() = definedExternally\n        set(value) = definedExternally\n    var echoCancellation:
Array<Boolean>?\n        get() = definedExternally\n        set(value) = definedExternally\n    var autoGainControl:
Array<Boolean>?\n
        get() = definedExternally\n        set(value) = definedExternally\n    var noiseSuppression: Array<Boolean>?\n
    get() = definedExternally\n        set(value) = definedExternally\n    var latency: DoubleRange?\n        get() =
definedExternally\n        set(value) = definedExternally\n    var channelCount: ULongRange?\n        get() =
definedExternally\n        set(value) = definedExternally\n    var deviceId: String?\n        get() = definedExternally\n
    set(value) = definedExternally\n    var groupId: String?\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaTrackCapabilities(width:
ULongRange? = undefined, height: ULongRange? = undefined, aspectRatio: DoubleRange? = undefined,
frameRate: DoubleRange? = undefined, facingMode: Array<String>? = undefined, resizeMode: Array<String>? =
undefined, volume: DoubleRange?
 = undefined, sampleRate: ULongRange? = undefined, sampleSize: ULongRange? = undefined, echoCancellation:
Array<Boolean>? = undefined, autoGainControl: Array<Boolean>? = undefined, noiseSuppression:
Array<Boolean>? = undefined, latency: DoubleRange? = undefined, channelCount: ULongRange? = undefined,
deviceId: String? = undefined, groupId: String? = undefined): MediaTrackCapabilities {\n    val o = js(\"({})\")\n
o[\"width\"] = width\n    o[\"height\"] = height\n    o[\"aspectRatio\"] = aspectRatio\n    o[\"frameRate\"] =
frameRate\n    o[\"facingMode\"] = facingMode\n    o[\"resizeMode\"] = resizeMode\n    o[\"volume\"] = volume\n
o[\"sampleRate\"] = sampleRate\n    o[\"sampleSize\"] = sampleSize\n    o[\"echoCancellation\"] =
echoCancellation\n    o[\"autoGainControl\"] = autoGainControl\n    o[\"noiseSuppression\"] = noiseSuppression\n
o[\"latency\"] = latency\n    o[\"channelCount\"] = channelCount\n    o[\"deviceId\"] = deviceId\n    o[\"groupId\"] =
groupId\n    return o\n}\n\n/**\n
 * Exposes the JavaScript
[MediaTrackConstraints](https://developer.mozilla.org/en/docs/Web/API/MediaTrackConstraints) to Kotlin\n
*/\npublic external interface MediaTrackConstraints : MediaTrackConstraintSet {\n    var advanced:
Array<MediaTrackConstraintSet>?\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaTrackConstraints(advanced:
Array<MediaTrackConstraintSet>? = undefined, width: dynamic = undefined, height: dynamic = undefined,
aspectRatio: dynamic = undefined, frameRate: dynamic = undefined, facingMode: dynamic = undefined,
resizeMode: dynamic = undefined, volume: dynamic = undefined, sampleRate: dynamic = undefined, sampleSize:
dynamic = undefined, echoCancellation: dynamic = undefined, autoGainControl: dynamic = undefined,
noiseSuppression: dynamic = undefined, latency: dynamic = undefined, channelCount: dynamic = undefined,
 deviceId: dynamic = undefined, groupId: dynamic = undefined): MediaTrackConstraints {\n    val o = js(\"({})\")\n
 o[\"advanced\"] = advanced\n    o[\"width\"] = width\n    o[\"height\"] = height\n    o[\"aspectRatio\"] =
aspectRatio\n    o[\"frameRate\"] = frameRate\n    o[\"facingMode\"] = facingMode\n    o[\"resizeMode\"] =
resizeMode\n    o[\"volume\"] = volume\n    o[\"sampleRate\"] = sampleRate\n    o[\"sampleSize\"] = sampleSize\n
o[\"echoCancellation\"] = echoCancellation\n    o[\"autoGainControl\"] = autoGainControl\n
o[\"noiseSuppression\"] = noiseSuppression\n    o[\"latency\"] = latency\n    o[\"channelCount\"] = channelCount\n
o[\"deviceId\"] = deviceId\n    o[\"groupId\"] = groupId\n    return o\n}\n\npublic external interface
MediaTrackConstraintSet {\n    var width: dynamic\n        get() = definedExternally\n        set(value) =
definedExternally\n    var height: dynamic\n        get() = definedExternally\n        set(value) = definedExternally\n
var aspectRatio:
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dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var frameRate: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var facingMode: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var resizeMode: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var volume: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var sampleRate: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var sampleSize: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var echoCancellation: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var autoGainControl: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var noiseSuppression: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var latency: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var channelCount: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var deviceId: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var groupId: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaTrackConstraintSet(width: dynamic = undefined, height: dynamic = undefined, aspectRatio: dynamic = undefined, frameRate: dynamic = undefined, facingMode: dynamic = undefined, resizeMode: dynamic = undefined, volume: dynamic = undefined, sampleRate: dynamic = undefined, sampleSize: dynamic = undefined, echoCancellation: dynamic = undefined, autoGainControl: dynamic = undefined, noiseSuppression: dynamic = undefined, latency: dynamic = undefined, channelCount: dynamic = undefined, deviceId: dynamic = undefined, groupId: dynamic = undefined): MediaTrackConstraintSet {\n   val o = js(\"({})\")\n   o[\"width\"] = width\n   o[\"height\"] = height\n   o[\"aspectRatio\"] = aspectRatio\n   o[\"frameRate\"] = frameRate\n   o[\"facingMode\"] = facingMode\n   o[\"resizeMode\"] = resizeMode\n   o[\"volume\"] = volume\n   o[\"sampleRate\"] = sampleRate\n   o[\"sampleSize\"] = sampleSize\n   o[\"echoCancellation\"] = echoCancellation\n   o[\"autoGainControl\"] = autoGainControl\n   o[\"noiseSuppression\"] = noiseSuppression\n   o[\"latency\"] = latency\n   o[\"channelCount\"] = channelCount\n   o[\"deviceId\"] = deviceId\n   o[\"groupId\"] = groupId\n   return o\n}\n\n/**\n * Exposes the JavaScript [MediaTrackSettings](https://developer.mozilla.org/en/docs/Web/API/MediaTrackSettings) to Kotlin\n */\npublic external interface MediaTrackSettings {\n   var width: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n   var height: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n   var aspectRatio: Double?\n   get() = definedExternally\n   set(value) = definedExternally\n   var frameRate: Double?\n   get() = definedExternally\n   set(value) = definedExternally\n   var facingMode: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var resizeMode: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var volume: Double?\n   get() = definedExternally\n   set(value) = definedExternally\n   var sampleRate: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n   var sampleSize: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n   var echoCancellation: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var autoGainControl: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var noiseSuppression: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var latency: Double?\n   get() = definedExternally\n   set(value) = definedExternally\n   var channelCount: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n   var deviceId: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var groupId: String?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaTrackSettings(width: Int? = undefined, height: Int? = undefined, aspectRatio: Double? = undefined, frameRate: Double? = undefined, facingMode: String? = undefined, resizeMode: String? = undefined, volume: Double? = undefined, sampleRate: Int? = undefined, sampleSize: Int? = undefined, echoCancellation:

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 Boolean? = undefined, autoGainControl: Boolean? = undefined, noiseSuppression: Boolean? = undefined, latency:
Double? = undefined, channelCount: Int? = undefined, deviceId: String? = undefined, groupId: String? =
undefined): MediaTrackSettings {\n    val o = js(\"({})\")\n    o[\"width\"] = width\n    o[\"height\"] = height\n
o[\"aspectRatio\"] = aspectRatio\n    o[\"frameRate\"] = frameRate\n    o[\"facingMode\"] = facingMode\n
o[\"resizeMode\"] = resizeMode\n    o[\"volume\"] = volume\n    o[\"sampleRate\"] = sampleRate\n
o[\"sampleSize\"] = sampleSize\n    o[\"echoCancellation\"] = echoCancellation\n    o[\"autoGainControl\"] =
autoGainControl\n    o[\"noiseSuppression\"] = noiseSuppression\n    o[\"latency\"] = latency\n
o[\"channelCount\"] = channelCount\n    o[\"deviceId\"] = deviceId\n    o[\"groupId\"] = groupId\n    return
o\n}\n\n/**\n * Exposes the JavaScript
[MediaStreamTrackEvent](https://developer.mozilla.org/en/docs/Web/API/MediaStreamTrackEvent) to Kotlin\n
 */\npublic external open class MediaStreamTrackEvent(type: String, eventInitDict: MediaStreamTrackEventInit) :
Event {\n    open val track: MediaStreamTrack\n\n    companion object {\n        val NONE: Short\n        val
CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n
}\n}\n\npublic external interface MediaStreamTrackEventInit : EventInit {\n    var track:
MediaStreamTrack?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaStreamTrackEventInit(track:
MediaStreamTrack?, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false):
MediaStreamTrackEventInit {\n    val o = js(\"({})\")\n    o[\"track\"] = track\n    o[\"bubbles\"] = bubbles\n
o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return o\n}\n\npublic external open class
OverconstrainedErrorEvent(type: String, eventInitDict: OverconstrainedErrorEventInit) : Event {\n
    open val error: dynamic\n\n    companion object {\n        val NONE: Short\n        val CAPTURING_PHASE:
Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface
OverconstrainedErrorEventInit : EventInit {\n    var error: dynamic /* = null */\n        get() = definedExternally\n
set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun OverconstrainedErrorEventInit(error:
dynamic = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false):
OverconstrainedErrorEventInit {\n    val o = js(\"({})\")\n    o[\"error\"] = error\n    o[\"bubbles\"] = bubbles\n
o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return o\n}\n\n/**\n * Exposes the JavaScript
[MediaDevices](https://developer.mozilla.org/en/docs/Web/API/MediaDevices) to Kotlin\n */\npublic external
abstract class MediaDevices : EventTarget
 {\n    open var ondevicechange: ((Event) -> dynamic)?\n    fun enumerateDevices():
Promise<Array<MediaDeviceInfo>>\n    fun getSupportedConstraints(): MediaTrackSupportedConstraints\n    fun
getUserMedia(constraints: MediaStreamConstraints = definedExternally): Promise<MediaStream>\n}\n\n/**\n *
Exposes the JavaScript [MediaDeviceInfo](https://developer.mozilla.org/en/docs/Web/API/MediaDeviceInfo) to
Kotlin\n */\npublic external abstract class MediaDeviceInfo {\n    open val deviceId: String\n    open val kind:
MediaDeviceKind\n    open val label: String\n    open val groupId: String\n    fun toJSON(): dynamic\n}\n\npublic
external abstract class InputDeviceInfo : MediaDeviceInfo {\n    fun getCapabilities():
MediaTrackCapabilities\n}\n\n/**\n * Exposes the JavaScript
[MediaStreamConstraints](https://developer.mozilla.org/en/docs/Web/API/MediaStreamConstraints) to Kotlin\n
*/\npublic external interface MediaStreamConstraints {\n    var video: dynamic /* = false */\n        get()
 = definedExternally\n        set(value) = definedExternally\n    var audio: dynamic /* = false */\n        get() =
definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun MediaStreamConstraints(video:
dynamic = false, audio: dynamic = false): MediaStreamConstraints {\n    val o = js(\"({})\")\n    o[\"video\"] =
video\n    o[\"audio\"] = audio\n    return o\n}\n\npublic external interface ConstrainablePattern {\n    var
onoverconstrained: ((Event) -> dynamic)?\n        get() = definedExternally\n        set(value) = definedExternally\n
fun getCapabilities(): Capabilities\n    fun getConstraints(): Constraints\n    fun getSettings(): Settings\n    fun
applyConstraints(constraints: Constraints = definedExternally): Promise<Unit>\n}\n\n/**\n * Exposes the
```

JavaScript [DoubleRange](https://developer.mozilla.org/en/docs/Web/API/DoubleRange) to Kotlin\n */\npublic external interface DoubleRange {\n   var max: Double?\n   get() = definedExternally\n   set(value) = definedExternally\n   var min: Double?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleRange(max: Double? = undefined, min: Double? = undefined): DoubleRange {\n   val o = js(\"({})\")\n   o[\"max\"] = max\n   o[\"min\"] = min\n   return o\n}\n\npublic external interface ConstrainDoubleRange : DoubleRange {\n   var exact: Double?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ideal: Double?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstrainDoubleRange(exact: Double? = undefined, ideal: Double? = undefined, max: Double? = undefined, min: Double? = undefined): ConstrainDoubleRange {\n   val o = js(\"({})\")\n   o[\"exact\"] = exact\n   o[\"ideal\"] = ideal\n   o[\"max\"] = max\n   o[\"min\"] = min\n   return o\n}\n\npublic external interface ULongRange {\n   var max: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n   var min: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ULongRange(max: Int? = undefined, min: Int? = undefined): ULongRange {\n   val o = js(\"({})\")\n   o[\"max\"] = max\n   o[\"min\"] = min\n   return o\n}\n\npublic external interface ConstrainULongRange : ULongRange {\n   var exact: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ideal: Int?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstrainULongRange(exact: Int? = undefined, ideal: Int? = undefined, max: Int? = undefined, min: Int? = undefined): ConstrainULongRange {\n   val o = js(\"({})\")\n   o[\"exact\"] = exact\n   o[\"ideal\"] = ideal\n   o[\"max\"] = max\n   o[\"min\"] = min\n   return o\n}\n\n/**\n * Exposes the JavaScript [ConstrainBooleanParameters](https://developer.mozilla.org/en/docs/Web/API/ConstrainBooleanParameters) to Kotlin\n */\npublic external interface ConstrainBooleanParameters {\n   var exact: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n   var ideal: Boolean?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstrainBooleanParameters(exact: Boolean? = undefined, ideal: Boolean? = undefined): ConstrainBooleanParameters {\n   val o = js(\"({})\")\n   o[\"exact\"] = exact\n   o[\"ideal\"] = ideal\n   return o\n}\n\n/**\n * Exposes the JavaScript [ConstrainDOMStringParameters](https://developer.mozilla.org/en/docs/Web/API/ConstrainDOMStringParameters) to Kotlin\n */\npublic external interface ConstrainDOMStringParameters {\n   var exact: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var ideal: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstrainDOMStringParameters(exact: dynamic = undefined, ideal: dynamic = undefined): ConstrainDOMStringParameters {\n   val o = js(\"({})\")\n   o[\"exact\"] = exact\n   o[\"ideal\"] = ideal\n   return o\n}\n\npublic external interface Capabilities\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun Capabilities(): Capabilities {\n   val o = js(\"({})\")\n   return o\n}\n\npublic external interface Settings\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun Settings(): Settings {\n   val o = js(\"({})\")\n   return o\n}\n\npublic external interface ConstraintSet\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ConstraintSet(): ConstraintSet {\n

val o = js(\"({})\")\n return o\n}\n\npublic external interface Constraints : ConstraintSet {\n var advanced: Array<ConstraintSet>?\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun Constraints(advanced: Array<ConstraintSet>? = undefined): Constraints {\n val o = js(\"({})\")\n o[\"advanced\"] = advanced\n return o\n}\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface
MediaStreamTrackState {\n companion object\n}\n\npublic inline val MediaStreamTrackState.Companion.LIVE: MediaStreamTrackState get() = \"live\".asDynamic().unsafeCast<MediaStreamTrackState>()\n\npublic inline val MediaStreamTrackState.Companion.ENDED: MediaStreamTrackState get() = \"ended\".asDynamic().unsafeCast<MediaStreamTrackState>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface VideoFacingModeEnum {\n companion object\n}\n\npublic inline val VideoFacingModeEnum.Companion.USER: VideoFacingModeEnum get() = \"user\".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\npublic inline val VideoFacingModeEnum.Companion.ENVIRONMENT: VideoFacingModeEnum get() = \"environment\".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\npublic inline val VideoFacingModeEnum.Companion.LEFT: VideoFacingModeEnum get() = \"left\".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\npublic inline val
VideoFacingModeEnum.Companion.RIGHT: VideoFacingModeEnum get() = \"right\".asDynamic().unsafeCast<VideoFacingModeEnum>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface VideoResizeModeEnum {\n companion object\n}\n\npublic inline val VideoResizeModeEnum.Companion.NONE: VideoResizeModeEnum get() = \"none\".asDynamic().unsafeCast<VideoResizeModeEnum>()\n\npublic inline val VideoResizeModeEnum.Companion.CROP_AND_SCALE: VideoResizeModeEnum get() = \"crop-and-scale\".asDynamic().unsafeCast<VideoResizeModeEnum>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface MediaDeviceKind {\n companion object\n}\n\npublic inline val MediaDeviceKind.Companion.AUDIOINPUT: MediaDeviceKind get() = \"audioinput\".asDynamic().unsafeCast<MediaDeviceKind>()\n\npublic inline val MediaDeviceKind.Companion.AUDIOOUTPUT:
MediaDeviceKind get() = \"audiooutput\".asDynamic().unsafeCast<MediaDeviceKind>()\n\npublic inline val MediaDeviceKind.Companion.VIDEOINPUT: MediaDeviceKind get() = \"videoinput\".asDynamic().unsafeCast<MediaDeviceKind>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.mediasource\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\n/**\n * Exposes the JavaScript [MediaSource](https://developer.mozilla.org/en/docs/Web/API/MediaSource) to Kotlin\n */\npublic external open class MediaSource : EventTarget, MediaProvider {\n open val sourceBuffers: SourceBufferList\n open val activeSourceBuffers: SourceBufferList\n open val readyState: ReadyState\n var duration: Double\n var onsourceopen: ((Event) -> dynamic)?\n var onsourceended: ((Event) -> dynamic)?\n var onsourceclose: ((Event) -> dynamic)?\n fun addSourceBuffer(type: String): SourceBuffer\n fun removeSourceBuffer(sourceBuffer: SourceBuffer)\n fun endOfStream(error: EndOfStreamError = definedExternally)\n fun setLiveSeekableRange(start: Double, end: Double)\n fun clearLiveSeekableRange()\n\n companion object {\n fun isTypeSupported(type: String): Boolean\n }\n}\n\n/**\n * Exposes the JavaScript

[SourceBuffer](https://developer.mozilla.org/en/docs/Web/API/SourceBuffer) to Kotlin\n */\npublic external abstract class SourceBuffer : EventTarget {\n   open var mode: AppendMode\n   open val updating: Boolean\n   open val buffered: TimeRanges\n   open var timestampOffset: Double\n   open val audioTracks: AudioTrackList\n   open val videoTracks: VideoTrackList\n   open val textTracks: TextTrackList\n   open var appendWindowStart: Double\n   open var appendWindowEnd: Double\n   open var onupdatestart: ((Event) -> dynamic)?\n   open var onupdate: ((Event) -> dynamic)?\n   open var onupdateend: ((Event) -> dynamic)?\n   open var onerror: ((Event) -> dynamic)?\n   open var onabort: ((Event) -> dynamic)?\n   fun appendBuffer(data: dynamic)\n   fun abort()\n   fun remove(start: Double, end: Double)\n}\n\n/**\n * Exposes the JavaScript [SourceBufferList](https://developer.mozilla.org/en/docs/Web/API/SourceBufferList) to Kotlin\n */\npublic external abstract class SourceBufferList : EventTarget {\n   open val length: Int\n   open var onaddsourcebuffer: ((Event) -> dynamic)?\n   open var onremovesourcebuffer: ((Event) -> dynamic)?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SourceBufferList.get(index: Int): SourceBuffer? = asDynamic()[index]\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ReadyState {\n   companion object\n}\n\npublic inline val ReadyState.Companion.CLOSED: ReadyState get() = \"closed\".asDynamic().unsafeCast<ReadyState>()\n\npublic inline val ReadyState.Companion.OPEN: ReadyState get() = \"open\".asDynamic().unsafeCast<ReadyState>()\n\npublic inline val ReadyState.Companion.ENDED: ReadyState get() = \"ended\".asDynamic().unsafeCast<ReadyState>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface EndOfStreamError {\n   companion object\n}\n\npublic inline val EndOfStreamError.Companion.NETWORK: EndOfStreamError get() = \"network\".asDynamic().unsafeCast<EndOfStreamError>()\n\npublic inline val EndOfStreamError.Companion.DECODE: EndOfStreamError get() = \"decode\".asDynamic().unsafeCast<EndOfStreamError>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface AppendMode {\n   companion object\n}\n\npublic inline val AppendMode.Companion.SEGMENTS: AppendMode get() = \"segments\".asDynamic().unsafeCast<AppendMode>()\n\npublic inline val AppendMode.Companion.SEQUENCE: AppendMode get() = \"sequence\".asDynamic().unsafeCast<AppendMode>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.pointerevents\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\n\npublic external interface PointerEventInit : MouseEventInit {\n   var pointerId: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var width: Double? /* = 1.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var height: Double? /* = 1.0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var pressure: Float? /* = 0f */\n   get() = definedExternally\n   set(value) = definedExternally\n   var tangentialPressure: Float? /* = 0f */\n   get() = definedExternally\n   set(value) = definedExternally\n   var tiltX: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var tiltY: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var twist: Int? /* = 0 */\n   get() = definedExternally\n   set(value) = definedExternally\n   var pointerType: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var isPrimary: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic

inline fun PointerEventInit(pointerId: Int? = 0, width: Double? = 1.0, height: Double? = 1.0, pressure: Float? = 0f, tangentialPressure: Float? = 0f, tiltX: Int? = 0, tiltY: Int? = 0, twist: Int? = 0, pointerType: String? = \"\", isPrimary: Boolean? = false, screenX: Int? = 0, screenY: Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0, buttons: Short? = 0, relatedTarget: EventTarget? = null, region: String? = null, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean?
= false, cancelable: Boolean? = false, composed: Boolean? = false): PointerEventInit {\n   val o = js(\"({})\")\n o[\"pointerId\"] = pointerId\n   o[\"width\"] = width\n   o[\"height\"] = height\n   o[\"pressure\"] = pressure\n o[\"tangentialPressure\"] = tangentialPressure\n   o[\"tiltX\"] = tiltX\n   o[\"tiltY\"] = tiltY\n   o[\"twist\"] = twist\n o[\"pointerType\"] = pointerType\n   o[\"isPrimary\"] = isPrimary\n   o[\"screenX\"] = screenX\n   o[\"screenY\"] = screenY\n   o[\"clientX\"] = clientX\n   o[\"clientY\"] = clientY\n   o[\"button\"] = button\n   o[\"buttons\"] = buttons\n   o[\"relatedTarget\"] = relatedTarget\n   o[\"region\"] = region\n   o[\"ctrlKey\"] = ctrlKey\n o[\"shiftKey\"] = shiftKey\n   o[\"altKey\"] = altKey\n   o[\"metaKey\"] = metaKey\n   o[\"modifierAltGraph\"] = modifierAltGraph\n   o[\"modifierCapsLock\"] = modifierCapsLock\n   o[\"modifierFn\"] = modifierFn\n o[\"modifierFnLock\"] = modifierFnLock\n   o[\"modifierHyper\"]
= modifierHyper\n   o[\"modifierNumLock\"] = modifierNumLock\n   o[\"modifierScrollLock\"] = modifierScrollLock\n   o[\"modifierSuper\"] = modifierSuper\n   o[\"modifierSymbol\"] = modifierSymbol\n o[\"modifierSymbolLock\"] = modifierSymbolLock\n   o[\"view\"] = view\n   o[\"detail\"] = detail\n o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/**\n * Exposes the JavaScript [PointerEvent](https://developer.mozilla.org/en/docs/Web/API/PointerEvent) to Kotlin\n */\npublic external open class PointerEvent(type: String, eventInitDict: PointerEventInit = definedExternally) : MouseEvent {\n   open val pointerId: Int\n   open val width: Double\n   open val height: Double\n   open val pressure: Float\n   open val tangentialPressure: Float\n   open val tiltX: Int\n   open val tiltY: Int\n   open val twist: Int\n   open val pointerType: String\n   open val isPrimary: Boolean\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.dom.svg\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.css.*\n\n/**\n * Exposes the JavaScript [SVGElement](https://developer.mozilla.org/en/docs/Web/API/SVGElement) to Kotlin\n */\npublic external abstract class SVGElement : Element, ElementCSSInlineStyle, GlobalEventHandlers, SVGElementInstance {\n open val dataset: DOMStringMap\n   open val ownerSVGElement: SVGSVGElement?\n   open val viewportElement: SVGElement?\n   open var tabIndex: Int\n   fun focus()\n   fun blur()\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external interface SVGBoundingBoxOptions {\n   var fill: Boolean? /* = true */\n   get() = definedExternally\n   set(value) =

definedExternally\n   var stroke: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var markers: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var clipped: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun SVGBoundingBoxOptions(fill: Boolean? = true, stroke: Boolean? = false, markers: Boolean? = false, clipped: Boolean? = false): SVGBoundingBoxOptions {\n   val o = js(\"({})\")\n   o[\"fill\"] = fill\n   o[\"stroke\"] = stroke\n   o[\"markers\"] = markers\n   o[\"clipped\"] = clipped\n   return o\n}\n\n/**\n * Exposes the JavaScript [SVGGraphicsElement](https://developer.mozilla.org/en/docs/Web/API/SVGGraphicsElement) to Kotlin\n */\npublic external abstract class SVGGraphicsElement : SVGElement, SVGTests {\n   open val transform: SVGAnimatedTransformList\n   fun getBBox(options: SVGBoundingBoxOptions = definedExternally): DOMRect\n   fun getCTM(): DOMMatrix?\n   fun getScreenCTM(): DOMMatrix?\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGGeometryElement](https://developer.mozilla.org/en/docs/Web/API/SVGGeometryElement) to Kotlin\n */\npublic external abstract class SVGGeometryElement : SVGGraphicsElement {\n   open val pathLength: SVGAnimatedNumber\n   fun isPointInFill(point: DOMPoint): Boolean\n   fun isPointInStroke(point: DOMPoint): Boolean\n   fun getTotalLength(): Float\n   fun getPointAtLength(distance: Float): DOMPoint\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGNumber](https://developer.mozilla.org/en/docs/Web/API/SVGNumber) to Kotlin\n */\npublic external abstract class SVGNumber {\n   open var value: Float\n}\n\n/**\n * Exposes the JavaScript [SVGLength](https://developer.mozilla.org/en/docs/Web/API/SVGLength) to Kotlin\n */\npublic external abstract class SVGLength {\n   open val unitType: Short\n   open var value: Float\n   open var valueInSpecifiedUnits: Float\n   open var valueAsString: String\n   fun newValueSpecifiedUnits(unitType: Short, valueInSpecifiedUnits: Float)\n   fun convertToSpecifiedUnits(unitType: Short)\n\n   companion object {\n   val SVG_LENGTHTYPE_UNKNOWN: Short\n   val SVG_LENGTHTYPE_NUMBER: Short\n   val SVG_LENGTHTYPE_PERCENTAGE: Short\n   val SVG_LENGTHTYPE_EMS: Short\n   val SVG_LENGTHTYPE_EXS: Short\n   val SVG_LENGTHTYPE_PX: Short\n   val SVG_LENGTHTYPE_CM: Short\n   val SVG_LENGTHTYPE_MM: Short\n   val SVG_LENGTHTYPE_IN: Short\n   val SVG_LENGTHTYPE_PT: Short\n   val SVG_LENGTHTYPE_PC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGAngle](https://developer.mozilla.org/en/docs/Web/API/SVGAngle) to Kotlin\n */\npublic external abstract

class SVGAngle {\n   open val unitType: Short\n   open var value: Float\n   open var valueInSpecifiedUnits: Float\n   open var valueAsString: String\n   fun newValueSpecifiedUnits(unitType: Short, valueInSpecifiedUnits: Float)\n   fun convertToSpecifiedUnits(unitType: Short)\n\n   companion object {\n   val SVG_ANGLETYPE_UNKNOWN: Short\n   val SVG_ANGLETYPE_UNSPECIFIED: Short\n   val SVG_ANGLETYPE_DEG: Short\n   val SVG_ANGLETYPE_RAD: Short\n   val SVG_ANGLETYPE_GRAD: Short\n   }\n}\n\npublic external abstract class SVGNameList {\n   open val length: Int\n   open val numberOfItems: Int\n   fun clear()\n
    fun initialize(newItem: dynamic): dynamic\n   fun insertItemBefore(newItem: dynamic, index: Int): dynamic\n   fun replaceItem(newItem: dynamic, index: Int): dynamic\n   fun removeItem(index: Int): dynamic\n   fun appendItem(newItem: dynamic): dynamic\n   fun getItem(index: Int): dynamic\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGNameList.get(index: Int): dynamic = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGNameList.set(index: Int, newItem: dynamic) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript [SVGNumberList](https://developer.mozilla.org/en/docs/Web/API/SVGNumberList) to Kotlin\n */\npublic external abstract class SVGNumberList {\n   open val length: Int\n   open val numberOfItems: Int\n   fun clear()\n   fun initialize(newItem: SVGNumber): SVGNumber\n   fun insertItemBefore(newItem:
 SVGNumber, index: Int): SVGNumber\n   fun replaceItem(newItem: SVGNumber, index: Int): SVGNumber\n   fun removeItem(index: Int): SVGNumber\n   fun appendItem(newItem: SVGNumber): SVGNumber\n   fun getItem(index: Int): SVGNumber\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGNumberList.get(index: Int): SVGNumber? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGNumberList.set(index: Int, newItem: SVGNumber) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript [SVGLengthList](https://developer.mozilla.org/en/docs/Web/API/SVGLengthList) to Kotlin\n */\npublic external abstract class SVGLengthList {\n   open val length: Int\n   open val numberOfItems: Int\n   fun clear()\n   fun initialize(newItem: SVGLength): SVGLength\n   fun insertItemBefore(newItem: SVGLength, index: Int): SVGLength\n
    fun replaceItem(newItem: SVGLength, index: Int): SVGLength\n   fun removeItem(index: Int): SVGLength\n   fun appendItem(newItem: SVGLength): SVGLength\n   fun getItem(index: Int): SVGLength\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGLengthList.get(index: Int): SVGLength? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGLengthList.set(index: Int, newItem: SVGLength) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript [SVGAnimatedBoolean](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedBoolean) to Kotlin\n */\npublic external abstract class SVGAnimatedBoolean {\n   open var baseVal: Boolean\n   open val animVal: Boolean\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedEnumeration](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedEnumeration) to Kotlin\n */\npublic external abstract
 class SVGAnimatedEnumeration {\n   open var baseVal: Short\n   open val animVal: Short\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedInteger](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedInteger) to Kotlin\n */\npublic external abstract class SVGAnimatedInteger {\n   open var baseVal: Int\n   open val animVal: Int\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedNumber](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedNumber) to Kotlin\n */\npublic external abstract class SVGAnimatedNumber {\n   open var baseVal: Float\n   open val animVal: Float\n}\n\n/**\n * Exposes the JavaScript

[SVGAnimatedLength](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedLength) to Kotlin\n */\npublic external abstract class SVGAnimatedLength {\n   open val baseVal: SVGLength\n   open val animVal: SVGLength\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedAngle](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedAngle) to Kotlin\n */\npublic external abstract class SVGAnimatedAngle {\n   open val baseVal: SVGAngle\n   open val animVal: SVGAngle\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedString](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedString) to Kotlin\n */\npublic external abstract class SVGAnimatedString {\n   open var baseVal: String\n   open val animVal: String\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedRect](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedRect) to Kotlin\n */\npublic external abstract class SVGAnimatedRect {\n   open val baseVal: DOMRect\n   open val animVal: DOMRectReadOnly\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedNumberList](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedNumberList) to Kotlin\n */\npublic external abstract class SVGAnimatedNumberList {\n   open val baseVal: SVGNumberList\n   open val animVal: SVGNumberList\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedLengthList](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedLengthList) to Kotlin\n */\npublic external abstract class SVGAnimatedLengthList {\n   open val baseVal: SVGLengthList\n   open val animVal: SVGLengthList\n}\n\n/**\n * Exposes the JavaScript [SVGStringList](https://developer.mozilla.org/en/docs/Web/API/SVGStringList) to Kotlin\n */\npublic external abstract class SVGStringList {\n   open val length: Int\n   open val numberOfItems: Int\n   fun clear()\n   fun initialize(newItem: String): String\n   fun insertItemBefore(newItem: String, index: Int): String\n   fun replaceItem(newItem: String, index: Int): String\n   fun removeItem(index: Int): String\n   fun appendItem(newItem: String): String\n   fun getItem(index: Int): String\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGStringList.get(index: Int): String? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGStringList.set(index: Int, newItem: String) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript [SVGUnitTypes](https://developer.mozilla.org/en/docs/Web/API/SVGUnitTypes) to Kotlin\n */\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface SVGUnitTypes {\n   companion object {\n   val SVG_UNIT_TYPE_UNKNOWN: Short\n   val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n   val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGTests](https://developer.mozilla.org/en/docs/Web/API/SVGTests) to Kotlin\n */\npublic external interface SVGTests {\n   val requiredExtensions: SVGStringList\n   val systemLanguage: SVGStringList\n}\n\npublic external interface SVGFitToViewBox {\n   val viewBox: SVGAnimatedRect\n   val preserveAspectRatio: SVGAnimatedPreserveAspectRatio\n}\n\n/**\n * Exposes the JavaScript [SVGZoomAndPan](https://developer.mozilla.org/en/docs/Web/API/SVGZoomAndPan) to Kotlin\n */\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface SVGZoomAndPan {\n   var zoomAndPan: Short\n\n   companion object {\n   val SVG_ZOOMANDPAN_UNKNOWN: Short\n   val SVG_ZOOMANDPAN_DISABLE: Short\n   val SVG_ZOOMANDPAN_MAGNIFY: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGURIReference](https://developer.mozilla.org/en/docs/Web/API/SVGURIReference) to Kotlin\n */\npublic external interface SVGURIReference {\n   val href: SVGAnimatedString\n}\n\n/**\n * Exposes the JavaScript [SVGSVGElement](https://developer.mozilla.org/en/docs/Web/API/SVGSVGElement) to Kotlin\n */\npublic external abstract class SVGSVGElement : SVGGraphicsElement, SVGFitToViewBox, SVGZoomAndPan, WindowEventHandlers {\n   open val x: SVGAnimatedLength\n   open val y: SVGAnimatedLength\n   open val width: SVGAnimatedLength\n   open val height: SVGAnimatedLength\n   open var currentScale: Float\n   open val currentTranslate: DOMPointReadOnly\n   fun getIntersectionList(rect: DOMRectReadOnly, referenceElement: SVGElement?): NodeList\n   fun getEnclosureList(rect: DOMRectReadOnly, referenceElement: SVGElement?): NodeList\n   fun checkIntersection(element: SVGElement, rect: DOMRectReadOnly): Boolean\n   fun checkEnclosure(element: SVGElement, rect: DOMRectReadOnly): Boolean\n   fun deselectAll()\n   fun createSVGNumber(): SVGNumber\n   fun createSVGLength(): SVGLength\n   fun createSVGAngle(): SVGAngle\n   fun createSVGPoint(): DOMPoint\n   fun createSVGMatrix(): DOMMatrix\n   fun createSVGRect(): DOMRect\n   fun createSVGTransform(): SVGTransform\n   fun createSVGTransformFromMatrix(matrix: DOMMatrixReadOnly): SVGTransform\n   fun getElementById(elementId: String): Element\n   fun suspendRedraw(maxWaitMilliseconds: Int): Int\n   fun unsuspendRedraw(suspendHandleID: Int)\n   fun unsuspendRedrawAll()\n   fun forceRedraw()\n\n   companion object {\n   val SVG_ZOOMANDPAN_UNKNOWN: Short\n   val SVG_ZOOMANDPAN_DISABLE: Short\n   val SVG_ZOOMANDPAN_MAGNIFY: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGGElement](https://developer.mozilla.org/en/docs/Web/API/SVGGElement) to Kotlin\n */\npublic external abstract class SVGGElement : SVGGraphicsElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external abstract class SVGUnknownElement : SVGGraphicsElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGDefsElement](https://developer.mozilla.org/en/docs/Web/API/SVGDefsElement) to Kotlin\n */\npublic external abstract class SVGDefsElement : SVGGraphicsElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGDescElement](https://developer.mozilla.org/en/docs/Web/API/SVGDescElement) to Kotlin\n */\npublic external abstract class SVGDescElement : SVGElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGMetadataElement](https://developer.mozilla.org/en/docs/Web/API/SVGMetadataElement) to Kotlin\n */\npublic external abstract class SVGMetadataElement : SVGElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGTitleElement](https://developer.mozilla.org/en/docs/Web/API/SVGTitleElement) to Kotlin\n */\npublic external abstract class SVGTitleElement : SVGElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGSymbolElement](https://developer.mozilla.org/en/docs/Web/API/SVGSymbolElement) to Kotlin\n */\npublic external abstract class SVGSymbolElement : SVGGraphicsElement, SVGFitToViewBox {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGUseElement](https://developer.mozilla.org/en/docs/Web/API/SVGUseElement) to Kotlin\n */\npublic external abstract class SVGUseElement : SVGGraphicsElement, SVGURIReference {\n open val x: SVGAnimatedLength\n open val y: SVGAnimatedLength\n open val width: SVGAnimatedLength\n open val height: SVGAnimatedLength\n open val instanceRoot: SVGElement?\n open val animatedInstanceRoot: SVGElement?\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external open class SVGUseElementShadowRoot : ShadowRoot {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external interface SVGElementInstance {\n val correspondingElement: SVGElement?\n get() = definedExternally\n val correspondingUseElement: SVGUseElement?\n get() = definedExternally\n}\n\npublic external open class ShadowAnimation(source: dynamic, newTarget: dynamic) {\n open val sourceAnimation: dynamic\n}\n\n/**\n * Exposes the JavaScript [SVGSwitchElement](https://developer.mozilla.org/en/docs/Web/API/SVGSwitchElement) to Kotlin\n */\npublic external abstract class SVGSwitchElement : SVGGraphicsElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external interface GetSVGDocument {\n fun getSVGDocument(): Document\n}\n\n/**\n * Exposes the JavaScript [SVGStyleElement](https://developer.mozilla.org/en/docs/Web/API/SVGStyleElement) to Kotlin\n */\npublic external abstract class SVGStyleElement : SVGElement, LinkStyle {\n open var type: String\n open var media: String\n open var title: String\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val

DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGTransform](https://developer.mozilla.org/en/docs/Web/API/SVGTransform) to Kotlin\n */\npublic external abstract class SVGTransform {\n   open val type: Short\n   open val matrix: DOMMatrix\n   open val angle: Float\n   fun setMatrix(matrix: DOMMatrixReadOnly)\n   fun setTranslate(tx: Float, ty: Float)\n   fun setScale(sx: Float, sy: Float)\n   fun setRotate(angle: Float, cx: Float, cy: Float)\n   fun setSkewX(angle: Float)\n   fun setSkewY(angle: Float)\n\n   companion object {\n   val SVG_TRANSFORM_UNKNOWN: Short\n   val SVG_TRANSFORM_MATRIX: Short\n   val SVG_TRANSFORM_TRANSLATE: Short\n   val SVG_TRANSFORM_SCALE: Short\n   val SVG_TRANSFORM_ROTATE: Short\n   val SVG_TRANSFORM_SKEWX: Short\n   val SVG_TRANSFORM_SKEWY: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGTransformList](https://developer.mozilla.org/en/docs/Web/API/SVGTransformList) to Kotlin\n */\npublic external abstract class SVGTransformList {\n   open val length: Int\n   open val numberOfItems: Int\n   fun clear()\n   fun initialize(newItem: SVGTransform): SVGTransform\n   fun insertItemBefore(newItem: SVGTransform, index: Int): SVGTransform\n   fun replaceItem(newItem: SVGTransform, index: Int): SVGTransform\n   fun removeItem(index: Int): SVGTransform\n   fun appendItem(newItem: SVGTransform): SVGTransform\n   fun createSVGTransformFromMatrix(matrix: DOMMatrixReadOnly): SVGTransform\n   fun consolidate(): SVGTransform?\n   fun getItem(index: Int): SVGTransform\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGTransformList.get(index: Int): SVGTransform? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGTransformList.set(index: Int, newItem: SVGTransform) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript [SVGAnimatedTransformList](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedTransformList) to Kotlin\n */\npublic external abstract class SVGAnimatedTransformList {\n   open val baseVal: SVGTransformList\n   open val animVal: SVGTransformList\n}\n\n/**\n * Exposes the JavaScript [SVGPreserveAspectRatio](https://developer.mozilla.org/en/docs/Web/API/SVGPreserveAspectRatio) to Kotlin\n */\npublic external abstract class SVGPreserveAspectRatio {\n   open var align: Short\n   open var meetOrSlice: Short\n\n   companion object {\n   val SVG_PRESERVEASPECTRATIO_UNKNOWN: Short\n   val SVG_PRESERVEASPECTRATIO_NONE: Short\n   val SVG_PRESERVEASPECTRATIO_XMINYMIN: Short\n   val SVG_PRESERVEASPECTRATIO_XMIDYMIN: Short\n   val SVG_PRESERVEASPECTRATIO_XMAXYMIN: Short\n   val SVG_PRESERVEASPECTRATIO_XMINYMID: Short\n   val SVG_PRESERVEASPECTRATIO_XMIDYMID: Short\n   val SVG_PRESERVEASPECTRATIO_XMAXYMID: Short\n   val SVG_PRESERVEASPECTRATIO_XMINYMAX: Short\n   val SVG_PRESERVEASPECTRATIO_XMIDYMAX: Short\n   val SVG_PRESERVEASPECTRATIO_XMAXYMAX: Short\n   val SVG_MEETORSLICE_UNKNOWN: Short\n   val SVG_MEETORSLICE_MEET: Short\n   val SVG_MEETORSLICE_SLICE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedPreserveAspectRatio](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedPreserveAspectRatio) to Kotlin\n */\npublic external abstract class SVGAnimatedPreserveAspectRatio {\n   open val baseVal: SVGPreserveAspectRatio\n   open val animVal: SVGPreserveAspectRatio\n}\n\n/**\n * Exposes the JavaScript [SVGPathElement](https://developer.mozilla.org/en/docs/Web/API/SVGPathElement) to Kotlin\n */\npublic external abstract class SVGPathElement : SVGGeometryElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGRectElement](https://developer.mozilla.org/en/docs/Web/API/SVGRectElement) to Kotlin\n */\npublic external abstract class SVGRectElement : SVGGeometryElement {\n   open val x: SVGAnimatedLength\n   open val y: SVGAnimatedLength\n   open val width: SVGAnimatedLength\n   open val height: SVGAnimatedLength\n   open val rx: SVGAnimatedLength\n   open val ry: SVGAnimatedLength\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGCircleElement](https://developer.mozilla.org/en/docs/Web/API/SVGCircleElement) to Kotlin\n */\npublic external abstract class SVGCircleElement : SVGGeometryElement {\n   open val cx: SVGAnimatedLength\n   open val cy: SVGAnimatedLength\n   open val r: SVGAnimatedLength\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGEllipseElement](https://developer.mozilla.org/en/docs/Web/API/SVGEllipseElement) to Kotlin\n */\npublic external abstract class SVGEllipseElement : SVGGeometryElement {\n   open val cx: SVGAnimatedLength\n   open val cy: SVGAnimatedLength\n   open val rx: SVGAnimatedLength\n   open val ry: SVGAnimatedLength\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGLineElement](https://developer.mozilla.org/en/docs/Web/API/SVGLineElement) to Kotlin\n */\npublic external abstract class SVGLineElement : SVGGeometryElement {\n open val x1: SVGAnimatedLength\n open val y1: SVGAnimatedLength\n open val x2: SVGAnimatedLength\n open val y2: SVGAnimatedLength\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGMeshElement](https://developer.mozilla.org/en/docs/Web/API/SVGMeshElement) to Kotlin\n */\npublic external abstract class SVGMeshElement : SVGGeometryElement, SVGURIReference {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGAnimatedPoints](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedPoints) to Kotlin\n */\npublic external interface SVGAnimatedPoints {\n val points: SVGPointList\n val animatedPoints: SVGPointList\n}\n\npublic external abstract class SVGPointList {\n open val length: Int\n open val numberOfItems: Int\n fun clear()\n fun initialize(newItem: DOMPoint): DOMPoint\n fun insertItemBefore(newItem: DOMPoint, index: Int): DOMPoint\n fun replaceItem(newItem: DOMPoint, index: Int): DOMPoint\n fun removeItem(index: Int): DOMPoint\n fun appendItem(newItem: DOMPoint): DOMPoint\n fun getItem(index: Int): DOMPoint\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGPointList.get(index: Int): DOMPoint? = asDynamic()[index]\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun SVGPointList.set(index: Int, newItem: DOMPoint) { asDynamic()[index] = newItem }\n\n/**\n * Exposes the JavaScript [SVGPolylineElement](https://developer.mozilla.org/en/docs/Web/API/SVGPolylineElement) to Kotlin\n */\npublic external abstract class SVGPolylineElement : SVGGeometryElement, SVGAnimatedPoints {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGPolygonElement](https://developer.mozilla.org/en/docs/Web/API/SVGPolygonElement) to Kotlin\n */\npublic external abstract class SVGPolygonElement : SVGGeometryElement, SVGAnimatedPoints {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGTextContentElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextContentElement) to Kotlin\n */\npublic external abstract class SVGTextContentElement : SVGGraphicsElement {\n open val textLength: SVGAnimatedLength\n open val lengthAdjust: SVGAnimatedEnumeration\n fun getNumberOfChars(): Int\n fun getComputedTextLength(): Float\n fun getSubStringLength(charnum: Int, nchars: Int): Float\n fun getStartPositionOfChar(charnum: Int): DOMPoint\n fun getEndPositionOfChar(charnum: Int): DOMPoint\n fun getExtentOfChar(charnum: Int): DOMRect\n fun getRotationOfChar(charnum: Int): Float\n fun getCharNumAtPosition(point: DOMPoint): Int\n fun selectSubString(charnum: Int, nchars: Int)\n\n companion object {\n val LENGTHADJUST_UNKNOWN: Short\n val LENGTHADJUST_SPACING: Short\n val LENGTHADJUST_SPACINGANDGLYPHS: Short\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGTextPositioningElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextPositioningElement) to Kotlin\n */\npublic external abstract class SVGTextPositioningElement : SVGTextContentElement {\n open val x: SVGAnimatedLengthList\n open val y: SVGAnimatedLengthList\n open val dx: SVGAnimatedLengthList\n open val dy: SVGAnimatedLengthList\n open val rotate: SVGAnimatedNumberList\n\n companion object {\n val LENGTHADJUST_UNKNOWN: Short\n val LENGTHADJUST_SPACING: Short\n val LENGTHADJUST_SPACINGANDGLYPHS: Short\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val

DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGTextElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextElement) to Kotlin\n */\npublic external abstract class SVGTextElement : SVGTextPositioningElement {\n companion object {\n val LENGTHADJUST_UNKNOWN: Short\n val LENGTHADJUST_SPACING: Short\n val LENGTHADJUST_SPACINGANDGLYPHS: Short\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGTSpanElement](https://developer.mozilla.org/en/docs/Web/API/SVGTSpanElement) to Kotlin\n */\npublic external abstract class SVGTSpanElement : SVGTextPositioningElement {\n companion object {\n val LENGTHADJUST_UNKNOWN: Short\n val LENGTHADJUST_SPACING: Short\n val LENGTHADJUST_SPACINGANDGLYPHS: Short\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGTextPathElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextPathElement) to Kotlin\n */\npublic external abstract class SVGTextPathElement : SVGTextContentElement, SVGURIReference {\n open val startOffset: SVGAnimatedLength\n open val method: SVGAnimatedEnumeration\n open val spacing: SVGAnimatedEnumeration\n\n companion object {\n val TEXTPATH_METHODTYPE_UNKNOWN: Short\n val TEXTPATH_METHODTYPE_ALIGN: Short\n val TEXTPATH_METHODTYPE_STRETCH: Short\n val TEXTPATH_SPACINGTYPE_UNKNOWN: Short\n val TEXTPATH_SPACINGTYPE_AUTO: Short\n val TEXTPATH_SPACINGTYPE_EXACT: Short\n val LENGTHADJUST_UNKNOWN: Short\n val LENGTHADJUST_SPACING: Short\n val LENGTHADJUST_SPACINGANDGLYPHS: Short\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n

val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGImageElement](https://developer.mozilla.org/en/docs/Web/API/SVGImageElement) to Kotlin\n */\npublic external abstract class SVGImageElement : SVGGraphicsElement, SVGURIReference, HTMLOrSVGImageElement {\n   open val x: SVGAnimatedLength\n   open val y: SVGAnimatedLength\n   open val width: SVGAnimatedLength\n   open val height: SVGAnimatedLength\n   open val preserveAspectRatio: SVGAnimatedPreserveAspectRatio\n   open var crossOrigin: String?\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGForeignObjectElement](https://developer.mozilla.org/en/docs/Web/API/SVGForeignObjectElement) to Kotlin\n */\npublic external abstract class SVGForeignObjectElement : SVGGraphicsElement {\n   open val x: SVGAnimatedLength\n   open val y: SVGAnimatedLength\n   open val width: SVGAnimatedLength\n   open val height: SVGAnimatedLength\n\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\npublic external abstract class SVGMarkerElement : SVGElement, SVGFitToViewBox {\n   open val refX: SVGAnimatedLength\n   open val refY: SVGAnimatedLength\n   open val markerUnits: SVGAnimatedEnumeration\n   open val markerWidth: SVGAnimatedLength\n   open val markerHeight: SVGAnimatedLength\n   open val orientType: SVGAnimatedEnumeration\n   open val orientAngle: SVGAnimatedAngle\n   open var orient: String\n   fun setOrientToAuto()\n   fun setOrientToAngle(angle: SVGAngle)\n\n   companion object {\n   val SVG_MARKERUNITS_UNKNOWN: Short\n   val SVG_MARKERUNITS_USERSPACEONUSE: Short\n   val SVG_MARKERUNITS_STROKEWIDTH: Short\n   val SVG_MARKER_ORIENT_UNKNOWN: Short\n   val SVG_MARKER_ORIENT_AUTO: Short\n   val SVG_MARKER_ORIENT_ANGLE: Short\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val DOCUMENT_NODE: Short\n   val DOCUMENT_TYPE_NODE: Short\n   val DOCUMENT_FRAGMENT_NODE: Short\n   val NOTATION_NODE: Short\n   val DOCUMENT_POSITION_DISCONNECTED: Short\n   val DOCUMENT_POSITION_PRECEDING: Short\n   val DOCUMENT_POSITION_FOLLOWING: Short\n   val DOCUMENT_POSITION_CONTAINS: Short\n   val DOCUMENT_POSITION_CONTAINED_BY: Short\n   val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [SVGSolidcolorElement](https://developer.mozilla.org/en/docs/Web/API/SVGSolidcolorElement) to Kotlin\n */\npublic external abstract class SVGSolidcolorElement : SVGElement {\n   companion object {\n   val ELEMENT_NODE: Short\n   val ATTRIBUTE_NODE: Short\n   val TEXT_NODE: Short\n   val CDATA_SECTION_NODE: Short\n   val ENTITY_REFERENCE_NODE: Short\n   val ENTITY_NODE: Short\n   val PROCESSING_INSTRUCTION_NODE: Short\n   val COMMENT_NODE: Short\n   val

DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGGradientElement](https://developer.mozilla.org/en/docs/Web/API/SVGGradientElement) to Kotlin\n */\npublic external abstract class SVGGradientElement : SVGElement, SVGURIReference, SVGUnitTypes {\n open val gradientUnits: SVGAnimatedEnumeration\n open val gradientTransform: SVGAnimatedTransformList\n open val spreadMethod: SVGAnimatedEnumeration\n\n companion object {\n val SVG_SPREADMETHOD_UNKNOWN: Short\n val SVG_SPREADMETHOD_PAD: Short\n val SVG_SPREADMETHOD_REFLECT: Short\n val SVG_SPREADMETHOD_REPEAT: Short\n val SVG_UNIT_TYPE_UNKNOWN: Short\n val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGLinearGradientElement](https://developer.mozilla.org/en/docs/Web/API/SVGLinearGradientElement) to Kotlin\n */\npublic external abstract class SVGLinearGradientElement : SVGGradientElement {\n open val x1: SVGAnimatedLength\n open val y1: SVGAnimatedLength\n open val x2: SVGAnimatedLength\n open val y2: SVGAnimatedLength\n\n companion object {\n val SVG_SPREADMETHOD_UNKNOWN: Short\n val SVG_SPREADMETHOD_PAD: Short\n val SVG_SPREADMETHOD_REFLECT: Short\n val SVG_SPREADMETHOD_REPEAT: Short\n val SVG_UNIT_TYPE_UNKNOWN: Short\n val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGRadialGradientElement](https://developer.mozilla.org/en/docs/Web/API/SVGRadialGradientElement) to Kotlin\n */\npublic external abstract class SVGRadialGradientElement : SVGGradientElement {\n open val cx: SVGAnimatedLength\n open val cy: SVGAnimatedLength\n open val r: SVGAnimatedLength\n open val fx: SVGAnimatedLength\n open val fy: SVGAnimatedLength\n open val fr: SVGAnimatedLength\n\n companion object {\n val SVG_SPREADMETHOD_UNKNOWN: Short\n val SVG_SPREADMETHOD_PAD: Short\n val SVG_SPREADMETHOD_REFLECT: Short\n val SVG_SPREADMETHOD_REPEAT: Short\n val SVG_UNIT_TYPE_UNKNOWN: Short\n val SVG_UNIT_TYPE_USERSPACEONUSE:

Short\n val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external abstract class SVGMeshGradientElement : SVGGradientElement {\n companion object {\n val SVG_SPREADMETHOD_UNKNOWN: Short\n val SVG_SPREADMETHOD_PAD: Short\n val SVG_SPREADMETHOD_REFLECT: Short\n val SVG_SPREADMETHOD_REPEAT: Short\n val SVG_UNIT_TYPE_UNKNOWN: Short\n val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external abstract class SVGMeshrowElement : SVGElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external abstract class SVGMeshpatchElement : SVGElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGStopElement](https://developer.mozilla.org/en/docs/Web/API/SVGStopElement) to Kotlin\n */\npublic external abstract class SVGStopElement : SVGElement {\n open val offset: SVGAnimatedNumber\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE:

Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGPatternElement](https://developer.mozilla.org/en/docs/Web/API/SVGPatternElement) to Kotlin\n */\npublic external abstract class SVGPatternElement : SVGElement, SVGFitToViewBox, SVGURIReference, SVGUnitTypes {\n open val patternUnits: SVGAnimatedEnumeration\n open val patternContentUnits: SVGAnimatedEnumeration\n open val patternTransform: SVGAnimatedTransformList\n open val x: SVGAnimatedLength\n open val y: SVGAnimatedLength\n open val width: SVGAnimatedLength\n open val height: SVGAnimatedLength\n\n companion object {\n val SVG_UNIT_TYPE_UNKNOWN: Short\n val SVG_UNIT_TYPE_USERSPACEONUSE: Short\n val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external abstract class SVGHatchElement : SVGElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\npublic external abstract class SVGHatchpathElement : SVGElement {\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGCursorElement](https://developer.mozilla.org/en/docs/Web/API/SVGCursorElement) to Kotlin\n */\npublic external abstract class SVGCursorElement : SVGElement, SVGURIReference {\n open val x: SVGAnimatedLength\n open val y: SVGAnimatedLength\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGScriptElement](https://developer.mozilla.org/en/docs/Web/API/SVGScriptElement) to Kotlin\n */\npublic external abstract class SVGScriptElement : SVGElement, SVGURIReference, HTMLOrSVGScriptElement {\n open var type: String\n open var crossOrigin: String?\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGAElement](https://developer.mozilla.org/en/docs/Web/API/SVGAElement) to Kotlin\n */\npublic external abstract class SVGAElement : SVGGraphicsElement, SVGURIReference {\n open val target: SVGAnimatedString\n open val download: SVGAnimatedString\n open val rel: SVGAnimatedString\n open val relList: SVGAnimatedString\n open val hreflang: SVGAnimatedString\n open val type: SVGAnimatedString\n\n companion object {\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}\n\n/**\n * Exposes the JavaScript [SVGViewElement](https://developer.mozilla.org/en/docs/Web/API/SVGViewElement) to Kotlin\n */\npublic external abstract class SVGViewElement : SVGElement, SVGFitToViewBox, SVGZoomAndPan {\n companion object {\n val SVG_ZOOMANDPAN_UNKNOWN: Short\n val SVG_ZOOMANDPAN_DISABLE: Short\n val SVG_ZOOMANDPAN_MAGNIFY: Short\n val ELEMENT_NODE: Short\n val ATTRIBUTE_NODE: Short\n val TEXT_NODE: Short\n val CDATA_SECTION_NODE: Short\n val ENTITY_REFERENCE_NODE: Short\n val ENTITY_NODE: Short\n val PROCESSING_INSTRUCTION_NODE: Short\n val COMMENT_NODE: Short\n val DOCUMENT_NODE: Short\n val DOCUMENT_TYPE_NODE: Short\n val DOCUMENT_FRAGMENT_NODE: Short\n val NOTATION_NODE: Short\n val DOCUMENT_POSITION_DISCONNECTED: Short\n val DOCUMENT_POSITION_PRECEDING: Short\n val DOCUMENT_POSITION_FOLLOWING: Short\n val DOCUMENT_POSITION_CONTAINS: Short\n val DOCUMENT_POSITION_CONTAINED_BY: Short\n val DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC: Short\n }\n}","/*\n * Copyright 2010-2021

JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.files\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\nimport org.w3c.xhr.*\n\n/**\n * Exposes the JavaScript [Blob](https://developer.mozilla.org/en/docs/Web/API/Blob) to Kotlin\n */\npublic external open class Blob(blobParts: Array<dynamic> = definedExternally, options: BlobPropertyBag = definedExternally) : MediaProvider, ImageBitmapSource {\n   open val size: Number\n   open val type: String\n

    open val isClosed: Boolean\n   fun slice(start: Int = definedExternally, end: Int = definedExternally, contentType: String = definedExternally): Blob\n   fun close()\n}\n\npublic external interface BlobPropertyBag {\n   var type: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun BlobPropertyBag(type: String? = \"\"): BlobPropertyBag {\n   val o = js(\"({})\")\n   o[\"type\"] = type\n   return o\n}\n\n/**\n * Exposes the JavaScript [File](https://developer.mozilla.org/en/docs/Web/API/File) to Kotlin\n */\npublic external open class File(fileBits: Array<dynamic>, fileName: String, options: FilePropertyBag = definedExternally) : Blob {\n   open val name: String\n   open val lastModified: Int\n}\n\npublic external interface FilePropertyBag : BlobPropertyBag {\n   var lastModified: Int?\n   get() = definedExternally\n

        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun FilePropertyBag(lastModified: Int? = undefined, type: String? = \"\"): FilePropertyBag {\n   val o = js(\"({})\")\n   o[\"lastModified\"] = lastModified\n   o[\"type\"] = type\n   return o\n}\n\n/**\n * Exposes the JavaScript [FileList](https://developer.mozilla.org/en/docs/Web/API/FileList) to Kotlin\n */\npublic external abstract class FileList : ItemArrayLike<File> {\n   override fun item(index: Int): File?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline operator fun FileList.get(index: Int): File? = asDynamic()[index]\n\n/**\n * Exposes the JavaScript [FileReader](https://developer.mozilla.org/en/docs/Web/API/FileReader) to Kotlin\n */\npublic external open class FileReader : EventTarget {\n   open val readyState: Short\n   open val result: dynamic\n   open val error: dynamic\n   var onloadstart: ((ProgressEvent) -> dynamic)?\n   var onprogress: ((ProgressEvent) -> dynamic)?\n   var onload: ((Event) -> dynamic)?\n   var onabort: ((Event) -> dynamic)?\n   var onerror: ((Event) -> dynamic)?\n   var onloadend: ((Event) -> dynamic)?\n   fun readAsArrayBuffer(blob: Blob)\n   fun readAsBinaryString(blob: Blob)\n   fun readAsText(blob: Blob, label: String = definedExternally)\n   fun readAsDataURL(blob: Blob)\n   fun abort()\n\n   companion object {\n   val EMPTY: Short\n   val LOADING: Short\n   val DONE: Short\n   }\n}\n\n/**\n * Exposes the JavaScript [FileReaderSync](https://developer.mozilla.org/en/docs/Web/API/FileReaderSync) to Kotlin\n */\npublic external open class FileReaderSync {\n   fun readAsArrayBuffer(blob: Blob): ArrayBuffer\n   fun readAsBinaryString(blob: Blob): String\n   fun readAsText(blob: Blob, label: String = definedExternally): String\n   fun readAsDataURL(blob: Blob): String\n}","/*\n * Copyright

2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.notifications\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.events.*\nimport org.w3c.workers.*\n\n/**\n * Exposes the JavaScript [Notification](https://developer.mozilla.org/en/docs/Web/API/Notification) to Kotlin\n */\npublic external open class Notification(title: String, options: NotificationOptions = definedExternally) : EventTarget {\n   var onclick: ((MouseEvent) -> dynamic)?\n   var onerror: ((Event) -> dynamic)?\n   open val title: String\n   open val dir: NotificationDirection\n   open val lang: String\n   open val body: String\n   open val tag: String\n   open val

image: String\n   open val icon: String\n   open val badge: String\n
 open val sound: String\n   open val vibrate: Array<out Int>\n   open val timestamp: Number\n   open val renotify: Boolean\n   open val silent: Boolean\n   open val noscreen: Boolean\n   open val requireInteraction: Boolean\n   open val sticky: Boolean\n   open val data: Any?\n   open val actions: Array<out NotificationAction>\n   fun close()\n\n   companion object {\n   val permission: NotificationPermission\n   val maxActions: Int\n   fun requestPermission(deprecatedCallback: (NotificationPermission) -> Unit = definedExternally): Promise<NotificationPermission>\n   }\n}\n\npublic external interface NotificationOptions {\n   var dir: NotificationDirection? /* = NotificationDirection.AUTO */\n   get() = definedExternally\n   set(value) = definedExternally\n   var lang: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var body: String? /* = \"\" */\n   get() = definedExternally\n   set(value)
 = definedExternally\n   var tag: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n   var image: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var icon: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var badge: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var sound: String?\n   get() = definedExternally\n   set(value) = definedExternally\n   var vibrate: dynamic\n   get() = definedExternally\n   set(value) = definedExternally\n   var timestamp: Number?\n   get() = definedExternally\n   set(value) = definedExternally\n   var renotify: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var silent: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var noscreen: Boolean? /* = false
 /\n   get() = definedExternally\n   set(value) = definedExternally\n   var requireInteraction: Boolean? / = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var sticky: Boolean? /* = false */\n   get() = definedExternally\n   set(value) = definedExternally\n   var data: Any? /* = null */\n   get() = definedExternally\n   set(value) = definedExternally\n   var actions: Array<NotificationAction>? /* = arrayOf() */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun NotificationOptions(dir: NotificationDirection? = NotificationDirection.AUTO, lang: String? = \"\", body: String? = \"\", tag: String? = \"\", image: String? = undefined, icon: String? = undefined, badge: String? = undefined, sound: String? = undefined, vibrate: dynamic = undefined, timestamp: Number? = undefined, renotify:
 Boolean? = false, silent: Boolean? = false, noscreen: Boolean? = false, requireInteraction: Boolean? = false, sticky: Boolean? = false, data: Any? = null, actions: Array<NotificationAction>? = arrayOf()): NotificationOptions {\n   val o = js(\"({})\")\n   o[\"dir\"] = dir\n   o[\"lang\"] = lang\n   o[\"body\"] = body\n   o[\"tag\"] = tag\n   o[\"image\"] = image\n   o[\"icon\"] = icon\n   o[\"badge\"] = badge\n   o[\"sound\"] = sound\n   o[\"vibrate\"] = vibrate\n   o[\"timestamp\"] = timestamp\n   o[\"renotify\"] = renotify\n   o[\"silent\"] = silent\n   o[\"noscreen\"] = noscreen\n   o[\"requireInteraction\"] = requireInteraction\n   o[\"sticky\"] = sticky\n   o[\"data\"] = data\n   o[\"actions\"] = actions\n   return o\n}\n\npublic external interface NotificationAction {\n   var action: String?\n   var title: String?\n   var icon: String?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
 \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun NotificationAction(action: String?, title: String?, icon: String? = undefined): NotificationAction {\n   val o = js(\"({})\")\n   o[\"action\"] = action\n   o[\"title\"] = title\n   o[\"icon\"] = icon\n   return o\n}\n\npublic external interface GetNotificationOptions {\n   var tag: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun GetNotificationOptions(tag: String? = \"\"): GetNotificationOptions {\n   val o = js(\"({})\")\n   o[\"tag\"] = tag\n   return o\n}\n\n/**\n * Exposes the JavaScript [NotificationEvent](https://developer.mozilla.org/en/docs/Web/API/NotificationEvent) to Kotlin\n */\npublic external open class NotificationEvent(type: String, eventInitDict: NotificationEventInit) : ExtendableEvent {\n   open val notification: Notification\n

open val action: String\n\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface NotificationEventInit : ExtendableEventInit {\n   var notification: Notification?\n   var action: String? /* = \"\" */\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun NotificationEventInit(notification: Notification?, action: String? = \"\", bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): NotificationEventInit {\n   val o = js(\"({})\")\n   o[\"notification\"] = notification\n   o[\"action\"] = action\n   o[\"bubbles\"] = bubbles\n   o[\"cancelable\"] = cancelable\n   o[\"composed\"] = composed\n   return o\n}\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface NotificationPermission {\n   companion object\n}\n\npublic inline val NotificationPermission.Companion.DEFAULT: NotificationPermission get() = \"default\".asDynamic().unsafeCast<NotificationPermission>()\n\npublic inline val NotificationPermission.Companion.DENIED: NotificationPermission get() = \"denied\".asDynamic().unsafeCast<NotificationPermission>()\n\npublic inline val NotificationPermission.Companion.GRANTED: NotificationPermission get() = \"granted\".asDynamic().unsafeCast<NotificationPermission>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface NotificationDirection {\n   companion object\n}\n\npublic inline val NotificationDirection.Companion.AUTO: NotificationDirection get() = \"auto\".asDynamic().unsafeCast<NotificationDirection>()\n\npublic inline val NotificationDirection.Companion.LTR: NotificationDirection get() = \"ltr\".asDynamic().unsafeCast<NotificationDirection>()\n\npublic inline val NotificationDirection.Companion.RTL: NotificationDirection get() = \"rtl\".asDynamic().unsafeCast<NotificationDirection>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.workers\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\nimport org.w3c.fetch.*\nimport org.w3c.notifications.*\n\n/**\n * Exposes the JavaScript [ServiceWorker](https://developer.mozilla.org/en/docs/Web/API/ServiceWorker) to Kotlin\n */\npublic external abstract class ServiceWorker : EventTarget, AbstractWorker, UnionMessagePortOrServiceWorker, UnionClientOrMessagePortOrServiceWorker {\n   open val scriptURL: String\n   open val state: ServiceWorkerState\n   open var onstatechange: ((Event) -> dynamic)?\n   fun postMessage(message: Any?, transfer: Array<dynamic> = definedExternally)\n}\n\n/**\n * Exposes the JavaScript [ServiceWorkerRegistration](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerRegistration) to Kotlin\n */\npublic external abstract class ServiceWorkerRegistration : EventTarget {\n   open val installing: ServiceWorker?\n   open val waiting: ServiceWorker?\n   open val active: ServiceWorker?\n   open val scope: String\n   open var onupdatefound: ((Event) -> dynamic)?\n   open val APISpace: dynamic\n   fun update(): Promise<Unit>\n   fun unregister(): Promise<Boolean>\n   fun showNotification(title: String, options: NotificationOptions = definedExternally): Promise<Unit>\n   fun getNotifications(filter: GetNotificationOptions = definedExternally): Promise<Array<Notification>>\n   fun methodName(): Promise<dynamic>\n}\n\n/**\n * Exposes the JavaScript [ServiceWorkerContainer](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerContainer) to Kotlin\n */\npublic external abstract class ServiceWorkerContainer : EventTarget {\n   open val controller: ServiceWorker?\n   open val ready: Promise<ServiceWorkerRegistration>\n   open var oncontrollerchange: ((Event) -> dynamic)?\n   open var onmessage: ((MessageEvent) -> dynamic)?\n   fun register(scriptURL: String, options: RegistrationOptions = definedExternally): Promise<ServiceWorkerRegistration>\n   fun

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getRegistration(clientURL: String = definedExternally): Promise<Any?>\n    fun getRegistrations():
Promise<Array<ServiceWorkerRegistration>>\n    fun startMessages()\n}\n\npublic external interface
RegistrationOptions {\n    var scope: String?\n        get() = definedExternally\n        set(value) = definedExternally\n
 var type: WorkerType? /* = WorkerType.CLASSIC */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
 \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun RegistrationOptions(scope: String? =
undefined, type: WorkerType? = WorkerType.CLASSIC): RegistrationOptions {\n    val o = js(\"({})\")\n
o[\"scope\"] = scope\n    o[\"type\"] = type\n    return o\n}\n\n/**\n * Exposes the JavaScript
[ServiceWorkerMessageEvent](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerMessageEvent) to
Kotlin\n */\npublic external open class ServiceWorkerMessageEvent(type: String, eventInitDict:
ServiceWorkerMessageEventInit = definedExternally) : Event {\n    open val data: Any?\n    open val origin:
String\n    open val lastEventId: String\n    open val source: UnionMessagePortOrServiceWorker?\n    open val
ports: Array<out MessagePort>?\n\n    companion object {\n        val NONE: Short\n        val
CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE: Short\n
}\n}\n\npublic external interface ServiceWorkerMessageEventInit : EventInit {\n
    var data: Any?\n        get() = definedExternally\n        set(value) = definedExternally\n    var origin: String?\n
get() = definedExternally\n        set(value) = definedExternally\n    var lastEventId: String?\n        get() =
definedExternally\n        set(value) = definedExternally\n    var source: UnionMessagePortOrServiceWorker?\n
get() = definedExternally\n        set(value) = definedExternally\n    var ports: Array<MessagePort>?\n        get() =
definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ServiceWorkerMessageEventInit(data:
Any? = undefined, origin: String? = undefined, lastEventId: String? = undefined, source:
UnionMessagePortOrServiceWorker? = undefined, ports: Array<MessagePort>? = undefined, bubbles: Boolean? =
false, cancelable: Boolean? = false, composed: Boolean? = false): ServiceWorkerMessageEventInit {\n    val o =
js(\"({})\")\n
    o[\"data\"] = data\n    o[\"origin\"] = origin\n    o[\"lastEventId\"] = lastEventId\n    o[\"source\"] = source\n
o[\"ports\"] = ports\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] =
composed\n    return o\n}\n\n/**\n * Exposes the JavaScript
[ServiceWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerGlobalScope) to
Kotlin\n */\npublic external abstract class ServiceWorkerGlobalScope : WorkerGlobalScope {\n    open val clients:
Clients\n    open val registration: ServiceWorkerRegistration\n    open var oninstall: ((Event) -> dynamic)?\n    open
var onactivate: ((Event) -> dynamic)?\n    open var onfetch: ((FetchEvent) -> dynamic)?\n    open var
onforeignfetch: ((Event) -> dynamic)?\n    open var onmessage: ((MessageEvent) -> dynamic)?\n    open var
onnotificationclick: ((NotificationEvent) -> dynamic)?\n    open var onnotificationclose: ((NotificationEvent) ->
dynamic)?\n    open var onfunctionalevent: ((Event)
 -> dynamic)?\n    fun skipWaiting(): Promise<Unit>\n}\n\n/**\n * Exposes the JavaScript
[Client](https://developer.mozilla.org/en/docs/Web/API/Client) to Kotlin\n */\npublic external abstract class Client :
UnionClientOrMessagePortOrServiceWorker {\n    open val url: String\n    open val frameType: FrameType\n
open val id: String\n    fun postMessage(message: Any?, transfer: Array<dynamic> = definedExternally)\n}\n\n/**\n
* Exposes the JavaScript [WindowClient](https://developer.mozilla.org/en/docs/Web/API/WindowClient) to
Kotlin\n */\npublic external abstract class WindowClient : Client {\n    open val visibilityState: dynamic\n    open
val focused: Boolean\n    fun focus(): Promise<WindowClient>\n    fun navigate(url: String):
Promise<WindowClient>\n}\n\n/**\n * Exposes the JavaScript
[Clients](https://developer.mozilla.org/en/docs/Web/API/Clients) to Kotlin\n */\npublic external abstract class
Clients {\n    fun get(id: String): Promise<Any?>\n    fun matchAll(options: ClientQueryOptions
 = definedExternally): Promise<Array<Client>>\n    fun openWindow(url: String): Promise<WindowClient?>\n
fun claim(): Promise<Unit>\n}\n\npublic external interface ClientQueryOptions {\n    var includeUncontrolled:
Boolean? /* = false */\n        get() = definedExternally\n        set(value) = definedExternally\n    var type:
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ClientType? /* = ClientType.WINDOW */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun
ClientQueryOptions(includeUncontrolled: Boolean? = false, type: ClientType? = ClientType.WINDOW):
ClientQueryOptions {\n    val o = js(\"({})\")\n    o[\"includeUncontrolled\"] = includeUncontrolled\n    o[\"type\"] =
type\n    return o\n}\n\n/**\n * Exposes the JavaScript
[ExtendableEvent](https://developer.mozilla.org/en/docs/Web/API/ExtendableEvent) to Kotlin\n */\npublic external
open class ExtendableEvent(type: String, eventInitDict:
 ExtendableEventInit = definedExternally) : Event {\n    fun waitUntil(f: Promise<Any?>)\n\n    companion object
{\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val
BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface ExtendableEventInit :
EventInit\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ExtendableEventInit(bubbles:
Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ExtendableEventInit {\n    val o =
js(\"({})\")\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n
return o\n}\n\n/**\n * Exposes the JavaScript
[InstallEvent](https://developer.mozilla.org/en/docs/Web/API/InstallEvent) to Kotlin\n */\npublic external open
class InstallEvent(type: String, eventInitDict: ExtendableEventInit = definedExternally) : ExtendableEvent {\n    fun
registerForeignFetch(options: ForeignFetchOptions)\n\n
    companion object {\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET:
Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface ForeignFetchOptions {\n    var
scopes: Array<String>?\n    var origins: Array<String>?\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ForeignFetchOptions(scopes:
Array<String>?, origins: Array<String>?): ForeignFetchOptions {\n    val o = js(\"({})\")\n    o[\"scopes\"] =
scopes\n    o[\"origins\"] = origins\n    return o\n}\n\n/**\n * Exposes the JavaScript
[FetchEvent](https://developer.mozilla.org/en/docs/Web/API/FetchEvent) to Kotlin\n */\npublic external open class
FetchEvent(type: String, eventInitDict: FetchEventInit) : ExtendableEvent {\n    open val request: Request\n    open
val clientId: String?\n    open val isReload: Boolean\n    fun respondWith(r: Promise<Response>)\n\n    companion
object {\n        val NONE:
 Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val BUBBLING_PHASE:
Short\n    }\n}\n\npublic external interface FetchEventInit : ExtendableEventInit {\n    var request: Request?\n    var
clientId: String? /* = null */\n        get() = definedExternally\n        set(value) = definedExternally\n    var isReload:
Boolean? /* = false */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun FetchEventInit(request: Request?,
clientId: String? = null, isReload: Boolean? = false, bubbles: Boolean? = false, cancelable: Boolean? = false,
composed: Boolean? = false): FetchEventInit {\n    val o = js(\"({})\")\n    o[\"request\"] = request\n    o[\"clientId\"]
= clientId\n    o[\"isReload\"] = isReload\n    o[\"bubbles\"] = bubbles\n    o[\"cancelable\"] = cancelable\n
o[\"composed\"] = composed\n    return o\n}\n\npublic external
 open class ForeignFetchEvent(type: String, eventInitDict: ForeignFetchEventInit) : ExtendableEvent {\n    open val
request: Request\n    open val origin: String\n    fun respondWith(r: Promise<ForeignFetchResponse>)\n\n
companion object {\n        val NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET:
Short\n        val BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface ForeignFetchEventInit :
ExtendableEventInit {\n    var request: Request?\n    var origin: String? /* = \"null\" */\n        get() =
definedExternally\n        set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ForeignFetchEventInit(request:
Request?, origin: String? = \"null\", bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? =
false): ForeignFetchEventInit {\n    val o = js(\"({})\")\n    o[\"request\"] = request\n    o[\"origin\"] = origin\n
```

o[\"bubbles\"] = bubbles\n o[\"cancelable\"] = cancelable\n o[\"composed\"] = composed\n return o\n}\n\npublic external interface ForeignFetchResponse {\n var response: Response?\n var origin: String?\n get() = definedExternally\n set(value) = definedExternally\n var headers: Array<String>?\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ForeignFetchResponse(response: Response?, origin: String? = undefined, headers: Array<String>? = undefined): ForeignFetchResponse {\n val o = js(\"({})\")\n o[\"response\"] = response\n o[\"origin\"] = origin\n o[\"headers\"] = headers\n return o\n}\n\n/**\n * Exposes the JavaScript [ExtendableMessageEvent](https://developer.mozilla.org/en/docs/Web/API/ExtendableMessageEvent) to Kotlin\n */\npublic external open class ExtendableMessageEvent(type: String, eventInitDict: ExtendableMessageEventInit = definedExternally) : ExtendableEvent {\n open val data: Any?\n open val origin: String\n open val lastEventId: String\n open val source: UnionClientOrMessagePortOrServiceWorker?\n open val ports: Array<out MessagePort>?\n\n companion object {\n val NONE: Short\n val CAPTURING_PHASE: Short\n val AT_TARGET: Short\n val BUBBLING_PHASE: Short\n }\n}\n\npublic external interface ExtendableMessageEventInit : ExtendableEventInit {\n var data: Any?\n get() = definedExternally\n set(value) = definedExternally\n var origin: String?\n get() = definedExternally\n set(value) = definedExternally\n var lastEventId: String?\n get() = definedExternally\n set(value) = definedExternally\n var source: UnionClientOrMessagePortOrServiceWorker?\n get() = definedExternally\n set(value) = definedExternally\n var ports: Array<MessagePort>?\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ExtendableMessageEventInit(data: Any? = undefined, origin: String? = undefined, lastEventId: String? = undefined, source: UnionClientOrMessagePortOrServiceWorker? = undefined, ports: Array<MessagePort>? = undefined, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ExtendableMessageEventInit {\n val o = js(\"({})\")\n o[\"data\"] = data\n o[\"origin\"] = origin\n o[\"lastEventId\"] = lastEventId\n o[\"source\"] = source\n o[\"ports\"] = ports\n o[\"bubbles\"] = bubbles\n o[\"cancelable\"] = cancelable\n o[\"composed\"] = composed\n return o\n}\n\n/**\n * Exposes the JavaScript [Cache](https://developer.mozilla.org/en/docs/Web/API/Cache) to Kotlin\n */\npublic external abstract class Cache {\n fun match(request: dynamic, options: CacheQueryOptions = definedExternally): Promise<Any?>\n fun matchAll(request: dynamic = definedExternally, options: CacheQueryOptions = definedExternally): Promise<Array<Response>>\n fun add(request: dynamic): Promise<Unit>\n fun addAll(requests: Array<dynamic>): Promise<Unit>\n fun put(request: dynamic, response: Response): Promise<Unit>\n fun delete(request: dynamic, options: CacheQueryOptions = definedExternally): Promise<Boolean>\n fun keys(request: dynamic = definedExternally, options: CacheQueryOptions = definedExternally): Promise<Array<Request>>\n}\n\npublic external interface CacheQueryOptions {\n var ignoreSearch: Boolean? /* = false */\n get() = definedExternally\n set(value) = definedExternally\n var ignoreMethod: Boolean? /* = false */\n get() = definedExternally\n set(value) = definedExternally\n var ignoreVary: Boolean? /* = false */\n get() = definedExternally\n set(value) = definedExternally\n var cacheName: String?\n get() = definedExternally\n set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CacheQueryOptions(ignoreSearch: Boolean? = false, ignoreMethod: Boolean? = false, ignoreVary: Boolean? = false, cacheName: String? = undefined): CacheQueryOptions {\n val o = js(\"({})\")\n o[\"ignoreSearch\"] = ignoreSearch\n o[\"ignoreMethod\"] = ignoreMethod\n o[\"ignoreVary\"] = ignoreVary\n o[\"cacheName\"] = cacheName\n return o\n}\n\npublic external interface CacheBatchOperation {\n var type: String?\n get() = definedExternally\n set(value) = definedExternally\n var request: Request?\n get() = definedExternally\n set(value) = definedExternally\n var response: Response?\n   get() = definedExternally\n   set(value) = definedExternally\n   var options: CacheQueryOptions?\n   get() = definedExternally\n   set(value) = definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun CacheBatchOperation(type: String? = undefined, request: Request? = undefined, response: Response? = undefined, options: CacheQueryOptions? = undefined): CacheBatchOperation {\n   val o = js(\"({})\")\n   o[\"type\"] = type\n   o[\"request\"] = request\n   o[\"response\"] = response\n   o[\"options\"] = options\n   return o\n}\n\n/**\n * Exposes the JavaScript [CacheStorage](https://developer.mozilla.org/en/docs/Web/API/CacheStorage) to Kotlin\n */\npublic external abstract class CacheStorage {\n   fun match(request: dynamic, options: CacheQueryOptions = definedExternally): Promise<Any?>\n   fun has(cacheName: String): Promise<Boolean>\n   fun open(cacheName: String): Promise<Cache>\n   fun delete(cacheName: String): Promise<Boolean>\n   fun keys(): Promise<Array<String>>\n}\n\npublic external open class FunctionalEvent : ExtendableEvent {\n   companion object {\n   val NONE: Short\n   val CAPTURING_PHASE: Short\n   val AT_TARGET: Short\n   val BUBBLING_PHASE: Short\n   }\n}\n\npublic external interface UnionMessagePortOrServiceWorker\n\npublic external interface UnionClientOrMessagePortOrServiceWorker\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ServiceWorkerState {\n   companion object\n}\n\npublic inline val ServiceWorkerState.Companion.INSTALLING: ServiceWorkerState get() = \"installing\".asDynamic().unsafeCast<ServiceWorkerState>()\n\npublic inline val ServiceWorkerState.Companion.INSTALLED: ServiceWorkerState get() = \"installed\".asDynamic().unsafeCast<ServiceWorkerState>()\n\npublic inline val ServiceWorkerState.Companion.ACTIVATING: ServiceWorkerState get() = \"activating\".asDynamic().unsafeCast<ServiceWorkerState>()\n\npublic inline val ServiceWorkerState.Companion.ACTIVATED: ServiceWorkerState get() = \"activated\".asDynamic().unsafeCast<ServiceWorkerState>()\n\npublic inline val ServiceWorkerState.Companion.REDUNDANT: ServiceWorkerState get() = \"redundant\".asDynamic().unsafeCast<ServiceWorkerState>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface FrameType {\n   companion object\n}\n\npublic inline val FrameType.Companion.AUXILIARY: FrameType get() = \"auxiliary\".asDynamic().unsafeCast<FrameType>()\n\npublic inline val FrameType.Companion.TOP_LEVEL: FrameType get() = \"top-level\".asDynamic().unsafeCast<FrameType>()\n\npublic inline val FrameType.Companion.NESTED: FrameType get() = \"nested\".asDynamic().unsafeCast<FrameType>()\n\npublic inline val FrameType.Companion.NONE: FrameType get() = \"none\".asDynamic().unsafeCast<FrameType>()\n\n/* please, don't implement this interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic external interface ClientType {\n   companion object\n}\n\npublic inline val ClientType.Companion.WINDOW: ClientType get() = \"window\".asDynamic().unsafeCast<ClientType>()\n\npublic inline val ClientType.Companion.WORKER: ClientType get() = \"worker\".asDynamic().unsafeCast<ClientType>()\n\npublic inline val ClientType.Companion.SHAREDWORKER: ClientType get() = \"sharedworker\".asDynamic().unsafeCast<ClientType>()\n\npublic inline val ClientType.Companion.ALL: ClientType get() = \"all\".asDynamic().unsafeCast<ClientType>()","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\n// See github.com/kotlin/dukat for details\n\npackage org.w3c.xhr\n\nimport kotlin.js.*\nimport org.khronos.webgl.*\nimport org.w3c.dom.*\nimport org.w3c.dom.events.*\nimport org.w3c.files.*\n\n/**\n * Exposes the JavaScript

```
[XMLHttpRequestEventTarget](https://developer.mozilla.org/en/docs/Web/API/XMLHttpRequestEventTarget)
 to Kotlin\n */\npublic external abstract class XMLHttpRequestEventTarget : EventTarget {\n    open var
onloadstart: ((ProgressEvent) -> dynamic)?\n    open var onprogress: ((ProgressEvent) -> dynamic)?\n    open var
onabort: ((Event) -> dynamic)?\n    open var onerror: ((Event) -> dynamic)?\n    open var onload: ((Event) ->
dynamic)?\n    open var ontimeout: ((Event) -> dynamic)?\n    open var onloadend: ((Event) ->
dynamic)?\n}\n\npublic external abstract class XMLHttpRequestUpload : XMLHttpRequestEventTarget\n\n/**\n *
Exposes the JavaScript [XMLHttpRequest](https://developer.mozilla.org/en/docs/Web/API/XMLHttpRequest) to
Kotlin\n */\npublic external open class XMLHttpRequest : XMLHttpRequestEventTarget {\n    var
onreadystatechange: ((Event) -> dynamic)?\n    open val readyState: Short\n    var timeout: Int\n    var
withCredentials: Boolean\n    open val upload: XMLHttpRequestUpload\n    open val responseURL: String\n
    open val status: Short\n    open val statusText: String\n    var responseType: XMLHttpRequestResponseType\n
open val response: Any?\n    open val responseText: String\n    open val responseXML: Document?\n    fun
open(method: String, url: String)\n    fun open(method: String, url: String, async: Boolean, username: String? =
definedExternally, password: String? = definedExternally)\n    fun setRequestHeader(name: String, value: String)\n
fun send(body: dynamic = definedExternally)\n    fun abort()\n    fun getResponseHeader(name: String): String?\n
fun getAllResponseHeaders(): String\n    fun overrideMimeType(mime: String)\n\n    companion object {\n        val
UNSENT: Short\n        val OPENED: Short\n        val HEADERS_RECEIVED: Short\n        val LOADING:
Short\n        val DONE: Short\n    }\n}\n\n/**\n * Exposes the JavaScript
[FormData](https://developer.mozilla.org/en/docs/Web/API/FormData) to Kotlin\n */\npublic external open class
FormData(form: HTMLFormElement
 = definedExternally) {\n    fun append(name: String, value: String)\n    fun append(name: String, value: Blob,
filename: String = definedExternally)\n    fun delete(name: String)\n    fun get(name: String): dynamic\n    fun
getAll(name: String): Array<dynamic>\n    fun has(name: String): Boolean\n    fun set(name: String, value: String)\n
  fun set(name: String, value: Blob, filename: String = definedExternally)\n}\n\n/**\n * Exposes the JavaScript
[ProgressEvent](https://developer.mozilla.org/en/docs/Web/API/ProgressEvent) to Kotlin\n */\npublic external open
class ProgressEvent(type: String, eventInitDict: ProgressEventInit = definedExternally) : Event {\n    open val
lengthComputable: Boolean\n    open val loaded: Number\n    open val total: Number\n\n    companion object {\n
 val NONE: Short\n        val CAPTURING_PHASE: Short\n        val AT_TARGET: Short\n        val
BUBBLING_PHASE: Short\n    }\n}\n\npublic external interface ProgressEventInit : EventInit {\n    var
lengthComputable:
 Boolean? /* = false */\n        get() = definedExternally\n        set(value) = definedExternally\n    var loaded:
Number? /* = 0 */\n        get() = definedExternally\n        set(value) = definedExternally\n    var total: Number? /* =
0 */\n        get() = definedExternally\n        set(value) =
definedExternally\n}\n\n@Suppress(\"INVISIBLE_REFERENCE\",
\"INVISIBLE_MEMBER\")\n@kotlin.internal.InlineOnly\npublic inline fun ProgressEventInit(lengthComputable:
Boolean? = false, loaded: Number? = 0, total: Number? = 0, bubbles: Boolean? = false, cancelable: Boolean? =
false, composed: Boolean? = false): ProgressEventInit {\n    val o = js(\"({})\")\n    o[\"lengthComputable\"] =
lengthComputable\n    o[\"loaded\"] = loaded\n    o[\"total\"] = total\n    o[\"bubbles\"] = bubbles\n
o[\"cancelable\"] = cancelable\n    o[\"composed\"] = composed\n    return o\n}\n\n/* please, don't implement this
interface! */\n@JsName(\"null\")\n@Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\npublic
 external interface XMLHttpRequestResponseType {\n    companion object\n}\n\npublic inline val
XMLHttpRequestResponseType.Companion.EMPTY: XMLHttpRequestResponseType get() =
\"\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val
XMLHttpRequestResponseType.Companion.ARRAYBUFFER: XMLHttpRequestResponseType get() =
\"arraybuffer\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val
XMLHttpRequestResponseType.Companion.BLOB: XMLHttpRequestResponseType get() =
\"blob\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val
XMLHttpRequestResponseType.Companion.DOCUMENT: XMLHttpRequestResponseType get() =
```

\"document\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val XMLHttpRequestResponseType.Companion.JSON: XMLHttpRequestResponseType get() = \"json\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\n\npublic inline val XMLHttpRequestResponseType.Companion.TEXT: XMLHttpRequestResponseType
get() = \"text\".asDynamic().unsafeCast<XMLHttpRequestResponseType>()","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.annotation.AnnotationRetention.BINARY\nimport kotlin.annotation.AnnotationRetention.SOURCE\nimport kotlin.annotation.AnnotationTarget.*\nimport kotlin.internal.RequireKotlin\nimport kotlin.internal.RequireKotlinVersionKind\nimport kotlin.reflect.KClass\n\n/**\n * Signals that the annotated annotation class is a marker of an experimental API.\n *\n * Any declaration annotated with that marker is considered an experimental declaration\n * and its call sites should accept the experimental aspect of it either by using [UseExperimental],\n * or by being annotated with that marker themselves, effectively causing further propagation of that experimental aspect.\n *\n * This class
is deprecated in favor of a more general approach provided by [RequiresOptIn]/[OptIn].\n */\n@Target(ANNOTATION_CLASS)\n@Retention(BINARY)\n@SinceKotlin(\"1.2\")\n@RequireKotlin(\"1.2.50\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\n@Deprecated(\"Please use RequiresOptIn instead.\")\npublic annotation class Experimental(val level: Level = Level.ERROR) {\n   /**\n   * Severity of the diagnostic that should be reported on usages of experimental API which did not explicitly accept the experimental aspect\n   * of that API either by using [UseExperimental] or by being annotated with the corresponding marker annotation.\n   */\n   public enum class Level {\n   /** Specifies that a warning should be reported on incorrect usages of this experimental API. */\n WARNING,\n   /** Specifies that an error should be reported on incorrect usages of this experimental API. */\n
ERROR,\n
}\n}\n\n/**\n * Allows to use experimental API denoted by the given markers in the annotated file, declaration, or expression.\n * If a declaration is annotated with [UseExperimental], its usages are **not** required to opt-in to that experimental API.\n *\n * This class is deprecated in favor of a more general approach provided by [RequiresOptIn]/[OptIn].\n */\n@Target(\n   CLASS, PROPERTY, LOCAL_VARIABLE, VALUE_PARAMETER, CONSTRUCTOR, FUNCTION, PROPERTY_GETTER, PROPERTY_SETTER, EXPRESSION, FILE, TYPEALIAS\n)\n@Retention(SOURCE)\n@SinceKotlin(\"1.2\")\n@RequireKotlin(\"1.2.50\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\n@DeprecatedSinceKotlin(warningSince = \"1.4\", errorSince = \"1.6\")\n@Deprecated(\"Please use OptIn instead.\", ReplaceWith(\"OptIn(*markerClass)\", \"kotlin.OptIn\"))\npublic annotation class UseExperimental(\n   vararg val markerClass: KClass<out Annotation>\n)\n\n\n@Target(CLASS, PROPERTY, CONSTRUCTOR, FUNCTION, TYPEALIAS)\n@Retention(BINARY)\ninternal
annotation class WasExperimental(\n   vararg val markerClass: KClass<out Annotation>\n)\n","package kotlin\n\nimport kotlin.annotation.AnnotationTarget.*\n\n/**\n * This annotation marks the standard library API that is considered experimental and is not subject to the\n * [general compatibility guarantees](https://kotlinlang.org/docs/reference/evolution/components-stability.html) given for the standard library:\n * the behavior of such API may be changed or the API may be removed completely in any further release.\n *\n * > Beware using the annotated API especially if you're developing a library, since your library might become binary incompatible\n * with the future versions of the standard library.\n *\n * Any usage of a declaration annotated with `@ExperimentalStdlibApi` must be accepted either by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalStdlibApi::class)`,\n * or by using the compiler argument `-opt-in=kotlin.ExperimentalStdlibApi`.\n
*/\n@RequiresOptIn(level = RequiresOptIn.Level.ERROR)\n@Retention(AnnotationRetention.BINARY)\n@Target(\n   CLASS,\n

ANNOTATION_CLASS,\n   PROPERTY,\n   FIELD,\n   LOCAL_VARIABLE,\n   VALUE_PARAMETER,\n   CONSTRUCTOR,\n   FUNCTION,\n   PROPERTY_GETTER,\n   PROPERTY_SETTER,\n   TYPEALIAS\n)\n@MustBeDocumented\n@SinceKotlin(\"1.3\")\npublic annotation class ExperimentalStdlibApi\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.annotation.AnnotationTarget.*\nimport kotlin.experimental.ExperimentalTypeInference\n\n/**\n * Allows to infer generic type arguments of a function from the calls in the annotated function parameter of that function.\n *\n * When this annotation is placed on a generic function parameter of a function,\n * it enables to infer the type arguments of
that generic function from the lambda body passed to that parameter.\n *\n * The calls that affect inference are either members of the receiver type of an annotated function parameter or\n * extensions for that type. The extensions must be themselves annotated with `@BuilderInference`.\n *\n * Example: we declare\n * ```\n * fun <T> sequence(@BuilderInference block: suspend SequenceScope<T>.() -> Unit): Sequence<T>\n * ```\n * and use it like\n * ```\n * val result = sequence { yield(\"result\") }\n * ```\n * Here the type argument of the resulting sequence is inferred to `String` from\n * the argument of the [SequenceScope.yield] function, that is called inside the lambda passed to [sequence].\n *\n * Note: this annotation is experimental, see [ExperimentalTypeInference] on how to opt-in for it.\n */\n@Target(VALUE_PARAMETER, FUNCTION, PROPERTY)\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.3\")\n@ExperimentalTypeInference\npublic annotation class BuilderInference\n\n\n/**\n
* Enables overload selection based on the type of the value returned from lambda argument.\n *\n * When two or more function overloads have otherwise the same parameter lists that differ only in the return type\n * of a functional parameter, this annotation enables overload selection by the type of the value returned from\n * the lambda function passed to this functional parameter.\n *\n * Example:\n * ```\n * @OverloadResolutionByLambdaReturnType\n * fun create(intProducer: () -> Int): Int\n *\n * fun create(doubleProducer: () -> Double): Double\n *\n * val newValue = create { 3.14 }\n * ```\n *\n * The annotation being applied to one of overloads allows to resolve this ambiguity by analyzing what value is returned\n * from the lambda function.\n *\n * This annotation is also used to discriminate the annotated overloads in case if overload selection still cannot\n * choose one of them even taking in account the result of lambda parameter analysis. In that case a warning is reported.\n
*\n * Note: this annotation is experimental, see [ExperimentalTypeInference] on how to opt-in for it.\n */\n@Target(FUNCTION)\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.4\")\n@ExperimentalTypeInference\npublic annotation class OverloadResolutionByLambdaReturnType","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.annotation.AnnotationTarget.*\nimport kotlin.internal.RequireKotlin\nimport kotlin.internal.RequireKotlinVersionKind\n\n/**\n * The experimental multiplatform support API marker.\n *\n * Any usage of a declaration annotated with `@ExperimentalMultiplatform` must be accepted either by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalMultiplatform::class)`,\n * or by using the compiler argument `-opt-in=kotlin.ExperimentalMultiplatform`.\n
*/\n@RequiresOptIn\n@MustBeDocumented\n@Target(\n   CLASS,\n   ANNOTATION_CLASS,\n   PROPERTY,\n   FIELD,\n   LOCAL_VARIABLE,\n   VALUE_PARAMETER,\n   CONSTRUCTOR,\n   FUNCTION,\n   PROPERTY_GETTER,\n   PROPERTY_SETTER,\n   TYPEALIAS\n)\n@Retention(AnnotationRetention.BINARY)\n@RequireKotlin(\"1.2.50\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\npublic annotation class ExperimentalMultiplatform\n\n/**\n * Marks an expected annotation class that it isn't required to have actual counterparts in all platforms.\n *\n * This annotation is only applicable to `expect` annotation classes in multi-platform projects and marks that class as \"optional\".\n * Optional expected class is allowed to have no corresponding actual class on the platform. Optional annotations can only be used\n * to annotate something, not as types in signatures. If an optional annotation has no

corresponding actual class on a platform,\n * the annotation entries where it's used are simply erased when compiling code on that platform.\n *\n * Note: this annotation is experimental, see [ExperimentalMultiplatform] on how to opt-in for it.\n */\n@Target(ANNOTATION_CLASS)\n@Retention(AnnotationRetention.BINARY)\n@ExperimentalMultiplatform\n@RequireKotlin(\"1.2.50\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\npublic annotation class OptionalExpectation\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.annotation.AnnotationRetention.BINARY\nimport kotlin.annotation.AnnotationRetention.SOURCE\nimport kotlin.annotation.AnnotationTarget.*\nimport kotlin.internal.RequireKotlin\nimport kotlin.internal.RequireKotlinVersionKind\nimport kotlin.reflect.KClass\n\n/**\n * Signals that the annotated annotation class is a marker of an API that requires an explicit opt-in.\n *\n * Call sites of any declaration annotated with that marker should opt in to the API either by using [OptIn],\n * or by being annotated with that marker themselves, effectively causing further propagation of the opt-in requirement.\n *\n * This class requires opt-in itself and can only be used with the compiler argument `-opt-in=kotlin.RequiresOptIn`.\n *\n * @property message message to be reported on usages of API without an explicit opt-in, or empty string for the default message.\n *   The default message is: \"This declaration is experimental and its usage should be marked with 'Marker'\n *   or '@OptIn(Marker::class)'\", where `Marker` is the opt-in requirement marker.\n * @property level specifies how usages of API without an explicit opt-in are reported in code.\n */\n@Target(ANNOTATION_CLASS)\n@Retention(BINARY)\n@SinceKotlin(\"1.3\")\n@RequireKotlin(\"1.3.70\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\npublic annotation class RequiresOptIn(\n   val message: String = \"\",\n   val level: Level = Level.ERROR\n) {\n   /**\n   * Severity of the diagnostic that should be reported on usages which did not explicitly opted into\n   * the API either by using [OptIn] or by being annotated with the corresponding marker annotation.\n   */\n   public enum class Level {\n   /** Specifies that a warning should be reported on incorrect usages of this API. */\n   WARNING,\n\n   /** Specifies that an error should be reported on incorrect usages of this API. */\n   ERROR,\n   }\n}\n\n/**\n * Allows to use the API denoted by the given markers in the annotated file, declaration, or expression.\n * If a declaration is annotated with [OptIn], its usages are **not** required to opt in to that API.\n *\n * This class requires opt-in itself and can only be used with the compiler argument `-opt-in=kotlin.RequiresOptIn`.\n */\n@Target(\n   CLASS, PROPERTY, LOCAL_VARIABLE, VALUE_PARAMETER, CONSTRUCTOR, FUNCTION, PROPERTY_GETTER, PROPERTY_SETTER, EXPRESSION, FILE, TYPEALIAS\n)\n@Retention(SOURCE)\n@SinceKotlin(\"1.3\")\n@RequireKotlin(\"1.3.70\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\npublic annotation class OptIn(\n   vararg val markerClass: KClass<out Annotation>\n)\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.collections\n\nimport kotlin.js.JsName\n\n/**\n * Provides a skeletal implementation of the read-only [Collection] interface.\n *\n * @param E the type of elements contained in the collection. The collection is covariant in its element type.\n */\n@SinceKotlin(\"1.1\")\npublic abstract class AbstractCollection<out E> protected constructor() : Collection<E> {\n   abstract override val size: Int\n   abstract override fun iterator(): Iterator<E>\n\n   override fun contains(element: @UnsafeVariance E): Boolean = any { it == element }\n\n   override fun containsAll(elements: Collection<@UnsafeVariance E>): Boolean =\n   elements.all { contains(it) } // use when js will support bound refs: elements.all(this::contains)\n\n   override fun isEmpty(): Boolean = size == 0\n\n   override fun toString(): String = joinToString(\", \", \"[\", \"]\") {\n   if (it === this) \"(this Collection)\" else it.toString()\n   }\n\n   /**\n   * Returns new array of type `Array<Any?>` with the elements of this collection.\n   */\n   @JsName(\"toArray\")\n   protected open fun toArray(): Array<Any?> = copyToArrayImpl(this)\n\n   /**\n   * Fills the provided [array] or creates new array of the same type\n   * and fills it with the elements of this

collection.\n   */\n   protected open fun <T> toArray(array: Array<T>): Array<T> = copyToArrayImpl(this, array)\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n *
 Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n\nprivate enum class State {\n   Ready,\n   NotReady,\n   Done,\n   Failed\n}\n\n/**\n * A base class to simplify implementing iterators so that implementations only have to implement [computeNext]\n * to implement the iterator, calling [done] when the iteration is complete.\n */\npublic abstract class AbstractIterator<T> : Iterator<T> {\n   private var state = State.NotReady\n   private var nextValue: T? = null\n\n   override fun hasNext(): Boolean {\n   require(state != State.Failed)\n   return when (state) {\n   State.Done -> false\n   State.Ready -> true\n   else -> tryToComputeNext()\n   }\n   }\n\n   override fun next(): T {\n   if (!hasNext()) throw NoSuchElementException()\n   state = State.NotReady\n   @Suppress(\"UNCHECKED_CAST\")\n   return nextValue as T\n
    }\n\n   private fun tryToComputeNext(): Boolean {\n   state = State.Failed\n   computeNext()\n   return state == State.Ready\n   }\n\n   /**\n   * Computes the next item in the iterator.\n   *\n   * This callback method should call one of these two methods:\n   *\n   * * [setNext] with the next value of the iteration\n   * * [done] to indicate there are no more elements\n   *\n   * Failure to call either method will result in the iteration terminating with a failed state\n   */\n   abstract protected fun computeNext(): Unit\n\n   /**\n   * Sets the next value in the iteration, called from the [computeNext] function\n   */\n   protected fun setNext(value: T): Unit {\n   nextValue = value\n   state = State.Ready\n   }\n\n   /**\n   * Sets the state to done so that the iteration terminates.\n   */\n   protected fun done() {\n   state = State.Done\n   }\n}\n\n\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming
 Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/*\n * Based on GWT AbstractList\n * Copyright 2007 Google Inc.\n*/\n\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the read-only [List] interface.\n *\n * This class is intended to help implementing read-only lists so it doesn't support concurrent modification tracking.\n *\n * @param E the type of elements contained in the list. The list is covariant in its element type.\n */\n@SinceKotlin(\"1.1\")\npublic abstract class AbstractList<out E> protected constructor() : AbstractCollection<E>(), List<E> {\n   abstract override val size: Int\n   abstract override fun get(index: Int): E\n\n
  override fun iterator(): Iterator<E> = IteratorImpl()\n\n   override fun indexOf(element: @UnsafeVariance E): Int = indexOfFirst { it == element }\n\n   override fun lastIndexOf(element: @UnsafeVariance E): Int
 = indexOfLast { it == element }\n\n   override fun listIterator(): ListIterator<E> = ListIteratorImpl(0)\n\n   override fun listIterator(index: Int): ListIterator<E> = ListIteratorImpl(index)\n\n   override fun subList(fromIndex: Int, toIndex: Int): List<E> = SubList(this, fromIndex, toIndex)\n\n   private class SubList<out E>(private val list: AbstractList<E>, private val fromIndex: Int, toIndex: Int) : AbstractList<E>(), RandomAccess {\n   private var _size: Int = 0\n\n   init {\n   checkRangeIndexes(fromIndex, toIndex, list.size)\n   this._size = toIndex - fromIndex\n   }\n\n   override fun get(index: Int): E {\n   checkElementIndex(index, _size)\n\n   return list[fromIndex + index]\n   }\n\n   override val size: Int get() = _size\n   }\n\n   /**\n   * Compares this list with other list instance with the ordered structural equality.\n   *\n   * @return true, if [other] instance is a [List] of the same size,
 which contains the same elements in the same order.\n   */\n   override fun equals(other: Any?): Boolean {\n   if (other === this) return true\n   if (other !is List<*>) return false\n\n   return orderedEquals(this, other)\n   }\n\n   /**\n   * Returns the hash code value for this list.\n   */\n   override fun hashCode(): Int = orderedHashCode(this)\n\n   private open inner class IteratorImpl : Iterator<E> {\n   /** the index of the item that will be returned on the next call to [next]`()` */\n   protected var index = 0\n\n   override fun hasNext(): Boolean = index < size\n\n   override fun next(): E {\n   if (!hasNext()) throw NoSuchElementException()\n   return get(index++)\n   }\n   }\n\n   /**\n   * Implementation of [ListIterator] for abstract lists.\n   */\n   private open inner class ListIteratorImpl(index: Int) : IteratorImpl(), ListIterator<E> {\n\n   init {\n   checkPositionIndex(index,

this@AbstractList.size)\n   this.index = index\n   }\n\n   override fun hasPrevious(): Boolean = index > 0\n\n   override fun nextIndex(): Int = index\n\n   override fun previous(): E {\n   if (!hasPrevious()) throw NoSuchElementException()\n   return get(--index)\n   }\n\n   override fun previousIndex(): Int = index - 1\n   }\n\n   internal companion object {\n   internal fun checkElementIndex(index: Int, size: Int) {\n   if (index < 0 || index >= size) {\n   throw IndexOutOfBoundsException(\"index: $index, size: $size\")\n   }\n   }\n\n   internal fun checkPositionIndex(index: Int, size: Int) {\n   if (index < 0 || index > size) {\n   throw IndexOutOfBoundsException(\"index: $index, size: $size\")\n   }\n   }\n\n   internal fun checkRangeIndexes(fromIndex: Int, toIndex: Int, size: Int) {\n   if (fromIndex < 0 || toIndex > size) {\n   throw IndexOutOfBoundsException(\"fromIndex: $fromIndex, toIndex: $toIndex, size: $size\")\n   }\n   if (fromIndex > toIndex) {\n   throw IllegalArgumentException(\"fromIndex: $fromIndex > toIndex: $toIndex\")\n   }\n   }\n\n   internal fun checkBoundsIndexes(startIndex: Int, endIndex: Int, size: Int) {\n   if (startIndex < 0 || endIndex > size) {\n   throw IndexOutOfBoundsException(\"startIndex: $startIndex, endIndex: $endIndex, size: $size\")\n   }\n   if (startIndex > endIndex) {\n   throw IllegalArgumentException(\"startIndex: $startIndex > endIndex: $endIndex\")\n   }\n   }\n\n   internal fun orderedHashCode(c: Collection<*>): Int {\n   var hashCode = 1\n   for (e in c) {\n   hashCode = 31 * hashCode + (e?.hashCode() ?: 0)\n   }\n   return hashCode\n   }\n\n   internal fun orderedEquals(c: Collection<*>, other: Collection<*>): Boolean {\n   if (c.size != other.size) return false\n\n   val otherIterator = other.iterator()\n   for (elem in c) {\n   val elemOther = otherIterator.next()\n   if (elem != elemOther) {\n   return false\n   }\n   }\n   return true\n   }\n   }\n}","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n/*\n * Based on GWT AbstractMap\n * Copyright 2007 Google Inc.\n */\n\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the read-only [Map] interface.\n *\n * The implementor is required to implement [entries] property, which should return read-only set of map entries.\n *\n * @param K the type of map keys. The map is invariant in its key type.\n * @param V the type of map values. The map is covariant in its value type.\n */\n@SinceKotlin(\"1.1\")\npublic abstract class AbstractMap<K, out V> protected constructor() : Map<K, V> {\n\n   override fun containsKey(key: K): Boolean {\n   return implFindEntry(key) != null\n   }\n\n   override fun containsValue(value: @UnsafeVariance V): Boolean = entries.any { it.value == value }\n\n   internal fun containsEntry(entry: Map.Entry<*, *>?): Boolean {\n   // since entry comes from @UnsafeVariance parameters it can be virtually anything\n   if (entry !is Map.Entry<*, *>) return false\n   val key = entry.key\n   val value = entry.value\n   val ourValue = get(key)\n\n   if (value != ourValue) {\n   return false\n   }\n\n   // Perhaps it was null and we don't contain the key?\n   if (ourValue == null && !containsKey(key)) {\n   return false\n   }\n\n   return true\n   }\n\n\n   /**\n   * Compares this map with other instance with the ordered structural equality.\n   *\n   * @return true, if [other] instance is a [Map] of the same size, all entries of which are contained in the [entries] set of this map.\n   */\n   override fun equals(other: Any?): Boolean {\n   if (other === this) return true\n   if (other !is Map<*, *>) return false\n   if (size != other.size) return false\n\n   return other.entries.all { containsEntry(it) }\n   }\n\n   override operator fun get(key: K): V? = implFindEntry(key)?.value\n\n\n   /**\n   * Returns the hash code value for this map.\n   *\n   * It is the same as the hashCode of [entries] set.\n   */\n   override fun hashCode(): Int = entries.hashCode()\n\n   override fun isEmpty(): Boolean = size == 0\n   override val size: Int get() = entries.size\n\n   /**\n   * Returns a read-only [Set] of all keys in this map.\n   *\n   * Accessing this property first time creates a keys view from [entries].\n   * All subsequent accesses just return the created instance.\n   */\n   override val keys: Set<K>\n   get() {\n   if (_keys == null) {\n   _keys = object : AbstractSet<K>() {\n   override operator fun contains(element: K): Boolean = containsKey(element)\n\n   override operator fun iterator(): Iterator<K> {\n   val entryIterator = entries.iterator()\n   return object : Iterator<K> {\n   override fun

hasNext(): Boolean = entryIterator.hasNext()\n override fun next(): K = entryIterator.next().key\n }\n }\n\n override val size: Int get() = this@AbstractMap.size\n }\n }\n return _keys!!\n }\n\n @kotlin.jvm.Volatile\n private var _keys: Set<K>? = null\n\n\n override fun toString(): String = entries.joinToString(\", \", \"{\", \"}\") { toString(it) }\n\n private fun toString(entry: Map.Entry<K, V>): String = toString(entry.key) + \"=\" + toString(entry.value)\n\n private fun toString(o: Any?): String = if (o === this) \"(this Map)\" else o.toString()\n\n /**\n * Returns a read-only [Collection] of all values in this map.\n *\n * Accessing this property first time creates a values view from [entries].\n * All subsequent accesses just return the created instance.\n */\n override val values: Collection<V>\n get() {\n if (_values == null) {\n _values = object : AbstractCollection<V>() {\n override operator fun contains(element: @UnsafeVariance V): Boolean = containsValue(element)\n\n override operator fun iterator(): Iterator<V> {\n val entryIterator = entries.iterator()\n return object : Iterator<V> {\n override fun hasNext(): Boolean = entryIterator.hasNext()\n override fun next(): V = entryIterator.next().value\n }\n }\n\n override val size: Int get() = this@AbstractMap.size\n }\n }\n return _values!!\n }\n\n @kotlin.jvm.Volatile\n private var _values: Collection<V>? = null\n\n private fun implFindEntry(key: K): Map.Entry<K, V>? = entries.firstOrNull { it.key == key }\n\n internal companion object {\n\n internal fun entryHashCode(e: Map.Entry<*, *>): Int = with(e) { (key?.hashCode() ?: 0) xor (value?.hashCode() ?: 0) }\n internal fun entryToString(e: Map.Entry<*, *>): String = with(e) { \"$key=$value\" }\n internal fun entryEquals(e: Map.Entry<*, *>, other: Any?): Boolean {\n if (other !is Map.Entry<*, *>) return false\n return e.key == other.key && e.value == other.value\n }\n }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\npackage kotlin.collections\n\n/**\n * Provides a skeletal implementation of the read-only [Set] interface.\n *\n * This class is intended to help implementing read-only sets so it doesn't support concurrent modification tracking.\n *\n * @param E the type of elements contained in the set. The set is covariant in its element type.\n */\n@SinceKotlin(\"1.1\")\npublic abstract class AbstractSet<out E> protected constructor() : AbstractCollection<E>(), Set<E> {\n\n /**\n * Compares this set with other set instance with the unordered structural equality.\n *\n * @return true, if [other] instance is a [Set] of the same size, all elements of which are contained in this set.\n */\n override fun equals(other: Any?): Boolean {\n if (other === this) return true\n if (other !is Set<*>) return false\n return setEquals(this, other)\n }\n\n /**\n * Returns the hash code value for this set.\n */\n override fun hashCode(): Int = unorderedHashCode(this)\n\n internal companion object {\n internal fun unorderedHashCode(c: Collection<*>): Int {\n var hashCode = 0\n for (element in c) {\n hashCode += (element?.hashCode() ?: 0)\n }\n return hashCode\n }\n\n internal fun setEquals(c: Set<*>, other: Set<*>): Boolean {\n if (c.size != other.size) return false\n return c.containsAll(other)\n }\n }\n\n}","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n/**\n * Resizable-array implementation of the deque data structure.\n *\n * The name deque is short for \"double ended queue\" and is usually pronounced \"deck\".\n *\n * The collection provide methods for convenient access to the both ends.\n * It also implements [MutableList] interface and supports efficient get/set operations by index.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic class ArrayDeque<E> : AbstractMutableList<E> {\n private var head: Int = 0\n private var elementData: Array<Any?>\n\n override var size: Int = 0\n private set\n\n /**\n * Constructs an empty deque with specified [initialCapacity], or throws [IllegalArgumentException] if [initialCapacity] is negative.\n */\n public constructor(initialCapacity: Int) {\n elementData = when {\n initialCapacity == 0 -> emptyElementData\n initialCapacity > 0 -> arrayOfNulls(initialCapacity)\n else -> throw IllegalArgumentException(\"Illegal Capacity:

$initialCapacity\")\n }\n }\n\n /**\n * Constructs an empty deque.\n */\n public constructor() {\n elementData = emptyElementData\n }\n\n /**\n * Constructs a deque that contains the same elements as the specified [elements] collection in the same order.\n */\n public constructor(elements: Collection<E>) {\n elementData = elements.toTypedArray()\n size = elementData.size\n if (elementData.isEmpty()) elementData = emptyElementData\n }\n\n /**\n * Ensures that the capacity of this deque is at least equal to the specified [minCapacity].\n *\n * If the current capacity is less than the [minCapacity], a new backing storage is allocated with greater capacity.\n * Otherwise, this method takes no action and simply returns.\n */\n private fun ensureCapacity(minCapacity: Int) {\n if (minCapacity < 0) throw IllegalStateException(\"Deque is too big.\") // overflow\n if (minCapacity <= elementData.size) return\n if (elementData === emptyElementData) {\n elementData = arrayOfNulls(minCapacity.coerceAtLeast(defaultMinCapacity))\n return\n }\n\n val newCapacity = newCapacity(elementData.size, minCapacity)\n copyElements(newCapacity)\n }\n\n /**\n * Creates a new array with the specified [newCapacity] size and copies elements in the [elementData] array to it.\n */\n private fun copyElements(newCapacity: Int) {\n val newElements = arrayOfNulls<Any?>(newCapacity)\n elementData.copyInto(newElements, 0, head, elementData.size)\n elementData.copyInto(newElements, elementData.size - head, 0, head)\n head = 0\n elementData = newElements\n }\n\n @kotlin.internal.InlineOnly\n private inline fun internalGet(internalIndex: Int): E {\n @Suppress(\"UNCHECKED_CAST\")\n return elementData[internalIndex] as E\n }\n\n private fun positiveMod(index: Int): Int = if (index >= elementData.size) index - elementData.size else index\n\n private fun negativeMod(index: Int): Int = if (index < 0) index + elementData.size else index\n\n @kotlin.internal.InlineOnly\n private inline fun internalIndex(index: Int): Int = positiveMod(head + index)\n\n private fun incremented(index: Int): Int = if (index == elementData.lastIndex) 0 else index + 1\n\n private fun decremented(index: Int): Int = if (index == 0) elementData.lastIndex else index - 1\n\n override fun isEmpty(): Boolean = size == 0\n\n /**\n * Returns the first element, or throws [NoSuchElementException] if this deque is empty.\n */\n public fun first(): E = if (isEmpty()) throw NoSuchElementException(\"ArrayDeque is empty.\") else internalGet(head)\n\n /**\n * Returns the first element, or `null` if this deque is empty.\n */\n public fun firstOrNull(): E? = if (isEmpty()) null else internalGet(head)\n\n /**\n * Returns the last element, or throws [NoSuchElementException] if this deque is empty.\n */\n public fun last(): E = if (isEmpty()) throw NoSuchElementException(\"ArrayDeque is empty.\") else internalGet(internalIndex(lastIndex))\n\n /**\n * Returns the last element, or `null` if this deque is empty.\n */\n public fun lastOrNull(): E? = if (isEmpty()) null else internalGet(internalIndex(lastIndex))\n\n /**\n * Prepends the specified [element] to this deque.\n */\n public fun addFirst(element: E) {\n ensureCapacity(size + 1)\n\n head = decremented(head)\n elementData[head] = element\n size += 1\n }\n\n /**\n * Appends the specified [element] to this deque.\n */\n public fun addLast(element: E) {\n ensureCapacity(size + 1)\n\n elementData[internalIndex(size)] = element\n size += 1\n }\n\n /**\n * Removes the first element from this deque and returns that removed element, or throws [NoSuchElementException] if this deque is empty.\n */\n public fun removeFirst(): E {\n if (isEmpty()) throw NoSuchElementException(\"ArrayDeque is empty.\")\n\n val element = internalGet(head)\n elementData[head] = null\n head = incremented(head)\n size -= 1\n return element\n }\n\n /**\n * Removes the first element from this deque and returns that removed element, or returns `null` if this deque is empty.\n */\n public fun removeFirstOrNull(): E? = if (isEmpty()) null else removeFirst()\n\n /**\n * Removes the last element from this deque and returns that removed element, or throws [NoSuchElementException] if this deque is empty.\n */\n public fun removeLast(): E {\n if (isEmpty()) throw NoSuchElementException(\"ArrayDeque is empty.\")\n\n val internalLastIndex = internalIndex(lastIndex)\n val element = internalGet(internalLastIndex)\n elementData[internalLastIndex] = null\n size -= 1\n return element\n }\n\n /**\n * Removes the last element from this deque and returns that removed element, or returns `null` if this deque is empty.\n   */\n   public fun removeLastOrNull(): E? = if (isEmpty()) null else removeLast()\n\n   // MutableList, MutableCollection\n   public override fun add(element: E): Boolean {\n   addLast(element)\n   return true\n   }\n\n   public override fun add(index: Int, element: E) {\n   AbstractList.checkPositionIndex(index, size)\n\n   if (index == size) {\n   addLast(element)\n   return\n   } else if (index == 0) {\n   addFirst(element)\n   return\n   }\n\n   ensureCapacity(size + 1)\n\n   // Elements in circular array lay in 2 ways:\n   //   1. `head` is less than `tail`:   [#, #, e1, e2, e3, #]\n   //   2. `head` is greater than `tail`:   [e3, #, #, #, e1, e2]\n   // where head is the index of the first element in the circular array,\n   // and tail is the index following the last element.\n   //\n   // At this point the insertion index is not equal to head or tail.\n   // Also the circular array can store at least one more element.\n   //\n   // Depending on where the given element must be inserted the preceding or the succeeding\n   // elements will be shifted to make room for the element to be inserted.\n   //\n   // In case the preceding elements are shifted:\n   //   * if the insertion index is greater than the head (regardless of circular array form)\n   //   -> shift the preceding elements\n   //   * otherwise, the circular array has (2) form and the insertion index is less than tail\n   //   -> shift all elements in the back of the array\n   //   -> shift preceding elements in the front of the array\n   // In case the succeeding elements are shifted:\n   //   * if the insertion index is less than the tail (regardless of circular array form)\n   //   -> shift the succeeding elements\n   //   * otherwise, the circular array has (2) form and the insertion index is greater than head\n   //   -> shift all elements in the front of the array\n   //   -> shift succeeding elements in the back of the array\n\n   val internalIndex = internalIndex(index)\n\n   if (index < (size + 1) shr 1) {\n   // closer to the first element -> shift preceding elements\n   val decrementedInternalIndex = decremented(internalIndex)\n   val decrementedHead = decremented(head)\n\n   if (decrementedInternalIndex >= head) {\n   elementData[decrementedHead] = elementData[head] // head can be zero\n   elementData.copyInto(elementData, head, head + 1, decrementedInternalIndex + 1)\n   } else { // head > tail\n   elementData.copyInto(elementData, head - 1, head, elementData.size) // head can't be zero\n   elementData[elementData.size - 1] = elementData[0]\n   elementData.copyInto(elementData, 0, 1, decrementedInternalIndex + 1)\n   }\n\n   elementData[decrementedInternalIndex] = element\n   head = decrementedHead\n   } else {\n   // closer to the last element -> shift succeeding elements\n   val tail = internalIndex(size)\n\n   if (internalIndex < tail) {\n   elementData.copyInto(elementData, internalIndex + 1, internalIndex, tail)\n   } else { // head > tail\n   elementData.copyInto(elementData, 1, 0, tail)\n   elementData[0] = elementData[elementData.size - 1]\n   elementData.copyInto(elementData, internalIndex + 1, internalIndex, elementData.size - 1)\n   }\n\n   elementData[internalIndex] = element\n   }\n   size += 1\n   }\n\n   private fun copyCollectionElements(internalIndex: Int, elements: Collection<E>) {\n   val iterator = elements.iterator()\n\n   for (index in internalIndex until elementData.size) {\n   if (!iterator.hasNext()) break\n   elementData[index] = iterator.next()\n   }\n   for (index in 0 until head) {\n   if (!iterator.hasNext()) break\n   elementData[index] = iterator.next()\n   }\n\n   size += elements.size\n   }\n\n   public override fun addAll(elements: Collection<E>): Boolean {\n   if (elements.isEmpty()) return false\n   ensureCapacity(this.size + elements.size)\n   copyCollectionElements(internalIndex(size), elements)\n   return true\n   }\n\n   public override fun addAll(index: Int, elements: Collection<E>): Boolean {\n   AbstractList.checkPositionIndex(index, size)\n\n   if (elements.isEmpty()) {\n   return false\n   } else if (index == size) {\n   return addAll(elements)\n   }\n\n   ensureCapacity(this.size + elements.size)\n\n   val tail = internalIndex(size)\n   val internalIndex = internalIndex(index)\n   val elementsSize = elements.size\n\n   if (index < (size + 1) shr 1) {\n   // closer to the first element -> shift preceding elements\n\n   var shiftedHead = head - elementsSize\n\n   if (internalIndex >= head) {\n   if (shiftedHead >= 0) {\n   elementData.copyInto(elementData, shiftedHead, head, internalIndex)\n   } else { // head < tail, insertion leads to head >= tail\n   shiftedHead += elementData.size\n   val elementsToShift = internalIndex - head\n   val shiftToBack = elementData.size - shiftedHead\n\n

```
  if (shiftToBack >= elementsToShift) {\n                    elementData.copyInto(elementData, shiftedHead, head,
internalIndex)\n                } else {\n                    elementData.copyInto(elementData, shiftedHead, head, head +
shiftToBack)\n                    elementData.copyInto(elementData, 0, head + shiftToBack, internalIndex)\n
                }\n            }\n        } else { // head > tail, internalIndex < tail\n
elementData.copyInto(elementData, shiftedHead, head, elementData.size)\n            if (elementsSize >=
internalIndex) {\n                elementData.copyInto(elementData, elementData.size - elementsSize, 0,
internalIndex)\n            } else {\n                elementData.copyInto(elementData, elementData.size -
elementsSize, 0, elementsSize)\n                elementData.copyInto(elementData, 0, elementsSize, internalIndex)\n
        }\n        }\n        head = shiftedHead\n        copyCollectionElements(negativeMod(internalIndex -
elementsSize), elements)\n    } else {\n        // closer to the last element -> shift succeeding elements\n\n
val shiftedInternalIndex = internalIndex + elementsSize\n\n        if (internalIndex < tail) {\n            if (tail +
elementsSize <= elementData.size) {\n
        elementData.copyInto(elementData, shiftedInternalIndex, internalIndex, tail)\n            } else { // head <
tail, insertion leads to head >= tail\n                if (shiftedInternalIndex >= elementData.size) {\n
elementData.copyInto(elementData, shiftedInternalIndex - elementData.size, internalIndex, tail)\n                } else
{\n                    val shiftToFront = tail + elementsSize - elementData.size\n
elementData.copyInto(elementData, 0, tail - shiftToFront, tail)\n                    elementData.copyInto(elementData,
shiftedInternalIndex, internalIndex, tail - shiftToFront)\n                }\n            }\n        } else { // head > tail,
internalIndex > head\n            elementData.copyInto(elementData, elementsSize, 0, tail)\n            if
(shiftedInternalIndex >= elementData.size) {\n                elementData.copyInto(elementData, shiftedInternalIndex
- elementData.size,
 internalIndex, elementData.size)\n            } else {\n                elementData.copyInto(elementData, 0,
elementData.size - elementsSize, elementData.size)\n                elementData.copyInto(elementData,
shiftedInternalIndex, internalIndex, elementData.size - elementsSize)\n            }\n        }\n
copyCollectionElements(internalIndex, elements)\n    }\n\n    return true\n  }\n\n  public override fun
get(index: Int): E {\n    AbstractList.checkElementIndex(index, size)\n\n    return
internalGet(internalIndex(index))\n  }\n\n  public override fun set(index: Int, element: E): E {\n
AbstractList.checkElementIndex(index, size)\n\n    val internalIndex = internalIndex(index)\n    val oldElement
= internalGet(internalIndex)\n    elementData[internalIndex] = element\n\n    return oldElement\n  }\n\n
public override fun contains(element: E): Boolean = indexOf(element) != -1\n\n  public override
 fun indexOf(element: E): Int {\n    val tail = internalIndex(size)\n\n    if (head < tail) {\n        for (index in
head until tail) {\n            if (element == elementData[index]) return index - head\n        }\n    } else if (head
>= tail) {\n        for (index in head until elementData.size) {\n            if (element == elementData[index]) return
index - head\n        }\n        for (index in 0 until tail) {\n            if (element == elementData[index]) return
index + elementData.size - head\n        }\n    }\n\n    return -1\n  }\n\n  public override fun
lastIndexOf(element: E): Int {\n    val tail = internalIndex(size)\n\n    if (head < tail) {\n        for (index in tail
- 1 downTo head) {\n            if (element == elementData[index]) return index - head\n        }\n    } else if
(head > tail) {\n        for (index in tail - 1 downTo 0) {\n            if (element == elementData[index])
 return index + elementData.size - head\n        }\n        for (index in elementData.lastIndex downTo head) {\n
        if (element == elementData[index]) return index - head\n        }\n    }\n\n    return -1\n  }\n\n  public
override fun remove(element: E): Boolean {\n    val index = indexOf(element)\n    if (index == -1) return
false\n    removeAt(index)\n    return true\n  }\n\n  public override fun removeAt(index: Int): E {\n
AbstractList.checkElementIndex(index, size)\n\n    if (index == lastIndex) {\n        return removeLast()\n    }
else if (index == 0) {\n        return removeFirst()\n    }\n\n    val internalIndex = internalIndex(index)\n
val element = internalGet(internalIndex)\n\n    if (index < size shr 1) {\n        // closer to the first element ->
shift preceding elements\n        if (internalIndex >= head) {\n            elementData.copyInto(elementData, head
 + 1, head, internalIndex)\n        } else { // head > tail, internalIndex < head\n
elementData.copyInto(elementData, 1, 0, internalIndex)\n            elementData[0] = elementData[elementData.size
```

- 1]\n elementData.copyInto(elementData, head + 1, head, elementData.size - 1)\n }\n\n elementData[head] = null\n head = incremented(head)\n } else {\n // closer to the last element -> shift succeeding elements\n val internalLastIndex = internalIndex(lastIndex)\n\n if (internalIndex <= internalLastIndex) {\n elementData.copyInto(elementData, internalIndex, internalIndex + 1, internalLastIndex + 1)\n } else { // head > tail, internalIndex > head\n elementData.copyInto(elementData, internalIndex, internalIndex + 1, elementData.size)\n elementData[elementData.size - 1] = elementData[0]\n elementData.copyInto(elementData, 0, 1, internalLastIndex + 1)\n }\n\n elementData[internalLastIndex] = null\n }\n size -= 1\n\n return element\n }\n\n public override fun removeAll(elements: Collection<E>): Boolean = filterInPlace { !elements.contains(it) }\n\n public override fun retainAll(elements: Collection<E>): Boolean = filterInPlace { elements.contains(it) }\n\n private inline fun filterInPlace(predicate: (E) -> Boolean): Boolean {\n if (this.isEmpty() || elementData.isEmpty())\n return false\n\n val tail = internalIndex(size)\n var newTail = head\n var modified = false\n\n if (head < tail) {\n for (index in head until tail) {\n val element = elementData[index]\n\n @Suppress(\"UNCHECKED_CAST\")\n if (predicate(element as E))\n elementData[newTail++] = element\n else\n modified = true\n }\n\n elementData.fill(null, newTail, tail)\n\n } else {\n for (index in head until elementData.size) {\n val element = elementData[index]\n elementData[index] = null\n\n @Suppress(\"UNCHECKED_CAST\")\n if (predicate(element as E))\n elementData[newTail++] = element\n else\n modified = true\n }\n\n newTail = positiveMod(newTail)\n\n for (index in 0 until tail) {\n val element = elementData[index]\n elementData[index] = null\n\n @Suppress(\"UNCHECKED_CAST\")\n if (predicate(element as E)) {\n elementData[newTail] = element\n newTail = incremented(newTail)\n } else {\n modified = true\n }\n }\n }\n if (modified)\n size = negativeMod(newTail - head)\n\n return modified\n }\n\n public override fun clear() {\n val tail = internalIndex(size)\n if (head < tail) {\n elementData.fill(null, head, tail)\n } else if (isNotEmpty()) {\n elementData.fill(null, head, elementData.size)\n elementData.fill(null, 0, tail)\n }\n head = 0\n size = 0\n }\n\n @Suppress(\"NOTHING_TO_OVERRIDE\")\n override fun <T> toArray(array: Array<T>): Array<T> {\n @Suppress(\"UNCHECKED_CAST\")\n val dest = (if (array.size >= size) array else arrayOfNulls(array, size)) as Array<Any?>\n\n val tail = internalIndex(size)\n if (head < tail) {\n elementData.copyInto(dest, startIndex = head, endIndex = tail)\n } else if (isNotEmpty()) {\n elementData.copyInto(dest, destinationOffset = 0, startIndex = head, endIndex = elementData.size)\n elementData.copyInto(dest, destinationOffset = elementData.size - head, startIndex = 0, endIndex = tail)\n }\n if (dest.size > size) {\n dest[size] = null // null-terminate\n }\n\n @Suppress(\"UNCHECKED_CAST\")\n return dest as Array<T>\n }\n\n @Suppress(\"NOTHING_TO_OVERRIDE\")\n override fun toArray(): Array<Any?> {\n return toArray(arrayOfNulls<Any?>(size))\n }\n\n // for testing\n internal fun <T> testToArray(array: Array<T>): Array<T> = toArray(array)\n internal fun testToArray(): Array<Any?> = toArray()\n\n internal companion object {\n private val emptyElementData = emptyArray<Any?>()\n private const val maxArraySize = Int.MAX_VALUE - 8\n private const val defaultMinCapacity = 10\n\n internal fun newCapacity(oldCapacity: Int, minCapacity: Int): Int {\n // overflow-conscious\n var newCapacity = oldCapacity + (oldCapacity shr 1)\n if (newCapacity - minCapacity < 0)\n newCapacity = minCapacity\n if (newCapacity - maxArraySize > 0)\n newCapacity = if (minCapacity > maxArraySize) Int.MAX_VALUE else maxArraySize\n return newCapacity\n }\n }\n\n // For testing only\n internal fun internalStructure(structure: (head: Int, elements: Array<Any?>) -> Unit) {\n val tail = internalIndex(size)\n val head = if (isEmpty() || head < tail) head else head - elementData.size\n

structure(head, toArray())\n   }\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"ArraysKt\")\n\n\npackage
kotlin.collections\n\nimport kotlin.contracts.*\n\n\n/**\n * Returns a single list of all elements from all arrays in the
given array.\n * @sample samples.collections.Arrays.Transformations.flattenArray\n */\npublic
 fun <T> Array<out Array<out T>>.flatten(): List<T> {\n   val result = ArrayList<T>(sumOf { it.size })\n   for
(element in this) {\n   result.addAll(element)\n   }\n   return result\n}\n\n/**\n * Returns a pair of lists, where\n
* *first* list is built from the first values of each pair from this array,\n * *second* list is built from the second
values of each pair from this array.\n * @sample samples.collections.Arrays.Transformations.unzipArray\n
*/\npublic fun <T, R> Array<out Pair<T, R>>.unzip(): Pair<List<T>, List<R>> {\n   val listT =
ArrayList<T>(size)\n   val listR = ArrayList<R>(size)\n   for (pair in this) {\n   listT.add(pair.first)\n
listR.add(pair.second)\n   }\n   return listT to listR\n}\n\n/**\n * Returns `true` if this nullable array is either null or
empty.\n * @sample samples.collections.Arrays.Usage.arrayIsNullOrEmpty\n
/\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline fun Array<>?.isNullOrEmpty(): Boolean
{\n   contract
 {\n   returns(false) implies (this@isNullOrEmpty != null)\n   }\n\n   return this == null ||
this.isEmpty()\n}\n\n/**\n * Returns this array if it's not empty\n * or the result of calling [defaultValue] function if
the array is empty.\n *\n * @sample samples.collections.Arrays.Usage.arrayIfEmpty\n
*/\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Suppress(\"UPPER_BOUND_CANNOT_BE_ARRAY\
")\npublic inline fun <C, R> C.ifEmpty(defaultValue: () -> R): R where C : Array<*>, C : R =\n   if (isEmpty())
defaultValue() else
this\n\n\n\n@OptIn(ExperimentalUnsignedTypes::class)\n@SinceKotlin(\"1.3\")\n@PublishedApi\n@kotlin.jvm.Jvm
Name(\"contentDeepEquals\")\n@kotlin.js.JsName(\"contentDeepEqualsImpl\")\ninternal fun <T> Array<out
T>?.contentDeepEqualsImpl(other: Array<out T>?): Boolean {\n   if (this === other) return true\n   if (this == null
|| other == null || this.size != other.size) return false\n\n   for (i in indices) {\n   val v1 = this[i]\n   val v2 =
other[i]\n\n
        if (v1 === v2) {\n   continue\n   } else if (v1 == null || v2 == null) {\n   return false\n   }\n\n
  when {\n   v1 is Array<*>   && v2 is Array<*>   -> if (!v1.contentDeepEquals(v2)) return false\n
v1 is ByteArray   && v2 is ByteArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is ShortArray   &&
v2 is ShortArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is IntArray   && v2 is IntArray   -> if
(!v1.contentEquals(v2)) return false\n   v1 is LongArray   && v2 is LongArray   -> if (!v1.contentEquals(v2))
return false\n   v1 is FloatArray   && v2 is FloatArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is
DoubleArray && v2 is DoubleArray -> if (!v1.contentEquals(v2)) return false\n   v1 is CharArray   && v2
is CharArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is BooleanArray && v2 is BooleanArray -> if
(!v1.contentEquals(v2))
 return false\n\n   v1 is UByteArray   && v2 is UByteArray   -> if (!v1.contentEquals(v2)) return false\n
v1 is UShortArray && v2 is UShortArray -> if (!v1.contentEquals(v2)) return false\n   v1 is UIntArray   &&
v2 is UIntArray   -> if (!v1.contentEquals(v2)) return false\n   v1 is ULongArray   && v2 is ULongArray   ->
if (!v1.contentEquals(v2)) return false\n\n   else -> if (v1 != v2) return false\n   }\n\n   }\n   return
true\n}\n\n@SinceKotlin(\"1.3\")\n@PublishedApi\n@kotlin.jvm.JvmName(\"contentDeepToString\")\n@kotlin.js.
JsName(\"contentDeepToStringImpl\")\ninternal fun <T> Array<out T>?.contentDeepToStringImpl(): String {\n
if (this == null) return \"null\"\n   val length = size.coerceAtMost((Int.MAX_VALUE - 2) / 5) * 5 + 2 // in order not
to overflow Int.MAX_VALUE\n   return buildString(length) {\n   contentDeepToStringInternal(this,
mutableListOf())\n   }\n}\n\n@OptIn(ExperimentalUnsignedTypes::class)\nprivate
 fun <T> Array<out T>.contentDeepToStringInternal(result: StringBuilder, processed: MutableList<Array<*>>) {\n
  if (this in processed) {\n   result.append(\"[...]\")\n   return\n   }\n   processed.add(this)\n
result.append('[')\n\n   for (i in indices) {\n   if (i != 0) {\n   result.append(\", \")\n   }\n   val element

= this[i]\n when (element) {\n null -> result.append(\"null\")\n is Array<*> -> element.contentDeepToStringInternal(result, processed)\n is ByteArray -> result.append(element.contentToString())\n is ShortArray -> result.append(element.contentToString())\n is IntArray -> result.append(element.contentToString())\n is LongArray -> result.append(element.contentToString())\n is FloatArray -> result.append(element.contentToString())\n is DoubleArray -> result.append(element.contentToString())\n is CharArray -> result.append(element.contentToString())\n is BooleanArray -> result.append(element.contentToString())\n\n is UByteArray -> result.append(element.contentToString())\n is UShortArray -> result.append(element.contentToString())\n is UIntArray -> result.append(element.contentToString())\n is ULongArray -> result.append(element.contentToString())\n\n else -> result.append(element.toString())\n }\n }\n\n result.append(']')\n processed.removeAt(processed.lastIndex)\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n\n/** Returns true if the brittle contains optimization is enabled. See KT-45438. */\ninternal expect fun brittleContainsOptimizationEnabled(): Boolean\n\n/**\n * Returns true if [brittleContainsOptimizationEnabled] is true\n * and it's safe to convert this collection to a set without changing contains method behavior.\n */\nprivate fun <T> Collection<T>.safeToConvertToSet() = brittleContainsOptimizationEnabled() && size > 2 && this is ArrayList\n\n/**\n * When [brittleContainsOptimizationEnabled] is true:\n * - Converts this [Iterable] to a set if it is not a [Collection].\n * - Converts this [Collection] to a set, when it's worth so and it doesn't change contains method behavior.\n * - Otherwise returns this.\n * When [brittleContainsOptimizationEnabled] is false:\n * - Converts this [Iterable] to a list if it is not a [Collection].\n * - Otherwise returns this.\n */\ninternal fun <T> Iterable<T>.convertToSetForSetOperationWith(source: Iterable<T>): Collection<T> =\n when (this) {\n is Set -> this\n is Collection ->\n when {\n source is Collection && source.size < 2 -> this\n else -> if (this.safeToConvertToSet()) toHashSet() else this\n }\n else -> if (brittleContainsOptimizationEnabled()) toHashSet() else toList()\n }\n\n/**\n * When [brittleContainsOptimizationEnabled] is true:\n * - Converts this [Iterable] to a set if it is not a [Collection].\n * - Converts this [Collection] to a set, when it's worth so and it doesn't change contains method behavior.\n * - Otherwise returns this.\n * When [brittleContainsOptimizationEnabled] is false:\n * - Converts this [Iterable] to a list if it is not a [Collection].\n * - Otherwise returns this.\n */\ninternal fun <T> Iterable<T>.convertToSetForSetOperation(): Collection<T> =\n when (this) {\n is Set -> this\n is Collection -> if (this.safeToConvertToSet()) toHashSet() else this\n else -> if (brittleContainsOptimizationEnabled()) toHashSet() else toList()\n }\n\n/**\n * Converts this sequence to a set if [brittleContainsOptimizationEnabled] is true,\n * otherwise converts it to a list.\n */\ninternal fun <T> Sequence<T>.convertToSetForSetOperation(): Collection<T> =\n if (brittleContainsOptimizationEnabled()) toHashSet() else toList()\n\n/**\n * Converts this array to a set if [brittleContainsOptimizationEnabled] is true,\n * otherwise converts it to a list.\n */\ninternal fun <T> Array<T>.convertToSetForSetOperation(): Collection<T> =\n if (brittleContainsOptimizationEnabled()) toHashSet() else asList()","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\n/**\n * Data class representing a value from a collection or sequence, along with its index in that collection or sequence.\n *\n * @property value the underlying value.\n * @property index the index of the value in the collection or sequence.\n */\npublic data class IndexedValue<out T>(public val index: Int, public val value: T)\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"MapAccessorsKt\")\n\npackage kotlin.collections\n\nimport kotlin.reflect.KProperty\nimport kotlin.internal.Exact\n\n/**\n * Returns the value of

the property for the given object from this read-only map.\n * @param thisRef the object for which the value is requested (not used).\n * @param property the metadata for the property, used to get the name of property and lookup the value corresponding to this name in the map.\n * @return the property value.\n *\n * @throws NoSuchElementException when the map doesn't contain value for the property name and doesn't provide an implicit default (see [withDefault]).\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <V, V1 : V> Map<in String, @Exact V>.getValue(thisRef:
 Any?, property: KProperty<*>): V1 =\n   @Suppress(\"UNCHECKED_CAST\") (getOrImplicitDefault(property.name) as V1)\n\n/**\n * Returns the value of the property for the given object from this mutable map.\n * @param thisRef the object for which the value is requested (not used).\n * @param property the metadata for the property, used to get the name of property and lookup the value corresponding to this name in the map.\n * @return the property value.\n *\n * @throws NoSuchElementException when the map doesn't contain value for the property name and doesn't provide an implicit default (see [withDefault]).\n */\n@kotlin.jvm.JvmName(\"getVar\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <V, V1 : V> MutableMap<in String, out @Exact V>.getValue(thisRef: Any?, property: KProperty<*>): V1 =\n @Suppress(\"UNCHECKED_CAST\") (getOrImplicitDefault(property.name) as V1)\n\n/**\n * Stores the value of the property for the given object in this mutable map.\n * @param thisRef
 the object for which the value is requested (not used).\n * @param property the metadata for the property, used to get the name of property and store the value associated with that name in the map.\n * @param value the value to set.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <V> MutableMap<in String, in V>.setValue(thisRef: Any?, property: KProperty<*>, value: V) {\n   this.put(property.name, value)\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"MapsKt\")\n\npackage kotlin.collections\n\n/**\n * Returns the value for the given key, or the implicit default value for this map.\n * By default no implicit value is provided for maps and a [NoSuchElementException] is thrown.\n * To create a map with implicit default value use [withDefault]
 method.\n *\n * @throws NoSuchElementException when the map doesn't contain a value for the specified key and no implicit default was provided for that map.\n */\n@kotlin.jvm.JvmName(\"getOrImplicitDefaultNullable\")\n@PublishedApi\ninternal fun <K, V> Map<K, V>.getOrImplicitDefault(key: K): V {\n   if (this is MapWithDefault)\n   return this.getOrImplicitDefault(key)\n\n   return getOrElseNullable(key, { throw NoSuchElementException(\"Key $key is missing in the map.\") })\n}\n\n/**\n * Returns a wrapper of this read-only map, having the implicit default value provided with the specified function [defaultValue].\n *\n * This implicit default value is used when the original map doesn't contain a value for the key specified\n * and a value is obtained with [Map.getValue] function, for example when properties are delegated to the map.\n *\n * When this map already has an implicit default value provided with a former call to [withDefault], it is being replaced by this call.\n
 */\npublic fun <K, V> Map<K, V>.withDefault(defaultValue: (key: K) -> V): Map<K, V> =\n   when (this) {\n   is MapWithDefault -> this.map.withDefault(defaultValue)\n   else -> MapWithDefaultImpl(this, defaultValue)\n   }\n\n/**\n * Returns a wrapper of this mutable map, having the implicit default value provided with the specified function [defaultValue].\n *\n * This implicit default value is used when the original map doesn't contain a value for the key specified\n * and a value is obtained with [Map.getValue] function, for example when properties are delegated to the map.\n *\n * When this map already has an implicit default value provided with a former call to [withDefault], it is being replaced by this call.\n */\n@kotlin.jvm.JvmName(\"withDefaultMutable\")\npublic fun <K, V> MutableMap<K, V>.withDefault(defaultValue: (key: K) -> V): MutableMap<K, V> =\n   when (this) {\n   is MutableMapWithDefault -> this.map.withDefault(defaultValue)\n   else -> MutableMapWithDefaultImpl(this,
 defaultValue)\n   }\n\n\nprivate interface MapWithDefault<K, out V> : Map<K, V> {\n   public val map: Map<K, V>\n   public fun getOrImplicitDefault(key: K): V\n}\n\nprivate interface MutableMapWithDefault<K, V> :

MutableMap<K, V>, MapWithDefault<K, V> {\n   public override val map: MutableMap<K, V>\n}\n\n\nprivate class MapWithDefaultImpl<K, out V>(public override val map: Map<K, V>, private val default: (key: K) -> V) : MapWithDefault<K, V> {\n   override fun equals(other: Any?): Boolean = map.equals(other)\n   override fun hashCode(): Int = map.hashCode()\n   override fun toString(): String = map.toString()\n   override val size: Int get() = map.size\n   override fun isEmpty(): Boolean = map.isEmpty()\n   override fun containsKey(key: K): Boolean = map.containsKey(key)\n   override fun containsValue(value: @UnsafeVariance V): Boolean = map.containsValue(value)\n   override fun get(key: K): V? = map.get(key)\n   override val keys: Set<K> get() = map.keys\n
    override val values: Collection<V> get() = map.values\n   override val entries: Set<Map.Entry<K, V>> get() = map.entries\n\n   override fun getOrImplicitDefault(key: K): V = map.getOrElseNullable(key, { default(key) })\n}\n\nprivate class MutableMapWithDefaultImpl<K, V>(public override val map: MutableMap<K, V>, private val default: (key: K) -> V) : MutableMapWithDefault<K, V> {\n   override fun equals(other: Any?): Boolean = map.equals(other)\n   override fun hashCode(): Int = map.hashCode()\n   override fun toString(): String = map.toString()\n   override val size: Int get() = map.size\n   override fun isEmpty(): Boolean = map.isEmpty()\n   override fun containsKey(key: K): Boolean = map.containsKey(key)\n   override fun containsValue(value: @UnsafeVariance V): Boolean = map.containsValue(value)\n   override fun get(key: K): V? = map.get(key)\n   override val keys: MutableSet<K> get() = map.keys\n   override val values: MutableCollection<V> get() = map.values\n
    override val entries: MutableSet<MutableMap.MutableEntry<K, V>> get() = map.entries\n\n   override fun put(key: K, value: V): V? = map.put(key, value)\n   override fun remove(key: K): V? = map.remove(key)\n   override fun putAll(from: Map<out K, V>) = map.putAll(from)\n   override fun clear() = map.clear()\n\n   override fun getOrImplicitDefault(key: K): V = map.getOrElseNullable(key, { default(key) })\n}\n\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CollectionsKt\")\n\npackage kotlin.collections\n\nimport kotlin.random.Random\n\n/**\n * Removes a single instance of the specified element from this\n * collection, if it is present.\n *\n * Allows to overcome type-safety restriction of `remove` that requires to pass an element of type `E`.\n *\n
 * @return `true` if the element has been successfully removed; `false` if it was not present in the collection.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes T> MutableCollection<out T>.remove(element: T): Boolean =\n   @Suppress(\"UNCHECKED_CAST\") (this as MutableCollection<T>).remove(element)\n\n/**\n * Removes all of this collection's elements that are also contained in the specified collection.\n\n * Allows to overcome type-safety restriction of `removeAll` that requires to pass a collection of type `Collection<E>`.\n *\n * @return `true` if any of the specified elements was removed from the collection, `false` if the collection was not modified.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes T> MutableCollection<out T>.removeAll(elements: Collection<T>): Boolean =\n   @Suppress(\"UNCHECKED_CAST\") (this as MutableCollection<T>).removeAll(elements)\n\n/**\n * Retains only the elements in this collection
 that are contained in the specified collection.\n *\n * Allows to overcome type-safety restriction of `retainAll` that requires to pass a collection of type `Collection<E>`.\n *\n * @return `true` if any element was removed from the collection, `false` if the collection was not modified.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <@kotlin.internal.OnlyInputTypes T> MutableCollection<out T>.retainAll(elements: Collection<T>): Boolean =\n   @Suppress(\"UNCHECKED_CAST\") (this as MutableCollection<T>).retainAll(elements)\n\n/**\n * Adds the specified [element] to this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.plusAssign(element: T) {\n   this.add(element)\n}\n\n/**\n * Adds all elements of the given [elements] collection to this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.plusAssign(elements: Iterable<T>) {\n   this.addAll(elements)\n}\n\n/**\n

 * Adds all elements of the given [elements] array to this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.plusAssign(elements: Array<T>) {\n   this.addAll(elements)\n}\n\n/**\n * Adds all elements of the given [elements] sequence to this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.plusAssign(elements: Sequence<T>) {\n   this.addAll(elements)\n}\n\n/**\n * Removes a single instance of the specified [element] from this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.minusAssign(element: T) {\n   this.remove(element)\n}\n\n/**\n * Removes all elements contained in the given [elements] collection from this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.minusAssign(elements: Iterable<T>) {\n   this.removeAll(elements)\n}\n\n/**\n * Removes

 all elements contained in the given [elements] array from this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.minusAssign(elements: Array<T>) {\n   this.removeAll(elements)\n}\n\n/**\n * Removes all elements contained in the given [elements] sequence from this mutable collection.\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> MutableCollection<in T>.minusAssign(elements: Sequence<T>) {\n   this.removeAll(elements)\n}\n\n/**\n * Adds all elements of the given [elements] collection to this [MutableCollection].\n */\npublic fun <T> MutableCollection<in T>.addAll(elements: Iterable<T>): Boolean {\n   when (elements) {\n   is Collection -> return addAll(elements)\n   else -> {\n   var result: Boolean = false\n   for (item in elements)\n   if (add(item)) result = true\n   return result\n   }\n   }\n}\n\n/**\n * Adds all elements of the given [elements]

 sequence to this [MutableCollection].\n */\npublic fun <T> MutableCollection<in T>.addAll(elements: Sequence<T>): Boolean {\n   var result: Boolean = false\n   for (item in elements) {\n   if (add(item)) result = true\n   }\n   return result\n}\n\n/**\n * Adds all elements of the given [elements] array to this [MutableCollection].\n */\npublic fun <T> MutableCollection<in T>.addAll(elements: Array<out T>): Boolean {\n   return addAll(elements.asList())\n}\n\n/**\n * Removes all elements from this [MutableCollection] that are also contained in the given [elements] collection.\n */\npublic fun <T> MutableCollection<in T>.removeAll(elements: Iterable<T>): Boolean {\n   return removeAll(elements.convertToSetForSetOperationWith(this))\n}\n\n/**\n * Removes all elements from this [MutableCollection] that are also contained in the given [elements] sequence.\n */\npublic fun <T> MutableCollection<in T>.removeAll(elements: Sequence<T>): Boolean {\n   val set = elements.convertToSetForSetOperation()\n

    return set.isNotEmpty() && removeAll(set)\n}\n\n/**\n * Removes all elements from this [MutableCollection] that are also contained in the given [elements] array.\n */\npublic fun <T> MutableCollection<in T>.removeAll(elements: Array<out T>): Boolean {\n   return elements.isNotEmpty() && removeAll(elements.convertToSetForSetOperation())\n}\n\n/**\n * Retains only elements of this [MutableCollection] that are contained in the given [elements] collection.\n */\npublic fun <T> MutableCollection<in T>.retainAll(elements: Iterable<T>): Boolean {\n   return retainAll(elements.convertToSetForSetOperationWith(this))\n}\n\n/**\n * Retains only elements of this [MutableCollection] that are contained in the given [elements] array.\n */\npublic fun <T> MutableCollection<in T>.retainAll(elements: Array<out T>): Boolean {\n   if (elements.isNotEmpty())\n   return retainAll(elements.convertToSetForSetOperation())\n   else\n   return retainNothing()\n}\n\n/**\n

 * Retains only elements of this [MutableCollection] that are contained in the given [elements] sequence.\n */\npublic fun <T> MutableCollection<in T>.retainAll(elements: Sequence<T>): Boolean {\n   val set = elements.convertToSetForSetOperation()\n   if (set.isNotEmpty())\n   return retainAll(set)\n   else\n   return retainNothing()\n}\n\nprivate fun MutableCollection<*>.retainNothing(): Boolean {\n   val result = isNotEmpty()\n   clear()\n   return result\n}\n\n\n/**\n * Removes all elements from this [MutableIterable] that match the given [predicate].\n *\n * @return `true` if any element was removed from this collection, or `false` when no elements were removed and collection was not modified.\n */\npublic fun <T> MutableIterable<T>.removeAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate, true)\n\n/**\n * Retains only elements of this [MutableIterable] that

match the given [predicate].\n *\n * @return `true` if any element was removed from this collection,

or `false` when all elements were retained and collection was not modified.\n */\npublic fun <T> MutableIterable<T>.retainAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate, false)\n\nprivate fun <T> MutableIterable<T>.filterInPlace(predicate: (T) -> Boolean, predicateResultToRemove: Boolean): Boolean {\n var result = false\n with(iterator()) {\n while (hasNext())\n if (predicate(next()) == predicateResultToRemove) {\n remove()\n result = true\n }\n }\n return result\n}\n\n\n/**\n * Removes the element at the specified [index] from this list.\n * In Kotlin one should use the [MutableList.removeAt] function instead.\n */\n@Deprecated(\"Use removeAt(index) instead.\", ReplaceWith(\"removeAt(index)\"), level = DeprecationLevel.ERROR)\n@kotlin.internal.InlineOnly\npublic inline fun <T> MutableList<T>.remove(index: Int): T = removeAt(index)\n\n/**\n * Removes the first element from this mutable list

and returns that removed element, or throws [NoSuchElementException] if this list is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> MutableList<T>.removeFirst(): T = if (isEmpty()) throw NoSuchElementException(\"List is empty.\") else removeAt(0)\n\n/**\n * Removes the first element from this mutable list and returns that removed element, or returns `null` if this list is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> MutableList<T>.removeFirstOrNull(): T? = if (isEmpty()) null else removeAt(0)\n\n/**\n * Removes the last element from this mutable list and returns that removed element, or throws [NoSuchElementException] if this list is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> MutableList<T>.removeLast(): T = if (isEmpty()) throw NoSuchElementException(\"List is empty.\") else removeAt(lastIndex)\n\n/**\n * Removes the last element

from this mutable list and returns that removed element, or returns `null` if this list is empty.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun <T> MutableList<T>.removeLastOrNull(): T? = if (isEmpty()) null else removeAt(lastIndex)\n\n/**\n * Removes all elements from this [MutableList] that match the given [predicate].\n *\n * @return `true` if any element was removed from this collection, or `false` when no elements were removed and collection was not modified.\n */\npublic fun <T> MutableList<T>.removeAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate, true)\n\n/**\n * Retains only elements of this [MutableList] that match the given [predicate].\n *\n * @return `true` if any element was removed from this collection, or `false` when all elements were retained and collection was not modified.\n */\npublic fun <T> MutableList<T>.retainAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate, false)\n\nprivate fun

<T> MutableList<T>.filterInPlace(predicate: (T) -> Boolean, predicateResultToRemove: Boolean): Boolean {\n if (this !is RandomAccess)\n return (this as MutableIterable<T>).filterInPlace(predicate, predicateResultToRemove)\n\n var writeIndex: Int = 0\n for (readIndex in 0..lastIndex) {\n val element = this[readIndex]\n if (predicate(element) == predicateResultToRemove)\n continue\n\n if (writeIndex != readIndex)\n this[writeIndex] = element\n\n writeIndex++\n }\n if (writeIndex < size) {\n for (removeIndex in lastIndex downTo writeIndex)\n removeAt(removeIndex)\n\n return true\n } else {\n return false\n }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"CollectionsKt\")\n\npackage

kotlin.collections\n\nprivate open class ReversedListReadOnly<out T>(private val delegate: List<T>) : AbstractList<T>() {\n override val size: Int get() = delegate.size\n override fun get(index: Int): T = delegate[reverseElementIndex(index)]\n}\n\nprivate class ReversedList<T>(private val delegate: MutableList<T>) : AbstractMutableList<T>() {\n override val size: Int get() = delegate.size\n override fun get(index: Int): T = delegate[reverseElementIndex(index)]\n\n override fun clear() = delegate.clear()\n override fun removeAt(index: Int): T = delegate.removeAt(reverseElementIndex(index))\n\n override fun set(index: Int, element: T): T =

delegate.set(reverseElementIndex(index), element)\n   override fun add(index: Int, element: T) {\n delegate.add(reversePositionIndex(index), element)\n   }\n}\n\nprivate fun List<*>.reverseElementIndex(index: Int) =\n   if (index in 0..lastIndex) lastIndex - index else throw IndexOutOfBoundsException(\"Element index $index must be in range [${0..lastIndex}].\")\n\nprivate fun List<*>.reversePositionIndex(index: Int) =\n   if (index in 0..size) size - index else throw IndexOutOfBoundsException(\"Position index $index must be in range [${0..size}].\")\n\n\n/**\n * Returns a reversed read-only view of the original List.\n * All changes made in the original list will be reflected in the reversed one.\n * @sample samples.collections.ReversedViews.asReversedList\n */\npublic fun <T> List<T>.asReversed(): List<T> = ReversedListReadOnly(this)\n\n/**\n * Returns a reversed mutable view of the original mutable List.\n * All changes made in the original list will be reflected in the reversed one and vice versa.\n * @sample samples.collections.ReversedViews.asReversedMutableList\n */\n@kotlin.jvm.JvmName(\"asReversedMutable\")\npublic fun <T> MutableList<T>.asReversed(): MutableList<T> = ReversedList(this)\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"SequencesKt\")\n@file:OptIn(ExperimentalTypeInference::class)\n\npackage kotlin.sequences\n\nimport kotlin.coroutines.*\nimport kotlin.coroutines.intrinsics.*\nimport kotlin.experimental.ExperimentalTypeInference\n\n/**\n * Builds a [Sequence] lazily yielding values one by one.\n *\n * @see kotlin.sequences.generateSequence\n *\n * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n * @sample samples.collections.Sequences.Building.buildFibonacciSequence\n */\n@SinceKotlin(\"1.3\")\npublic fun <T> sequence(@BuilderInference block: suspend SequenceScope<T>.() -> Unit): Sequence<T> = Sequence { iterator(block) }\n\n@SinceKotlin(\"1.3\")\n@Deprecated(\"Use 'sequence { }' function instead.\", ReplaceWith(\"sequence(builderAction)\"), level = DeprecationLevel.ERROR)\n@kotlin.internal.InlineOnly\npublic inline fun <T> buildSequence(@BuilderInference noinline builderAction: suspend SequenceScope<T>.() -> Unit): Sequence<T> = Sequence { iterator(builderAction) }\n\n/**\n * Builds an [Iterator] lazily yielding values one by one.\n *\n * @sample samples.collections.Sequences.Building.buildIterator\n * @sample samples.collections.Iterables.Building.iterable\n */\n@SinceKotlin(\"1.3\")\npublic fun <T> iterator(@BuilderInference block: suspend SequenceScope<T>.() -> Unit): Iterator<T> {\n   val iterator = SequenceBuilderIterator<T>()\n   iterator.nextStep = block.createCoroutineUnintercepted(receiver = iterator, completion = iterator)\n   return iterator\n}\n\n@SinceKotlin(\"1.3\")\n@Deprecated(\"Use 'iterator { }' function instead.\", ReplaceWith(\"iterator(builderAction)\"), level = DeprecationLevel.ERROR)\n@kotlin.internal.InlineOnly\npublic inline fun <T> buildIterator(@BuilderInference noinline builderAction: suspend SequenceScope<T>.() -> Unit): Iterator<T> = iterator(builderAction)\n\n/**\n * The scope for yielding values of a [Sequence] or an [Iterator], provides [yield] and [yieldAll] suspension functions.\n *\n * @see sequence\n * @see iterator\n *\n * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n * @sample samples.collections.Sequences.Building.buildFibonacciSequence\n */\n@RestrictsSuspension\n@SinceKotlin(\"1.3\")\npublic abstract class SequenceScope<in T> internal constructor() {\n   /**\n   * Yields a value to the [Iterator] being built and suspends\n   * until the next value is requested.\n   *\n   * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n   * @sample samples.collections.Sequences.Building.buildFibonacciSequence\n   */\n   public abstract suspend fun yield(value: T)\n\n   /**\n   * Yields all values from the `iterator` to the [Iterator] being built\n   * and suspends until all these values are iterated and the next one is requested.\n   *\n   * The sequence of values returned by the given iterator can be potentially infinite.\n   *\n   * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n   */\n   public abstract suspend fun yieldAll(iterator: Iterator<T>)\n\n   /**\n   * Yields a collections of values to the [Iterator] being built\n   * and suspends until all these values are iterated and the next one is requested.\n   *\n   * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n */\n public suspend fun yieldAll(elements: Iterable<T>) {\n if (elements is Collection && elements.isEmpty()) return\n return yieldAll(elements.iterator())\n }\n\n /**\n * Yields potentially infinite sequence of values to the [Iterator] being built\n * and suspends until all these values are iterated and the next one is requested.\n *\n * The sequence can be potentially infinite.\n *\n * @sample samples.collections.Sequences.Building.buildSequenceYieldAll\n */\n public suspend fun yieldAll(sequence: Sequence<T>) = yieldAll(sequence.iterator())\n}\n\n@Deprecated(\"Use SequenceScope class instead.\", ReplaceWith(\"SequenceScope<T>\"), level = DeprecationLevel.ERROR)\npublic typealias SequenceBuilder<T> = SequenceScope<T>\n\nprivate typealias State = Int\n\nprivate const val State_NotReady: State = 0\nprivate const val State_ManyNotReady: State = 1\nprivate const val State_ManyReady: State = 2\nprivate const val State_Ready: State = 3\nprivate const val State_Done: State = 4\nprivate const val State_Failed: State = 5\n\nprivate class SequenceBuilderIterator<T> : SequenceScope<T>(), Iterator<T>, Continuation<Unit> {\n private var state = State_NotReady\n private var nextValue: T? = null\n private var nextIterator: Iterator<T>? = null\n var nextStep: Continuation<Unit>? = null\n\n override fun hasNext(): Boolean {\n while (true) {\n when (state) {\n State_NotReady -> {}\n State_ManyNotReady ->\n if (nextIterator!!.hasNext()) {\n state = State_ManyReady\n return true\n } else {\n nextIterator = null\n }\n State_Done -> return false\n State_Ready, State_ManyReady -> return true\n else -> throw exceptionalState()\n }\n\n state = State_Failed\n val step = nextStep!!\n nextStep = null\n step.resume(Unit)\n }\n }\n\n override fun next(): T {\n when (state) {\n State_NotReady, State_ManyNotReady -> return nextNotReady()\n State_ManyReady -> {\n state = State_ManyNotReady\n return nextIterator!!.next()\n }\n State_Ready -> {\n state = State_NotReady\n @Suppress(\"UNCHECKED_CAST\")\n val result = nextValue as T\n nextValue = null\n return result\n }\n else -> throw exceptionalState()\n }\n }\n\n private fun nextNotReady(): T {\n if (!hasNext()) throw NoSuchElementException() else return next()\n }\n\n private fun exceptionalState(): Throwable = when (state) {\n State_Done -> NoSuchElementException()\n State_Failed -> IllegalStateException(\"Iterator has failed.\")\n else -> IllegalStateException(\"Unexpected state of the iterator: $state\")\n }\n\n\n override suspend fun yield(value: T) {\n nextValue = value\n state = State_Ready\n return suspendCoroutineUninterceptedOrReturn { c ->\n nextStep = c\n COROUTINE_SUSPENDED\n }\n }\n\n override suspend fun yieldAll(iterator: Iterator<T>) {\n if (!iterator.hasNext()) return\n nextIterator = iterator\n state = State_ManyReady\n return suspendCoroutineUninterceptedOrReturn { c ->\n nextStep = c\n COROUTINE_SUSPENDED\n }\n }\n\n // Completion continuation implementation\n override fun resumeWith(result: Result<Unit>) {\n result.getOrThrow() // just rethrow exception if it is there\n state = State_Done\n }\n\n override val context: CoroutineContext\n get() = EmptyCoroutineContext\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.collections\n\ninternal fun checkWindowSizeStep(size: Int, step: Int) {\n require(size > 0 && step > 0) {\n if (size != step)\n \"Both size $size and step $step must be greater than zero.\"\n else\n \"size $size must be greater than zero.\"\n }\n}\n\ninternal fun <T> Sequence<T>.windowedSequence(size: Int, step: Int, partialWindows: Boolean, reuseBuffer: Boolean): Sequence<List<T>> {\n checkWindowSizeStep(size, step)\n return Sequence { windowedIterator(iterator(), size, step, partialWindows, reuseBuffer) }\n}\n\ninternal fun <T> windowedIterator(iterator: Iterator<T>, size: Int, step: Int, partialWindows: Boolean, reuseBuffer: Boolean): Iterator<List<T>> {\n if (!iterator.hasNext()) return EmptyIterator\n return iterator<List<T>> {\n val bufferInitialCapacity = size.coerceAtMost(1024)\n val gap = step - size\n if (gap >= 0) {\n var buffer = ArrayList<T>(bufferInitialCapacity)\n var skip = 0\n for (e in iterator) {\n if (skip >

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0) { skip -= 1; continue }\n            buffer.add(e)\n            if (buffer.size == size) {\n                yield(buffer)\n
            if (reuseBuffer) buffer.clear() else buffer = ArrayList(size)\n                skip = gap\n            }\n
}\n
        if (buffer.isNotEmpty()) {\n            if (partialWindows || buffer.size == size) yield(buffer)\n        }\n
} else {\n        var buffer = RingBuffer<T>(bufferInitialCapacity)\n        for (e in iterator) {\n
buffer.add(e)\n            if (buffer.isFull()) {\n                if (buffer.size < size) { buffer =
buffer.expanded(maxCapacity = size); continue }\n\n                yield(if (reuseBuffer) buffer else
ArrayList(buffer))\n                buffer.removeFirst(step)\n            }\n        }\n        if (partialWindows) {\n
      while (buffer.size > step) {\n                yield(if (reuseBuffer) buffer else ArrayList(buffer))\n
buffer.removeFirst(step)\n            }\n            if (buffer.isNotEmpty()) yield(buffer)\n        }\n    }\n
}\n}\n\ninternal class MovingSubList<out E>(private val list: List<E>) : AbstractList<E>(), RandomAccess {\n
private
 var fromIndex: Int = 0\n    private var _size: Int = 0\n\n    fun move(fromIndex: Int, toIndex: Int) {\n
checkRangeIndexes(fromIndex, toIndex, list.size)\n        this.fromIndex = fromIndex\n        this._size = toIndex -
fromIndex\n    }\n\n    override fun get(index: Int): E {\n        checkElementIndex(index, _size)\n\n        return
list[fromIndex + index]\n    }\n\n    override val size: Int get() = _size\n}\n\n\n/**\n * Provides ring buffer
implementation.\n *\n * Buffer overflow is not allowed so [add] doesn't overwrite tail but raises an exception.\n
*/\nprivate class RingBuffer<T>(private val buffer: Array<Any?>, filledSize: Int) : AbstractList<T>(),
RandomAccess {\n    init {\n        require(filledSize >= 0) { \"ring buffer filled size should not be negative but it is
$filledSize\" }\n        require(filledSize <= buffer.size) { \"ring buffer filled size: $filledSize cannot be larger than
the buffer size: ${buffer.size}\" }\n    }\n\n    constructor(capacity: Int)
 : this(arrayOfNulls<Any?>(capacity), 0)\n\n    private val capacity = buffer.size\n    private var startIndex: Int =
0\n\n    override var size: Int = filledSize\n        private set\n\n    override fun get(index: Int): T {\n
checkElementIndex(index, size)\n        @Suppress(\"UNCHECKED_CAST\")\n        return
buffer[startIndex.forward(index)] as T\n    }\n\n    fun isFull() = size == capacity\n\n    override fun iterator():
Iterator<T> = object : AbstractIterator<T>() {\n        private var count = size\n        private var index = startIndex\n\n
      override fun computeNext() {\n            if (count == 0) {\n                done()\n            } else {\n
@Suppress(\"UNCHECKED_CAST\")\n                setNext(buffer[index] as T)\n                index =
index.forward(1)\n                count--\n            }\n        }\n    }\n\n    @Suppress(\"UNCHECKED_CAST\")\n
override fun <T> toArray(array: Array<T>): Array<T> {\n        val result: Array<T?> =\n
        if (array.size < this.size) array.copyOf(this.size) else array as Array<T?>\n\n        val size = this.size\n\n
var widx = 0\n        var idx = startIndex\n\n        while (widx < size && idx < capacity) {\n            result[widx] =
buffer[idx] as T\n            widx++\n            idx++\n        }\n\n        idx = 0\n        while (widx < size) {\n
result[widx] = buffer[idx] as T\n            widx++\n            idx++\n        }\n        if (result.size > this.size)
result[this.size] = null\n\n        return result as Array<T>\n    }\n\n    override fun toArray(): Array<Any?> {\n
return toArray(arrayOfNulls(size))\n    }\n\n    /**\n     * Creates a new ring buffer with the capacity equal to the
minimum of [maxCapacity] and 1.5 * [capacity].\n     * The returned ring buffer contains the same elements as this
ring buffer.\n     */\n    fun expanded(maxCapacity: Int): RingBuffer<T> {\n        val newCapacity = (capacity +
(capacity shr 1) + 1).coerceAtMost(maxCapacity)\n
       val newBuffer = if (startIndex == 0) buffer.copyOf(newCapacity) else toArray(arrayOfNulls(newCapacity))\n
    return RingBuffer(newBuffer, size)\n    }\n\n    /**\n     * Add [element] to the buffer or fail with
[IllegalStateException] if no free space available in the buffer\n     */\n    fun add(element: T) {\n        if (isFull()) {\n
         throw IllegalStateException(\"ring buffer is full\")\n        }\n\n        buffer[startIndex.forward(size)] =
element\n        size++\n    }\n\n    /**\n     * Removes [n] first elements from the buffer or fails with
[IllegalArgumentException] if not enough elements in the buffer to remove\n     */\n    fun removeFirst(n: Int) {\n
 require(n >= 0) { \"n shouldn't be negative but it is $n\" }\n        require(n <= size) { \"n shouldn't be greater than
the buffer size: n = $n, size = $size\" }\n\n        if (n > 0) {\n            val start = startIndex\n            val end =
start.forward(n)\n\n            if
```

```
 (start > end) {\n                buffer.fill(null, start, capacity)\n                buffer.fill(null, 0, end)\n            } else {\n
    buffer.fill(null, start, end)\n            }\n\n            startIndex = end\n            size -= n\n        }\n    }\n\n\n
@Suppress(\"NOTHING_TO_INLINE\")\n    private inline fun Int.forward(n: Int): Int = (this + n) %
capacity\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n *
Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\npackage kotlin.collections\n\n// UByteArray
=============================================================================\n@Exp
erimentalUnsignedTypes\nprivate fun partition(\n    array: UByteArray, left: Int, right: Int): Int {\n    var i = left\n
var j = right\n    val pivot = array[(left + right) / 2]\n    while (i <= j) {\n        while (array[i] < pivot)\n            i++\n
   while
 (array[j] > pivot)\n            j--\n        if (i <= j) {\n            val tmp = array[i]\n            array[i] = array[j]\n
array[j] = tmp\n            i++\n            j--\n        }\n    }\n    return i\n}\n\n@ExperimentalUnsignedTypes\nprivate fun
quickSort(\n    array: UByteArray, left: Int, right: Int) {\n    val index = partition(array, left, right)\n    if (left < index
- 1)\n        quickSort(array, left, index - 1)\n    if (index < right)\n        quickSort(array, index, right)\n}\n\n//
UShortArray
=============================================================================\n@Exp
erimentalUnsignedTypes\nprivate fun partition(\n    array: UShortArray, left: Int, right: Int): Int {\n    var i = left\n
var j = right\n    val pivot = array[(left + right) / 2]\n    while (i <= j) {\n        while (array[i] < pivot)\n            i++\n
   while (array[j] > pivot)\n            j--\n        if (i <= j) {\n            val tmp = array[i]\n            array[i] =
 array[j]\n            array[j] = tmp\n            i++\n            j--\n        }\n    }\n    return
i\n}\n\n@ExperimentalUnsignedTypes\nprivate fun quickSort(\n    array: UShortArray, left: Int, right: Int) {\n    val
index = partition(array, left, right)\n    if (left < index - 1)\n        quickSort(array, left, index - 1)\n    if (index <
right)\n        quickSort(array, index, right)\n}\n\n// UIntArray
=============================================================================\n@Exp
erimentalUnsignedTypes\nprivate fun partition(\n    array: UIntArray, left: Int, right: Int): Int {\n    var i = left\n
var j = right\n    val pivot = array[(left + right) / 2]\n    while (i <= j) {\n        while (array[i] < pivot)\n            i++\n
   while (array[j] > pivot)\n            j--\n        if (i <= j) {\n            val tmp = array[i]\n            array[i] = array[j]\n
 array[j] = tmp\n            i++\n            j--\n        }\n    }\n    return i\n}\n\n@ExperimentalUnsignedTypes\nprivate
 fun quickSort(\n    array: UIntArray, left: Int, right: Int) {\n    val index = partition(array, left, right)\n    if (left <
index - 1)\n        quickSort(array, left, index - 1)\n    if (index < right)\n        quickSort(array, index, right)\n}\n\n//
ULongArray
=============================================================================\n@Exp
erimentalUnsignedTypes\nprivate fun partition(\n    array: ULongArray, left: Int, right: Int): Int {\n    var i = left\n
var j = right\n    val pivot = array[(left + right) / 2]\n    while (i <= j) {\n        while (array[i] < pivot)\n            i++\n
   while (array[j] > pivot)\n            j--\n        if (i <= j) {\n            val tmp = array[i]\n            array[i] = array[j]\n
 array[j] = tmp\n            i++\n            j--\n        }\n    }\n    return i\n}\n\n@ExperimentalUnsignedTypes\nprivate fun
quickSort(\n    array: ULongArray, left: Int, right: Int) {\n    val index = partition(array,
 left, right)\n    if (left < index - 1)\n        quickSort(array, left, index - 1)\n    if (index < right)\n        quickSort(array,
index, right)\n}\n\n\n// Interfaces
=============================================================================\n/**\n
* Sorts the given array using qsort algorithm.\n */\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array:
UByteArray, fromIndex: Int, toIndex: Int)    = quickSort(array, fromIndex, toIndex -
1)\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array: UShortArray, fromIndex: Int, toIndex: Int)   =
quickSort(array, fromIndex, toIndex - 1)\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array: UIntArray,
fromIndex: Int, toIndex: Int)     = quickSort(array, fromIndex, toIndex -
1)\n@ExperimentalUnsignedTypes\ninternal fun sortArray(array: ULongArray, fromIndex: Int, toIndex: Int)    =
quickSort(array, fromIndex, toIndex - 1)","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of
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this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.internal.InlineOnly\n\n/**\n * Compares this object with the specified object for order. Returns zero if this object is equal\n * to the specified [other] object, a negative number if it's less than [other], or a positive number\n * if it's greater than [other].\n *\n * This function delegates to [Comparable.compareTo] and allows to call it in infix form.\n */\n@InlineOnly\n@SinceKotlin(\"1.6\")\npublic inline infix fun <T> Comparable<T>.compareTo(other: T): Int =\n   this.compareTo(other)\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.contracts\n\nimport kotlin.internal.ContractsDsl\nimport kotlin.internal.InlineOnly\n\n/**\n * This marker distinguishes the
experimental contract declaration API and is used to opt-in for that feature\n * when declaring contracts of user functions.\n *\n * Any usage of a declaration annotated with `@ExperimentalContracts` must be accepted either by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalContracts::class)`,\n * or by using the compiler argument `-opt-in=kotlin.contracts.ExperimentalContracts`.\n */\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.3\")\n@RequiresOptIn\n@MustBeDocumented\npublic annotation class ExperimentalContracts\n\n/**\n * Provides a scope, where the functions of the contract DSL, such as [returns], [callsInPlace], etc.,\n * can be used to describe the contract of a function.\n *\n * This type is used as a receiver type of the lambda function passed to the [contract] function.\n *\n * @see contract\n */\n@ContractsDsl\n@ExperimentalContracts\n@SinceKotlin(\"1.3\")\npublic interface ContractBuilder {\n   /**\n   * Describes a situation
when a function returns normally, without any exceptions thrown.\n   *\n   * Use [SimpleEffect.implies] function to describe a conditional effect that happens in such case.\n   *\n   */\n   // @sample samples.contracts.returnsContract\n   @ContractsDsl public fun returns(): Returns\n\n   /**\n   * Describes a situation when a function returns normally with the specified return [value].\n   *\n   * The possible values of [value] are limited to `true`, `false` or `null`.\n   *\n   * Use [SimpleEffect.implies] function to describe a conditional effect that happens in such case.\n   *\n   */\n   // @sample samples.contracts.returnsTrueContract\n   // @sample samples.contracts.returnsFalseContract\n   // @sample samples.contracts.returnsNullContract\n   @ContractsDsl public fun returns(value: Any?): Returns\n\n   /**\n   * Describes a situation when a function returns normally with any value that is not `null`.\n   *\n   * Use [SimpleEffect.implies] function
to describe a conditional effect that happens in such case.\n   *\n   */\n   // @sample samples.contracts.returnsNotNullContract\n   @ContractsDsl public fun returnsNotNull(): ReturnsNotNull\n\n   /**\n   * Specifies that the function parameter [lambda] is invoked in place.\n   *\n   * This contract specifies that:\n   * 1. the function [lambda] can only be invoked during the call of the owner function,\n   * and it won't be invoked after that owner function call is completed;\n   * 2. _(optionally)_ the function [lambda] is invoked the amount of times specified by the [kind] parameter,\n   * see the [InvocationKind] enum for possible values.\n   *\n   * A function declaring the `callsInPlace` effect must be _inline_.\n   *\n   */\n   /* @sample samples.contracts.callsInPlaceAtMostOnceContract\n   * @sample samples.contracts.callsInPlaceAtLeastOnceContract\n   * @sample samples.contracts.callsInPlaceExactlyOnceContract\n   * @sample samples.contracts.callsInPlaceUnknownContract\n
*/\n   @ContractsDsl public fun <R> callsInPlace(lambda: Function<R>, kind: InvocationKind = InvocationKind.UNKNOWN): CallsInPlace\n}\n\n/**\n * Specifies how many times a function invokes its function parameter in place.\n *\n * See [ContractBuilder.callsInPlace] for the details of the call-in-place function contract.\n */\n@ContractsDsl\n@ExperimentalContracts\n@SinceKotlin(\"1.3\")\npublic enum class InvocationKind {\n   /**\n   * A function parameter will be invoked one time or not invoked at all.\n   */\n   // @sample samples.contracts.callsInPlaceAtMostOnceContract\n   @ContractsDsl AT_MOST_ONCE,\n\n   /**\n   * A function parameter will be invoked one or more times.\n   *\n   */\n   // @sample samples.contracts.callsInPlaceAtLeastOnceContract\n   @ContractsDsl AT_LEAST_ONCE,\n\n   /**\n   * A

function parameter will be invoked exactly one time.\n   *\n   */\n   // @sample samples.contracts.callsInPlaceExactlyOnceContract\n
    @ContractsDsl EXACTLY_ONCE,\n\n   /**\n   * A function parameter is called in place, but it's unknown how many times it can be called.\n   *\n   */\n   // @sample samples.contracts.callsInPlaceUnknownContract\n   @ContractsDsl UNKNOWN\n}\n\n/**\n * Specifies the contract of a function.\n *\n * The contract description must be at the beginning of a function and have at least one effect.\n *\n * Only the top-level functions can have a contract for now.\n *\n * @param builder the lambda where the contract of a function is described with the help of the [ContractBuilder] members.\n *\n */\n/* @sample samples.contracts.returnsContract\n* @sample samples.contracts.returnsTrueContract\n* @sample samples.contracts.returnsFalseContract\n* @sample samples.contracts.returnsNullContract\n* @sample samples.contracts.returnsNotNullContract\n* @sample samples.contracts.callsInPlaceAtMostOnceContract\n* @sample samples.contracts.callsInPlaceAtLeastOnceContract\n* @sample samples.contracts.callsInPlaceExactlyOnceContract\n*
 @sample samples.contracts.callsInPlaceUnknownContract\n*/\n@ContractsDsl\n@ExperimentalContracts\n@InlineOnly\n@SinceKotlin(\"1.3\")\n@Suppress(\"UNUSED_PARAMETER\")\npublic inline fun contract(builder: ContractBuilder.() -> Unit) { }\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\n/**\n * Marks coroutine context element that intercepts coroutine continuations.\n * The coroutines framework uses [ContinuationInterceptor.Key] to retrieve the interceptor and\n * intercepts all coroutine continuations with [interceptContinuation] invocations.\n *\n * [ContinuationInterceptor] behaves like a [polymorphic element][AbstractCoroutineContextKey], meaning that\n * its implementation delegates [get][CoroutineContext.Element.get] and [minusKey][CoroutineContext.Element.minusKey]\n
 * to [getPolymorphicElement] and [minusPolymorphicKey] respectively.\n * [ContinuationInterceptor] subtypes can be extracted from the coroutine context using either [ContinuationInterceptor.Key]\n * or subtype key if it extends [AbstractCoroutineContextKey].\n */\n@SinceKotlin(\"1.3\")\npublic interface ContinuationInterceptor : CoroutineContext.Element {\n   /**\n   * The key that defines *the* context interceptor.\n   */\n   companion object Key : CoroutineContext.Key<ContinuationInterceptor>\n\n   /**\n   * Returns continuation that wraps the original [continuation], thus intercepting all resumptions.\n   * This function is invoked by coroutines framework when needed and the resulting continuations are\n   * cached internally per each instance of the original [continuation].\n   *\n   * This function may simply return original [continuation] if it does not want to intercept this particular continuation.\n   *\n   * When the original [continuation]
 completes, coroutine framework invokes [releaseInterceptedContinuation]\n   * with the resulting continuation if it was intercepted, that is if `interceptContinuation` had previously\n   * returned a different continuation instance.\n   */\n   public fun <T> interceptContinuation(continuation: Continuation<T>): Continuation<T>\n\n   /**\n   * Invoked for the continuation instance returned by [interceptContinuation] when the original\n   * continuation completes and will not be used anymore. This function is invoked only if [interceptContinuation]\n   * had returned a different continuation instance from the one it was invoked with.\n   *\n   * Default implementation does nothing.\n   *\n   * @param continuation Continuation instance returned by this interceptor's [interceptContinuation] invocation.\n   */\n   public fun releaseInterceptedContinuation(continuation: Continuation<*>) {\n   /* do nothing by default */\n   }\n\n   public override operator
 fun <E : CoroutineContext.Element> get(key: CoroutineContext.Key<E>): E? {\n   // getPolymorphicKey specialized for ContinuationInterceptor key\n   @OptIn(ExperimentalStdlibApi::class)\n   if (key is AbstractCoroutineContextKey<*, *>) {\n   @Suppress(\"UNCHECKED_CAST\")\n   return if (key.isSubKey(this.key)) key.tryCast(this) as? E else null\n   }\n   @Suppress(\"UNCHECKED_CAST\")\n
  return if (ContinuationInterceptor === key) this as E else null\n   }\n\n\n   public override fun minusKey(key: CoroutineContext.Key<*>): CoroutineContext {\n   // minusPolymorphicKey specialized for

ContinuationInterceptor key\n   @OptIn(ExperimentalStdlibApi::class)\n   if (key is AbstractCoroutineContextKey<*, *>) {\n   return if (key.isSubKey(this.key) && key.tryCast(this) != null) EmptyCoroutineContext else this\n   }\n   return if (ContinuationInterceptor === key) EmptyCoroutineContext else this\n   }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\n/**\n * Persistent context for the coroutine. It is an indexed set of [Element] instances.\n * An indexed set is a mix between a set and a map.\n * Every element in this set has a unique [Key].\n */\n@SinceKotlin(\"1.3\")\npublic interface CoroutineContext {\n   /**\n   * Returns the element with the given [key] from this context or `null`.\n   */\n   public operator fun <E : Element> get(key: Key<E>): E?\n\n   /**\n   * Accumulates entries of this context starting with [initial] value and applying [operation]\n   * from left to right to current accumulator value and each element of this context.\n   */\n   public fun <R> fold(initial: R, operation: (R, Element) -> R): R\n\n   /**\n   * Returns a context containing elements from this context and elements from other [context].\n   * The elements from this context with the same key as in the other one are dropped.\n   */\n   public operator fun plus(context: CoroutineContext): CoroutineContext =\n   if (context === EmptyCoroutineContext) this else // fast path -- avoid lambda creation\n   context.fold(this) { acc, element ->\n   val removed = acc.minusKey(element.key)\n   if (removed === EmptyCoroutineContext) element else {\n   // make sure interceptor is always last in the context (and thus is fast to get when present)\n   val interceptor = removed[ContinuationInterceptor]\n   if (interceptor == null) CombinedContext(removed, element) else {\n   val left = removed.minusKey(ContinuationInterceptor)\n   if (left === EmptyCoroutineContext) CombinedContext(element, interceptor) else\n   CombinedContext(CombinedContext(left, element), interceptor)\n   }\n   }\n   }\n\n   /**\n   * Returns a context containing elements from this context, but without an element with\n   * the specified [key].\n   */\n   public fun minusKey(key: Key<*>): CoroutineContext\n\n   /**\n   * Key for the elements of [CoroutineContext]. [E] is a type of element with this key.\n   */\n   public interface Key<E : Element>\n\n   /**\n   * An element of the [CoroutineContext]. An element of the coroutine context is a singleton context by itself.\n   */\n   public interface Element : CoroutineContext {\n   /**\n   * A key of this coroutine context element.\n   */\n   public val key: Key<*>\n\n   public override operator fun <E : Element> get(key: Key<E>): E? =\n   @Suppress(\"UNCHECKED_CAST\")\n   if (this.key == key) this as E else null\n\n   public override fun <R> fold(initial: R, operation: (R, Element) -> R): R =\n   operation(initial, this)\n\n   public override fun minusKey(key: Key<*>): CoroutineContext =\n   if (this.key == key) EmptyCoroutineContext else this\n   }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.coroutines\n\nimport kotlin.coroutines.CoroutineContext.Element\nimport kotlin.coroutines.CoroutineContext.Key\n\n/**\n * Base class for [CoroutineContext.Element] implementations.\n */\n@SinceKotlin(\"1.3\")\npublic abstract class AbstractCoroutineContextElement(public override val key: Key<*>) : Element\n\n/**\n * Base class for [CoroutineContext.Key] associated with polymorphic [CoroutineContext.Element] implementation.\n * Polymorphic element implementation implies delegating its [get][Element.get] and [minusKey][Element.minusKey]\n * to [getPolymorphicElement] and [minusPolymorphicKey] respectively.\n *\n * Polymorphic elements can be extracted from the coroutine context using both element key and its supertype key.\n * Example of polymorphic elements:\n * ```\n * open class BaseElement : CoroutineContext.Element {\n *   companion object Key : CoroutineContext.Key<BaseElement>\n *   override val key: CoroutineContext.Key<*> get() = Key\n *   // It is important to use getPolymorphicKey and minusPolymorphicKey\n *   override fun <E : CoroutineContext.Element> get(key: CoroutineContext.Key<E>): E? = getPolymorphicElement(key)\n *   override fun minusKey(key: CoroutineContext.Key<*>): CoroutineContext = minusPolymorphicKey(key)\n * }\n *\n * class DerivedElement : BaseElement() {\n * companion object Key : AbstractCoroutineContextKey<BaseElement, DerivedElement>(BaseElement, { it as? DerivedElement })\n * }\n * // Now it is possible to query both `BaseElement` and `DerivedElement`\n * someContext[BaseElement] // Returns BaseElement?, non-null both for BaseElement and DerivedElement instances\n * someContext[DerivedElement] // Returns DerivedElement?, non-null only for DerivedElement instance\n * ```\n * @param B base class of a polymorphic element\n * @param baseKey an instance of base key\n * @param E element type associated with the current key\n * @param safeCast a function that can safely cast abstract [CoroutineContext.Element] to the concrete [E] type\n *   and return the element if it is a subtype of [E] or `null` otherwise.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalStdlibApi\npublic abstract class AbstractCoroutineContextKey<B : Element, E : B>(\n   baseKey: Key<B>,\n   private val safeCast: (element: Element) -> E?\n) : Key<E> {\n   private val topmostKey: Key<*> = if (baseKey is AbstractCoroutineContextKey<*, *>) baseKey.topmostKey else baseKey\n\n   internal fun tryCast(element: Element): E? = safeCast(element)\n   internal fun isSubKey(key: Key<*>): Boolean = key === this || topmostKey === key\n}\n\n/**\n * Returns the current element if it is associated with the given [key] in a polymorphic manner or `null` otherwise.\n * This method returns non-null value if either [Element.key] is equal to the given [key] or if the [key] is associated\n * with [Element.key] via [AbstractCoroutineContextKey].\n * See [AbstractCoroutineContextKey] for the example of usage.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalStdlibApi\npublic fun <E : Element> Element.getPolymorphicElement(key: Key<E>): E? {\n   if (key is AbstractCoroutineContextKey<*, *>) {\n   @Suppress(\"UNCHECKED_CAST\")\n   return if (key.isSubKey(this.key)) key.tryCast(this) as? E else null\n   }\n   @Suppress(\"UNCHECKED_CAST\")\n   return if (this.key === key) this as E else null\n}\n\n/**\n * Returns empty coroutine context if the element is associated with the given [key] in a polymorphic manner\n * or `null` otherwise.\n * This method returns empty context if either [Element.key] is equal to the given [key] or if the [key] is associated\n * with [Element.key] via [AbstractCoroutineContextKey].\n * See [AbstractCoroutineContextKey] for the example of usage.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalStdlibApi\npublic fun Element.minusPolymorphicKey(key: Key<*>): CoroutineContext {\n   if (key is AbstractCoroutineContextKey<*, *>) {\n   return if (key.isSubKey(this.key) && key.tryCast(this) != null) EmptyCoroutineContext else this\n   }\n   return if (this.key === key) EmptyCoroutineContext else this\n}\n\n/**\n * An empty coroutine context.\n */\n@SinceKotlin(\"1.3\")\npublic object EmptyCoroutineContext : CoroutineContext, Serializable {\n   private const val serialVersionUID: Long = 0\n   private fun readResolve(): Any = EmptyCoroutineContext\n\n   public override fun <E : Element> get(key: Key<E>): E? = null\n   public override fun <R> fold(initial: R, operation: (R, Element) -> R): R = initial\n   public override fun plus(context: CoroutineContext): CoroutineContext = context\n   public override fun minusKey(key: Key<*>): CoroutineContext = this\n   public override fun hashCode(): Int = 0\n   public override fun toString(): String = \"EmptyCoroutineContext\"\n}\n\n//--------------------- internal impl ---------------------\n\n// this class is not exposed, but is hidden inside implementations\n// this is a left-biased list, so that `plus` works naturally\n@SinceKotlin(\"1.3\")\ninternal class CombinedContext(\n   private val left: CoroutineContext,\n   private val element: Element\n) : CoroutineContext, Serializable {\n\n   override fun <E : Element> get(key: Key<E>): E? {\n   var cur = this\n   while (true) {\n   cur.element[key]?.let { return it }\n   val next = cur.left\n   if (next is CombinedContext) {\n   cur = next\n   } else {\n   return next[key]\n   }\n   }\n   }\n\n   public override fun <R> fold(initial: R, operation: (R, Element) -> R): R =\n   operation(left.fold(initial, operation), element)\n\n   public override fun minusKey(key: Key<*>): CoroutineContext {\n   element[key]?.let { return left }\n   val newLeft = left.minusKey(key)\n   return when {\n   newLeft === left -> this\n   newLeft === EmptyCoroutineContext -> element\n   else -> CombinedContext(newLeft, element)\n   }\n   }\n\n   private fun size(): Int {\n   var cur = this\n   var size = 2\n   while (true) {\n   cur = cur.left as? CombinedContext ?: return size\n   size++\n   }\n   }\n\n   private fun contains(element: Element): Boolean =\n   get(element.key) == element\n\n   private fun

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containsAll(context: CombinedContext): Boolean {\n        var cur = context\n        while (true) {\n            if
(!contains(cur.element)) return false\n            val next = cur.left\n            if (next is CombinedContext) {\n
cur = next\n            }
 else {\n                return contains(next as Element)\n            }\n        }\n    }\n\n    override fun equals(other: Any?):
Boolean =\n        this === other || other is CombinedContext && other.size() == size() &&
other.containsAll(this)\n\n    override fun hashCode(): Int = left.hashCode() + element.hashCode()\n\n    override
fun toString(): String =\n        \"[\" + fold(\"\") { acc, element ->\n            if (acc.isEmpty()) element.toString() else
\"$acc, $element\"\n        } + \"]\"\n\n    private fun writeReplace(): Any {\n        val n = size()\n        val elements =
arrayOfNulls<CoroutineContext>(n)\n        var index = 0\n        fold(Unit) { _, element -> elements[index++] =
element }\n        check(index == n)\n        @Suppress(\"UNCHECKED_CAST\")\n        return Serialized(elements
as Array<CoroutineContext>)\n    }\n\n    private class Serialized(val elements: Array<CoroutineContext>) :
Serializable {\n        companion object {\n            private const val serialVersionUID:
 Long = 0L\n        }\n\n        private fun readResolve(): Any = elements.fold(EmptyCoroutineContext,
CoroutineContext::plus)\n    }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmName(\"IntrinsicsKt\")\n@file:kotlin.jvm.JvmMultifileClass\n\npackage
kotlin.coroutines.intrinsics\n\nimport kotlin.contracts.*\nimport kotlin.coroutines.*\nimport
kotlin.internal.InlineOnly\n\n/**\n * Obtains the current continuation instance inside suspend functions and either
suspends\n * currently running coroutine or returns result immediately without suspension.\n *\n * If the [block]
returns the special [COROUTINE_SUSPENDED] value, it means that suspend function did suspend the execution
and will\n * not return any result immediately. In this case, the [Continuation] provided to the [block] shall
 be\n * resumed by invoking [Continuation.resumeWith] at some moment in the\n * future when the result becomes
available to resume the computation.\n *\n * Otherwise, the return value of the [block] must have a type assignable
to [T] and represents the result of this suspend function.\n * It means that the execution was not suspended and the
[Continuation] provided to the [block] shall not be invoked.\n * As the result type of the [block] is declared as
`Any?` and cannot be correctly type-checked,\n * its proper return type remains on the conscience of the suspend
function's author.\n *\n * Invocation of [Continuation.resumeWith] resumes coroutine directly in the invoker's
thread without going through the\n * [ContinuationInterceptor] that might be present in the coroutine's
[CoroutineContext].\n * It is the invoker's responsibility to ensure that a proper invocation context is established.\n *
[Continuation.intercepted] can be used to acquire the intercepted continuation.\n *\n * Note
 that it is not recommended to call either [Continuation.resume] nor [Continuation.resumeWithException] functions
synchronously\n * in the same stackframe where suspension function is run. Use [suspendCoroutine] as a safer way
to obtain current\n * continuation instance.\n
*/\n@SinceKotlin(\"1.3\")\n@InlineOnly\n@Suppress(\"UNUSED_PARAMETER\",
\"RedundantSuspendModifier\")\npublic suspend inline fun <T>
suspendCoroutineUninterceptedOrReturn(crossinline block: (Continuation<T>) -> Any?): T {\n    contract {
callsInPlace(block, InvocationKind.EXACTLY_ONCE) }\n    throw NotImplementedError(\"Implementation of
suspendCoroutineUninterceptedOrReturn is intrinsic\")\n}\n\n/**\n * This value is used as a return value of
[suspendCoroutineUninterceptedOrReturn] `block` argument to state that\n * the execution was suspended and will
not return any result immediately.\n *\n * **Note: this value should not be used in general code.** Using it outside
of the context of\n * `suspendCoroutineUninterceptedOrReturn`
 function return value  (including, but not limited to,\n * storing this value in other properties, returning it from other
functions, etc)\n * can lead to unspecified behavior of the code.\n */\n// It is implemented as property with getter to
avoid ProGuard <clinit> problem with multifile IntrinsicsKt class\n@SinceKotlin(\"1.3\")\npublic val
COROUTINE_SUSPENDED: Any get() = CoroutineSingletons.COROUTINE_SUSPENDED\n\n// Using enum
here ensures two important properties:\n//  1. It makes SafeContinuation serializable with all kinds of serialization
frameworks (since all of them natively support enums)\n//  2. It improves debugging experience, since you clearly
```

see toString() value of those objects and what package they come from\n@SinceKotlin(\"1.3\")\n@PublishedApi // This class is Published API via serialized representation of SafeContinuation, don't rename/move\ninternal enum class CoroutineSingletons { COROUTINE_SUSPENDED, UNDECIDED, RESUMED }\n","/*\n * Copyright 2010-2018

JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.experimental\n\n/** Performs a bitwise AND operation between the two values.

*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline infix fun Byte.and(other: Byte): Byte = (this.toInt() and other.toInt()).toByte()\n\n/** Performs a bitwise OR operation between the two values.

*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline infix fun Byte.or(other: Byte): Byte = (this.toInt() or other.toInt()).toByte()\n\n/** Performs a bitwise XOR operation between the two values.

*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline infix fun Byte.xor(other: Byte): Byte = (this.toInt() xor other.toInt()).toByte()\n\n/** Inverts the bits in this value.

*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.inv(): Byte = (this.toInt().inv()).toByte()\n\n\n/**

Performs a bitwise AND operation between the two values.

*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline infix fun Short.and(other: Short): Short = (this.toInt() and other.toInt()).toShort()\n\n/** Performs a bitwise OR operation between the two values.

*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline infix fun Short.or(other: Short): Short = (this.toInt() or other.toInt()).toShort()\n\n/** Performs a bitwise XOR operation between the two values.

*/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline infix fun Short.xor(other: Short): Short = (this.toInt() xor other.toInt()).toShort()\n\n/** Inverts the bits in this value.

/\n@SinceKotlin(\"1.1\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.inv(): Short = (this.toInt().inv()).toShort()\n\n\n","/\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache

2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.experimental\n\n/**\n * The experimental marker for type inference augmenting annotations.\n *\n * Any usage of a declaration annotated with `@ExperimentalTypeInference` must be accepted either by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalTypeInference::class)`,\n * or by using the compiler argument `-opt-in=kotlin.experimental.ExperimentalTypeInference`.\n */\n@RequiresOptIn(level = RequiresOptIn.Level.ERROR)\n@MustBeDocumented\n@Retention(AnnotationRetention.BINARY)\n@Target(AnnotationTarget.ANNOTATION_CLASS)\n@SinceKotlin(\"1.3\")\npublic annotation class ExperimentalTypeInference\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.internal\n\n/**\n * Specifies that the corresponding

type should be ignored during type inference.\n */\n@Target(AnnotationTarget.TYPE)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class NoInfer\n\n/**\n * Specifies that the constraint built for the type during type inference should be an equality one.\n */\n@Target(AnnotationTarget.TYPE)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class Exact\n\n/**\n * Specifies that a corresponding member has the lowest priority in overload resolution.\n */\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY, AnnotationTarget.CONSTRUCTOR)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class LowPriorityInOverloadResolution\n\n/**\n * Specifies that the corresponding member has the highest priority in overload resolution. Effectively this means that\n * an extension annotated with this annotation will win in overload resolution over a member with the same signature.\n */\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY)\n@Retention(AnnotationRetention.BINARY)\ninternal

annotation class HidesMembers\n\n/**\n * The value of this type parameter should be mentioned in input types (argument types, receiver type or expected type).\n

*/\n@Target(AnnotationTarget.TYPE_PARAMETER)\n@Retention(AnnotationRetention.BINARY)\ninternal
annotation class OnlyInputTypes\n\n/**\n * Specifies that this function should not be called directly without
inlining\n */\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY,
AnnotationTarget.PROPERTY_GETTER,
AnnotationTarget.PROPERTY_SETTER)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class
InlineOnly\n\n/**\n * Specifies that this declaration can have dynamic receiver type.\n
*/\n@Target(AnnotationTarget.FUNCTION,
AnnotationTarget.PROPERTY)\n@Retention(AnnotationRetention.BINARY)\ninternal annotation class
DynamicExtension\n\n/**\n * The value of this parameter should be a property reference expression (`this::foo`),
referencing a `lateinit` property,\n * the backing
field of which is accessible at the point where the corresponding argument is passed.\n
*/\n@Target(AnnotationTarget.VALUE_PARAMETER)\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.2\")\ninternal annotation class AccessibleLateinitPropertyLiteral\n\n/**\n * Specifies that this declaration is
only completely supported since the specified version.\n *\n * The Kotlin compiler of an earlier version is going to
report a diagnostic on usages of this declaration.\n * The diagnostic message can be specified with [message], or via
[errorCode] (takes less space, but might not be immediately clear\n * to the user). The diagnostic severity can be
specified with [level]: WARNING/ERROR mean that either a warning or an error\n * is going to be reported,
HIDDEN means that the declaration is going to be removed from resolution completely.\n *\n * [versionKind]
specifies which version should be compared with the [version] value, when compiling the usage of the annotated
declaration.\n *
Note that prior to 1.2, only [RequireKotlinVersionKind.LANGUAGE_VERSION] was supported, so the Kotlin
compiler before 1.2 is going to\n * treat any [RequireKotlin] as if it requires the language version. Since 1.2, the
Kotlin compiler supports\n * [RequireKotlinVersionKind.LANGUAGE_VERSION],
[RequireKotlinVersionKind.COMPILER_VERSION] and [RequireKotlinVersionKind.API_VERSION].\n * If the
actual value of [versionKind] is something different (e.g. a new version kind, added in future versions of Kotlin),\n *
Kotlin 1.2 is going to ignore this [RequireKotlin] altogether, where as Kotlin before 1.2 is going to treat this as a
requirement\n * on the language version.\n *\n * This annotation is erased at compile time; its arguments are stored
in a more compact form in the Kotlin metadata.\n */\n@Target(AnnotationTarget.CLASS,
AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY, AnnotationTarget.CONSTRUCTOR,
AnnotationTarget.TYPEALIAS)\n@Retention(AnnotationRetention.SOURCE)\n@Repeatable\n@SinceKotlin(\"1.2\")\ninternal
annotation class RequireKotlin(\n   val version: String,\n   val message: String = \"\",\n   val level:
DeprecationLevel = DeprecationLevel.ERROR,\n   val versionKind: RequireKotlinVersionKind =
RequireKotlinVersionKind.LANGUAGE_VERSION,\n   val errorCode: Int = -1\n)\n\n/**\n * The kind of the
version that is required by [RequireKotlin].\n */\n@SinceKotlin(\"1.2\")\ninternal enum class
RequireKotlinVersionKind {\n   LANGUAGE_VERSION,\n   COMPILER_VERSION,\n
API_VERSION,\n}\n\n/**\n * Specifies that this declaration is a part of special DSL, used for constructing
function's contract.\n */\n@Retention(AnnotationRetention.BINARY)\n@SinceKotlin(\"1.2\")\ninternal annotation
class ContractsDsl\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage kotlin.properties\n\nimport kotlin.reflect.KProperty\n\n/**\n
* Standard property delegates.\n */\npublic object Delegates {\n   /**\n   * Returns a property delegate for a
read/write property with a non-`null` value that is initialized not during\n   * object construction time but at a later
time. Trying to read the property before the initial value has been\n   * assigned results in an exception.\n   *\n
* @sample samples.properties.Delegates.notNullDelegate\n   */\n   public fun <T : Any> notNull():
ReadWriteProperty<Any?, T> = NotNullVar()\n\n   /**\n   * Returns a property delegate for a read/write property
that calls a specified callback function when changed.\n   * @param initialValue the initial value of the property.\n
* @param onChange the callback which is called after the change of the property is made. The value of the

property\n * has already been changed when this callback is invoked.\n *\n * @sample samples.properties.Delegates.observableDelegate\n */\n public inline fun <T> observable(initialValue: T, crossinline onChange: (property: KProperty<*>, oldValue: T, newValue: T) -> Unit):\n ReadWriteProperty<Any?, T> =\n object : ObservableProperty<T>(initialValue) {\n override fun afterChange(property: KProperty<*>, oldValue: T, newValue: T) = onChange(property, oldValue, newValue)\n }\n\n /**\n * Returns a property delegate for a read/write property that calls a specified callback function when changed,\n * allowing the callback to veto the modification.\n * @param initialValue the initial value of the property.\n * @param onChange the callback which is called before a change to the property value is attempted.\n * The value of the property hasn't been changed yet, when this callback is invoked.\n * If the callback returns `true` the value of the property is being set to the new value,\n * and if the callback returns `false` the new value is discarded and the property remains its old value.\n *\n * @sample samples.properties.Delegates.vetoableDelegate\n * @sample samples.properties.Delegates.throwVetoableDelegate\n */\n public inline fun <T> vetoable(initialValue: T, crossinline onChange: (property: KProperty<*>, oldValue: T, newValue: T) -> Boolean):\n ReadWriteProperty<Any?, T> =\n object : ObservableProperty<T>(initialValue) {\n override fun beforeChange(property: KProperty<*>, oldValue: T, newValue: T): Boolean = onChange(property, oldValue, newValue)\n }\n\n}\n\n\nprivate class NotNullVar<T : Any>() : ReadWriteProperty<Any?, T> {\n private var value: T? = null\n\n public override fun getValue(thisRef: Any?, property: KProperty<*>): T {\n return value ?: throw IllegalStateException(\"Property ${property.name} should be initialized before get.\")\n }\n\n public override fun setValue(thisRef: Any?, property: KProperty<*>, value: T) {\n this.value = value\n }\n}\n\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.properties\n\nimport kotlin.reflect.KProperty\n\n/**\n * Base interface that can be used for implementing property delegates of read-only properties.\n *\n * This is provided only for convenience; you don't have to extend this interface\n * as long as your property delegate has methods with the same signatures.\n *\n * @param T the type of object which owns the delegated property.\n * @param V the type of the property value.\n */\npublic fun interface ReadOnlyProperty<in T, out V> {\n /**\n * Returns the value of the property for the given object.\n * @param thisRef the object for which the value is requested.\n * @param property the metadata for the property.\n * @return the property value.\n */\n public operator fun getValue(thisRef: T, property: KProperty<*>): V\n}\n\n/**\n * Base interface that can be used for implementing property delegates of read-write properties.\n *\n * This is provided only for convenience; you don't have to extend this interface\n * as long as your property delegate has methods with the same signatures.\n *\n * @param T the type of object which owns the delegated property.\n * @param V the type of the property value.\n */\npublic interface ReadWriteProperty<in T, V> : ReadOnlyProperty<T, V> {\n /**\n * Returns the value of the property for the given object.\n * @param thisRef the object for which the value is requested.\n * @param property the metadata for the property.\n * @return the property value.\n */\n public override operator fun getValue(thisRef: T, property: KProperty<*>): V\n\n /**\n * Sets the value of the property for the given object.\n * @param thisRef the object for which the value is requested.\n * @param property the metadata for the property.\n * @param value the value to set.\n */\n public operator fun setValue(thisRef: T, property: KProperty<*>, value: V)\n}\n\n/**\n * Base interface that can be used for implementing property delegate providers.\n *\n * This is provided only for convenience; you don't have to extend this interface\n * as long as your delegate provider has a method with the same signature.\n *\n * @param T the type of object which owns the delegated property.\n * @param D the type of property delegates this provider provides.\n */\n@SinceKotlin(\"1.4\")\npublic fun interface PropertyDelegateProvider<in T, out D> {\n /**\n * Returns the delegate of the property for the given object.\n *\n * This function can be used to extend the logic of creating the object (e.g. perform validation checks)\n * to which the property implementation is delegated.\n *\n * @param thisRef the object for which property delegate is requested.\n * @param property the metadata for the property.\n   * @return the property delegate.\n   */\n   public operator fun provideDelegate(thisRef: T, property: KProperty<*>): D\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.properties\n\nimport kotlin.reflect.KProperty\n\n/**\n * Implements the core logic of a property delegate for a read/write property that calls callback functions when changed.\n * @param initialValue the initial value of the property.\n */\npublic abstract class ObservableProperty<V>(initialValue: V) : ReadWriteProperty<Any?, V> {\n   private var value = initialValue\n\n   /**\n   * The callback which is called before a change to the property value is attempted.\n   * The value of the property hasn't been changed yet, when this callback is invoked.\n   * If the callback returns `true` the value of the property is being set to the new value,\n   * and if the callback returns `false` the new value is discarded and the property remains its old value.\n   */\n   protected open fun beforeChange(property: KProperty<*>, oldValue: V, newValue: V): Boolean = true\n\n   /**\n   * The callback which is called after the change of the property is made. The value of the property\n   * has already been changed when this callback is invoked.\n   */\n   protected open fun afterChange(property: KProperty<*>, oldValue: V, newValue: V): Unit {}\n\n   public override fun getValue(thisRef: Any?, property: KProperty<*>): V {\n   return value\n   }\n\n   public override fun setValue(thisRef: Any?, property: KProperty<*>, value: V) {\n   val oldValue = this.value\n   if (!beforeChange(property, oldValue, value)) {\n   return\n   }\n   this.value = value\n   afterChange(property, oldValue, value)\n   }\n}","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:Suppress(\"PackageDirectoryMismatch\")\npackage kotlin\n\nimport kotlin.reflect.*\n\n/**\n * An extension operator that allows delegating a read-only property of type [V]\n * to a property reference to a property of type [V] or its subtype.\n *\n * @receiver A property reference to a read-only or mutable property of type [V] or its subtype.\n * The reference is without a receiver, i.e. it either references a top-level property or\n * has the receiver bound to it.\n *\n * Example:\n *\n * ```\n * class Login(val username: String)\n * val defaultLogin = Login(\"Admin\")\n * val defaultUsername by defaultLogin::username\n * // equivalent to\n * val defaultUserName get() = defaultLogin.username\n * ```\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <V> KProperty0<V>.getValue(thisRef: Any?, property: KProperty<*>): V {\n   return get()\n}\n\n/**\n * An extension operator that allows delegating a mutable property of type [V]\n * to a property reference to a mutable property of the same type [V].\n *\n * @receiver A property reference to a mutable property of type [V].\n * The reference is without a receiver, i.e. it either references a top-level property or\n * has the receiver bound to it.\n *\n * Example:\n *\n * ```\n * class Login(val username: String, var incorrectAttemptCounter: Int = 0)\n * val defaultLogin = Login(\"Admin\")\n * var defaultLoginAttempts by defaultLogin::incorrectAttemptCounter\n * // equivalent to\n * var defaultLoginAttempts: Int\n *   get() = defaultLogin.incorrectAttemptCounter\n *   set(value) { defaultLogin.incorrectAttemptCounter = value }\n * ```\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <V> KMutableProperty0<V>.setValue(thisRef: Any?, property: KProperty<*>, value: V) {\n   set(value)\n}\n\n\n/**\n * An extension operator that allows delegating a read-only member or extension property of type [V]\n * to a property reference to a member or extension property of type [V] or its subtype.\n *\n * @receiver A property reference to a read-only or mutable property of type [V] or its subtype.\n * The reference has an unbound receiver of type [T].\n *\n * Example:\n *\n * ```\n * class Login(val username: String)\n * val Login.user by Login::username\n * // equivalent to\n * val Login.user get() = this.username\n * ```\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <T, V> KProperty1<T, V>.getValue(thisRef: T, property: KProperty<*>): V {\n   return get(thisRef)\n}\n\n/**\n * An extension operator that allows delegating a mutable member or extension property of type [V]\n * to a property reference to a member or extension mutable property of the same type [V].\n *\n * @receiver A property reference to a read-only or mutable property

of type [V] or its subtype.\n * The reference has an unbound receiver of type [T].\n *\n * Example:\n *\n * ```\n * class Login(val username: String, var incorrectAttemptCounter: Int)\n * var Login.attempts by Login::incorrectAttemptCounter\n * // equivalent to\n * var Login.attempts: Int\n *   get() = this.incorrectAttemptCounter\n *   set(value) { this.incorrectAttemptCounter = value }\n * ```\n */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <T, V> KMutableProperty1<T, V>.setValue(thisRef: T, property: KProperty<*>, value: V) {\n   set(thisRef, value)\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.random\n\nimport kotlin.math.nextDown\n\n/**\n * An abstract class that is implemented by random number generator algorithms.\n *\n * The companion object [Random.Default]
is the default instance of [Random].\n *\n * To get a seeded instance of random generator use [Random] function.\n *\n * @sample samples.random.Randoms.defaultRandom\n */\n@SinceKotlin(\"1.3\")\npublic abstract class Random {\n\n   /**\n   * Gets the next random [bitCount] number of bits.\n   *\n   * Generates an `Int` whose lower [bitCount] bits are filled with random values and the remaining upper bits are zero.\n   *\n   * @param bitCount number of bits to generate, must be in range 0..32, otherwise the behavior is unspecified.\n   *\n   * @sample samples.random.Randoms.nextBits\n   */\n   public abstract fun nextBits(bitCount: Int): Int\n\n   /**\n   * Gets the next random `Int` from the random number generator.\n   *\n   * Generates an `Int` random value uniformly distributed between `Int.MIN_VALUE` and `Int.MAX_VALUE` (inclusive).\n   *\n   * @sample samples.random.Randoms.nextInt\n   */\n   public open fun nextInt(): Int = nextBits(32)\n\n   /**\n   * Gets the next random non-negative `Int` from the random number generator less than the specified [until] bound.\n   *\n   * Generates an `Int` random value uniformly distributed between `0` (inclusive) and the specified [until] bound (exclusive).\n   *\n   * @param until must be positive.\n   *\n   * @throws IllegalArgumentException if [until] is negative or zero.\n   *\n   * @sample samples.random.Randoms.nextIntFromUntil\n   */\n   public open fun nextInt(until: Int): Int = nextInt(0, until)\n\n   /**\n   * Gets the next random `Int` from the random number generator in the specified range.\n   *\n   * Generates an `Int` random value uniformly distributed between the specified [from] (inclusive) and [until] (exclusive) bounds.\n   *\n   * @throws IllegalArgumentException if [from] is greater than or equal to [until].\n   *\n   * @sample samples.random.Randoms.nextIntFromUntil\n   */\n   public open fun nextInt(from: Int, until: Int): Int {\n   checkRangeBounds(from, until)\n   val n = until - from\n   if (n > 0 || n == Int.MIN_VALUE) {\n   val rnd = if (n and -n == n) {\n   val bitCount = fastLog2(n)\n   nextBits(bitCount)\n   } else {\n   var v: Int\n   do {\n   val bits = nextInt().ushr(1)\n   v = bits % n\n   } while (bits - v + (n - 1) < 0)\n   v\n   }\n   return from + rnd\n   } else {\n   while (true) {\n   val rnd = nextInt()\n   if (rnd in from until until) return rnd\n   }\n   }\n   }\n\n   /**\n   * Gets the next random `Long` from the random number generator.\n   *\n   * Generates a `Long` random value uniformly distributed between `Long.MIN_VALUE` and `Long.MAX_VALUE` (inclusive).\n   *\n   * @sample samples.random.Randoms.nextLong\n   */\n   public open fun nextLong():
Long = nextInt().toLong().shl(32) + nextInt()\n\n   /**\n   * Gets the next random non-negative `Long` from the random number generator less than the specified [until] bound.\n   *\n   * Generates a `Long` random value uniformly distributed between `0` (inclusive) and the specified [until] bound (exclusive).\n   *\n   * @param until must be positive.\n   *\n   * @throws IllegalArgumentException if [until] is negative or zero.\n   *\n   * @sample samples.random.Randoms.nextLongFromUntil\n   */\n   public open fun nextLong(until: Long): Long = nextLong(0, until)\n\n   /**\n   * Gets the next random `Long` from the random number generator in the specified range.\n   *\n   * Generates a `Long` random value uniformly distributed between the specified [from] (inclusive) and [until] (exclusive) bounds.\n   *\n   * @throws IllegalArgumentException if [from] is greater than or equal to [until].\n   *\n   * @sample samples.random.Randoms.nextLongFromUntil\n
*/\n   public open fun nextLong(from: Long, until: Long): Long {\n   checkRangeBounds(from, until)\n   val n = until - from\n   if (n > 0) {\n   val rnd: Long\n   if (n and -n == n) {\n   val nLow = n.toInt()\n   val nHigh = (n ushr 32).toInt()\n   rnd = when {\n   nLow != 0 -> {\n

val bitCount = fastLog2(nLow)\n // toUInt().toLong()\n nextBits(bitCount).toLong() and 0xFFFF_FFFF\n }\n nHigh == 1 ->\n // toUInt().toLong()\n nextInt().toLong() and 0xFFFF_FFFF\n else -> {\n val bitCount = fastLog2(nHigh)\n nextBits(bitCount).toLong().shl(32) + (nextInt().toLong() and 0xFFFF_FFFF)\n }\n }\n } else {\n var v: Long\n

do {\n val bits = nextLong().ushr(1)\n v = bits % n\n } while (bits - v + (n - 1) < 0)\n rnd = v\n }\n return from + rnd\n } else {\n while (true) {\n val rnd = nextLong()\n if (rnd in from until until) return rnd\n }\n }\n }\n\n /**\n * Gets the next random [Boolean] value.\n *\n * @sample samples.random.Randoms.nextBoolean\n */\n public open fun nextBoolean(): Boolean = nextBits(1) != 0\n\n /**\n * Gets the next random [Double] value uniformly distributed between 0 (inclusive) and 1 (exclusive).\n *\n * @sample samples.random.Randoms.nextDouble\n */\n public open fun nextDouble(): Double = doubleFromParts(nextBits(26), nextBits(27))\n\n /**\n * Gets the next random non-negative `Double` from the random number generator less than the specified [until] bound.\n *\n

* Generates a `Double` random value uniformly distributed between 0 (inclusive) and [until] (exclusive).\n *\n * @throws IllegalArgumentException if [until] is negative or zero.\n *\n * @sample samples.random.Randoms.nextDoubleFromUntil\n */\n public open fun nextDouble(until: Double): Double = nextDouble(0.0, until)\n\n /**\n * Gets the next random `Double` from the random number generator in the specified range.\n *\n * Generates a `Double` random value uniformly distributed between the specified [from] (inclusive) and [until] (exclusive) bounds.\n *\n * [from] and [until] must be finite otherwise the behavior is unspecified.\n *\n * @throws IllegalArgumentException if [from] is greater than or equal to [until].\n *\n * @sample samples.random.Randoms.nextDoubleFromUntil\n */\n public open fun nextDouble(from: Double, until: Double): Double {\n checkRangeBounds(from, until)\n val size = until - from\n

val r = if (size.isInfinite() && from.isFinite() && until.isFinite()) {\n val r1 = nextDouble() * (until / 2 - from / 2)\n from + r1 + r1\n } else {\n from + nextDouble() * size\n }\n return if (r >= until) until.nextDown() else r\n }\n\n /**\n * Gets the next random [Float] value uniformly distributed between 0 (inclusive) and 1 (exclusive).\n *\n * @sample samples.random.Randoms.nextFloat\n */\n public open fun nextFloat(): Float = nextBits(24) / (1 shl 24).toFloat()\n\n /**\n * Fills a subrange of the specified byte [array] starting from [fromIndex] inclusive and ending [toIndex] exclusive\n * with random bytes.\n *\n * @return [array] with the subrange filled with random bytes.\n *\n * @sample samples.random.Randoms.nextBytes\n */\n public open fun nextBytes(array: ByteArray, fromIndex: Int = 0, toIndex: Int = array.size): ByteArray {\n require(fromIndex in

0..array.size && toIndex in 0..array.size) { \"fromIndex ($fromIndex) or toIndex ($toIndex) are out of range: 0..${array.size}.\" }\n require(fromIndex <= toIndex) { \"fromIndex ($fromIndex) must be not greater than toIndex ($toIndex).\" }\n\n val steps = (toIndex - fromIndex) / 4\n\n var position = fromIndex\n repeat(steps) {\n val v = nextInt()\n array[position] = v.toByte()\n array[position + 1] = v.ushr(8).toByte()\n array[position + 2] = v.ushr(16).toByte()\n array[position + 3] = v.ushr(24).toByte()\n position += 4\n }\n\n val remainder = toIndex - position\n val vr = nextBits(remainder * 8)\n for (i in 0 until remainder) {\n array[position + i] = vr.ushr(i * 8).toByte()\n }\n\n return array\n }\n\n /**\n * Fills the specified byte [array] with random bytes and returns it.\n *\n

* @return [array] filled with random bytes.\n

*\n * @sample samples.random.Randoms.nextBytes\n */\n public open fun nextBytes(array: ByteArray): ByteArray = nextBytes(array, 0, array.size)\n\n /**\n * Creates a byte array of the specified [size], filled with random bytes.\n *\n * @sample samples.random.Randoms.nextBytes\n */\n public open fun nextBytes(size: Int): ByteArray = nextBytes(ByteArray(size))\n\n\n /**\n * The default random number generator.\n *\n * On JVM this generator is thread-safe, its methods can be invoked from multiple threads.\n *\n * @sample samples.random.Randoms.defaultRandom\n */\n companion object Default : Random(), Serializable {\n private val defaultRandom: Random = defaultPlatformRandom()\n\n private object

Serialized : Serializable {\n private const val serialVersionUID = 0L\n\n private fun readResolve(): Any = Random\n }\n\n private fun writeReplace(): Any = Serialized\n\n override fun nextBits(bitCount: Int): Int = defaultRandom.nextBits(bitCount)\n override fun nextInt(): Int = defaultRandom.nextInt()\n override fun nextInt(until: Int): Int = defaultRandom.nextInt(until)\n override fun nextInt(from: Int, until: Int): Int = defaultRandom.nextInt(from, until)\n\n override fun nextLong(): Long = defaultRandom.nextLong()\n override fun nextLong(until: Long): Long = defaultRandom.nextLong(until)\n override fun nextLong(from: Long, until: Long): Long = defaultRandom.nextLong(from, until)\n\n override fun nextBoolean(): Boolean = defaultRandom.nextBoolean()\n\n override fun nextDouble(): Double = defaultRandom.nextDouble()\n override fun nextDouble(until: Double): Double = defaultRandom.nextDouble(until)\n override fun nextDouble(from: Double, until: Double): Double = defaultRandom.nextDouble(from, until)\n\n override fun nextFloat(): Float = defaultRandom.nextFloat()\n\n override fun nextBytes(array: ByteArray): ByteArray = defaultRandom.nextBytes(array)\n override fun nextBytes(size: Int): ByteArray = defaultRandom.nextBytes(size)\n override fun nextBytes(array: ByteArray, fromIndex: Int, toIndex: Int): ByteArray =\n defaultRandom.nextBytes(array, fromIndex, toIndex)\n }\n}\n\n/**\n * Returns a repeatable random number generator seeded with the given [seed] `Int` value.\n *\n * Two generators with the same seed produce the same sequence of values within the same version of Kotlin runtime.\n *\n * *Note:* Future versions of Kotlin may change the algorithm of this seeded number generator so that it will return\n * a sequence of values different from the current one for a given seed.\n *\n * On JVM the returned generator is NOT thread-safe. Do not invoke it from multiple threads without proper synchronization.\n *\n * @sample samples.random.Randoms.seededRandom\n */\n@SinceKotlin(\"1.3\")\npublic fun Random(seed: Int): Random = XorWowRandom(seed, seed.shr(31))\n\n/**\n * Returns a repeatable random number generator seeded with the given [seed] `Long` value.\n *\n * Two generators with the same seed produce the same sequence of values within the same version of Kotlin runtime.\n *\n * *Note:* Future versions of Kotlin may change the algorithm of this seeded number generator so that it will return\n * a sequence of values different from the current one for a given seed.\n *\n * On JVM the returned generator is NOT thread-safe. Do not invoke it from multiple threads without proper synchronization.\n *\n * @sample samples.random.Randoms.seededRandom\n */\n@SinceKotlin(\"1.3\")\npublic fun Random(seed: Long): Random = XorWowRandom(seed.toInt(), seed.shr(32).toInt())\n\n\n/**\n * Gets the next random `Int` from the random number generator in the specified [range].\n *\n * Generates an `Int` random value uniformly distributed in the specified [range]:\n * from `range.start` inclusive to `range.endInclusive` inclusive.\n *\n * @throws IllegalArgumentException if [range] is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun Random.nextInt(range: IntRange): Int = when {\n range.isEmpty() -> throw IllegalArgumentException(\"Cannot get random in empty range: $range\")\n range.last < Int.MAX_VALUE -> nextInt(range.first, range.last + 1)\n range.first > Int.MIN_VALUE -> nextInt(range.first - 1, range.last) + 1\n else -> nextInt()\n}\n\n/**\n * Gets the next random `Long` from the random number generator in the specified [range].\n *\n * Generates a `Long` random value uniformly distributed in the specified [range]:\n * from `range.start` inclusive to `range.endInclusive` inclusive.\n *\n * @throws IllegalArgumentException if [range] is empty.\n */\n@SinceKotlin(\"1.3\")\npublic fun Random.nextLong(range: LongRange): Long = when {\n range.isEmpty() -> throw IllegalArgumentException(\"Cannot get random in empty range: $range\")\n range.last < Long.MAX_VALUE -> nextLong(range.first, range.last + 1)\n range.first > Long.MIN_VALUE -> nextLong(range.first - 1, range.last) + 1\n else -> nextLong()\n}\n\n\ninternal expect fun defaultPlatformRandom(): Random\ninternal expect fun doubleFromParts(hi26: Int, low27: Int): Double\n\ninternal fun fastLog2(value: Int): Int = 31 - value.countLeadingZeroBits()\n\n/** Takes upper [bitCount] bits (0..32) from this number. */\ninternal fun Int.takeUpperBits(bitCount: Int): Int =\n this.ushr(32 - bitCount) and (-bitCount).shr(31)\n\ninternal fun checkRangeBounds(from: Int, until: Int) = require(until > from) { boundsErrorMessage(from, until) }\ninternal fun checkRangeBounds(from: Long, until: Long) = require(until > from) { boundsErrorMessage(from, until) }\ninternal fun checkRangeBounds(from: Double, until: Double) = require(until > from) { boundsErrorMessage(from, until) }\n\ninternal fun boundsErrorMessage(from: Any, until: Any) = \"Random range is empty: [$from, $until).\"\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.random\n\n\n/**\n * Gets the next random [UInt] from the random number generator.\n *\n * Generates a [UInt] random value uniformly distributed between [UInt.MIN_VALUE] and [UInt.MAX_VALUE] (inclusive).\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextUInt(): UInt = nextInt().toUInt()\n\n/**\n * Gets the next random [UInt] from the random number generator less than the specified [until] bound.\n *\n * Generates a [UInt] random value uniformly distributed between `0` (inclusive) and the specified [until] bound (exclusive).\n *\n * @throws IllegalArgumentException if [until] is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextUInt(until: UInt): UInt = nextUInt(0u, until)\n\n/**\n * Gets the next random [UInt] from the random number generator in the specified range.\n *\n * Generates a [UInt] random value uniformly distributed between the specified [from] (inclusive) and [until] (exclusive) bounds.\n *\n * @throws IllegalArgumentException if [from] is greater than or equal to [until].\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextUInt(from: UInt, until: UInt): UInt {\n   checkUIntRangeBounds(from, until)\n\n   val signedFrom = from.toInt() xor Int.MIN_VALUE\n   val signedUntil = until.toInt() xor Int.MIN_VALUE\n\n   val signedResult = nextInt(signedFrom, signedUntil) xor Int.MIN_VALUE\n   return signedResult.toUInt()\n}\n\n/**\n * Gets the next random [UInt] from the random number generator in the specified [range].\n *\n * Generates a [UInt] random value uniformly distributed in the specified [range]:\n * from `range.start` inclusive to `range.endInclusive` inclusive.\n *\n * @throws IllegalArgumentException if [range] is empty.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextUInt(range: UIntRange): UInt = when {\n   range.isEmpty() -> throw IllegalArgumentException(\"Cannot get random in empty range: $range\")\n   range.last < UInt.MAX_VALUE -> nextUInt(range.first, range.last + 1u)\n   range.first > UInt.MIN_VALUE -> nextUInt(range.first - 1u, range.last) + 1u\n   else -> nextUInt()\n}\n\n/**\n * Gets the next random [ULong] from the random number generator.\n *\n * Generates a [ULong] random value uniformly distributed between [ULong.MIN_VALUE] and [ULong.MAX_VALUE] (inclusive).\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextULong(): ULong = nextLong().toULong()\n\n/**\n * Gets the next random [ULong] from the random number generator less than the specified [until] bound.\n *\n * Generates a [ULong] random value uniformly distributed between `0` (inclusive) and the specified [until] bound (exclusive).\n *\n * @throws IllegalArgumentException if [until] is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextULong(until: ULong): ULong = nextULong(0uL, until)\n\n/**\n * Gets the next random [ULong] from the random number generator in the specified range.\n *\n * Generates a [ULong] random value uniformly distributed between the specified [from] (inclusive) and [until] (exclusive) bounds.\n *\n * @throws IllegalArgumentException if [from] is greater than or equal to [until].\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextULong(from: ULong, until: ULong): ULong {\n   checkULongRangeBounds(from, until)\n\n   val signedFrom = from.toLong() xor Long.MIN_VALUE\n   val signedUntil = until.toLong() xor Long.MIN_VALUE\n\n   val signedResult = nextLong(signedFrom, signedUntil) xor Long.MIN_VALUE\n   return signedResult.toULong()\n}\n\n/**\n * Gets the next random [ULong] from the random number generator in the specified [range].\n *\n * Generates a [ULong] random value uniformly distributed in the specified [range]:\n * from `range.start` inclusive to `range.endInclusive` inclusive.\n *\n * @throws IllegalArgumentException if [range] is empty.\n

*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun Random.nextULong(range: ULongRange): ULong = when {\n   range.isEmpty() -> throw IllegalArgumentException(\"Cannot get random in empty range: $range\")\n   range.last < ULong.MAX_VALUE -> nextULong(range.first, range.last + 1u)\n   range.first > ULong.MIN_VALUE -> nextULong(range.first - 1u, range.last) + 1u\n   else -> nextULong()\n}\n\n/**\n * Fills the specified unsigned byte [array] with random bytes and returns it.\n *\n * @return [array] filled with random bytes.\n
*/\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Random.nextUBytes(array: UByteArray): UByteArray {\n   nextBytes(array.asByteArray())\n
    return array\n}\n\n/**\n * Creates an unsigned byte array of the specified [size], filled with random bytes.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Random.nextUBytes(size: Int): UByteArray = nextBytes(size).asUByteArray()\n\n/**\n * Fills a subrange of the specified `UByte` [array] starting from [fromIndex] inclusive and ending [toIndex] exclusive with random UBytes.\n *\n * @return [array] with the subrange filled with random bytes.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun Random.nextUBytes(array: UByteArray, fromIndex: Int = 0, toIndex: Int = array.size): UByteArray {\n   nextBytes(array.asByteArray(), fromIndex, toIndex)\n   return array\n}\n\n\ninternal fun checkUIntRangeBounds(from: UInt, until: UInt) = require(until > from) { boundsErrorMessage(from, until) }\ninternal fun checkULongRangeBounds(from: ULong, until: ULong) = require(until > from) { boundsErrorMessage(from, until) }\n","/*\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.random\n\n/**\n * Random number generator, using Marsaglia's \"xorwow\" algorithm\n *\n * Cycles after 2^192 - 2^32 repetitions.\n *\n * For more details, see Marsaglia, George (July 2003). \"Xorshift RNGs\". Journal of Statistical Software. 8 (14). doi:10.18637/jss.v008.i14\n *\n * Available at https://www.jstatsoft.org/v08/i14/paper\n *\n */\ninternal class XorWowRandom internal constructor(\n   private var x: Int,\n   private var y: Int,\n   private var z: Int,\n   private var w: Int,\n   private var v: Int,\n   private var addend: Int\n) : Random(), Serializable {\n\n   internal constructor(seed1: Int, seed2: Int) :\n   this(seed1, seed2, 0, 0, seed1.inv(), (seed1 shl 10) xor (seed2 ushr 4))\n\n   init {\n   require((x or y or z or w or v) != 0) { \"Initial
state must have at least one non-zero element.\" }\n\n   // some trivial seeds can produce several values with zeroes in upper bits, so we discard first 64\n   repeat(64) { nextInt() }\n   }\n\n   override fun nextInt(): Int {\n
  // Equivalent to the xorxow algorithm\n   // From Marsaglia, G. 2003. Xorshift RNGs. J. Statis. Soft. 8, 14, p. 5\n   var t = x\n   t = t xor (t ushr 2)\n   x = y\n   y = z\n   z = w\n   val v0 = v\n   w = v0\n   t = (t xor (t shl 1)) xor v0 xor (v0 shl 4)\n   v = t\n   addend += 362437\n   return t + addend\n   }\n\n   override fun nextBits(bitCount: Int): Int =\n   nextInt().takeUpperBits(bitCount)\n\n   private companion object {\n   private const val serialVersionUID: Long = 0L\n   }\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in
the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"RangesKt\")\n\npackage kotlin.ranges\n\n/**\n * Represents a range of [Comparable] values.\n */\nprivate open class ComparableRange<T : Comparable<T>>(\n   override val start: T,\n   override val endInclusive: T\n) : ClosedRange<T> {\n\n   override fun equals(other: Any?): Boolean {\n   return other is ComparableRange<*> && (isEmpty() && other.isEmpty() ||\n   start == other.start && endInclusive == other.endInclusive)\n   }\n\n   override fun hashCode(): Int {\n   return if (isEmpty()) -1 else 31 * start.hashCode() + endInclusive.hashCode()\n   }\n\n   override fun toString(): String = \"$start..$endInclusive\"\n}\n\n/**\n * Creates a range from this [Comparable] value to the specified [that] value.\n *\n * This value needs to be smaller than or equal to [that] value, otherwise the returned range will be empty.\n * @sample samples.ranges.Ranges.rangeFromComparable\n
*/\npublic operator fun <T : Comparable<T>> T.rangeTo(that: T): ClosedRange<T> = ComparableRange(this, that)\n\n\n/**\n * Represents a range of floating point numbers.\n * Extends [ClosedRange] interface providing

custom operation [lessThanOrEquals] for comparing values of range domain type.\n *\n * This interface is implemented by floating point ranges returned by [Float.rangeTo] and [Double.rangeTo] operators to\n * achieve IEEE-754 comparison order instead of total order of floating point numbers.\n */\n@SinceKotlin(\"1.1\")\npublic interface ClosedFloatingPointRange<T : Comparable<T>> : ClosedRange<T> {\n   override fun contains(value: T): Boolean = lessThanOrEquals(start, value) && lessThanOrEquals(value, endInclusive)\n   override fun isEmpty(): Boolean = !lessThanOrEquals(start, endInclusive)\n\n   /**\n   * Compares two values of range domain type and returns true if first is less than or equal to second.\n   */\n   fun lessThanOrEquals(a: T, b: T): Boolean\n}\n\n\n/**\n

 * A closed range of values of type `Double`.\n *\n * Numbers are compared with the ends of this range according to IEEE-754.\n */\nprivate class ClosedDoubleRange(\n   start: Double,\n   endInclusive: Double\n) : ClosedFloatingPointRange<Double> {\n   private val _start = start\n   private val _endInclusive = endInclusive\n   override val start: Double get() = _start\n   override val endInclusive: Double get() = _endInclusive\n\n   override fun lessThanOrEquals(a: Double, b: Double): Boolean = a <= b\n\n   override fun contains(value: Double): Boolean = value >= _start && value <= _endInclusive\n   override fun isEmpty(): Boolean = !(_start <= _endInclusive)\n\n   override fun equals(other: Any?): Boolean {\n   return other is ClosedDoubleRange && (isEmpty() && other.isEmpty() ||\n   _start == other._start && _endInclusive == other._endInclusive)\n   }\n\n   override fun hashCode(): Int {\n   return if (isEmpty()) -1 else 31 * _start.hashCode()

 + _endInclusive.hashCode()\n   }\n\n   override fun toString(): String = \"$_start..$_endInclusive\"\n}\n\n/**\n * Creates a range from this [Double] value to the specified [that] value.\n *\n * Numbers are compared with the ends of this range according to IEEE-754.\n * @sample samples.ranges.Ranges.rangeFromDouble\n */\n@SinceKotlin(\"1.1\")\npublic operator fun Double.rangeTo(that: Double): ClosedFloatingPointRange<Double> = ClosedDoubleRange(this, that)\n\n\n/**\n * A closed range of values of type `Float`.\n *\n * Numbers are compared with the ends of this range according to IEEE-754.\n */\nprivate class ClosedFloatRange(\n   start: Float,\n   endInclusive: Float\n) : ClosedFloatingPointRange<Float> {\n   private val _start = start\n   private val _endInclusive = endInclusive\n   override val start: Float get() = _start\n   override val endInclusive: Float get() = _endInclusive\n\n   override fun lessThanOrEquals(a: Float, b: Float): Boolean = a <= b\n\n   override

 fun contains(value: Float): Boolean = value >= _start && value <= _endInclusive\n   override fun isEmpty(): Boolean = !(_start <= _endInclusive)\n\n   override fun equals(other: Any?): Boolean {\n   return other is ClosedFloatRange && (isEmpty() && other.isEmpty() ||\n   _start == other._start && _endInclusive == other._endInclusive)\n   }\n\n   override fun hashCode(): Int {\n   return if (isEmpty()) -1 else 31 * _start.hashCode() + _endInclusive.hashCode()\n   }\n\n   override fun toString(): String = \"$_start..$_endInclusive\"\n}\n\n/**\n * Creates a range from this [Float] value to the specified [that] value.\n *\n * Numbers are compared with the ends of this range according to IEEE-754.\n * @sample samples.ranges.Ranges.rangeFromFloat\n */\n@SinceKotlin(\"1.1\")\npublic operator fun Float.rangeTo(that: Float): ClosedFloatingPointRange<Float> = ClosedFloatRange(this, that)\n\n\n/**\n * Returns `true` if this iterable range contains the specified [element].\n

 *\n * Always returns `false` if the [element] is `null`.\n */\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\npublic inline operator fun <T, R> R.contains(element: T?): Boolean where T : Any, R : Iterable<T>, R : ClosedRange<T> =\n   element != null && contains(element)\n\n\ninternal fun checkStepIsPositive(isPositive: Boolean, step: Number) {\n   if (!isPositive) throw IllegalArgumentException(\"Step must be positive, was: $step.\")\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"KClasses\")\n@file:Suppress(\"UNCHECKED_CAST\")\n\npackage kotlin.reflect\n\nimport kotlin.internal.LowPriorityInOverloadResolution\n\n\n/**\n * Casts the given [value] to the class represented by this [KClass] object.\n * Throws an exception if the value is `null` or if it is not an instance of this

class.\n *\n * This is an experimental function that behaves as a similar function from kotlin.reflect.full on JVM.\n *\n * @see [KClass.isInstance]\n * @see [KClass.safeCast]\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@LowPriorityInOverloadResolution\nfun <T : Any> KClass<T>.cast(value: Any?): T {\n   if (!isInstance(value)) throw ClassCastException(\"Value cannot be cast to $qualifiedOrSimpleName\")\n   return value as T\n}\n\n// TODO: replace with qualifiedName when it is fully supported in K/JS\ninternal expect val KClass<*>.qualifiedOrSimpleName: String?\n\n/**\n * Casts the given [value] to the class represented by this [KClass] object.\n * Returns `null` if the value is `null` or if it is not an instance of this class.\n *\n * This is an experimental function that behaves as a similar function from kotlin.reflect.full on JVM.\n *\n * @see [KClass.isInstance]\n * @see [KClass.cast]\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@LowPriorityInOverloadResolution\nfun

<T : Any> KClass<T>.safeCast(value: Any?): T? {\n   return if (isInstance(value)) value as T else null\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect\n\nimport kotlin.jvm.JvmField\nimport kotlin.jvm.JvmStatic\n\n\n\n/**\n * Represents a type projection. Type projection is usually the argument to another type in a type usage.\n * For example, in the type `Array<out Number>`, `out Number` is the covariant projection of the type represented by the class `Number`.\n *\n * Type projection is either the star projection, or an entity consisting of a specific type plus optional variance.\n *\n * See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/generics.html#type-projections)\n * for more information.\n */\n@SinceKotlin(\"1.1\")\npublic

data class KTypeProjection constructor(\n   /**\n   * The use-site variance specified in the projection, or `null` if this is a star projection.\n   */\n   public val variance: KVariance?,\n   /**\n   * The type specified in the projection, or `null` if this is a star projection.\n   */\n   public val type: KType?\n) {\n\n   init {\n   require((variance == null) == (type == null)) {\n   if (variance == null)\n   \"Star projection must have no type specified.\"\n   else\n   \"The projection variance $variance requires type to be specified.\"\n   }\n   }\n\n   override fun toString(): String = when (variance) {\n   null -> \"*\"\n   KVariance.INVARIANT -> type.toString()\n   KVariance.IN -> \"in $type\"\n   KVariance.OUT -> \"out $type\"\n   }\n\n   public companion object {\n   // provided for compiler access\n   @JvmField\n   @PublishedApi\n   internal val

star: KTypeProjection = KTypeProjection(null, null)\n\n   /**\n   * Star projection, denoted by the `*` character.\n   * For example, in the type `KClass<*>`, `*` is the star projection.\n   * See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/generics.html#star-projections)\n   * for more information.\n   */\n   public val STAR: KTypeProjection get() = star\n\n   /**\n   * Creates an invariant projection of a given type. Invariant projection is just the type itself,\n   * without any use-site variance modifiers applied to it.\n   * For example, in the type `Set<String>`, `String` is an invariant projection of the type represented by the class `String`.\n   */\n   @JvmStatic\n   public fun invariant(type: KType): KTypeProjection =\n   KTypeProjection(KVariance.INVARIANT, type)\n\n   /**\n   * Creates a contravariant projection of a given type, denoted by the `in`

modifier applied to a type.\n   * For example, in the type `MutableList<in Number>`, `in Number` is a contravariant projection of the type of class `Number`.\n   */\n   @JvmStatic\n   public fun contravariant(type: KType): KTypeProjection =\n   KTypeProjection(KVariance.IN, type)\n\n   /**\n   * Creates a covariant projection of a given type, denoted by the `out` modifier applied to a type.\n   * For example, in the type `Array<out Number>`, `out Number` is a covariant projection of the type of class `Number`.\n   */\n   @JvmStatic\n   public fun covariant(type: KType): KTypeProjection =\n   KTypeProjection(KVariance.OUT, type)\n   }\n}","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.reflect\n\n/**\n * Represents variance applied to a type parameter on the declaration site (*declaration-site variance*),\n * or to a type in a projection (*use-site variance*).\n *\n * See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/generics.html#variance)\n * for more information.\n *\n * @see [KTypeParameter.variance]\n * @see [KTypeProjection]\n */\n@SinceKotlin(\"1.1\")\nenum class KVariance {\n   /**\n   * The affected type parameter or type is *invariant*, which means it has no variance applied to it.\n   */\n   INVARIANT,\n\n   /**\n   * The affected type parameter or type is *contravariant*. Denoted by the `in` modifier in the source code.\n   */\n   IN,\n\n   /**\n   * The affected type parameter or type is *covariant*. Denoted by the `out` modifier in the source code.\n   */\n   OUT,\n}","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt

file.\n */\n\npackage kotlin.reflect\n\n/**\n * Returns a runtime representation of the given reified type [T] as an instance of [KType].\n *\n * Note that on JVM, the created type has no annotations ([KType.annotations] returns an empty list)\n * even if the type in the source code is annotated. Support for type annotations might be added in a future version.\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic inline fun <reified T> typeOf(): KType =\n   throw UnsupportedOperationException(\"This function is implemented as an intrinsic on all supported platforms.\")\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n\npackage kotlin.text\n\n/**\n * An object to which char sequences and values can be

appended.\n */\nexpect interface Appendable {\n   /**\n   * Appends the specified character [value] to this Appendable and returns this instance.\n   *\n   * @param value the character to append.\n   */\n   fun append(value: Char): Appendable\n\n   /**\n   * Appends the specified character sequence [value] to this Appendable and returns this instance.\n   *\n   * @param value the character sequence to append. If [value] is `null`, then the four characters `\"null\"` are appended to this Appendable.\n   */\n   fun append(value: CharSequence?): Appendable\n\n   /**\n   * Appends a subsequence of the specified character sequence [value] to this Appendable and returns this instance.\n   *\n   * @param value the character sequence from which a subsequence is appended. If [value] is `null`,\n   * then characters are appended as if [value] contained the four characters `\"null\"`.\n   * @param startIndex the beginning (inclusive) of the subsequence to append.\n   * @param endIndex the end (exclusive) of the subsequence to append.\n   *\n   * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n   */\n   fun append(value: CharSequence?, startIndex: Int, endIndex: Int): Appendable\n}\n\n/**\n * Appends a subsequence of the specified character sequence [value] to this Appendable and returns this instance.\n *\n * @param value the character sequence from which a subsequence is appended.\n * @param startIndex the beginning (inclusive) of the subsequence to append.\n * @param endIndex the end (exclusive) of the subsequence to append.\n *\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of the [value] character sequence indices or when `startIndex > endIndex`.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic

fun <T : Appendable> T.appendRange(value: CharSequence, startIndex: Int, endIndex: Int): T {\n   @Suppress(\"UNCHECKED_CAST\")\n   return append(value, startIndex, endIndex) as T\n}\n\n/**\n * Appends all arguments to the given [Appendable].\n */\npublic fun <T : Appendable> T.append(vararg value: CharSequence?): T {\n   for (item in value)\n   append(item)\n   return this\n}\n\n/** Appends a line feed character (`\\n`) to this Appendable. */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun Appendable.appendLine(): Appendable = append('\\n')\n\n/** Appends value to the given Appendable and a line feed character (`\\n`) after it. */\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun Appendable.appendLine(value: CharSequence?): Appendable = append(value).appendLine()\n\n/** Appends value to the given Appendable and a line feed character (`\\n`) after it.

/\n@SinceKotlin(\"1.4\")\n@kotlin.internal.InlineOnly\npublic inline fun Appendable.appendLine(value: Char): Appendable = append(value).appendLine()\n\n\ninternal fun <T> Appendable.appendElement(element: T, transform: ((T) -> CharSequence)?) {\n   when {\n   transform != null -> append(transform(element))\n   element is CharSequence? -> append(element)\n   element is Char -> append(element)\n   else -> append(element.toString())\n   }\n}\n","/\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"StringsKt\")\n\npackage kotlin.text\n\n/**\n * Trims leading whitespace characters followed by [marginPrefix] from every line of a source string and removes\n * the first and the last lines if they are blank (notice difference blank vs empty).\n *\n * Doesn't affect a line if it doesn't contain [marginPrefix] except the first and the last blank lines.\n *\n * Doesn't preserve the original line endings.\n *\n * @param marginPrefix non-blank string, which is used as a margin delimiter. Default is `|` (pipe character).\n *\n * @sample samples.text.Strings.trimMargin\n * @see trimIndent\n * @see kotlin.text.isWhitespace\n */\npublic fun String.trimMargin(marginPrefix: String = \"|\"): String =\n   replaceIndentByMargin(\"\", marginPrefix)\n\n/**\n * Detects indent by [marginPrefix] as it does [trimMargin] and replace it with [newIndent].\n *\n * @param marginPrefix non-blank string, which is used as a margin delimiter. Default is `|` (pipe character).\n */\npublic fun String.replaceIndentByMargin(newIndent: String = \"\", marginPrefix: String = \"|\"): String {\n   require(marginPrefix.isNotBlank()) { \"marginPrefix must be non-blank string.\" }\n   val lines = lines()\n\n   return lines.reindent(length + newIndent.length * lines.size, getIndentFunction(newIndent), { line ->\n   val firstNonWhitespaceIndex = line.indexOfFirst { !it.isWhitespace() }\n\n   when {\n   firstNonWhitespaceIndex == -1 -> null\n   line.startsWith(marginPrefix, firstNonWhitespaceIndex) -> line.substring(firstNonWhitespaceIndex + marginPrefix.length)\n   else -> null\n   }\n   })\n}\n\n/**\n * Detects a common minimal indent of all the input lines, removes it from every line and also removes the first and the last\n * lines if they are blank (notice difference blank vs empty).\n *\n * Note that blank lines do not affect the detected indent level.\n *\n * In case if there are non-blank lines with no leading whitespace characters (no indent at all) then the\n * common indent is 0, and therefore this function doesn't change the indentation.\n *\n * Doesn't preserve the original line endings.\n *\n * @sample samples.text.Strings.trimIndent\n * @see trimMargin\n * @see kotlin.text.isBlank\n */\npublic fun String.trimIndent(): String = replaceIndent(\"\")\n\n/**\n * Detects a common minimal indent like it does [trimIndent] and replaces it with the specified [newIndent].\n */\npublic fun String.replaceIndent(newIndent: String = \"\"): String {\n   val lines = lines()\n\n   val minCommonIndent = lines\n   .filter(String::isNotBlank)\n   .map(String::indentWidth)\n   .minOrNull() ?: 0\n\n   return lines.reindent(length + newIndent.length * lines.size, getIndentFunction(newIndent), { line -> line.drop(minCommonIndent) })\n}\n\n/**\n * Prepends [indent] to every line of the original string.\n *\n * Doesn't preserve the original line endings.\n */\npublic fun String.prependIndent(indent: String = \"   \"): String =\n   lineSequence()\n   .map {\n   when {\n   it.isBlank() -> {\n   when {\n   it.length < indent.length -> indent\n   else -> it\n   }\n   }\n   else -> indent + it\n   }\n   }\n   .joinToString(\"\\n\")\n\nprivate fun String.indentWidth(): Int = indexOfFirst { !it.isWhitespace() }.let { if (it == -1) length else it }\n\nprivate fun getIndentFunction(indent: String) = when {\n   indent.isEmpty() -> { line: String -> line }\n   else -> { line: String -> indent + line }\n}\n\nprivate inline fun List<String>.reindent(\n   resultSizeEstimate: Int,\n   indentAddFunction: (String) -> String,\n   indentCutFunction: (String) -> String?\n): String {\n   val lastIndex = lastIndex\n   return mapIndexedNotNull { index, value ->\n   if ((index == 0 || index == lastIndex) && value.isBlank())\n   null\n   else\n   indentCutFunction(value)?.let(indentAddFunction) ?: value\n   }.joinTo(StringBuilder(resultSizeEstimate), \"\\n\")\n   .toString()\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt

file.\n */\n\npackage kotlin.text\n\n/**\n * Defines names for Unicode symbols used in proper Typography.\n */\npublic object Typography {\n   /** The character " \u2013 quotation mark */\n   public const val quote: Char = '\\u0022'\n   /** The character $ \u2013 dollar sign */\n   public const val dollar: Char = '\\u0024'\n   /** The character & \u2013 ampersand */\n   public const val amp: Char = '\\u0026'\n   /** The character < \u2013 less-than sign */\n   public const val less: Char = '\\u003C'\n   /** The character > \u2013 greater-than sign */\n   public const val greater: Char = '\\u003E'\n   /** The non-breaking space character */\n   public const val nbsp: Char = '\\u00A0'\n   /** The character × */\n   public const val times: Char = '\\u00D7'\n   /** The character ¢ */\n   public const val cent: Char = '\\u00A2'\n   /** The character £ */\n   public const val pound: Char = '\\u00A3'\n   /** The character § */\n   public const val section: Char = '\\u00A7'\n   /** The character © */\n   public const val copyright: Char = '\\u00A9'\n   /** The character « */\n   @SinceKotlin(\"1.6\")\n   public const val leftGuillemet: Char = '\\u00AB'\n   /** The character » */\n   @SinceKotlin(\"1.6\")\n   public const val rightGuillemet: Char = '\\u00BB'\n   /** The character ® */\n   public const val registered: Char = '\\u00AE'\n   /** The character ° */\n   public const val degree: Char = '\\u00B0'\n   /** The character ± */\n   public const val plusMinus: Char = '\\u00B1'\n   /** The character ¶ */\n   public const val paragraph: Char = '\\u00B6'\n   /** The character · */\n   public const val middleDot: Char = '\\u00B7'\n   /** The character ½ */\n   public const val half: Char = '\\u00BD'\n   /** The character – */\n   public const val ndash: Char = '\\u2013'\n   /** The character — */\n   public const val mdash: Char = '\\u2014'\n   /** The character ‘ */\n   public const val leftSingleQuote: Char = '\\u2018'\n   /** The character ’ */\n   public const val rightSingleQuote: Char = '\\u2019'\n   /** The character ‚ */\n   public const val lowSingleQuote: Char = '\\u201A'\n   /** The character “ */\n   public const val leftDoubleQuote: Char = '\\u201C'\n   /** The character ” */\n   public const val rightDoubleQuote: Char = '\\u201D'\n   /** The character „ */\n   public const val lowDoubleQuote: Char = '\\u201E'\n   /** The character † */\n   public const val dagger: Char = '\\u2020'\n   /** The character ‡ */\n   public const val doubleDagger: Char = '\\u2021'\n   /** The character • */\n   public const val bullet: Char = '\\u2022'\n   /** The character … */\n   public const val ellipsis: Char = '\\u2026'\n   /** The character ′ */\n   public const val prime: Char = '\\u2032'\n   /** The character ″ */\n   public const val doublePrime: Char = '\\u2033'\n   /** The character € */\n   public const val euro: Char = '\\u20AC'\n   /** The character ™ */\n   public const val tm: Char = '\\u2122'\n   /** The character ≈ */\n   public const val almostEqual: Char = '\\u2248'\n   /** The character ≠ */\n   public const val notEqual: Char = '\\u2260'\n   /** The character ≤ */\n   public const val lessOrEqual: Char = '\\u2264'\n   /** The character ≥ */\n   public const val greaterOrEqual: Char = '\\u2265'\n\n   /** The character « */\n   @Deprecated(\"This constant has a typo in the name. Use leftGuillemet instead.\", ReplaceWith(\"Typography.leftGuillemet\"))\n   @DeprecatedSinceKotlin(\"1.6\")\n   public const val leftGuillemete: Char = '\\u00AB'\n\n   /** The character » */\n   @Deprecated(\"This constant has a typo in the name. Use rightGuillemet instead.\", ReplaceWith(\"Typography.rightGuillemet\"))\n   @DeprecatedSinceKotlin(\"1.6\")\n   public const val rightGuillemete: Char = '\\u00BB'\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.text\n\n/**\n * Represents a collection of captured groups in a single match of a regular expression.\n *\n * This collection has size of `groupCount + 1` where `groupCount` is the count of groups in the regular expression.\n * Groups are indexed from 1 to `groupCount` and group with the index 0 corresponds to the entire match.\n *\n * An element of the collection at the particular index can be `null`,\n * if the corresponding group in the regular expression is optional and\n * there was no match captured by that group.\n */\npublic interface MatchGroupCollection : Collection<MatchGroup?> {\n\n   /** Returns a group with the specified [index].\n   *\n   * @return An instance of [MatchGroup] if the group with the specified [index] was matched or `null` otherwise.\n   *\n   * Groups are indexed from 1 to the count of groups in the regular expression. A group with the index 0\n   * corresponds to the entire match.\n   */\n   public operator fun get(index: Int): MatchGroup?\n}\n\n/**\n * Extends

[MatchGroupCollection] by introducing a way to get matched groups by name, when regex supports it.\n */\n@SinceKotlin(\"1.1\")\npublic interface MatchNamedGroupCollection : MatchGroupCollection {\n /**\n * Returns a named group with the specified [name].\n * @return An instance of [MatchGroup] if the group with the specified [name] was matched or `null` otherwise.\n * @throws IllegalArgumentException if there is no group with the specified [name] defined in the regex pattern.\n * @throws UnsupportedOperationException if getting named groups isn't supported on the current platform.\n */\n public operator fun get(name: String): MatchGroup?\n}\n\n/**\n * Represents the results from a single regular expression match.\n */\npublic interface MatchResult {\n /** The range of indices in the original string where match was captured. */\n public val range: IntRange\n /** The substring from the input string captured by this match. */\n public val value: String\n /**\n * A collection of groups matched by the regular expression.\n *\n * This collection has size of `groupCount + 1` where `groupCount` is the count of groups in the regular expression.\n * Groups are indexed from 1 to `groupCount` and group with the index 0 corresponds to the entire match.\n */\n public val groups: MatchGroupCollection\n /**\n * A list of matched indexed group values.\n *\n * This list has size of `groupCount + 1` where `groupCount` is the count of groups in the regular expression.\n * Groups are indexed from 1 to `groupCount` and group with the index 0 corresponds to the entire match.\n *\n * If the group in the regular expression is optional and there were no match captured by that group,\n * corresponding item in [groupValues] is an empty string.\n *\n * @sample samples.text.Regexps.matchDestructuringToGroupValues\n */\n public val groupValues: List<String>\n\n /**\n * An instance of [MatchResult.Destructured] wrapper providing components for destructuring assignment of group values.\n *\n * component1 corresponds to the value of the first group, component2 \u2014 of the second, and so on.\n *\n * @sample samples.text.Regexps.matchDestructuringToGroupValues\n */\n public val destructured: Destructured get() = Destructured(this)\n\n /** Returns a new [MatchResult] with the results for the next match, starting at the position\n * at which the last match ended (at the character after the last matched character).\n */\n public fun next(): MatchResult?\n\n /**\n * Provides components for destructuring assignment of group values.\n *\n * [component1] corresponds to the value of the first group, [component2] \u2014 of the second, and so on.\n *\n * If the group in the regular expression is optional and there were no match captured by that group,\n * corresponding component value is an empty string.\n *\n * @sample samples.text.Regexps.matchDestructuringToGroupValues\n */\n public class Destructured internal constructor(public val match: MatchResult) {\n @kotlin.internal.InlineOnly\n public operator inline fun component1(): String = match.groupValues[1]\n @kotlin.internal.InlineOnly\n public operator inline fun component2(): String = match.groupValues[2]\n @kotlin.internal.InlineOnly\n public operator inline fun component3(): String = match.groupValues[3]\n @kotlin.internal.InlineOnly\n public operator inline fun component4(): String = match.groupValues[4]\n @kotlin.internal.InlineOnly\n public operator inline fun component5(): String = match.groupValues[5]\n @kotlin.internal.InlineOnly\n public operator inline fun component6(): String = match.groupValues[6]\n @kotlin.internal.InlineOnly\n public operator inline fun component7(): String = match.groupValues[7]\n @kotlin.internal.InlineOnly\n public operator inline fun component8(): String = match.groupValues[8]\n @kotlin.internal.InlineOnly\n public operator inline fun component9(): String = match.groupValues[9]\n @kotlin.internal.InlineOnly\n public operator inline fun component10(): String = match.groupValues[10]\n\n /**\n * Returns destructured group values as a list of strings.\n * First value in the returned list corresponds to the value of the first group, and so on.\n *\n * @sample samples.text.Regexps.matchDestructuringToGroupValues\n */\n public fun toList(): List<String> = match.groupValues.subList(1, match.groupValues.size)\n }\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass()\n@file:kotlin.jvm.JvmName(\"DurationUnitKt\")\n\npackage kotlin.time\n\n\n/**\n * The list of possible time measurement units, in which a duration can be expressed.\n *\n * The smallest time unit is [NANOSECONDS] and the largest is [DAYS], which corresponds to exactly 24

[HOURS].\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalTime::class)\npublic expect enum class DurationUnit {\n   /**\n   * Time unit representing one nanosecond, which is 1/1000 of a microsecond.\n   */\n   NANOSECONDS,\n   /**\n   * Time unit representing one microsecond, which is 1/1000 of a millisecond.\n   */\n   MICROSECONDS,\n   /**\n   * Time unit representing
 one millisecond, which is 1/1000 of a second.\n   */\n   MILLISECONDS,\n   /**\n   * Time unit representing one second.\n   */\n   SECONDS,\n   /**\n   * Time unit representing one minute.\n   */\n   MINUTES,\n   /**\n   * Time unit representing one hour.\n   */\n   HOURS,\n   /**\n   * Time unit representing one day, which is always equal to 24 hours.\n   */\n   DAYS;\n}\n\n/** Converts the given time duration [value] expressed in the specified [sourceUnit] into the specified [targetUnit]. */\n@SinceKotlin(\"1.3\")\ninternal expect fun convertDurationUnit(value: Double, sourceUnit: DurationUnit, targetUnit: DurationUnit): Double\n\n// overflown result is unspecified\n@SinceKotlin(\"1.5\")\ninternal expect fun convertDurationUnitOverflow(value: Long, sourceUnit: DurationUnit, targetUnit: DurationUnit): Long\n\n// overflown result is coerced in the Long range boundaries\n@SinceKotlin(\"1.5\")\ninternal expect fun convertDurationUnit(value: Long, sourceUnit:
 DurationUnit, targetUnit: DurationUnit): Long\n\n\n@SinceKotlin(\"1.3\")\n@Suppress(\"REDUNDANT_ELSE_IN_WHEN\")\ninternal fun DurationUnit.shortName(): String = when (this) {\n   DurationUnit.NANOSECONDS -> \"ns\"\n   DurationUnit.MICROSECONDS -> \"us\"\n   DurationUnit.MILLISECONDS -> \"ms\"\n   DurationUnit.SECONDS -> \"s\"\n   DurationUnit.MINUTES -> \"m\"\n   DurationUnit.HOURS -> \"h\"\n   DurationUnit.DAYS -> \"d\"\n   else -> error(\"Unknown unit: $this\")\n}\n\n@SinceKotlin(\"1.5\")\ninternal fun durationUnitByShortName(shortName: String): DurationUnit = when (shortName) {\n   \"ns\" -> DurationUnit.NANOSECONDS\n   \"us\" -> DurationUnit.MICROSECONDS\n   \"ms\" -> DurationUnit.MILLISECONDS\n   \"s\" -> DurationUnit.SECONDS\n   \"m\" -> DurationUnit.MINUTES\n   \"h\" -> DurationUnit.HOURS\n   \"d\" -> DurationUnit.DAYS\n   else -> throw IllegalArgumentException(\"Unknown duration unit short name: $shortName\")\n}\n\n@SinceKotlin(\"1.5\")\ninternal fun durationUnitByIsoChar(isoChar:
 Char, isTimeComponent: Boolean): DurationUnit =\n   when {\n   !isTimeComponent -> {\n   when (isoChar) {\n   'D' -> DurationUnit.DAYS\n   else -> throw IllegalArgumentException(\"Invalid or unsupported duration ISO non-time unit: $isoChar\")\n   }\n   }\n   else -> {\n   when (isoChar) {\n   'H' -> DurationUnit.HOURS\n   'M' -> DurationUnit.MINUTES\n   'S' -> DurationUnit.SECONDS\n   else -> throw IllegalArgumentException(\"Invalid duration ISO time unit: $isoChar\")\n   }\n   }\n   }","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\nimport kotlin.annotation.AnnotationTarget.*\n\n/**\n * This annotation marks the experimental preview of
 the standard library API for measuring time and working with durations.\n *\n * > Note that this API is in a preview state and has a very high chance of being changed in the future.\n * Do not use it if you develop a library since your library will become binary incompatible\n * with the future versions of the standard library.\n *\n * Any usage of a declaration annotated with `@ExperimentalTime` must be accepted either by\n * annotating that usage with the [OptIn] annotation, e.g. `@OptIn(ExperimentalTime::class)`,\n * or by using the compiler argument `-opt-in=kotlin.time.ExperimentalTime`.\n */\n@RequiresOptIn(level = RequiresOptIn.Level.ERROR)\n@MustBeDocumented\n@Retention(AnnotationRetention.BINARY)\n@Target(\n CLASS,\n   ANNOTATION_CLASS,\n   PROPERTY,\n   FIELD,\n   LOCAL_VARIABLE,\n   VALUE_PARAMETER,\n   CONSTRUCTOR,\n   FUNCTION,\n   PROPERTY_GETTER,\n   PROPERTY_SETTER,\n   TYPEALIAS\n)\n@SinceKotlin(\"1.3\")\npublic annotation class ExperimentalTime\n","/*\n
 * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\n/**\n * A source of time for measuring time intervals.\n *\n * The only operation provided by the

time source is [markNow]. It returns a [TimeMark], which can be used to query the elapsed time later.\n *\n * @see [measureTime]\n * @see [measureTimedValue]\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic interface TimeSource {\n /**\n * Marks a point in time on this time source.\n *\n * The returned [TimeMark] instance encapsulates the captured time point and allows querying\n * the duration of time interval [elapsed][TimeMark.elapsedNow] from that point.\n */\n public fun markNow(): TimeMark\n\n /**\n * The most precise time source available in the platform.\n *\n * This time source returns its readings from a source of monotonic time when it is available in a target platform,\n * and resorts to a non-monotonic time source otherwise.\n */\n public object Monotonic : TimeSource by MonotonicTimeSource {\n override fun toString(): String = MonotonicTimeSource.toString()\n }\n\n\n public companion object {\n\n }\n}\n\n/**\n * Represents a time point notched on a particular [TimeSource]. Remains bound to the time source it was taken from\n * and allows querying for the duration of time elapsed from that point (see the function [elapsedNow]).\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic abstract class TimeMark {\n /**\n * Returns the amount of time passed from this mark measured with the time source from which this mark was taken.\n *\n * Note that the value returned by this function can change on subsequent invocations.\n */\n public abstract fun elapsedNow(): Duration\n\n /**\n * Returns a time mark on the same time source that is ahead of this time mark by the specified [duration].\n *\n * The returned time mark is more _late_ when the [duration] is positive, and more _early_ when the [duration] is negative.\n */\n public open operator fun plus(duration: Duration): TimeMark = AdjustedTimeMark(this, duration)\n\n /**\n * Returns a time mark on the same time source that is behind this time mark by the specified [duration].\n *\n * The returned time mark is more _early_ when the [duration] is positive, and more _late_ when the [duration] is negative.\n */\n public open operator fun minus(duration: Duration): TimeMark = plus(-duration)\n\n\n /**\n * Returns true if this time mark has passed according to the time source from which this mark was taken.\n *\n * Note that the value returned by this function can change on subsequent invocations.\n * If the time source is monotonic, it can change only from `false` to `true`, namely, when the time mark becomes behind the current point of the time source.\n */\n public fun hasPassedNow(): Boolean = !elapsedNow().isNegative()\n\n /**\n * Returns false if this time mark has not passed according to the time source from which this mark was taken.\n *\n * Note that the value returned by this function can change on subsequent invocations.\n * If the time source is monotonic, it can change only from `true` to `false`, namely, when the time mark becomes behind the current point of the time source.\n */\n public fun hasNotPassedNow(): Boolean = elapsedNow().isNegative()\n}\n\n\n@ExperimentalTime\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Deprecated(\n \"Subtracting one TimeMark from another is not a well defined operation because these time marks could have been obtained from the different time sources.\",\n level = DeprecationLevel.ERROR\n)\n@Suppress(\"UNUSED_PARAMETER\")\npublic inline operator fun TimeMark.minus(other: TimeMark): Duration = throw Error(\"Operation is disallowed.\")\n\n@ExperimentalTime\n@SinceKotlin(\"1.3\")\n@kotlin.internal.InlineOnly\n@Deprecated(\n \"Comparing one TimeMark to another is not a well defined operation because these time marks could have been obtained from the different time sources.\",\n level = DeprecationLevel.ERROR\n)\n@Suppress(\"UNUSED_PARAMETER\")\npublic inline operator fun TimeMark.compareTo(other: TimeMark): Int = throw Error(\"Operation is disallowed.\")\n\n\n@ExperimentalTime\nprivate class AdjustedTimeMark(val mark: TimeMark, val adjustment: Duration) : TimeMark() {\n override fun elapsedNow(): Duration = mark.elapsedNow() - adjustment\n\n override fun plus(duration: Duration): TimeMark = AdjustedTimeMark(mark, adjustment + duration)\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\n\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\ninternal expect object MonotonicTimeSource : TimeSource\n\n/**\n * An abstract class used to implement time sources that return their readings as [Long] values in the specified [unit].\n *\n * @property unit The unit in which this time source's readings are expressed.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic abstract class AbstractLongTimeSource(protected val unit: DurationUnit) : TimeSource {\n /**\n * This protected method should be overridden to return the current reading of the time source expressed as a [Long] number\n * in the unit specified by the [unit] property.\n */\n protected abstract fun read(): Long\n\n private class LongTimeMark(private val startedAt: Long, private val timeSource: AbstractLongTimeSource, private val offset: Duration) : TimeMark() {\n override fun elapsedNow(): Duration = (timeSource.read() - startedAt).toDuration(timeSource.unit) - offset\n override fun plus(duration: Duration): TimeMark = LongTimeMark(startedAt, timeSource, offset + duration)\n }\n\n override fun markNow(): TimeMark = LongTimeMark(read(), this, Duration.ZERO)\n}\n\n/**\n * An abstract class used to implement time sources that return their readings as [Double] values in the specified [unit].\n *\n * @property unit The unit in which this time source's readings are expressed.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic abstract class AbstractDoubleTimeSource(protected val unit: DurationUnit) : TimeSource {\n /**\n * This protected method should be overridden to return the current reading of the time source expressed as a [Double] number\n * in the unit specified by the [unit] property.\n */\n protected abstract fun read(): Double\n\n private class DoubleTimeMark(private val startedAt: Double, private val timeSource: AbstractDoubleTimeSource, private val offset: Duration) : TimeMark() {\n override fun elapsedNow(): Duration = (timeSource.read() - startedAt).toDuration(timeSource.unit) - offset\n override fun plus(duration: Duration): TimeMark = DoubleTimeMark(startedAt, timeSource, offset + duration)\n }\n\n override fun markNow(): TimeMark = DoubleTimeMark(read(), this, Duration.ZERO)\n}\n\n/**\n * A time source that has programmatically updatable readings. It is useful as a predictable source of time in tests.\n *\n * The current reading value can be advanced by the specified duration amount with the operator [plusAssign]:\n *\n * ```\n * val timeSource = TestTimeSource()\n * timeSource += 10.seconds\n * ```\n *\n * Implementation note: the current reading value is stored as a [Long] number of nanoseconds,\n * thus it's capable to represent a time range of approximately \u00b1292 years.\n * Should the reading value overflow as the result of [plusAssign] operation, an [IllegalStateException] is thrown.\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic class TestTimeSource : AbstractLongTimeSource(unit = DurationUnit.NANOSECONDS) {\n private var reading: Long = 0L\n\n override fun read(): Long = reading\n\n /**\n * Advances the current reading value of this time source by the specified [duration].\n *\n * [duration] value is rounded down towards zero when converting it to a [Long] number of nanoseconds.\n * For example, if the duration being added is `0.6.nanoseconds`, the reading doesn't advance because\n * the duration value is rounded to zero nanoseconds.\n *\n * @throws IllegalStateException when the reading value overflows as the result of this operation.\n */\n public operator fun plusAssign(duration: Duration) {\n val longDelta = duration.toLong(unit)\n reading = if (longDelta != Long.MIN_VALUE && longDelta != Long.MAX_VALUE) {\n // when delta fits in long, add it as long\n val newReading = reading + longDelta\n if (reading xor longDelta >= 0 && reading xor newReading < 0) overflow(duration)\n newReading\n } else {\n val delta = duration.toDouble(unit)\n // when delta is greater than long, add it as double\n val newReading = reading + delta\n if (newReading > Long.MAX_VALUE || newReading < Long.MIN_VALUE) overflow(duration)\n newReading.toLong()\n }\n }\n\n private fun overflow(duration: Duration) {\n throw IllegalStateException(\"TestTimeSource will overflow if its reading ${reading}ns is advanced by $duration.\")\n }\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.time\n\nimport kotlin.contracts.*\n\n/**\n * Executes the given function [block] and returns the duration of elapsed time interval.\n *\n * The elapsed time is measured with [TimeSource.Monotonic].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic inline fun measureTime(block: () -> Unit): Duration {\n contract {\n callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n }\n return TimeSource.Monotonic.measureTime(block)\n}\n\n\n/**\n * Executes the given function [block] and returns the duration of elapsed time interval.\n *\n * The elapsed time is measured with the specified `this` [TimeSource] instance.\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic inline fun TimeSource.measureTime(block: () -> Unit): Duration {\n   contract {\n   callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n\n   val mark = markNow()\n   block()\n   return mark.elapsedNow()\n}\n\n\n/**\n * Data class representing a result of executing an action, along with the duration of elapsed time interval.\n *\n * @property value the result of the action.\n * @property duration the time elapsed to execute the action.\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic data class TimedValue<T>(val value:

T, val duration: Duration)\n\n/**\n * Executes the given function [block] and returns an instance of [TimedValue] class, containing both\n * the result of the function execution and the duration of elapsed time interval.\n *\n * The elapsed time is measured with [TimeSource.Monotonic].\n */\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic inline fun <T> measureTimedValue(block: () -> T): TimedValue<T> {\n   contract {\n   callsInPlace(block, InvocationKind.EXACTLY_ONCE)\n   }\n\n   return TimeSource.Monotonic.measureTimedValue(block)\n}\n\n/**\n * Executes the given [block] and returns an instance of [TimedValue] class, containing both\n * the result of function execution and the duration of elapsed time interval.\n *\n * The elapsed time is measured with the specified `this` [TimeSource] instance.\n

*/\n@SinceKotlin(\"1.3\")\n@ExperimentalTime\npublic inline fun <T> TimeSource.measureTimedValue(block: () -> T): TimedValue<T> {\n   contract {\n   callsInPlace(block,

InvocationKind.EXACTLY_ONCE)\n   }\n\n   val mark = markNow()\n   val result = block()\n   return TimedValue(result, mark.elapsedNow())\n}\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.coroutines.*\nimport kotlin.coroutines.intrinsics.*\nimport kotlin.native.concurrent.SharedImmutable\n\n/**\n * Defines deep recursive function that keeps its stack on the heap,\n * which allows very deep recursive computations that do not use the actual call stack.\n * To initiate a call to this deep recursive function use its [invoke] function.\n * As a rule of thumb, it should be used if recursion goes deeper than a thousand calls.\n *\n * The [DeepRecursiveFunction] takes one parameter of type [T] and returns a result of type [R].\n * The [block] of code defines the body of a recursive function.

In this block\n * [callRecursive][DeepRecursiveScope.callRecursive] function can be used to make a recursive call\n * to the declared function. Other instances of [DeepRecursiveFunction] can be called\n * in this scope with `callRecursive` extension, too.\n *\n * For example, take a look at the following recursive tree class and a deeply\n * recursive instance of this tree with 100K nodes:\n *\n * ```\n * class Tree(val left: Tree? = null, val right: Tree? = null)\n * val deepTree = generateSequence(Tree()) { Tree(it) }.take(100_000).last()\n * ```\n *\n * A regular recursive function can be defined to compute a depth of a tree:\n *\n * ```\n * fun depth(t: Tree?): Int =\n *   if (t == null) 0 else max(depth(t.left), depth(t.right)) + 1\n * println(depth(deepTree)) // StackOverflowError\n * ```\n *\n * If this `depth` function is called for a `deepTree` it produces [StackOverflowError] because of deep recursion.\n * However, the `depth` function can be rewritten using `DeepRecursiveFunction`

in the following way, and then\n * it successfully computes [`depth(deepTree)`][DeepRecursiveFunction.invoke] expression:\n *\n * ```\n * val depth = DeepRecursiveFunction<Tree?, Int> { t ->\n *   if (t == null) 0 else max(callRecursive(t.left), callRecursive(t.right)) + 1\n * }\n * println(depth(deepTree)) // Ok\n * ```\n *\n * Deep recursive functions can also mutually call each other using a heap for the stack via\n * [callRecursive][DeepRecursiveScope.callRecursive] extension. For example, the\n * following pair of mutually recursive functions computes the number of tree nodes at even depth in the tree.\n *\n * ```\n * val mutualRecursion = object {\n *   val even: DeepRecursiveFunction<Tree?, Int> = DeepRecursiveFunction { t ->\n *   if (t == null) 0 else odd.callRecursive(t.left) + odd.callRecursive(t.right) + 1\n *   }\n *   val odd: DeepRecursiveFunction<Tree?, Int> = DeepRecursiveFunction { t ->\n *   if (t == null) 0 else even.callRecursive(t.left)

+ even.callRecursive(t.right)\n *   }\n * }\n * ```\n *\n * @param [T] the function parameter type.\n * @param [R] the function result type.\n * @param block the function body.\n

*/\n@SinceKotlin(\"1.4\")\n@ExperimentalStdlibApi\npublic class DeepRecursiveFunction<T, R>(\n   internal val

block: suspend DeepRecursiveScope<T, R>.(T) -> R\n)\n\n/**\n * Initiates a call to this deep recursive function, forming a root of the call tree.\n *\n * This operator should not be used from inside of [DeepRecursiveScope] as it uses the call stack slot for\n * initial recursive invocation. From inside of [DeepRecursiveScope] use\n * [callRecursive][DeepRecursiveScope.callRecursive].\n
*/\n@SinceKotlin(\"1.4\")\n@ExperimentalStdlibApi\npublic operator fun <T, R> DeepRecursiveFunction<T, R>.invoke(value: T): R =\n   DeepRecursiveScopeImpl<T, R>(block, value).runCallLoop()\n\n/**\n * A scope class for [DeepRecursiveFunction] function declaration that defines [callRecursive] methods to\n * recursively
call this function or another [DeepRecursiveFunction] putting the call activation frame on the heap.\n *\n * @param [T] function parameter type.\n * @param [R] function result type.\n
*/\n@RestrictsSuspension\n@SinceKotlin(\"1.4\")\n@ExperimentalStdlibApi\npublic sealed class DeepRecursiveScope<T, R> {\n   /**\n   * Makes recursive call to this [DeepRecursiveFunction] function putting the call activation frame on the heap,\n   * as opposed to the actual call stack that is used by a regular recursive call.\n   */\n   public abstract suspend fun callRecursive(value: T): R\n\n   /**\n   * Makes call to the specified [DeepRecursiveFunction] function putting the call activation frame on the heap,\n   * as opposed to the actual call stack that is used by a regular call.\n   */\n   public abstract suspend fun <U, S> DeepRecursiveFunction<U, S>.callRecursive(value: U): S\n\n   @Deprecated(\n   level = DeprecationLevel.ERROR,\n   message =\n \"'invoke' should
not be called from DeepRecursiveScope. \" +\n   \"Use 'callRecursive' to do recursion in the heap instead of the call stack.\",\n   replaceWith = ReplaceWith(\"this.callRecursive(value)\")\n   )\n @Suppress(\"UNUSED_PARAMETER\")\n   public operator fun DeepRecursiveFunction<*, *>.invoke(value: Any?): Nothing =\n   throw UnsupportedOperationException(\"Should not be called from DeepRecursiveScope\")\n}\n\n// ================== Implementation ==================\n\n@ExperimentalStdlibApi\nprivate typealias DeepRecursiveFunctionBlock = suspend DeepRecursiveScope<*, *>.(Any?) -> Any?\n\n@SharedImmutable\nprivate val UNDEFINED_RESULT = Result.success(COROUTINE_SUSPENDED)\n\n@Suppress(\"UNCHECKED_CAST\")\n@ExperimentalStdlibApi\nprivate class DeepRecursiveScopeImpl<T, R>(\n   block: suspend DeepRecursiveScope<T, R>.(T) -> R,\n value: T\n) : DeepRecursiveScope<T, R>(), Continuation<R> {\n   // Active function block\n   private var function: DeepRecursiveFunctionBlock
= block as DeepRecursiveFunctionBlock\n\n   // Value to call function with\n   private var value: Any? = value\n\n   // Continuation of the current call\n   private var cont: Continuation<Any?>? = this as Continuation<Any?>\n\n // Completion result (completion of the whole call stack)\n   private var result: Result<Any?> = UNDEFINED_RESULT\n\n   override val context: CoroutineContext\n   get() = EmptyCoroutineContext\n\n override fun resumeWith(result: Result<R>) {\n   this.cont = null\n   this.result = result\n   }\n\n   override suspend fun callRecursive(value: T): R = suspendCoroutineUninterceptedOrReturn { cont ->\n   // calling the same function that is currently active\n   this.cont = cont as Continuation<Any?>\n   this.value = value\n COROUTINE_SUSPENDED\n   }\n\n   override suspend fun <U, S> DeepRecursiveFunction<U, S>.callRecursive(value: U): S = suspendCoroutineUninterceptedOrReturn { cont ->\n   // calling
another recursive function\n   val function = block as DeepRecursiveFunctionBlock\n with(this@DeepRecursiveScopeImpl) {\n   val currentFunction = this.function\n   if (function !== currentFunction) {\n   // calling a different function -- create a trampoline to restore function ref\n this.function = function\n   this.cont = crossFunctionCompletion(currentFunction, cont as Continuation<Any?>)\n   } else {\n   // calling the same function -- direct\n   this.cont = cont as Continuation<Any?>\n   }\n   this.value = value\n   }\n   COROUTINE_SUSPENDED\n   }\n\n   private fun crossFunctionCompletion(\n   currentFunction: DeepRecursiveFunctionBlock,\n   cont: Continuation<Any?>\n   ): Continuation<Any?> = Continuation(EmptyCoroutineContext) {\n   this.function = currentFunction\n   // When going back from a trampoline we cannot just call
cont.resume (stack usage!)\n   // We delegate the cont.resumeWith(it) call to runCallLoop\n   this.cont = cont\n   this.result = it\n   }\n\n   @Suppress(\"UNCHECKED_CAST\")\n   fun runCallLoop(): R {\n   while

(true) {\n // Note: cont is set to null in DeepRecursiveScopeImpl.resumeWith when the whole computation completes\n val result = this.result\n val cont = this.cont\n ?: return (result as Result<R>).getOrThrow() // done -- final result\n // The order of comparison is important here for that case of rogue class with broken equals\n if (UNDEFINED_RESULT == result) {\n // call \"function\" with \"value\" using \"cont\" as completion\n val r = try {\n // This is block.startCoroutine(this, value, cont)\n function.startCoroutineUninterceptedOrReturn(this, value, cont)\n } catch (e: Throwable) {\n
cont.resumeWithException(e)\n continue\n }\n // If the function returns without suspension -- calls its continuation immediately\n if (r !== COROUTINE_SUSPENDED)\n cont.resume(r as R)\n } else {\n // we returned from a crossFunctionCompletion trampoline -- call resume here\n this.result = UNDEFINED_RESULT // reset result back\n cont.resumeWith(result)\n }\n }\n }\n}\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\n@file:kotlin.jvm.JvmName(\"NumbersKt\")\n@file:kotlin.jvm.JvmMultifileClass\npackage kotlin\n\nimport kotlin.math.sign\n\n/** Divides this value by the other value, flooring the result to an integer that is closer
to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.floorDiv(other: Byte): Int = \n this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.mod(other: Byte): Byte = \n this.toInt().mod(other.toInt()).toByte()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.floorDiv(other: Short): Int = \n this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_
and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.mod(other: Short): Short = \n this.toInt().mod(other.toInt()).toShort()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.floorDiv(other: Int): Int = \n this.toInt().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.mod(other: Int): Int = \n this.toInt().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic
inline fun Byte.floorDiv(other: Long): Long = \n this.toLong().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Byte.mod(other: Long): Long = \n this.toLong().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.floorDiv(other: Byte): Int = \n this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n
*/\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.mod(other: Byte): Byte = \n this.toInt().mod(other.toInt()).toByte()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun

Short.floorDiv(other: Short): Int = \n   this.toInt().floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.mod(other: Short): Short = \n   this.toInt().mod(other.toInt()).toShort()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.floorDiv(other: Int): Int = \n   this.toInt().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.mod(other: Int): Int = \n   this.toInt().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.floorDiv(other: Long): Long = \n   this.toLong().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Short.mod(other: Long): Long = \n   this.toLong().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.floorDiv(other: Byte): Int = \n   this.floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.mod(other: Byte): Byte = \n   this.mod(other.toInt()).toByte()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.floorDiv(other: Short): Int = \n   this.floorDiv(other.toInt())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.mod(other: Short): Short = \n   this.mod(other.toInt()).toShort()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.floorDiv(other: Int): Int {\n   var q = this / other\n   if (this xor other < 0 && q * other != this) q-- \n   return q\n}\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.mod(other: Int): Int {\n   val r = this % other\n   return r + (other and (((r xor other) and (r or -r)) shr 31))\n}\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.floorDiv(other: Long): Long = \n   this.toLong().floorDiv(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Int.mod(other: Long): Long = \n   this.toLong().mod(other)\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.floorDiv(other: Byte): Long = \n   this.floorDiv(other.toLong())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.mod(other: Byte): Byte = \n   this.mod(other.toLong()).toByte()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.floorDiv(other: Short): Long = \n   this.floorDiv(other.toLong())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.mod(other: Short): Short = \n   this.mod(other.toLong()).toShort()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.floorDiv(other: Int): Long = \n   this.floorDiv(other.toLong())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.mod(other: Int): Int = \n this.mod(other.toLong()).toInt()\n\n/** Divides this value by the other value, flooring the result to an integer that is closer to negative infinity. */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.floorDiv(other: Long): Long {\n   var q = this / other\n   if (this xor other < 0 && q * other != this) q-- \n return q\n}\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Long.mod(other: Long): Long {\n   val r = this % other\n   return r + (other and (((r xor other) and (r or -r)) shr 63))\n}\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n * \n * If the result cannot be represented exactly, it is rounded to the nearest representable number. In this case the absolute value of the result can be less than or _equal to_ the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Float.mod(other: Float): Float {\n   val r = this % other\n   return if (r != 0.0.toFloat() && r.sign != other.sign) r + other else r\n}\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n * \n * If the result cannot be represented exactly, it is rounded to the nearest representable number. In this case the absolute value of the result can be less than or _equal to_ the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Float.mod(other: Double): Double = \n this.toDouble().mod(other)\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n * \n * If the result cannot be represented exactly, it is rounded to the nearest representable number. In this case the absolute value of the result can be less than or _equal to_ the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Double.mod(other: Float): Double = \n   this.mod(other.toDouble())\n\n/**\n * Calculates the remainder of flooring division of this value by the other value.\n * \n * The result is either zero or has the same sign as the _divisor_ and has the absolute value less than the absolute value of the divisor.\n * \n * If the result cannot be represented exactly, it is rounded to the nearest representable number. In this case the absolute value of the result can be less than or _equal to_ the absolute value of the divisor.\n */\n@SinceKotlin(\"1.5\")\n@kotlin.internal.InlineOnly\npublic inline fun Double.mod(other: Double): Double {\n val r = this % other\n   return if (r != 0.0 && r.sign != other.sign) r + other else r\n}\n\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\nimport kotlin.internal.InlineOnly\n\n\n/**\n * Returns a hash code value for the object or zero if the object is `null`.\n *\n * @see Any.hashCode\n */\n@SinceKotlin(\"1.3\")\n@InlineOnly\npublic inline fun Any?.hashCode(): Int = this?.hashCode() ?: 0\n","/*\n * Copyright 2010-2020 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\n\n/**\n * Represents a version of the Kotlin standard library.\n *\n * [major], [minor] and [patch] are integer components of a version,\n * they must be non-negative and not greater than 255 ([MAX_COMPONENT_VALUE]).\n *\n * @constructor Creates a version from all three components.\n */\n@SinceKotlin(\"1.1\")\npublic

class KotlinVersion(val major: Int, val minor: Int, val patch: Int) : Comparable<KotlinVersion> {\n   /**\n   * Creates a version from [major] and [minor] components, leaving [patch] component zero.\n   */\n   public constructor(major: Int, minor: Int) : this(major, minor, 0)\n\n   private val version = versionOf(major, minor, patch)\n\n   private fun versionOf(major: Int, minor: Int, patch: Int): Int {\n   require(major in 0..MAX_COMPONENT_VALUE && minor in 0..MAX_COMPONENT_VALUE && patch in 0..MAX_COMPONENT_VALUE) {\n   \"Version components are out of range: $major.$minor.$patch\"\n   }\n   return major.shl(16) + minor.shl(8) + patch\n   }\n\n   /**\n   * Returns the string representation of this version\n   */\n   override fun toString(): String = \"$major.$minor.$patch\"\n\n   override fun equals(other: Any?): Boolean {\n   if (this === other) return true\n   val otherVersion = (other as? KotlinVersion) ?: return false\n

        return this.version == otherVersion.version\n   }\n\n   override fun hashCode(): Int = version\n\n   override fun compareTo(other: KotlinVersion): Int = version - other.version\n\n   /**\n   * Returns `true` if this version is not less than the version specified\n   * with the provided [major] and [minor] components.\n   */\n   public fun isAtLeast(major: Int, minor: Int): Boolean = // this.version >= versionOf(major, minor, 0)\n   this.major > major || (this.major == major &&\n   this.minor >= minor)\n\n   /**\n   * Returns `true` if this version is not less than the version specified\n   * with the provided [major], [minor] and [patch] components.\n   */\n   public fun isAtLeast(major: Int, minor: Int, patch: Int): Boolean = // this.version >= versionOf(major, minor, patch)\n   this.major > major || (this.major == major &&\n   (this.minor > minor || this.minor == minor &&\n

this.patch >= patch))\n\n

companion object {\n   /**\n   * Maximum value a version component can have, a constant value 255.\n   */\n   // NOTE: Must be placed before CURRENT because its initialization requires this field being initialized in JS\n   public const val MAX_COMPONENT_VALUE = 255\n\n   /**\n   * Returns the current version of the Kotlin standard library.\n   */\n   @kotlin.jvm.JvmField\n   public val CURRENT: KotlinVersion = KotlinVersionCurrentValue.get()\n   }\n}\n\n// this class is ignored during classpath normalization when considering whether to recompile dependencies in Kotlin build\nprivate object KotlinVersionCurrentValue {\n   @kotlin.jvm.JvmStatic\n   fun get(): KotlinVersion = KotlinVersion(1, 6, 21) // value is written here automatically during build\n}","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found

in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"LateinitKt\")\n@file:Suppress(\"unused\")\n\npackage kotlin\n\nimport kotlin.internal.InlineOnly\nimport kotlin.internal.AccessibleLateinitPropertyLiteral\nimport kotlin.reflect.KProperty0\n\n/**\n * Returns `true` if this lateinit property has been assigned a value, and `false` otherwise.\n *\n * Cannot be used in an inline function, to avoid binary compatibility issues.\n */\n@SinceKotlin(\"1.2\")\n@InlineOnly\ninline val @receiver:AccessibleLateinitPropertyLiteral KProperty0<*>.isInitialized: Boolean\n   get() = throw NotImplementedError(\"Implementation is intrinsic\")\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"LazyKt\")\n@file:kotlin.jvm.JvmMultifileClass\n\npackage kotlin\n\nimport kotlin.reflect.KProperty\n\n/**\n

* Represents a value with lazy initialization.\n *\n * To create an instance of [Lazy] use the [lazy] function.\n */\npublic interface Lazy<out T> {\n   /**\n   * Gets the lazily initialized value of the current Lazy instance.\n   * Once the value was initialized it must not change during the rest of lifetime of this Lazy instance.\n   */\n   public val value: T\n\n   /**\n   * Returns `true` if a value for this Lazy instance has been already initialized, and `false`

otherwise.\n * Once this function has returned `true` it stays `true` for the rest of lifetime of this Lazy instance.\n */\n public fun isInitialized(): Boolean\n}\n\n/**\n * Creates a new instance of the [Lazy] that is already initialized with the specified [value].\n */\npublic fun <T> lazyOf(value: T): Lazy<T> = InitializedLazyImpl(value)\n\n/**\n * An extension to delegate a read-only property of type [T] to an instance of [Lazy].\n *\n * This extension allows to use instances of Lazy for property delegation:\n * `val property: String by lazy { initializer }`\n */\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Lazy<T>.getValue(thisRef: Any?, property: KProperty<*>): T = value\n\n/**\n * Specifies how a [Lazy] instance synchronizes initialization among multiple threads.\n */\npublic enum class LazyThreadSafetyMode {\n\n /**\n * Locks are used to ensure that only a single thread can initialize the [Lazy] instance.\n */\n SYNCHRONIZED,\n\n /**\n * Initializer function can be called several times on concurrent access to uninitialized [Lazy] instance value,\n * but only the first returned value will be used as the value of [Lazy] instance.\n */\n PUBLICATION,\n\n /**\n * No locks are used to synchronize an access to the [Lazy] instance value; if the instance is accessed from multiple threads, its behavior is undefined.\n *\n * This mode should not be used unless the [Lazy] instance is guaranteed never to be initialized from more than one thread.\n */\n NONE,\n}\n\n\ninternal object UNINITIALIZED_VALUE\n\n// internal to be called from lazy in JS\ninternal class UnsafeLazyImpl<out T>(initializer: () -> T) : Lazy<T>, Serializable {\n private var initializer: (() -> T)? = initializer\n private var _value: Any? = UNINITIALIZED_VALUE\n\n override val value: T\n get() {\n if (_value === UNINITIALIZED_VALUE) {\n _value = initializer!!()\n initializer = null\n }\n @Suppress(\"UNCHECKED_CAST\")\n return _value as T\n }\n\n override fun isInitialized(): Boolean = _value !== UNINITIALIZED_VALUE\n\n override fun toString(): String = if (isInitialized()) value.toString() else \"Lazy value not initialized yet.\"\n\n private fun writeReplace(): Any = InitializedLazyImpl(value)\n}\n\ninternal class InitializedLazyImpl<out T>(override val value: T) : Lazy<T>, Serializable {\n\n override fun isInitialized(): Boolean = true\n\n override fun toString(): String = value.toString()\n\n}\n","/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"NumbersKt\")\npackage kotlin\n\n/**\n * Counts the number of set bits in the binary representation of this [Int] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.countOneBits(): Int\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Int] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.countLeadingZeroBits(): Int\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Int] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.countTrailingZeroBits(): Int\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [Int] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.takeHighestOneBit(): Int\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Int] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Int.takeLowestOneBit(): Int\n\n/**\n * Rotates the binary representation of this [Int] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Int.SIZE_BITS] (32) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 32)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun

Int.rotateLeft(bitCount: Int): Int\n\n\n/**\n * Rotates the binary representation of this [Int] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Int.SIZE_BITS] (32) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 32)`\n
*/\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic
expect fun Int.rotateRight(bitCount: Int): Int\n\n\n/**\n * Counts the number of set bits in the binary representation of this [Long] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.countOneBits(): Int\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Long] number.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.countLeadingZeroBits(): Int\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Long] number.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.countTrailingZeroBits(): Int\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [Long] number,\n * or zero, if this number is zero.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic
expect fun Long.takeHighestOneBit(): Long\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Long] number,\n * or zero, if this number is zero.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.takeLowestOneBit(): Long\n\n/**\n * Rotates the binary representation of this [Long] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Long.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 64)`\n
*/\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic
expect fun Long.rotateLeft(bitCount: Int): Long\n\n/**\n * Rotates the binary representation of this [Long] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Long.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 64)`\n
*/\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic expect fun Long.rotateRight(bitCount: Int): Long\n\n/**\n * Counts the number of set bits in the binary representation of this [Byte] number.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic
inline fun Byte.countOneBits(): Int = (toInt() and 0xFF).countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Byte] number.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.countLeadingZeroBits(): Int = (toInt() and 0xFF).countLeadingZeroBits() - (Int.SIZE_BITS - Byte.SIZE_BITS)\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Byte] number.\n
*/\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.countTrailingZeroBits(): Int = (toInt() or 0x100).countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [Byte] number,\n * or zero, if this

number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.takeHighestOneBit(): Byte = (toInt() and 0xFF).takeHighestOneBit().toByte()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Byte] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Byte.takeLowestOneBit(): Byte = toInt().takeLowestOneBit().toByte()\n\n\n/**\n * Rotates the binary representation of this [Byte] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Byte.SIZE_BITS] (8) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 8)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Byte.rotateLeft(bitCount: Int): Byte =\n   (toInt().shl(bitCount and 7) or (toInt() and 0xFF).ushr(8 - (bitCount and 7))).toByte()\n\n/**\n * Rotates the binary representation of this [Byte] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Byte.SIZE_BITS] (8) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 8)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Byte.rotateRight(bitCount: Int): Byte =\n   (toInt().shl(8 - (bitCount and 7)) or (toInt() and 0xFF).ushr(bitCount and 7)).toByte()\n\n/**\n * Counts the number of set bits in the binary representation of this [Short] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.countOneBits(): Int = (toInt() and 0xFFFF).countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Short] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.countLeadingZeroBits(): Int =\n   (toInt() and 0xFFFF).countLeadingZeroBits() - (Int.SIZE_BITS - Short.SIZE_BITS)\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Short] number.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.countTrailingZeroBits(): Int = (toInt() or 0x10000).countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [Short] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.takeHighestOneBit(): Short = (toInt() and 0xFFFF).takeHighestOneBit().toShort()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [Short] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.4\")\n@WasExperimental(ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun Short.takeLowestOneBit(): Short = toInt().takeLowestOneBit().toShort()\n\n\n/**\n * Rotates the binary representation of this [Short] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [Short.SIZE_BITS] (16) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 16)`\n

*/\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Short.rotateLeft(bitCount: Int): Short =\n   (toInt().shl(bitCount and 15) or (toInt() and 0xFFFF).ushr(16 - (bitCount and 15))).toShort()\n\n/**\n * Rotates the binary representation of this [Short] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [Short.SIZE_BITS] (16) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 16)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class)\npublic fun Short.rotateRight(bitCount: Int): Short =\n   (toInt().shl(16 - (bitCount and 15)) or (toInt() and 0xFFFF).ushr(bitCount and 15)).toShort()\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin\nimport kotlin.internal.RequireKotlin\nimport kotlin.internal.RequireKotlinVersionKind\n\n@kotlin.internal.InlineOnly\n@SinceKotlin(\"1.2\")\n@Suppress(\"INVISIBLE_MEMBER\", \"INVISIBLE_REFERENCE\")\n@RequireKotlin(\"1.2.30\", level = DeprecationLevel.HIDDEN, versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\npublic inline fun <R> suspend(noinline block: suspend () -> R): suspend () -> R = block\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"TuplesKt\")\n\npackage kotlin\n\n\n/**\n * Represents a generic pair of two values.\n *\n * There is no meaning attached to values in this class, it can be used for any purpose.\n * Pair exhibits value semantics, i.e. two pairs are equal if both components are equal.\n *\n * An example of decomposing it into values:\n * @sample samples.misc.Tuples.pairDestructuring\n *\n * @param A type of the first value.\n * @param B type of the second value.\n * @property first First value.\n * @property second Second value.\n * @constructor Creates a new instance of Pair.\n */\npublic data class Pair<out A, out B>(\n   public val first: A,\n   public val second: B\n) : Serializable {\n\n   /**\n   * Returns string representation of the [Pair] including its [first] and [second] values.\n   */\n   public override fun toString(): String = \"($first, $second)\"\n}\n\n/**\n * Creates a tuple of type [Pair] from this and [that].\n *\n * This can be useful for creating [Map] literals with less noise, for example:\n * @sample samples.collections.Maps.Instantiation.mapFromPairs\n */\npublic infix fun <A, B> A.to(that: B): Pair<A, B> = Pair(this, that)\n\n/**\n * Converts this pair into a list.\n * @sample samples.misc.Tuples.pairToList\n */\npublic fun <T> Pair<T, T>.toList(): List<T> = listOf(first, second)\n\n/**\n * Represents a triad of values\n *\n * There is no meaning attached to values in this class, it can be used for any purpose.\n * Triple exhibits value semantics, i.e. two triples are equal if all three components are equal.\n * An example of decomposing it into values:\n * @sample samples.misc.Tuples.tripleDestructuring\n *\n * @param A type of the first value.\n * @param B type of the second value.\n * @param C type of the third value.\n * @property first First value.\n * @property second Second value.\n * @property third Third value.\n */\npublic data class Triple<out A, out B, out C>(\n   public val first: A,\n   public val second: B,\n   public val third: C\n) : Serializable {\n\n   /**\n   * Returns string representation of the [Triple] including its [first], [second] and [third] values.\n   */\n   public override fun toString(): String = \"($first, $second, $third)\"\n}\n\n/**\n * Converts this triple into a list.\n * @sample samples.misc.Tuples.tripleToList\n */\npublic fun <T> Triple<T, T, T>.toList(): List<T> = listOf(first, second, third)\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.ranges\n\n\n\nimport kotlin.internal.*\n\n/**\n * A range of values of type `UInt`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic class UIntRange(start: UInt, endInclusive: UInt) : UIntProgression(start, endInclusive, 1), ClosedRange<UInt> {\n   override val start: UInt get() = first\n   override val endInclusive: UInt get() = last\n\n   override fun contains(value: UInt): Boolean =

first <= value && value <= last\n\n   /** \n   * Checks if the range is empty.\n   \n   * The range is empty if its start value is greater than the end value.\n   */\n   override fun isEmpty(): Boolean = first > last\n\n   override fun equals(other: Any?): Boolean =\n   other is UIntRange && (isEmpty() && other.isEmpty() ||\n   first == other.first && last == other.last)\n\n   override fun hashCode(): Int =\n   if (isEmpty()) -1 else (31 * first.toInt() + last.toInt())\n\n   override fun toString(): String = \"$first..$last\"\n\n   companion object {\n   /** An empty range of values of type UInt. */\n   public val EMPTY: UIntRange = UIntRange(UInt.MAX_VALUE, UInt.MIN_VALUE)\n   }\n}\n\n/**\n * A progression of values of type `UInt`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic open class UIntProgression\ninternal constructor(\n   start: UInt,\n   endInclusive: UInt,\n   step: Int\n) : Iterable<UInt> {\n   init {\n   if (step == 0.toInt()) throw kotlin.IllegalArgumentException(\"Step must be non-zero.\")\n   if (step == Int.MIN_VALUE) throw kotlin.IllegalArgumentException(\"Step must be greater than Int.MIN_VALUE to avoid overflow on negation.\")\n   }\n\n   /**\n   * The first element in the progression.\n   */\n   public val first: UInt = start\n\n   /**\n   * The last element in the progression.\n   */\n   public val last: UInt = getProgressionLastElement(start, endInclusive, step)\n\n   /**\n   * The step of the progression.\n   */\n   public val step:
Int = step\n\n   final override fun iterator(): Iterator<UInt> = UIntProgressionIterator(first, last, step)\n\n   /** \n   * Checks if the progression is empty.\n   \n   * Progression with a positive step is empty if its first element is greater than the last element.\n   * Progression with a negative step is empty if its first element is less than the last element.\n   */\n   public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n   override fun equals(other: Any?): Boolean =\n   other is UIntProgression && (isEmpty() && other.isEmpty() ||\n   first == other.first && last == other.last && step == other.step)\n\n   override fun hashCode(): Int =\n   if (isEmpty()) -1 else (31 * (31 * first.toInt() + last.toInt()) + step.toInt())\n\n   override fun toString(): String = if (step > 0) \"$first..$last step $step\" else \"$first downTo $last step ${-step}\"\n\n   companion object {\n   /**\n   * Creates UIntProgression
within the specified bounds of a closed range.\n\n   * The progression starts with the [rangeStart] value and goes toward the [rangeEnd] value not excluding it, with the specified [step].\n   * In order to go backwards the [step] must be negative.\n   *\n   * [step] must be greater than `Int.MIN_VALUE` and not equal to zero.\n   */\n   public fun fromClosedRange(rangeStart: UInt, rangeEnd: UInt, step: Int): UIntProgression = UIntProgression(rangeStart, rangeEnd, step)\n   }\n}\n\n\n/**\n * An iterator over a progression of values of type `UInt`.\n * @property step the number by which the value is incremented on each step.\n */\n@SinceKotlin(\"1.3\")\n@Suppress(\"DEPRECATION_ERROR\")\nprivate class UIntProgressionIterator(first: UInt, last: UInt, step: Int) : UIntIterator() {\n   private val finalElement = last\n   private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n   private val step = step.toUInt() // use
2-complement math for negative steps\n   private var next = if (hasNext) first else finalElement\n\n   override fun hasNext(): Boolean = hasNext\n\n   override fun nextUInt(): UInt {\n   val value = next\n   if (value == finalElement) {\n   if (!hasNext) throw kotlin.NoSuchElementException()\n   hasNext = false\n   } else {\n   next += step\n   }\n   return value\n   }\n}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.collections\n\n/** An iterator over a sequence of values of type `UByte`. */\n@Deprecated(\"This class is not going to be stabilized and is to be removed soon.\", level = DeprecationLevel.ERROR)\n@SinceKotlin(\"1.3\")\npublic abstract class UByteIterator : Iterator<UByte> {\n   final override
fun next() = nextUByte()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextUByte(): UByte\n}\n\n/** An iterator over a sequence of values of type `UShort`. */\n@Deprecated(\"This class is not going to be stabilized and is to be removed soon.\", level = DeprecationLevel.ERROR)\n@SinceKotlin(\"1.3\")\npublic abstract class UShortIterator : Iterator<UShort> {\n   final override fun next() = nextUShort()\n\n   /** Returns the next value in the sequence without boxing. */\n

public abstract fun nextUShort(): UShort\n}\n\n/** An iterator over a sequence of values of type `UInt`. */\n@Deprecated(\"This class is not going to be stabilized and is to be removed soon.\", level = DeprecationLevel.ERROR)\n@SinceKotlin(\"1.3\")\npublic abstract class UIntIterator : Iterator<UInt> {\n   final override fun next() = nextUInt()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextUInt(): UInt\n}\n\n/** An iterator over a sequence of values of type `ULong`. */\n@Deprecated(\"This class is not going to be stabilized and is to be removed soon.\", level = DeprecationLevel.ERROR)\n@SinceKotlin(\"1.3\")\npublic abstract class ULongIterator : Iterator<ULong> {\n   final override fun next() = nextULong()\n\n   /** Returns the next value in the sequence without boxing. */\n   public abstract fun nextULong(): ULong\n}\n\n","/*\n * Copyright 2010-2022 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin.ranges\n\n\n\nimport kotlin.internal.*\n\n/**\n * A range of values of type `ULong`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic class ULongRange(start: ULong, endInclusive: ULong) : ULongProgression(start, endInclusive, 1), ClosedRange<ULong> {\n   override val start: ULong get() = first\n   override val endInclusive: ULong get() = last\n\n   override fun contains(value: ULong): Boolean = first <= value && value <= last\n\n   /** \n   * Checks if the range is empty.\n   \n   * The range is empty if its start value is greater than the end value.\n   */\n   override fun isEmpty(): Boolean = first > last\n\n   override fun equals(other: Any?): Boolean =\n   other is ULongRange && (isEmpty() && other.isEmpty() ||\n   first == other.first && last == other.last)\n\n   override fun hashCode(): Int =\n   if (isEmpty()) -1 else (31 * (first xor (first shr 32)).toInt() + (last xor (last shr 32)).toInt())\n\n   override fun toString(): String = \"$first..$last\"\n\n   companion object {\n   /** An empty range of values of type ULong. */\n   public val EMPTY: ULongRange = ULongRange(ULong.MAX_VALUE, ULong.MIN_VALUE)\n   }\n}\n\n/**\n * A progression of values of type `ULong`.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic open class ULongProgression\ninternal constructor(\n   start: ULong,\n   endInclusive: ULong,\n   step: Long\n) : Iterable<ULong> {\n   init {\n   if (step == 0.toLong()) throw kotlin.IllegalArgumentException(\"Step must be non-zero.\")\n   if (step == Long.MIN_VALUE) throw kotlin.IllegalArgumentException(\"Step must be greater than Long.MIN_VALUE to avoid overflow on negation.\")\n   }\n\n   /**\n   * The first element in the progression.\n   */\n   public val first: ULong = start\n\n   /**\n   * The last element in the progression.\n   */\n   public val last: ULong = getProgressionLastElement(start, endInclusive, step)\n\n   /**\n   * The step of the progression.\n   */\n   public val step: Long = step\n\n   final override fun iterator(): Iterator<ULong> = ULongProgressionIterator(first, last, step)\n\n   /** \n   * Checks if the progression is empty.\n   \n   * Progression with a positive step is empty if its first element is greater than the last element.\n   * Progression with a negative step is empty if its first element is less than the last element.\n   */\n   public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last\n\n   override fun equals(other: Any?): Boolean =\n   other is ULongProgression && (isEmpty() && other.isEmpty() ||\n   first == other.first && last == other.last && step == other.step)\n\n   override fun hashCode(): Int =\n   if (isEmpty()) -1 else (31 * (31 * (first xor (first shr 32)).toInt() + (last xor (last shr 32)).toInt()) + (step xor (step ushr 32)).toInt())\n\n   override fun toString(): String = if (step > 0) \"$first..$last step $step\" else \"$first downTo $last step ${-step}\"\n\n   companion object {\n   /**\n   * Creates ULongProgression within the specified bounds of a closed range.\n\n   * The progression starts with the [rangeStart] value and goes toward the [rangeEnd] value not excluding it, with the specified [step].\n   * In order to go backwards the [step] must be negative.\n   *\n   * [step] must be greater than `Long.MIN_VALUE` and not equal to zero.\n   */\n   public fun fromClosedRange(rangeStart: ULong, rangeEnd: ULong, step: Long): ULongProgression = ULongProgression(rangeStart, rangeEnd, step)\n   }\n}\n\n\n/**\n * An iterator over a progression of values of type `ULong`.\n * @property step the number by which the value is incremented on each step.\n

*/\n@SinceKotlin(\"1.3\")\n@Suppress(\"DEPRECATION_ERROR\")\nprivate class ULongProgressionIterator(first: ULong, last: ULong, step: Long) : ULongIterator() {\n   private val finalElement = last\n   private var hasNext: Boolean = if (step > 0) first <= last else first >= last\n   private val step = step.toULong() // use 2-complement math for negative steps\n   private var next = if (hasNext) first else finalElement\n\n   override fun hasNext(): Boolean
 = hasNext\n\n   override fun nextULong(): ULong {\n   val value = next\n   if (value == finalElement) {\n   if (!hasNext) throw kotlin.NoSuchElementException()\n   hasNext = false\n   } else {\n   next += step\n   }\n   return value\n   }\n}\n\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.math\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun min(a: UInt, b: UInt): UInt {\n   return minOf(a, b)\n}\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun min(a: ULong, b: ULong): ULong {\n   return minOf(a,
 b)\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun max(a: UInt, b: UInt): UInt {\n   return maxOf(a, b)\n}\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun max(a: ULong, b: ULong): ULong {\n   return maxOf(a, b)\n}","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"UNumbersKt\")\npackage kotlin\n\n/**\n * Counts the number of set bits in the binary representation of this [UInt] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.countOneBits():
 Int = toInt().countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [UInt] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.countLeadingZeroBits(): Int = toInt().countLeadingZeroBits()\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [UInt] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.countTrailingZeroBits(): Int = toInt().countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [UInt] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class,
 ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.takeHighestOneBit(): UInt = toInt().takeHighestOneBit().toUInt()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [UInt] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.takeLowestOneBit(): UInt = toInt().takeLowestOneBit().toUInt()\n\n/**\n * Rotates the binary representation of this [UInt] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [UInt.SIZE_BITS]

(32) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 32)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.rotateLeft(bitCount: Int): UInt = toInt().rotateLeft(bitCount).toUInt()\n\n\n/**\n * Rotates the binary representation of this [UInt] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [UInt.SIZE_BITS] (32) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 32)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UInt.rotateRight(bitCount: Int): UInt = toInt().rotateRight(bitCount).toUInt()\n\n\n/**\n * Counts the number of set bits in the binary representation of this [ULong] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.countOneBits(): Int = toLong().countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [ULong] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.countLeadingZeroBits(): Int = toLong().countLeadingZeroBits()\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [ULong] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.countTrailingZeroBits(): Int = toLong().countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [ULong] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.takeHighestOneBit(): ULong = toLong().takeHighestOneBit().toULong()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [ULong] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.takeLowestOneBit(): ULong = toLong().takeLowestOneBit().toULong()\n\n/**\n * Rotates the binary representation of this [ULong] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [ULong.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 64)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.rotateLeft(bitCount: Int): ULong = toLong().rotateLeft(bitCount).toULong()\n\n/**\n * Rotates the binary representation of this [ULong] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [ULong.SIZE_BITS] (64) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 64)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun ULong.rotateRight(bitCount: Int): ULong = toLong().rotateRight(bitCount).toULong()\n\n/**\n * Counts the number of set bits in the binary

representation of this [UByte] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.countOneBits(): Int = toUInt().countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [UByte] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.countLeadingZeroBits(): Int = toByte().countLeadingZeroBits()\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [UByte] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.countTrailingZeroBits(): Int = toByte().countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [UByte] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.takeHighestOneBit(): UByte = toInt().takeHighestOneBit().toUByte()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [UByte] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.takeLowestOneBit(): UByte = toInt().takeLowestOneBit().toUByte()\n\n\n/**\n * Rotates the binary representation of this [UByte] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [UByte.SIZE_BITS] (8) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 8)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.rotateLeft(bitCount: Int): UByte = toByte().rotateLeft(bitCount).toUByte()\n\n/**\n * Rotates the binary representation of this [UByte] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [UByte.SIZE_BITS] (8) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 8)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UByte.rotateRight(bitCount: Int): UByte = toByte().rotateRight(bitCount).toUByte()\n\n/**\n * Counts the number of set bits in the binary representation of this [UShort] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.countOneBits(): Int = toUInt().countOneBits()\n\n/**\n * Counts the number of consecutive most significant bits that are zero in the binary representation of this [UShort] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.countLeadingZeroBits(): Int = toShort().countLeadingZeroBits()\n\n/**\n * Counts the number of consecutive least significant bits that are zero in the binary representation of this [UShort] number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.countTrailingZeroBits():

Int = toShort().countTrailingZeroBits()\n\n/**\n * Returns a number having a single bit set in the position of the most significant set bit of this [UShort] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.takeHighestOneBit(): UShort = toInt().takeHighestOneBit().toUShort()\n\n/**\n * Returns a number having a single bit set in the position of the least significant set bit of this [UShort] number,\n * or zero, if this number is zero.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class, ExperimentalStdlibApi::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.takeLowestOneBit(): UShort = toInt().takeLowestOneBit().toUShort()\n\n\n/**\n * Rotates the binary representation of this [UShort] number left by the specified [bitCount] number of bits.\n * The most significant bits pushed out
from the left side reenter the number as the least significant bits on the right side.\n *\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:\n * `number.rotateLeft(-n) == number.rotateRight(n)`\n *\n * Rotating by a multiple of [UShort.SIZE_BITS] (16) returns the same number, or more generally\n * `number.rotateLeft(n) == number.rotateLeft(n % 16)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.rotateLeft(bitCount: Int): UShort = toShort().rotateLeft(bitCount).toUShort()\n\n/**\n * Rotates the binary representation of this [UShort] number right by the specified [bitCount] number of bits.\n * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.\n *\n * Rotating the number right by a negative bit count is the same as rotating it left by the
negated bit count:\n * `number.rotateRight(-n) == number.rotateLeft(n)`\n *\n * Rotating by a multiple of [UShort.SIZE_BITS] (16) returns the same number, or more generally\n * `number.rotateRight(n) == number.rotateRight(n % 16)`\n */\n@SinceKotlin(\"1.6\")\n@WasExperimental(ExperimentalStdlibApi::class, ExperimentalUnsignedTypes::class)\n@kotlin.internal.InlineOnly\npublic inline fun UShort.rotateRight(bitCount: Int): UShort = toShort().rotateRight(bitCount).toUShort()\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\npackage kotlin.internal\n\n// (a - b) mod c\nprivate fun differenceModulo(a: UInt, b: UInt, c: UInt): UInt {\n   val ac = a % c\n   val bc = b % c\n   return if (ac >= bc) ac - bc else ac - bc + c\n}\n\nprivate fun differenceModulo(a: ULong, b: ULong, c: ULong): ULong {\n   val ac = a % c\n   val bc
= b % c\n   return if (ac >= bc) ac - bc else ac - bc + c\n}\n\n/**\n * Calculates the final element of a bounded arithmetic progression, i.e. the last element of the progression which is in the range\n * from [start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative\n * [step].\n *\n * No validation on passed parameters is performed. The given parameters should satisfy the condition:\n *\n * - either `step > 0` and `start <= end`,\n * - or `step < 0` and `start >= end`.\n *\n * @param start first element of the progression\n * @param end ending bound for the progression\n * @param step increment, or difference of successive elements in the progression\n * @return the final element of the progression\n * @suppress\n */\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal fun getProgressionLastElement(start: UInt, end: UInt, step: Int): UInt = when {\n   step > 0 -> if (start >= end) end else end - differenceModulo(end, start, step.toUInt())\n   step <
0 -> if (start <= end) end else end + differenceModulo(start, end, (-step).toUInt())\n   else -> throw kotlin.IllegalArgumentException(\"Step is zero.\")\n}\n\n/**\n * Calculates the final element of a bounded arithmetic progression, i.e. the last element of the progression which is in the range\n * from [start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative\n * [step].\n *\n * No validation on passed parameters is performed. The given parameters should satisfy the condition:\n *\n * - either `step > 0` and `start <= end`,\n * - or `step < 0` and `start >= end`.\n *\n * @param start first element of the progression\n * @param end ending bound for the progression\n * @param step increment, or difference of successive elements in the progression\n * @return the final element of the progression\n * @suppress\n

*/\n@PublishedApi\n@SinceKotlin(\"1.3\")\ninternal fun getProgressionLastElement(start: ULong, end: ULong, step: Long): ULong = when {\n
 step > 0 -> if (start >= end) end else end - differenceModulo(end, start, step.toULong())\n   step < 0 -> if (start <= end) end else end + differenceModulo(start, end, (-step).toULong())\n   else -> throw kotlin.IllegalArgumentException(\"Step is zero.\")\n}\n","/*\n * Copyright 2010-2021 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmName(\"UStringsKt\") // string representation of unsigned numbers\n\npackage kotlin.text\n\n/**\n * Returns a string representation of this [Byte] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n//@kotlin.internal.InlineOnly\npublic /*inline*/ fun UByte.toString(radix: Int): String = this.toInt().toString(radix)\n\n/**\n * Returns
 a string representation of this [Short] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n//@kotlin.internal.InlineOnly\npublic /*inline*/ fun UShort.toString(radix: Int): String = this.toInt().toString(radix)\n\n\n/**\n * Returns a string representation of this [Int] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\n//@kotlin.internal.InlineOnly\npublic /*inline*/ fun UInt.toString(radix: Int): String = this.toLong().toString(radix)\n\n/**\n * Returns a string representation of this [Long] value in the specified [radix].\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for number to string conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic
 fun ULong.toString(radix: Int): String = ulongToString(this.toLong(), checkRadix(radix))\n\n\n/**\n * Parses the string as a signed [UByte] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUByte(): UByte = toUByteOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a signed [UByte] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUByte(radix: Int): UByte = toUByteOrNull(radix) ?: numberFormatError(this)\n\n\n/**\n * Parses the string as a [UShort] number and
 returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUShort(): UShort = toUShortOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a [UShort] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUShort(radix: Int): UShort = toUShortOrNull(radix) ?: numberFormatError(this)\n\n/**\n * Parses the string as an [UInt] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUInt(): UInt
 = toUIntOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as an [UInt] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n
*/\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun

String.toUInt(radix: Int): UInt = toUIntOrNull(radix) ?: numberFormatError(this)\n\n/**\n * Parses the string as a [ULong] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toULong(): ULong = toULongOrNull() ?: numberFormatError(this)\n\n/**\n * Parses the string as a [ULong] number and returns the result.\n * @throws NumberFormatException if the string is not a valid representation of a number.\n * @throws IllegalArgumentException
 when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toULong(radix: Int): ULong = toULongOrNull(radix) ?: numberFormatError(this)\n\n\n\n\n\n/**\n * Parses the string as an [UByte] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUByteOrNull(): UByte? = toUByteOrNull(radix = 10)\n\n/**\n * Parses the string as an [UByte] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUByteOrNull(radix: Int): UByte? {\n   val int = this.toUIntOrNull(radix) ?: return null\n   if (int > UByte.MAX_VALUE) return null\n   return int.toUByte()\n}\n\n/**\n * Parses the string as an [UShort] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUShortOrNull(): UShort? = toUShortOrNull(radix = 10)\n\n/**\n * Parses the string as an [UShort] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUShortOrNull(radix: Int): UShort? {\n   val int = this.toUIntOrNull(radix) ?: return null\n   if (int > UShort.MAX_VALUE) return null\n   return int.toUShort()\n}\n\n/**\n * Parses the string as an [UInt] number and returns the result\n * or `null` if the string is not
 a valid representation of a number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUIntOrNull(): UInt? = toUIntOrNull(radix = 10)\n\n/**\n * Parses the string as an [UInt] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toUIntOrNull(radix: Int): UInt? {\n   checkRadix(radix)\n\n   val length = this.length\n   if (length == 0) return null\n\n   val limit: UInt = UInt.MAX_VALUE\n   val start: Int\n\n   val firstChar = this[0]\n   if (firstChar < '0') {\n   if (length == 1 || firstChar != '+') return null\n   start = 1\n   } else {\n   start = 0\n   }\n\n   val limitForMaxRadix = 119304647u // limit / 36\n\n   var limitBeforeMul = limitForMaxRadix\n   val uradix = radix.toUInt()\n   var result = 0u\n   for (i in start until length) {\n   val digit = digitOf(this[i], radix)\n\n   if (digit < 0) return null\n   if (result > limitBeforeMul) {\n   if (limitBeforeMul == limitForMaxRadix) {\n   limitBeforeMul = limit / uradix\n\n   if (result > limitBeforeMul) {\n   return null\n   }\n   } else {\n   return null\n   }\n   }\n\n   result *= uradix\n\n   val beforeAdding = result\n   result += digit.toUInt()\n   if (result < beforeAdding) return null // overflow has happened\n   }\n\n   return result\n}\n\n/**\n * Parses the string as an [ULong] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toULongOrNull(): ULong? = toULongOrNull(radix = 10)\n\n/**\n
 * Parses the string as an [ULong] number and returns the result\n * or `null` if the string is not a valid representation of a number.\n *\n * @throws IllegalArgumentException when [radix] is not a valid radix for string to number

conversion.\n */\n@SinceKotlin(\"1.5\")\n@WasExperimental(ExperimentalUnsignedTypes::class)\npublic fun String.toULongOrNull(radix: Int): ULong? {\n   checkRadix(radix)\n\n   val length = this.length\n   if (length == 0) return null\n\n   val limit: ULong = ULong.MAX_VALUE\n   val start: Int\n\n   val firstChar = this[0]\n   if (firstChar < '0') {\n   if (length == 1 || firstChar != '+') return null\n   start = 1\n   } else {\n   start = 0\n   }\n\n\n   val limitForMaxRadix = 512409557603043100uL // limit / 36\n\n   var limitBeforeMul = limitForMaxRadix\n   val uradix = radix.toULong()\n   var result = 0uL\n   for (i in start until length) {\n   val digit = digitOf(this[i], radix)\n\n   if (digit < 0) return null\n   if (result > limitBeforeMul) {\n   if (limitBeforeMul == limitForMaxRadix) {\n   limitBeforeMul = limit / uradix\n\n   if (result > limitBeforeMul) {\n   return null\n   }\n   } else {\n   return null\n   }\n   }\n\n   result *= uradix\n\n   val beforeAdding = result\n   result += digit.toUInt()\n   if (result < beforeAdding) return null // overflow has happened\n   }\n\n   return result\n}\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:Suppress(\"INVISIBLE_REFERENCE\", \"INVISIBLE_MEMBER\")\npackage kotlin\n\nimport kotlin.annotation.AnnotationTarget.*\nimport kotlin.internal.RequireKotlin\nimport kotlin.internal.RequireKotlinVersionKind\n\n/**\n * Marks the API that is dependent on the experimental unsigned types, including those types themselves.\n *\n * Usages of such API will be reported as warnings unless an explicit opt-in with\n * the [OptIn] annotation, e.g. `@OptIn(ExperimentalUnsignedTypes::class)`,\n * or with the `-opt-in=kotlin.ExperimentalUnsignedTypes` compiler option is given.\n *\n * It's recommended to propagate the experimental status to the API that depends on unsigned types by annotating it with this annotation.\n */\n@RequiresOptIn(level = RequiresOptIn.Level.WARNING)\n@MustBeDocumented\n@Target(CLASS, ANNOTATION_CLASS, PROPERTY, FIELD, LOCAL_VARIABLE, VALUE_PARAMETER, CONSTRUCTOR, FUNCTION, PROPERTY_GETTER, PROPERTY_SETTER, TYPEALIAS)\n@Retention(AnnotationRetention.BINARY)\n@RequireKotlin(\"1.2.50\", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\npublic annotation class ExperimentalUnsignedTypes\n","/*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName(\"MathKt\")\n\n\npackage kotlin.math\n\n\n\n\n// constants, can't use them from nativeMath as they are not constants there\n\n/** Ratio of the circumference of a circle to its diameter, approximately 3.14159. */\n@SinceKotlin(\"1.2\")\npublic const val PI: Double = 3.141592653589793\n/** Base of the natural logarithms, approximately 2.71828. */\n@SinceKotlin(\"1.2\")\npublic const val E: Double = 2.718281828459045\n\n// region ================ Double Math ==\n\n/** Computes the sine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `sin(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sin(x: Double): Double\n\n/** Computes the cosine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `cos(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun cos(x: Double): Double\n\n/** Computes the tangent of the angle [x] given in radians.\n *\n * Special cases:\n *   - `tan(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun tan(x: Double): Double\n\n/**\n * Computes the arc sine of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `asin(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun asin(x: Double): Double\n\n/**\n * Computes the arc cosine of the value [x];\n * the returned value is an angle in the range from `0.0` to `PI` radians.\n *\n * Special cases:\n *   - `acos(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun acos(x: Double): Double\n\n/**\n * Computes the arc tangent of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `atan(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun atan(x: Double): Double\n\n/**\n * Returns the angle `theta` of the polar coordinates `(r, theta)` that correspond\n * to the rectangular coordinates `(x, y)` by computing the arc tangent of the value [y] / [x];\n * the returned value is an angle in the range from `-PI` to `PI` radians.\n *\n * Special cases:\n *   - `atan2(0.0, 0.0)` is `0.0`\n *   - `atan2(0.0, x)` is `0.0` for `x > 0` and `PI` for `x < 0`\n *   - `atan2(-0.0, x)` is `-0.0` for 'x > 0` and `-PI` for `x < 0`\n *   - `atan2(y, +Inf)` is `0.0` for `0 < y < +Inf` and `-0.0` for '-Inf < y < 0`\n *   - `atan2(y, -Inf)` is `PI` for `0 < y < +Inf` and `-PI` for `-Inf < y < 0`\n *   - `atan2(y, 0.0)` is `PI/2` for `y > 0` and `-PI/2` for `y < 0`\n *   - `atan2(+Inf, x)` is `PI/2` for finite `x`y\n *   - `atan2(-Inf, x)` is `-PI/2` for finite `x`\n *   - `atan2(NaN, x)` and `atan2(y, NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun atan2(y: Double, x: Double): Double\n\n/**\n * Computes

the hyperbolic sine of the value [x].\n *\n * Special cases:\n *   - `sinh(NaN)` is `NaN`\n *   - `sinh(+Inf)` is `+Inf`\n *   - `sinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sinh(x: Double): Double\n\n/**\n * Computes the hyperbolic cosine of the value [x].\n *\n * Special cases:\n *   - `cosh(NaN)` is `NaN`\n *   - `cosh(+Inf|-Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun cosh(x: Double): Double\n\n/**\n * Computes the hyperbolic tangent of the value [x].\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(+Inf)` is `1.0`\n *   - `tanh(-Inf)` is `-1.0`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun tanh(x: Double): Double\n\n/**\n * Computes the inverse hyperbolic sine of the value [x].\n *\n * The returned value is `y` such that `sinh(y) == x`.\n *\n * Special cases:\n *   - `asinh(NaN)` is `NaN`\n *   - `asinh(+Inf)` is `+Inf`\n *   - `asinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun asinh(x: Double): Double\n\n/**\n

* Computes the inverse hyperbolic cosine of the value [x].\n *\n * The returned value is positive `y` such that `cosh(y) == x`.\n *\n * Special cases:\n *   - `acosh(NaN)` is `NaN`\n *   - `acosh(x)` is `NaN` when `x < 1`\n *   - `acosh(+Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun acosh(x: Double): Double\n\n/**\n * Computes the inverse hyperbolic tangent of the value [x].\n *\n * The returned value is `y` such that `tanh(y) == x`.\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(x)` is `NaN` when `x > 1` or `x < -1`\n *   - `tanh(1.0)` is `+Inf`\n *   - `tanh(-1.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun atanh(x: Double): Double\n\n/**\n * Computes `sqrt(x^2 + y^2)` without intermediate overflow or underflow.\n *\n * Special cases:\n *   - returns `+Inf` if any of arguments is infinite\n *   - returns `NaN` if any of arguments is `NaN` and the other is not infinite\n */\n@SinceKotlin(\"1.2\")\npublic expect fun hypot(x:

Double, y: Double): Double\n\n/**\n * Computes the positive square root of the value [x].\n *\n * Special cases:\n *   - `sqrt(x)` is `NaN` when `x < 0` or `x` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sqrt(x: Double): Double\n\n/**\n * Computes Euler's number `e` raised to the power of the value [x].\n *\n * Special cases:\n *   - `exp(NaN)` is `NaN`\n *   - `exp(+Inf)` is `+Inf`\n *   - `exp(-Inf)` is `0.0`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun exp(x: Double): Double\n\n/**\n * Computes `exp(x) - 1`.\n *\n * This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `expm1(NaN)` is `NaN`\n *   - `expm1(+Inf)` is `+Inf`\n *   - `expm1(-Inf)` is `-1.0`\n *\n * @see [exp] function.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun expm1(x: Double): Double\n\n/**\n * Computes the logarithm of the value [x] to the given [base].\n *\n * Special cases:\n *   - `log(x, b)` is `NaN` if either `x` or `b` are `NaN`\n *   - `log(x, b)` is `NaN` when `x < 0` or `b <= 0` or `b == 1.0`\n *   - `log(+Inf, +Inf)` is `NaN`\n *   - `log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1`\n *   - `log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b > 1`\n *\n * See also logarithm functions for common fixed bases: [ln], [log10] and [log2].\n */\n@SinceKotlin(\"1.2\")\npublic expect fun log(x: Double, base: Double): Double\n\n/**\n * Computes the natural logarithm (base `E`) of the value [x].\n *\n * Special cases:\n *   - `ln(NaN)` is `NaN`\n *   - `ln(x)` is `NaN` when `x < 0.0`\n *   - `ln(+Inf)` is `+Inf`\n *   - `ln(0.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun ln(x: Double): Double\n\n/**\n * Computes the common logarithm (base 10) of the value [x].\n *\n * @see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun log10(x: Double): Double\n\n/**\n * Computes the binary logarithm (base 2) of the value [x].\n *\n * @see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\npublic

expect fun log2(x: Double): Double\n\n/**\n * Computes `ln(x + 1)`.\n *\n * This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `ln1p(NaN)` is `NaN`\n *   - `ln1p(x)` is `NaN` where `x < -1.0`\n *   - `ln1p(-1.0)` is `-Inf`\n *   - `ln1p(+Inf)` is `+Inf`\n *\n * @see [ln] function\n * @see [expm1] function\n */\n@SinceKotlin(\"1.2\")\npublic expect fun ln1p(x: Double): Double\n\n/**\n * Rounds the given value [x] to an integer towards positive infinity.\n\n * @return the smallest double value that is greater than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `ceil(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun ceil(x: Double): Double\n\n/**\n * Rounds the given value [x] to an integer towards negative infinity.\n\n * @return the largest double value that is smaller than

or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `floor(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun floor(x: Double): Double\n\n/**\n * Rounds the given value [x] to an integer towards zero.\n *\n * @return the value [x] having its fractional part truncated.\n *\n * Special cases:\n *   - `truncate(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun truncate(x: Double): Double\n\n/**\n * Rounds the given value [x] towards the closest integer with ties rounded towards even integer.\n *\n * Special cases:\n *   - `round(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun round(x: Double): Double\n\n/**\n * Returns the absolute value of the given value [x].\n *\n * Special cases:\n *   - `abs(NaN)`

is `NaN`\n *\n * @see absoluteValue extension property for [Double]\n */\n@SinceKotlin(\"1.2\")\npublic expect fun abs(x: Double): Double\n\n/**\n * Returns the sign of the given value [x]:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `sign(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sign(x: Double): Double\n\n\n/**\n * Returns the smaller of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun min(a: Double, b: Double): Double\n\n/**\n * Returns the greater of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun max(a: Double, b: Double): Double\n\n// extensions\n\n/**\n * Raises this value to the power [x].\n *\n * Special cases:\n *   - `b.pow(0.0)` is `1.0`\n *   - `b.pow(1.0) == b`\n *   - `b.pow(NaN)` is `NaN`\n *   - `NaN.pow(x)` is

`NaN` for `x != 0.0`\n *   - `b.pow(Inf)` is `NaN` for `abs(b) == 1.0`\n *   - `b.pow(x)` is `NaN` for `b < 0` and `x` is finite and not an integer\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.pow(x: Double): Double\n\n/**\n * Raises this value to the integer power [n].\n *\n * See the other overload of [pow] for details.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.pow(n: Int): Double\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n *   - `NaN.absoluteValue` is `NaN`\n *\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\npublic expect val Double.absoluteValue: Double\n\n/**\n * Returns the sign of this value:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `NaN.sign` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect val Double.sign: Double\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n *\n * If [sign] is `NaN`

the sign of the result is undefined.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.withSign(sign: Double): Double\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.withSign(sign: Int): Double\n\n/**\n * Returns the ulp (unit in the last place) of this value.\n *\n * An ulp is a positive distance between this value and the next nearest [Double] value larger in magnitude.\n *\n * Special Cases:\n *   - `NaN.ulp` is `NaN`\n *   - `x.ulp` is `+Inf` when `x` is `+Inf` or `-Inf`\n *   - `0.0.ulp` is `Double.MIN_VALUE`\n */\n@SinceKotlin(\"1.2\")\npublic expect val Double.ulp: Double\n\n/**\n * Returns the [Double] value nearest to this value in direction of positive infinity.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.nextUp(): Double\n\n/**\n * Returns the [Double] value nearest to this value in direction of negative infinity.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.nextDown():

Double\n\n/**\n * Returns the [Double] value nearest to this value in direction from this value towards the value [to].\n *\n * Special cases:\n *   - `x.nextTowards(y)` is `NaN` if either `x` or `y` are `NaN`\n *   - `x.nextTowards(x) == x`\n *\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.nextTowards(to: Double): Double\n\n/**\n * Rounds this [Double] value to the nearest integer and converts the result to [Int].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToInt() == Int.MAX_VALUE` when `x >

Int.MAX_VALUE`\n *   - `x.roundToInt() == Int.MIN_VALUE` when `x < Int.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.roundToInt(): Int\n\n/**\n * Rounds this [Double] value to the nearest integer and converts the result to [Long].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToLong() == Long.MAX_VALUE` when `x > Long.MAX_VALUE`\n
 *   - `x.roundToLong() == Long.MIN_VALUE` when `x < Long.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Double.roundToLong(): Long\n\n// endregion\n\n\n\n// region ================ Float Math ==\n\n/** Computes the sine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `sin(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sin(x: Float): Float\n\n/** Computes the cosine of the angle [x] given in radians.\n *\n * Special cases:\n *   - `cos(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun cos(x: Float): Float\n\n/** Computes the tangent of the angle [x] given in radians.\n *\n * Special cases:\n *   - `tan(NaN|+Inf|-Inf)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun tan(x: Float): Float\n\n/**\n * Computes the arc sine of the value [x];\n * the returned value is an angle in the range from
 `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `asin(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun asin(x: Float): Float\n\n/**\n * Computes the arc cosine of the value [x];\n * the returned value is an angle in the range from `0.0` to `PI` radians.\n *\n * Special cases:\n *   - `acos(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun acos(x: Float): Float\n\n/**\n * Computes the arc tangent of the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n *\n * Special cases:\n *   - `atan(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun atan(x: Float): Float\n\n/**\n * Returns the angle `theta` of the polar coordinates `(r, theta)` that correspond\n * to the rectangular coordinates `(x, y)` by computing the arc tangent of the value [y] / [x];\n * the returned value is an angle in the range from `-PI` to `PI` radians.\n *\n * Special cases:\n
 *   - `atan2(0.0, 0.0)` is `0.0`\n *   - `atan2(0.0, x)` is `0.0` for `x > 0` and `PI` for `x < 0`\n *   - `atan2(-0.0, x)` is `-0.0` for 'x > 0` and `-PI` for `x < 0`\n *   - `atan2(y, +Inf)` is `0.0` for `0 < y < +Inf` and `-0.0` for '-Inf < y < 0`\n *   - `atan2(y, -Inf)` is `PI` for `0 < y < +Inf` and `-PI` for `-Inf < y < 0`\n *   - `atan2(y, 0.0)` is `PI/2` for `y > 0` and `-PI/2` for `y < 0`\n *   - `atan2(+Inf, x)` is `PI/2` for finite `x`y\n *   - `atan2(-Inf, x)` is `-PI/2` for finite `x`\n *   - `atan2(NaN, x)` and `atan2(y, NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun atan2(y: Float, x: Float): Float\n\n/**\n * Computes the hyperbolic sine of the value [x].\n *\n * Special cases:\n *   - `sinh(NaN)` is `NaN`\n *   - `sinh(+Inf)` is `+Inf`\n *   - `sinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sinh(x: Float): Float\n\n/**\n * Computes the hyperbolic cosine of the value [x].\n *\n * Special cases:\n *   - `cosh(NaN)` is `NaN`\n
 *   - `cosh(+Inf|-Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun cosh(x: Float): Float\n\n/**\n * Computes the hyperbolic tangent of the value [x].\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(+Inf)` is `1.0`\n *   - `tanh(-Inf)` is `-1.0`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun tanh(x: Float): Float\n\n/**\n * Computes the inverse hyperbolic sine of the value [x].\n *\n * The returned value is `y` such that `sinh(y) == x`.\n *\n * Special cases:\n *   - `asinh(NaN)` is `NaN`\n *   - `asinh(+Inf)` is `+Inf`\n *   - `asinh(-Inf)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun asinh(x: Float): Float\n\n/**\n * Computes the inverse hyperbolic cosine of the value [x].\n *\n * The returned value is positive `y` such that `cosh(y) == x`.\n *\n * Special cases:\n *   - `acosh(NaN)` is `NaN`\n *   - `acosh(x)` is `NaN` when `x < 1`\n *   - `acosh(+Inf)` is `+Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun acosh(x: Float): Float\n\n/**\n
 * Computes the inverse hyperbolic tangent of the value [x].\n *\n * The returned value is `y` such that `tanh(y) == x`.\n *\n * Special cases:\n *   - `tanh(NaN)` is `NaN`\n *   - `tanh(x)` is `NaN` when `x > 1` or `x < -1`\n *   - `tanh(1.0)` is `+Inf`\n *   - `tanh(-1.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun atanh(x: Float): Float\n\n/**\n * Computes `sqrt(x^2 + y^2)` without intermediate overflow or underflow.\n *\n * Special cases:\n *   - returns `+Inf` if any of arguments is infinite\n *   - returns `NaN` if any of arguments is `NaN` and the other is not infinite\n */\n@SinceKotlin(\"1.2\")\npublic expect fun hypot(x: Float, y: Float): Float\n\n/**\n * Computes the

positive square root of the value [x].\n *\n * Special cases:\n *   - `sqrt(x)` is `NaN` when `x < 0` or `x` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun sqrt(x: Float): Float\n\n/**\n * Computes Euler's number `e` raised to the power of the value [x].\n *\n * Special cases:\n *   - `exp(NaN)`

is `NaN`\n *   - `exp(+Inf)` is `+Inf`\n *   - `exp(-Inf)` is `0.0`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun exp(x: Float): Float\n\n/**\n * Computes `exp(x) - 1`.\n *\n * This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `expm1(NaN)` is `NaN`\n *   - `expm1(+Inf)` is `+Inf`\n *   - `expm1(-Inf)` is `-1.0`\n *\n * @see [exp] function.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun expm1(x: Float): Float\n\n/**\n * Computes the logarithm of the value [x] to the given [base].\n *\n * Special cases:\n *   - `log(x, b)` is `NaN` if either `x` or `b` are `NaN`\n *   - `log(x, b)` is `NaN` when `x < 0` or `b <= 0` or `b == 1.0`\n *   - `log(+Inf, +Inf)` is `NaN`\n *   - `log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1`\n *   - `log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b > 1`\n *\n * See also logarithm functions for common fixed bases: [ln], [log10] and [log2].\n */\n@SinceKotlin(\"1.2\")\npublic

expect fun log(x: Float, base: Float): Float\n\n/**\n * Computes the natural logarithm (base `E`) of the value [x].\n *\n * Special cases:\n *   - `ln(NaN)` is `NaN`\n *   - `ln(x)` is `NaN` when `x < 0.0`\n *   - `ln(+Inf)` is `+Inf`\n *   - `ln(0.0)` is `-Inf`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun ln(x: Float): Float\n\n/**\n * Computes the common logarithm (base 10) of the value [x].\n *\n * @see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun log10(x: Float): Float\n\n/**\n * Computes the binary logarithm (base 2) of the value [x].\n *\n * @see [ln] function for special cases.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun log2(x: Float): Float\n\n/**\n * Computes `ln(a + 1)`.\n *\n * This function can be implemented to produce more precise result for [x] near zero.\n *\n * Special cases:\n *   - `ln1p(NaN)` is `NaN`\n *   - `ln1p(x)` is `NaN` where `x < -1.0`\n *   - `ln1p(-1.0)` is `-Inf`\n *   - `ln1p(+Inf)` is `+Inf`\n *\n * @see [ln] function\n

* @see [expm1] function\n */\n@SinceKotlin(\"1.2\")\npublic expect fun ln1p(x: Float): Float\n\n/**\n * Rounds the given value [x] to an integer towards positive infinity.\n\n * @return the smallest Float value that is greater than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `ceil(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun ceil(x: Float): Float\n\n/**\n * Rounds the given value [x] to an integer towards negative infinity.\n\n * @return the largest Float value that is smaller than or equal to the given value [x] and is a mathematical integer.\n *\n * Special cases:\n *   - `floor(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun floor(x: Float): Float\n\n/**\n * Rounds the given value [x] to an integer towards zero.\n *\n * @return the value [x] having its fractional

part truncated.\n *\n * Special cases:\n *   - `truncate(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun truncate(x: Float): Float\n\n/**\n * Rounds the given value [x] towards the closest integer with ties rounded towards even integer.\n *\n * Special cases:\n *   - `round(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun round(x: Float): Float\n\n\n/**\n * Returns the absolute value of the given value [x].\n *\n * Special cases:\n *   - `abs(NaN)` is `NaN`\n *\n * @see absoluteValue extension property for [Float]\n */\n@SinceKotlin(\"1.2\")\npublic expect fun abs(x: Float): Float\n\n/**\n * Returns the sign of the given value [x]:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `sign(NaN)` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic

expect fun sign(x: Float): Float\n\n\n\n/**\n * Returns the smaller of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun min(a: Float, b: Float): Float\n\n/**\n * Returns the greater of two values.\n *\n * If either value is `NaN`, then the result is `NaN`.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun max(a: Float, b: Float): Float\n\n// extensions\n\n\n/**\n * Raises this value to the power [x].\n *\n * Special cases:\n *   - `b.pow(0.0)` is `1.0`\n *   - `b.pow(1.0) == b`\n *   - `b.pow(NaN)` is `NaN`\n *   - `NaN.pow(x)` is `NaN` for `x != 0.0`\n *   - `b.pow(Inf)` is `NaN` for `abs(b) == 1.0`\n *   - `b.pow(x)` is `NaN` for `b < 0` and `x` is finite and not an integer\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Float.pow(x: Float): Float\n\n/**\n * Raises this value to the integer power [n].\n *\n * See the other overload of [pow] for details.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Float.pow(n:

Int): Float\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n *   - `NaN.absoluteValue` is `NaN`\n *\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\npublic expect val Float.absoluteValue: Float\n\n/**\n * Returns the sign of this value:\n *   - `-1.0` if the value is negative,\n *   - zero if the value is zero,\n *   - `1.0` if the value is positive\n *\n * Special case:\n *   - `NaN.sign` is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect val Float.sign: Float\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n *\n * If [sign] is `NaN` the sign of the result is undefined.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Float.withSign(sign: Float): Float\n\n/**\n * Returns this value with the sign bit same as of the [sign] value.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Float.withSign(sign: Int): Float\n\n\n/**\n * Rounds this [Float] value to the nearest integer and converts the result to [Int].\n * Ties are rounded
towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToInt() == Int.MAX_VALUE` when `x > Int.MAX_VALUE`\n *   - `x.roundToInt() == Int.MIN_VALUE` when `x < Int.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Float.roundToInt(): Int\n\n/**\n * Rounds this [Float] value to the nearest integer and converts the result to [Long].\n * Ties are rounded towards positive infinity.\n *\n * Special cases:\n *   - `x.roundToLong() == Long.MAX_VALUE` when `x > Long.MAX_VALUE`\n *   - `x.roundToLong() == Long.MIN_VALUE` when `x < Long.MIN_VALUE`\n *\n * @throws IllegalArgumentException when this value is `NaN`\n */\n@SinceKotlin(\"1.2\")\npublic expect fun Float.roundToLong(): Long\n\n\n// endregion\n\n// region ================ Integer Math ==\n\n\n/**\n * Returns the absolute value of the given value [n].\n *\n * Special cases:\n *   - `abs(Int.MIN_VALUE)` is `Int.MIN_VALUE`
due to an overflow\n *\n * @see absoluteValue extension property for [Int]\n */\n@SinceKotlin(\"1.2\")\npublic expect fun abs(n: Int): Int\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun min(a: Int, b: Int): Int\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun max(a: Int, b: Int): Int\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n *   - `Int.MIN_VALUE.absoluteValue` is `Int.MIN_VALUE` due to an overflow\n *\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\npublic expect val Int.absoluteValue: Int\n\n/**\n * Returns the sign of this value:\n *   - `-1` if the value is negative,\n *   - `0` if the value is zero,\n *   - `1` if the value is positive\n */\n@SinceKotlin(\"1.2\")\npublic expect val Int.sign: Int\n\n\n\n/**\n * Returns the absolute value of the given value [n].\n *\n * Special cases:\n *   - `abs(Long.MIN_VALUE)` is `Long.MIN_VALUE` due to an overflow\n *\n * @see absoluteValue extension property for [Long]\n */\n@SinceKotlin(\"1.2\")\npublic expect fun abs(n: Long): Long\n\n/**\n * Returns the smaller of two values.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun min(a: Long, b: Long): Long\n\n/**\n * Returns the greater of two values.\n */\n@SinceKotlin(\"1.2\")\npublic expect fun max(a: Long, b: Long): Long\n\n/**\n * Returns the absolute value of this value.\n *\n * Special cases:\n *   - `Long.MIN_VALUE.absoluteValue` is `Long.MIN_VALUE` due to an overflow\n *\n * @see abs function\n */\n@SinceKotlin(\"1.2\")\npublic expect val Long.absoluteValue: Long\n\n/**\n * Returns the sign of this value:\n *   - `-1` if the value is negative,\n *   - `0` if the value is zero,\n *   - `1` if the value is positive\n */\n@SinceKotlin(\"1.2\")\npublic expect val Long.sign: Int\n\n\n// endregion\n"],"names":[],"mappings":"AAWC,CAXA,yB;EACG,IAAI,OAAO,MAAO,KAAI,UAAW,IAAG,MAAM,IAA1C,C;IACI,MAAM,CAAC,QAAD,EAAW,CAAC,SAAD,CAAX,EAAwB,OAAxB,C;SAEL,IAAI,OAAO,OAAQ,KAAI,QAAvB,C;IACD,OAAO,CAAC,MAAM,QAAP,C;;IAGP,IAAI,OAAQ,GAAE,E;IACd,OAAO,CAAC,IAAI,OAAL,C;;CAEd,CAAC,IAAD,EAAO,kB;EACJ,IAAI,IAAI,M;ECPZ,MAAM,eAAgB,GAAE,a;IACpB,OAAoD,CAA5C,KAAK,QAAQ,CAAC,CAAD,CAAI,IAAG,CAAE,YAAW,SAAW,KAAG,CAAC,OAAQ,KAAI,c;G;EAGxE,MAAM,YAAa,GAAE,a;IACjB,OAAO,CAAE,YAAW,SAAU,IAAG,CAAC,OAAQ,KAAI,c;G;EAGlD,MAAM,aAAc,GAAE,a;IAClB,OAAO,CAAE,YAAW,U;G;EAGxB,MAAM,YAAa,GAAE,a;IACjB,OAAO,CAAE,YAAW,WAAY,IAAG,CAAC,OAAQ,KAAI,W;G;EAGpD,MAAM,WAAY,GAAE,a;IAChB,OAAO,CAAE,YAAW,U;G;EAGxB,MAAM,aAAc,GAAE,a;IAClB,OAAO,CAAE,YAAW,Y;G;EAGxB,MAAM,cAAe,GAAE,a;IACnB,OAAO,CAAE,YAAW,Y;G;EAGxB,MAAM,YAAa,GAAE,a;IACjB,OAAO,KAAK,QAAQ,CAAC,CAAD,CAAI,IA

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,C;;QAlbhB,OAobO,W;O;KA1bX,C;sFASA,yB;MAAA,+D;MAobA,gD;MApbA,uC;QAMW,kBAAU,gB;QAkbD,
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hC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPq+UA,iB;UACA,IAAK,WAAI,OAAJ,C;;QA7PT,OA+PO,W;O;KAxQ
X,C;sFAYA,yB;MAAA,wE;MA+PA,+D;MA/PA,yC;QASW,kBAAU,oB;QA+PD,Q;QAAhB,iD;UAAgB,cAAhB,e
;UACI,UAhQsD,WAgQ5C,CAAY,OAAZ,C;UO1/UP,U;UADP,YP4/Ue,WO5/UH,WP4/UwB,GO5/UxB,C;UACL,
IAAI,aAAJ,C;YACH,aP0/UuC,gB;YAA5B,WOz/UX,aPy/UgC,GOz/UhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UP
s/UA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAlQT,OAoQO,W;O;KA7QX,C;sFAYA,yB;MAAA,wE;MAoQA,+D;M
ApQA,yC;QASW,kBAAU,oB;QAoQD,Q;QAAhB,iD;UAAgB,cAAhB,e;UACI,UArQuD,WAqQ7C,CAAY,OAAZ,
C;UO3gVP,U;UADP,YP6gVe,WO7gVH,WP6gVwB,GO7gVxB,C;UACL,IAAI,aAAJ,C;YACH,aP2gVuC,gB;YA
A5B,WO1gVX,aP0gVgC,GO1gVhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPugVA,iB;UACA,IAAK,WAAI,OAA
J,C;;QAvQT,OAyQO,W;O;KAlRX,C;sFAYA,yB;MAAA,wE;MAyQA,oC;MAAA,+D;MAAA,gC;MAzQA,yC;QA
SW,kBAAU,oB;QAyQD,Q;QAAhB,iD;UAAgB,cAAhB,0B;UACI,UA1QoD,WA0Q1C,CAAY,oBAAZ,C;UO5hV
P,U;UADP,YP8hVe,WO9hVH,WP8hVwB,GO9hVxB,C;UACL,IAAI,aAAJ,C;YACH,aP4hVuC,gB;YAA5B,WO3
hVX,aP2hVgC,GO3hVhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPwhVA,iB;UACA,IAAK,WAAI,oBAAJ,C;;QA5
QT,OA8QO,W;O;KAvRX,C;sFAYA,yB;MAAA,wE;MA8QA,+D;MA9QA,yD;QAUW,kBAAU,oB;QA8QD,Q;Q
AAhB,iD;UAAgB,cAAhB,e;UACI,UA/QiD,WA+QvC,CAAY,OAAZ,C;UO9iVP,U;UADP,YPgjVe,WOhjVH,WP
gjVwB,GOhjVxB,C;UACL,IAAI,aAAJ,C;YACH,aP8iVuC,gB;YAA5B,WO7iVX,aP6iVgC,GO7iVhC,EAAS,MA
AT,C;YACA,e;;YAEA,c;;UP0iVA,iB;UACA,IAAK,WAjRyD,cAiRrD,CAAe,OAAf,CAAJ,C;;QAjRT,OAmRO,W
;O;KA7RX,C;sFAaA,yB;MAAA,wE;MAmRA,+D;MAnRA,yD;QAUW,kBAAU,oB;QAmRD,Q;QAAhB,iD;UAA
gB,cAAhB,e;UACI,UApRiD,WAoRvC,CAAY,OAAZ,C;UOhkVP,U;UADP,YPkkVe,WOlkVH,WPkkVwB,GOlk
VxB,C;UACL,IAAI,aAAJ,C;YACH,aPgkVuC,gB;YAA5B,WO/jVX,aP+jVgC,GO/jVhC,EAAS,MAAT,C;YACA,e

;;YAEA,c;;UP4jVA,iB;UACA,IAAK,WAtRyD,cAsRrD,CAAe,OAAf,CAAJ,C;;QAtRT,OAwRO,W;O;KAlSX,C;u
FAaA,yB;MAAA,wE;MAwRA,+D;MAxRA,yD;QAUW,kBAAU,oB;QAwRD,Q;QAAhB,iD;UAAgB,cAAhB,e;U
ACI,UAzRiD,WAyRvC,CAAY,OAAZ,C;UOllVP,U;UADP,YPolVe,WOplVH,WPolVwB,GOplVxB,C;UACL,IA
AI,aAAJ,C;YACH,aPklVuC,gB;YAA5B,WOjlVX,aPilVgC,GOjlVhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UP8kV
A,iB;UACA,IAAK,WA3RyD,cA2RrD,CAAe,OAAf,CAAJ,C;;QA3RT,OA6RO,W;O;KAvSX,C;uFAaA,yB;MAA
A,wE;MA6RA,+D;MA7RA,yD;QAUW,kBAAU,oB;QA6RD,Q;QAAhB,iD;UAAgB,cAAhB,e;UACI,UA9RiD,W
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YACH,aPomVuC,gB;YAA5B,WOnmVX,aPmmVgC,GOnmVhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPgmVA,i
B;UACA,IAAK,WAhSyD,cAgSrD,CAAe,OAAf,CAAJ,C;;QAhST,OAkSO,W;O;KA5SX,C;uFAaA,yB;MAAA,wE
;MAkSA,+D;MAlSA,yD;QAUW,kBAAU,oB;QAkSD,Q;QAAhB,iD;UAAgB,cAAhB,e;UACI,UAnSiD,WAmSvC,
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snVuC,gB;YAA5B,WOrnVX,aPqnVgC,GOrnVhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPknVA,iB;UACA,IAAK
,WArSyD,cAqSrD,CAAe,OAAf,CAAJ,C;;QArST,OAuSO,W;O;KAjTX,C;uFAaA,yB;MAAA,wE;MAuSA,+D;M
AvSA,yD;QAUW,kBAAU,oB;QAuSD,Q;QAAhB,iD;UAAgB,cAAhB,e;UACI,UAxSiD,WAwSvC,CAAY,OAAZ,
C;UOxoVP,U;UADP,YP0oVe,WO1oVH,WP0oVwB,GO1oVxB,C;UACL,IAAI,aAAJ,C;YACH,aPwoVuC,gB;YA
A5B,WOvoVX,aPuoVgC,GOvoVhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPooVA,iB;UACA,IAAK,WA1SyD,cA
0SrD,CAAe,OAAf,CAAJ,C;;QA1ST,OA4SO,W;O;KAtTX,C;uFAaA,yB;MAAA,wE;MA4SA,+D;MA5SA,yD;QA
UW,kBAAU,oB;QA4SD,Q;QAAhB,iD;UAAgB,cAAhB,e;UACI,UA7SiD,WA6SvC,CAAY,OAAZ,C;UO1pVP,U;
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Af,CAAJ,C;;QA/ST,OAiTO,W;O;KA3TX,C;uFAaA,yB;MAAA,wE;MAiTA,+D;MAjTA,yD;QAUW,kBAAU,oB;
QAiTD,Q;QAAhB,iD;UAAgB,cAAhB,e;UACI,UAlTiD,WAkTvC,CAAY,OAAZ,C;UO5qVP,U;UADP,YP8qVe,
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VhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPwqVA,iB;UACA,IAAK,WApTyD,cAoTrD,CAAe,OAAf,CAAJ,C;;Q
ApTT,OAsTO,W;O;KAhUX,C;uFAaA,yB;MAAA,wE;MAsTA,oC;MAAA,+D;MAAA,gC;MAtTA,yD;QAUW,kB
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AAJ,C;;QAzTT,OA2TO,W;O;KArUX,C;wFAaA,yB;MAAA,+D;MAAA,sD;QASoB,Q;QAAhB,wBAAgB,SAAhB
,gB;UAAgB,cAAA,SAAhB,M;UACI,UAAU,YAAY,OAAZ,C;UOp5UP,U;UADP,YPs5Ue,WOt5UH,WPs5UwB,
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YACA,e;;YAEA,c;;UPg5UA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OAAO,W;O;KAdX,C;0FAiBA,yB;MAAA,
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,C;;QAET,OAAO,W;O;KAdX,C;0FAiBA,yB;MAAA,+D;MAAA,sD;QASoB,Q;QAAhB,wBAAgB,SAAhB,gB;U
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,e;;YAEA,c;;UPk7UA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OAAO,W;O;KAdX,C;0FAiBA,yB;MAAA,+D;M
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U;UADP,YP2+Ue,WO3+UH,WP2+UwB,GO3+UxB,C;UACL,IAAI,aAAJ,C;YACH,aPy+UuC,gB;YAA5B,WOx+

UX,aPw+UgC,GOx+UhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPq+UA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET
,OAAO,W;O;KAdX,C;0FAiBA,yB;MAAA,+D;MAAA,sD;QASoB,Q;QAAhB,wBAAgB,SAAhB,gB;UAAgB,cAA
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s/UA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OAAO,W;O;KAdX,C;0FAiBA,yB;MAAA,+D;MAAA,sD;QASoB,
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C,GO1gVhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UPugVA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OAAO,W;O
;KAdX,C;0FAiBA,yB;MAAA,oC;MAAA,+D;MAAA,gC;MAAA,sD;QASoB,Q;QAAhB,wBAAgB,SAAhB,gB;U
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,C;YACA,e;;YAEA,c;;UP4jVA,iB;UACA,IAAK,WAAI,eAAe,OAAf,CAAJ,C;;QAET,OAAO,W;O;KAfX,C;2FAk
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A,e;;YAEA,c;;UPspVA,iB;UACA,IAAK,WAAI,eAAe,OAAf,CAAJ,C;;QAET,OAAO,W;O;KAfX,C;2FAkBA,yB;
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;O;KAxVX,C;8EAUA,yB;MAAA,gE;MAAA,uC;QAOW,kBAAM,eAAa,gBAAb,C;QA+UA,Q;QAAb,iD;UAAa,
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FAuBA,yB;MAAA,sE;MAAA,sC;QAWI,eAAe,oB;QACf,IAAI,CAAC,QAAS,UAAd,C;UAAyB,MAAM,6B;QAC
/B,eAAe,SAAS,QAAS,OAAlB,C;QACf,OAAO,QAAS,UAAhB,C;UACI,QAAQ,SAAS,QAAS,OAAlB,C;UACR,I
AAI,2BAAW,CAAX,KAAJ,C;YACI,WAAW,C;;;QAGnB,OAAO,Q;O;KApBX,C;+FAuBA,yB;MFp3DA,iB;MEo
3DA,sC;QAWI,eAAe,oB;QACf,IAAI,CAAC,QAAS,UAAd,C;UAAyB,OAAO,I;QAChC,eAAe,SAAS,QAAS,OA
AlB,C;QACf,OAAO,QAAS,UAAhB,C;UACI,QAAQ,SAAS,QAAS,OAAlB,C;UACR,WF53DG,MAAO,KE43DO,
QF53DP,EE43DiB,CF53DjB,C;;QE83Dd,OAAO,Q;O;KAlBX,C;+FAqBA,yB;MFp5DA,iB;MEo5DA,sC;QAWI,e
AAe,oB;QACf,IAAI,CAAC,QAAS,UAAd,C;UAAyB,OAAO,I;QAChC,eAAe,SAAS,QAAS,OAAlB,C;QACf,OA
AO,QAAS,UAAhB,C;UACI,QAAQ,SAAS,QAAS,OAAlB,C;UACR,WF55DG,MAAO,KE45DO,QF55DP,EE45Di
B,CF55DjB,C;;QE85Dd,OAAO,Q;O;KAlBX,C;+FAqBA,+B;MASI,eAAe,oB;MACf,IAAI,CAAC,QAAS,UAAd,C
;QAAyB,OAAO,I;MAChC,eAAe,SAAS,QAAS,OAAlB,C;MACf,OAAO,QAAS,UAAhB,C;QACI,QAAQ,SAAS,
QAAS,OAAlB,C;QACR,IAAI,2BAAW,CAAX,KAAJ,C;UACI,WAAW,C;;;MAGnB,OAAO,Q;K;0FAGX,yB;MA
AA,sE;MAAA,kD;QAWI,eAAe,oB;QACf,IAAI,CAAC,QAAS,UAAd,C;UAAyB,MAAM,6B;QAC/B,eAAe,SAAS
,QAAS,OAAlB,C;QACf,OAAO,QAAS,UAAhB,C;UACI,QAAQ,SAAS,QAAS,OAAlB,C;UACR,IAAI,UAAW,S
AAQ,QAAR,EAAkB,CAAlB,CAAX,GAAkC,CAAtC,C;YACI,WAAW,C;;;QAGnB,OAAO,Q;O;KApBX,C;sGAu
BA,2C;MASI,eAAe,oB;MACf,IAAI,CAAC,QAAS,UAAd,C;QAAyB,OAAO,I;MAChC,eAAe,SAAS,QAAS,OAAl
B,C;MACf,OAAO,QAAS,UAAhB,C;QACI,QAAQ,SAAS,QAAS,OAAlB,C;QACR,IAAI,UAAW,SAAQ,QAAR,E
AAkB,CAAlB,CAAX,GAAkC,CAAtC,C;UACI,WAAW,C;;;MAGnB,OAAO,Q;K;IAGX,gC;MAOI,eAAe,oB;MA
Cf,IAAI,CAAC,QAAS,UAAd,C;QAAyB,OAAO,I;MAChC,UAAU,QAAS,O;MACnB,OAAO,QAAS,UAAhB,C;Q
ACI,QAAQ,QAAS,O;QACjB,MFn+DG,MAAO,KEm+DE,GFn+DF,EEm+DO,CFn+DP,C;;MEq+Dd,OAAO,G;K;
IAGX,iC;MAOI,eAAe,oB;MACf,IAAI,CAAC,QAAS,UAAd,C;QAAyB,OAAO,I;MAChC,UAAU,QAAS,O;MAC
nB,OAAO,QAAS,UAAhB,C;QACI,QAAQ,QAAS,O;QACjB,MF//DG,MAAO,KE+/DE,GF//DF,EE+/DO,CF//DP,
C;;MEigEd,OAAO,G;K;IAGX,iC;MAKI,eAAe,oB;MACf,IAAI,CAAC,QAAS,UAAd,C;QAAyB,OAAO,I;MAChC
,UAAU,QAAS,O;MACnB,OAAO,QAAS,UAAhB,C;QACI,QAAQ,QAAS,O;QACjB,IAAI,sBAAM,CAAN,KAAJ,
C;UAAa,MAAM,C;;MAEvB,OAAO,G;K;IAGX,0C;MAGI,OAAO,2BAAc,UAAd,C;K;IAGX,gD;MAKI,eAAe,oB
;MACf,IAAI,CAAC,QAAS,UAAd,C;QAAyB,OAAO,I;MAChC,UAAU,QAAS,O;MACnB,OAAO,QAAS,UAAhB
,C;QACI,QAAQ,QAAS,O;QACjB,IAAI,UAAW,SAAQ,GAAR,EAAa,CAAb,CAAX,GAA6B,CAAjC,C;UAAoC,
MAAM,C;;MAE9C,OAAO,G;K;IAGX,0B;MAII,OAAO,sB;K;IAGX,2B;MAII,OAAO,uB;K;IAGX,2B;MAGI,OA
AO,uB;K;kFAGX,+B;MAGW,sB;;QAUP,eAAe,oB;QACf,IAAI,CAAC,QAAS,UAAd,C;UAAyB,qBAAO,I;UAAP
,uB;;QACzB,cAAc,QAAS,O;QACvB,IAAI,CAAC,QAAS,UAAd,C;UAAyB,qBAAO,O;UAAP,uB;;QACzB,eAdm
B,QAcJ,CAAS,OAAT,C;;UAEX,QAAQ,QAAS,O;UACjB,QAjBe,QAiBP,CAAS,CAAT,C;UACR,IAAI,2BAAW,
CAAX,KAAJ,C;YACI,UAAU,C;YACV,WAAW,C;;;QAED,QAAT,QAAS,W;QAClB,qBAAO,O;;;MAvBP,yB;K;
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vB,IAAI,CAAC,QAAS,UAAd,C;QAAyB,OAAO,O;MAChC,eAAe,SAAS,OAAT,C;;QAEX,QAAQ,QAAS,O;QA
CjB,QAAQ,SAAS,CAAT,C;QACR,IAAI,2BAAW,CAAX,KAAJ,C;UACI,UAAU,C;UACV,WAAW,C;;;MAED,Q
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B,C;UACI,QAAQ,SAAS,QAAS,OAAlB,C;UACR,WF54DG,MAAO,KE44DO,QF54DP,EE44DiB,CF54DjB,C;;Q
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;UACI,QAAQ,SAAS,QAAS,OAAlB,C;UACR,WF96DG,MAAO,KE86DO,QF96DP,EE86DiB,CF96DjB,C;;QEg7
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,C;UAAyB,MAAM,6B;QAC/B,eAAe,SAAS,QAAS,OAAlB,C;QACf,OAAO,QAAS,UAAhB,C;UACI,QAAQ,SA
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FAuBA,yB;MFv8DA,iB;MEu8DA,sC;QAWI,eAAe,oB;QACf,IAAI,CAAC,QAAS,UAAd,C;UAAyB,OAAO,I;QA
ChC,eAAe,SAAS,QAAS,OAAlB,C;QACf,OAAO,QAAS,UAAhB,C;UACI,QAAQ,SAAS,QAAS,OAAlB,C;UACR
,WF/8DG,MAAO,KE+8DO,QF/8DP,EE+8DiB,CF/8DjB,C;;QEi9Dd,OAAO,Q;O;KAlBX,C;+FAqBA,yB;MFv+D

A,iB;MEu+DA,sC;QAWI,eAAe,oB;QACf,IAAI,CAAC,QAAS,UAAd,C;UAAyB,OAAO,I;QAChC,eAAe,SAAS,Q
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KE++DO,QF/+DP,EE++DiB,CF/+DjB,C;;QEi/Dd,OAAO,Q;O;KAlBX,C;+FAqBA,+B;MASI,eAAe,oB;MACf,IA
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B,C;QACI,QAAQ,SAAS,QAAS,OAAlB,C;QACR,IAAI,2BAAW,CAAX,KAAJ,C;UACI,WAAW,C;;;MAGnB,OA
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klEO,CFllEP,C;;MEolEd,OAAO,G;K;IAGX,iC;MAKI,eAAe,oB;MACf,IAAI,CAAC,QAAS,UAAd,C;QAAyB,OA
AO,I;MAChC,UAAU,QAAS,O;MACnB,OAAO,QAAS,UAAhB,C;QACI,QAAQ,QAAS,O;QACjB,IAAI,sBAAM,
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AY,C;QACZ,kBAAqB,QAAS,O;QAC9B,OAAO,QAAS,UAAhB,C;UACI,cAAc,UAAU,oBAAmB,YAAnB,EAA
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X,yB;MAAA,4F;MAAA,uC;QAaI,eAAe,+BAAa,cAAb,C;QACf,IAAI,CAAC,QAAS,cAAd,C;UACI,MAAM,mCA
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C,WAAtC,C;;QAElB,OAAO,W;O;KArBX,C;wHAwBA,gC;MAaI,eAAe,+BAAa,cAAb,C;MACf,IAAI,CAAC,QA
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;UACZ,kBA2F0B,O;UA1FV,2B;UAAhB,OAAgB,cAAhB,C;YAAgB,yB;YACZ,cAyF+B,SAzFjB,EAAU,cAAV,E
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B,Y;QACgB,2B;QAAhB,OAAgB,cAAhB,C;UAAgB,yB;UACZ,cAAO,SAAS,OAAT,CAAP,C;;QAEJ,OAAO,G;O
;KAbX,C;mFAgBA,yB;MjB/7EA,6B;MiB+7EA,sC;QAWoB,Q;QADhB,UjB/7EmC,ciB+7EnB,CjB/7EmB,C;QiBg
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C;QAWoB,Q;QADhB,UD58EqC,eAAW,oBC48E/B,CD58E+B,CAAX,C;QC68ErB,2B;QAAhB,OAAgB,cAAhB,
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B;QACZ,IAAI,eAAJ,C;UACI,MAAM,gCAAyB,2BAAwB,SAAxB,MAAzB,C;;;MAId,OAAO,mE;K;IAGX,qC;M
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AO,M;;;MAGf,OAAO,I;K;IAGX,6B;MAII,IAAI,mBAAQ,CAAZ,C;QACI,OAAO,W;MACX,eAAe,iBAAQ,W;M
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d,C;QACI,OAAO,OjB8PiD,SiB9P1C,KjB8P+C,IAAL,EiB9P1C,KjB8PoD,MAAV,CiB9PjD,C;;MACX,aAAa,iBA
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B,kBAAhB,QAAS,O;QAApB,MAAO,WjB0PiD,SAAK,eAAL,EAAU,iBAAV,CiB1PjD,C;;MACO,QAAT,QAAS,
W;MAClB,OAAO,M;K;uFAGX,yB;MAAA,+D;MAsBA,gD;MAtBA,uC;QAMW,kBAAU,gB;QAoBD,Q;QAAA,
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,OAAO,K;;MACtD,OAAO,I;K;IAGX,2B;MAMI,OAAO,CAAC,mB;K;+EAGZ,gC;MAOoB,Q;MADhB,IAAI,mB
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;O;KAbnB,C;kGAOA,yB;MAAA,8D;MAAA,wC;QAMI,OAAe,cAAR,iBAAQ,EAAc,UAAd,C;O;KANnB,C;kFA
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AT,C;YACA,e;;YAEA,c;;UuB6nBA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OAAO,W;O;KAhBX,C;yFAmBA,y
B;MAAA,+D;MAAA,sE;QAYoB,Q;QAAA,2B;QAAhB,OAAgB,cAAhB,C;UAAgB,yB;UACZ,UAAU,YAAY,OA
AZ,C;UvBrpBP,U;UADP,YuBupBe,WvBvpBH,WuBupBwB,GvBvpBxB,C;UACL,IAAI,aAAJ,C;YACH,auBqpBu
C,gB;YAA5B,WvBppBX,auBopBgC,GvBppBhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;UuBipBA,iB;UACA,IAAK
,WAAI,eAAe,OAAf,CAAJ,C;;QAET,OAAO,W;O;KAjBX,C;0FAoBA,yB;MAAA,kC;MAAA,4C;MAAA,wE;QA
UW,sC;QAAA,8C;O;MAVX,oDAWQ,Y;QAA6C,OAAA,oBAAgB,W;O;MAXrE,iDAYQ,mB;QAAoC,gCAAY,O
AAZ,C;O;MAZ5C,gF;MAAA,yC;QAUI,2D;O;KAVJ,C;IAgBA,sC;MASI,OAAO,yBAAqB,SAArB,EAA2B,SAA3
B,C;K;IAGX,4C;MASI,OAAO,gCAA4B,SAA5B,EAAkC,SAAlC,C;K;IAGX,mD;MASI,OAAoD,gBAA7C,gCAA
4B,SAA5B,EAAkC,SAAlC,CAA6C,C;K;4GAGxD,yB;MAuNA,wE;MAvNA,oD;QAgOiB,gB;QADb,YAAY,C;Q
ACC,2B;QAAb,OAAa,cAAb,C;UAAa,sB;UAvNsB,U;UAAA,wBAAuNT,oBAAmB,cAAnB,EAAmB,sBAAnB,UA
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B,UACoC,M;QAFjD,YAAY,C;QACC,2B;QAAb,OAAa,cAAb,C;UAAa,sB;UACT,WAAY,WAAI,UAAU,oBAA
mB,cAAnB,EAAmB,sBAAnB,UAAV,EAAuC,IAAvC,CAAJ,C;;QAChB,OAAO,W;O;KAZX,C;IAeA,4C;MASI,O
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KARX,C;iFAWA,6C;MAOiB,Q;MAAA,2B;MAAb,OAAa,cAAb,C;QAAa,sB;QACT,WAAY,WAAI,UAAU,IAA
V,CAAJ,C;;MAChB,OAAO,W;K;IAGX,gC;MAOI,OAAO,qBAAiB,SAAjB,C;K;IAcgB,6B;MAAE,S;K;IAX7B,+

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K;IAGX,mC;MASiB,Q;MADb,UAAU,sB;MACG,2B;MAAb,OAAa,cAAb,C;QAAa,sB;QAAM,GAAI,WAAI,IAA
J,C;;MACvB,OAAO,G;K;6EAGX,gC;MAQoB,Q;MAAA,2B;MAAhB,OAAgB,cAAhB,C;QAAgB,yB;QAAM,IA
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;6EAGtB,gC;MAQoB,Q;MAAA,2B;MAAhB,OAAgB,cAAhB,C;QAAgB,yB;QAAM,IAAI,UAAU,OAAV,CAAJ,
C;UAAwB,OAAO,I;;MACrD,OAAO,K;K;IAGX,6B;MAOoB,Q;MADhB,YAAY,C;MACI,2B;MAAhB,OAAgB,c
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E;MAAA,uC;QAOoB,Q;QADhB,YAAY,C;QACI,2B;QAAhB,OAAgB,cAAhB,C;UAAgB,yB;UAAM,IAAI,UAA
U,OAAV,CAAJ,C;YAAwB,oBAAmB,qBAAnB,EAAmB,KAAnB,E;;QAC9C,OAAO,K;O;KARX,C;8EAWA,yC;
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V,EAAuB,OAAvB,C;;MACpC,OAAO,W;K;4FAGX,yB;MAAA,wE;MAAA,gD;QAcoB,UAAiD,M;QAFjE,YAA
Y,C;QACZ,kBAAkB,O;QACF,2B;QAAhB,OAAgB,cAAhB,C;UAAgB,yB;UAAM,cAAc,UAAU,oBAAmB,cAAn
B,EAAmB,sBAAnB,UAAV,EAAuC,WAAvC,EAAoD,OAApD,C;;QACpC,OAAO,W;O;KAfX,C;qFAkBA,6B;M
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E;MAAA,oC;QASiB,UAAgC,M;QAD7C,YAAY,C;QACC,2B;QAAb,OAAa,cAAb,C;UAAa,sB;UAAM,OAAO,o
BAAmB,cAAnB,EAAmB,sBAAnB,UAAP,EAAoC,IAApC,C;;O;KATvB,C;IAYA,2B;MAII,OAAO,uB;K;IAGX,2
B;MAII,OAAO,uB;K;IAGX,2B;MAGI,OAAO,uB;K;iFAGX,+B;MAGW,sB;;QAYP,eAAe,oB;QACf,IAAI,CAAC,
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AyB,qBAAO,O;UAAP,uB;;QACzB,eAhBmB,QAgBJ,CAAS,OAAT,C;;UAEX,QAAQ,QAAS,O;UACjB,QAnBe,
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T,QAAS,W;QAClB,qBAAO,O;;;MAzBP,yB;K;6FAGJ,+B;MASI,eAAe,oB;MACf,IAAI,CAAC,QAAS,UAAd,C;Q
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UACI,UAAU,C;UACV,WAAW,C;;;MAED,QAAT,QAAS,W;MAClB,OAAO,O;K;iFAGX,yB;MAAA,sE;MZpwC
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;MYwyCA,sC;QAeI,eAAe,oB;QACf,IAAI,CAAC,QAAS,UAAd,C;UAAyB,MAAM,6B;QAC/B,eAAe,SAAS,QA
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CI,QAAQ,SAAS,QAAS,OAAlB,C;UACR,WZz1CG,MAAO,KYy1CO,QZz1CP,EYy1CiB,CZz1CjB,C;;QY21Cd,
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X,C;6FAuBA,+B;MAWI,eAAe,oB;MACf,IAAI,CAAC,QAAS,UAAd,C;QAAyB,OAAO,I;MAChC,eAAe,SAAS,Q
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AX,KAAJ,C;UACI,WAAW,C;;;MAGnB,OAAO,Q;K;yFAGX,yB;MAAA,sE;MAAA,kD;QAaI,eAAe,oB;QACf,IA
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CI,WAAW,C;;;MAGnB,OAAO,Q;K;IAGX,iC;MASI,eAAe,oB;MACf,IAAI,CAAC,QAAS,UAAd,C;QAAyB,OA
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AS,O;QACjB,MZx+CG,MAAO,KYw+CE,GZx+CF,EYw+CO,CZx+CP,C;;MY0+Cd,OAAO,G;K;IAGX,iC;MAOI
,eAAe,oB;MACf,IAAI,CAAC,QAAS,UAAd,C;QAAyB,OAAO,I;MAChC,UAAU,QAAS,O;MACnB,OAAO,QAA
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2B;MAII,OAAO,uB;K;IAGX,2B;MAII,OAAO,uB;K;IAGX,2B;MAGI,OAAO,uB;K;iFAGX,+B;MAGW,sB;;QAY
P,eAAe,oB;QACf,IAAI,CAAC,QAAS,UAAd,C;UAAyB,qBAAO,I;UAAP,uB;;QACzB,cAAc,QAAS,O;QACvB,I
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;K;iFAGX,yB;MAAA,sE;MZj3CA,iB;MYi3CA,sC;QAeI,eAAe,oB;QACf,IAAI,CAAC,QAAS,UAAd,C;UAAyB,
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CiB,CZt8CjB,C;;QYw8Cd,OAAO,Q;O;KApBX,C;6FAuBA,yB;MZ99CA,iB;MY89CA,sC;QAaI,eAAe,oB;QACf,I
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hC,uC;QAOmB,kBAAR,iB;QAAQ,uB;;UtCgyBf,0D;YACI,IsCjyB0B,UpC3dQ,eF4vCpB,YAAK,KAAL,CE5vCo
B,CoC2dR,CtCiyB1B,C;cACI,sBAAO,K;cAAP,wB;;;UAGR,sBAAO,E;;;QsCryBP,0B;O;KAPJ,C;iGAUA,yB;MA
AA,sC;MlC3dA,iC;MkC2dA,0BAOgC,yB;QlClehC,iC;ekCkegC,6B;UAAA,qB;YAAE,yBlCxdW,gBkCwdD,ElCx
dC,CkCwdX,C;W;S;OAAF,C;MAPhC,uC;QAOmB,kBAAR,iB;QAAQ,uB;;UtCkyBf,0D;YACI,IsCnyB0B,UlCxd
W,gBJ2vCvB,YAAK,KAAL,CI3vCuB,CkCwdX,CtCmyB1B,C;cACI,sBAAO,K;cAAP,wB;;;UAGR,sBAAO,E;;;Q
sCvyBP,0B;O;KAPJ,C;+FAUA,yB;MAAA,sC;MtCm5BA,0D;MAAA,+C;MGv1CA,6B;MmCocA,yBAO+B,yB;Q
nC3c/B,6B;emC2c+B,6B;UAAA,qB;YAAE,yBnCjcM,cmCicI,EnCjcJ,CmCicN,C;W;S;OAAF,C;MAP/B,uC;QAO
mB,kBAAR,iB;QAAQ,sB;;UtCg5BD,Q;UAAA,OAAQ,SAAR,wBAAQ,CAAR,W;UAAd,OAAc,cAAd,C;YAAc,u
B;YACV,IsCj5ByB,UnCjcM,cHk1CjB,YAAK,KAAL,CGl1CiB,CmCicN,CtCi5BzB,C;cACI,qBAAO,K;cAAP,uB;
;;UAGR,qBAAO,E;;;QsCr5BP,yB;O;KAPJ,C;+FAUA,yB;MAAA,sC;MtCq5BA,0D;MAAA,+C;MmBp1CA,+B;M
mB+bA,yBAO+B,yB;QnBtc/B,+B;emBsc+B,6B;UAAA,qB;YAAE,yBnB5bS,emB4bC,EnB5bD,CmB4bT,C;W;S;
OAAF,C;MAP/B,uC;QAOmB,kBAAR,iB;QAAQ,sB;;UtCk5BD,Q;UAAA,OAAQ,SAAR,wBAAQ,CAAR,W;UA
Ad,OAAc,cAAd,C;YAAc,uB;YACV,IsCn5ByB,UnB5bS,enB+0CpB,YAAK,KAAL,CmB/0CoB,CmB4bT,CtCm5
BzB,C;cACI,qBAAO,K;cAAP,uB;;;UAGR,qBAAO,E;;;QsCv5BP,yB;O;KAPJ,C;+FAUA,yB;MAAA,sC;MtCu2B
A,0D;MAAA,+C;ME72CA,+B;MoCsgBA,yBAO+B,yB;QpC7gB/B,+B;eoC6gB+B,6B;UAAA,qB;YAAE,yBpCng
BS,eoCmgBC,EpCngBD,CoCmgBT,C;W;S;OAAF,C;MAP/B,uC;QAOmB,kBAAR,iB;QAAQ,sB;;UtCo2BD,Q;U
AAA,OAAQ,SAAR,wBAAQ,CAAR,W;UAAd,OAAc,cAAd,C;YAAc,uB;YACV,IsCr2ByB,UpCngBS,eFw2CpB,
YAAK,KAAL,CEx2CoB,CoCmgBT,CtCq2BzB,C;cACI,qBAAO,K;cAAP,uB;;;UAGR,qBAAO,E;;;QsCz2BP,yB;

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O;KAPJ,C;+FAUA,yB;MAAA,sC;MtCy2BA,0D;MAAA,+C;MI52CA,iC;MkCmgBA,yBAO+B,yB;QlC1gB/B,iC;e
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,kBAAR,iB;QAAQ,sB;;UtCs2BD,Q;UAAA,OAAQ,SAAR,wBAAQ,CAAR,W;UAAd,OAAc,cAAd,C;YAAc,uB;Y
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Ad,C;UAAc,uB;UACV,cAAc,sBAAK,KAAL,C;UACd,IAAI,UAAU,OAAV,CAAJ,C;YAAwB,OAAO,O;;QAEnC,
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JP,U;UADP,Y+B0hJe,W/B1hJH,W+B0hJwB,G/B1hJxB,C;UACL,IAAI,aAAJ,C;YACH,a+BwhJuC,gB;YAA5B,W
/BvhJX,a+BuhJgC,G/BvhJhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;U+BohJA,iB;UACA,IAAK,WAAI,OAAJ,C;;Q
A9IT,OAgJO,W;O;KA5JX,C;uFAeA,yB;MAAA,wE;MAgJA,+D;MAhJA,yD;QAaW,kBAAU,oB;QAgJD,Q;QAA
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e,W/B/iJH,W+B+iJwB,G/B/iJxB,C;UACL,IAAI,aAAJ,C;YACH,a+B6iJuC,gB;YAA5B,W/B5iJX,a+B4iJgC,G/B5i
JhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;U+ByiJA,iB;UACA,IAAK,WAnJyD,cAmJrD,CAAe,OAAf,CAAJ,C;;QA
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Je,W/BpkJH,W+BokJwB,G/BpkJxB,C;UACL,IAAI,aAAJ,C;YACH,a+BkkJuC,gB;YAA5B,W/BjkJX,a+BikJgC,G/
BjkJhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;U+B8jJA,iB;UACA,IAAK,WAxJyD,cAwJrD,CAAe,OAAf,CAAJ,C;;
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BylJe,W/BzlJH,W+BylJwB,G/BzlJxB,C;UACL,IAAI,aAAJ,C;YACH,a+BulJuC,gB;YAA5B,W/BtlJX,a+BslJgC,G/
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Y+B8mJe,W/B9mJH,W+B8mJwB,G/B9mJxB,C;UACL,IAAI,aAAJ,C;YACH,a+B4mJuC,gB;YAA5B,W/B3mJX,a
+B2mJgC,G/B3mJhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;U+BwmJA,iB;UACA,IAAK,WAlKyD,cAkKrD,CAAe,
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hB,OAAgB,cAAhB,C;UAAgB,yB;UACZ,UAAU,YAAY,OAAZ,C;U/B59IP,U;UADP,Y+B89Ie,W/B99IH,W+B89

IwB,G/B99IxB,C;UACL,IAAI,aAAJ,C;YACH,a+B49IuC,gB;YAA5B,W/B39IX,a+B29IgC,G/B39IhC,EAAS,MA
AT,C;YACA,e;;YAEA,c;;U+Bw9IA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OAAO,W;O;KAjBX,C;2FAoBA,y
B;MAAA,+D;MAAA,sD;QAYoB,Q;QAAA,2B;QAAhB,OAAgB,cAAhB,C;UAAgB,yB;UACZ,UAAU,YAAY,O
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AA5B,W/B/+IX,a+B++IgC,G/B/+IhC,EAAS,MAAT,C;YACA,e;;YAEA,c;;U+B4+IA,iB;UACA,IAAK,WAAI,OA
AJ,C;;QAET,OAAO,W;O;KAjBX,C;2FAoBA,yB;MAAA,+D;MAAA,sD;QAYoB,Q;QAAA,2B;QAAhB,OAAgB,
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,e;;YAEA,c;;U+BggJA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OAAO,W;O;KAjBX,C;2FAoBA,yB;MAAA,+D;
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P,U;UADP,Y+B0hJe,W/B1hJH,W+B0hJwB,G/B1hJxB,C;UACL,IAAI,aAAJ,C;YACH,a+BwhJuC,gB;YAA5B,W/
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;UAAgB,yB;UACZ,UAAU,YAAY,OAAZ,C;U/B7iJP,U;UADP,Y+B+iJe,W/B/iJH,W+B+iJwB,G/B/iJxB,C;UACL
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AJ,C;;QAET,OAAO,W;O;KAlBX,C;2FAqBA,yB;MAAA,+D;MAAA,sE;QAaoB,Q;QAAA,2B;QAAhB,OAAgB,c
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EA,c;;U+BmlJA,iB;UACA,IAAK,WAAI,eAAe,OAAf,CAAJ,C;;QAET,OAAO,W;O;KAlBX,C;2FAqBA,yB;MAA
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,C;MACX,aAAU,CAAV,MAAkB,IAAlB,M;QACI,IAAK,WAnEqB,GAmEP,sBAAK,CAAL,CAnEO,EAAnB,KA
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;;QAEzC,c;;MAHJ,wB;MAKA,kBAAkB,K;MAClB,iBAAiB,W;MACjB,OAAO,S;K;IAIa,sB;MAAC,U;K;iCACrB
,iB;MACI,OAAO,mCAAsB,WAAK,KAAM,E;K;mCAG5C,Y;MACI,OAAO,M;K;mCAGX,Y;MACI,OAAuC,oB
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AL,C;;YAE1B,MAAM,CAAN,IAAW,G;;;QA4Bf,OAzBG,EAAS,OAAO,OAAM,EAAN,EAAgB,KAAhB,C;;QA2
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Y,gB0CnCH,S;;QACD,iBAAiB,8B;QAGjB,IAAI,0BAAJ,C;UACI,qBAAc,e;;UAEd,oBAAQ,0B;UACR,wBAAY,k
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CI,uCAAQ,yCAAR,EAAmC,wCAA+B,WAA/B,C;;MAEvC,sBAAoB,mC;K;;IAM5B,iC;MAAA,qC;K;gGAEQ,Y;
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mB,WAAnB,EAAgC,UAAhC,EAA4C,GAA5C,C;MAGrB,oBAAoB,i8B;MACpB,4BAAuB,mBAAmB,aAAnB,E
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AIW,wCAAmB,C;MAAnB,U;QAA6B,wB5CfM,a4CeN,C;;MAApC,W;K;IAGJ,kC;MAQI,SAAS,S5C1BiC,I;M4C
2B1C,YAAY,kBAAkB,oBAAO,kBAAzB,EAA4C,EAA5C,C;MAEZ,iBAAiB,oBAAO,kBAAP,CAAyB,KAAzB,C
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C;K;ICnGtC,0B;MAAA,8B;MACI,+BAA+B,gBAC3B,GAD2B,EACnB,GADmB,EACX,GADW,EACH,GADG,E
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D,IAD7D,EACqE,IADrE,EAC6E,IAD7E,EACqF,IADrF,EAC6F,KAD7F,EACqG,KADrG,EAC6G,KAD7G,EACq
H,KADrH,EAC6H,KAD7H,E;MAG/B,gCAAgC,gBAC5B,CAD4B,EACzB,CADyB,EACtB,CADsB,EACnB,CAD
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SF,KxC+SE,IA6/GT,gBAAR,iBAAQ,C;;MA7/GT,U;MAAA,S;QAAA,SAAsC,sBwC/StB,KxC+SsB,C;;QwC/Sb,
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,uB;MAAC,oB;QAAA,OAA0B,E;MAA1B,gB;K;;IAElC,kB;K;;IAqCqC,sB;MAAC,gB;K;;IAgCN,4B;MAAC,sB;
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Ad,C;MACtB,OAAO,K;K;IAGX,8C;MAQc,Q;MANV,IAAI,KAAM,OAAN,GAAa,UAAW,KAA5B,C;QACI,OA
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SA,wB;MAG2C,oBAAU,OAAV,E;K;sGAE3C,yB;MAAA,uE;MAAA,gC;QAI8B,gBAAnB,oB;QAAyB,aJVhC,W;
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;sDAGX,mB;MACI,iBAAc,sBAAd,WAA+B,CAA/B,U;QACI,IAAI,wBAAI,KAAJ,GAAc,OAAd,CAAJ,C;UACI,
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,C;MACf,YAAO,UAAU,SAAV,I;MnEuDX,iBAAc,CAAd,UAAsB,KAAtB,U;QmEtDiB,e;QACA,iB;;K;2CAIjB,i
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,IAAI,CAAC,cAAL,C;QAAgB,MAAM,6B;MACtB,eAAO,mBAAP,EAAO,2BAAP,O;MACA,OAAO,wBAAI,WA
AJ,C;K;wDAGX,Y;MtE5CJ,IAAI,EsE6CU,gBAAQ,EtE7ClB,CAAJ,C;QACI,csE4CwB,sE;QtE3CxB,MAAM,6BA
AsB,OAAQ,WAA9B,C;;MsE6CF,6BAAS,WAAT,C;MACA,eAAQ,W;MACR,cAAO,E;K;;IAOqB,6D;MAHpC,o
B;MAGmD,wD;MAG3C,oCAAa,4BAAmB,KAAnB,EAA0B,WAAyB,KAAnD,C;MACb,eAAa,K;K;iEAGjB,Y;M
AAsC,sBAAQ,C;K;+DAE9C,Y;MAAgC,mB;K;8DAEhC,Y;MACI,IAAI,CAAC,kBAAL,C;QAAoB,MAAM,6B;M
AE1B,eAAO,mCAAP,EAAO,YAAP,C;MACA,OAAO,wBAAI,WAAJ,C;K;mEAGX,Y;MAAoC,sBAAQ,CAAR,I;
K;+DAEpC,mB;MACI,wBAAI,YAAJ,EAAW,OAAX,C;MACA,mC;MACA,cAAO,E;K;+DAGX,mB;MtElFJ,IAA
I,EsEmFU,gBAAQ,EtEnFlB,CAAJ,C;QACI,csEkFwB,4E;QtEjFxB,MAAM,6BAAsB,OAAQ,WAA9B,C;;MsEkFF
,wBAAI,WAAJ,EAAU,OAAV,C;K;;IAIgB,+D;MAAuF,8B;MAAtF,kB;MAA0C,4B;MAC/D,eAAyB,C;MAGrB,o
CAAa,2BAAkB,gBAAlB,EAA6B,OAA7B,EAAsC,WAAK,KAA3C,C;MACb,eAAa,UAAU,gBAAV,I;K;wDAGjB
,0B;MACI,oCAAa,4BAAmB,KAAnB,EAA0B,YAA1B,C;MAEb,WAAK,aAAI,mBAAY,KAAZ,IAAJ,EAAuB,OA
AvB,C;MACL,mC;K;wDAGJ,iB;MACI,oCAAa,2BAAkB,KAAlB,EAAyB,YAAzB,C;MAEb,OAAO,wBAAK,mB
AAY,KAAZ,IAAL,C;K;6DAGX,iB;MACI,oCAAa,2BAAkB,KAAlB,EAAyB,YAAzB,C;MAEb,aAAa,WAAK,kB
AAS,mBAAY,KAAZ,IAAT,C;MAClB,mC;MACA,OAAO,M;K;wDAGX,0B;MACI,oCAAa,2BAAkB,KAAlB,EA
AyB,YAAzB,C;MAEb,OAAO,WAAK,aAAI,mBAAY,KAAZ,IAAJ,EAAuB,OAAvB,C;K;mGAGO,Y;MAAQ,mB
;K;2DAE/B,Y;MAA+C,WAAK,iB;K;;;ICxMN,8B;MAAiC,sB;MAwCnF,uBAAoC,I;MA+CpC,yBAA6C,I;K;IAlF
R,oD;MAAC,wB;MAGlC,gBAAqB,K;K;iFAHa,Y;MAAAA,yB;K;uGAKZ,Y;MAAQ,oB;K;8DAE9B,oB;MAKI,eA
Ae,IAAK,S;MACpB,gBAAc,Q;MACd,OAAO,Q;K;wDAGX,Y;MAA+B,iEAAc,IAAd,C;K;wDAC/B,Y;MAAkC,i
EAAc,IAAd,C;K;sDAClC,iB;MAA4C,+DAAY,IAAZ,EAAkB,KAAlB,C;K;;IAlB5C,8E;MAAAA,wE;MAAsC,2CA
AK,KAAM,IAAX,EAAgB,KAAM,MAAtB,C;MAAtC,Y;K;IAsBJ,+C;MACsE,6B;K;mEAClE,mB;MAAmD,kCA
Ac,OAAd,C;K;iEAEnD,mB;MAAiD,gCAAY,OAAZ,C;K;;yCAIrD,Y;MACI,YAAQ,Q;K;IAOQ,+F;MAAAA,sD;M

AAS,6B;K;uFACb,mB;MAAwC,MAAM,qCAA8B,8BAA9B,C;K;mFAC9C,Y;MACI,4BAAwB,Q;K;4FAG5B,mB
;MAAsD,sDAAY,OAAZ,C;K;IAI3C,oH;MAAA,kD;K;4GACH,Y;MAAkC,OAAA,0BAAc,U;K;yGAChD,Y;MAA
yB,OAAA,0BAAc,OAAO,I;K;2GAC9C,Y;MAAwB,0BAAc,S;K;;sFAL9C,Y;MACI,oBAAoB,oCAAQ,W;MAC5
B,6G;K;0FAOJ,mB;MACI,qB;MACA,IAAI,+CAAY,OAAZ,CAAJ,C;QACI,4BAAwB,cAAO,OAAP,C;QACxB,O
AAO,I;;MAEX,OAAO,K;K;oIAGY,Y;MAAQ,OAAA,4BAAwB,K;K;4FAEvD,Y;MAAsC,4BAAwB,iB;K;;0FA9B
1E,Y;MACI,IAAI,4BAAJ,C;QACI,6F;;MA+BJ,OAAO,mC;K;kDAKf,gB;MAEyB,Q;MADrB,qB;MACqB,OAAA,
I9E8Q2D,QAAQ,W;M8E9QxF,OAAqB,cAArB,C;QAAqB,wB;QAAf,U9EiMsD,U;Q8EjMjD,Y9E8MiD,Y;Q8E7
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gCAA9B,C;K;qFAC9C,Y;MAAuB,4BAAwB,Q;K;8FAE/C,mB;MAAsD,wDAAc,OAAd,C;K;IAI3C,sH;MAAA,k
D;K;8GACH,Y;MAAkC,OAAA,0BAAc,U;K;2GAChD,Y;MAAyB,OAAA,0BAAc,OAAO,M;K;6GAC9C,Y;MAA
wB,0BAAc,S;K;;wFAL9C,Y;MACI,oBAAoB,oCAAQ,W;MAC5B,+G;K;sIAOmB,Y;MAAQ,OAAA,4BAAwB,K;
K;8FAEvD,Y;MAAsC,4BAAwB,iB;K;;4FAnB1E,Y;MACI,IAAI,8BAAJ,C;QACI,iG;;MAoBJ,OAAO,qC;K;gDA
Gf,e;MACI,qB;MACA,WAAW,YAAQ,W;MACnB,OAAO,IAAK,UAAZ,C;QACI,YAAY,IAAK,O;QACjB,QAA
Q,KAAM,I;QACd,IAAI,YAAO,CAAP,CAAJ,C;UACI,YAAY,KAAM,M;UAClB,IAAK,S;UACL,OAAO,K;;;MA
Gf,OAAO,I;K;kDAIX,Y;K;;IC3I+C,8B;MAAiC,oC;K;0CAEhF,iB;MAMI,IAAI,UAAU,IAAd,C;QAAoB,OAAO,I;
MAC3B,IAAI,0BAAJ,C;QAAsB,OAAO,K;MAC7B,OAAO,mCAAY,mBAAU,IAAV,EAAgB,KAAhB,C;K;4CAG
vB,Y;MAG+B,OAAA,mCAAY,2BAAkB,IAAlB,C;K;;ICbT,0B;MAAuD,8B;MAAlC,4B;MACvD,4BAAkC,K;K;g
CAkBlC,Y;MAEI,qB;MACA,4BAAa,I;MACb,OAAO,I;K;qCAGX,Y;K;iDAGA,uB;K;iFAG8B,Y;MAAQ,OAAA,
oBAAM,O;K;sCAC5C,iB;MACyC,Q;MAAA,oCAAM,0BAAW,KAAX,CAAN,4D;K;sCACzC,0B;MAIW,IAAa,I;
MAHpB,qB;MACA,0BAAW,KAAX,C;MAEoB,gBAAb,qBAAM,KAAN,C;MAAqB,qC;MAA5B,OAAO,CAAa,O
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CAGX,0B;MACI,qB;MACM,oBAAY,QAAO,mCAAoB,KAApB,CAAP,EAAmC,CAAnC,EAAsC,OAAtC,C;MA
ClB,qC;K;yCAGJ,oB;MACI,qB;MACA,IAAI,QAAS,UAAb,C;QAAwB,OAAO,K;MAE/B,uBAAA,oBxEioDoB,Q
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;QAAwB,OAAO,K;MAE3B,IADE,KACF,e;QAAQ,OAAO,oBAAO,QAAP,C;WACf,IAFE,KAEF,O;QAAK,uBlE
7DqD,YkE6D7C,QlE7D6C,CNirD1C,QwEpnD6B,oBxEonD7B,C;;QwEnnDR,uBAAoC,cAA5B,oBAA4B,EAAV,
CAAU,EAAP,KAAO,CAAY,QlE9DE,YkE8DK,QlE9DL,CkE8DF,EAA4C,cAAN,oBAAM,EAAY,KAAZ,EAAm
B,SAAnB,CAA5C,C;;MAG5D,qC;MACA,OAAO,I;K;2CAGX,iB;MACI,qB;MACA,0BAAW,KAAX,C;MACA,q
C;MACA,OAAW,UAAS,sBAAb,GACG,oBAAY,MADf,GAGG,oBAAY,QAAO,KAAP,EAAc,CAAd,CAAlB,CA
AmC,CAAnC,C;K;uCAGR,mB;MAEkB,Q;MADd,qB;MACc,2B;MAAd,mD;QACI,IAAI,4BAAM,KAAN,GAAg
B,OAAhB,CAAJ,C;UACU,oBAAY,QAAO,KAAP,EAAc,CAAd,C;UAClB,qC;UACA,OAAO,I;;;MAGf,OAAO,K;
K;8CAGX,8B;MACI,qB;MACA,qC;MACM,oBAAY,QAAO,SAAP,EAAkB,UAAU,SAAV,IAAlB,C;K;gCAGtB,
Y;MACI,qB;MACA,uB9BhHuC,E;M8BiHvC,qC;K;wCAIJ,mB;MAA+C,OAAM,QAAN,oBAAM,EAAQ,OAAR,
C;K;4CAErD,mB;MAAmD,OAAM,YAAN,oBAAM,EAAY,OAAZ,C;K;mCAEzD,Y;MAA0B,uBAAc,oBAAd,C;
K;0CAE1B,iB;MAGe,UAGL,MAHK,EAMO,M;MAPlB,IAAI,KAAM,OAAN,GAAa,SAAjB,C;QACI,OAAO,2D;;
MAGc,gBAAxB,eAAK,SAAL,IAAK,gBAAL,yB;MxEuwBL,UAAU,SAAV,EwEvwBsC,KxEuwBtC,EAD+F,CA
C/F,EADoH,CACpH,EADuI,gBACvI,C;MwErwBI,IAAI,KAAM,OAAN,GAAa,SAAjB,C;QACI,MAAM,SAAN,I
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AI,yBAAJ,C;QAAgB,MAAM,oC;K;+CAG1B,iB;MACI,oCAAa,kCAAyB,SAAzB,C;MADoB,Y;K;wDAIrC,iB;M
ACI,oCAAa,mCAA0B,SAA1B,C;MAD6B,Y;K;;IAlJ9C,+B;MAAA,mD;MAG8B,sB9BRa,E8BQb,C;MAH9B,Y;K
;IAKA,kD;MAAA,mD;MAIkD,sB9BdP,E8BcO,C;MAJlD,Y;K;IAMA,2C;MAAA,mD;MAGqD,sBlENa,YkEMR,
QlENQ,CkEMb,C;MAHrD,Y;K;ICrBJ,0C;MACI,IAAI,6BAAJ,C;QACU,KAAY,MAAK,UAAL,C;;QAElB,UAAU
,KAAV,EAAAwC,CAAAxC,EAAAiD,cAAN,KAAM,CAAAjD,EAA4D,eAAW,UAAAX,CAA5D,C;;K;IAMiB,kD;MAAA
,uB;QAAAgB,OAAAA,kBAAAW,SAAAQ,CAAAR,EAAAW,CAAAX,C;O;K;IAFpD,4C;MACI,IAAI,6BAAJ,C;QACI,iBAA
iB,gC;QACX,KAAY,MAAAK,UAAAL,C;;QAElB,UAAU,KAAV,EAAAwC,CAAAxC,EAAAiD,cAAN,KAAM,CAAAjD,E
AA4D,UAA5D,C;;K;IAIR,gE;MACI,IAAI,aAAY,UAAU,CAAV,IAAZ,CAAJ,C;QACI,UAAU,KAAV,EAAAwC,S
AAxC,EAAAmD,UAAU,CAAV,IAAnD,EAAAgE,UAAAhE,C;;K;IAMiB,gC;MAAgB,OAAE,iBAAF,CAAE,EAAU,C

AAV,C;K;IAF3C,0B;MACI,IAAI,6BAAJ,C;QACI,iBAAiB,gB;QACX,KAAY,MAAK,UAAL,C;;QAElB,UAAU,
KAAV,EAAwC,CAAxC,EAAiD,cAAN,KAAM,CAAjD,EAA4D,cAA5D,C;;K;;IAaa,kD;MAAoB,QAAC,IAAM,C
AAP,KAAa,IAAM,CAAnB,K;K;IARzC,uC;MACI,sC;QAAiC,OAAjC,yB;;MACA,4BAA4B,K;MAE5B,YAAY,E;
MAGZ,iBAAc,CAAd,UAAsB,GAAtB,U;QAAiC,KAAY,MAAK,KAAL,C;MAC7C,iBAAiB,kC;MACX,KAAY,M
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;QACR,QAAQ,MAAM,OAAN,C;QACR,IAAI,CAAC,IAAM,CAAP,OAAc,IAAM,CAApB,KAA0B,KAAK,CAA
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B,O;MACb,aAAa,YAAU,KAAV,EAAiB,MAAjB,EAAyB,KAAzB,EAAgC,YAAhC,EAA8C,UAA9C,C;MACb,IA
AI,WAAW,KAAf,C;QACI,aAAU,KAAV,OAAiB,YAAjB,M;UAA+B,MAAM,CAAN,IAAW,OAAO,CAAP,C;;K;
IAIlD,4D;MAEI,IAAI,UAAS,GAAb,C;QACI,OAAO,K;;MAGX,aAAa,CAAC,QAAQ,GAAR,IAAD,IAAgB,CAA
hB,I;MACb,WAAW,YAAU,KAAV,EAAiB,MAAjB,EAAyB,KAAzB,EAAgC,MAAhC,EAAwC,UAAxC,C;MAC
X,YAAY,YAAU,KAAV,EAAiB,MAAjB,EAAyB,SAAS,CAAT,IAAzB,EAAqC,GAArC,EAA0C,UAA1C,C;MAE
Z,aAAiB,SAAS,MAAb,GAAqB,KAArB,GAAgC,M;MAG7C,gBAAgB,K;MAChB,iBAAiB,SAAS,CAAT,I;MACj
B,aAAU,KAAV,OAAiB,GAAjB,M;QAEQ,iBAAa,MAAb,IAAuB,cAAc,GAArC,C;UACI,gBAAgB,KAAK,SAAL
,C;UAChB,iBAAiB,MAAM,UAAN,C;UAEjB,IAAI,UAAW,SAAQ,SAAR,EAAmB,UAAnB,CAAX,IAA6C,CAAj
D,C;YACI,OAAO,CAAP,IAAY,S;YACZ,6B;;YAEA,OAAO,CAAP,IAAY,U;YACZ,+B;;eAGR,iBAAa,MAAb,C;
UACI,OAAO,CAAP,IAAY,KAAK,SAAL,C;UACZ,6B;;UAGA,OAAO,CAAP,IAAY,MAAM,UAAN,C;UACZ,+
B;;;MAMZ,OAAO,M;K;ICrGX,4C;MAMoB,UACM,M;MAHtB,IAAI,iBAAJ,C;QAAkB,OAAO,C;MACzB,aAAa,
C;MACb,wBAAgB,SAAhB,gB;QAAgB,cAAA,SAAhB,M;QAEQ,oB;UAAmB,U;;UACnB,I1BFiC,MAAa,Y0BEn
C,O1BFmC,C0BE9C,C;YAAwD,iCAAhC,OAAgC,C;iBAExD,uC;YAAmC,2BAAR,OAAQ,C;eACnC,wC;YAAm
C,2BAAR,OAAQ,C;eACnC,sC;YAAmC,2BAAR,OAAQ,C;eACnC,uC;YAAmC,2BAAR,OAAQ,C;;YAEA,kBAA
R,OAAQ,C;;QATvC,wB;QAYA,SAAS,MAAK,MAAL,QAAc,WAAd,I;;MAEb,OAAO,M;K;;;ICTP,uC;MAAA,2
C;K;2DACI,0B;MAA2D,sBAAU,MAAV,C;K;gEAE3D,iB;MAA6C,Q;MAAA,wEAAqB,C;K;;;IAHtE,mD;MAAA
,kD;QAAA,iC;;MAAA,2C;K;;;MC0BA,iC;MAKA,8B;MA6CA,0BAAmE,I;;IAzEnE,kC;MAAA,oB;MAA+B,8C;
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iB;MAAmE,gBAAZ,0B;MAAY,c;;QvE+mDnD,Q;QADhB,IAAI,wCAAsB,mBAA1B,C;UAAqC,aAAO,K;UAAP,
e;;QACrB,2B;QAAhB,OAAgB,cAAhB,C;UAAgB,yB;UAAM,IuE/mDmD,uBAAS,gBvE+mD9C,OuE/mDwD,MA
AV,QvE+mD5D,C;YAAwB,aAAO,I;YAAP,e;;;QAC9C,aAAO,K;;;MuEhnDgD,iB;K;kFAInD,Y;MACI,IAAI,+BA
AJ,C;QACI,0BAAW,qB;;MAEf,OAAO,sC;K;uCAGf,Y;MAAgF,iC;K;kCAEhF,e;MAA+C,OAAA,0BAAY,WAAI
,GAAJ,C;K;oCAE3D,sB;MAAgD,OAAA,0BAAY,aAAI,GAAJ,EAAS,KAAT,C;K;qCAE5D,e;MAAyC,OAAA,0B
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L,Q;MAHvB,Y;K;IAKA,4D;MAAA,iD;MAQ8D,qB;M7EpC9D,IAAI,E6EsCQ,mBAAmB,C7EtC3B,CAAJ,C;QA
CI,c6EqCgC,+C;Q7EpChC,MAAM,gCAAyB,OAAQ,WAAjC,C;;MAFV,IAAI,E6EuCQ,cAAc,C7EvCtB,CAAJ,C;
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,eAAK,eAAL,EAAsB,GAAtB,Q;MAA3C,Y;K;IAGA,yC;MAAA,iD;MAG8C,qB;MAC1C,KAAK,gBAAO,QAAP,
C;MAJT,Y;K;IAqCJ,4B;MAK8E,gBAAnE,aAAmB,gEAAnB,C;MAA2E,wB;MAAlF,O1EvCO,S;K;;M2EjEP,uB;;
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K;uCAOR,mB;MAA6D,OAAA,gBAAI,mBAAY,OAAZ,C;K;gCAEjE,Y;MAAyC,OAAA,gBAAI,U;K;iCAE7C,Y;
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;MAAQ,OAAA,gBAAI,K;K;;IA5D1C,6B;MAAA,iD;MAGoB,8B;MAZxB,mB;MAaQ,oBAAM,gB;MAJV,Y;K;IA
OA,yC;MAAA,iD;MAG2C,8B;MAnB/C,mB;MAoBQ,oBAAM,eAAgB,QAAS,KAAzB,C;MACN,qBAAO,QAAP,
C;MALJ,Y;K;IAQA,4D;MAAA,iD;MAQ2D,8B;MAhC/D,mB;MAiCQ,oBAAM,eAAgB,eAAhB,EAAiC,UAAjC,
C;MATV,Y;K;IAYA,gD;MAAA,iD;MAA2C,eAAK,eAAL,EAAsB,GAAtB,Q;MAA3C,Y;K;IAEA,oC;MAAA,iD;
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C,6B;MAA3C,O3ENO,S;K;I4EzD6B,uC;MAAC,kC;MAErC,oBAAkC,kB;MAClC,sBAAyB,C;K;2EAHY,Y;MAA
A,8B;K;2FAGrC,Y;MAAA,0B;K,OAAA,gB;MAAA,0B;K;gDAGA,sB;MACI,eAAe,aAAS,qBAAY,GAAZ,C;MA
CxB,mBAAmB,6BAAsB,QAAtB,C;MACnB,IAAI,oBAAJ,C;QAEI,kBAAW,QAAX,IAAuB,mCAAY,GAAZ,EA
AiB,KAAjB,C;;QAEvB,IAAI,6BAAJ,C;UAEI,YAA+B,Y;UAC/B,IAAI,aAAS,gBAAO,KAAM,IAAb,EAAkB,GA
AlB,CAAb,C;YACI,OAAO,KAAM,gBAAS,KAAT,C;;YAEb,kBAAW,QAAX,IAAuB,CAAQ,KAAR,EAAe,mCA
AY,GAAZ,EAAiB,KAAjB,CAAf,C;YACvB,6B;YACA,OAAO,I;;;UAIX,YAAuC,Y;UACvC,cAAkB,wBAAN,KA
AM,EAAiB,GAAjB,C;UAClB,IAAI,eAAJ,C;YACI,OAAO,OAAM,gBAAS,KAAT,C;;UAEX,KAAY,MAAK,mC
AAY,GAAZ,EAAiB,KAAjB,CAAL,C;;;MAG1B,6B;MAEA,OAAO,I;K;iDAGX,e;MAEuB,Q;MADnB,eAAe,aAA
S,qBAAY,GAAZ,C;MACL,oCAAsB,QAAtB,C;MAAAA,iB;QAAmC,OAAO,I;;MAA7D,mBAAmB,I;MACnB,IAA
I,6BAAJ,C;QACI,YAAgC,Y;QAChC,IAAI,aAAS,gBAAO,KAAM,IAAb,EAAkB,GAAlB,CAAb,C;U5BzDR,O4B
0D6B,iB5B1DvB,C4B0DmC,Q5B1DnC,C;U4B2DM,6B;UACA,OAAO,KAAM,M;;UAEb,OAAO,I;;;QAGX,YAA
uC,Y;QACvC,8BAAc,KAAd,iB;UACI,cAAY,MAAM,KAAN,C;UACZ,IAAI,aAAS,gBAAO,GAAP,EAAY,OAA
M,IAAlB,CAAb,C;YACI,IAAI,KAAM,OAAN,KAAc,CAAlB,C;cACU,KAAN,UAA2B,C;c5BtE/C,O4BwEqC,iB5
BxE/B,C4BwE2C,Q5BxE3C,C;;c4B2EoB,KAAY,QAAO,KAAP,EAAc,CAAd,C;;YAEtB,6B;YAEA,OAAO,OAA
M,M;;;;MAIzB,OAAO,I;K;0CAGX,Y;MACI,oBAAa,kB;MACb,YAAO,C;K;mDAGX,e;MAAyC,uBAAS,GAAT,
S;K;8CAEzC,e;MAA+B,Q;MAAA,+BAAS,GAAT,8B;K;+CAE/B,e;MACuB,Q;MAAA,oCAAsB,aAAS,qBAAY,
GAAZ,CAA/B,C;MAAA,iB;QAAoD,OAAO,I;;MAA9E,mBAAmB,I;MACnB,IAAI,6BAAJ,C;QACI,YAAgC,Y;Q
AChC,IAAI,aAAS,gBAAO,KAAM,IAAb,EAAkB,GAAlB,CAAb,C;UACI,OAAO,K;;UAEP,OAAO,I;;;QAGX,YA
AuC,Y;QACvC,OAAa,wBAAN,KAAM,EAAiB,GAAjB,C;;K;uDAIrB,0B;MACI,sB;;Q7F+nCY,Q;QAAhB,iD;UA
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QAC9C,qBAAO,I;;;M6FhoCH,yB;K;IAIO,8E;MAAAA,wD;MACH,aAAY,E;MAEZ,YAA0B,MAAa,MAAK,qCAA
L,C;MACvC,gBAAe,E;MAEf,oBAA4B,I;MAC5B,eAAc,K;MACd,iBAAgB,E;MAChB,iBAAqC,I;K;yEAErC,Y;
MACI,IAAI,6BAAwB,YAA5B,C;QACI,gBAAqB,iBAAqD,O;QAC1E,IAAI,4DAAc,SAAlB,C;UACI,OAAO,C;;
MAGf,IAAI,yDAAa,SAAK,OAAtB,C;QACI,oBAAe,2CAAW,UAAK,aAAL,CAAX,C;QACf,eAAU,iC;QACV,iB
AAY,C;QACZ,OAAO,C;;QAEP,oBAAe,I;QACf,OAAO,C;;K;mEAIf,Y;MACI,IAAI,eAAS,EAAb,C;QACI,aAAQ,
oB;MACZ,OAAO,eAAS,C;K;gEAGpB,Y;MAEoB,Q;MADhB,IAAI,CAAC,cAAL,C;QAAgB,MAAM,6B;MACN,
IAAI,YAAJ,C;QACZ,yBAAqD,cAArD,C;;QAEa,OAAb,iB;;MAHJ,oB;MAKA,iBAAAiB,S;MACjB,aAAQ,E;MAC
R,OAAO,S;K;kEAGX,Y;M/E/CR,I+EgDyB,c/EhDrB,QAAJ,C;QACI,cAhByB,0B;QAiBzB,MAAM,6BAAsB,OA
AQ,WAA9B,C;;M+E+CE,6BAAyB,cAAO,6BAAY,IAAnB,C;MACzB,iBAAY,I;MAEZ,uC;K;;6CAtDZ,Y;MAEI,
2D;K;4DAyDJ,oB;MACI,mBAAmB,kBAAW,QAAX,C;MACnB,OAAW,iBAAiB,SAArB,GAAgC,IAAhC,GAA0
C,Y;K;;;;wCCtKrD,Y;MACI,aAAR,MAAM,OAAe,CAAP,IAAO,C;MAEb,OAAO,KAAP,IAAgB,C;M7BXpB,O6
BYqB,M7BZf,C6BYuB,K7BZvB,C;M6BaF,OAAO,M;K;;ICNuB,qC;MAAC,kC;MAEnC,oBAAkC,kB;MAClC,sB
AAyB,C;K;yEAHU,Y;MAAA,8B;K;yFAGnC,Y;MAAA,0B;K,OAAA,gB;MAAA,0B;K;iDAWA,e;MACI,IAAI,0
BAAJ,C;QAAoB,OAAO,K;MAC3B,OAAO,kBAAW,GAAX,MAAoB,S;K;4CAG/B,e;MACI,IAAI,0BAAJ,C;QA
AoB,OAAO,I;MAC3B,YAAY,kBAAW,GAAX,C;MACZ,OAAW,UAAU,SAArB,GAAgC,KAAhC,GAA2D,I;K;8
CAI/D,sB;MjFVA,IAAI,EiFWQ,uBjFXR,CAAJ,C;QACI,cAda,qB;QAeb,MAAM,gCAAyB,OAAQ,WAAjC,C;;Mi
FUN,eAAe,kBAAW,GAAX,C;MACf,kBAAW,GAAX,IAAkB,K;MAElB,IAAI,aAAa,SAAjB,C;QACI,6B;QAEA,
OAAO,I;;QAGP,OAAO,Q;;K;+CAIf,e;MACI,IAAI,0BAAJ,C;QAAoB,OAAO,I;MAC3B,YAAY,kBAAW,GAAX,
C;MACZ,IAAI,UAAU,SAAd,C;Q9BnDJ,O8BoDyB,iB9BpDnB,C8BoD+B,G9BpD/B,C;Q8BqDE,6B;QAEA,OAA
O,K;;QAGP,OAAO,I;;K;wCAKf,Y;MACI,oBAAa,kB;MACb,YAAO,C;K;IAKA,0E;MAAAA,oD;MACH,cAAkC,M
AAa,MAAK,mCAAL,C;MAC/C,kBAA4B,qBAAL,WAAK,C;MAC5B,iBAA+B,I;K;iEAE/B,Y;MAAkC,OAAAA,e
AAS,U;K;8DAE3C,Y;MAIuB,gB;MAHnB,UAAU,eAAS,O;MACnB,iBAAU,G;MAES,+E;MAAnB,OAAO,iD;K;
gEAGX,Y;MAEkC,UAA9B,M;MAAAA,oC;MAA8B,YAAa,c;MjFchD,uB;MAeP,IAfoB,KAehB,QAAJ,C;QACI,cA
hByB,0B;QAiBzB,MAAM,6BAAsB,OAAQ,WAA9B,C;;QAEN,sBAAnBgB,K;;MiFde,oBAAO,sFAAP,C;K;;2CAjB
nC,Y;MACI,yD;K;IAqBkD,0F;MAAA,8B;MAAA,oD;K;kHAC9B,Y;MAAQ,uB;K;oHACN,Y;MAAQ,6CAAuB,g
BAAvB,C;K;2EAE9B,oB;MAAwC,OAAA,2BAAuB,aAAI,gBAAJ,EAAS,QAAT,C;K;qEAE/D,Y;MAA+B,OAA
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AA,mCAAY,qBAAY,IAAZ,EAAkB,KAAlB,C;K;;gDAR5D,e;MAAsD,iE;K;;;MCItD,sBAOsC,I;MA6CtC,yB;MA

OA,4BAAkC,K;;IArIE,sD;MAZpC,oB;MAYyD,0CAAqC,GAArC,EAA0C,KAA1C,C;MACrD,oBAAuC,I;MACv
C,oBAAuC,I;K;wDAEvC,oB;MACI,WAAmB,iB;MACnB,OAAa,mEAAS,QAAT,C;K;;IAIrB,wC;MAAA,oB;MA
A+B,8C;K;IAE3B,sD;MAAA,oB;MACI,cACsC,I;MAEtC,cACsC,I;MAGlC,cAAO,iC;K;6DAIX,Y;MACI,OAAO,
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Ca,gBAAb,OAAQ,a;;MAAf,c/E0DS,S+E1DoB,KAAO,iC/E0DzC,GAAqB,SAArB,GAA+B,I;M+EzD1B,OAAO,O
;K;4DAGX,Y;MlFwBR,IAAI,EkFvBc,eAAQ,IlFuBtB,CAAJ,C;QACI,cAdW,e;QAeX,MAAM,6BAAsB,OAAQ,W
AA9B,C;;MkFxBE,WAAc,iB;MAGP,oCAAP,0BAAO,C;MACP,gCAAI,cAAO,0BAAO,IAAd,C;MAEJ,cAAO,I;K
;;iDAIf,mB;MAAyD,MAAM,qCAA8B,iCAA9B,C;K;6CAC/D,Y;MACI,WAAmB,Q;K;6DAGvB,mB;MAAgE,OA
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,CAAJ,C;QACI,WAAmB,cAAO,OAAQ,IAAf,C;QACnB,OAAO,I;;MAEX,OAAO,K;K;8FAGY,Y;MAAQ,OAAA
,WAAmB,K;K;sDAElD,Y;MAAsC,WAAmB,iB;K;;iDAa7D,qB;MlFrBA,IAAI,EkF0BM,0BAAQ,IAAR,IAAgB,0
BAAQ,IlF1B9B,CAAJ,C;QACI,cAdW,e;QAeX,MAAM,6BAAsB,OAAQ,WAA9B,C;;MkF0BN,YAAY,mB;MAC
Z,IAAI,SAAS,IAAb,C;QACI,sBAAO,S;QACP,yBAAO,S;QACP,yBAAO,S;;QAGK,YAAa,KAAM,a;QlFlBhC,uB
;QAeP,IAfoB,KAehB,QAAJ,C;UACI,gBAhByB,0B;UAiBzB,MAAM,6BAAsB,SAAQ,WAA9B,C;;UAEN,sBAnB
gB,K;;QkFkBZ,+B;QAEA,yBAAO,K;QACP,yBAAO,K;QAEP,qBAAa,S;QACb,qBAAa,S;;K;+CAIrB,qB;MAII,I
AAI,SAAK,aAAL,KAAc,SAAlB,C;QAEI,sBAAO,I;;QAEP,IAAI,wBAAS,SAAb,C;UAEI,sBAAO,sB;;QAEX,qD
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Y,GAAZ,C;K;kDAEvD,iB;MACiC,Q;MAAA,0B;MAAA,iB;QAAQ,OAAO,K;;MAA5C,WAA6B,I;;QAEzB,IAAI,
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,C;QACI,eAAe,mCAAW,GAAX,EAAgB,KAAhB,C;QACf,kBAAI,aAAI,GAAJ,EAAS,QAAT,C;QACK,wBAAT,
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O,I;K;qFAGmB,Y;MAAQ,OAAA,kBAAI,K;K;6CAE1C,Y;MACI,IAAI,yBAAJ,C;QAAgB,MAAM,oC;K;;IAnG1
B,mC;MAAA,uD;MAGuB,qB;MA9J3B,yB;MA+JQ,sBAAM,gB;MAJV,Y;K;IAOA,iD;MAAA,uD;MAAoD,qB;M
AlKxD,yB;MAoKc,Q;MAAN,sBAAM,+D;MAFV,Y;K;IAKA,kE;MAAA,uD;MAQ8D,eAAM,eAAN,EAAuB,UA
AvB,Q;MA/KlE,yB;MAgLQ,sBAAM,gB;MATV,Y;K;IAYA,sD;MAAA,uD;MAA2C,qBAAK,eAAL,EAAsB,GA
AtB,Q;MAA3C,Y;K;IAEA,+C;MAAA,uD;MAG2C,qB;MAxL/C,yB;MAyLQ,sBAAM,gB;MACN,KAAK,gBAAO
,QAAP,C;MALT,Y;K;IA6EJ,kC;MAKwD,gBAA7C,qBAAyB,eAAzB,C;MAAqD,wB;MAA5D,O/EjMO,S;K;;;oC
gFvCP,Y;MAEK,Q;MAA8B,CAA9B,2EAA8B,S;MAC/B,OAAO,I;K;6CAGX,Y;MAA+C,gBAAI,iB;K;;IAhCnD,
wC;MAAA,uD;MAAmD,eAAM,GAAN,Q;MAPvD,yB;MAOI,Y;K;IAEA,qC;MAAA,uD;MAGuB,eAAM,oBAAN
,Q;MAZ3B,yB;MASI,Y;K;IAKA,+C;MAAA,uD;MAG8C,eAAM,oBAAN,Q;MAjBlD,yB;MAkBQ,qBAAO,QAA
P,C;MAJJ,Y;K;IAOA,kE;MAAA,uD;MAQ8D,eAAM,qBAAsB,eAAtB,EAAuC,UAAvC,CAAN,Q;MA7BlE,yB;M
AqBI,Y;K;IAUA,sD;MAAA,uD;MAA2C,qBAAK,eAAL,EAAsB,GAAtB,Q;MAA3C,Y;K;IAgBJ,qC;MAKmD,gB
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ACI,Y;MACI,mBAAM,IAAN,C;K;2CAGJ,mB;MACI,mBAAM,OAAN,C;MACA,c;K;iCAKJ,Y;K;;IAKuB,oC;M
AA8B,qB;MAA7B,gC;K;2CACxB,mB;MAEI,oBA+DyC,OA/Dd,OA+Dc,C;MA9DzC,iBAAa,OAAM,aAAN,C;K;
;IAIrB,8B;MAEoC,qB;K;iDAChC,mB;MACI,OAAQ,KAAI,OAAJ,C;K;mDAGZ,mB;MACI,OAAQ,KAAI,OAAJ,
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CR,cAAS,E;K;;;IAWjB,yB;MACiD,cAAa,KAAb,C;K;IAEjD,mB;MAEI,MAAO,U;K;IAGX,4B;MAEI,MAAO,iB
AAQ,OAAR,C;K;IAGX,wB;MAEI,MAAO,eAAM,OAAN,C;K;IAGX,kB;MACqC,MAAM,qCAA8B,sCAA9B,C;
K;IAE3C,wB;MAC4C,MAAM,qCAA8B,4CAA9B,C;K;IClGlD,mD;MACI,0B;MASA,gBAA2B,a;K;2FAFvB,Y;M

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WAEzB,YAAQ,yBAAR,C;QACI,gBAAc,yC;QACd,eAAS,oBAAW,MAAX,C;;QAEL,MAAM,6BAAsB,iBAAtB,
C;K;4CAItB,Y;MAOW,Q;MALP,IAAI,kBAAW,2CAAf,C;QACI,gBAAS,yB;QACT,OAAO,yB;;MAEX,aAAa,IA
AK,S;MAEd,eAAW,yCAAX,C;QAAsB,gC;WACtB,0C;QAA4B,MAAM,MAAO,U;;QACjC,a;MAHZ,W;K;;IA7B
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F3B,iC;MAEI,Y;K;IACA,sD;MAAA,+D;MAAuC,6BAAM,OAAN,Q;MAH3C,iC;MAGI,Y;K;IACA,6D;MAAA,+
D;MAAmD,kCAAM,OAAN,EAAe,KAAf,C;MAJvD,iC;MAII,Y;K;IACA,oD;MAAA,+D;MAAiC,6BAAM,KAA
N,Q;MALrC,iC;MAKI,Y;K;IxC4CJ,yE;MASI,sC;MAAA,4C;K;IATJ,iGAWY,Y;MAAQ,2B;KAXpB,E;IAAA,0D
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;K;8CAGJ,Y;MAAyC,iCAAuB,cAAvB,M;K;;ICCO,6C;MAAA,8B;MAAS,uB;K;8FAClC,Y;MAAQ,OAAA,gBA
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AIsE,OAAK,S;K;kFAE3E,qB;MAMyE,gB;K;IAEzE,6B;MAiBa,UAPF,M;MAFP,QAAc,S;MAGV,cAAK,UAAL,
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AA,gC;MAAA,yD;MAAA,sC;QAQI,OAAK,qBAAL,SAAK,iB;O;KART,C;ICPI,2B;MAAS,Q;MAAD,OAAwB,C
AAvB,iEAAuB,Q;K;IAMhC,+B;MAAQ,iBAAU,SAAV,C;K;;;;;;;ICtB+B,4B;MACvC,8B;K;gEAAA,Y;MAAA,4B
;K;2FAII,Y;MzGO4B,MAAM,yB;K;kCyGLtC,iB;MACI,OAAO,oCAA0B,oBAAU,KAAM,OAAhB,C;K;oCAGrC
,Y;MAC+B,gB;MAAA,8FAA0B,C;K;oCAEzD,Y;MAEI,OAAO,oBAAQ,eAAR,C;K;;IAIyB,kC;MAAuB,sBAAc,
MAAd,C;MACL,Q;MAAtD,4BAAmC,CAAmB,OAAZ,MAAY,WAAnB,kC;K;8FAAnC,Y;MAAA,gC;K;oDAEA,
iB;MACW,cAAgB,W;MAAvB,OjEoEuD,MAAa,QiEpEpD,KjEoEoD,EAAY,OAAZ,C;K;;IiEhEjC,0E;MAIvC,sB
AAc,MAAd,C;MAFA,wC;MACA,8C;K;2CAEA,iB;MACI,IAAI,0CAAJ,C;QAAsC,OAAO,K;MAC7C,OAAa,uC
AAO,KAAP,CAAN,IAAuB,+BAAmB,KAAM,kBAAzB,C;K;iGAGD,Y;MAAQ,6B;K;uDAEzC,iB;MACI,OAAO,
0BAAmB,KAAnB,C;K;;IAIf,6B;MAAA,iC;MAAoC,sBAAoB,MAApB,C;MAChC,4BAAkC,S;K;+FAAlC,Y;MA
AA,gC;K;qDAEA,iB;MAAgD,Y;K;2FAG5C,Y;MAAQ,MAAM,qCAA8B,6CAA9B,C;K;yCAElB,iB;MAA4C,iBA
AU,I;K;2CAEtD,Y;MAA+B,Q;K;;;IAVnC,yC;MAAA,wC;QAAA,uB;;MAAA,iC;K;IAaA,uB;K;yFACqC,Y;M5G
0EY,MAAM,6B4G1EJ,oC5G0EkC,WAA9B,C;K;4F4GzEf,Y;M5GyES,MAAM,6B4GzED,uC5GyE+B,WAA9B,C
;K;+C4GvEnD,iB;M5GuE6C,MAAM,6B4GvEG,uC5GuE2B,WAA9B,C;K;mC4GrEnD,iB;MAA4C,iBAAU,I;K;q
CAEtD,Y;MAA+B,Q;K;;oHCnE/B,qB;MAAQ,2B;K;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;ICKZ,gE;MAMI,qBAAU,UAAV,EAAg
C,OAAV,WAAU,CAAhC,EAA0C,gBAA1C,C;K;IAEJ,8B;MAC2C,iC;K;IAE3C,kC;MAC+C,qBAAU,cAAA,KA
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MAEI,OAAA,uCAAgB,uBAAc,IAAd,C;K;IC/CI,8D;MACpB,sC;MACA,sC;MACA,kD;K;mEAFA,Y;MAAA,gC;
K;kEACA,Y;MAAA,+B;K;yEACA,Y;MAAA,sC;K;iCAEA,iB;MACI,0CACQ,wBAAc,KAAM,WAApB,CADR,I
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C,I;MACxC,2BAAgD,W;MAChD,kCAAyC,K;K;0FAFzC,Y;MAAA,gC;K;yFACA,Y;MAAA,+B;K;gGACA,Y;M
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ACA,wC;MACA,kC;MACA,oC;K;sEAHA,Y;MAAA,0B;K;6EACA,Y;MAAA,iC;K;0EACA,Y;MAAA,8B;K;2EA
CA,Y;MAAA,+B;K;4CAEA,Y;MAAkC,gB;K;;8CANtC,Y;MACI,gB;K;8CADJ,Y;MAEI,uB;K;8CAFJ,Y;MAGI,o
B;K;8CAHJ,Y;MAII,qB;K;gDAJJ,kD;MAAA,8BACI,kCADJ,EAEI,uDAFJ,EAGI,8CAHJ,EAII,iDAJJ,C;K;4CAA
A,Y;MAAA,c;MACI,qD;MACA,4D;MACA,yD;MACA,0D;MAJJ,a;K;0CAAA,iB;MAAA,4IACI,oCADJ,IAEI,kD
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E,gCAApE,C;MAEf,mBACkB,wBAAoB,MAApB,EAAgE,QAAhE,EAA0E,mCAA1E,C;MAElB,oBACmB,+B;M
AEnB,oBACmB,wBAAoB,OAApB,EAAkE,SAAlE,EAA6E,oCAA7E,C;MAEnB,iBACgB,wBAAoB,MAApB,EA
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EjB,gBACe,wBAAoB,MAApB,EAA6D,KAA7D,EAAoE,gCAApE,C;MAEf,kBACiB,wBAAoB,MAApB,EAA+D,
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F,wCAA1F,C;K;IAMkB,qE;MAAA,qB;QAAE,OvE/DD,OuE+DU,EAAT,KAAiB,UAAjB,IAAkC,EAAY,OAAf,K
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,a;;QACH,aAAa,wBAAoB,QAApB,EAA+D,kBAA/D,EACoB,mDADpB,C;QAEG,eAAhB,UAAqC,M;QAHlC,SA
IH,M;;MAJJ,a;K;IA7D+E,8C;MAAE,6B;K;IAGO,iD;MAAE,0B;K;IAME,kD;MAAE,8B;K;IAGZ,+C;MAAE,6B;
K;IAGC,gD;MAAE,6B;K;IAGR,8C;MAAE,6B;K;IAGI,gD;MAAE,6B;K;IAGC,iD;MAAE,6B;K;IAGH,gD;MAA
E,yB;K;IAGD,iD;MAAE,6B;K;IAGM,oD;MAAE,mC;K;IAGO,uD;MAAE,gC;K;IAGL,oD;MAAE,6B;K;IAGJ,oD
;MAAE,6B;K;IAGE,qD;MAAE,8B;K;IAGR,mD;MAAE,4B;K;IAGJ,oD;MAAE,6B;K;IAGQ,qD;MAAE,8B;K;IA
GC,sD;MAAE,+B;K;;;IA5DvH,wC;MAAA,uC;QAAA,sB;;MAAA,gC;K;;ICCA,2B;MAEW,Q;MAAA,IAAI,KAA
Y,SAAQ,MAAR,CAAhB,C;QACH,kBAAW,MAAX,C;;QAEA,kBAAW,MAAX,C;;MAHJ,W;K;IAOJ,8B;MAC4
E,QAAM,QAAS,OAAf,C;aACxE,C;UADwE,OACnE,WAAW,SAAS,CAAT,CAAX,C;aACL,C;UAFwE,OAEnE,+
B;;UAFmE,OAGhE,iB;;K;IAGZ,oC;MAEU,IAAN,I;MAAA,QxEhB0C,OwEgB3B,CAAf,C;aACI,Q;UAA6B,OAA
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,OAAjB,8BAAiB,e;eACnC,0B;YAAmC,OAAjB,8BAAiB,e;eACnC,2B;YAAoC,OAAjB,8BAAiB,gB;eACpC,yB;
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gBAAJ,C;QACH,IAAI,QAAS,SAAT,QAAJ,C;UACI,aAAa,qBAAiB,MAAjB,C;UACb,oBAAsB,M;UACtB,a;;UA
ES,OAAT,QAAS,S;;;QAGb,4BAAiB,MAAjB,C;;MATJ,W;K;ICrCJ,0B;MAII,sBAAY,C;K;qEAchB,4B;MAIkE,iB
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;MAAA,iB;QAAe,MAAM,6BAAsB,0CAAtB,C;;MAApC,eAAe,I;MACf,qBAAc,I;MACd,OAAO,QAAS,W;K;;;;;I
CLa,kD;MADrC,e;MACsC,0B;MAAyB,gB;MAD/D,iB;MAAA,uB;K;IAAA,mC;MAAA,sC;O;MAEI,qEAGW,CA
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,qD;MAAA,yB;MAAA,6C;K;;IAKA,qD;MAAA,yB;MAAA,6C;K;;IAKA,oD;MAAA,yB;MAAA,4C;K;;IAKA,iD;
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D,2C;uBAA+B,O;;K;;IAC5E,8C;MAAA,kE;MAAuB,qCAAK,IAAL,C;MAAvB,Y;K;ICD8B,gC;MAe9B,gBAAiC
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AAP,U;UACX,IAAS,gBAAL,IAAK,CAAT,C;YACI,WAAW,+BAAW,iBAAX,wBAAkB,gBAAlB,C;;YAEX,WA
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B,C;;MAGP,OAAO,EAAG,W;K;2CAGd,8B;MA0BgB,Q;MALZ,IAAI,CAAa,YAAZ,WAAY,EAAS,EAAT,CAAb
,IAA+B,CAAa,YAAZ,WAAY,EAAS,EAAT,CAAhD,C;QACI,uBAA+B,QAAR,YAAQ,EAAQ,GAAR,C;QAC/B,
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gD;MACkB,UAMP,M;MANO,IAAI,aAAY,CAAhB,C;QACV,Y;;QAEA,UxBsY8C,MAAW,KwBtY/C,IxBsY+C,
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W,KwBzU1C,OxByU0C,CwBzU9C,GAAe,MAAnB,C;QAEmC,SAA9B,OAAY,SAAQ,QAAR,C;;QAGpB,exBoU
0C,MAAW,KwBpUlC,OxBoUkC,C;QwBnUrD,qBAA8B,QAAY,axBgRC,MAAW,MAvCV,MAAW,OwBzOU,Qx
ByOV,CAuCD,CwBhRA,GAAwB,QAApC,C;QAC1C,SAAI,UAAU,CAAd,GAAiB,MAAG,cAApB,GAAyC,c;;M
AP7C,a;K;IAWJ,6C;MACI,OAAa,KAAY,gBAAe,OAAf,EAAwB,MAAK,4BAA2B,QAA3B,CAAL,EAAxB,C;K;I
CtBQ,4C;MAFrC,e;MAEsC,0B;MAFtC,iB;MAAA,uB;K;IAAA,mC;MAAA,sC;O;MAGI,uEAGY,GAHZ,C;MAIA
,yEAGa,MAHb,C;MAIA,yEAGa,SAHb,C;MAIA,+DAGQ,KAHR,C;MAIA,+DAGQ,MAHR,C;MAIA,2DAGM,M
AHN,C;MAIA,yDAGK,OAHL,C;K;;IAxBA,gD;MAAA,yB;MAAA,wC;K;;IAIA,iD;MAAA,yB;MAAA,yC;K;;IAI
A,iD;MAAA,yB;MAAA,yC;K;;IAIA,4C;MAAA,yB;MAAA,oC;K;;IAIA,4C;MAAA,yB;MAAA,oC;K;;IAIA,0C;
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B,E;UAA2B,a;aAC3B,uBAAQ,CAAR,C;;;;aAIR,0BAAsB,CAAtB,C;QAA2B,iBAA8C,uBAArC,UAAW,cAAX,G
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C;K;;qCAH5D,Y;MAAmC,mD;K;sCAMnC,Y;MAAkC,qC;K;;IAKF,4C;MAAiC,4E;MAAhC,8B;K;2CACjC,Y;M
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,OAAe,U;K;2CAC7C,Y;MAAkC,+B;K;;;IAJtC,yC;MAAA,wC;QAAA,uB;;MAAA,iC;K;IC1CA,gD;MAQ+B,kBA
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D,8B;MAAA,OCGN,aDHwB,yBAAa,QAAb,mCCGxB,ChH+xBgC,sB;K;I+GhyB5E,2C;MhJggIW,kBAAY,gB;M
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IhNzD,C;Q/GgKuC,U;Q+G/JnC,qB/G+JyD,OAAtB,+B+G/Jd,mB/G+Jc,uBAAsB,CAAO,W;QuGkO7C,kBAAhB,s
B;QQ/XC,0C;QACA,IAAI,E/G8QoC,0BAAU,C+G9Q9C,CAAJ,C;UACI,2BAAO,GAAP,C;;QAEW,sCAAa,GAA
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e,O;MACf,EAAE,WAAF,IAAiB,S;MACjB,EAAE,oBAAF,IAA0B,kB;MAC1B,EAAE,uBAAF,IAA6B,qB;MAC7
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ClB,EAAE,UAAF,IAAgB,Q;MAChB,OAAO,C;K;6EA6CX,4B;MAE6D,iBAAY,KAAZ,C;K;6EAE7D,mC;MAEo
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B,c;MACtB,EAAE,eAAF,IAAqB,a;MACrB,EAAE,iBAAF,IAAuB,e;MACvB,EAAE,oBAAF,IAA0B,kB;MAC1B,

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C;K;mDAE5C,iB;MAI4D,yBAAgB,IAAhB,EAAsB,KAAtB,C;K;;IC/BhE,8B;MAAA,e;MAAA,iB;MAAA,uB;K;I
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B,IAAI,mB9K+qPD,YAAQ,C8K/qPX,C;QAA2B,sBAAc,qD;MAN7C,Y;K;IC5BJ,4B;MAMoB,Q;M/KghqBA,U;
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ohqBN,G+KphqBM,C;MACb,wBAAgB,SAAhB,gB;QAAgB,gBAAA,SAAhB,M;QACW,SAAP,MAAO,EAAO,S
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BAfE,OAeF,c;UAAmB,MAAO,gBAAe,kBAAR,OAAQ,CAAf,C;;UAEP,MAAO,gBAAO,OAAQ,WAAf,C;;MAIl
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B;MAApB,kB;K;IAEJ,kC;MAOI,Q;MAAA,IAAI,SAAK,UAAT,C;QAAA,OAAoB,MAAM,IAAN,C;;QAAqC,kB
AApB,qBAAc,SAAd,C;QAA4B,wBAAS,UAAT,EAAqB,WAArB,C;QAAjE,OUhiBO,W;;MVgiBP,W;K;IAEJ,mC
;MAOI,Q;MAAA,IAAI,SAAK,UAAT,C;QAAA,OAA0B,MAAN,KAAM,C;;QAAiC,kBAApB,qBAAc,SAAd,C;Q
AA4B,4B;QAAnE,OUziBO,W;;MVyiBP,W;K;IAEJ,mC;MAOI,Q;MAAA,IAAI,SAAK,UAAT,C;QAAA,OAA0B,
QAAN,KAAM,C;;QAAiC,kBAApB,qBAAc,SAAd,C;QAA4B,0B;QAAnE,OUljBO,W;;MVkjBP,W;K;IAEJ,mC;M
AOwB,kBAApB,qBAAc,SAAd,C;MAA4B,4B;MAA5B,OAA4C,oBU3jBrC,WV2jBqC,C;K;IAEhD,iC;MAOwB,k
BAApB,qBAAc,SAAd,C;MAA4B,+B;MAA5B,OUpkBO,W;K;0FVukBX,2B;MAKI,sBAAI,IAAK,MAAT,EAAg
B,IAAK,OAArB,C;K;4FAGJ,yB;MAAA,gD;MAAA,mC;QAKI,kBAAO,KAAP,C;O;KALJ,C;4FAQA,yB;MAAA,
gD;MAAA,mC;QAKI,kBAAO,KAAP,C;O;KALJ,C;4FAQA,yB;MAAA,gD;MAAA,mC;QAKI,kBAAO,KAAP,C;
O;KALJ,C;4FAQA,0B;MAKI,yBAAO,GAAP,C;K;IAGJ,kC;MAOwB,kBAAf,aAAL,SAAK,C;MAsCL,6B;MAtC
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AK,O;MApCV,OAAgD,oBU1oBzC,WV0oByC,C;K;IAEpD,mC;MAQwB,kBAAf,aAAL,SAAK,C;MAmCK,YAA
L,gBAAK,O;MAnCV,OAAgD,oBUppBzC,WVopByC,C;K;4FAEpD,0B;MAMI,uBAAO,GAAP,C;K;8FAGJ,yB;
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C;UAFkD,gB;;UAAA,OAG1C,S;;K;oF6KtwBZ,yB;MAAA,8D;MAAA,8B;MAAA,qC;QAUiC,Q;QAA7B,OAA2
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B,OAA2D,CAA9B,sEAA8B,oBAAU,QAAV,C;O;KAT/D,C;wFAWA,yB;MAAA,8D;MAAA,8B;MAAA,sC;QASi
C,Q;QAA7B,OAA2D,CAA9B,sEAA8B,oBAAU,QAAV,C;O;KAT/D,C;4FAWA,8B;MAKI,SAAK,WAAI,OAAJ,
C;K;4FAGT,yB;MAAA,gD;MAAA,sC;QAKS,OAAL,SAAK,EAAO,QAAP,C;O;KALT,C;4FAQA,yB;MAAA,gD;
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U,QAAV,C;O;KALT,C;8FAQA,yB;MAAA,sD;MAAA,sC;QAKS,UAAL,SAAK,EAAU,QAAV,C;O;KALT,C;IA
QA,qC;MAIU,IAIe,I;MAHjB,kBADE,QACF,c;QAAiB,OAAO,yBAAO,QAAP,C;;QAEpB,aAAsB,K;QACT,0B;Q
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UAAe,SAAS,I;;MAE5B,OAAO,M;K;IAGX,uC;MAII,OAAO,yBAAgB,OAAT,QAAS,CAAhB,C;K;IAGX,0C;MA
IW,iBAAmB,gCAAT,QAAS,EAAgC,SAAhC,C;MAlHG,Q;MAkH7B,OAlH2D,CAA9B,sEAA8B,oBAAU,UAAV,
C;K;IAqH/D,0C;MAII,UAAmB,8BAAT,QAAS,C;MACnB,O9K0EwD,C8K1EjD,G9K0EkD,U8K1ElD,IAAoB,4B
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AO,wB;K;IAGf,kC;MACI,a9KmCwD,CAAC,mB;M8KlCzD,iB;MACA,OAAO,M;K;IAIX,2C;MAKkF,gCAAc,S
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rB,OAAmE,2BAAS,2BAAT,C;K;IAEnH,qC;MAKuD,OAAI,mBAAJ,GAAe,IAAf,GAAyB,2BAAS,2BAAT,C;K;I
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K,UAAL,EAAmB,OAAnB,C;QAEJ,+B;;MAEJ,IAAI,aAAa,cAAjB,C;QACwB,oC;QAAiB,mB;QAArC,oE;UACI,
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Q,OAAA,eAAS,K;K;iDACxC,iB;MAAkC,mCAAS,0BAAoB,KAApB,CAAT,C;K;;IAGT,gC;MAAyC,8B;MAAx
C,0B;K;oFACH,Y;MAAQ,OAAA,eAAS,K;K;yCACxC,iB;MAAkC,mCAAS,0BAAoB,KAApB,CAAT,C;K;mCA
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,I;;QAAkB,MAAM,8BAA0B,oBAAiB,KAAjB,2BAA2C,gBAAG,cAAH,CAA3C,OAA1B,C;K;IAGlD,+B;MAK+
C,gCAAqB,SAArB,C;K;IAE/C,iC;MAM6D,wBAAa,SAAb,C;K;;;;IxKpC7D,oD;MAQuF,wC;K;IARvF,8CASI,Y;
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1B,OAAO,Q;K;8FAGX,yB;MAAA,kD;MAAA,gC;QAGkI,gBAAS,aAAT,C;O;KAHlI,C;IAgB0C,yB;K;+CAoBtC,
kC;MAOI,IAAI,uCAA0B,QAAS,UAAvC,C;QAAkD,M;MAClD,OAAO,sBAAS,QAAS,WAAlB,e;K;+CAGX,kC;
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5B,sBAAyC,I;MACzC,gBAAoC,I;K;gDAEpC,Y;MACI,OAAO,IAAP,C;QACI,QAAM,YAAN,C;eACI,C;YAAA,
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,QAAM,YAAN,C;aACI,C;aAAA,C;UAAsC,OAAO,qB;aAC7C,C;UACI,eAAQ,C;UACR,OAAO,kCAAe,O;aAE1
B,C;UACI,eAAQ,C;UACR,aACa,mF;UACb,mBAAY,I;UACZ,OAAO,M;;UAEH,MAAM,yB;;K;uDAItB,Y;MACI
,IAAI,CAAC,cAAL,C;QAAgB,MAAM,6B;;QAA8B,OAAO,W;K;2DAG/D,Y;MAA4C,QAAM,YAAN,C;aACxC,
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,eAAQ,C;MACR,OAA6C,0CAAtC,c;K;IAUsC,+E;MAAA,oB;QACzC,wCAAW,C;QAAX,OACA,yB;O;K;yDAN
R,kC;MACI,IAAI,CAAC,QAAS,UAAd,C;QAAyB,M;MACzB,sBAAe,Q;MACf,eAAQ,C;MACR,OAA6C,6CAAt
C,c;K;2DAMX,kB;M1HjBO,Q;MADP,e0HoBI,M1HpBJ,C;MACO,Q0HmBH,M1HnBG,+D;M0HoBH,eAAQ,C;K
;kGAIR,Y;MAAQ,0C;K;;IzK1LhB,oD;MAQuF,wC;K;IARvF,8CASI,Y;MAAuC,8B;K;IAT3C,gF;sFAAA,yB;MA
AA,kC;MAAA,0C;MAAA,kD;QAQuF,wC;O;MARvF,4CASI,Y;QAAuC,8B;O;MAT3C,8E;MAAA,2B;QAQuF,2
C;O;KARvF,C;IAiBgE,+C;MAAA,mB;QAAE,sB;O;K;IALlE,kC;MAKuD,OAAkB,2CAAT,+BAAS,E;K;IAEzE,8
B;MAK6D,OAAI,Qb2rPtD,YAAQ,Ca3rP0C,GAAwB,eAAxB,GAAsD,WAAT,QAAS,C;K;IAEnH,yB;MAG8C,kC

;K;IAE9C,yB;MAAA,6B;K;uCACI,Y;MAA6C,kC;K;2CAC7C,a;MAA4B,kC;K;2CAC5B,a;MAA4B,kC;K;;;IAHh
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A,Q;;gBAEA,gB;gCAAA,sCAAS,iCAAT,O;oBAAA,2C;yBAAA,yB;gBAAA,Q;;;;;;cAJJ,W;;cAAA,W;;;;;;;;;;;;;;;;
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,KAAT,C;K;IAGX,+B;MAQqD,6BAAS,4BAAT,C;K;IAW0B,+G;MAAA,wC;MAAA,6B;MAAA,yB;MAAA,0C;
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;MACJ,OAAO,mBAAa,C;K;;2CAhC5B,Y;MAAuC,yD;K;;IA2C3C,qD;MAAY,0B;MAAmC,gC;K;IACJ,gF;MAA
A,0D;MACnC,gBAAe,oCAAS,W;K;iEACxB,Y;MACI,OAAO,6CAAY,aAAS,OAArB,C;K;oEAGX,Y;MACI,OA
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B,Y;MAAqD,wD;K;;IAmBzD,0D;MACI,4B;MACA,4B;MACA,4B;K;IAEuC,sE;MAAA,gD;MACnC,iBAAgB,gC
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C,C;K;+DAGX,Y;MACI,OAAO,cAAU,UAAV,IAAuB,cAAU,U;K;;yCARhD,Y;MAAuC,uD;K;;IAc3C,6D;MACI,
0B;MACA,gC;MACA,0B;K;IAEuC,4E;MAAA,sD;MACnC,gBAAe,kCAAS,W;MACxB,oBAAiC,I;K;+DAEjC,Y;
MACI,IAAI,CAAC,2BAAL,C;QACI,MAAM,6B;MACV,OAAO,gCAAe,O;K;kEAG1B,Y;MACI,OAAO,2B;K;+E
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,OA/Ed,UAAW,SAAQ,SA+EW,CA/EX,CAAR,EAAqB,SA+EC,CA/ED,CAArB,C;S;O;MAqEtB,uC;QAUI,sBAA
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ArE,OAjIG,cAAc,SAiI8C,CAjI9C,CAAd,EAA2B,SAiIoC,CAjIpC,CAA3B,C;;YAgIH,W;W;S;OADO,C;MARf,sC
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B;YAAtB,eAAkC,gB;YAAjF,OAlIG,UAAW,SAAQ,SAkIyC,CAlIzC,CAAR,EAAqB,SAkI+B,CAlI/B,CAArB,C;;
UAiId,W;S;O;MATR,kD;QAQI,sBAAW,wDAAX,C;O;KARJ,C;kGAcA,yB;MAAA,oC;MAOe,wE;QAAA,uB;UA
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A+C,kBAAW,SAAQ,CAAR,EAAW,CAAX,C;O;K;IATlE,+C;MAOI,sBAAc,4CAAd,C;K;IAaW,+C;MAAA,uB;Q
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W,SAAQ,CAAR,EAAW,CAAX,C;O;K;IAZ/B,gC;MAOI,sBAAW,6BAAX,C;K;4FASJ,yB;MAAA,4D;MAAA,w
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;K;IAZ/B,+B;MAOI,sBAAW,4BAAX,C;K;0FASJ,yB;MAAA,4D;MAAA,sD;MAAA,mB;QAOoE,iBAAU,cAAV,
C;O;KAPpE,C;IASA,wB;MAK4F,Q;MAA7B,OAA6B,4F;K;IAE5F,wB;MAK4F,Q;MAA7B,OAA6B,4F;K;IAE5F,
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E3D,wC;QAFqD,OAEE,4F;WACvD,WAH2D,SAG3D,wC;QAHqD,OAGE,gG;;QAHF,OAI7C,uBAAmB,SAAnB,
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MgD,OAtDI,WAAW,IAAX,EAsDA,KAtDA,C;O;KAgDpD,C;kGAOA,yB;MAkKA,kBAS6D,sB;MAT7D,+B;Mg
BxNA,8C;MhBsDA,wB;QAMkD,OgB1DI,YhB+NjB,eAAW,oBAAL,SAAK,CAAL,iBAAN,CgB/NiB,EhB0DoB,
KgB1DpB,C;O;KhBoDtD,C;wFAQA,yB;MD4HA,6B;MCxKA,kD;MDuOJ,0B;MAAA,+B;MC3LI,wB;QAQ6C,O
D8LR,eAAW,OC5OI,cAAc,IAAd,ED2KjB,cC7HmB,KD6HT,KAAL,GAAiB,GAAtB,CC3KiB,CAkLf,KD0DW,C
AAX,C;O;KCtMrC,C;wFASA,yB;MCoHA,6B;MDzKA,kD;MCwOJ,4B;MAAA,iC;MDnLI,wB;QAQ+C,OCsLR,g
BAAY,QD7OC,cAAc,IAAd,EC4KjB,cDrHqB,KCqHX,KAAL,GAAiB,KAAtB,CD5KiB,CA4Lb,KCiDY,CAAZ,C;
O;KD9LvC,C;wFASA,yB;MA9DA,kD;MA8DA,wB;QAQ2C,OAhES,cAAc,IAAd,EAgEL,KAhEK,C;O;KAwDpD
,C;wFASA,yB;MA+HA,kBAS6D,sB;MAT7D,+B;MgB/LA,oD;MhBgEA,wB;QAQ6C,OgBlES,ehBkMjB,eAAW,o
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AV,C;O;KANzC,C;gGAQA,yB;MAAA,8C;MAAA,wB;QAE6D,0BAAU,IAAV,EAAgB,KAAhB,C;O;KAF7D,C;
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2B;QAOmD,qBAAK,cAAU,QAAf,C;O;KAPnD,C;wFASA,yB;MAAA,6B;MAAA,wB;QAEiD,qBAAK,IAAK,KA
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EAIA,yB;MAAA,0B;MAAA,mB;QAUmC,OAAK,OAAL,SAAK,C;O;KAVxC,C;gFAWA,yB;MAAA,4B;MAAA,
mB;QAUqC,OAAK,QAAL,SAAK,C;O;KAV1C,C;4EAWA,Y;MASiC,gB;K;8EACjC,yB;MAAA,kBASqD,sB;MA
TrD,mB;QASmC,OAAK,oBAAL,SAAK,CAAL,iB;O;KATnC,C;gFAWA,yB;MDwDJ,0B;MAAA,+B;MCxDI,mB;
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BAS6D,sB;MAT7D,+B;MAAA,mB;QASqC,sBAAW,oBAAL,SAAK,CAAL,iBAAN,C;O;KATrC,C;gFAWA,yB;
MASA,gD;MATA,mB;QAQqC,OAOE,aAAa,SAAb,C;O;KAfvC,C;kFASA,yB;MAAA,gD;MAAA,mB;QAMuC,o
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AAA,c;MAG2D,qD;MAH3D,a;K;4BAAA,iB;MAAA,2IAG2D,oCAH3D,G;K;sEAoWA,yB;MAAA,6B;MAAA,4B
;QAWwC,qBAAU,SAAV,C;O;KAXxC,C;wEAYA,yB;MAAA,6B;MAAA,4B;QAWyC,qBAAU,SAAV,C;O;KAX
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,4B;QAWwC,qBAAK,SAAK,QAAV,C;O;KAXxC,C;uEAaA,yB;MAAA,gD;MAAA,4B;QASyC,oBAAkB,SAAlB,
C;O;KATzC,C;wEAUA,yB;MAAA,gD;MAAA,4B;QAS0C,oBAAa,SAAb,C;O;KAT1C,C;IgC3ZA,4B;MACqB,sB
;K;sCAKjB,iB;MAM4C,OhCuXT,SgCvXS,aAAQ,KAAR,ChCuXT,C;K;sCgCrXnC,wB;MAOI,aAAQ,KAAR,IAA
iB,KhCyQY,K;K;iFgCrQH,Y;MAAQ,OAAA,YAAQ,O;K;mCAE9C,Y;MAC6E,8BAAS,YAAT,C;K;IAGvD,mC;
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C;;QgCjWgD,MAAM,2BAAuB,YAAM,WAA7B,C;K;;yCAGzF,mB;MAIS,Q;MAAL,IAAI,eAAC,0EAAD,OAAJ,
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2B,gBAA3B,gE;MAA2B,c;;Qf0nDvB,U;QADhB,IAAI,wCAAsB,mBAA1B,C;UAAqC,aAAO,I;UAAP,e;;QACrB,
6B;QAAhB,OAAgB,gBAAhB,C;UAAgB,2B;Ue1nD6B,2Bf0nDR,Oe1nDQ,O;UAAA,W;YAAsB,oBAAR,YAAQ,
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,iB;K;kCAGJ,Y;MAAkC,OAAA,IAAK,QAAQ,OAAb,KAAqB,C;K;;IA/CvD,qC;MAAA,mD;MACgC,sBAAK,eA
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,C;O;KAXX,C;gFAcA,oB;MAGkE,e;K;I6LnE5C,wC;MAsBlB,iC;MAtBsD,2BAAgB,KAAhB,EAAuB,YAAvB,E
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A0B,4BAAK,UAA/B,C;K;;;IAFlC,2C;MAAA,0C;QAAA,yB;;MAAA,mC;K;;IAYJ,oD;MA4CI,uC;MAtCI,IAAI,S
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GuB,I;K;yCAEvB,Y;MAAgD,mCAAwB,UAAxB,EAA+B,SAA/B,EAAqC,SAArC,C;K;wCAEhD,Y;MAMqC,OA
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K;IAEhF,qC;MAAA,yC;K;kEACI,sC;MAQ2F,2BAAgB,UAAhB,EAA4B,QAA5B,EAAsC,IAAtC,C;K;;;IAT/F,iD;
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C,S6NkD7C,W7NlDuD,KAAK,G6NkDpD,W7NlD+D,KAAX,IAAf,C;;M6NoDjD,OAAO,K;K;;IC3Hf,yB;K;mCA
II,Y;MAA4B,uB;K;;IAMhC,0B;K;oCAII,Y;MAA4B,wB;K;;IAMhC,wB;K;kCAII,Y;MAA4B,sB;K;;IAMhC,yB;K;
mCAII,Y;MAA4B,uB;K;;I9M5BP,qB;MAErB,6B;MAFwD,gB;K;IAExD,2B;MAAA,+B;MACI,iBAGoC,a;MAEp
C,iBAGoC,c;MAEpC,kBAGmC,C;MAEnC,iBAGkC,E;K;;;IAnBtC,uC;MAAA,sC;QAAA,qB;;MAAA,+B;K;sGAs
BA,yB;MjBqRA,WAS6D,wB;MAT7D,+B;MiB7PA,gD;MAxBA,wB;QAM0D,OAyBS,aAAa,IAAK,KAAlB,EAA
8B,CjB+P5D,eAAW,oBiBxRyB,KjBwR9B,KAAK,CAAL,UAAN,CiB/P4D,MAA9B,C;O;KA/BnE,C;sGAQA,yB;
Mf8QA,aAS6D,0B;MAT7D,+B;Me9PA,gD;MAhBA,wB;QAM2D,OAiBQ,aAAa,IAAK,KAAlB,EAA8B,CfgQ5D,
eAAW,oBejR0B,KfiR/B,KAAK,CAAL,YAAN,CehQ4D,MAA9B,C;O;KAvBnE,C;sGAQA,yB;MhByRA,kBAS6D
,sB;MAT7D,+B;MgBjRA,gD;MARA,wB;QAMyD,OASU,aAAa,IAAK,KAAlB,EAA8B,ChBmR5D,eAAW,oBgB5
RwB,KhB4R7B,KAAK,CAAL,iBAAN,CgBnR4D,MAA9B,C;O;KAfnE,C;kGAQA,yB;MAAA,gD;MAAA,wB;Q
AOmE,oBAAa,IAAK,KAAlB,EAAwB,KAAM,KAA9B,C;O;KAPnE,C;4FASA,yB;MjBoPA,WAS6D,wB;MAT7D
,+B;MiBpPA,wB;QAEuD,OASA,eAAM,IAAK,KAAK,KAAW,CjBkP7C,eAAW,oBiB3PiB,KjB2PtB,KAAK,CAA
L,UAAN,CiBlP6C,MAAX,CAAhB,C;O;KAXvD,C;4FAGA,yB;MfkPA,aAS6D,0B;MAT7D,+B;MelPA,wB;QAE
wD,OAMD,eAAM,IAAK,KAAK,KAAW,CfmP7C,eAAW,oBezPkB,KfyPvB,KAAK,CAAL,YAAN,CenP6C,MA
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C;O;KALvD,C;4FAGA,yB;MAAA,+B;MAAA,wB;QAEuD,sBAAM,IAAK,KAAK,KAAK,KAAM,KAAX,CAAh
B,C;O;KAFvD,C;8FAIA,yB;MjBuOA,WAS6D,wB;MAT7D,+B;MiBvOA,wB;QAEwD,OASA,eAAM,IAAK,KAA
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AS6D,sB;MAT7D,+B;MgBrPA,wB;QAEuD,OAGC,eAAM,IAAK,KAAK,UAAY,ChByP/C,eAAW,oBgB5PkB,Kh

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B4PvB,KAAK,CAAL,iBAAN,CgBzP+C,MAAZ,CAAhB,C;O;KALxD,C;8FAGA,yB;MAAA,+B;MAAA,wB;QA
EwD,sBAAM,IAAK,KAAK,UAAM,KAAM,KAAZ,CAAhB,C;O;KAFxD,C;8FAIA,yB;MjB0NA,WAS6D,wB;M
AT7D,+B;MiB1NA,wB;QAEwD,OASA,eAAM,IAAK,KAAK,UAAY,CjBwN/C,eAAW,oBiBjOmB,KjBiOxB,KA
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A,wB;QAEyD,OAMD,eAAM,IAAK,KAAK,UAAY,CfyN/C,eAAW,oBe/NoB,Kf+NzB,KAAK,CAAL,YAAN,Cez
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,yB;Mf2MA,aAS6D,0B;MAT7D,+B;MerMA,8C;MANA,wB;QAEuD,OAMD,YAAY,IAAZ,Ef4MjB,eAAW,oBel
NgB,KfkNrB,KAAK,CAAL,YAAN,Ce5MiB,C;O;KARtD,C;0FAGA,yB;MhB2NA,kBAS6D,sB;MAT7D,+B;MgB
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,C;0FAIA,yB;MjBgMA,WAS6D,wB;MAT7D,+B;MiB3KA,oD;MArBA,wB;QAMsD,OAqBA,eAAe,IAAf,EjB8Kj
B,eAAW,oBiBnMe,KjBmMpB,KAAK,CAAL,UAAN,CiB9KiB,C;O;KA3BtD,C;0FAOA,yB;Mf0LA,aAS6D,0B;M
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D,wB;MAT7D,+B;MiBpMA,8C;MAiCA,wB;QAMkD,OArCI,YAAY,IAAZ,EjB2MjB,eAAW,oBiBtKgB,KjBsKr
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CA,wB;QAMmD,OA5CG,YAAY,IAAZ,Ef4MjB,eAAW,oBehKiB,KfgKtB,KAAK,CAAL,YAAN,Ce5MiB,C;O;K
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8C;MAsDA,wB;QAMkD,OA1DI,YAAY,IAAZ,EA0DA,KA1DA,C;O;KAoDtD,C;0FAQA,yB;MjBsIA,WAS6D,w
B;MAT7D,+B;MiB3KA,oD;MjB4OJ,0B;MAAA,+B;MiBvMI,wB;QAQ6C,OjB0MP,eAAW,OiBjPK,eAAe,IAAf,E
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,C;O;KgBtNpC,C;0FASA,yB;MAhEA,oD;MAgEA,wB;QAQ6C,OAlES,eAAe,IAAf,EAkEL,KAlEK,C;O;KA0DtD
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1.368 libpng 1.6.38

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1.370 python 2.7.5-92.el7_9

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A. HISTORY OF THE SOFTWARE
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Python was created in the early 1990s by Guido van Rossum at Stichting
Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands
as a successor of a language called ABC. Guido remains Python's
principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for
National Research Initiatives (CNRI, see http://www.cnri.reston.va.us)
in Reston, Virginia where he released several versions of the
software.

In May 2000, Guido and the Python core development team moved to
BeOpen.com to form the BeOpen PythonLabs team. In October of the same
year, the PythonLabs team moved to Digital Creations (now Zope
Corporation, see http://www.zope.com). In 2001, the Python Software
Foundation (PSF, see http://www.python.org/psf/) was formed, a
non-profit organization created specifically to own Python-related
Intellectual Property. Zope Corporation is a sponsoring member

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the PSF.

All Python releases are Open Source (see http://www.opensource.org for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
2.3.1	2.3	2002-2003	PSF	yes
2.3.2	2.3.1	2002-2003	PSF	yes
2.3.3	2.3.2	2002-2003	PSF	yes
2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
2.4.2	2.4.1	2005	PSF	yes
2.4.3	2.4.2	2006	PSF	yes
2.4.4	2.4.3	2006	PSF	yes
2.5	2.4	2006	PSF	yes
2.5.1	2.5	2007	PSF	yes
2.5.2	2.5.1	2008	PSF	yes
2.5.3	2.5.2	2008	PSF	yes
2.6	2.5	2008	PSF	yes
2.6.1	2.6	2008	PSF	yes
2.6.2	2.6.1	2009	PSF	yes
2.6.3	2.6.2	2009	PSF	yes
2.6.4	2.6.3	2009	PSF	yes
2.6.5	2.6.4	2010	PSF	yes
2.7	2.6	2010	PSF	yes

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(2) According to Richard Stallman, 1.6.1 is not GPL-compatible,
because its license has a choice
of law clause. According to
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1.374 device-mapper-multipath 0.4.9-136.el7_9

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necessary. Here
is a sample; alter the names:

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<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

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1.375 jctools-core 4.0.1

1.375.1 Available under license :

No license file was found, but licenses were detected in source scan.

Manifest-Version: 1.0
Bnd-LastModified: 1662622707903
Build-Jdk-Spec: 11
Bundle-Description: Java Concurrency Tools Core Library

```
Bundle-License: http://www.apache.org/licenses/LICENSE-2.0.txt
Bundle-ManifestVersion: 2
Bundle-Name: Java Concurrency Tools Core Library
Bundle-SymbolicName: org.jctools.core
Bundle-Version: 4.0.1
Created-By: Apache Maven Bundle Plugin 5.1.6
Export-Package: org.jctools.maps;version="4.0.1",org.jctools.util;uses
:="sun.misc";version="4.0.1",org.jctools.queues;version="4.0.1",org.j
ctools.queues.atomic;uses:="org.jctools.queues";version="4.0.1",org.j
ctools.queues.unpadded;uses:="org.jctools.queues";version="4.0.1",org
.jctools.counters;version="4.0.1"
Import-Package: sun.misc;resolution:=optional
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.6))"
Tool: Bnd-6.2.0.202202251641
```

Found in path(s):
* /opt/cola/permits/1500645298_1670406227.9308958/0/jctools-core-4-0-1-jar/META-INF/MANIFEST.MF
No license file was found, but licenses were detected in source scan.

```
<name>Apache License, Version 2.0</name>
<url>http://www.apache.org/licenses/LICENSE-2.0.txt</url>
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* /opt/cola/permits/1500645298_1670406227.9308958/0/jctools-core-4-0-1-jar/META-INF/maven/org.jctools/jctools-core/pom.xml

1.376 itu 1.7.0

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1.377 json-schema-validator 1.0.72

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1.378 cloudevents-kafka 2.1.1

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1.379 cloudevents-api 2.1.1

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 /opt/cola/permits/1508291239_1670975013.352485/0/cloudevents-core-2-1-1-sources-1-jar/io/cloudevents/core/message/StructuredMessageReader.java
* /opt/cola/permits/1508291239_1670975013.352485/0/cloudevents-core-2-1-1-sources-1-jar/io/cloudevents/core/provider/EventFormatProvider.java
* /opt/cola/permits/1508291239_1670975013.352485/0/cloudevents-core-2-1-1-sources-1-jar/io/cloudevents/core/v03/CloudEventBuilder.java
* /opt/cola/permits/1508291239_1670975013.352485/0/cloudevents-core-2-1-1-sources-1-jar/io/cloudevents/core/format/EventDeserializationException.java
* /opt/cola/permits/1508291239_1670975013.352485/0/cloudevents-core-2-1-1-sources-1-jar/io/cloudevents/core/impl/CloudEventContextReaderAdapter.java
* /opt/cola/permits/1508291239_1670975013.352485/0/cloudevents-core-2-1-1-sources-1-jar/io/cloudevents/core/message/impl/BaseGenericBinaryMessageReaderImpl.java
No license file was found, but licenses were detected in source scan.

<!--

Found in path(s):
* /opt/cola/permits/1508291239_1670975013.352485/0/cloudevents-core-2-1-1-sources-1-jar/META-INF/maven/io.cloudevents/cloudevents-core/pom.xml

1.381 netty 4.1.86.Final

1.381.1 Available under license :

No license file was found, but licenses were detected in source scan.

```
Manifest-Version: 1.0
Implementation-Title: Netty/Transport/Classes/Epoll
Bundle-Description: Netty is an asynchronous event-driven network appl
ication framework for    rapid development of maintainable high perfo
rmance protocol servers and    clients.
Automatic-Module-Name: io.netty.transport.classes.epoll
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0
Bundle-SymbolicName: io.netty.transport-classes-epoll
Implementation-Version: 4.1.86.Final
Built-By: root
Bnd-LastModified: 1670851209269
Bundle-ManifestVersion: 2
Implementation-Vendor-Id: io.netty
Bundle-DocURL: https://netty.io/
Bundle-Vendor: The Netty Project
Import-Package: io.netty.buffer;version="[4.1,5)",io.netty.channel,io.
netty.channel.socket;version="[4.1,5)",io.netty.channel.unix;version=
"[4.1,5)",io.netty.util;version="[4.1,5)",io.netty.util.collection;ve
rsion="[4.1,5)",io.netty.util.concurrent;version="[4.1,5)",io.netty.u
til.internal;version="[4.1,5)",io.netty.util.internal.logging;version
 ="[4.1,5)",sun.nio.ch;resolution:=optional,org.eclipse.jetty.npn;vers
ion="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;version="[1,2
```

```
)";resolution:=optional
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.6))"
Tool: Bnd-2.4.1.201501161923
Implementation-Vendor: The Netty Project
Export-Package: io.netty.channel.epoll;uses:="io.netty.buffer,io.netty
.channel,io.netty.channel.socket,io.netty.channel.unix,io.netty.util,
io.netty.util.concurrent";version="4.1.86"
Bundle-Name: Netty/Transport/Classes/Epoll
Bundle-Version: 4.1.86.Final
Created-By: Apache Maven Bundle Plugin
Build-Jdk: 1.8.0_352
Implementation-URL: https://netty.io/netty-transport-classes-epoll/
```

Found in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-transport-classes-epoll-4-1-86-final-jar/META-INF/MANIFEST.MF
No license file was found, but licenses were detected in source scan.

```
Manifest-Version: 1.0
Implementation-Title: Netty/Transport/Native/Unix/Common
Bundle-Description: Static library which contains common unix utilitie
s.
Automatic-Module-Name: io.netty.transport.unix.common
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0
Bundle-SymbolicName: io.netty.transport-native-unix-common
Implementation-Version: 4.1.86.Final
Built-By: norman
Bnd-LastModified: 1670855190526
Bundle-ManifestVersion: 2
Implementation-Vendor-Id: io.netty
Bundle-DocURL: https://netty.io/
Bundle-Vendor: The Netty Project
Import-Package: io.netty.buffer;version="[4.1,5)",io.netty.channel,io.
netty.channel.socket;version="[4.1,5)",io.netty.util;version="[4.1,5)
",io.netty.util.internal;version="[4.1,5)",sun.nio.ch;resolution:=opt
ional,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.
eclipse.jetty.alpn;version="[1,2)";resolution:=optional
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.6))"
Tool:
 Bnd-2.4.1.201501161923
Implementation-Vendor: The Netty Project
Export-Package: io.netty.channel.unix;uses:="io.netty.buffer,io.netty.
channel,io.netty.channel.socket,io.netty.util";version="4.1.86"
Bundle-Name: Netty/Transport/Native/Unix/Common
Bundle-Version: 4.1.86.Final
Created-By: Apache Maven Bundle Plugin
Build-Jdk: 1.8.0_252
Implementation-URL: https://netty.io/netty-transport-native-unix-commo
```

n/

Found in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-transport-native-unix-common-4-1-86-final-jar/META-INF/MANIFEST.MF
No license file was found, but licenses were detected in source scan.

```
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 ~ WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the
 ~ License for the specific language governing permissions and limitations
 ~ under the License.
 -->
```

Found in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-transport-classes-epoll-4-1-86-final-jar/META-INF/maven/io.netty/netty-transport-classes-epoll/pom.xml
No license file was found, but licenses were detected in source scan.

```
Manifest-Version: 1.0
Implementation-Title: Netty/Handler/Proxy
Bundle-Description: Netty is an asynchronous event-driven network appl
ication framework for    rapid development of maintainable high perfo
rmance protocol servers and    clients.
Automatic-Module-Name: io.netty.handler.proxy
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0
Bundle-SymbolicName: io.netty.handler-proxy
Implementation-Version: 4.1.86.Final
Built-By: root
Bnd-LastModified: 1670851161046
Bundle-ManifestVersion: 2
Implementation-Vendor-Id: io.netty
Bundle-DocURL: https://netty.io/
Bundle-Vendor: The Netty Project
Import-Package: io.netty.buffer;version="[4.1,5)",io.netty.channel;ver
sion="[4.1,5)",io.netty.handler.codec.base64;version="[4.1,5)",io.net
ty.handler.codec.http;version="[4.1,5)",io.netty.handler.codec.socksx
.v4;version="[4.1,5)",io.netty.handler.codec.socksx.v5;version="[4.1,
5)",io.netty.util;version="[4.1,5)",io.netty.util.concurrent;version=
```

```
 "[4.1,5)",io.netty.util.internal;version="[4.1,5)",io.netty.util.inte
rnal.logging;version="[4.1,5)",sun.nio.ch;resolution:=optional,org.ec
lipse.jetty.npn;version="[1,2)";resolution:=optional,org.eclipse.jett
y.alpn;version="[1,2)";resolution:=optional
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.6))"
Tool: Bnd-2.4.1.201501161923
Implementation-Vendor: The Netty Project
Export-Package: io.netty.handler.proxy;uses:="io.netty.channel,io.nett
y.handler.codec.http,io.netty.util.concurrent";version="4.1.86"
Bundle-Name: Netty/Handler/Proxy
Bundle-Version: 4.1.86.Final
Created-By: Apache Maven Bundle Plugin
Build-Jdk: 1.8.0_352
Implementation-URL: https://netty.io/netty-handler-proxy/
```

Found in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-handler-proxy-4-1-86-final-jar/META-INF/MANIFEST.MF
No license file was found, but licenses were detected in source scan.

```
Manifest-Version: 1.0
Implementation-Title: Netty/Resolver
Bundle-Description: Netty is an asynchronous event-driven network appl
ication framework for    rapid development of maintainable high perfo
rmance protocol servers and    clients.
Automatic-Module-Name: io.netty.resolver
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0
Bundle-SymbolicName: io.netty.resolver
Implementation-Version: 4.1.86.Final
Built-By: norman
Bnd-LastModified: 1670855159282
Bundle-ManifestVersion: 2
Implementation-Vendor-Id: io.netty
Bundle-DocURL: https://netty.io/
Bundle-Vendor: The Netty Project
Import-Package: io.netty.util;version="[4.1,5)",io.netty.util.concurre
nt;version="[4.1,5)",io.netty.util.internal;version="[4.1,5)",io.nett
y.util.internal.logging;version="[4.1,5)",sun.nio.ch;resolution:=opti
onal,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.e
clipse.jetty.alpn;version="[1,2)";resolution:=optional
Require-Capability:
 osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.6))"
Tool: Bnd-2.4.1.201501161923
Implementation-Vendor: The Netty Project
Export-Package: io.netty.resolver;uses:="io.netty.util.concurrent";ver
sion="4.1.86"
Bundle-Name: Netty/Resolver
Bundle-Version: 4.1.86.Final
```

```
Created-By: Apache Maven Bundle Plugin
Build-Jdk: 1.8.0_252
Implementation-URL: https://netty.io/netty-resolver/
```

Found in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-resolver-4-1-86-final-jar/META-INF/MANIFEST.MF
No license file was found, but licenses were detected in source scan.

```
Manifest-Version: 1.0
Implementation-Title: Netty/Common
Bundle-Description: Netty is an asynchronous event-driven network appl
ication framework for    rapid development of maintainable high perfo
rmance protocol servers and    clients.
Automatic-Module-Name: io.netty.common
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0
Bundle-SymbolicName: io.netty.common
Implementation-Version: 4.1.86.Final
Built-By: norman
Bnd-LastModified: 1670855137664
Bundle-ManifestVersion: 2
Implementation-Vendor-Id: io.netty
Bundle-DocURL: https://netty.io/
Bundle-Vendor: The Netty Project
Import-Package: sun.misc;resolution:=optional,com.oracle.svm.core.anno
tate;resolution:=optional,javax.security.cert;resolution:=optional,or
g.apache.commons.logging;resolution:=optional;version="[1.2,2)",org.a
pache.log4j;resolution:=optional;version="[2.17,3)",org.apache.loggin
g.log4j;resolution:=optional;version="[2.17,3)",org.apache.logging.lo
 g4j.message;resolution:=optional;version="[2.17,3)",org.apache.loggin
g.log4j.spi;resolution:=optional;version="[2.17,3)",org.slf4j;resolut
ion:=optional;version="[1.7,2)",org.slf4j.helpers;resolution:=optiona
l;version="[1.7,2)",org.slf4j.spi;resolution:=optional;version="[1.7,
2)",reactor.blockhound;resolution:=optional,reactor.blockhound.integr
ation;resolution:=optional
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.6))"
DynamicImport-Package: *
Tool: Bnd-2.4.1.201501161923
Implementation-Vendor: The Netty Project
Export-Package: io.netty.util;uses:="io.netty.util.concurrent,io.netty
.util.internal";version="4.1.86",io.netty.util.collection;version="4.
1.86",io.netty.util.concurrent;uses:="io.netty.util.internal";version
="4.1.86",io.netty.util.internal;uses:="io.netty.util,io.netty.util.c
oncurrent,io.netty.util.internal.logging,javax.security.cert,reactor.
blockhound,reactor.blockhound.integration";version="4.1.86",io.netty.
util.internal.logging;version="4.1.86",io.netty.util.internal.svm;ver
 sion="4.1.86"
Bundle-Name: Netty/Common
```

Bundle-Version: 4.1.86.Final
Created-By: Apache Maven Bundle Plugin
Build-Jdk: 1.8.0_252
Implementation-URL: https://netty.io/netty-common/

Found in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-common-4-1-86-final-jar/META-INF/MANIFEST.MF
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Found in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-common-4-1-86-final-jar/META-INF/maven/io.netty/netty-common/pom.xml
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-buffer-4-1-86-final-jar/META-INF/maven/io.netty/netty-buffer/pom.xml
*
 /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-codec-4-1-86-final-jar/META-INF/maven/io.netty/netty-codec/pom.xml
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-transport-4-1-86-final-jar/META-INF/maven/io.netty/netty-transport/pom.xml
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-handler-4-1-86-final-jar/META-INF/maven/io.netty/netty-handler/pom.xml
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-codec-http-4-1-86-final-jar/META-INF/maven/io.netty/netty-codec-http/pom.xml
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-codec-socks-4-1-86-final-jar/META-INF/maven/io.netty/netty-codec-socks/pom.xml
No license file was found, but licenses were detected in source scan.

Manifest-Version: 1.0
Implementation-Title: Netty/Transport/Native/Epoll
Bundle-Description: Netty is an asynchronous event-driven network appl
ication framework for   rapid development of maintainable high perfo

rmance protocol servers and clients.
Automatic-Module-Name: io.netty.transport.epoll.linux.x86_64
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0
Bundle-SymbolicName: io.netty.transport-native-epoll
Implementation-Version: 4.1.86.Final
Built-By: root
Bnd-LastModified: 1670851257748
Bundle-ManifestVersion: 2
Implementation-Vendor-Id: io.netty
Bundle-DocURL: https://netty.io/
Bundle-Vendor: The Netty Project
Import-Package: sun.nio.ch;resolution:=optional,org.eclipse.jetty.npn;
version="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;version="
[1,2)";resolution:=optional
Tool: Bnd-2.4.1.201501161923
Implementation-Vendor: The Netty Project
Bundle-Name: Netty/Transport/Native/Epoll
Bundle-Version:
 4.1.86.Final
Created-By: Apache Maven Bundle Plugin
Build-Jdk: 1.8.0_352
Implementation-URL: https://netty.io/netty-transport-native-epoll/

Found in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-transport-native-epoll-4-1-86-final-jar/META-INF/MANIFEST.MF
No license file was found, but licenses were detected in source scan.

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io.netty.util.internal.Hidden$NettyBlockHoundIntegration

Found in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-common-4-1-86-final-jar/META-INF/services/reactor.blockhound.integration.BlockHoundIntegration
No license file was found, but licenses were detected in source scan.

```
Manifest-Version: 1.0
Implementation-Title: Netty/Codec/HTTP2
Bundle-Description: Netty is an asynchronous event-driven network appl
ication framework for    rapid development of maintainable high perfo
rmance protocol servers and    clients.
Automatic-Module-Name: io.netty.codec.http2
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0
Bundle-SymbolicName: io.netty.codec-http2
Implementation-Version: 4.1.86.Final
Built-By: root
Bnd-LastModified: 1670851101053
Bundle-ManifestVersion: 2
Implementation-Vendor-Id: io.netty
Bundle-DocURL: https://netty.io/
Bundle-Vendor: The Netty Project
Import-Package: com.aayushatharva.brotli4j.encoder;resolution:=optiona
l,io.netty.buffer;version="[4.1,5)",io.netty.channel;version="[4.1,5)
",io.netty.channel.embedded;version="[4.1,5)",io.netty.handler.codec,
io.netty.handler.codec.base64;version="[4.1,5)",io.netty.handler.code
c.compression;version="[4.1,5)",io.netty.handler.codec.http;version="
 [4.1,5)",io.netty.handler.logging;version="[4.1,5)",io.netty.handler.
ssl;version="[4.1,5)",io.netty.handler.stream;version="[4.1,5)",io.ne
tty.util;version="[4.1,5)",io.netty.util.collection;version="[4.1,5)"
,io.netty.util.concurrent;version="[4.1,5)",io.netty.util.internal;ve
rsion="[4.1,5)",io.netty.util.internal.logging;version="[4.1,5)",java
x.net.ssl,sun.nio.ch;resolution:=optional,org.eclipse.jetty.npn;versi
on="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;version="[1,2)
";resolution:=optional
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.6))"
Tool: Bnd-2.4.1.201501161923
Implementation-Vendor: The Netty Project
Export-Package: io.netty.handler.codec.http2;uses:="io.netty.buffer,io
.netty.channel,io.netty.channel.embedded,io.netty.handler.codec,io.ne
tty.handler.codec.compression,io.netty.handler.codec.http,io.netty.ha
ndler.logging,io.netty.handler.stream,io.netty.util,io.netty.util.col
lection,io.netty.util.concurrent";version="4.1.86"
Bundle-Name:
 Netty/Codec/HTTP2
Bundle-Version: 4.1.86.Final
Created-By: Apache Maven Bundle Plugin
Build-Jdk: 1.8.0_352
Implementation-URL: https://netty.io/netty-codec-http2/
```

Found in path(s):

* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-codec-http2-4-1-86-final-jar/META-INF/MANIFEST.MF

No license file was found, but licenses were detected in source scan.

Found in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-transport-native-epoll-4-1-86-final-jar/META-INF/maven/io.netty/netty-transport-native-epoll/pom.xml
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-codec-http2-4-1-86-final-jar/META-INF/maven/io.netty/netty-codec-http2/pom.xml
*
/opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-resolver-4-1-86-final-jar/META-INF/maven/io.netty/netty-resolver/pom.xml
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-handler-proxy-4-1-86-final-jar/META-INF/maven/io.netty/netty-handler-proxy/pom.xml
No license file was found, but licenses were detected in source scan.

```
Manifest-Version: 1.0
Implementation-Title: Netty/Handler
Bundle-Description: Netty is an asynchronous event-driven network appl
ication framework for    rapid development of maintainable high perfo
rmance protocol servers and    clients.
Automatic-Module-Name: io.netty.handler
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0
Bundle-SymbolicName: io.netty.handler
Implementation-Version: 4.1.86.Final
Built-By: norman
Bnd-LastModified: 1670855199960
Bundle-ManifestVersion: 2
Implementation-Vendor-Id: io.netty
Bundle-DocURL: https://netty.io/
Bundle-Vendor: The Netty Project
Import-Package: sun.security.x509;resolution:=optional,org.eclipse.jet
ty.npn;version="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;ve
rsion="[1,2)";resolution:=optional,io.netty.buffer;version="[4.1,5)",
io.netty.channel;version="[4.1,5)",io.netty.channel.socket;version="[
4.1,5)",io.netty.channel.unix;version="[4.1,5)",io.netty.handler.code
```

```
 c;version="[4.1,5)",io.netty.handler.codec.base64;version="[4.1,5)",i
o.netty.internal.tcnative;version="[2.0,3)";resolution:=optional,io.n
etty.resolver;version="[4.1,5)",io.netty.util;version="[4.1,5)",io.ne
tty.util.concurrent;version="[4.1,5)",io.netty.util.internal;version=
"[4.1,5)",io.netty.util.internal.logging;version="[4.1,5)",javax.cryp
to,javax.crypto.spec,javax.net.ssl,javax.security.auth.x500,javax.sec
urity.cert,org.bouncycastle.asn1.pkcs;version="[1.69,2)";resolution:=
optional,org.bouncycastle.asn1.x500;version="[1.69,2)";resolution:=op
tional,org.bouncycastle.cert;version="[1.69,2)";resolution:=optional,
org.bouncycastle.cert.jcajce;version="[1.69,2)";resolution:=optional,
org.bouncycastle.jce.provider;version="[1.69,2)";resolution:=optional
,org.bouncycastle.openssl;version="[1.69,2)";resolution:=optional,org
.bouncycastle.openssl.jcajce;version="[1.69,2)";resolution:=optional,
org.bouncycastle.operator;version="[1.69,2)";resolution:=optional,org
 .bouncycastle.operator.jcajce;version="[1.69,2)";resolution:=optional
,org.bouncycastle.pkcs;version="[1.69,2)";resolution:=optional,org.co
nscrypt;version="[2.5,3)";resolution:=optional,sun.nio.ch;resolution:
=optional
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.6))"
Tool: Bnd-2.4.1.201501161923
Implementation-Vendor: The Netty Project
Export-Package: io.netty.handler.address;uses:="io.netty.channel,io.ne
tty.resolver";version="4.1.86",io.netty.handler.flow;uses:="io.netty.
channel";version="4.1.86",io.netty.handler.flush;uses:="io.netty.chan
nel";version="4.1.86",io.netty.handler.ipfilter;uses:="io.netty.chann
el";version="4.1.86",io.netty.handler.logging;uses:="io.netty.channel
,io.netty.util.internal.logging";version="4.1.86",io.netty.handler.pc
ap;uses:="io.netty.channel";version="4.1.86",io.netty.handler.ssl;use
s:="io.netty.buffer,io.netty.channel,io.netty.handler.codec,io.netty.
util,io.netty.util.concurrent,javax.crypto,javax.net.ssl";version="4.
 1.86",io.netty.handler.ssl.ocsp;uses:="io.netty.channel,io.netty.hand
ler.ssl";version="4.1.86",io.netty.handler.ssl.util;uses:="javax.net.
ssl,javax.security.auth.x500,javax.security.cert";version="4.1.86",io
.netty.handler.stream;uses:="io.netty.buffer,io.netty.channel";versio
n="4.1.86",io.netty.handler.timeout;uses:="io.netty.channel";version=
"4.1.86",io.netty.handler.traffic;uses:="io.netty.channel,io.netty.ut
il.concurrent";version="4.1.86"
Bundle-Name: Netty/Handler
Bundle-Version: 4.1.86.Final
Created-By: Apache Maven Bundle Plugin
Build-Jdk: 1.8.0_252
Implementation-URL: https://netty.io/netty-handler/
```

Found in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-handler-4-1-86-final-jar/META-INF/MANIFEST.MF
No license file was found, but licenses were detected in source scan.

```
# The Netty Project licenses this file to you under the Apache License,
# version 2.0 (the "License"); you may not use this file except in compliance
# with the License. You may obtain a copy of the License at:
# distributed under the License is distributed on an "AS IS" BASIS, WITHOUT
```

Found in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-codec-http2-4-1-86-final-jar/META-INF/native-image/io.netty/netty-codec-http2/native-image.properties
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-transport-4-1-86-final-jar/META-INF/native-image/io.netty/netty-transport/native-image.properties
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-codec-http-4-1-86-final-jar/META-INF/native-image/io.netty/netty-codec-http/native-image.properties
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-buffer-4-1-86-final-jar/META-INF/native-image/io.netty/netty-buffer/native-image.properties
*
 /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-common-4-1-86-final-jar/META-INF/native-image/io.netty/netty-common/native-image.properties
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-codec-4-1-86-final-jar/META-INF/native-image/io.netty/netty-codec/native-image.properties
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-handler-4-1-86-final-jar/META-INF/native-image/io.netty/netty-handler/native-image.properties
No license file was found, but licenses were detected in source scan.

```
Manifest-Version: 1.0
Implementation-Title: Netty/Codec/Socks
Bundle-Description: Netty is an asynchronous event-driven network appl
ication framework for    rapid development of maintainable high perfo
rmance protocol servers and    clients.
Automatic-Module-Name: io.netty.codec.socks
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0
Bundle-SymbolicName: io.netty.codec-socks
Implementation-Version: 4.1.86.Final
Built-By: root
Bnd-LastModified: 1670851140833
Bundle-ManifestVersion: 2
Implementation-Vendor-Id: io.netty
Bundle-DocURL: https://netty.io/
Bundle-Vendor: The Netty Project
Import-Package: io.netty.buffer;version="[4.1,5)",io.netty.channel;ver
sion="[4.1,5)",io.netty.handler.codec,io.netty.util;version="[4.1,5)"
,io.netty.util.internal;version="[4.1,5)",io.netty.util.internal.logg
ing;version="[4.1,5)",sun.nio.ch;resolution:=optional,org.eclipse.jet
ty.npn;version="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;ve
 rsion="[1,2)";resolution:=optional
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.6))"
Tool: Bnd-2.4.1.201501161923
Implementation-Vendor: The Netty Project
Export-Package: io.netty.handler.codec.socks;uses:="io.netty.buffer,io
```

.netty.channel,io.netty.handler.codec";version="4.1.86",io.netty.hand
ler.codec.socksx;uses:="io.netty.buffer,io.netty.channel,io.netty.han
dler.codec,io.netty.handler.codec.socksx.v5";version="4.1.86",io.nett
y.handler.codec.socksx.v4;uses:="io.netty.buffer,io.netty.channel,io.
netty.handler.codec,io.netty.handler.codec.socksx";version="4.1.86",i
o.netty.handler.codec.socksx.v5;uses:="io.netty.buffer,io.netty.chann
el,io.netty.handler.codec,io.netty.handler.codec.socksx";version="4.1
.86"
Bundle-Name: Netty/Codec/Socks
Bundle-Version: 4.1.86.Final
Created-By: Apache Maven Bundle Plugin
Build-Jdk: 1.8.0_352
Implementation-URL: https://netty.io/netty-codec-socks/

Found in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-codec-socks-4-1-86-final-jar/META-INF/MANIFEST.MF
No license file was found, but licenses were detected in source scan.

```
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/maven-v4_0_0.xsd">
 <modelVersion>4.0.0</modelVersion>

 <artifactId>jctools-core</artifactId>
 <groupId>org.jctools</groupId>
 <version>3.1.0</version>
 <name>Java Concurrency Tools Core Library</name>
 <description>Java Concurrency Tools Core Library</description>
 <packaging>bundle</packaging>

 <dependencies>
  <dependency>
   <groupId>org.hamcrest</groupId>
   <artifactId>hamcrest-all</artifactId>
   <version>${hamcrest.version}</version>
   <scope>test</scope>
  </dependency>

  <dependency>
   <groupId>junit</groupId>
   <artifactId>junit</artifactId>
   <version>${junit.version}</version>
   <scope>test</scope>
  </dependency>

  <dependency>
   <groupId>com.google.guava</groupId>
   <artifactId>guava-testlib</artifactId>
```

```
  <version>${guava-testlib.version}</version>
  <scope>test</scope>
 </dependency>
</dependencies>
<build>
 <plugins>
  <plugin>
   <groupId>org.apache.maven.plugins</groupId>
   <artifactId>maven-surefire-plugin</artifactId>
   <version>3.0.0-M3</version>
   <configuration>
    <includes>
     <include>*</include>
    </includes>
   </configuration>
  </plugin>
  <plugin>
   <groupId>org.apache.felix</groupId>
   <artifactId>maven-bundle-plugin</artifactId>
   <version>4.2.1</version>
   <extensions>true</extensions>
   <configuration>
    <instructions>
     <Import-Package>sun.misc;resolution:=optional</Import-Package>
    </instructions>
   </configuration>
  </plugin>
  <plugin>
   <groupId>org.apache.maven.plugins</groupId>
   <artifactId>maven-source-plugin</artifactId>
   <version>3.2.0</version>
   <executions>
    <execution>
     <id>attach-sources</id>
     <phase>verify</phase>
     <goals>
      <goal>jar-no-fork</goal>
     </goals>
    </execution>
   </executions>
  </plugin>
  <plugin>
   <groupId>org.apache.maven.plugins</groupId>
   <artifactId>maven-javadoc-plugin</artifactId>
   <version>3.1.1</version>
   <configuration>
    <additionalOptions>
     <additionalOption>-Xdoclint:none</additionalOption>
```

```
    </additionalOptions>
    <source>8</source>
   </configuration>
   <executions>
    <execution>
     <id>attach-javadocs</id>
     <goals>
      <goal>jar</goal>
     </goals>
    </execution>
   </executions>
  </plugin>
 </plugins>
</build>

<distributionManagement>
 <repository>
  <id>bintray-jctools-jctools</id>
  <name>jctools-jctools</name>
  <url>https://api.bintray.com/maven/jctools/jctools/jctools-core/;publish=1</url>
 </repository>
</distributionManagement>

<url>https://github.com/JCTools</url>
<inceptionYear>2013</inceptionYear>

<licenses>
 <license>
  <name>Apache
License, Version 2.0</name>
  <url>http://www.apache.org/licenses/LICENSE-2.0.txt</url>
  <distribution>repo</distribution>
 </license>
</licenses>

<scm>
 <url>https://github.com/JCTools/JCTools</url>
 <connection>scm:git:https://github.com/JCTools/JCTools</connection>
 <tag>HEAD</tag>
</scm>

<developers>
 <developer>
  <url>https://github.com/nitsanw</url>
 </developer>
 <developer>
  <url>https://github.com/mjpt777</url>
 </developer>
```

```
  <developer>
   <url>https://github.com/RichardWarburton</url>
  </developer>
  <developer>
   <url>https://github.com/kay</url>
  </developer>
  <developer>
   <url>https://github.com/franz1981</url>
  </developer>
 </developers>

 <prerequisites>
  <maven>3.5.0</maven>
 </prerequisites>

 <properties>
  <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
  <java.version>1.6</java.version>
  <java.test.version>1.8</java.test.version>

  <maven.compiler.source>${java.version}</maven.compiler.source>
  <maven.compiler.target>${java.version}</maven.compiler.target>
  <maven.compiler.testSource>${java.test.version}</maven.compiler.testSource>
  <maven.compiler.testTarget>${java.test.version}</maven.compiler.testTarget>

  <hamcrest.version>1.3</hamcrest.version>
  <junit.version>4.12</junit.version>
  <guava-testlib.version>21.0</guava-testlib.version>
 </properties>
</project>
```

Found
 in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-common-4-1-86-final-jar/META-INF/maven/org.jctools/jctools-core/pom.xml
No license file was found, but licenses were detected in source scan.

```
<!--
 ~ Copyright 2016 The Netty Project
 ~
 ~ The Netty Project licenses this file to you under the Apache License,
 ~ version 2.0 (the "License"); you may not use this file except in compliance
 ~ with the License. You may obtain a copy of the License at:
 ~
 ~   https://www.apache.org/licenses/LICENSE-2.0
 ~
 ~ Unless required by applicable law or agreed to in writing, software
 ~ distributed under the License is distributed on an "AS IS" BASIS, WITHOUT
```

~ WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the
~ License for the specific language governing permissions and limitations
~ under the License.
-->

Found in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-transport-native-unix-common-4-1-86-final-jar/META-INF/maven/io.netty/netty-transport-native-unix-common/pom.xml
No license file was found, but licenses were detected in source scan.

```
Manifest-Version: 1.0
Implementation-Title: Netty/Codec
Bundle-Description: Netty is an asynchronous event-driven network appl
ication framework for    rapid development of maintainable high perfo
rmance protocol servers and    clients.
Automatic-Module-Name: io.netty.codec
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0
Bundle-SymbolicName: io.netty.codec
Implementation-Version: 4.1.86.Final
Built-By: norman
Bnd-LastModified: 1670855178734
Bundle-ManifestVersion: 2
Implementation-Vendor-Id: io.netty
Bundle-DocURL: https://netty.io/
Bundle-Vendor: The Netty Project
Import-Package: com.aayushatharva.brotli4j;resolution:=optional,com.aa
yushatharva.brotli4j.decoder;resolution:=optional,com.aayushatharva.b
rotli4j.encoder;resolution:=optional,com.github.luben.zstd;version="[
1.5,2)";resolution:=optional,com.google.protobuf;version="[2.6,3)";re
solution:=optional,com.google.protobuf.nano;resolution:=optional,com.
 jcraft.jzlib;resolution:=optional,com.ning.compress;version="[1.0,2)"
;resolution:=optional,com.ning.compress.lzf;version="[1.0,2)";resolut
ion:=optional,com.ning.compress.lzf.util;version="[1.0,2)";resolution
:=optional,io.netty.buffer;version="[4.1,5)",io.netty.channel;version
="[4.1,5)",io.netty.channel.socket;version="[4.1,5)",io.netty.util;ve
rsion="[4.1,5)",io.netty.util.concurrent;version="[4.1,5)",io.netty.u
til.internal;version="[4.1,5)",io.netty.util.internal.logging;version
="[4.1,5)",lzma.sdk;resolution:=optional,lzma.sdk.lzma;resolution:=op
tional,net.jpountz.lz4;resolution:=optional,net.jpountz.xxhash;resolu
tion:=optional,org.jboss.marshalling;resolution:=optional,sun.nio.ch;
resolution:=optional,org.eclipse.jetty.npn;version="[1,2)";resolution
:=optional,org.eclipse.jetty.alpn;version="[1,2)";resolution:=optiona
l
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.6))"
Tool: Bnd-2.4.1.201501161923
Implementation-Vendor: The Netty Project
Export-Package:
```

io.netty.handler.codec;uses:="io.netty.buffer,io.netty
.channel,io.netty.channel.socket,io.netty.util";version="4.1.86",io.n
etty.handler.codec.base64;uses:="io.netty.buffer,io.netty.channel,io.
netty.handler.codec";version="4.1.86",io.netty.handler.codec.bytes;us
es:="io.netty.buffer,io.netty.channel,io.netty.handler.codec";version
="4.1.86",io.netty.handler.codec.compression;uses:="com.aayushatharva
.brotli4j.encoder,io.netty.buffer,io.netty.channel,io.netty.handler.c
odec,net.jpountz.lz4";version="4.1.86",io.netty.handler.codec.json;us
es:="io.netty.buffer,io.netty.channel,io.netty.handler.codec";version
="4.1.86",io.netty.handler.codec.marshalling;uses:="io.netty.buffer,i
o.netty.channel,io.netty.handler.codec,org.jboss.marshalling";version
="4.1.86",io.netty.handler.codec.protobuf;uses:="com.google.protobuf,
com.google.protobuf.nano,io.netty.buffer,io.netty.channel,io.netty.ha
ndler.codec";version="4.1.86",io.netty.handler.codec.serialization;us
es:="io.netty.buffer,io.netty.channel,io.netty.handler.codec";version
="4.1.86",io.netty.handler.codec.string;uses:="io.netty.buffer,io.net
ty.channel,io.netty.handler.codec";version="4.1.86",io.netty.handler.
codec.xml;uses:="io.netty.buffer,io.netty.channel,io.netty.handler.co
dec";version="4.1.86"
Bundle-Name: Netty/Codec
Bundle-Version: 4.1.86.Final
Created-By: Apache Maven Bundle Plugin
Build-Jdk: 1.8.0_252
Implementation-URL: https://netty.io/netty-codec/

Found in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-codec-4-1-86-final-jar/META-INF/MANIFEST.MF
No license file was found, but licenses were detected in source scan.

Manifest-Version: 1.0
Implementation-Title: Netty/Codec/HTTP
Bundle-Description: Netty is an asynchronous event-driven network appl
ication framework for rapid development of maintainable high perfo
rmance protocol servers and clients.
Automatic-Module-Name: io.netty.codec.http
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0
Bundle-SymbolicName: io.netty.codec-http
Implementation-Version: 4.1.86.Final
Built-By: norman
Bnd-LastModified: 1670855212920
Bundle-ManifestVersion: 2
Implementation-Vendor-Id: io.netty
Bundle-DocURL: https://netty.io/
Bundle-Vendor: The Netty Project
Import-Package: com.aayushatharva.brotli4j.encoder;resolution:=optiona
l,com.jcraft.jzlib;resolution:=optional,io.netty.buffer;version="[4.1
,5)",io.netty.channel;version="[4.1,5)",io.netty.channel.embedded;ver

```
sion="[4.1,5)",io.netty.handler.codec,io.netty.handler.codec.base64;v
ersion="[4.1,5)",io.netty.handler.codec.compression;version="[4.1,5)"
 ,io.netty.handler.ssl;version="[4.1,5)",io.netty.handler.stream;versi
on="[4.1,5)",io.netty.util;version="[4.1,5)",io.netty.util.concurrent
;version="[4.1,5)",io.netty.util.internal;version="[4.1,5)",io.netty.
util.internal.logging;version="[4.1,5)",sun.nio.ch;resolution:=option
al,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.ecl
ipse.jetty.alpn;version="[1,2)";resolution:=optional
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.6))"
Tool: Bnd-2.4.1.201501161923
Implementation-Vendor: The Netty Project
Export-Package: io.netty.handler.codec.http;uses:="io.netty.buffer,io.
netty.channel,io.netty.channel.embedded,io.netty.handler.codec,io.net
ty.handler.codec.compression,io.netty.handler.codec.http.cookie,io.ne
tty.handler.stream,io.netty.util";version="4.1.86",io.netty.handler.c
odec.http.cookie;version="4.1.86",io.netty.handler.codec.http.cors;us
es:="io.netty.channel,io.netty.handler.codec.http";version="4.1.86",i
 o.netty.handler.codec.http.multipart;uses:="io.netty.buffer,io.netty.
channel,io.netty.handler.codec,io.netty.handler.codec.http,io.netty.h
andler.stream,io.netty.util";version="4.1.86",io.netty.handler.codec.
http.websocketx;uses:="io.netty.buffer,io.netty.channel,io.netty.hand
ler.codec,io.netty.handler.codec.http,io.netty.handler.stream,io.nett
y.util,io.netty.util.internal.logging";version="4.1.86",io.netty.hand
ler.codec.http.websocketx.extensions;uses:="io.netty.channel,io.netty
.handler.codec,io.netty.handler.codec.http.websocketx";version="4.1.8
6",io.netty.handler.codec.http.websocketx.extensions.compression;uses
:="io.netty.channel,io.netty.handler.codec.http.websocketx.extensions
";version="4.1.86",io.netty.handler.codec.rtsp;uses:="io.netty.buffer
,io.netty.channel,io.netty.handler.codec.http,io.netty.util";version=
"4.1.86",io.netty.handler.codec.spdy;uses:="io.netty.buffer,io.netty.
channel,io.netty.handler.codec,io.netty.handler.codec.http,io.netty.u
til";version="4.1.86"
Bundle-Name:
 Netty/Codec/HTTP
Bundle-Version: 4.1.86.Final
Created-By: Apache Maven Bundle Plugin
Build-Jdk: 1.8.0_252
Implementation-URL: https://netty.io/netty-codec-http/
```

Found in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-codec-http-4-1-86-final-jar/META-INF/MANIFEST.MF
No license file was found, but licenses were detected in source scan.

```
Manifest-Version: 1.0
Implementation-Title: Netty/Transport
Bundle-Description: Netty is an asynchronous event-driven network appl
ication framework for    rapid development of maintainable high perfo
```

```
rmance protocol servers and    clients.
Automatic-Module-Name: io.netty.transport
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0
Bundle-SymbolicName: io.netty.transport
Implementation-Version: 4.1.86.Final
Built-By: norman
Bnd-LastModified: 1670855167311
Bundle-ManifestVersion: 2
Implementation-Vendor-Id: io.netty
Bundle-DocURL: https://netty.io/
Bundle-Vendor: The Netty Project
Import-Package: io.netty.buffer;version="[4.1,5)",io.netty.resolver;ve
rsion="[4.1,5)",io.netty.util;version="[4.1,5)",io.netty.util.concurr
ent;version="[4.1,5)",io.netty.util.internal;version="[4.1,5)",io.net
ty.util.internal.logging;version="[4.1,5)",sun.nio.ch;resolution:=opt
ional,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.
 eclipse.jetty.alpn;version="[1,2)";resolution:=optional
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.6))"
Tool: Bnd-2.4.1.201501161923
Implementation-Vendor: The Netty Project
Export-Package: io.netty.bootstrap;uses:="io.netty.channel,io.netty.re
solver,io.netty.util";version="4.1.86",io.netty.channel;uses:="io.net
ty.bootstrap,io.netty.buffer,io.netty.util,io.netty.util.concurrent";
version="4.1.86",io.netty.channel.embedded;uses:="io.netty.channel";v
ersion="4.1.86",io.netty.channel.group;uses:="io.netty.channel,io.net
ty.util.concurrent";version="4.1.86",io.netty.channel.internal;versio
n="4.1.86",io.netty.channel.local;uses:="io.netty.channel";version="4
.1.86",io.netty.channel.nio;uses:="io.netty.buffer,io.netty.channel,i
o.netty.util,io.netty.util.concurrent";version="4.1.86",io.netty.chan
nel.oio;uses:="io.netty.buffer,io.netty.channel";version="4.1.86",io.
netty.channel.pool;uses:="io.netty.bootstrap,io.netty.channel,io.nett
 y.util.concurrent";version="4.1.86",io.netty.channel.socket;uses:="io
.netty.buffer,io.netty.channel,io.netty.util";version="4.1.86",io.net
ty.channel.socket.nio;uses:="io.netty.buffer,io.netty.channel,io.nett
y.channel.nio,io.netty.channel.socket";version="4.1.86",io.netty.chan
nel.socket.oio;uses:="io.netty.buffer,io.netty.channel,io.netty.chann
el.oio,io.netty.channel.socket";version="4.1.86"
Bundle-Name: Netty/Transport
Bundle-Version: 4.1.86.Final
Created-By: Apache Maven Bundle Plugin
Build-Jdk: 1.8.0_252
Implementation-URL: https://netty.io/netty-transport/
```

Found in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-transport-4-1-86-final-jar/META-INF/MANIFEST.MF
No license file was found, but licenses were detected in source scan.

```
Manifest-Version: 1.0
Implementation-Title: Netty/Buffer
Bundle-Description: Netty is an asynchronous event-driven network appl
ication framework for  rapid development of maintainable high perfo
rmance protocol servers and  clients.
Automatic-Module-Name: io.netty.buffer
Bundle-License: https://www.apache.org/licenses/LICENSE-2.0
Bundle-SymbolicName: io.netty.buffer
Implementation-Version: 4.1.86.Final
Built-By: norman
Bnd-LastModified: 1670855150807
Bundle-ManifestVersion: 2
Implementation-Vendor-Id: io.netty
Bundle-DocURL: https://netty.io/
Bundle-Vendor: The Netty Project
Import-Package: io.netty.util;version="[4.1,5)",io.netty.util.concurre
nt;version="[4.1,5)",io.netty.util.internal;version="[4.1,5)",io.nett
y.util.internal.logging;version="[4.1,5)",sun.nio.ch;resolution:=opti
onal,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.e
clipse.jetty.alpn;version="[1,2)";resolution:=optional
Require-Capability:
 osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.6))"
Tool: Bnd-2.4.1.201501161923
Implementation-Vendor: The Netty Project
Export-Package: io.netty.buffer;uses:="io.netty.util";version="4.1.86"
,io.netty.buffer.search;uses:="io.netty.util";version="4.1.86"
Bundle-Name: Netty/Buffer
Bundle-Version: 4.1.86.Final
Created-By: Apache Maven Bundle Plugin
Build-Jdk: 1.8.0_252
Implementation-URL: https://netty.io/netty-buffer/
```

Found in path(s):
* /opt/cola/permits/1509095589_1671715267.5524309/0/netty-zip/netty/netty-buffer-4-1-86-final-jar/META-INF/MANIFEST.MF

1.382 netty-handler 4.1.86.Final

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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/traffic/TrafficCounter.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/traffic/ChannelTrafficShapingHandler.java
*
/opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/traffic/package-info.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/traffic/GlobalTrafficShapingHandler.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslSession.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/DefaultOpenSslKeyMaterial.java
*
/opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslCachingX509KeyManagerFactory.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslKeyMaterial.java

* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/SignatureAlgorithmConverter.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslPrivateKey.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslX509KeyManagerFactory.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslKeyMaterialProvider.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslX509TrustManagerWrapper.java
*
 /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslCachingKeyMaterialProvider.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/ExtendedOpenSslSession.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/traffic/GlobalChannelTrafficShapingHandler.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/SslContextBuilder.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/ApplicationProtocolAccessor.java
*
/opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/ClientAuth.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslSessionTicketKey.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/util/LazyJavaxX509Certificate.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/ApplicationProtocolNames.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/ApplicationProtocolNegotiationHandler.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ipfilter/package-info.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/util/BouncyCastleSelfSignedCertGenerator.java
*

/opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/util/OpenJdkSelfSignedCertGenerator.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/ApplicationProtocolUtil.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/JdkSslServerContext.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslDefaultApplicationProtocolNegotiator.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/util/InsecureTrustManagerFactory.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslSessionStats.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/traffic/GlobalChannelTrafficCounter.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ipfilter/IpFilterRule.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslEngineMap.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/SslProvider.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslSessionContext.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/JettyNpnSslEngine.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/JdkBaseApplicationProtocolNegotiator.java
*
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-

jar/io/netty/handler/ssl/util/LazyX509Certificate.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ipfilter/IpFilterRuleType.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/CipherSuiteFilter.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/ApplicationProtocolNegotiator.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/JdkNpnApplicationProtocolNegotiator.java
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/opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslApplicationProtocolNegotiator.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/IdentityCipherSuiteFilter.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/util/FingerprintTrustManagerFactory.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/SupportedCipherSuiteFilter.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ipfilter/AbstractRemoteAddressFilter.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/Java7SslParametersUtils.java

* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSsl.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/CipherSuiteConverter.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/util/ThreadLocalInsecureRandom.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslClientSessionCache.java
*
 /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/BouncyCastleAlpnSslUtils.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/BouncyCastleAlpnSslEngine.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslSessionId.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/SslContextOption.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/GroupsConverter.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/SslMasterKeyHandler.java
*
/opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/util/KeyManagerFactoryWrapper.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/util/X509KeyManagerWrapper.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslPrivateKeyMethod.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/PseudoRandomFunction.java

* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/address/DynamicAddressConnectHandler.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/util/SimpleKeyManagerFactory.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/address/package-info.java

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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/logging/LoggingHandler.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/timeout/TimeoutException.java
*
 /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/SslHandler.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-

jar/io/netty/handler/timeout/ReadTimeoutHandler.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/timeout/WriteTimeoutHandler.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/timeout/package-info.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/package-info.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/logging/LogLevel.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/stream/ChunkedStream.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/timeout/IdleStateHandler.java
*
/opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/logging/package-info.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/timeout/WriteTimeoutException.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/stream/ChunkedInput.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/stream/ChunkedNioFile.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/stream/ChunkedWriteHandler.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/stream/ChunkedFile.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/timeout/IdleStateEvent.java
*
/opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/stream/package-info.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/timeout/IdleState.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/util/package-info.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/NotSslRecordException.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/stream/ChunkedNioStream.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/timeout/ReadTimeoutException.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/DelegatingSslContext.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/PemPrivateKey.java
*
/opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslCertificateException.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/ReferenceCountedOpenSslServerContext.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/flow/package-info.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/ReferenceCountedOpenSslContext.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/util/X509TrustManagerWrapper.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OpenSslKeyMaterialManager.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/Java8SslUtils.java
*
/opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/flush/FlushConsolidationHandler.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/flush/package-info.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/PemX509Certificate.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/PemValue.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/ReferenceCountedOpenSslClientContext.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/ReferenceCountedOpenSslEngine.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ipfilter/IpSubnetFilterRuleComparator.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/util/FingerprintTrustManagerFactoryBuilder.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/BouncyCastlePemReader.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/pcap/PcapWriter.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/pcap/package-info.java
*
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/pcap/IPPacket.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/pcap/PcapWriteHandler.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/pcap/UDPPacket.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/pcap/TCPPacket.java
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* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/SslCloseCompletionEvent.java
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 /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/Conscrypt.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/JdkAlpnSslUtils.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/ConscryptAlpnSslEngine.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/SniCompletionEvent.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/OptionalSslHandler.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-

jar/io/netty/handler/ssl/ocsp/package-info.java
* /opt/cola/permits/1509095619_1671044640.6558812/0/netty-handler-4-1-86-final-sources-jar/io/netty/handler/ssl/SslClientHelloHandler.java
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1.383 netty-codec-http 4.1.86.Final

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 /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/spdy/SpdyRstStreamFrame.java
* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/spdy/SpdySessionStatus.java
* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/spdy/SpdyCodecUtil.java
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* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-

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* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/spdy/SpdyVersion.java
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* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/spdy/DefaultSpdyRstStreamFrame.java
* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/spdy/SpdyPingFrame.java
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* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/spdy/SpdySettingsFrame.java
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* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/http/FullHttpResponse.java
* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/spdy/SpdyStreamStatus.java
* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/http/websocketx/WebSocketClientProtocolHandshakeHandler.java
* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/http/websocketx/WebSocketFrameDecoder.java
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/opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/spdy/DefaultSpdyHeadersFrame.java
* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/http/websocketx/WebSocketFrameAggregator.java
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* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/META-INF/maven/io.netty/netty-codec-http/pom.xml
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* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/http/HttpHeaderValidationUtil.java
* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/http/multipart/AbstractMixedHttpData.java
*

/opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/http/TooLongHttpLineException.java
* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/http/TooLongHttpContentException.java
* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/http/TooLongHttpHeaderException.java
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* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/http/cors/CorsConfig.java
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jar/io/netty/handler/codec/http/CompressionEncoderFactory.java
* /opt/cola/permits/1509095605_1671044635.8033464/0/netty-codec-http-4-1-86-final-sources-jar/io/netty/handler/codec/http/HttpMessageDecoderResult.java
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1.384 netty-resolver 4.1.86.Final

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* /opt/cola/permits/1509095582_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/NoopAddressResolverGroup.java
*

/opt/cola/permits/1509095582_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/package-info.java
* /opt/cola/permits/1509095582_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/AddressResolverGroup.java
* /opt/cola/permits/1509095582_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/NoopAddressResolver.java
* /opt/cola/permits/1509095582_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/NameResolver.java
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* /opt/cola/permits/1509095582_1671044586.3678293/0/netty-resolver-4-1-86-final-sources-jar/io/netty/resolver/ResolvedAddressTypes.java
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*
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1.385 netty-codec 4.1.86.Final

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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/compression/SnappyFramedEncoder.java
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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/compression/FastLz.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/json/JsonObjectDecoder.java
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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/compression/Bzip2Constants.java
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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/compression/Bzip2BitReader.java
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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/compression/LzfEncoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/compression/Bzip2Rand.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/compression/Lz4FrameEncoder.java
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*/
/**
* Utility class for {@link ByteBuf} that encodes and decodes to and from
* Base64 notation.
* <p>
 * The encoding and decoding algorithm in this class has been derived from
* Robert Harder's Public Domain
* Base64 Encoder/Decoder.
*/

Found in path(s):
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/base64/Base64.java
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*/
/**
* A decoder that splits the received {@link ByteBuf}s dynamically by the
* value of the length field in the message. It is particularly useful when you
* decode a binary message which has an integer header field that represents the
* length of the message body or the whole message.
*
 <p>
* {@link LengthFieldBasedFrameDecoder} has many configuration parameters so
* that it can decode any message with a length field, which is often seen in
* proprietary client-server protocols. Here are some example that will give
* you the basic idea on which option does what.

```
*
* <h3>2 bytes length field at offset 0, do not strip header</h3>
*
* The value of the length field in this example is <tt>12 (0x0C)</tt> which
* represents the length of "HELLO, WORLD".  By default, the decoder assumes
* that the length field represents the number of the bytes that follows the
* length field.  Therefore, it can be decoded with the simplistic parameter
* combination.
* <pre>
* <b>lengthFieldOffset</b>   = <b>0</b>
* <b>lengthFieldLength</b>   = <b>2</b>
* lengthAdjustment    = 0
* initialBytesToStrip = 0 (= do not strip header)
*
* BEFORE DECODE (14 bytes)         AFTER DECODE (14 bytes)
* +--------+----------------+      +--------+----------------+
* | Length | Actual Content
 |----->| Length | Actual Content |
* | 0x000C | "HELLO, WORLD" |      | 0x000C | "HELLO, WORLD" |
* +--------+----------------+      +--------+----------------+
* </pre>
*
* <h3>2 bytes length field at offset 0, strip header</h3>
*
* Because we can get the length of the content by calling
* {@link ByteBuf#readableBytes()}, you might want to strip the length
* field by specifying <tt>initialBytesToStrip</tt>.  In this example, we
* specified <tt>2</tt>, that is same with the length of the length field, to
* strip the first two bytes.
* <pre>
* lengthFieldOffset   = 0
* lengthFieldLength   = 2
* lengthAdjustment    = 0
* <b>initialBytesToStrip</b> = <b>2</b> (= the length of the Length field)
*
* BEFORE DECODE (14 bytes)         AFTER DECODE (12 bytes)
* +--------+----------------+      +----------------+
* | Length | Actual Content |----->| Actual Content |
* | 0x000C | "HELLO, WORLD" |      | "HELLO, WORLD" |
* +--------+----------------+      +----------------+
 * </pre>
*
* <h3>2 bytes length field at offset 0, do not strip header, the length field
*     represents the length of the whole message</h3>
*
* In most cases, the length field represents the length of the message body
* only, as shown in the previous examples.  However, in some protocols, the
* length field represents the length of the whole message, including the
```

```
* message header.  In such a case, we specify a non-zero
* <tt>lengthAdjustment</tt>.  Because the length value in this example message
* is always greater than the body length by <tt>2</tt>, we specify <tt>-2</tt>
* as <tt>lengthAdjustment</tt> for compensation.
* <pre>
* lengthFieldOffset   =  0
* lengthFieldLength   =  2
* <b>lengthAdjustment</b>    = <b>-2</b> (= the length of the Length field)
* initialBytesToStrip =  0
*
* BEFORE DECODE (14 bytes)         AFTER DECODE (14 bytes)
* +--------+----------------+      +--------+----------------+
* | Length | Actual Content |----->| Length | Actual
 Content |
* | 0x000E | "HELLO, WORLD" |      | 0x000E | "HELLO, WORLD" |
* +--------+----------------+      +--------+----------------+
* </pre>
*
* <h3>3 bytes length field at the end of 5 bytes header, do not strip header</h3>
*
* The following message is a simple variation of the first example.  An extra
* header value is prepended to the message.  <tt>lengthAdjustment</tt> is zero
* again because the decoder always takes the length of the prepended data into
* account during frame length calculation.
* <pre>
* <b>lengthFieldOffset</b>   = <b>2</b> (= the length of Header 1)
* <b>lengthFieldLength</b>   = <b>3</b>
* lengthAdjustment    = 0
* initialBytesToStrip = 0
*
* BEFORE DECODE (17 bytes)                      AFTER DECODE (17 bytes)
* +----------+----------+----------------+      +----------+----------+----------------+
* | Header 1 |  Length  | Actual Content |----->| Header 1 |  Length  | Actual Content |
* |  0xCAFE  | 0x00000C | "HELLO, WORLD" |
 |  0xCAFE  | 0x00000C | "HELLO, WORLD" |
* +----------+----------+----------------+      +----------+----------+----------------+
* </pre>
*
* <h3>3 bytes length field at the beginning of 5 bytes header, do not strip header</h3>
*
* This is an advanced example that shows the case where there is an extra
* header between the length field and the message body.  You have to specify a
* positive <tt>lengthAdjustment</tt> so that the decoder counts the extra
* header into the frame length calculation.
* <pre>
* lengthFieldOffset   = 0
* lengthFieldLength   = 3
* <b>lengthAdjustment</b>    = <b>2</b> (= the length of Header 1)
```

```
* initialBytesToStrip = 0
*
* BEFORE DECODE (17 bytes)                      AFTER DECODE (17 bytes)
* +----------+----------+----------------+      +----------+----------+----------------+
* |  Length  | Header 1 | Actual Content |----->|  Length  | Header 1 | Actual Content |
* | 0x00000C |  0xCAFE  | "HELLO, WORLD" |      | 0x00000C |  0xCAFE  | "HELLO,
 WORLD" |
* +----------+----------+----------------+      +----------+----------+----------------+
* </pre>
*
* <h3>2 bytes length field at offset 1 in the middle of 4 bytes header,
*     strip the first header field and the length field</h3>
*
* This is a combination of all the examples above.  There are the prepended
* header before the length field and the extra header after the length field.
* The prepended header affects the <tt>lengthFieldOffset</tt> and the extra
* header affects the <tt>lengthAdjustment</tt>.  We also specified a non-zero
* <tt>initialBytesToStrip</tt> to strip the length field and the prepended
* header from the frame.  If you don't want to strip the prepended header, you
* could specify <tt>0</tt> for <tt>initialBytesToSkip</tt>.
* <pre>
* lengthFieldOffset   = 1 (= the length of HDR1)
* lengthFieldLength   = 2
* <b>lengthAdjustment</b>    = <b>1</b> (= the length of HDR2)
* <b>initialBytesToStrip</b> = <b>3</b> (= the length of HDR1 +
 LEN)
*
* BEFORE DECODE (16 bytes)                       AFTER DECODE (13 bytes)
* +------+--------+------+----------------+      +------+----------------+
* | HDR1 | Length | HDR2 | Actual Content |----->| HDR2 | Actual Content |
* | 0xCA | 0x000C | 0xFE | "HELLO, WORLD" |      | 0xFE | "HELLO, WORLD" |
* +------+--------+------+----------------+      +------+----------------+
* </pre>
*
* <h3>2 bytes length field at offset 1 in the middle of 4 bytes header,
*     strip the first header field and the length field, the length field
*     represents the length of the whole message</h3>
*
* Let's give another twist to the previous example.  The only difference from
* the previous example is that the length field represents the length of the
* whole message instead of the message body, just like the third example.
* We have to count the length of HDR1 and Length into <tt>lengthAdjustment</tt>.
* Please note that we don't need to take the length of HDR2 into account
* because
 the length field already includes the whole header length.
* <pre>
* lengthFieldOffset   =  1
* lengthFieldLength   =  2
```

```
* <b>lengthAdjustment</b>    = <b>-3</b> (= the length of HDR1 + LEN, negative)
* <b>initialBytesToStrip</b> = <b> 3</b>
*
* BEFORE DECODE (16 bytes)                       AFTER DECODE (13 bytes)
* +------+--------+------+----------------+      +------+----------------+
* | HDR1 | Length | HDR2 | Actual Content |----->| HDR2 | Actual Content |
* | 0xCA | 0x0010 | 0xFE | "HELLO, WORLD" |      | 0xFE | "HELLO, WORLD" |
* +------+--------+------+----------------+      +------+----------------+
* </pre>
* @see LengthFieldPrepender
*/
```

Found in path(s):
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/LengthFieldBasedFrameDecoder.java
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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/HeadersUtils.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/ProtocolDetectionResult.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/ProtocolDetectionState.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/protobuf/ProtobufVarint32LengthFieldPrepender.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/UnsupportedValueConverter.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-

jar/io/netty/handler/codec/protobuf/ProtobufVarint32FrameDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/protobuf/ProtobufDecoderNano.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/protobuf/ProtobufEncoderNano.java
*
/opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/protobuf/ProtobufDecoder.java
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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/base64/Base64Decoder.java
*
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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/serialization/ReferenceMap.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/compression/JZlibDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/marshalling/ThreadLocalUnmarshallerProvider.java
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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/FixedLengthFrameDecoder.java
*

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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/ReplayingDecoder.java
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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/DecoderException.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/serialization/CompactObjectInputStream.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/PrematureChannelClosureException.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/compression/ZlibUtil.java
*
/opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/UnsupportedMessageTypeException.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/serialization/ObjectDecoderInputStream.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/compression/SnappyFrameDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/marshalling/LimitingByteInput.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/MessageToMessageDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/ReplayingDecoderByteBuf.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/compression/ZlibCodecFactory.java
*
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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/serialization/CompatibleObjectEncoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/marshalling/DefaultUnmarshallerProvider.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/LengthFieldPrepender.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/marshalling/ChannelBufferByteInput.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/marshalling/ChannelBufferByteOutput.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/DecoderResult.java
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jar/io/netty/handler/codec/compression/JdkZlibEncoder.java
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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/CorruptedFrameException.java
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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/MessageToMessageEncoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/marshalling/CompatibleMarshallingDecoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/base64/Base64Encoder.java
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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/protobuf/package-info.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/compression/ZlibDecoder.java

* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/marshalling/MarshallingEncoder.java
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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/compression/ZlibEncoder.java
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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/serialization/package-info.java
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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/serialization/CompactObjectOutputStream.java
*
 /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/base64/package-info.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/marshalling/ContextBoundUnmarshallerProvider.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/bytes/ByteArrayEncoder.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/serialization/ObjectEncoderOutputStream.java
* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/serialization/SoftReferenceMap.java
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jar/io/netty/handler/codec/serialization/ClassLoaderClassResolver.java
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* /opt/cola/permits/1509095575_1671044644.0113554/0/netty-codec-4-1-86-final-sources-jar/io/netty/handler/codec/compression/GzipOptions.java
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1.386 netty-transport 4.1.86.Final

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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/package-info.java
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/opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/nio/NioDatagramChannelConfig.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelInboundHandler.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/DefaultEventLoop.java
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/opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/RecvByteBufAllocator.java
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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/local/LocalChannel.java
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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/SingleThreadEventLoop.java
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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/EventLoopException.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/group/DefaultChannelGroupFuture.java
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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/embedded/EmbeddedSocketAddress.java
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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelException.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/socket/DefaultDatagramChannelConfig.java
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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ServerChannel.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/DefaultChannelPipeline.java
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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/EventLoop.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/embedded/package-info.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ThreadPerChannelEventLoopGroup.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/local/LocalEventLoopGroup.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelInitializer.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/nio/AbstractNioMessageChannel.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/DefaultChannelConfig.java
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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelOutboundHandler.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/oio/package-info.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/embedded/EmbeddedChannel.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/nio/NioTask.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-

jar/io/netty/channel/oio/OioEventLoopGroup.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/CompleteChannelFuture.java
*
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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelPromiseNotifier.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/embedded/EmbeddedEventLoop.java
* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/Channel.java
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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/MaxBytesRecvByteBufAllocator.java
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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/pool/SimpleChannelPool.java
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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelFactory.java
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*/
/**
* Handles an I/O event or intercepts an I/O operation, and forwards it to its next handler in
* its {@link ChannelPipeline}.
*
* <h3>Sub-types</h3>
* <p>
* {@link ChannelHandler} itself does not provide many methods, but you usually have to implement one of its
subtypes:
* <ul>
* <li>{@link
 ChannelInboundHandler} to handle inbound I/O events, and</li>
* <li>{@link ChannelOutboundHandler} to handle outbound I/O operations.</li>
* </ul>
* </p>
* <p>
* Alternatively, the following adapter classes are provided for your convenience:
* <ul>
* <li>{@link ChannelInboundHandlerAdapter} to handle inbound I/O events,</li>
* <li>{@link ChannelOutboundHandlerAdapter} to handle outbound I/O operations, and</li>
* <li>{@link ChannelDuplexHandler} to handle both inbound and outbound events</li>
* </ul>
* </p>
* <p>
* For more information, please refer to the documentation of each subtype.
* </p>
*
* <h3>The context object</h3>
* <p>
* A {@link ChannelHandler} is provided with a {@link ChannelHandlerContext}
* object.  A {@link ChannelHandler} is supposed to interact with the
* {@link ChannelPipeline} it belongs to via a context object.  Using the
* context object, the {@link ChannelHandler} can pass events upstream or
* downstream, modify the pipeline dynamically,
 or store the information
* (using {@link AttributeKey}s) which is specific to the handler.
*
* <h3>State management</h3>
*
* A {@link ChannelHandler} often needs to store some stateful information.
* The simplest and recommended approach is to use member variables:
* <pre>
* public interface Message {
*     // your methods here
* }
*
```

```
* public class DataServerHandler extends {@link SimpleChannelInboundHandler}&lt;Message&gt; {
*
*     <b>private boolean loggedIn;</b>
*
*     {@code @Override}
*     public void channelRead0({@link ChannelHandlerContext} ctx, Message message) {
*         if (message instanceof LoginMessage) {
*             authenticate((LoginMessage) message);
*             <b>loggedIn = true;</b>
*         } else (message instanceof GetDataMessage) {
*             if (<b>loggedIn</b>) {
*                 ctx.writeAndFlush(fetchSecret((GetDataMessage) message));
*             } else {
*                 fail();
*             }
*
 }
*     }
*     ...
* }
* </pre>
* Because the handler instance has a state variable which is dedicated to
* one connection, you have to create a new handler instance for each new
* channel to avoid a race condition where a unauthenticated client can get
* the confidential information:
* <pre>
* // Create a new handler instance per channel.
* // See {@link ChannelInitializer#initChannel(Channel)}.
* public class DataServerInitializer extends {@link ChannelInitializer}&lt;{@link Channel}&gt; {
*     {@code @Override}
*     public void initChannel({@link Channel} channel) {
*         channel.pipeline().addLast("handler", <b>new DataServerHandler()</b>);
*     }
* }
*
* </pre>
*
* <h4>Using {@link AttributeKey}s</h4>
*
* Although it's recommended to use member variables to store the state of a
* handler, for some reason you might not want to create many handler instances.
* In such a case, you can use {@link AttributeKey}s which is provided by
* {@link ChannelHandlerContext}:
 * <pre>
* public interface Message {
*     // your methods here
* }
*
```

```
* {@code @Sharable}
* public class DataServerHandler extends {@link SimpleChannelInboundHandler}&lt;Message&gt; {
*     private final {@link AttributeKey}&lt;{@link Boolean}&gt; auth =
*           {@link AttributeKey#valueOf(String) AttributeKey.valueOf("auth")};
*
*     {@code @Override}
*     public void channelRead({@link ChannelHandlerContext} ctx, Message message) {
*         {@link Attribute}&lt;{@link Boolean}&gt; attr = ctx.attr(auth);
*         if (message instanceof LoginMessage) {
*             authenticate((LoginMessage) o);
*             <b>attr.set(true)</b>;
*         } else (message instanceof GetDataMessage) {
*             if (<b>Boolean.TRUE.equals(attr.get())</b>) {
*                 ctx.writeAndFlush(fetchSecret((GetDataMessage) o));
*             } else {
*                 fail();
*             }
*         }
*     }
*     ...
* }
* </pre>
* Now that the
 state of the handler is attached to the {@link ChannelHandlerContext}, you can add the
* same handler instance to different pipelines:
* <pre>
* public class DataServerInitializer extends {@link ChannelInitializer}&lt;{@link Channel}&gt; {
*
*     private static final DataServerHandler <b>SHARED</b> = new DataServerHandler();
*
*     {@code @Override}
*     public void initChannel({@link Channel} channel) {
*         channel.pipeline().addLast("handler", <b>SHARED</b>);
*     }
* }
* </pre>
*
*
* <h4>The {@code @Sharable} annotation</h4>
* <p>
* In the example above which used an {@link AttributeKey},
* you might have noticed the {@code @Sharable} annotation.
* <p>
* If a {@link ChannelHandler} is annotated with the {@code @Sharable}
* annotation, it means you can create an instance of the handler just once and
* add it to one or more {@link ChannelPipeline}s multiple times without
* a race condition.
* <p>
```

```
* If this annotation is not specified, you have to create
 a new handler
* instance every time you add it to a pipeline because it has unshared state
* such as member variables.
* <p>
* This annotation is provided for documentation purpose, just like
* <a href="http://www.javaconcurrencyinpractice.com/annotations/doc/">the JCIP annotations</a>.
*
* <h3>Additional resources worth reading</h3>
* <p>
* Please refer to the {@link ChannelHandler}, and
* {@link ChannelPipeline} to find out more about inbound and outbound operations,
* what fundamental differences they have, how they flow in a  pipeline,  and how to handle
* the operation in your application.
*/
```

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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelHandler.java
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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/channel/ChannelInboundInvoker.java
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* /opt/cola/permits/1509095609_1671044607.123572/0/netty-transport-4-1-86-final-sources-jar/io/netty/bootstrap/BootstrapConfig.java

1.387 netty-transport-native-unix-common 4.1.86.Final

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* /opt/cola/permits/1509095595_1671044615.8406854/0/netty-transport-native-unix-common-4-1-86-final-sources-jar/io/netty/channel/unix/Buffer.java
* /opt/cola/permits/1509095595_1671044615.8406854/0/netty-transport-native-unix-common-4-1-86-final-sources-jar/netty_unix_buffer.h
* /opt/cola/permits/1509095595_1671044615.8406854/0/netty-transport-native-unix-common-4-1-86-final-sources-jar/netty_unix_buffer.c
* /opt/cola/permits/1509095595_1671044615.8406854/0/netty-transport-native-unix-common-4-1-86-final-sources-jar/io/netty/channel/unix/PreferredDirectByteBufAllocator.java

1.388 netty-transport-classes-epoll 4.1.86.Final

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* /opt/cola/permits/1518493128_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/EpollDomainDatagramChannelConfig.java
*
/opt/cola/permits/1518493128_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/EpollDomainDatagramChannel.java
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/**
 * Set the {@code TCP_MD5SIG} option on the socket. See {@code linux/tcp.h} for more details.
 * Keys can only be set on, not read to prevent a potential leak, as they are confidential.
 * Allowing them being read would mean anyone with access to the channel could get them.

 */
/**
 * Set the {@code TCP_QUICKACK} option on the socket.
 * See TCP_QUICKACK
 * for more details.
 */

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* /opt/cola/permits/1518493128_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/EpollSocketChannelConfig.java
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 * Keys can only be set on, not read to prevent a potential leak, as they are confidential.
 * Allowing them being read would mean anyone with access to the channel could get them.

 */

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* /opt/cola/permits/1518493128_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/LinuxSocket.java
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*
/opt/cola/permits/1518493128_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/package-info.java
* /opt/cola/permits/1518493128_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/EpollSocketChannel.java
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* /opt/cola/permits/1518493128_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/Epoll.java
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/opt/cola/permits/1518493128_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/EpollChannelOption.java
* /opt/cola/permits/1518493128_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/NativeDatagramPacketArray.java
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/opt/cola/permits/1518493128_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/EpollMode.java
* /opt/cola/permits/1518493128_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/EpollServerChannelConfig.java
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/opt/cola/permits/1518493128_1671636502.660997/0/netty-transport-classes-epoll-4-1-86-final-sources-jar/io/netty/channel/epoll/EpollChannelConfig.java
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1.389 netty-handler-proxy 4.1.86.Final

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* /opt/cola/permits/1518493252_1671636487.1565955/0/netty-handler-proxy-4-1-86-final-sources-jar/io/netty/handler/proxy/package-info.java
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* /opt/cola/permits/1518493252_1671636487.1565955/0/netty-handler-proxy-4-1-86-final-sources-jar/io/netty/handler/proxy/Socks4ProxyHandler.java
* /opt/cola/permits/1518493252_1671636487.1565955/0/netty-handler-proxy-4-1-86-final-sources-jar/io/netty/handler/proxy/ProxyConnectException.java

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1.390 netty-transport-classes-kqueue 4.1.86.Final

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* /opt/cola/permits/1518493238_1671636482.3908947/0/netty-transport-classes-kqueue-4-1-86-final-sources-jar/io/netty/channel/kqueue/KQueueRecvByteAllocatorHandle.java
* /opt/cola/permits/1518493238_1671636482.3908947/0/netty-transport-classes-kqueue-4-1-86-final-sources-jar/io/netty/channel/kqueue/KQueue.java
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/opt/cola/permits/1518493238_1671636482.3908947/0/netty-transport-classes-kqueue-4-1-86-final-sources-jar/io/netty/channel/kqueue/BsdSocket.java
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* /opt/cola/permits/1518493238_1671636482.3908947/0/netty-transport-classes-kqueue-4-1-86-final-sources-jar/io/netty/channel/kqueue/KQueueEventArray.java
* /opt/cola/permits/1518493238_1671636482.3908947/0/netty-transport-classes-kqueue-4-1-86-final-sources-jar/io/netty/channel/kqueue/Native.java
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* /opt/cola/permits/1518493238_1671636482.3908947/0/netty-transport-classes-kqueue-4-1-86-final-sources-jar/io/netty/channel/kqueue/NativeLongArray.java
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1.391 netty-codec-socks 4.1.86.Final

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1.392 activation-api 2.1.0

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```
# The main CI of Hibernate ORM is https://ci.hibernate.org/job/hibernate-orm-5.6-h2/.
# However, Hibernate ORM builds run on GitHub actions regularly
# to check that it still works and can be used in GitHub forks.
# See https://docs.github.com/en/free-pro-team@latest/actions
# for more information about GitHub actions.

name: Hibernate ORM build

on:
 push:
   branches:
     - '5.6'
 pull_request:
   branches:
     - '5.6'

# See https://github.com/hibernate/hibernate-orm/pull/4615 for a description of the behavior we're getting.
concurrency:
 # Consider that two builds are in the same concurrency group (cannot run concurrently)
```

```
 # if they use the same workflow and are about the same branch ("ref") or pull request.
 group: "workflow = ${{ github.workflow }}, ref = ${{ github.event.ref }}, pr = ${{ github.event.pull_request.id
}}"
 # Cancel previous builds in the same concurrency group even if they are in process
 # for pull requests or pushes to forks (not the upstream repository).
  cancel-in-progress: ${{ github.event_name == 'pull_request' || github.repository != 'hibernate/hibernate-orm' }}

jobs:
 build:
   name: Java 8
   runs-on: ubuntu-latest
   strategy:
     fail-fast: false
     matrix:
       include:
         - rdbms: h2
#         - rdbms: hsqldb
         - rdbms: derby
         - rdbms: mysql8
         - rdbms: mariadb
         - rdbms: postgresql_9_5
         - rdbms: postgresql_13
         - rdbms: oracle
         - rdbms: db2
         - rdbms: mssql
         - rdbms: sybase
# Running with HANA requires at least 8GB memory just for the database, which we don't have on GH Actions
runners
#         - rdbms: hana
   steps:
     - uses: actions/checkout@v2
       with:
         persist-credentials: false
     - name: Reclaim Disk Space
       run: .github/ci-prerequisites.sh
     - name: Start database
       env:
         RDBMS: ${{ matrix.rdbms }}
       run: ci/database-start.sh
     - name: Set up Java 8

   uses: actions/setup-java@v1
       with:
         java-version: 1.8
     - name: Get year/month for cache key
       id: get-date
       run: |
         echo "::set-output name=yearmonth::$(/bin/date -u "+%Y-%m")"
```

```
        shell: bash
      - name: Cache Maven local repository
        uses: actions/cache@v2
        id: cache-maven
        with:
          path: |
            ~/.m2/repository
            ~/.gradle/caches/
            ~/.gradle/wrapper/
          # refresh cache every month to avoid unlimited growth
          key: maven-localrepo-${{ steps.get-date.outputs.yearmonth }}
      - name: Run build script
        env:
          RDBMS: ${{ matrix.rdbms }}
        run: ./ci/build-github.sh
        shell: bash
      - name: Upload test reports (if Gradle failed)
        uses: actions/upload-artifact@v2
        if: failure()
        with:
          name: test-reports-java8-${{ matrix.rdbms }}
          path: |
            ./**/target/reports/tests/
            ./**/target/reports/checkstyle/
       - name: Omit produced artifacts from build cache
        run: ./ci/before-cache.sh
```

1.395 jose4j 0.6.3

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* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/base64url/internal/apache/commons/codec/binary/Base64.java
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* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwt/consumer/ErrorCodeValidatorAdapter.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwk/VerificationJwkSelector.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/keys/resolvers/VerificationKeyResolver.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwe/Pbes2HmacShaWithAesKeyWrapAlgorithm.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwa/AlgorithmConstraints.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/keys/resolvers/HttpsJwksVerificationKeyResolver.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/lang/UncheckedJoseException.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/keys/resolvers/DecryptionKeyResolver.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/json/JsonUtil.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-

jar/org/jose4j/jwe/KeyManagementAlgorithmIdentifiers.java
*
/opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/mac/MacUtil.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/keys/X509Util.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwt/consumer/ErrorCodes.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwe/AesGcmKeyEncryptionAlgorithm.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/lang/DefaultByteGenerator.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwe/WrappingKeyManagementAlgorithm.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/keys/resolvers/JwksDecryptionKeyResolver.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwe/ContentEncryptionAlgorithmIdentifiers.java
*
/opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwe/EcdhKeyAgreementWithAesKeyWrapAlgorithm.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/lang/ByteUtil.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwt/JwtClaims.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwa/AlgorithmFactory.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwe/JsonWebEncryption.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwe/EcdhKeyAgreementAlgorithm.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jws/JsonWebSignatureAlgorithm.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/lang/InvalidAlgorithmException.java
*
/opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwk/Use.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jws/AlgorithmIdentifiers.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwk/JsonWebKey.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwt/consumer/Validator.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwe/CipherUtil.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jws/PlaintextNoneAlgorithm.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwe/AesCbcHmacSha2ContentEncryptionAlgorithm.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwe/AesKeyWrapManagementAlgorithm.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwt/GeneralJwtException.java

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 /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwk/KeyOperations.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwk/RsaJwkGenerator.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/base64url/SimplePEMEncoder.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwx/Headers.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/keys/resolvers/JwksVerificationKeyResolver.java
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* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwe/ContentEncryptionHelp.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/lang/JoseException.java
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* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwt/consumer/InvalidJwtException.java
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* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/zip/DeflateRFC1951CompressionAlgorithm.java
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* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jws/RsaUsingShaAlgorithm.java
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* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/lang/IntegrityException.java

* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwe/ContentEncryptionKeyDescriptor.java

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* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwt/consumer/JtiValidator.java

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* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwt/consumer/IssValidator.java

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* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/keys/RsaKeyUtil.java

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 /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwt/consumer/JweCustomizer.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwe/ContentEncryptionAlgorithm.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jws/HmacUsingShaAlgorithm.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwx/HeaderParameterNames.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/http/SimpleGet.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwk/JsonWebKeySet.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jws/BaseSignatureAlgorithm.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwk/RsaJsonWebKey.java
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 /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwe/InitializationVectorHelp.java
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* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwt/consumer/JwtContext.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwt/consumer/AudValidator.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/keys/resolvers/X509VerificationKeyResolver.java
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* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/keys/AesKey.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwk/PublicJsonWebKey.java
*
 /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/json/JsonHeaderUtil.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwk/OctJwkGenerator.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwe/CipherStrengthSupport.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/lang/UnresolvableKeyException.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwx/CompactSerialization.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwx/KeyValidationSupport.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-

jar/org/jose4j/jwa/AlgorithmAvailability.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/keys/EcKeyUtil.java
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* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/lang/HashUtil.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/http/Get.java
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* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwt/consumer/JwsCustomizer.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwe/kdf/ConcatKeyDerivationFunction.java
*
/opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jca/ProviderContext.java
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* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/lang/InvalidKeyException.java
* /opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwk/SelectorSupport.java
*

/opt/cola/permits/1534657383_1673960510.7888486/0/jose4j-0-6-3-sources-1-jar/org/jose4j/jwk/SimpleJwkFilter.java

1.396 netty-transport-native-epoll 4.1.86.Final

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* /opt/cola/permits/1534815977_1673960720.7817981/0/netty-transport-native-epoll-4-1-86-final-sources-1-jar/netty_epoll_linuxsocket.h

1.397 netty-transport-native-kqueue 4.1.86.Final

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* /opt/cola/permits/1534817009_1673963014.303444/0/netty-transport-native-kqueue-4-1-86-final-sources-1-jar/netty_kqueue_eventarray.h
* /opt/cola/permits/1534817009_1673963014.303444/0/netty-transport-native-kqueue-4-1-86-final-sources-1-jar/netty_kqueue_eventarray.c
*
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* /opt/cola/permits/1534817009_1673963014.303444/0/netty-transport-native-kqueue-4-1-86-final-sources-1-jar/netty_kqueue_bsdsocket.c
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1.398 angus-activation 1.0.0

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1.399 objenesis 3.2

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lib/libgss/gssd_pname_to_uid.c
uts/common/gssapi/include/gssapi_err_generic.h
uts/common/gssapi/include/mechglueP.h

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lib/gssapi/generic/gssapi_err_generic.et
lib/gssapi/mechglue/g_accept_sec_context.c
lib/gssapi/mechglue/g_acquire_cred.c
lib/gssapi/mechglue/g_canon_name.c
lib/gssapi/mechglue/g_compare_name.c
lib/gssapi/mechglue/g_context_time.c
lib/gssapi/mechglue/g_delete_sec_context.c
lib/gssapi/mechglue/g_dsp_name.c
lib/gssapi/mechglue/g_dsp_status.c
lib/gssapi/mechglue/g_dup_name.c
lib/gssapi/mechglue/g_exp_sec_context.c
lib/gssapi/mechglue/g_export_name.c
lib/gssapi/mechglue/g_glue.c
lib/gssapi/mechglue/g_imp_name.c
lib/gssapi/mechglue/g_imp_sec_context.c
lib/gssapi/mechglue/g_init_sec_context.c

lib/gssapi/mechglue/g_initialize.c
lib/gssapi/mechglue/g_inquire_context.c
lib/gssapi/mechglue/g_inquire_cred.c
lib/gssapi/mechglue/g_inquire_names.c
lib/gssapi/mechglue/g_process_context.c
lib/gssapi/mechglue/g_rel_buffer.c
lib/gssapi/mechglue/g_rel_cred.c
lib/gssapi/mechglue/g_rel_name.c
lib/gssapi/mechglue/g_rel_oid_set.c
lib/gssapi/mechglue/g_seal.c
lib/gssapi/mechglue/g_sign.c
lib/gssapi/mechglue/g_store_cred.c
lib/gssapi/mechglue/g_unseal.c
lib/gssapi/mechglue/g_userok.c
lib/gssapi/mechglue/g_utils.c
lib/gssapi/mechglue/g_verify.c
lib/gssapi/mechglue/gssd_pname_to_uid.c
lib/gssapi/mechglue/mglueP.h
lib/gssapi/mechglue/oid_ops.c
lib/gssapi/spnego/gssapiP_spnego.h
lib/gssapi/spnego/spnego_mech.c

and the initial implementation of incremental propagation, including
the
following new or changed files:

include/iprop_hdr.h
kadmin/server/ipropd_svc.c
lib/kdb/iprop.x
lib/kdb/kdb_convert.c
lib/kdb/kdb_log.c
lib/kdb/kdb_log.h
lib/krb5/error_tables/kdb5_err.et
slave/kpropd_rpc.c
slave/kproplog.c

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* atf-c/ui.c: The format_paragraph and format_text functions were derived form the ones in the Monotone project, revision 3a0982da308228d796df35f98d787c5cff2bb5b6.

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* atf-c++/detail/io.hpp, atf-c++/detail/io.cpp, atf-c++/detail/io_test.cpp: These files were derived from the file_handle, systembuf, pipe and pistream classes and tests found in the Boost.Process library.

Author: Julio Merino <jmmv84@gmail.com>

* admin/check-style.sh,
admin/check-style-common.awk,
admin/check-style-cpp.awk, admin/check-style-shell.awk: These files, except the first one, were first implemented in the Buildtool project. They were later adapted to be part of Boost.Process and, during that process, the shell script was created.

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<!-- Generate ISC copyright comments from Docbook copyright metadata. -->

<xsl:stylesheet version="1.0"
 xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
 xmlns:xi="http://www.w3.org/2001/XInclude"
 xmlns:db="http://docbook.org/ns/docbook">

 <xsl:template name="isc.copyright.format">
   <xsl:param name="text"/>
   <xsl:value-of select="$isc.copyright.leader"/>
   <xsl:value-of select="normalize-space(substring-before($text, '&#10;'))"/>
   <xsl:text>&#10;</xsl:text>
   <xsl:variable name="rest" select="substring-after($text, '&#10;')"/>
   <xsl:if test="translate($rest, '&#9;&#32;', '')">

     <xsl:call-template name="isc.copyright.format">
       <xsl:with-param name="text" select="$rest"/>
     </xsl:call-template>
   </xsl:if>
 </xsl:template>

 <xsl:variable name="isc.copyright.text">
   <xsl:text>
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   </xsl:text>
 </xsl:variable>

 <xsl:variable name="isc.copyright">
   <xsl:call-template name="isc.copyright.format">
     <xsl:with-param name="text">
       <xsl:for-each select="book/info/copyright | refentry/docinfo/copyright">
   <xsl:text>Copyright (C) </xsl:text>
   <xsl:call-template name="copyright.years">
     <xsl:with-param name="years" select="year"/>
   </xsl:call-template>
```

```
   <xsl:text> </xsl:text>
   <xsl:value-of select="holder"/>
        <xsl:value-of select="$isc.copyright.breakline"/>
   <xsl:text>&#10;</xsl:text>
 </xsl:for-each>
 <xsl:value-of
 select="$isc.copyright.text"/>
     </xsl:with-param>
   </xsl:call-template>
 </xsl:variable>
</xsl:stylesheet>

<!--
 - Local variables:
 - mode: sgml
 - End:
-->
```

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1.402 jackson-databind 2.14.2

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1.405 jersey-container-servlet 2.37

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* https://github.com/eclipse-ee4j/jersey

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1.414 jaxb2-reflection 4.0.0

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1.416 zlib 1.2.7-21.el7_9

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1.417 keyutils 1.5.8-3.el7

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must be distributed under the terms of Sections 1 and 2 above on a
medium customarily used for software interchange.

If distribution of object code is made by offering access to copy
from a designated place, then offering equivalent access to copy the
source code from the same place satisfies the requirement to
distribute the source code, even though third parties are not
compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the
Library, but is designed to work with the Library by being compiled or
linked with it, is called a "work that uses the Library". Such a
work, in isolation, is not a derivative work of the Library, and
therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library
creates an executable that is a derivative of the Library (because it
contains portions of the Library), rather than a "work that uses the

library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it
is legally a derivative
work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during
execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the

Library will not necessarily be able to recompile the application
to use the modified definitions.)

b) Use a suitable shared library mechanism
for linking with the
Library. A suitable mechanism is one that (1) uses at run time a
copy of the library already present on the user's computer system,
rather than copying library functions into the executable, and (2)
will operate properly with a modified version of the library, if
the user installs one, as long as the modified version is
interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at
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specified in Subsection 6a, above, for a charge no more
than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy
from a designated place, offer equivalent access to copy the above
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e) Verify that the user has already received a copy of these
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For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

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This option is useful when you wish to copy part of the code of
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4. You may copy and distribute the Library (or a portion or
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If distribution of object code is made by offering access to copy
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When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

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1.420 popt 1.13-16.el7

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see http://www.cnri.reston.va.us) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see http://www.zope.com). In 2001, the Python Software Foundation (PSF, see http://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

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Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)

2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
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1.422 libidn 1.28-4.el7

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1.423 dbus-python 1.1.1-9.el7

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1.424 yum-metadata-parser 1.1.4-10.el7

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1.426 json-c 0.11-4.el7_0

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1.427 lua 5.1.4-15.el7

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1.428 ustr 1.0.4-16.el7

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a)
Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will
operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

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1.430 pkg-config 0.27.1-4.el7

1.430.1 Available under license :

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Version 2, June 1991

[This is the first released version of the library GPL. It is
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1.432 pygpgme 0.3-9.el7

1.432.1 Available under license :

From RPM File Metadata:LGPLv2+

1.433 qrencode 3.4.1-3.el7

1.433.1 Available under license :

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1.434 pth 2.0.7-23.el7

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```
  ____  _   _
 |  _ \| |_| |__          ``Ian Fleming was a UNIX fan!
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d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

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the right to control the distribution of derivative or
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4. You may copy and distribute the Library (or a portion or
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under the terms of Sections 1 and 2 above provided that you accompany
it with the complete corresponding machine-readable source code, which
must be distributed under the terms of Sections 1 and 2 above on a
medium customarily used for software interchange.

If distribution of object code is made by offering access to copy
from a designated place, then offering equivalent access to copy the
source code from the same place satisfies the requirement to
distribute the source code, even though third parties are not
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5. A program that contains no derivative of any portion of the
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work, in isolation, is not a derivative work of the Library, and
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However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts
and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

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For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

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library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

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1.435 libassuan 2.1.0-3.el7

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d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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1.436 attr 2.4.46-13.el7

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This package was debianized by Nathan Scott nathans@debian.org on
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1.437 gawk 4.0.2-4.el7_3.1

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1.438 libsepol 2.5-10.el7

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1.439 texinfo 5.1-5.el7

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1.440 libverto 0.2.5-4.el7

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e) Provide Installation Information, but only if you would otherwise be required to provide such information under section 6 of the GNU GPL, and only to the extent that such information is necessary to install and execute a modified version of the Combined Work produced by recombining or relinking the Application with a modified version of the Linked Version. (If you use option 4d0, the Installation Information must accompany the Minimal Corresponding Source and Corresponding Application

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/* A simple integer desk calculator using yacc and gmp.

1.444 pcre 8.32-17.el7

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PCRE is a library of functions to support regular expressions whose syntax
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included in the distribution is a set of C++ wrapper functions, and a
just-in-time compiler that can be used to optimize pattern matching. These
are both optional features that can be omitted when the library is built.

THE BASIC LIBRARY FUNCTIONS

Written by: Philip Hazel
Email local part: ph10
Email domain: cam.ac.uk

University of Cambridge Computing Service,
Cambridge, England.

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PCRE JUST-IN-TIME COMPILATION SUPPORT

Written
 by: Zoltan Herczeg
Email local part: hzmester
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STACK-LESS JUST-IN-TIME COMPILER

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1.445 pinentry 0.8.1-17.el7

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1.446 libuser 0.60-9.el7

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Preamble

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We call this license the "Lesser" General Public License because it
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Public License. It also provides other free software developers Less
of an advantage over competing non-free programs. These disadvantages
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For example, on rare occasions, there may be a special need to
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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation
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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

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In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

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complete corresponding machine-readable source code, which
must be distributed under the terms of Sections 1 and 2 above on a
medium customarily used for software interchange.

If distribution of object code is made by offering access to copy
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5. A program that contains no derivative of any portion of the
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creates an executable that is a derivative of the Library (because it
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library". The executable is therefore covered by this License.
Section 6 states terms for distribution of such executables.

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Whether this is true is especially significant if the work can be

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute
the object code for the work under the terms of Section 6.
Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.
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b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2)

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operate properly with a modified version of the library, if
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1.451 pycurl 7.19.0-19.el7

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Julian Seward, jseward@bzip.org
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1.453 libgpg-error 1.12-3.el7

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<one line to give the program's name and a brief idea of what it does.>
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Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.

The hypothetical commands
`show w' and `show c' should show the appropriate
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<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice

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Version 2.1, February 1999

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The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

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machine-readable source code, which
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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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That's all there is to it!

1.454 findutils 4.5.11-6.el7

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Version 3, 29 June 2007

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have designed this version of the GPL to prohibit the practice for those products. If such problems arise substantially in other domains, we stand ready to extend this provision to those domains
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of the GPL, as needed to protect the freedom of users.

Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and modification follow.

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1. Source Code.

The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

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The following artifacts are EPL.
* org.eclipse.jetty.orbit:org.eclipse.jdt.core

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* org.eclipse.jetty.orbit:javax.security.auth.message

The following artifacts are EPL and CDDL 1.0.
* org.eclipse.jetty.orbit:javax.mail.glassfish

Oracle

The following artifacts are CDDL + GPLv2 with classpath exception.
https://glassfish.dev.java.net/nonav/public/CDDL+GPL.html

* javax.servlet:javax.servlet-api
 * javax.annotation:javax.annotation-api
* javax.transaction:javax.transaction-api
* javax.websocket:javax.websocket-api

Oracle OpenJDK

If ALPN is used to negotiate HTTP/2 connections, then the following
artifacts may be included in the distribution or downloaded when ALPN
module is selected.

* java.sun.security.ssl

These artifacts replace/modify OpenJDK classes. The modififications
are hosted at github and both modified and original are under GPL v2 with
classpath exceptions.
http://openjdk.java.net/legal/gplv2+ce.html

OW2

The following artifacts are licensed by the OW2 Foundation according to the
terms of http://asm.ow2.org/license.html

org.ow2.asm:asm-commons
org.ow2.asm:asm

Apache

The following artifacts are ASL2 licensed.

org.apache.taglibs:taglibs-standard-spec
org.apache.taglibs:taglibs-standard-impl

MortBay

The following artifacts are ASL2 licensed. Based on selected classes from following Apache Tomcat jars, all ASL2 licensed.

org.mortbay.jasper:apache-jsp
 org.apache.tomcat:tomcat-jasper
 org.apache.tomcat:tomcat-juli
 org.apache.tomcat:tomcat-jsp-api
 org.apache.tomcat:tomcat-el-api
 org.apache.tomcat:tomcat-jasper-el
 org.apache.tomcat:tomcat-api
 org.apache.tomcat:tomcat-util-scan
 org.apache.tomcat:tomcat-util

org.mortbay.jasper:apache-el
 org.apache.tomcat:tomcat-jasper-el
 org.apache.tomcat:tomcat-el-api

Mortbay

The following artifacts are CDDL + GPLv2 with classpath exception.

https://glassfish.dev.java.net/nonav/public/CDDL+GPL.html

org.eclipse.jetty.toolchain:jetty-schemas

Assorted

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1.459 opentelemetry-proto 0.11.0

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1.460 openssl 1.0.2k-26.el7_9

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1.462 resilience4j-circuitbreaker 0.13.1

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* /opt/cola/permits/1610149726_1679504940.9927049/0/resilience4j-circuitbreaker-0-13-1-sources-1-jar/io/github/resilience4j/circuitbreaker/internal/ForcedOpenState.java
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*

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1.463 vavr 0.9.2

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1.464 resilience4j-timelimiter 0.13.1

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1.466 resilience4j-core 0.13.1

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1.467 json-simple 3.0.2

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1.468 jetty-servlets 9.4.51.v20230217

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* org.eclipse.jetty.orbit:org.eclipse.jdt.core

The following artifacts are EPL and ASL2.
* org.eclipse.jetty.orbit:javax.security.auth.message

The following artifacts are EPL and CDDL 1.0.
* org.eclipse.jetty.orbit:javax.mail.glassfish

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https://glassfish.dev.java.net/nonav/public/CDDL+GPL.html

* javax.servlet:javax.servlet-api
* javax.annotation:javax.annotation-api
* javax.transaction:javax.transaction-api
* javax.websocket:javax.websocket-api

Oracle OpenJDK

If ALPN is used to negotiate HTTP/2 connections, then the following artifacts may be included in the distribution or downloaded when ALPN module is selected.

* java.sun.security.ssl

These artifacts replace/modify OpenJDK classes. The modifications are hosted at github and both modified and original are under GPL v2 with classpath exceptions.
http://openjdk.java.net/legal/gplv2+ce.html

OW2

The following artifacts are licensed by the OW2 Foundation according to the terms of http://asm.ow2.org/license.html

org.ow2.asm:asm-commons
org.ow2.asm:asm

Apache

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org.apache.taglibs:taglibs-standard-spec
org.apache.taglibs:taglibs-standard-impl

MortBay

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licensed.

org.mortbay.jasper:apache-jsp
 org.apache.tomcat:tomcat-jasper
 org.apache.tomcat:tomcat-juli
 org.apache.tomcat:tomcat-jsp-api
 org.apache.tomcat:tomcat-el-api
 org.apache.tomcat:tomcat-jasper-el
 org.apache.tomcat:tomcat-api
 org.apache.tomcat:tomcat-util-scan
 org.apache.tomcat:tomcat-util

org.mortbay.jasper:apache-el
 org.apache.tomcat:tomcat-jasper-el
 org.apache.tomcat:tomcat-el-api

Mortbay

The following artifacts are CDDL + GPLv2 with classpath exception.

https://glassfish.dev.java.net/nonav/public/CDDL+GPL.html

org.eclipse.jetty.toolchain:jetty-schemas

Assorted

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The following artifacts are EPL and ASL2.
* org.eclipse.jetty.orbit:javax.security.auth.message

The following artifacts are EPL and CDDL 1.0.
* org.eclipse.jetty.orbit:javax.mail.glassfish

Oracle

The following artifacts are CDDL + GPLv2 with classpath exception.
https://glassfish.dev.java.net/nonav/public/CDDL+GPL.html

* javax.servlet:javax.servlet-api
* javax.annotation:javax.annotation-api
* javax.transaction:javax.transaction-api
* javax.websocket:javax.websocket-api

Oracle OpenJDK

If ALPN is used to negotiate HTTP/2 connections, then the following artifacts may be included in the distribution or downloaded when ALPN module is selected.

* java.sun.security.ssl

These artifacts replace/modify OpenJDK classes. The modifications are hosted at github and both modified and original are under GPL v2 with classpath exceptions.
http://openjdk.java.net/legal/gplv2+ce.html

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org.ow2.asm:asm-commons
org.ow2.asm:asm

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org.apache.taglibs:taglibs-standard-spec
org.apache.taglibs:taglibs-standard-impl

MortBay

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org.mortbay.jasper:apache-jsp
 org.apache.tomcat:tomcat-jasper
 org.apache.tomcat:tomcat-juli
 org.apache.tomcat:tomcat-jsp-api
 org.apache.tomcat:tomcat-el-api
 org.apache.tomcat:tomcat-jasper-el
 org.apache.tomcat:tomcat-api
 org.apache.tomcat:tomcat-util-scan
 org.apache.tomcat:tomcat-util

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org.eclipse.jetty.toolchain:jetty-schemas

Assorted

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1.470 jetty-util-ajax 9.4.51.v20230217

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* org.eclipse.jetty.orbit:org.eclipse.jdt.core

The following artifacts are EPL and ASL2.
* org.eclipse.jetty.orbit:javax.security.auth.message

The following artifacts are EPL and CDDL 1.0.
* org.eclipse.jetty.orbit:javax.mail.glassfish

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https://glassfish.dev.java.net/nonav/public/CDDL+GPL.html

* javax.servlet:javax.servlet-api
* javax.annotation:javax.annotation-api
* javax.transaction:javax.transaction-api
* javax.websocket:javax.websocket-api

Oracle OpenJDK

If ALPN is used to negotiate HTTP/2 connections, then the following
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module is selected.

* java.sun.security.ssl

These artifacts replace/modify OpenJDK classes. The modififications
are hosted at github and both modified and original are under GPL v2 with
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http://openjdk.java.net/legal/gplv2+ce.html

OW2

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org.ow2.asm:asm-commons
org.ow2.asm:asm

Apache

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org.apache.taglibs:taglibs-standard-spec
org.apache.taglibs:taglibs-standard-impl

MortBay

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org.mortbay.jasper:apache-jsp
 org.apache.tomcat:tomcat-jasper
 org.apache.tomcat:tomcat-juli
 org.apache.tomcat:tomcat-jsp-api
 org.apache.tomcat:tomcat-el-api
 org.apache.tomcat:tomcat-jasper-el
 org.apache.tomcat:tomcat-api
 org.apache.tomcat:tomcat-util-scan
 org.apache.tomcat:tomcat-util

org.mortbay.jasper:apache-el
 org.apache.tomcat:tomcat-jasper-el
 org.apache.tomcat:tomcat-el-api

Mortbay

The following artifacts are CDDL + GPLv2 with classpath exception.

https://glassfish.dev.java.net/nonav/public/CDDL+GPL.html

org.eclipse.jetty.toolchain:jetty-schemas

Assorted

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1.479 snake-yaml 2.0

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/**
* A Base64 encoder/decoder.
*
* <p>
* This class is used to encode and decode data in Base64 format as described in RFC 1521.
*
* <p>
* Project home page: <a href="http://www.source-code.biz/base64coder/java/">www.
* source-code.biz/base64coder/java</a><br>
* Author: Christian d'Heureuse, Inventec Informatik AG, Zurich, Switzerland<br>
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*/
```

Found in path(s):
* /opt/cola/permits/1641306810_1681942578.2485716/0/snakeyaml-2-0-sources-3-jar/org/yaml/snakeyaml/external/biz/base64Coder/Base64Coder.java

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* /opt/cola/permits/1641306810_1681942578.2485716/0/snakeyaml-2-0-sources-3-jar/META-INF/maven/org.yaml/snakeyaml/pom.xml

1.480 jetty-security 9.4.51.v20230217

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* java.sun.security.ssl

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org.ow2.asm:asm-commons
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 org.apache.tomcat:tomcat-jasper
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 org.apache.tomcat:tomcat-jsp-api
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 org.apache.tomcat:tomcat-api
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org.eclipse.jetty.toolchain:jetty-schemas

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lib/gssapi/generic/gssapi_err_generic.et
lib/gssapi/mechglue/g_accept_sec_context.c
lib/gssapi/mechglue/g_acquire_cred.c
lib/gssapi/mechglue/g_canon_name.c
lib/gssapi/mechglue/g_compare_name.c
lib/gssapi/mechglue/g_context_time.c
lib/gssapi/mechglue/g_delete_sec_context.c
lib/gssapi/mechglue/g_dsp_name.c
lib/gssapi/mechglue/g_dsp_status.c
lib/gssapi/mechglue/g_dup_name.c
lib/gssapi/mechglue/g_exp_sec_context.c
lib/gssapi/mechglue/g_export_name.c
lib/gssapi/mechglue/g_glue.c
lib/gssapi/mechglue/g_imp_name.c
lib/gssapi/mechglue/g_imp_sec_context.c
lib/gssapi/mechglue/g_init_sec_context.c
lib/gssapi/mechglue/g_initialize.c
lib/gssapi/mechglue/g_inquire_context.c
lib/gssapi/mechglue/g_inquire_cred.c
lib/gssapi/mechglue/g_inquire_names.c
lib/gssapi/mechglue/g_process_context.c

lib/gssapi/mechglue/g_rel_buffer.c
lib/gssapi/mechglue/g_rel_cred.c
lib/gssapi/mechglue/g_rel_name.c
lib/gssapi/mechglue/g_rel_oid_set.c
lib/gssapi/mechglue/g_seal.c
lib/gssapi/mechglue/g_sign.c
lib/gssapi/mechglue/g_store_cred.c
lib/gssapi/mechglue/g_unseal.c
lib/gssapi/mechglue/g_userok.c
lib/gssapi/mechglue/g_utils.c
lib/gssapi/mechglue/g_verify.c
lib/gssapi/mechglue/gssd_pname_to_uid.c
lib/gssapi/mechglue/mglueP.h
lib/gssapi/mechglue/oid_ops.c
lib/gssapi/spnego/gssapiP_spnego.h
lib/gssapi/spnego/spnego_mech.c

and the initial implementation of incremental propagation, including
the following new or changed files:

include/iprop_hdr.h
kadmin/server/ipropd_svc.c
lib/kdb/iprop.x
lib/kdb/kdb_convert.c
lib/kdb/kdb_log.c
lib/kdb/kdb_log.h
lib/krb5/error_tables/kdb5_err.et
slave/kpropd_rpc.c
slave/kproplog.c

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Changes:
* added Debian GNU/Linux package maintenance system files
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A. HISTORY OF THE SOFTWARE
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Python was created in the early 1990s by Guido van Rossum at Stichting
Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands
as a successor of a language called ABC. Guido remains Python's
principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for
National
Research Initiatives (CNRI, see http://www.cnri.reston.va.us)
in Reston, Virginia where he released several versions of the
software.

In May 2000, Guido and the Python core development team moved to

BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see http://www.zope.com). In 2001, the Python Software Foundation (PSF, see http://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

All Python releases are Open Source (see http://www.opensource.org for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
2.3.1	2.3	2002-2003	PSF	yes
2.3.2	2.3.1	2002-2003	PSF	yes
2.3.3	2.3.2	2002-2003	PSF	yes
2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
2.4.2	2.4.1	2005	PSF	yes
2.4.3	2.4.2	2006	PSF	yes
2.4.4	2.4.3	2006	PSF	yes
2.5	2.4	2006	PSF	yes
2.5.1	2.5	2007	PSF	yes
2.5.2	2.5.1	2008	PSF	yes
2.5.3	2.5.2	2008	PSF	yes
2.6	2.5	2008	PSF	yes
2.6.1	2.6	2008	PSF	yes

2.6.2	2.6.1	2009	PSF	yes
2.6.3	2.6.2	2009	PSF	yes
2.6.4	2.6.3	2009	PSF	yes
3.0	2.6	2008	PSF	yes
3.0.1	3.0	2009	PSF	yes
3.1	3.0.1	2009	PSF	yes
3.1.1	3.1	2009	PSF	yes

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Upstream-Contact: Thorsten Kukuk <kukuk@thkukuk.de>
Source: https://github.com/thkukuk/libnsl

Files: debian/*
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Files: AUTHORS
       configure.ac
       config.h.in
       libnsl.pc.in
       Makefile.am
       NEWS
       README
       src/Makefile.am
       src/do_ypcall.c
       src/internal.h
       src/libnsl.map
       src/nisplus/nis_error.c
       src/taddr2host.c
       src/taddr2ipstr.c
       src/taddr2port.c
       src/yp_first.c
       src/yp_get_default_domain.c
       src/yp_maplist.c
       src/yp_master.c
       src/yp_match.c
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Files: src/libc-lock.h
src/nisplus/nis_add.c
src/nisplus/nis_addmember.c
src/nisplus/nis_call.c
src/nisplus/nis_callback.c
src/nisplus/nis_checkpoint.c
src/nisplus/nis_clone_dir.c
src/nisplus/nis_clone_obj.c
src/nisplus/nis_clone_res.c
src/nisplus/nis_creategroup.c
src/nisplus/nis_defaults.c
src/nisplus/nis_destroygroup.c
src/nisplus/nis_domain_of.c
src/nisplus/nis_domain_of_r.c
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cpan/podlators/t/lib/Test/RRA/Config.pm
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Julian Seward, jseward@bzip.org
bzip2/libbzip2 version 1.0.5 of 10 December 2007

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ASM Bytecode Manipulation Framework v6.0

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Local-Date: Fri, 06 Jun 2003 13:18:52 -0400
Date: Fri, 6 Jun 2003 10:18:52 -0700
From: Juan Gomez <juang@us.ibm.com>
To: Stephen Frost <sfrost@debian.org>
X-Mailer: Lotus Notes Release 5.0.2a (Intl) 23 November 1999
Subject: Re: Juan C. Gomez license in OpenLDAP Source

Stephen,

"There is no restriction on modifications and derived works" on the work I did for the openldap server as long as this is consistent with the openldap license. Please forward this email to Kurt so he does the appropriate changes to the files to reflect this.

Regards, Juan

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From: Mark Adamson <adamson@andrew.cmu.edu>
To: Stephen Frost <sfrost@debian.org>
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* To: Stephen Frost <sfrost@snowman.net>
* Subject: Re: OpenLDAP Licenseing issues
* From: "Kurt D. Zeilenga" <Kurt@OpenLDAP.org>
* Date: Wed, 28 May 2003 10:55:44 -0700
* Cc: Steve Langasek <vorlon@netexpress.net>,debian-legal@lists.debian.org, openldap-devel@OpenLDAP.org
* In-reply-to: <20030528162613.GB8524@ns.snowman.net>
* Message-id: <5.2.0.9.0.20030528094229.02924780@127.0.0.1>
* Old-return-path: <Kurt@OpenLDAP.org>

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Nicols Lichtmaier <nick@debian.org> on Sat, 18 Oct 1997 21:23:12 -0300
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It was downloaded from ftp://ftp.gnu.org/gnu/wget/
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From strings/apr_fnmatch.c, include/apr_fnmatch.h,
 misc/unix/getopt.c,
file_io/unix/mktemp.c, strings/apr_strings.c:

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From dso/aix/dso.c:

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From strings/apr_strnatcmp.c, include/apr_strings.h:

strnatcmp.c -- Perform 'natural order' comparisons of strings in C.
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From test/CuTest.c, test/CuTest.h:

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Debian maintainer history: The original package was put together by
Ian Murdock <imurdock@debian.org>, afterwards Kevin Dalley
<kevind@rahul.net> took over. 2003-07 Andreas Metzler
<ametzler@debian.org> followed.

Upstream Authors:
* GNU find was written by Eric Decker <cire@cisco.com>,
with enhancements by David MacKenzie <djm@gnu.org>,
Jay Plett <jay@silence.princeton.nj.us>,
and Tim Wood <axolotl!tim@toad.com>.
The idea for -print0 and xargs -0 came from
Dan Bernstein <brnstnd@kramden.acf.nyu.edu>.
Improvements have been made by James Youngman <jay@gnu.org>.

* GNU xargs
was originally written by Mike Rendell, with enhancements by David
MacKenzie. Modifications by James Youngman Dmitry V. Levin

* GNU locate and its associated utilities were originally
written by James Woods, with enhancements by David MacKenzie, James Youngman
and Bas van Gompel.

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Dmitry V. Levin
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Andreas Metzler
Kamil Dudka <kdudka@redhat.com>

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Current upstream maintainer is James Youngman <jay@gnu.org>.

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It has been packaged by Marco d'Itri <md@linux.it>.

Original sources were obtained from:
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Since Nov 27 1996, it was maintained by Guy Maor <maor@debian.org>. He rewrote most of it.

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Python was created in the early 1990s by Guido van Rossum at Stichting
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as a successor of a language called
ABC. Guido remains Python's
principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for
National Research Initiatives (CNRI, see http://www.cnri.reston.va.us)

in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see http://www.zope.com). In 2001, the Python Software Foundation (PSF, see http://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

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Mersenne Twister

The `_random' module includes code based on a download from
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following are the verbatim comments from the original code:

A C-program for MT19937, with initialization improved 2002/1/26.
Coded by Takuji Nishimura and Makoto Matsumoto.

Before using, initialize the state by using init_genrand(seed)
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Any feedback is very welcome.
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Sockets

The `socket' module uses the functions, `getaddrinfo', and `getnameinfo', which are coded in separate source files from the WIDE Project, `http://www.wide.ad.jp/about/index.html'.

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Packaging is done by the Debian GCC Maintainers <debian-gcc@lists.debian.org>, with sources obtained from:

ftp://gcc.gnu.org/pub/gcc/releases/ (for full releases)
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git://git.savannah.gnu.org/gm2.git (for Modula-2)

The current gcc-9 source package is taken from the SVN gcc-9-branch.

Changes: See changelog.Debian.gz

Debian splits the GNU Compiler Collection into packages for each language, library, and documentation as follows:

Language	Compiler package	Library package	Documentation
Ada	gnat-9	libgnat-9	gnat-9-doc
BRIG	gccbrig-9	libhsail-rt0	
C	gcc-9		gcc-9-doc
C++	g++-9	libstdc++6	libstdc++6-9-doc
D	gdc-9		
Fortran 95	gfortran-9	libgfortran3	gfortran-9-doc
Go	gccgo-9	libgo0	
Objective C	gobjc-9	libobjc2	
Objective C++	gobjc++-9		
Modula-2	gm2-9	libgm2	

For some language run-time libraries, Debian provides source files, development files, debugging symbols and libraries containing position-independent code in separate packages:

Language	Sources	Development	Debugging	Position-Independent
C++			libstdc++6-9-dbg	libstdc++6-9-pic
D	libphobos-9-dev			

Additional packages include:

All languages:

libgcc1, libgcc2, libgcc4	GCC intrinsics (platform-dependent)
gcc-9-base	Base files common to all compilers
gcc-9-soft-float	Software floating point (ARM only)
gcc-9-source	The sources with patches

Ada:

libgnatvsn-dev, libgnatvsn9	GNAT version library

C:

cpp-9, cpp-9-doc	GNU C Preprocessor
libssp0-dev, libssp0	GCC stack smashing protection library

libquadmath0	Math routines for the __float128 type
fixincludes	Fix non-ANSI header files

C, C++ and Fortran 95:
libgomp1-dev, libgomp1 GCC OpenMP (GOMP) support library
libitm1-dev, libitm1 GNU Transactional Memory Library

Biarch support: On some 64-bit platforms which can also run 32-bit code, Debian provides additional packages containing 32-bit versions of some libraries. These packages have names beginning with 'lib32' instead of 'lib', for example lib32stdc++6. Similarly, on some 32-bit platforms which can also run 64-bit code, Debian provides additional packages with names beginning with 'lib64' instead of 'lib'. These packages contain 64-bit versions of the libraries. (At this time, not all platforms and not all libraries support biarch.) The license terms for these lib32 or lib64 packages are identical to the ones for the lib packages.

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D:

gdc-9	GNU D Compiler
libphobos-9-dev	D standard runtime library

The D source package is made up of the following components.

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The Zlib data compression library:
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The Phobos standard runtime library:
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mpi/hppa1.1/mpih-mul1.S, mpi/Makefile.am, tests/prime.c,
tests/register.c, tests/ac.c, tests/basic.c, tests/tsexp.c,
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In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see http://www.cnri.reston.va.us) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations, which became Zope Corporation. In 2001, the Python Software Foundation (PSF, see https://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation was a sponsoring member of the PSF.

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        src/clnt_bcast.c
        src/clnt_perror.c
        src/clnt_raw.c
        src/clnt_simple.c
        src/clnt_vc.c

src/debug.c
src/debug.h
src/des_crypt.c
src/getnetconfig.c
src/getnetpath.c
src/getrpcent.c
src/getrpcport.c
src/key_call.c
src/key_prot_xdr.c
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src/pmap_getmaps.c
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src/rpc_com.h
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src/rpc_generic.c
src/rpc_prot.c
src/rpc_soc.c
src/rpcb_prot.c
src/rpcb_st_xdr.c
src/rtime.c
src/svc_auth.c
src/svc_auth_des.c
src/svc_auth_unix.c
src/svc_dg.c
src/svc_generic.c
src/svc_raw.c
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src/svc_vc.c
src/xdr_array.c
src/xdr_float.c
src/xdr_mem.c
src/xdr_rec.c
src/xdr_reference.c
src/xdr_sizeof.c
src/xdr_stdio.c
tirpc/rpc/auth_des.h
tirpc/rpc/auth_unix.h
tirpc/rpc/des_crypt.h
tirpc/rpc/pmap_clnt.h
tirpc/rpc/pmap_prot.h
tirpc/rpc/pmap_rmt.h
tirpc/rpc/raw.h
tirpc/rpc/rpc_com.h

tirpc/rpc/rpc_msg.h
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m4/ltoptions.m4
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man/rpc_gss_get_versions.3t
man/rpc_gss_getcred.3t
man/rpc_gss_is_installed.3t
man/rpc_gss_max_data_length.3t
man/rpc_gss_mech_to_oid.3t
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Email local part: ph10
Email domain:
cam.ac.uk

University of Cambridge Computing Service,
Cambridge, England.

PCRE2 JUST-IN-TIME COMPILATION SUPPORT

Written by: Zoltan Herczeg
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file_io/unix/mktemp.c, strings/apr_strings.c:

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From strings/apr_strnatcmp.c, include/apr_strings.h:

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Source: https://gnupg.org/ftp/gcrypt/libassuan/

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src/Makefile.am
src/assuan-buffer.c
src/assuan-error.c
src/assuan-inquire.c
src/assuan-io.c
src/assuan-listen.c
src/assuan-pipe-server.c
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m4/onceonly.m4
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distributed together with the EXT2 file system utilities, which are
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This package was put together by Yann Dirson <dirson@debian.org>,
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o freetype-devel@nongnu.org

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This is the Debian GNU/Linux prepackaged version of the GNU compiler
collection, containing Ada, C, C++, D, Fortran 95, Go, Objective-C,
Objective-C++, and Modula-2 compilers, documentation, and support
libraries. In addition, Debian provides the gm2 compiler, either in
the same source package, or built from a separate same source package.
Packaging is done by the Debian GCC Maintainers
<debian-gcc@lists.debian.org>, with sources obtained from:

ftp://gcc.gnu.org/pub/gcc/releases/ (for full releases)
svn://gcc.gnu.org/svn/gcc/ (for prereleases)
ftp://sourceware.org/pub/newlib/ (for newlib)
git://git.savannah.gnu.org/gm2.git (for Modula-2)

The current gcc-10 source package is taken from the SVN gcc-10-branch.

Changes: See changelog.Debian.gz

Debian splits the GNU Compiler Collection into packages for each language,
library, and documentation as follows:

Language	Compiler package	Library package	Documentation
Ada	gnat-10	libgnat-10	gnat-10-doc
BRIG	gccbrig-10	libhsail-rt0	
C	gcc-10		gcc-10-doc
C++	g++-10	libstdc++6	libstdc++6-10-doc
D	gdc-10		
Fortran 95	gfortran-10	libgfortran5	gfortran-10-doc
Go	gccgo-10	libgo0	
Objective C	gobjc-10	libobjc4	
Objective C++	gobjc++-10		
Modula-2	gm2-10	libgm2	

For some language run-time libraries, Debian provides source files, development files, debugging symbols and libraries containing position-independent code in separate packages:

Language	Sources	Development	Debugging	Position-Independent
C++			libstdc++6-10-dbg	libstdc++6-10-pic
D		libphobos-10-dev		

Additional packages include:

All languages:

libgcc1, libgcc2, libgcc4	GCC intrinsics (platform-dependent)
gcc-10-base	Base files common to all compilers
gcc-10-soft-float	Software floating point (ARM only)
gcc-10-source	The sources with patches

Ada:

libgnat-util10-dev, libgnat-util10	GNAT version library

C:

cpp-10, cpp-10-doc	GNU C Preprocessor
libssp0-dev, libssp0	GCC stack smashing protection library
libquadmath0	Math routines for the __float128 type
fixincludes	Fix non-ANSI header files

C, C++ and Fortran 95:

libgomp1-dev, libgomp1	GCC OpenMP (GOMP) support library
libitm1-dev, libitm1	GNU Transactional Memory Library

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D:

gdc-10	GNU D Compiler
libphobos-10-dev	D standard runtime library

The D source package is made up of the following components.

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The Phobos standard runtime library:
- d/phobos/*

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Mesa 3-D Graphics Library v21.0.3

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</pre>
The Unicode Standard, Unicode Character Database, Version 10.0.0

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CUP Parser Generator for Java v 0.11b

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*******************************************************************************

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```

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----
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include/GL/glxext.h
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over the unpatented Huffman mode, it is unlikely that very many
implementations will support it.) So far as we are aware, there are
no patent restrictions on the remaining code.

The IJG distribution formerly included code to read and write GIF files.
To avoid entanglement with the Unisys LZW patent, GIF reading support
has been removed altogether, and the GIF writer has been simplified to
produce "uncompressed GIFs". This technique does not use the LZW algorithm;
the resulting GIF files are larger than usual, but are readable by all
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1.487 servlet-api 3.0.1

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```

*/

Found in path(s):
* /opt/cola/permits/1656707133_1682600610.4687467/0/perfmark-api-0-17-0-sources-1-jar/io/perfmark/Impl.java
* /opt/cola/permits/1656707133_1682600610.4687467/0/perfmark-api-0-17-0-sources-1-jar/io/perfmark/PerfMark.java
* /opt/cola/permits/1656707133_1682600610.4687467/0/perfmark-api-0-17-0-sources-1-jar/io/perfmark/package-info.java
* /opt/cola/permits/1656707133_1682600610.4687467/0/perfmark-api-0-17-0-sources-1-jar/io/perfmark/Link.java
* /opt/cola/permits/1656707133_1682600610.4687467/0/perfmark-api-0-17-0-sources-1-jar/io/perfmark/Tag.java

1.489 jackson-annotations 2.15.0

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1.495 joda-time 2.11.1

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1.496 jackson-jaxrs 2.15.0

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1.499 core-io 1.7.18

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1.500 common-utils 7.0.5

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Other developers who have contributed code are:

* Brian Langel

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permissions and limitations under the License.
 -->

</head>

<body>
<!-- Navigation -->
<header>
 <nav class="navbar navbar-default navbar-fixed-top">
   <div class="container">
    <div class="navbar-header">
      <button class="navbar-toggle" type="button" data-toggle="collapse" data-target="#mainnav-collapse">
        <span class="sr-only">Toggle navigation</span>
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
      </button>
      <a href="#" class="navbar-brand"><span class="glyphicon glyphicon-home"></span></a>
    </div>
    <div class="collapse navbar-collapse" id="mainnav-collapse">
      <div style="line-height:20px; padding-top:5px; float:left"><a href="/">Home</a>&nbsp;&raquo&nbsp;<a
href="/licenses/">Licenses</a></div>
      <ul class="nav navbar-nav navbar-right">
        <li class="dropdown">
         <a href="#" class="dropdown-toggle" data-toggle="dropdown">About <span class="caret"></span></a>
         <ul class="dropdown-menu"
 role="menu">
        <li><a href="/foundation">Overview</a></li>
        <li><a href="/foundation/members.html">Members</a></li>
        <li><a href="/foundation/how-it-works.html">Process</a></li>
        <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
        <li><a href="/foundation/glossary.html">Glossary</a></li>
        <li><a href="/foundation/preFAQ.html">FAQ</a></li>
        <li><a href="/foundation/contact.html ">Contact</a></li>
         </ul>
        </li>
   <li><a href="/index.html#projects-list">Projects</a></li>
    <li class="dropdown">
         <a href="#" class="dropdown-toggle" data-toggle="dropdown">People <span class="caret"></span></a>
```

```
          <ul class="dropdown-menu" role="menu">
       <li><a href="http://people.apache.org/">Overview</a></li>
       <li><a href="http://people.apache.org/committer-index.html">Committers</a></li>
       <li><a href="/foundation/how-it-works.html#meritocracy">Meritocracy</a></li>
        <li><a href="/foundation/how-it-works.html#roles">Roles</a></li>
       <li><a href="http://planet.apache.org/">Planet Apache</a></li>
          </ul>
         </li>
         <li class="dropdown">
           <a href="#" class="dropdown-toggle" data-toggle="dropdown">Get Involved <span
class="caret"></span></a>
           <ul class="dropdown-menu" role="menu">
             <li><a href="/foundation/getinvolved.html">Overview</a></li>
         <li><a href="http://community.apache.org/">Community Development</a></li>
                   <li><a href="http://helpwanted.apache.org/">Help Wanted</a></li>
         <li><a href="http://www.apachecon.com/">ApacheCon</a></li>
           </ul>
     </li>
         <li><a href="/dyn/closer.cgi">Download</a></li>
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">Support Apache <span
class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">

     <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
         <li><a href="/foundation/contributing.html">Donations</a></li>
         <li><a href="/foundation/buy_stuff.html">Buy Stuff</a></li>
         <li><a href="/foundation/thanks.html">Thanks</a></li>
          </ul>
         </li>
       </ul>
     </div>
   </div>
 </nav>
</header>
<!-- / Navigation -->
<div class="container">
 <div class="row">
   <div class="col-md-9 col-sm-8 col-xs-12">
     <img src="/img/asf_logo.png" alt="Apache Logo" style="max-width: 100%;">
   </div>
   <div class="col-md-3 col-sm-4 col-xs-12">
     <div class="input-group" style="margin-bottom: 5px;">
    <script>
 (function() {
   var cx = '005703438322411770421:5mgshgrgx2u';
   var gcse = document.createElement('script');
   gcse.type = 'text/javascript';
```

```
  gcse.async = true;
  gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:') +
      '//cse.google.com/cse.js?cx=' + cx;
  var s = document.getElementsByTagName('script')[0];
   s.parentNode.insertBefore(gcse, s);
 })();
</script>
   <gcse:searchbox-only></gcse:searchbox-only>
  </div>
  <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/governance/">The Apache Way</a>
  <a role="button" class="btn btn-block btn-default btn-xs"
href="https://community.apache.org/contributors/">Contribute</a>
  <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/thanks.html">ASF Sponsors</a>
  </div>
 </div>
</div>
<div class="container"><style type="text/css">
/* The following code is added by mdx_elementid.py
  It was originally lifted from http://subversion.apache.org/style/site.css */
/*
* Hide class="elementid-permalink", except when an enclosing heading
* has the :hover property.
*/
.headerlink, .elementid-permalink {
 visibility: hidden;
}
h2:hover > .headerlink, h3:hover > .headerlink, h1:hover > .headerlink, h6:hover > .headerlink, h4:hover >
.headerlink, h5:hover >
 .headerlink, dt:hover > .elementid-permalink { visibility: visible }</style>
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Contributor by reason of your accepting any such warranty or additional
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```
<h1 id="apply">APPENDIX: How to apply the Apache License to your work<a class="headerlink" href="#apply"
title="Permanent
 link">&para;</a></h1>
<p>To apply the Apache License to your work, attach the following boilerplate
notice, with the fields enclosed by brackets "[]" replaced with your own
identifying information. (Don't include the brackets!) The text should be
enclosed in the appropriate comment syntax for the file format. We also
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<div class="codehilite"><pre>Copyright [yyyy] [name of copyright owner]

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</pre></div></div>

<!-- Footer -->

<footer class="bg-primary">
 <div class="container">
   <div class="row">
    <br />
    <div class="col-sm-1">


    </div>
    <div class="col-sm-2">
          <h5 class="white">Community</h5>
          <ul class="list-unstyled white" role="menu">
      <li><a href="http://community.apache.org/">Overview</a></li>
      <li><a href="/foundation/conferences.html">Conferences</a></li>
      <li><a href="http://community.apache.org/gsoc.html">Summer of Code</a></li>
      <li><a href="http://community.apache.org/newcomers/">Getting Started</a></li>
      <li><a href="/foundation/how-it-works.html">The Apache Way</a></li>
      <li><a href="/travel/">Travel Assistance</a></li>
      <li><a href="/foundation/getinvolved.html">Get Involved</a></li>
      <li><a href="http://community.apache.org/newbiefaq.html">Community
 FAQ</a></li>
          </ul>
```

```
</div>

<div class="col-sm-2">
 <h5 class="white">Innovation</h5>
       <ul class="list-unstyled white" role="menu">
  <li><a href="http://incubator.apache.org/">Incubator</a></li>
  <li><a href="http://labs.apache.org/">Labs</a></li>
  <li><a href="/licenses/">Licensing</a></li>
  <li><a href="/foundation/license-faq.html">Licensing FAQ</a></li>
  <li><a href="/foundation/marks/">Trademark Policy</a></li>
  <li><a href="/foundation/contact.html">Contacts</a></li>
       </ul>
</div>

<div class="col-sm-2">
 <h5 class="white">Tech Operations</h5>
      <ul class="list-unstyled white" role="menu">
   <li><a href="/dev/">Developer Information</a></li>
   <li><a href="/dev/infrastructure.html">Infrastructure</a></li>
   <li><a href="/security/">Security</a></li>
   <li><a href="http://status.apache.org">Status</a></li>
   <li><a href="/foundation/contact.html">Contacts</a></li>

    </ul>
</div>

<div class="col-sm-2">
 <h5 class="white">Press</h5>
    <ul class="list-unstyled white" role="menu">
  <li><a href="/press/">Overview</a></li>
  <li><a href="https://blogs.apache.org/">ASF News</a></li>
  <li><a href="https://blogs.apache.org/foundation/">Announcements</a></li>
  <li><a href="https://twitter.com/TheASF">Twitter Feed</a></li>
  <li><a href="/press/#contact">Contacts</a></li>
    </ul>
</div>

<div class="col-sm-2">
 <h5 class="white">Legal</h5>
    <ul class="list-unstyled white" role="menu">
  <li><a href="/legal/">Legal Affairs</a></li>
  <li><a href="/licenses/">Licenses</a></li>
  <li><a href="/foundation/marks/">Trademark Policy</a></li>
  <li><a href="/foundation/records/">Public Records</a></li>
       <li><a href="/foundation/policies/privacy.html">Privacy Policy</a></li>
  <li><a href="/licenses/exports/">Export Information</a></li>
  <li><a
```

```
 href="/foundation/license-faq.html">License/Distribution FAQ</a></li>
     <li><a href="/foundation/contact.html">Contacts</a></li>
       </ul>
    </div>

    <div class="col-sm-1">
    </div>

   </div>
   <hr class="col-lg-12 hr-white" />
   <div class="row">
    <div class="col-lg-12">
     <p class="text-center">Copyright &#169; 2016 The Apache Software Foundation, Licensed under the <a
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     <p class="text-center">Apache and the Apache feather logo are trademarks of The Apache Software
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    </div>
   </div>
  </div>

</footer>

<!-- / Footer -->

<script src="/js/jquery-2.1.1.min.js"></script>
<script src="/js/bootstrap.js"></script>
</body>
</html>
```

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```
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">
<html><head>
<title>301 Moved Permanently</title>
</head><body>
<h1>Moved Permanently</h1>
<p>The document has moved <a href="https://opensource.org/licenses/mit-license.php">here</a>.</p>
```

</body></html>
Format: http://www.debian.org/doc/packaging-manuals/copyright-format/1.0/
Upstream-Name: schema-registry
Source: https://github.com/confluentinc/schema-registry

Files: *
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```
cd <SRC_PATH>
mvn package -DskipTests
mkdir /tmp/jars
mkdir /tmp/overrides
```

```
cp package-schema-registry/target/kafka-schema-registry-package-<VERSION>-package/share/java/schema-registry/*.jar /tmp/jars/
cp package-kafka-serde-tools/target/kafka-serde-tools-package-<VERSION>-package/share/java/kafka-serde-tools/*.jar /tmp/jars/
cd <LICENSE_TOOL_PATH>
./bin/run_license_job.bash -i /tmp/jars -l <SRC_PATH>/licenses -n <SRC_PATH>/notices -h <SRC_PATH>/licenses-and-notices.html -o /tmp/overrides
```

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<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
<title>Untitled Document</title>
</head>

<body>
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<HTML>
<!--    @page { margin: 0.79in }    P { margin-bottom: 0.08in }    H1 { margin-top: 0in; margin-bottom: 0.17in; widows:
0; orphans: 0 }    H1.western { font-family: "Times New Roman", serif; font-size: 12pt; font-weight: normal }    H1.cjk
{ font-family: "Andale Sans UI"; font-size: 12pt; font-weight: normal }    H1.ctl { font-family: "Tahoma"; font-size:
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<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">

```
<html lang="en-US">
<head>
 <title>GlassFish Dual License Header and License Notice GPL v2 and CDDL</title>
 <meta http-equiv="content-type" content="text/html; charset=UTF-8">
 <style type="text/css">
  li {display: block;}
 </style>
</head>

<body leftmargin="0" topmargin="0" marginheight="0" marginwidth="0" bgcolor="#ffffff">

 <h3>COMMON DEVELOPMENT AND DISTRIBUTION LICENSE (CDDL) Version 1.0</h3>

 <ul>
  <li><p><b>1. Definitions.</b></p>
   <ul>
    <li>
     <p>
      <b>1.1. &ldquo;Contributor&rdquo;</b> means each individual or
      entity that creates or contributes to the creation of
      Modifications.
     </p>
    </li>

    <li>
     <p>
      <b>1.2. &ldquo;Contributor Version&rdquo;</b> means
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 Contributor.
     </p>
    </li>

    <li>
     <p>
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      the Original Software, or (b) Modifications, or (c) the
      combination of files containing Original Software with files
      containing Modifications, in each case including portions
      thereof.
     </p>
    </li>

    <li>
     <p>
      <b>1.4. &ldquo;Executable&rdquo;</b> means the
      Covered Software in any form other than Source Code.
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    </p>
   </li>

   <li>
    <p>
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     available under this License.
    </p>
   </li>

   <li>
    <p>
     <b>1.6. &ldquo;Larger Work&rdquo;</b> means a work
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    </p>
   </li>

   <li>
    <p>
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means this document.
    </p>
   </li>

   <li>
    <p>
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     any and all of the rights conveyed herein.
    </p>
   </li>

   <li>
    <p>
     <b>1.9. &ldquo;Modifications&rdquo;</b> means the
     Source Code and Executable form of any of the following:
    </p>
    <ul>
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       to, deletion from or modification of the contents of a
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       Modifications;
      </p>
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     </li>
     <li>
      <p>
       <b>B.</b> Any new file that contains any part of
       the Original Software or previous Modification; or
      </p>
     </li>
     <li>
      <p>
       <b>C.</b> Any new file that is contributed or
       otherwise
made available under the terms of this
       License.
      </p>
     </li>
    </ul>
   </li>

   <li>
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     code that is originally released under this License.
    </p>
   </li>

   <li>
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    </p>
   </li>

   <li>
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     common form of computer software code in which modifications
     are made and (b) associated documentation included in or
     with such code.
    </p>
   </li>

   <li>
    <p>
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     &ldquo;Your&rdquo;)</b> means an individual or a legal
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    or otherwise, or (b)&nbsp;ownership of more than fifty
    percent (50%) of the outstanding shares or beneficial
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   </p>
  </li>
 </ul>
</li>

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 <ul>
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   </li>
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     </ul>
    </li>
   </ul>
  </li>

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 <li>
  <p><b>6.
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   <li>
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 <li>
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   that refer to this License and to the absence of any warranty; and give
   any other recipients of the Program a copy of this License along with
   the Program.
  </p>
  <p>
   You may charge a fee for the physical act of transferring a copy, and you
   may at your option offer warranty protection in exchange for a fee.
  </p>
 </li>
 <li>
  <p>
   <b>2.</b> You may modify your copy or copies of the Program or any portion
   of it, thus forming a work based on the Program, and copy and distribute
   such modifications or work under the terms of Section 1 above, provided
   that you also meet all of these conditions:
  </p>
  <ul>
   <li>
```

```
    <p>
      a) You must cause the modified files to carry prominent notices stating
     that you changed the files and the date of any change.
    </p>
   </li>
   <li>
    <p>
     b) You must cause any work that you distribute or publish, that in whole
     or in part contains or is derived from the Program or any part thereof,
     to be licensed as a whole at no charge to all third parties under the terms
     of this License.
    </p>
   </li>
   <li>
    <p>
     c) If the modified program normally reads commands interactively when run,
     you must cause it, when started running for such interactive use in the
     most ordinary way, to print or display an announcement including an
     appropriate copyright notice and a notice that there is no warranty (or
     else, saying that you provide a warranty) and that users may redistribute
     the program under these conditions, and telling the user how to view a
     copy of this License. (Exception:
if the Program itself is interactive
     but does not normally print such an announcement, your work based on the
     Program is not required to print an announcement.)
    </p>
   </li>
  </ul>
  <p>
   These requirements apply to the modified work as a whole. If identifiable
   sections of that work are not derived from the Program, and can be reasonably
   considered independent and separate works in themselves, then this License,
   and its terms, do not apply to those sections when you distribute them as
   separate works. But when you distribute the same sections as part of a whole
   which is a work based on the Program, the distribution of the whole must
   be on the terms of this License, whose permissions for other licensees
   extend to the entire whole, and thus to each and every part regardless
   of who wrote it.
  </p>
  <p>
   Thus, it is not the intent of this section to claim rights or contest
   your rights to work written
entirely by you; rather, the intent is to
   exercise the right to control the distribution of derivative or collective
   works based on the Program.
  </p>
  <p>
   In addition, mere aggregation of another work not based on the Program
```

```
   with the Program (or with a work based on the Program) on a volume of
   a storage or distribution medium does not bring the other work under
   the scope of this License.
  </p>
 </li>

 <li>
  <p>
   <b>3.</b> You may copy and distribute the Program (or a work based
   on it, under Section 2) in object code or executable form under
   the terms of Sections 1 and 2 above provided that you also do one
   of the following:
  </p>
  <ul>
   <li>
    <p>
     a) Accompany it with the complete corresponding machine-readable
     source code, which must be distributed under the terms of Sections
     1 and 2 above on a medium customarily used for software interchange; or,
    </p>
   </li>
   <li>
     <p>
     b) Accompany it with a written offer, valid for at least three years,
     to give any third party, for a charge no more than your cost of
     physically performing source distribution, a complete machine-readable
     copy of the corresponding source code, to be distributed under the
     terms of Sections 1 and 2 above on a medium customarily used for
     software interchange; or,
    </p>
   </li>
   <li>
    <p>
     c) Accompany it with the information you received as to the offer to
     distribute corresponding source code. (This alternative is allowed
     only for noncommercial distribution and only if you received the
     program in object code or executable form with such an offer, in
     accord with Subsection b above.)
    </p>
   </li>
  </ul>
  <p>
   The source code for a work means the preferred form of the work for
   making modifications to it. For an executable work, complete source
   code means all the
source code for all modules it contains, plus any
   associated interface definition files, plus the scripts used to control
   compilation and installation of the executable. However, as a special
```

```
   exception, the source code distributed need not include anything that
   is normally distributed (in either source or binary form) with the
   major components (compiler, kernel, and so on) of the operating system
   on which the executable runs, unless that component itself accompanies
   the executable.
  </p>
  <p>
   If distribution of executable or object code is made by offering access
   to copy from a designated place, then offering equivalent access to
   copy the source code from the same place counts as distribution of the
   source code, even though third parties are not compelled to copy the
   source along with the object code.
  </p>
 </li>

 <li>
  <p>
   <b>4.</b> You may not copy, modify, sublicense, or distribute the
   Program except
as expressly provided under this License. Any attempt
   otherwise to copy, modify, sublicense or distribute the Program is void,
   and will automatically terminate your rights under this License. However,
   parties who have received copies, or rights, from you under this License
   will not have their licenses terminated so long as such parties remain
   in full compliance.
  </p>
 </li>

 <li>
  <p>
   <b>5.</b> You are not required to accept this License, since you have
   not signed it. However, nothing else grants you permission to modify or
   distribute the Program or its derivative works. These actions are prohibited
   by law if you do not accept this License. Therefore, by modifying or
   distributing the Program (or any work based on the Program), you indicate
   your acceptance of this License to do so, and all its terms and conditions
   for copying, distributing or modifying the Program or works based on it.
  </p>
 </li>

 <li>
   <p>
   <b>6.</b> Each time you redistribute the Program (or any work based on the
   Program), the recipient automatically receives a license from the original
   licensor to copy, distribute or modify the Program subject to these terms
   and conditions. You may not impose any further restrictions on the recipients'
   exercise of the rights granted herein. You are not responsible for enforcing
   compliance by third parties to this License.
```

```
  </p>
 </li>

 <li>
  <p>
   <b>7.</b> If, as a consequence of a court judgment or allegation of patent
   infringement or for any other reason (not limited to patent issues),
   conditions are imposed on you (whether by court order, agreement or otherwise)
   that contradict the conditions of this License, they do not excuse you from
   the conditions of this License. If you cannot distribute so as to satisfy
   simultaneously your obligations under this License and any other pertinent
   obligations, then
as a consequence you may not distribute the Program at all.
   For example, if a patent license would not permit royalty-free redistribution
   of the Program by all those who receive copies directly or indirectly through
   you, then the only way you could satisfy both it and this License would be
   to refrain entirely from distribution of the Program.
  </p>
  <p>
   If any portion of this section is held invalid or unenforceable under any
   particular circumstance, the balance of the section is intended to apply and
   the section as a whole is intended to apply in other circumstances.
  </p>
  <p>
   It is not the purpose of this section to induce you to infringe any patents
   or other property right claims or to contest validity of any such claims;
   this section has the sole purpose of protecting the integrity of the free
   software distribution system, which is implemented by public license practices.
   Many people have made generous contributions
to the wide range of software
   distributed through that system in reliance on consistent application of that
   system; it is up to the author/donor to decide if he or she is willing to
   distribute software through any other system and a licensee cannot impose that
   choice.
  </p>
  <p>
   This section is intended to make thoroughly clear what is believed to be a
   consequence of the rest of this License.
  </p>
 </li>

 <li>
  <p>
   <b>8.</b> If the distribution and/or use of the Program is restricted in
   certain countries either by patents or by copyrighted interfaces, the
   original copyright holder who places the Program under this License may
   add an explicit geographical distribution limitation excluding those
   countries, so that distribution is permitted only in or among countries
```

```
   not thus excluded. In such case, this License incorporates the limitation
   as if written in the body of this License.
  </p>
 </li>

  <li>
  <p>
   <b>9.</b> The Free Software Foundation may publish revised and/or new
   versions of the General Public License from time to time. Such new versions
   will be similar in spirit to the present version, but may differ in detail
   to address new problems or concerns.
  </p>
  <p>
   Each version is given a distinguishing version number. If the Program
   specifies a version number of this License which applies to it and "any later
   version", you have the option of following the terms and conditions either
   of that version or of any later version published by the Free Software
   Foundation. If the Program does not specify a version number of this License,
   you may choose any version ever published by the Free Software Foundation.
  </p>
 </li>

 <li>
  <p>
   <b>10.</b> If you wish to incorporate parts of the Program into other free
   programs whose distribution conditions are different, write to the author
   to ask for
permission. For software which is copyrighted by the Free Software
   Foundation, write to the Free Software Foundation; we sometimes make exceptions
   for this. Our decision will be guided by the two goals of preserving the
   free status of all derivatives of our free software and of promoting the
   sharing and reuse of software generally.
  </p>
 </li>

 <li>
  <p>NO WARRANTY</p>
 </li>

 <li>
  <p>
   <b>11.</b> BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO
   WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW.
   EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR
   OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND,
   EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED
   WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE
   ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU.
```

```
   SHOULD THE PROGRAM PROVE DEFECTIVE,
 YOU ASSUME THE COST OF ALL NECESSARY
   SERVICING, REPAIR OR CORRECTION.
  </p>
 </li>

 <li>
  <p>
   <b>12.</b> IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN
   WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR
   REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES,
   INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING
   OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO
   LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR
   THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS),
   EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH
DAMAGES.
  </p>
 </li>

 <li>
  <p>END OF TERMS AND CONDITIONS</p>
 </li>

 <li>
  <p><b>How to Apply These Terms to Your New Programs</b></p>
  <p>
   If you develop a new program, and you want it to be of the greatest
 possible
   use to the public, the best way to achieve this is to make it free software
   which everyone can redistribute and change under these terms.
  </p>
  <p>
   To do so, attach the following notices to the program. It is safest to attach
   them to the start of each source file to most effectively convey the exclusion
   of warranty; and each file should have at least the "copyright" line and a
   pointer to where the full notice is found.
  </p>
  <ul>
   <li>
    <p>
     One line to give the program's name and a brief idea of what it does.
    </p>
   </li>
   <li>
    <p>
     Copyright (C) <year> <name of author>
    </p>
```

```
   </li>
   <li>
    <p>
     This program is free software; you can redistribute it and/or modify it
     under the terms of the GNU General Public License as published by the
     Free Software Foundation; either version 2 of the License, or (at your
     option) any later version.
    </p>

  </li>
   <li>
    <p>
     This program is distributed in the hope that it will be useful, but
     WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY
     or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License
     for more details.
    </p>
   </li>
   <li>
    <p>
     You should have received a copy of the GNU General Public License along
     with this program; if not, write to the Free Software Foundation, Inc.,
     59 Temple Place, Suite 330, Boston, MA 02111-1307 USA
    </p>
   </li>
  </ul>
  <p>
   Also add information on how to contact you by electronic and paper mail.
  </p>
  <p>
   If the program is interactive, make it output a short notice like this
   when it starts in an interactive mode:
  </p>
  <ul>
   <li>
    <p>
     Gnomovision version 69, Copyright (C) year name of author<br />
     Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type
     `show w'.
This is free software, and you are welcome to redistribute
     it under certain conditions; type `show c' for details.
    </p>
   </li>
  </ul>
  <p>
   The hypothetical commands `show w' and `show c' should show the appropriate
   parts of the General Public License. Of course, the commands you use may
   be called something other than `show w' and `show c'; they could even be
```

```
   mouse-clicks or menu items--whatever suits your program.
  </p>
  <p>
   You should also get your employer (if you work as a programmer) or your
   school, if any, to sign a "copyright disclaimer" for the program, if
   necessary. Here is a sample; alter the names:
  </p>
  <ul>
   <li>
    <p>
     Yoyodyne, Inc., hereby disclaims all copyright interest in the program
     `Gnomovision' (which makes passes at compilers) written by James Hacker.
    </p>
    <p>
     signature of Ty Coon, 1 April 1989<br />
     Ty Coon, President of Vice
    </p>
   </li>
   </ul>
  <p>
   This General Public License does not permit incorporating your program into
   proprietary programs. If your program is a subroutine library, you may
   consider it more useful to permit linking proprietary applications with
   the library. If this is what you want to do, use the GNU Library General
   Public License instead of this License.
  </p>
 </li>

 <li style="background-color:yellow;">
  <p><b>"CLASSPATH" EXCEPTION TO THE GPL VERSION 2</b></p>
  <p>
   Certain source files distributed by Sun Microsystems, Inc. are subject to
   the following clarification and special exception to the GPL Version 2, but
   only where Sun has expressly included in the particular source file's
   header the words<br />
   "Sun designates this particular file as subject to the "Classpath"
   exception as provided by Sun in the License file that accompanied this code."
  </p>
  <p>
   Linking this library statically or dynamically with
other modules is making
   a combined work based on this library. Thus, the terms and conditions of the
   GNU General Public License Version 2 cover the whole combination.
  </p>
  <p>
   As a special exception, the copyright holders of this library give you
   permission to link this library with independent modules to produce an
   executable, regardless of the license terms of these independent modules,
```

```
    and to copy and distribute the resulting executable under terms of your
    choice, provided that you also meet, for each linked independent module,
    the terms and conditions of the license of that module.? An independent
    module is a module which is not derived from or based on this library.? If
    you modify this library, you may extend this exception to your version of
    the library, but you are not obligated to do so.? If you do not wish to do
    so, delete this exception statement from your version.
   </p>
  </li>

 </ul>

</body>
</html>
```

Jackson JSON processor

Jackson is a high-performance, Free/Open Source JSON processing library.
It was originally written by Tatu Saloranta (tatu.saloranta@iki.fi), and has
been in development since 2007.
It is currently developed by a community of developers, as well as supported
commercially by FasterXML.com.

Licensing

Jackson core and extension components may be licensed under different licenses.
To find the details that apply to this artifact see the accompanying LICENSE file.
For more information, including possible other licensing options, contact
FasterXML.com (http://fasterxml.com).

Credits

A list of contributors may be found from CREDITS file, which is included
in some artifacts (usually source distributions); but is always available
from the source code management (SCM) system project uses.

```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="utf-8">
 <meta http-equiv="X-UA-Compatible" content="IE=edge">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <meta name="description" content="Home page of The Apache Software Foundation">

 <link rel="apple-touch-icon" sizes="57x57" href="/favicons/apple-touch-icon-57x57.png">
 <link rel="apple-touch-icon" sizes="60x60" href="/favicons/apple-touch-icon-60x60.png">
 <link rel="apple-touch-icon" sizes="72x72" href="/favicons/apple-touch-icon-72x72.png">
 <link rel="apple-touch-icon" sizes="76x76" href="/favicons/apple-touch-icon-76x76.png">
 <link rel="apple-touch-icon" sizes="114x114" href="/favicons/apple-touch-icon-114x114.png">
 <link rel="apple-touch-icon" sizes="120x120" href="/favicons/apple-touch-icon-120x120.png">
```

```html
 <link rel="apple-touch-icon" sizes="144x144" href="/favicons/apple-touch-icon-144x144.png">
 <link rel="apple-touch-icon" sizes="152x152" href="/favicons/apple-touch-icon-152x152.png">
  <link rel="apple-touch-icon" sizes="180x180" href="/favicons/apple-touch-icon-180x180.png">
 <link rel="icon" type="image/png" href="/favicons/favicon-32x32.png" sizes="32x32">
 <link rel="icon" type="image/png" href="/favicons/favicon-194x194.png" sizes="194x194">
 <link rel="icon" type="image/png" href="/favicons/favicon-96x96.png" sizes="96x96">
 <link rel="icon" type="image/png" href="/favicons/android-chrome-192x192.png" sizes="192x192">
 <link rel="icon" type="image/png" href="/favicons/favicon-16x16.png" sizes="16x16">
 <link rel="manifest" href="/favicons/manifest.json">
 <link rel="shortcut icon" href="/favicons/favicon.ico">
 <meta name="msapplication-TileColor" content="#603cba">
 <meta name="msapplication-TileImage" content="/favicons/mstile-144x144.png">
 <meta name="msapplication-config" content="/favicons/browserconfig.xml">
 <meta name="theme-color" content="#303284">

 <title>Licenses</title>
 <link href='https://fonts.googleapis.com/css?family=Source+Sans+Pro:400,700%7cDroid+Serif:400,700'
 rel='stylesheet' type='text/css'>
 <link href="/css/min.bootstrap.css" rel="stylesheet">
 <link href="/css/styles.css" rel="stylesheet">



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the NOTICE file distributed with this work for additional information regarding copyright ownership.  The ASF
licenses this file to you under the Apache License, Version 2.0 (the &quot;License&quot;); you may not use this file
except in compliance with the License.  You may obtain a copy of the License at .
http://www.apache.org/licenses/LICENSE-2.0 . Unless required by applicable law or agreed to in writing, software
distributed under the License is distributed on an &quot;AS IS&quot; BASIS, WITHOUT WARRANTIES OR
CONDITIONS OF ANY KIND, either express or implied.  See the License for the specific language governing
permissions and limitations under the License. -->

</head>

<body>
<!--
 Navigation -->
<header>
 <nav class="navbar navbar-default navbar-fixed-top">
   <div class="container">
     <div class="navbar-header">
       <button class="navbar-toggle" type="button" data-toggle="collapse" data-target="#mainnav-collapse">
         <span class="sr-only">Toggle navigation</span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
       </button>
       <a href="#" class="navbar-brand"><span class="glyphicon glyphicon-home"></span></a>
     </div>
```

```
     <div class="collapse navbar-collapse" id="mainnav-collapse">
       <div style="line-height:20px; padding-top:5px; float:left"><a href="/">Home</a>&nbsp;&raquo&nbsp;<a href="/licenses/">Licenses</a></div>
       <ul class="nav navbar-nav navbar-right">
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">About <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
          <li><a href="/foundation">Overview</a></li>
         <li><a href="/foundation/members.html">Members</a></li>
         <li><a href="/foundation/how-it-works.html">Process</a></li>
         <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
         <li><a href="/foundation/glossary.html">Glossary</a></li>
         <li><a href="/foundation/preFAQ.html">FAQ</a></li>
         <li><a href="/foundation/contact.html ">Contact</a></li>
          </ul>
         </li>
   <li><a href="/index.html#projects-list">Projects</a></li>
     <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">People <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
       <li><a href="http://people.apache.org/">Overview</a></li>
       <li><a href="http://people.apache.org/committer-index.html">Committers</a></li>
       <li><a href="/foundation/how-it-works.html#meritocracy">Meritocracy</a></li>
        <li><a href="/foundation/how-it-works.html#roles">Roles</a></li>
       <li><a href="http://planet.apache.org/">Planet Apache</a></li>
          </ul>
         </li>
         <li class="dropdown">
           <a href="#" class="dropdown-toggle" data-toggle="dropdown">Get Involved <span class="caret"></span></a>
           <ul class="dropdown-menu" role="menu">
             <li><a href="/foundation/getinvolved.html">Overview</a></li>
         <li><a href="http://community.apache.org/">Community Development</a></li>
                   <li><a href="http://helpwanted.apache.org/">Help Wanted</a></li>
         <li><a href="http://www.apachecon.com/">ApacheCon</a></li>
           </ul>
     </li>
         <li><a href="/dyn/closer.cgi">Download</a></li>
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">Support Apache <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
         <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
          <li><a href="/foundation/contributing.html">Donations</a></li>
         <li><a href="/foundation/buy_stuff.html">Buy Stuff</a></li>
         <li><a href="/foundation/thanks.html">Thanks</a></li>
          </ul>
         </li>
```

```
       </ul>
     </div>
   </div>
 </nav>
</header>
<!-- / Navigation -->
<div class="container">
 <div class="row">
   <div class="col-md-9 col-sm-8 col-xs-12">
     <img src="/img/asf_logo.png" alt="Apache Logo" style="max-width: 100%;">
   </div>
   <div class="col-md-3 col-sm-4 col-xs-12">
     <div class="input-group" style="margin-bottom: 5px;">
    <script>
 (function() {
   var cx = '005703438322411770421:5mgshgrgx2u';
   var gcse = document.createElement('script');
   gcse.type = 'text/javascript';
   gcse.async = true;
   gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:') +
       '//cse.google.com/cse.js?cx=' + cx;
   var s = document.getElementsByTagName('script')[0];
    s.parentNode.insertBefore(gcse, s);
 })();
</script>
    <gcse:searchbox-only></gcse:searchbox-only>
   </div>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/governance/">The Apache Way</a>
   <a role="button" class="btn btn-block btn-default btn-xs"
href="https://community.apache.org/contributors/">Contribute</a>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/thanks.html">ASF Sponsors</a>
   </div>
 </div>
</div>
<div class="container"><style type="text/css">
/* The following code is added by mdx_elementid.py
  It was originally lifted from http://subversion.apache.org/style/site.css */
/*
* Hide class="elementid-permalink", except when an enclosing heading
* has the :hover property.
*/
.headerlink, .elementid-permalink {
 visibility: hidden;
}
h2:hover > .headerlink, h3:hover > .headerlink, h1:hover > .headerlink, h6:hover > .headerlink, h4:hover >
.headerlink, h5:hover > .headerlink, dt:hover
 > .elementid-permalink { visibility: visible }</style>
<p>The Apache Software Foundation uses various licenses to <a href="#distributions">distribute
```

```html
software and documentation</a>, to accept regular
<a href="#clas">contributions from individuals and corporations</a>, and to accept
larger <a href="#grants">grants of existing software products</a>.</p>
<p>These licenses help us achieve our goal of providing reliable and
long-lived software products through collaborative open source software
development. In all cases, contributors retain full rights to use their
original contributions for any other purpose outside of Apache while
providing the ASF and its projects the right to distribute and build upon
their work within Apache.</p>
<h1 id="distributions">Licensing of Distributions<a class="headerlink" href="#distributions" title="Permanent
link">&para;</a></h1>
<p>All software produced by The Apache Software Foundation or any of its
projects or subjects is licensed according to the terms
 of the documents
listed below.</p>
<h3 id="2.0">Apache License, Version 2.0 (current)<a class="headerlink" href="#2.0" title="Permanent
link">&para;</a></h3>
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 <div class="container">
   <div class="row">
    <br />
    <div class="col-sm-1">

    </div>
    <div class="col-sm-2">
        <h5 class="white">Community</h5>
        <ul class="list-unstyled white" role="menu">
      <li><a href="http://community.apache.org/">Overview</a></li>
      <li><a href="/foundation/conferences.html">Conferences</a></li>
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    <li><a href="http://community.apache.org/newcomers/">Getting Started</a></li>
    <li><a href="/foundation/how-it-works.html">The Apache Way</a></li>
    <li><a href="/travel/">Travel Assistance</a></li>
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Involved</a></li>
    <li><a href="http://community.apache.org/newbiefaq.html">Community FAQ</a></li>
        </ul>
  </div>

  <div class="col-sm-2">
   <h5 class="white">Innovation</h5>
        <ul class="list-unstyled white" role="menu">
    <li><a href="http://incubator.apache.org/">Incubator</a></li>
    <li><a href="http://labs.apache.org/">Labs</a></li>
    <li><a href="/licenses/">Licensing</a></li>
    <li><a href="/foundation/license-faq.html">Licensing FAQ</a></li>
    <li><a href="/foundation/marks/">Trademark Policy</a></li>
    <li><a href="/foundation/contact.html">Contacts</a></li>
        </ul>
  </div>

  <div class="col-sm-2">
   <h5 class="white">Tech Operations</h5>
       <ul class="list-unstyled white" role="menu">
     <li><a href="/dev/">Developer Information</a></li>
     <li><a href="/dev/infrastructure.html">Infrastructure</a></li>
     <li><a href="/security/">Security</a></li>
      <li><a href="http://status.apache.org">Status</a></li>
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       </ul>
  </div>

  <div class="col-sm-2">
   <h5 class="white">Press</h5>
      <ul class="list-unstyled white" role="menu">
    <li><a href="/press/">Overview</a></li>
    <li><a href="https://blogs.apache.org/">ASF News</a></li>
    <li><a href="https://blogs.apache.org/foundation/">Announcements</a></li>
    <li><a href="https://twitter.com/TheASF">Twitter Feed</a></li>
    <li><a href="/press/#contact">Contacts</a></li>
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    <li><a href="/legal/">Legal Affairs</a></li>
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           <li><a href="/foundation/policies/privacy.html">Privacy
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    </div>

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<script src="/js/bootstrap.js"></script>
</body>
</html>
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1.502 dropwizard-util 2.1.2

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1.504 kafka-schema-registry-client 7.0.5

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Jackson JSON processor

Jackson is a high-performance, Free/Open Source JSON processing library.
It was originally written by Tatu Saloranta (tatu.saloranta@iki.fi), and has
been in development since 2007.
It is currently developed by a community of developers, as well as supported
commercially by FasterXML.com.

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Other developers who have contributed code are:

* Brian Langel
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<!DOCTYPE html>
<html lang="en">
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 <meta charset="utf-8">
 <meta http-equiv="X-UA-Compatible" content="IE=edge">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <meta name="description" content="Home page of The Apache Software Foundation">

 <link rel="apple-touch-icon" sizes="57x57" href="/favicons/apple-touch-icon-57x57.png">
 <link rel="apple-touch-icon" sizes="60x60" href="/favicons/apple-touch-icon-60x60.png">
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 <link rel="apple-touch-icon" sizes="152x152" href="/favicons/apple-touch-icon-152x152.png">
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  <link rel="apple-touch-icon" sizes="180x180" href="/favicons/apple-touch-icon-180x180.png">
 <link rel="icon" type="image/png" href="/favicons/favicon-32x32.png" sizes="32x32">
 <link rel="icon" type="image/png" href="/favicons/favicon-194x194.png" sizes="194x194">
 <link rel="icon" type="image/png" href="/favicons/favicon-96x96.png" sizes="96x96">
 <link rel="icon" type="image/png" href="/favicons/android-chrome-192x192.png" sizes="192x192">
 <link rel="icon" type="image/png" href="/favicons/favicon-16x16.png" sizes="16x16">
 <link rel="manifest" href="/favicons/manifest.json">
 <link rel="shortcut icon" href="/favicons/favicon.ico">
 <meta name="msapplication-TileColor" content="#603cba">
 <meta name="msapplication-TileImage" content="/favicons/mstile-144x144.png">
 <meta name="msapplication-config" content="/favicons/browserconfig.xml">
 <meta name="theme-color" content="#303284">

 <title>Apache License, Version 2.0</title>
 <link href='https://fonts.googleapis.com/css?family=Source+Sans+Pro:400,700%7cDroid+Serif:400,700'
 rel='stylesheet' type='text/css'>
 <link href="/css/min.bootstrap.css" rel="stylesheet">
 <link href="/css/styles.css" rel="stylesheet">



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 -->

</head>

<body>
<!-- Navigation -->
<header>
 <nav class="navbar navbar-default navbar-fixed-top">
  <div class="container">
   <div class="navbar-header">
    <button class="navbar-toggle" type="button" data-toggle="collapse" data-target="#mainnav-collapse">
     <span class="sr-only">Toggle navigation</span>
     <span class="icon-bar"></span>
     <span class="icon-bar"></span>
     <span class="icon-bar"></span>
    </button>
    <a href="#" class="navbar-brand"><span class="glyphicon glyphicon-home"></span></a>
   </div>
   <div class="collapse navbar-collapse" id="mainnav-collapse">
    <div style="line-height:20px; padding-top:5px; float:left"><a href="/">Home</a>&nbsp;&raquo&nbsp;<a
```

```
href="/licenses/">Licenses</a></div>
       <ul class="nav navbar-nav navbar-right">
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">About <span class="caret"></span></a>
          <ul class="dropdown-menu"
 role="menu">
         <li><a href="/foundation">Overview</a></li>
         <li><a href="/foundation/members.html">Members</a></li>
         <li><a href="/foundation/how-it-works.html">Process</a></li>
         <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
         <li><a href="/foundation/glossary.html">Glossary</a></li>
         <li><a href="/foundation/preFAQ.html">FAQ</a></li>
         <li><a href="/foundation/contact.html ">Contact</a></li>
          </ul>
         </li>
   <li><a href="/index.html#projects-list">Projects</a></li>
     <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">People <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
       <li><a href="http://people.apache.org/">Overview</a></li>
       <li><a href="http://people.apache.org/committer-index.html">Committers</a></li>
       <li><a href="/foundation/how-it-works.html#meritocracy">Meritocracy</a></li>
        <li><a href="/foundation/how-it-works.html#roles">Roles</a></li>
       <li><a href="http://planet.apache.org/">Planet Apache</a></li>
          </ul>
         </li>
         <li class="dropdown">
           <a href="#" class="dropdown-toggle" data-toggle="dropdown">Get Involved <span
class="caret"></span></a>
           <ul class="dropdown-menu" role="menu">
             <li><a href="/foundation/getinvolved.html">Overview</a></li>
         <li><a href="http://community.apache.org/">Community Development</a></li>
                   <li><a href="http://helpwanted.apache.org/">Help Wanted</a></li>
         <li><a href="http://www.apachecon.com/">ApacheCon</a></li>
           </ul>
     </li>
         <li><a href="/dyn/closer.cgi">Download</a></li>
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">Support Apache <span
class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">

     <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
         <li><a href="/foundation/contributing.html">Donations</a></li>
         <li><a href="/foundation/buy_stuff.html">Buy Stuff</a></li>
         <li><a href="/foundation/thanks.html">Thanks</a></li>
          </ul>
         </li>
```

```
        </ul>
      </div>
    </div>
  </nav>
</header>
<!-- / Navigation -->
<div class="container">
  <div class="row">
    <div class="col-md-9 col-sm-8 col-xs-12">
      <img src="/img/asf_logo.png" alt="Apache Logo" style="max-width: 100%;">
    </div>
    <div class="col-md-3 col-sm-4 col-xs-12">
      <div class="input-group" style="margin-bottom: 5px;">
     <script>
  (function() {
    var cx = '005703438322411770421:5mgshgrgx2u';
    var gcse = document.createElement('script');
    gcse.type = 'text/javascript';
    gcse.async = true;
    gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:') +
        '//cse.google.com/cse.js?cx=' + cx;
    var s = document.getElementsByTagName('script')[0];
     s.parentNode.insertBefore(gcse, s);
  })();
</script>
     <gcse:searchbox-only></gcse:searchbox-only>
    </div>
    <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/governance/">The Apache Way</a>
    <a role="button" class="btn btn-block btn-default btn-xs"
href="https://community.apache.org/contributors/">Contribute</a>
    <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/thanks.html">ASF Sponsors</a>
    </div>
  </div>
</div>
<div class="container"><style type="text/css">
/* The following code is added by mdx_elementid.py
   It was originally lifted from http://subversion.apache.org/style/site.css */
/*
* Hide class="elementid-permalink", except when an enclosing heading
* has the :hover property.
*/
.headerlink, .elementid-permalink {
  visibility: hidden;
}
h2:hover > .headerlink, h3:hover > .headerlink, h1:hover > .headerlink, h6:hover > .headerlink, h4:hover >
.headerlink, h5:hover >
  .headerlink, dt:hover > .elementid-permalink { visibility: visible }</style>
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 <div class="container">
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  <div class="row">
   <br />
   <div class="col-sm-1">

   </div>
   <div class="col-sm-2">
          <h5 class="white">Community</h5>
          <ul class="list-unstyled white" role="menu">
     <li><a href="http://community.apache.org/">Overview</a></li>
     <li><a href="/foundation/conferences.html">Conferences</a></li>
     <li><a href="http://community.apache.org/gsoc.html">Summer of Code</a></li>
     <li><a href="http://community.apache.org/newcomers/">Getting Started</a></li>
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     <li><a href="http://community.apache.org/newbiefaq.html">Community
FAQ</a></li>
          </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Innovation</h5>
          <ul class="list-unstyled white" role="menu">
     <li><a href="http://incubator.apache.org/">Incubator</a></li>
     <li><a href="http://labs.apache.org/">Labs</a></li>
     <li><a href="/licenses/">Licensing</a></li>
     <li><a href="/foundation/license-faq.html">Licensing FAQ</a></li>
     <li><a href="/foundation/marks/">Trademark Policy</a></li>
     <li><a href="/foundation/contact.html">Contacts</a></li>
          </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Tech Operations</h5>
         <ul class="list-unstyled white" role="menu">
      <li><a href="/dev/">Developer Information</a></li>
      <li><a href="/dev/infrastructure.html">Infrastructure</a></li>
      <li><a href="/security/">Security</a></li>
      <li><a href="http://status.apache.org">Status</a></li>
      <li><a href="/foundation/contact.html">Contacts</a></li>

       </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Press</h5>
       <ul class="list-unstyled white" role="menu">
     <li><a href="/press/">Overview</a></li>
```

```
      <li><a href="https://blogs.apache.org/">ASF News</a></li>
      <li><a href="https://blogs.apache.org/foundation/">Announcements</a></li>
      <li><a href="https://twitter.com/TheASF">Twitter Feed</a></li>
      <li><a href="/press/#contact">Contacts</a></li>
        </ul>
    </div>

    <div class="col-sm-2">
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      <li><a href="/legal/">Legal Affairs</a></li>
      <li><a href="/licenses/">Licenses</a></li>
      <li><a href="/foundation/marks/">Trademark Policy</a></li>
      <li><a href="/foundation/records/">Public Records</a></li>
           <li><a href="/foundation/policies/privacy.html">Privacy Policy</a></li>
      <li><a href="/licenses/exports/">Export Information</a></li>
      <li><a
 href="/foundation/license-faq.html">License/Distribution FAQ</a></li>
      <li><a href="/foundation/contact.html">Contacts</a></li>
        </ul>
    </div>

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<script src="/js/bootstrap.js"></script>
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```
cd <SRC_PATH>
mvn package -DskipTests
mkdir /tmp/jars
mkdir /tmp/overrides
cp package-schema-registry/target/kafka-schema-registry-package-<VERSION>-package/share/java/schema-registry/*.jar /tmp/jars/
cp package-kafka-serde-tools/target/kafka-serde-tools-package-<VERSION>-package/share/java/kafka-serde-tools/*.jar /tmp/jars/
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0; orphans: 0 }    H1.western { font-family: "Times New Roman", serif; font-size: 12pt; font-weight: normal }    H1.cjk
{ font-family: "Andale Sans UI"; font-size: 12pt; font-weight: normal }    H1.ctl { font-family: "Tahoma"; font-size:
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 <title>GlassFish Dual License Header and License Notice GPL v2 and CDDL</title>
 <meta http-equiv="content-type" content="text/html; charset=UTF-8">
 <style type="text/css">
  li {display: block;}
 </style>
</head>

<body leftmargin="0" topmargin="0" marginheight="0" marginwidth="0" bgcolor="#ffffff">

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      <p>
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   </li>
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 To do so, attach the following notices to the program. It is safest to attach
 them to the start of each source file to most effectively convey the exclusion
 of warranty; and each file should have at least the "copyright" line and a
 pointer to where the full notice is found.
</p>
<ul>
 <li>
  <p>
   One line to give the program's name and a brief idea of what it does.
  </p>
 </li>
 <li>
  <p>
   Copyright (C) <year> <name of author>
  </p>
 </li>
 <li>
  <p>
   This program is free software; you can redistribute it and/or modify it
   under the terms of the GNU General Public License as published by the
   Free Software Foundation; either version 2 of the License, or (at your
   option) any later version.
  </p>

</li>
 <li>
  <p>
   This program is distributed in the hope that it will be useful, but
   WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY
   or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License
   for more details.
  </p>
 </li>
 <li>
  <p>
   You should have received a copy of the GNU General Public License along
   with this program; if not, write to the Free Software Foundation, Inc.,
   59 Temple Place, Suite 330, Boston, MA 02111-1307 USA
  </p>
 </li>
</ul>
<p>
 Also add information on how to contact you by electronic and paper mail.
</p>
<p>
 If the program is interactive, make it output a short notice like this
 when it starts in an interactive mode:
</p>
```

```
  <ul>
   <li>
    <p>
     Gnomovision version 69, Copyright (C) year name of author<br />
     Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type
     `show w'.
This is free software, and you are welcome to redistribute
     it under certain conditions; type `show c' for details.
    </p>
   </li>
  </ul>
  <p>
   The hypothetical commands `show w' and `show c' should show the appropriate
   parts of the General Public License. Of course, the commands you use may
   be called something other than `show w' and `show c'; they could even be
   mouse-clicks or menu items--whatever suits your program.
  </p>
  <p>
   You should also get your employer (if you work as a programmer) or your
   school, if any, to sign a "copyright disclaimer" for the program, if
   necessary. Here is a sample; alter the names:
  </p>
  <ul>
   <li>
    <p>
     Yoyodyne, Inc., hereby disclaims all copyright interest in the program
     `Gnomovision' (which makes passes at compilers) written by James Hacker.
    </p>
    <p>
     signature of Ty Coon, 1 April 1989<br />
     Ty Coon, President of Vice
    </p>
   </li>
   </ul>
  <p>
   This General Public License does not permit incorporating your program into
   proprietary programs. If your program is a subroutine library, you may
   consider it more useful to permit linking proprietary applications with
   the library. If this is what you want to do, use the GNU Library General
   Public License instead of this License.
  </p>
 </li>

 <li style="background-color:yellow;">
  <p><b>"CLASSPATH" EXCEPTION TO THE GPL VERSION 2</b></p>
  <p>
   Certain source files distributed by Sun Microsystems, Inc. are subject to
   the following clarification and special exception to the GPL Version 2, but
```

only where Sun has expressly included in the particular source file's
header the words
"Sun designates this particular file as subject to the "Classpath"
exception as provided by Sun in the License file that accompanied this code."
</p>
<p>
Linking this library statically or dynamically with
other modules is making
a combined work based on this library. Thus, the terms and conditions of the
GNU General Public License Version 2 cover the whole combination.
</p>
<p>
As a special exception, the copyright holders of this library give you
permission to link this library with independent modules to produce an
executable, regardless of the license terms of these independent modules,
and to copy and distribute the resulting executable under terms of your
choice, provided that you also meet, for each linked independent module,
the terms and conditions of the license of that module.? An independent
module is a module which is not derived from or based on this library.? If
you modify this library, you may extend this exception to your version of
the library, but you are not obligated to do so.? If you do not wish to do
so, delete this exception statement from your version.
</p>

</body>
</html>
Jackson JSON processor

Jackson is a high-performance, Free/Open Source JSON processing library.
It was originally written by Tatu Saloranta (tatu.saloranta@iki.fi), and has
been in development since 2007.
It is currently developed by a community of developers, as well as supported
commercially by FasterXML.com.

Licensing

Jackson core and extension components may be licensed under different licenses.
To find the details that apply to this artifact see the accompanying LICENSE file.
For more information, including possible other licensing options, contact
FasterXML.com (http://fasterxml.com).

Credits

A list of contributors may be found from CREDITS file, which is included
in some artifacts (usually source distributions); but is always available

from the source code management (SCM) system project uses.

```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="utf-8">
 <meta http-equiv="X-UA-Compatible" content="IE=edge">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <meta name="description" content="Home page of The Apache Software Foundation">

 <link rel="apple-touch-icon" sizes="57x57" href="/favicons/apple-touch-icon-57x57.png">
 <link rel="apple-touch-icon" sizes="60x60" href="/favicons/apple-touch-icon-60x60.png">
 <link rel="apple-touch-icon" sizes="72x72" href="/favicons/apple-touch-icon-72x72.png">
 <link rel="apple-touch-icon" sizes="76x76" href="/favicons/apple-touch-icon-76x76.png">
 <link rel="apple-touch-icon" sizes="114x114" href="/favicons/apple-touch-icon-114x114.png">
 <link rel="apple-touch-icon" sizes="120x120" href="/favicons/apple-touch-icon-120x120.png">
 <link rel="apple-touch-icon" sizes="144x144" href="/favicons/apple-touch-icon-144x144.png">
 <link rel="apple-touch-icon" sizes="152x152" href="/favicons/apple-touch-icon-152x152.png">
  <link rel="apple-touch-icon" sizes="180x180" href="/favicons/apple-touch-icon-180x180.png">
 <link rel="icon" type="image/png" href="/favicons/favicon-32x32.png" sizes="32x32">
 <link rel="icon" type="image/png" href="/favicons/favicon-194x194.png" sizes="194x194">
 <link rel="icon" type="image/png" href="/favicons/favicon-96x96.png" sizes="96x96">
 <link rel="icon" type="image/png" href="/favicons/android-chrome-192x192.png" sizes="192x192">
 <link rel="icon" type="image/png" href="/favicons/favicon-16x16.png" sizes="16x16">
 <link rel="manifest" href="/favicons/manifest.json">
 <link rel="shortcut icon" href="/favicons/favicon.ico">
 <meta name="msapplication-TileColor" content="#603cba">
 <meta name="msapplication-TileImage" content="/favicons/mstile-144x144.png">
 <meta name="msapplication-config" content="/favicons/browserconfig.xml">
 <meta name="theme-color" content="#303284">

 <title>Licenses</title>
 <link href='https://fonts.googleapis.com/css?family=Source+Sans+Pro:400,700%7cDroid+Serif:400,700'
 rel='stylesheet' type='text/css'>
 <link href="/css/min.bootstrap.css" rel="stylesheet">
 <link href="/css/styles.css" rel="stylesheet">



   <!-- Licensed to the Apache Software Foundation (ASF) under one or more contributor license agreements.  See
the NOTICE file distributed with this work for additional information regarding copyright ownership.  The ASF
licenses this file to you under the Apache License, Version 2.0 (the &quot;License&quot;); you may not use this file
except in compliance with the License.  You may obtain a copy of the License at .
http://www.apache.org/licenses/LICENSE-2.0 . Unless required by applicable law or agreed to in writing, software
distributed under the License is distributed on an &quot;AS IS&quot; BASIS, WITHOUT WARRANTIES OR
CONDITIONS OF ANY KIND, either express or implied.  See the License for the specific language governing
permissions and limitations under the License. -->

</head>
```

```
<body>
<!--
 Navigation -->
<header>
 <nav class="navbar navbar-default navbar-fixed-top">
   <div class="container">
     <div class="navbar-header">
       <button class="navbar-toggle" type="button" data-toggle="collapse" data-target="#mainnav-collapse">
         <span class="sr-only">Toggle navigation</span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
       </button>
       <a href="#" class="navbar-brand"><span class="glyphicon glyphicon-home"></span></a>
     </div>
     <div class="collapse navbar-collapse" id="mainnav-collapse">
       <div style="line-height:20px; padding-top:5px; float:left"><a href="/">Home</a>&nbsp;&raquo&nbsp;<a
href="/licenses/">Licenses</a></div>
       <ul class="nav navbar-nav navbar-right">
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">About <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
          <li><a href="/foundation">Overview</a></li>
         <li><a href="/foundation/members.html">Members</a></li>
         <li><a href="/foundation/how-it-works.html">Process</a></li>
         <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
         <li><a href="/foundation/glossary.html">Glossary</a></li>
         <li><a href="/foundation/preFAQ.html">FAQ</a></li>
         <li><a href="/foundation/contact.html ">Contact</a></li>
          </ul>
         </li>
   <li><a href="/index.html#projects-list">Projects</a></li>
     <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">People <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
       <li><a href="http://people.apache.org/">Overview</a></li>
       <li><a href="http://people.apache.org/committer-index.html">Committers</a></li>
       <li><a href="/foundation/how-it-works.html#meritocracy">Meritocracy</a></li>
        <li><a href="/foundation/how-it-works.html#roles">Roles</a></li>
       <li><a href="http://planet.apache.org/">Planet Apache</a></li>
          </ul>
         </li>
         <li class="dropdown">
           <a href="#" class="dropdown-toggle" data-toggle="dropdown">Get Involved <span
class="caret"></span></a>
           <ul class="dropdown-menu" role="menu">
             <li><a href="/foundation/getinvolved.html">Overview</a></li>
         <li><a href="http://community.apache.org/">Community Development</a></li>
```

```
                  <li><a href="http://helpwanted.apache.org/">Help Wanted</a></li>
         <li><a href="http://www.apachecon.com/">ApacheCon</a></li>
           </ul>
     </li>
         <li><a href="/dyn/closer.cgi">Download</a></li>
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">Support Apache <span
class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
         <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
          <li><a href="/foundation/contributing.html">Donations</a></li>
         <li><a href="/foundation/buy_stuff.html">Buy Stuff</a></li>
         <li><a href="/foundation/thanks.html">Thanks</a></li>
          </ul>
         </li>
       </ul>
     </div>
   </div>
 </nav>
</header>
<!-- / Navigation -->
<div class="container">
 <div class="row">
   <div class="col-md-9 col-sm-8 col-xs-12">
     <img src="/img/asf_logo.png" alt="Apache Logo" style="max-width: 100%;">
   </div>
   <div class="col-md-3 col-sm-4 col-xs-12">
     <div class="input-group" style="margin-bottom: 5px;">
    <script>
 (function() {
   var cx = '005703438322411770421:5mgshgrgx2u';
   var gcse = document.createElement('script');
   gcse.type = 'text/javascript';
   gcse.async = true;
   gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:') +
       '//cse.google.com/cse.js?cx=' + cx;
   var s = document.getElementsByTagName('script')[0];
    s.parentNode.insertBefore(gcse, s);
 })();
</script>
    <gcse:searchbox-only></gcse:searchbox-only>
   </div>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/governance/">The Apache Way</a>
   <a role="button" class="btn btn-block btn-default btn-xs"
href="https://community.apache.org/contributors/">Contribute</a>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/thanks.html">ASF Sponsors</a>
   </div>
 </div>
```

```
</div>
<div class="container"><style type="text/css">
/* The following code is added by mdx_elementid.py
  It was originally lifted from http://subversion.apache.org/style/site.css */
/*
* Hide class="elementid-permalink", except when an enclosing heading
* has the :hover property.
*/
.headerlink, .elementid-permalink {
 visibility: hidden;
}
h2:hover > .headerlink, h3:hover > .headerlink, h1:hover > .headerlink, h6:hover > .headerlink, h4:hover >
.headerlink, h5:hover > .headerlink, dt:hover
 > .elementid-permalink { visibility: visible }</style>
<p>The Apache Software Foundation uses various licenses to <a href="#distributions">distribute
software and documentation</a>, to accept regular
<a href="#clas">contributions from individuals and corporations</a>, and to accept
larger <a href="#grants">grants of existing software products</a>.</p>
<p>These licenses help us achieve our goal of providing reliable and
long-lived software products through collaborative open source software
development. In all cases, contributors retain full rights to use their
original contributions for any other purpose outside of Apache while
providing the ASF and its projects the right to distribute and build upon
their work within Apache.</p>
<h1 id="distributions">Licensing of Distributions<a class="headerlink" href="#distributions" title="Permanent
link">&para;</a></h1>
<p>All software produced by The Apache Software Foundation or any of its
projects or subjects is licensed according to the terms
 of the documents
listed below.</p>
<h3 id="2.0">Apache License, Version 2.0 (current)<a class="headerlink" href="#2.0" title="Permanent
link">&para;</a></h3>
<p><a href="LICENSE-2.0">http://www.apache.org/licenses/LICENSE-2.0</a> (
<a href="LICENSE-2.0.txt">TXT</a> or <a href="LICENSE-2.0.html">HTML</a> )</p>
<p>The 2.0 version of the Apache License was approved by the ASF in 2004. The
goals of this license revision have been to reduce the number of frequently
asked questions, to allow the license to be reusable without modification
by any project (including non-ASF projects), to allow the license to be
included by reference instead of listed in every file, to clarify the
license on submission of contributions, to require a patent license on
contributions that necessarily infringe the contributor's own patents, and
to move comments regarding Apache and other inherited attribution notices
to a location outside the license terms (the <a href="example-NOTICE.txt">NOTICE
file</a> ).</p>
<p>The
 result is a license that is supposed to be compatible with other open
source licenses, while remaining true to the original goals of the Apache
Group and supportive of collaborative development across both nonprofit and
```

```html
commercial organizations. The Apache Software Foundation is still trying to
determine if this version of the Apache License is <a href="GPL-compatibility.html">compatible with the
GPL</a>.</p>
<p>All packages produced by the ASF are implicitly licensed under the Apache
License, Version 2.0, unless otherwise explicitly stated. More developer
documentation on how to apply the Apache License to your work can be found
in * <a href="../dev/apply-license.html">Applying the Apache License, Version 2.0</a>
*.</p>
<h3 id="1.1">Apache License, Version 1.1 (historic)<a class="headerlink" href="#1.1" title="Permanent
link">&para;</a></h3>
<p><a href="LICENSE-1.1">http://www.apache.org/licenses/LICENSE-1.1</a> </p>
<p>The 1.1 version of the Apache License was approved by the
 ASF in 2000. The
primary change from the 1.0 license is in the 'advertising clause' (section
3 of the 1.0 license); derived products are no longer required to include
attribution in their advertising materials, only in their documentation.</p>
<p>Individual packages licensed under the 1.1 version may have used different
wording due to varying requirements for attribution or mark identification,
but the binding terms were all the same.</p>
<h3 id="1.0">Apache License, Version 1.0 (historic)<a class="headerlink" href="#1.0" title="Permanent
link">&para;</a></h3>
<p><a href="LICENSE-1.0">http://www.apache.org/licenses/LICENSE-1.0</a> </p>
<p>This is the original Apache License which applies only to older versions of
Apache packages (such as version 1.2 of the Web server).</p>
<h1 id="clas">Contributor License Agreements<a class="headerlink" href="#clas" title="Permanent
link">&para;</a></h1>
<p>The ASF desires that all contributors of ideas, code, or documentation to
any Apache projects
 complete, sign, and submit (via fax or
email) an <a href="icla.pdf">Individual Contributor License Agreement</a> (ICLA).
The purpose of this agreement is to clearly define the
terms under which intellectual property has been contributed to the ASF and
thereby allow us to defend the project should there be a legal dispute
regarding the software at some future time. A signed ICLA is required to be
on file before an individual is given commit rights to an ASF project.</p>
<p>For a corporation that has assigned employees to work on an Apache project,
a <a href="cla-corporate.txt">Corporate CLA</a> (CCLA) is available for contributing
intellectual property via the corporation, that may have been assigned as
part of an employment agreement. Note that a Corporate CLA does not remove
the need for every developer to sign their own ICLA as an individual, to
cover any of their contributions which are not owned by the corporation
signing the CCLA.</p>
<p>The ICLA is not tied to any employer you
 may have, so it is recommended to
use one's personal email address in the contact details, rather than an @work
address.</p>
<p>Your Full name will be published unless you provide an alternative Public name.
For example if your full name is Andrew Bernard Charles Dickens, but you wish
```

```
to be known as Andrew Dickens, please enter the latter as your Public name.</p>
<p>The email address and other contact details are not published.</p>
<h1 id="grants">Software Grants<a class="headerlink" href="#grants" title="Permanent link">&para;</a></h1>
<p>When an individual or corporation decides to donate a body of existing
software or documentation to one of the Apache projects, they need to
execute a formal <a href="software-grant-template.pdf">Software Grant Agreement</a> (SGA) with
the ASF. Typically, this is done after negotiating approval with the ASF
<a href="http://incubator.apache.org/">Incubator</a> or one of the PMCs, since the ASF
will not accept software unless there is a viable community
 available to
support a collaborative project.</p>
<h1 id="submitting">Submitting License Agreements and Grants<a class="headerlink" href="#submitting"
title="Permanent link">&para;</a></h1>
<p>Documents may be submitted by fax or email.</p>
<p>If submitting by fax, please print, sign, and fax all pages of the document
to +1-919-573-9199. Please send documents right-side-up, first page first;
and send only one document per fax.</p>
<p>If submitting by email, please fill the form with a pdf viewer,
print, sign, scan all pages into a single pdf file,
and email the pdf file as an attachment to secretary@apache.org. If possible,
send the attachment from the email address in the document.
Please send only one document per email.</p>
<p>If you prefer to sign electronically, please fill the form, save it locally (e.g. icla.pdf), and sign the
file by preparing a detached PGP signature. For example,</p>
<blockquote>
<p>gpg --armor --detach-sign icla.pdf</p>
</blockquote>
<p>The above will create
 a file icla.pdf.asc. Send both the file and signature
as attachments in the same email to secretary@apache.org. Please send only one
document (file plus signature) per email. Please do not submit your public key to Apache.
Instead, please upload your public key to pgpkeys.mit.edu. </p>
<p>The files typically are named
icla.pdf and icla.pdf.asc for individual agreements;
ccla.pdf and ccla.pdf.asc  for corporate agreements;
software-grant.pdf and software-grant.pdf.asc for grants. </p>
<h1 id="crypto">Export restrictions<a class="headerlink" href="#crypto" title="Permanent link">&para;</a></h1>
<p>For export restriction information, please consult our <a href="/licenses/exports/">ASF Export
Classifications</a> page.</p>
<h1 id="trademarks">Trademark and Logo Usage<a class="headerlink" href="#trademarks" title="Permanent
link">&para;</a></h1>
<p>For ASF trademark and logo usage information, please consult our <a href="/foundation/marks/">ASF
Trademark Use Policy</a> page.</p>
<h1 id="questions">Questions?<a
 class="headerlink" href="#questions" title="Permanent link">&para;</a></h1>
<p>For answers to frequently asked licensing questions, please consult our
<a href="/foundation/license-faq.html">Licensing Frequently Asked Questions</a> page.</p></div>
```

```
<!-- Footer -->

<footer class="bg-primary">
 <div class="container">
   <div class="row">
    <br />
    <div class="col-sm-1">

    </div>
    <div class="col-sm-2">
           <h5 class="white">Community</h5>
           <ul class="list-unstyled white" role="menu">
      <li><a href="http://community.apache.org/">Overview</a></li>
      <li><a href="/foundation/conferences.html">Conferences</a></li>
      <li><a href="http://community.apache.org/gsoc.html">Summer of Code</a></li>
      <li><a href="http://community.apache.org/newcomers/">Getting Started</a></li>
      <li><a href="/foundation/how-it-works.html">The Apache Way</a></li>
      <li><a href="/travel/">Travel Assistance</a></li>
      <li><a href="/foundation/getinvolved.html">Get
 Involved</a></li>
      <li><a href="http://community.apache.org/newbiefaq.html">Community FAQ</a></li>
           </ul>
    </div>

    <div class="col-sm-2">
     <h5 class="white">Innovation</h5>
           <ul class="list-unstyled white" role="menu">
      <li><a href="http://incubator.apache.org/">Incubator</a></li>
      <li><a href="http://labs.apache.org/">Labs</a></li>
      <li><a href="/licenses/">Licensing</a></li>
      <li><a href="/foundation/license-faq.html">Licensing FAQ</a></li>
      <li><a href="/foundation/marks/">Trademark Policy</a></li>
      <li><a href="/foundation/contact.html">Contacts</a></li>
           </ul>
    </div>

    <div class="col-sm-2">
     <h5 class="white">Tech Operations</h5>
          <ul class="list-unstyled white" role="menu">
       <li><a href="/dev/">Developer Information</a></li>
       <li><a href="/dev/infrastructure.html">Infrastructure</a></li>
       <li><a href="/security/">Security</a></li>
        <li><a href="http://status.apache.org">Status</a></li>
       <li><a href="/foundation/contact.html">Contacts</a></li>
          </ul>
    </div>

    <div class="col-sm-2">
```

```
     <h5 class="white">Press</h5>
        <ul class="list-unstyled white" role="menu">
      <li><a href="/press/">Overview</a></li>
      <li><a href="https://blogs.apache.org/">ASF News</a></li>
      <li><a href="https://blogs.apache.org/foundation/">Announcements</a></li>
      <li><a href="https://twitter.com/TheASF">Twitter Feed</a></li>
      <li><a href="/press/#contact">Contacts</a></li>
        </ul>
    </div>

    <div class="col-sm-2">
     <h5 class="white">Legal</h5>
        <ul class="list-unstyled white" role="menu">
      <li><a href="/legal/">Legal Affairs</a></li>
      <li><a href="/licenses/">Licenses</a></li>
      <li><a href="/foundation/marks/">Trademark Policy</a></li>
      <li><a href="/foundation/records/">Public Records</a></li>
           <li><a href="/foundation/policies/privacy.html">Privacy
 Policy</a></li>
      <li><a href="/licenses/exports/">Export Information</a></li>
      <li><a href="/foundation/license-faq.html">License/Distribution FAQ</a></li>
      <li><a href="/foundation/contact.html">Contacts</a></li>
        </ul>
    </div>

    <div class="col-sm-1">
    </div>

   </div>
   <hr class="col-lg-12 hr-white" />
   <div class="row">
    <div class="col-lg-12">
     <p class="text-center">Copyright &#169; 2016 The Apache Software Foundation, Licensed under the <a
class="white" href="http://www.apache.org/licenses/LICENSE-2.0">Apache License, Version 2.0</a>.</p>
     <p class="text-center">Apache and the Apache feather logo are trademarks of The Apache Software
Foundation.</p>
    </div>
   </div>
  </div>

</footer>

<!-- / Footer -->

<script src="/js/jquery-2.1.1.min.js"></script>
<script src="/js/bootstrap.js"></script>
</body>
</html>
```

This product currently only contains code developed by authors
of specific components, as identified by the source code files;
if such notes are missing files have been created by
Tatu Saloranta.

For additional credits (generally to people who reported problems)
see CREDITS file.
This copy of Jackson JSON processor is licensed under the
Apache (Software) License, version 2.0 ("the License").
See the License for details about distribution rights, and the
specific rights regarding derivate works.

You may obtain a copy of the License at:

http://www.apache.org/licenses/

A copy is also included with both the the downloadable source code package
and jar that contains class bytecodes, as file "ASL 2.0". In both cases,
that file should be located next to this file: in source distribution
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Jackson JSON processor

Jackson is a high-performance, Free/Open Source JSON processing library.
It was originally written by Tatu Saloranta (tatu.saloranta@iki.fi), and has
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It is currently developed by a community of developers, as well as supported
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Java ClassMate library was originally written by Tatu Saloranta (tatu.saloranta@iki.fi)

Other developers who have contributed code are:

- Brian Langel

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 -->

</head>

<body>
<!-- Navigation -->
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         <span class="sr-only">Toggle navigation</span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
       </button>
       <a href="#" class="navbar-brand"><span class="glyphicon glyphicon-home"></span></a>
     </div>
     <div class="collapse navbar-collapse" id="mainnav-collapse">
       <div style="line-height:20px; padding-top:5px; float:left"><a href="/">Home</a>&nbsp;&raquo&nbsp;<a
href="/licenses/">Licenses</a></div>
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         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">About <span class="caret"></span></a>
          <ul class="dropdown-menu"
 role="menu">
         <li><a href="/foundation">Overview</a></li>
         <li><a href="/foundation/members.html">Members</a></li>
         <li><a href="/foundation/how-it-works.html">Process</a></li>
         <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
         <li><a href="/foundation/glossary.html">Glossary</a></li>
         <li><a href="/foundation/preFAQ.html">FAQ</a></li>
         <li><a href="/foundation/contact.html ">Contact</a></li>
          </ul>
         </li>
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          <ul class="dropdown-menu" role="menu">
       <li><a href="http://people.apache.org/">Overview</a></li>
       <li><a href="http://people.apache.org/committer-index.html">Committers</a></li>
       <li><a href="/foundation/how-it-works.html#meritocracy">Meritocracy</a></li>
        <li><a href="/foundation/how-it-works.html#roles">Roles</a></li>
       <li><a href="http://planet.apache.org/">Planet Apache</a></li>
          </ul>
         </li>
         <li class="dropdown">
           <a href="#" class="dropdown-toggle" data-toggle="dropdown">Get Involved <span
class="caret"></span></a>
           <ul class="dropdown-menu" role="menu">
             <li><a href="/foundation/getinvolved.html">Overview</a></li>
         <li><a href="http://community.apache.org/">Community Development</a></li>
                   <li><a href="http://helpwanted.apache.org/">Help Wanted</a></li>
         <li><a href="http://www.apachecon.com/">ApacheCon</a></li>
```

```
          </ul>
     </li>
         <li><a href="/dyn/closer.cgi">Download</a></li>
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">Support Apache <span
class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">

     <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
         <li><a href="/foundation/contributing.html">Donations</a></li>
         <li><a href="/foundation/buy_stuff.html">Buy Stuff</a></li>
         <li><a href="/foundation/thanks.html">Thanks</a></li>
          </ul>
         </li>
       </ul>
     </div>
   </div>
 </nav>
</header>
<!-- / Navigation -->
<div class="container">
 <div class="row">
   <div class="col-md-9 col-sm-8 col-xs-12">
     <img src="/img/asf_logo.png" alt="Apache Logo" style="max-width: 100%;">
   </div>
   <div class="col-md-3 col-sm-4 col-xs-12">
     <div class="input-group" style="margin-bottom: 5px;">
    <script>
 (function() {
   var cx = '005703438322411770421:5mgshgrgx2u';
   var gcse = document.createElement('script');
   gcse.type = 'text/javascript';
   gcse.async = true;
   gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:') +
       '//cse.google.com/cse.js?cx=' + cx;
   var s = document.getElementsByTagName('script')[0];
    s.parentNode.insertBefore(gcse, s);
 })();
</script>
    <gcse:searchbox-only></gcse:searchbox-only>
   </div>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/governance/">The Apache Way</a>
   <a role="button" class="btn btn-block btn-default btn-xs"
href="https://community.apache.org/contributors/">Contribute</a>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/thanks.html">ASF Sponsors</a>
   </div>
 </div>
</div>
```

```html
<div class="container"><style type="text/css">
/* The following code is added by mdx_elementid.py
  It was originally lifted from http://subversion.apache.org/style/site.css */
/*
* Hide class="elementid-permalink", except when an enclosing heading
* has the :hover property.
*/
.headerlink, .elementid-permalink {
 visibility: hidden;
}
h2:hover > .headerlink, h3:hover > .headerlink, h1:hover > .headerlink, h6:hover > .headerlink, h4:hover >
.headerlink, h5:hover >
 .headerlink, dt:hover > .elementid-permalink { visibility: visible }</style>
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<!-- Footer -->

<footer class="bg-primary">
 <div class="container">
   <div class="row">
    <br />
    <div class="col-sm-1">

    </div>
    <div class="col-sm-2">
          <h5 class="white">Community</h5>
          <ul class="list-unstyled white" role="menu">
     <li><a href="http://community.apache.org/">Overview</a></li>
     <li><a href="/foundation/conferences.html">Conferences</a></li>
     <li><a href="http://community.apache.org/gsoc.html">Summer of Code</a></li>
     <li><a href="http://community.apache.org/newcomers/">Getting Started</a></li>
     <li><a href="/foundation/how-it-works.html">The Apache Way</a></li>
     <li><a href="/travel/">Travel Assistance</a></li>
     <li><a href="/foundation/getinvolved.html">Get Involved</a></li>
     <li><a href="http://community.apache.org/newbiefaq.html">Community
 FAQ</a></li>
          </ul>
    </div>

    <div class="col-sm-2">
     <h5 class="white">Innovation</h5>
          <ul class="list-unstyled white" role="menu">
     <li><a href="http://incubator.apache.org/">Incubator</a></li>
     <li><a href="http://labs.apache.org/">Labs</a></li>
     <li><a href="/licenses/">Licensing</a></li>
     <li><a href="/foundation/license-faq.html">Licensing FAQ</a></li>
     <li><a href="/foundation/marks/">Trademark Policy</a></li>
     <li><a href="/foundation/contact.html">Contacts</a></li>
          </ul>
    </div>

    <div class="col-sm-2">
     <h5 class="white">Tech Operations</h5>
```

```
          <ul class="list-unstyled white" role="menu">
       <li><a href="/dev/">Developer Information</a></li>
       <li><a href="/dev/infrastructure.html">Infrastructure</a></li>
       <li><a href="/security/">Security</a></li>
       <li><a href="http://status.apache.org">Status</a></li>
       <li><a href="/foundation/contact.html">Contacts</a></li>

        </ul>
    </div>

    <div class="col-sm-2">
     <h5 class="white">Press</h5>
        <ul class="list-unstyled white" role="menu">
      <li><a href="/press/">Overview</a></li>
      <li><a href="https://blogs.apache.org/">ASF News</a></li>
      <li><a href="https://blogs.apache.org/foundation/">Announcements</a></li>
      <li><a href="https://twitter.com/TheASF">Twitter Feed</a></li>
      <li><a href="/press/#contact">Contacts</a></li>
        </ul>
    </div>

    <div class="col-sm-2">
     <h5 class="white">Legal</h5>
        <ul class="list-unstyled white" role="menu">
      <li><a href="/legal/">Legal Affairs</a></li>
      <li><a href="/licenses/">Licenses</a></li>
      <li><a href="/foundation/marks/">Trademark Policy</a></li>
      <li><a href="/foundation/records/">Public Records</a></li>
           <li><a href="/foundation/policies/privacy.html">Privacy Policy</a></li>
      <li><a href="/licenses/exports/">Export Information</a></li>
      <li><a
 href="/foundation/license-faq.html">License/Distribution FAQ</a></li>
      <li><a href="/foundation/contact.html">Contacts</a></li>
        </ul>
    </div>

    <div class="col-sm-1">
    </div>

   </div>
   <hr class="col-lg-12 hr-white" />
   <div class="row">
    <div class="col-lg-12">
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     <p class="text-center">Apache and the Apache feather logo are trademarks of The Apache Software
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    </div>
```

```
   </div>
  </div>

</footer>

<!-- / Footer -->

<script src="/js/jquery-2.1.1.min.js"></script>
<script src="/js/bootstrap.js"></script>
</body>
</html>
```

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```
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<title>301 Moved Permanently</title>
</head><body>
<h1>Moved Permanently</h1>
<p>The document has moved <a href="https://opensource.org/licenses/mit-license.php">here</a>.</p>
</body></html>
```

Format: http://www.debian.org/doc/packaging-manuals/copyright-format/1.0/
Upstream-Name: schema-registry
Source: https://github.com/confluentinc/schema-registry

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```
cd <SRC_PATH>
mvn package -DskipTests
mkdir /tmp/jars
mkdir /tmp/overrides
cp package-schema-registry/target/kafka-schema-registry-package-<VERSION>-package/share/java/schema-registry/*.jar /tmp/jars/
cp package-kafka-serde-tools/target/kafka-serde-tools-package-<VERSION>-package/share/java/kafka-serde-tools/*.jar /tmp/jars/
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means this document.
    </p>
   </li>

   <li>
    <p>
     <b>1.8. &ldquo;Licensable&rdquo;</b> means having
     the right to grant, to the maximum extent possible, whether
     at the time of the initial grant or subsequently acquired,
     any and all of the rights conveyed herein.
    </p>
   </li>

   <li>
    <p>
     <b>1.9. &ldquo;Modifications&rdquo;</b> means the
     Source Code and Executable form of any of the following:
    </p>
    <ul>
     <li>
      <p>
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       file containing Original Software or previous
       Modifications;
      </p>
     </li>
     <li>
      <p>
       <b>B.</b> Any new file that contains any part of
       the Original Software or previous Modification; or
      </p>
     </li>
     <li>
      <p>
       <b>C.</b> Any new file that is contributed or
       otherwise
made available under the terms of this
       License.
      </p>
     </li>
    </ul>
   </li>
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  <li>
   <p>
    <b>1.10. &ldquo;Original Software&rdquo;</b> means
    the Source Code and Executable form of computer software
    code that is originally released under this License.
   </p>
  </li>

  <li>
   <p>
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    in any patent Licensable by grantor.
   </p>
  </li>

  <li>
   <p>
    <b>1.12. &ldquo;Source Code&rdquo;</b> means (a) the
    common form of computer software code in which modifications
    are made and (b) associated documentation included in or
    with such code.
   </p>
  </li>

  <li>
   <p>
    <b>1.13. &ldquo;You&rdquo; (or
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 entity exercising rights under, and complying with all of
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    direction or management of such entity, whether by contract
    or otherwise, or (b)&nbsp;ownership of more than fifty
    percent (50%) of the outstanding shares or beneficial
    ownership of such entity.
   </p>
  </li>
 </ul>
</li>

<li>
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      </p>
     </li>
     <li>
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     </li>
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     </li>
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     </li>
    </ul>
   </li>
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     </li>
     <li>
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      </p>
     </li>
     <li>
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       to a third party.
      </p>
     </li>
     <li>
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      </p>
     </li>
    </ul>
   </li>
  </ul>
 </li>

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   </li>
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    </p>
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   </li>
   <li>
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   </li>
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   </li>
  </ul>
 </li>

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   </li>
   <li>
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   </li>
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  </ul>
 </li>

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</ul>

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 </p>
</li>
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 <ul>
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      </p>
     </li>
     <li>
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     </li>
     <li>
      <p>
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     </li>
    </ul>
    <p>
     The source code for a work means the preferred form of the work for
     making modifications to it. For an executable work, complete source
     code means all the
source code for all modules it contains, plus any
     associated interface definition files, plus the scripts used to control
     compilation and installation of the executable. However, as a special
     exception, the source code distributed need not include anything that
     is normally distributed (in either source or binary form) with the
     major components (compiler, kernel, and so on) of the operating system
     on which the executable runs, unless that component itself accompanies
     the executable.
    </p>
    <p>
     If distribution of executable or object code is made by offering access
     to copy from a designated place, then offering equivalent access to
     copy the source code from the same place counts as distribution of the
     source code, even though third parties are not compelled to copy the
     source along with the object code.
    </p>
   </li>

   <li>
    <p>
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     Program except
```

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  </p>
 </li>

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 </li>

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 </li>

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  </p>
 </li>
```

```
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 </li>

 <li>
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possible
   use to the public, the best way to achieve this is to make it free software
   which everyone can redistribute and change under these terms.
  </p>
  <p>
   To do so, attach the following notices to the program. It is safest to attach
   them to the start of each source file to most effectively convey the exclusion
   of warranty; and each file should have at least the "copyright" line and a
   pointer to where the full notice is found.
  </p>
  <ul>
   <li>
    <p>
     One line to give the program's name and a brief idea of what it does.
    </p>
   </li>
   <li>
    <p>
     Copyright (C) <year> <name of author>
    </p>
   </li>
   <li>
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     This program is free software; you can redistribute it and/or modify it
     under the terms of the GNU General Public License as published by the
     Free Software Foundation; either version 2 of the License, or (at your
     option) any later version.
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  </li>
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   </li>
   <li>
```

```
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     with this program; if not, write to the Free Software Foundation, Inc.,
     59 Temple Place, Suite 330, Boston, MA 02111-1307 USA
    </p>
   </li>
  </ul>
  <p>
   Also add information on how to contact you by electronic and paper mail.
  </p>
  <p>
   If the program is interactive, make it output a short notice like this
   when it starts in an interactive mode:
  </p>
  <ul>
   <li>
    <p>
     Gnomovision version 69, Copyright (C) year name of author<br />
     Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type
     `show w'.
This is free software, and you are welcome to redistribute
     it under certain conditions; type `show c' for details.
    </p>
   </li>
  </ul>
  <p>
   The hypothetical commands `show w' and `show c' should show the appropriate
   parts of the General Public License. Of course, the commands you use may
   be called something other than `show w' and `show c'; they could even be
   mouse-clicks or menu items--whatever suits your program.
  </p>
  <p>
   You should also get your employer (if you work as a programmer) or your
   school, if any, to sign a "copyright disclaimer" for the program, if
   necessary. Here is a sample; alter the names:
  </p>
  <ul>
   <li>
    <p>
     Yoyodyne, Inc., hereby disclaims all copyright interest in the program
     `Gnomovision' (which makes passes at compilers) written by James Hacker.
    </p>
    <p>
     signature of Ty Coon, 1 April 1989<br />
     Ty Coon, President of Vice
    </p>
   </li>
```

```
    </ul>
   <p>
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   </p>
  </li>

  <li style="background-color:yellow;">
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   <p>
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    "Sun designates this particular file as subject to the "Classpath"
    exception as provided by Sun in the License file that accompanied this code."
   </p>
   <p>
    Linking this library statically or dynamically with
 other modules is making
    a combined work based on this library. Thus, the terms and conditions of the
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   </p>
   <p>
    As a special exception, the copyright holders of this library give you
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    you modify this library, you may extend this exception to your version of
    the library, but you are not obligated to do so.? If you do not wish to do
    so, delete this exception statement from your version.
   </p>
  </li>

 </ul>

</body>
</html>
```

Jackson JSON processor

Jackson is a high-performance, Free/Open Source JSON processing library.
It was originally written by Tatu Saloranta (tatu.saloranta@iki.fi), and has

been in development since 2007.
It is currently developed by a community of developers, as well as supported
commercially by FasterXML.com.

Licensing

Jackson core and extension components may be licensed under different licenses.
To find the details that apply to this artifact see the accompanying LICENSE file.
For more information, including possible other licensing options, contact
FasterXML.com (http://fasterxml.com).

Credits

A list of contributors may be found from CREDITS file, which is included
in some artifacts (usually source distributions); but is always available
from the source code management (SCM) system project uses.

```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="utf-8">
 <meta http-equiv="X-UA-Compatible" content="IE=edge">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <meta name="description" content="Home page of The Apache Software Foundation">

 <link rel="apple-touch-icon" sizes="57x57" href="/favicons/apple-touch-icon-57x57.png">
 <link rel="apple-touch-icon" sizes="60x60" href="/favicons/apple-touch-icon-60x60.png">
 <link rel="apple-touch-icon" sizes="72x72" href="/favicons/apple-touch-icon-72x72.png">
 <link rel="apple-touch-icon" sizes="76x76" href="/favicons/apple-touch-icon-76x76.png">
 <link rel="apple-touch-icon" sizes="114x114" href="/favicons/apple-touch-icon-114x114.png">
 <link rel="apple-touch-icon" sizes="120x120" href="/favicons/apple-touch-icon-120x120.png">
 <link rel="apple-touch-icon" sizes="144x144" href="/favicons/apple-touch-icon-144x144.png">
 <link rel="apple-touch-icon" sizes="152x152" href="/favicons/apple-touch-icon-152x152.png">
  <link rel="apple-touch-icon" sizes="180x180" href="/favicons/apple-touch-icon-180x180.png">
 <link rel="icon" type="image/png" href="/favicons/favicon-32x32.png" sizes="32x32">
 <link rel="icon" type="image/png" href="/favicons/favicon-194x194.png" sizes="194x194">
 <link rel="icon" type="image/png" href="/favicons/favicon-96x96.png" sizes="96x96">
 <link rel="icon" type="image/png" href="/favicons/android-chrome-192x192.png" sizes="192x192">
 <link rel="icon" type="image/png" href="/favicons/favicon-16x16.png" sizes="16x16">
 <link rel="manifest" href="/favicons/manifest.json">
 <link rel="shortcut icon" href="/favicons/favicon.ico">
 <meta name="msapplication-TileColor" content="#603cba">
 <meta name="msapplication-TileImage" content="/favicons/mstile-144x144.png">
 <meta name="msapplication-config" content="/favicons/browserconfig.xml">
 <meta name="theme-color" content="#303284">

 <title>Licenses</title>
 <link href='https://fonts.googleapis.com/css?family=Source+Sans+Pro:400,700%7cDroid+Serif:400,700'
```

```
 rel='stylesheet' type='text/css'>
 <link href="/css/min.bootstrap.css" rel="stylesheet">
 <link href="/css/styles.css" rel="stylesheet">



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the NOTICE file distributed with this work for additional information regarding copyright ownership.  The ASF
licenses this file to you under the Apache License, Version 2.0 (the &quot;License&quot;); you may not use this file
except in compliance with the License.  You may obtain a copy of the License at .
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distributed under the License is distributed on an &quot;AS IS&quot; BASIS, WITHOUT WARRANTIES OR
CONDITIONS OF ANY KIND, either express or implied.  See the License for the specific language governing
permissions and limitations under the License. -->

</head>

<body>
<!--
 Navigation -->
<header>
 <nav class="navbar navbar-default navbar-fixed-top">
   <div class="container">
     <div class="navbar-header">
       <button class="navbar-toggle" type="button" data-toggle="collapse" data-target="#mainnav-collapse">
         <span class="sr-only">Toggle navigation</span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
       </button>
       <a href="#" class="navbar-brand"><span class="glyphicon glyphicon-home"></span></a>
     </div>
     <div class="collapse navbar-collapse" id="mainnav-collapse">
       <div style="line-height:20px; padding-top:5px; float:left"><a href="/">Home</a>&nbsp;&raquo&nbsp;<a
href="/licenses/">Licenses</a></div>
       <ul class="nav navbar-nav navbar-right">
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">About <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
          <li><a href="/foundation">Overview</a></li>
         <li><a href="/foundation/members.html">Members</a></li>
         <li><a href="/foundation/how-it-works.html">Process</a></li>
         <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
         <li><a href="/foundation/glossary.html">Glossary</a></li>
         <li><a href="/foundation/preFAQ.html">FAQ</a></li>
         <li><a href="/foundation/contact.html ">Contact</a></li>
          </ul>
         </li>
   <li><a href="/index.html#projects-list">Projects</a></li>
```

```
     <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">People <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
       <li><a href="http://people.apache.org/">Overview</a></li>
       <li><a href="http://people.apache.org/committer-index.html">Committers</a></li>
       <li><a href="/foundation/how-it-works.html#meritocracy">Meritocracy</a></li>
        <li><a href="/foundation/how-it-works.html#roles">Roles</a></li>
       <li><a href="http://planet.apache.org/">Planet Apache</a></li>
          </ul>
         </li>
         <li class="dropdown">
           <a href="#" class="dropdown-toggle" data-toggle="dropdown">Get Involved <span
class="caret"></span></a>
           <ul class="dropdown-menu" role="menu">
             <li><a href="/foundation/getinvolved.html">Overview</a></li>
         <li><a href="http://community.apache.org/">Community Development</a></li>
                   <li><a href="http://helpwanted.apache.org/">Help Wanted</a></li>
         <li><a href="http://www.apachecon.com/">ApacheCon</a></li>
           </ul>
     </li>
         <li><a href="/dyn/closer.cgi">Download</a></li>
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">Support Apache <span
class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
         <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
          <li><a href="/foundation/contributing.html">Donations</a></li>
         <li><a href="/foundation/buy_stuff.html">Buy Stuff</a></li>
         <li><a href="/foundation/thanks.html">Thanks</a></li>
          </ul>
         </li>
       </ul>
     </div>
   </div>
 </nav>
</header>
<!-- / Navigation -->
<div class="container">
 <div class="row">
   <div class="col-md-9 col-sm-8 col-xs-12">
     <img src="/img/asf_logo.png" alt="Apache Logo" style="max-width: 100%;">
   </div>
   <div class="col-md-3 col-sm-4 col-xs-12">
     <div class="input-group" style="margin-bottom: 5px;">
    <script>
 (function() {
   var cx = '005703438322411770421:5mgshgrgx2u';
   var gcse = document.createElement('script');
```

```
   gcse.type = 'text/javascript';
   gcse.async = true;
   gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:') +
       '//cse.google.com/cse.js?cx=' + cx;
   var s = document.getElementsByTagName('script')[0];
    s.parentNode.insertBefore(gcse, s);
 })();
</script>
    <gcse:searchbox-only></gcse:searchbox-only>
   </div>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/governance/">The Apache Way</a>
   <a role="button" class="btn btn-block btn-default btn-xs"
href="https://community.apache.org/contributors/">Contribute</a>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/thanks.html">ASF Sponsors</a>
   </div>
 </div>
</div>
<div class="container"><style type="text/css">
/* The following code is added by mdx_elementid.py
  It was originally lifted from http://subversion.apache.org/style/site.css */
/*
* Hide class="elementid-permalink", except when an enclosing heading
* has the :hover property.
*/
.headerlink, .elementid-permalink {
 visibility: hidden;
}
h2:hover > .headerlink, h3:hover > .headerlink, h1:hover > .headerlink, h6:hover > .headerlink, h4:hover >
.headerlink, h5:hover > .headerlink, dt:hover
 > .elementid-permalink { visibility: visible }</style>
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```

```
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license on submission of contributions, to require a patent license on
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*.</p>
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wording due to varying requirements for attribution or mark identification,
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The purpose of this agreement is to clearly define the
terms under which intellectual property has been contributed to the ASF and
```

```html
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<p>The ICLA is not tied to any employer you
 may have, so it is recommended to
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address.</p>
<p>Your Full name will be published unless you provide an alternative Public name.
For example if your full name is Andrew Bernard Charles Dickens, but you wish
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<p>The email address and other contact details are not published.</p>
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<h1 id="submitting">Submitting License Agreements and Grants<a class="headerlink" href="#submitting"
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 Involved</a></li>
      <li><a href="http://community.apache.org/newbiefaq.html">Community FAQ</a></li>
           </ul>
    </div>

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    <li><a href="/foundation/contact.html">Contacts</a></li>
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     <li><a href="/dev/infrastructure.html">Infrastructure</a></li>
     <li><a href="/security/">Security</a></li>
      <li><a href="http://status.apache.org">Status</a></li>
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        </ul>
  </div>

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Other developers who have contributed code are:

* Brian Langel

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<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="utf-8">
 <meta http-equiv="X-UA-Compatible" content="IE=edge">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <meta name="description" content="Home page of The Apache Software Foundation">

 <link rel="apple-touch-icon" sizes="57x57" href="/favicons/apple-touch-icon-57x57.png">
 <link rel="apple-touch-icon" sizes="60x60" href="/favicons/apple-touch-icon-60x60.png">
 <link rel="apple-touch-icon" sizes="72x72" href="/favicons/apple-touch-icon-72x72.png">
 <link rel="apple-touch-icon" sizes="76x76" href="/favicons/apple-touch-icon-76x76.png">
 <link rel="apple-touch-icon" sizes="114x114" href="/favicons/apple-touch-icon-114x114.png">
 <link rel="apple-touch-icon" sizes="120x120" href="/favicons/apple-touch-icon-120x120.png">
 <link rel="apple-touch-icon" sizes="144x144" href="/favicons/apple-touch-icon-144x144.png">
 <link rel="apple-touch-icon" sizes="152x152" href="/favicons/apple-touch-icon-152x152.png">
  <link rel="apple-touch-icon" sizes="180x180" href="/favicons/apple-touch-icon-180x180.png">
 <link rel="icon" type="image/png" href="/favicons/favicon-32x32.png" sizes="32x32">
 <link rel="icon" type="image/png" href="/favicons/favicon-194x194.png" sizes="194x194">
 <link rel="icon" type="image/png" href="/favicons/favicon-96x96.png" sizes="96x96">
 <link rel="icon" type="image/png" href="/favicons/android-chrome-192x192.png" sizes="192x192">
 <link rel="icon" type="image/png" href="/favicons/favicon-16x16.png" sizes="16x16">
 <link rel="manifest" href="/favicons/manifest.json">
 <link rel="shortcut icon" href="/favicons/favicon.ico">
 <meta name="msapplication-TileColor" content="#603cba">
 <meta name="msapplication-TileImage" content="/favicons/mstile-144x144.png">
 <meta name="msapplication-config" content="/favicons/browserconfig.xml">
 <meta name="theme-color" content="#303284">

 <title>Apache License, Version 2.0</title>
 <link href='https://fonts.googleapis.com/css?family=Source+Sans+Pro:400,700%7cDroid+Serif:400,700'
 rel='stylesheet' type='text/css'>
 <link href="/css/min.bootstrap.css" rel="stylesheet">
 <link href="/css/styles.css" rel="stylesheet">
```

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```
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permissions and limitations under the License.
 -->

</head>

<body>
<!-- Navigation -->
<header>
 <nav class="navbar navbar-default navbar-fixed-top">
   <div class="container">
     <div class="navbar-header">
       <button class="navbar-toggle" type="button" data-toggle="collapse" data-target="#mainnav-collapse">
         <span class="sr-only">Toggle navigation</span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
       </button>
       <a href="#" class="navbar-brand"><span class="glyphicon glyphicon-home"></span></a>
     </div>
     <div class="collapse navbar-collapse" id="mainnav-collapse">
       <div style="line-height:20px; padding-top:5px; float:left"><a href="/">Home</a>&nbsp;&raquo&nbsp;<a
href="/licenses/">Licenses</a></div>
       <ul class="nav navbar-nav navbar-right">
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">About <span class="caret"></span></a>
          <ul class="dropdown-menu"
 role="menu">
         <li><a href="/foundation">Overview</a></li>
         <li><a href="/foundation/members.html">Members</a></li>
         <li><a href="/foundation/how-it-works.html">Process</a></li>
         <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
         <li><a href="/foundation/glossary.html">Glossary</a></li>
         <li><a href="/foundation/preFAQ.html">FAQ</a></li>
         <li><a href="/foundation/contact.html ">Contact</a></li>
          </ul>
         </li>
   <li><a href="/index.html#projects-list">Projects</a></li>
     <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">People <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
       <li><a href="http://people.apache.org/">Overview</a></li>
       <li><a href="http://people.apache.org/committer-index.html">Committers</a></li>
       <li><a href="/foundation/how-it-works.html#meritocracy">Meritocracy</a></li>
        <li><a href="/foundation/how-it-works.html#roles">Roles</a></li>
       <li><a href="http://planet.apache.org/">Planet Apache</a></li>
          </ul>
```

```
         </li>
         <li class="dropdown">
           <a href="#" class="dropdown-toggle" data-toggle="dropdown">Get Involved <span
class="caret"></span></a>
           <ul class="dropdown-menu" role="menu">
             <li><a href="/foundation/getinvolved.html">Overview</a></li>
         <li><a href="http://community.apache.org/">Community Development</a></li>
                   <li><a href="http://helpwanted.apache.org/">Help Wanted</a></li>
         <li><a href="http://www.apachecon.com/">ApacheCon</a></li>
           </ul>
     </li>
         <li><a href="/dyn/closer.cgi">Download</a></li>
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">Support Apache <span
class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">

     <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
         <li><a href="/foundation/contributing.html">Donations</a></li>
         <li><a href="/foundation/buy_stuff.html">Buy Stuff</a></li>
         <li><a href="/foundation/thanks.html">Thanks</a></li>
          </ul>
         </li>
       </ul>
     </div>
   </div>
 </nav>
</header>
<!-- / Navigation -->
<div class="container">
 <div class="row">
   <div class="col-md-9 col-sm-8 col-xs-12">
     <img src="/img/asf_logo.png" alt="Apache Logo" style="max-width: 100%;">
   </div>
   <div class="col-md-3 col-sm-4 col-xs-12">
     <div class="input-group" style="margin-bottom: 5px;">
    <script>
 (function() {
   var cx = '005703438322411770421:5mgshgrgx2u';
   var gcse = document.createElement('script');
   gcse.type = 'text/javascript';
   gcse.async = true;
   gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:') +
       '//cse.google.com/cse.js?cx=' + cx;
   var s = document.getElementsByTagName('script')[0];
    s.parentNode.insertBefore(gcse, s);
 })();
</script>
```

```
    <gcse:searchbox-only></gcse:searchbox-only>
   </div>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/governance/">The Apache Way</a>
   <a role="button" class="btn btn-block btn-default btn-xs"
href="https://community.apache.org/contributors/">Contribute</a>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/thanks.html">ASF Sponsors</a>
   </div>
 </div>
</div>
<div class="container"><style type="text/css">
/* The following code is added by mdx_elementid.py
  It was originally lifted from http://subversion.apache.org/style/site.css */
/*
* Hide class="elementid-permalink", except when an enclosing heading
* has the :hover property.
*/
.headerlink, .elementid-permalink {
 visibility: hidden;
}
h2:hover > .headerlink, h3:hover > .headerlink, h1:hover > .headerlink, h6:hover > .headerlink, h4:hover >
.headerlink, h5:hover >
 .headerlink, dt:hover > .elementid-permalink { visibility: visible }</style>
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<!-- Footer -->

<footer class="bg-primary">
 <div class="container">
   <div class="row">
    <br />
    <div class="col-sm-1">

    </div>
    <div class="col-sm-2">
          <h5 class="white">Community</h5>
          <ul class="list-unstyled white" role="menu">
      <li><a href="http://community.apache.org/">Overview</a></li>
      <li><a href="/foundation/conferences.html">Conferences</a></li>
      <li><a href="http://community.apache.org/gsoc.html">Summer of Code</a></li>
      <li><a href="http://community.apache.org/newcomers/">Getting Started</a></li>
      <li><a href="/foundation/how-it-works.html">The Apache Way</a></li>
      <li><a href="/travel/">Travel Assistance</a></li>
      <li><a href="/foundation/getinvolved.html">Get Involved</a></li>
      <li><a href="http://community.apache.org/newbiefaq.html">Community
 FAQ</a></li>
          </ul>
    </div>

    <div class="col-sm-2">
     <h5 class="white">Innovation</h5>
          <ul class="list-unstyled white" role="menu">
      <li><a href="http://incubator.apache.org/">Incubator</a></li>
      <li><a href="http://labs.apache.org/">Labs</a></li>
```

```
     <li><a href="/licenses/">Licensing</a></li>
     <li><a href="/foundation/license-faq.html">Licensing FAQ</a></li>
     <li><a href="/foundation/marks/">Trademark Policy</a></li>
     <li><a href="/foundation/contact.html">Contacts</a></li>
          </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Tech Operations</h5>
         <ul class="list-unstyled white" role="menu">
      <li><a href="/dev/">Developer Information</a></li>
      <li><a href="/dev/infrastructure.html">Infrastructure</a></li>
      <li><a href="/security/">Security</a></li>
      <li><a href="http://status.apache.org">Status</a></li>
      <li><a href="/foundation/contact.html">Contacts</a></li>

       </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Press</h5>
       <ul class="list-unstyled white" role="menu">
     <li><a href="/press/">Overview</a></li>
     <li><a href="https://blogs.apache.org/">ASF News</a></li>
     <li><a href="https://blogs.apache.org/foundation/">Announcements</a></li>
     <li><a href="https://twitter.com/TheASF">Twitter Feed</a></li>
     <li><a href="/press/#contact">Contacts</a></li>
       </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Legal</h5>
       <ul class="list-unstyled white" role="menu">
     <li><a href="/legal/">Legal Affairs</a></li>
     <li><a href="/licenses/">Licenses</a></li>
     <li><a href="/foundation/marks/">Trademark Policy</a></li>
     <li><a href="/foundation/records/">Public Records</a></li>
          <li><a href="/foundation/policies/privacy.html">Privacy Policy</a></li>
     <li><a href="/licenses/exports/">Export Information</a></li>
     <li><a
href="/foundation/license-faq.html">License/Distribution FAQ</a></li>
     <li><a href="/foundation/contact.html">Contacts</a></li>
       </ul>
   </div>

   <div class="col-sm-1">
   </div>
```

```
   </div>
   <hr class="col-lg-12 hr-white" />
   <div class="row">
    <div class="col-lg-12">
     <p class="text-center">Copyright &#169; 2016 The Apache Software Foundation, Licensed under the <a
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     <p class="text-center">Apache and the Apache feather logo are trademarks of The Apache Software
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    </div>
   </div>
  </div>

</footer>

<!-- / Footer -->

<script src="/js/jquery-2.1.1.min.js"></script>
<script src="/js/bootstrap.js"></script>
</body>
</html>
```

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```
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">
<html><head>
<title>301 Moved Permanently</title>
</head><body>
<h1>Moved Permanently</h1>
<p>The document has moved <a href="https://opensource.org/licenses/mit-license.php">here</a>.</p>
</body></html>
```

Format: http://www.debian.org/doc/packaging-manuals/copyright-format/1.0/
Upstream-Name: schema-registry
Source: https://github.com/confluentinc/schema-registry

Files: *
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The following commands were used to generate license and notice files. Replace <VERSION> with the Schema Registry version, <SRC_PATH> with the path to the Schema Registry source directory, and <LICENSE_TOOL_PATH> with the path of the license tool.

```
cd <SRC_PATH>
mvn package -DskipTests
mkdir /tmp/jars
mkdir /tmp/overrides
cp package-schema-registry/target/kafka-schema-registry-package-<VERSION>-package/share/java/schema-registry/*.jar /tmp/jars/
cp package-kafka-serde-tools/target/kafka-serde-tools-package-<VERSION>-package/share/java/kafka-serde-tools/*.jar /tmp/jars/
cd <LICENSE_TOOL_PATH>
./bin/run_license_job.bash -i /tmp/jars -l <SRC_PATH>/licenses -n <SRC_PATH>/notices -h <SRC_PATH>/licenses-and-notices.html -o /tmp/overrides
```

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{ font-family: "Andale Sans UI"; font-size: 12pt; font-weight: normal }    H1.ctl { font-family: "Tahoma"; font-size:
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```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">

<html lang="en-US">
<head>
 <title>GlassFish Dual License Header and License Notice GPL v2 and CDDL</title>
 <meta http-equiv="content-type" content="text/html; charset=UTF-8">
 <style type="text/css">
  li {display: block;}
 </style>
</head>
```

```
<body leftmargin="0" topmargin="0" marginheight="0" marginwidth="0" bgcolor="#ffffff">

 <h3>COMMON DEVELOPMENT AND DISTRIBUTION LICENSE (CDDL) Version 1.0</h3>

 <ul>
  <li><p><b>1. Definitions.</b></p>
   <ul>
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     </p>
    </li>

    <li>
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     </p>
    </li>

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      thereof.
     </p>
    </li>

    <li>
     <p>
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     </p>
    </li>

    <li>
     <p>
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    </p>
   </li>

   <li>
    <p>
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    </p>
   </li>

   <li>
    <p>
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means this document.
    </p>
   </li>

   <li>
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    </p>
   </li>

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    <p>
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    </p>
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       Modifications;
      </p>
     </li>
     <li>
      <p>
       <b>B.</b> Any new file that contains any part of
       the Original Software or previous Modification; or
      </p>
     </li>
     <li>
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      <p>
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       otherwise
made available under the terms of this
       License.
      </p>
     </li>
    </ul>
   </li>

   <li>
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    </p>
   </li>

   <li>
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    </p>
   </li>

   <li>
    <p>
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     with such code.
    </p>
   </li>

   <li>
    <p>
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     percent (50%) of the outstanding shares or beneficial
     ownership of such entity.
    </p>
   </li>
  </ul>
 </li>

 <li>
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      </p>
     </li>
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     </li>
    </ul>
   </li>
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     </li>
    </ul>
   </li>
  </ul>
 </li>

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  </li>
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   </li>
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 </li>

 <li>
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    </p>
   </li>
   <li>
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    </p>
   </li>
   <li>
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   </li>
  </ul>
 </li>

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 <li>
```

```html
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 </li>

 <li>
  <p>
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 The precise terms and conditions for copying, distribution and
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 <li>
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   based on the Program" means either the Program or any derivative
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 </p>
 <p>
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 </p>
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<li>
 <p>
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  such modifications or work under the terms of Section 1 above, provided
  that you also meet all of these conditions:
 </p>
 <ul>
  <li>
   <p>
     a) You must cause the modified files to carry prominent notices stating
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   </p>
  </li>
  <li>
   <p>
    b) You must cause any work that you distribute or publish, that in whole
    or in part contains or is derived from the Program or any part thereof,
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     to be licensed as a whole at no charge to all third parties under the terms
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    </p>
   </li>
   <li>
    <p>
     c) If the modified program normally reads commands interactively when run,
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     most ordinary way, to print or display an announcement including an
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     the program under these conditions, and telling the user how to view a
     copy of this License. (Exception:
if the Program itself is interactive
     but does not normally print such an announcement, your work based on the
     Program is not required to print an announcement.)
    </p>
   </li>
  </ul>
  <p>
   These requirements apply to the modified work as a whole. If identifiable
   sections of that work are not derived from the Program, and can be reasonably
   considered independent and separate works in themselves, then this License,
   and its terms, do not apply to those sections when you distribute them as
   separate works. But when you distribute the same sections as part of a whole
   which is a work based on the Program, the distribution of the whole must
   be on the terms of this License, whose permissions for other licensees
   extend to the entire whole, and thus to each and every part regardless
   of who wrote it.
  </p>
  <p>
   Thus, it is not the intent of this section to claim rights or contest
   your rights to work written
entirely by you; rather, the intent is to
   exercise the right to control the distribution of derivative or collective
   works based on the Program.
  </p>
  <p>
   In addition, mere aggregation of another work not based on the Program
   with the Program (or with a work based on the Program) on a volume of
   a storage or distribution medium does not bring the other work under
   the scope of this License.
  </p>
 </li>

 <li>
  <p>
   <b>3.</b> You may copy and distribute the Program (or a work based
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   on it, under Section 2) in object code or executable form under
   the terms of Sections 1 and 2 above provided that you also do one
   of the following:
  </p>
  <ul>
   <li>
    <p>
     a) Accompany it with the complete corresponding machine-readable
     source code, which must be distributed under the terms of Sections
     1 and 2 above on a medium customarily used for software interchange; or,
    </p>
   </li>
   <li>
     <p>
     b) Accompany it with a written offer, valid for at least three years,
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     physically performing source distribution, a complete machine-readable
     copy of the corresponding source code, to be distributed under the
     terms of Sections 1 and 2 above on a medium customarily used for
     software interchange; or,
    </p>
   </li>
   <li>
    <p>
     c) Accompany it with the information you received as to the offer to
     distribute corresponding source code. (This alternative is allowed
     only for noncommercial distribution and only if you received the
     program in object code or executable form with such an offer, in
     accord with Subsection b above.)
    </p>
   </li>
  </ul>
  <p>
   The source code for a work means the preferred form of the work for
   making modifications to it. For an executable work, complete source
   code means all the
source code for all modules it contains, plus any
   associated interface definition files, plus the scripts used to control
   compilation and installation of the executable. However, as a special
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   is normally distributed (in either source or binary form) with the
   major components (compiler, kernel, and so on) of the operating system
   on which the executable runs, unless that component itself accompanies
   the executable.
  </p>
  <p>
   If distribution of executable or object code is made by offering access
   to copy from a designated place, then offering equivalent access to
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source code, even though third parties are not compelled to copy the
source along with the object code.
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  <p>
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   This section is intended to make thoroughly clear what is believed to be a
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 </li>

  <li>
  <p>
   <b>9.</b> The Free Software Foundation may publish revised and/or new
   versions of the General Public License from time to time. Such new versions
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   will be similar in spirit to the present version, but may differ in detail
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  </p>
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 <li>
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 </li>

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   SERVICING, REPAIR OR CORRECTION.
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 </li>

 <li>
  <p>
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    THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS),
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DAMAGES.
   </p>
  </li>

  <li>
   <p>END OF TERMS AND CONDITIONS</p>
  </li>

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   <p>
    If you develop a new program, and you want it to be of the greatest
 possible
    use to the public, the best way to achieve this is to make it free software
    which everyone can redistribute and change under these terms.
   </p>
   <p>
    To do so, attach the following notices to the program. It is safest to attach
    them to the start of each source file to most effectively convey the exclusion
    of warranty; and each file should have at least the "copyright" line and a
    pointer to where the full notice is found.
   </p>
   <ul>
    <li>
     <p>
      One line to give the program's name and a brief idea of what it does.
     </p>
    </li>
    <li>
     <p>
      Copyright (C) <year> <name of author>
     </p>
    </li>
    <li>
     <p>
      This program is free software; you can redistribute it and/or modify it
      under the terms of the GNU General Public License as published by the
      Free Software Foundation; either version 2 of the License, or (at your
      option) any later version.
     </p>
```

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  </li>
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    <p>
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   </li>
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    </p>
   </li>
  </ul>
  <p>
   Also add information on how to contact you by electronic and paper mail.
  </p>
  <p>
   If the program is interactive, make it output a short notice like this
   when it starts in an interactive mode:
  </p>
  <ul>
   <li>
    <p>
     Gnomovision version 69, Copyright (C) year name of author<br />
     Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type
     `show w'.
This is free software, and you are welcome to redistribute
     it under certain conditions; type `show c' for details.
    </p>
   </li>
  </ul>
  <p>
   The hypothetical commands `show w' and `show c' should show the appropriate
   parts of the General Public License. Of course, the commands you use may
   be called something other than `show w' and `show c'; they could even be
   mouse-clicks or menu items--whatever suits your program.
  </p>
  <p>
   You should also get your employer (if you work as a programmer) or your
   school, if any, to sign a "copyright disclaimer" for the program, if
   necessary. Here is a sample; alter the names:
  </p>
  <ul>
   <li>
```

```
    <p>
     Yoyodyne, Inc., hereby disclaims all copyright interest in the program
     `Gnomovision' (which makes passes at compilers) written by James Hacker.
    </p>
    <p>
     signature of Ty Coon, 1 April 1989<br />
     Ty Coon, President of Vice
    </p>
   </li>
   </ul>
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 </li>

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  </p>
  <p>
   Linking this library statically or dynamically with
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   a combined work based on this library. Thus, the terms and conditions of the
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  </p>
  <p>
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   and to copy and distribute the resulting executable under terms of your
   choice, provided that you also meet, for each linked independent module,
   the terms and conditions of the license of that module.? An independent
   module is a module which is not derived from or based on this library.? If
   you modify this library, you may extend this exception to your version of
   the library, but you are not obligated to do so.? If you do not wish to do
   so, delete this exception statement from your version.
  </p>
 </li>
```

```
 </ul>

</body>
</html>
```

Jackson JSON processor

Jackson is a high-performance, Free/Open Source JSON processing library.
It was originally written by Tatu Saloranta (tatu.saloranta@iki.fi), and has
been in development since 2007.
It is currently developed by a community of developers, as well as supported
commercially by FasterXML.com.

Licensing

Jackson core and extension components may be licensed under different licenses.
To find the details that apply to this artifact see the accompanying LICENSE file.
For more information, including possible other licensing options, contact
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Credits

A list of contributors may be found from CREDITS file, which is included
in some artifacts (usually source distributions); but is always available
from the source code management (SCM) system project uses.

```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="utf-8">
 <meta http-equiv="X-UA-Compatible" content="IE=edge">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <meta name="description" content="Home page of The Apache Software Foundation">

 <link rel="apple-touch-icon" sizes="57x57" href="/favicons/apple-touch-icon-57x57.png">
 <link rel="apple-touch-icon" sizes="60x60" href="/favicons/apple-touch-icon-60x60.png">
 <link rel="apple-touch-icon" sizes="72x72" href="/favicons/apple-touch-icon-72x72.png">
 <link rel="apple-touch-icon" sizes="76x76" href="/favicons/apple-touch-icon-76x76.png">
 <link rel="apple-touch-icon" sizes="114x114" href="/favicons/apple-touch-icon-114x114.png">
 <link rel="apple-touch-icon" sizes="120x120" href="/favicons/apple-touch-icon-120x120.png">
 <link rel="apple-touch-icon" sizes="144x144" href="/favicons/apple-touch-icon-144x144.png">
 <link rel="apple-touch-icon" sizes="152x152" href="/favicons/apple-touch-icon-152x152.png">
  <link rel="apple-touch-icon" sizes="180x180" href="/favicons/apple-touch-icon-180x180.png">
 <link rel="icon" type="image/png" href="/favicons/favicon-32x32.png" sizes="32x32">
 <link rel="icon" type="image/png" href="/favicons/favicon-194x194.png" sizes="194x194">
 <link rel="icon" type="image/png" href="/favicons/favicon-96x96.png" sizes="96x96">
 <link rel="icon" type="image/png" href="/favicons/android-chrome-192x192.png" sizes="192x192">
 <link rel="icon" type="image/png" href="/favicons/favicon-16x16.png" sizes="16x16">
 <link rel="manifest" href="/favicons/manifest.json">
```

```
 <link rel="shortcut icon" href="/favicons/favicon.ico">
 <meta name="msapplication-TileColor" content="#603cba">
 <meta name="msapplication-TileImage" content="/favicons/mstile-144x144.png">
 <meta name="msapplication-config" content="/favicons/browserconfig.xml">
 <meta name="theme-color" content="#303284">

 <title>Licenses</title>
 <link href='https://fonts.googleapis.com/css?family=Source+Sans+Pro:400,700%7cDroid+Serif:400,700'
 rel='stylesheet' type='text/css'>
 <link href="/css/min.bootstrap.css" rel="stylesheet">
 <link href="/css/styles.css" rel="stylesheet">



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distributed under the License is distributed on an &quot;AS IS&quot; BASIS, WITHOUT WARRANTIES OR
CONDITIONS OF ANY KIND, either express or implied.  See the License for the specific language governing
permissions and limitations under the License. -->

</head>

<body>
<!--
 Navigation -->
<header>
 <nav class="navbar navbar-default navbar-fixed-top">
   <div class="container">
     <div class="navbar-header">
       <button class="navbar-toggle" type="button" data-toggle="collapse" data-target="#mainnav-collapse">
         <span class="sr-only">Toggle navigation</span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
       </button>
       <a href="#" class="navbar-brand"><span class="glyphicon glyphicon-home"></span></a>
     </div>
     <div class="collapse navbar-collapse" id="mainnav-collapse">
       <div style="line-height:20px; padding-top:5px; float:left"><a href="/">Home</a>&nbsp;&raquo&nbsp;<a
href="/licenses/">Licenses</a></div>
       <ul class="nav navbar-nav navbar-right">
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">About <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
          <li><a href="/foundation">Overview</a></li>
         <li><a href="/foundation/members.html">Members</a></li>
```

```
         <li><a href="/foundation/how-it-works.html">Process</a></li>
         <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
         <li><a href="/foundation/glossary.html">Glossary</a></li>
         <li><a href="/foundation/preFAQ.html">FAQ</a></li>
         <li><a href="/foundation/contact.html ">Contact</a></li>
          </ul>
         </li>
   <li><a href="/index.html#projects-list">Projects</a></li>
     <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">People <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
       <li><a href="http://people.apache.org/">Overview</a></li>
       <li><a href="http://people.apache.org/committer-index.html">Committers</a></li>
       <li><a href="/foundation/how-it-works.html#meritocracy">Meritocracy</a></li>
        <li><a href="/foundation/how-it-works.html#roles">Roles</a></li>
       <li><a href="http://planet.apache.org/">Planet Apache</a></li>
          </ul>
         </li>
         <li class="dropdown">
           <a href="#" class="dropdown-toggle" data-toggle="dropdown">Get Involved <span
class="caret"></span></a>
           <ul class="dropdown-menu" role="menu">
             <li><a href="/foundation/getinvolved.html">Overview</a></li>
         <li><a href="http://community.apache.org/">Community Development</a></li>
                   <li><a href="http://helpwanted.apache.org/">Help Wanted</a></li>
         <li><a href="http://www.apachecon.com/">ApacheCon</a></li>
           </ul>
     </li>
         <li><a href="/dyn/closer.cgi">Download</a></li>
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">Support Apache <span
class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
         <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
          <li><a href="/foundation/contributing.html">Donations</a></li>
         <li><a href="/foundation/buy_stuff.html">Buy Stuff</a></li>
         <li><a href="/foundation/thanks.html">Thanks</a></li>
          </ul>
         </li>
       </ul>
     </div>
   </div>
 </nav>
</header>
<!-- / Navigation -->
<div class="container">
 <div class="row">
   <div class="col-md-9 col-sm-8 col-xs-12">
```

```
     <img src="/img/asf_logo.png" alt="Apache Logo" style="max-width: 100%;">
   </div>
   <div class="col-md-3 col-sm-4 col-xs-12">
     <div class="input-group" style="margin-bottom: 5px;">
    <script>
 (function() {
   var cx = '005703438322411770421:5mgshgrgx2u';
   var gcse = document.createElement('script');
   gcse.type = 'text/javascript';
   gcse.async = true;
   gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:') +
       '//cse.google.com/cse.js?cx=' + cx;
   var s = document.getElementsByTagName('script')[0];
    s.parentNode.insertBefore(gcse, s);
 })();
</script>
    <gcse:searchbox-only></gcse:searchbox-only>
   </div>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/governance/">The Apache Way</a>
   <a role="button" class="btn btn-block btn-default btn-xs"
href="https://community.apache.org/contributors/">Contribute</a>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/thanks.html">ASF Sponsors</a>
   </div>
 </div>
</div>
<div class="container"><style type="text/css">
/* The following code is added by mdx_elementid.py
  It was originally lifted from http://subversion.apache.org/style/site.css */
/*
* Hide class="elementid-permalink", except when an enclosing heading
* has the :hover property.
*/
.headerlink, .elementid-permalink {
 visibility: hidden;
}
h2:hover > .headerlink, h3:hover > .headerlink, h1:hover > .headerlink, h6:hover > .headerlink, h4:hover >
.headerlink, h5:hover > .headerlink, dt:hover
 > .elementid-permalink { visibility: visible }</style>
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*.</p>
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```

```
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<p>When an individual or corporation decides to donate a body of existing
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 available to
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<h1 id="submitting">Submitting License Agreements and Grants<a class="headerlink" href="#submitting"
title="Permanent link">&para;</a></h1>
<p>Documents may be submitted by fax or email.</p>
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print, sign, scan all pages into a single pdf file,
and email the pdf file as an attachment to secretary@apache.org. If possible,
send the attachment from the email address in the document.
Please send only one document per email.</p>
<p>If you prefer to sign electronically, please fill the form, save it locally (e.g. icla.pdf), and sign the
file by preparing a detached PGP signature. For example,</p>
```

```
<blockquote>
<p>gpg --armor --detach-sign icla.pdf</p>
</blockquote>
<p>The above will create
 a file icla.pdf.asc. Send both the file and signature
as attachments in the same email to secretary@apache.org. Please send only one
document (file plus signature) per email. Please do not submit your public key to Apache.
Instead, please upload your public key to pgpkeys.mit.edu. </p>
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<h1 id="questions">Questions?<a
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<p>For answers to frequently asked licensing questions, please consult our
<a href="/foundation/license-faq.html">Licensing Frequently Asked Questions</a> page.</p></div>

<!-- Footer -->

<footer class="bg-primary">
 <div class="container">
   <div class="row">
    <br />
    <div class="col-sm-1">

    </div>
    <div class="col-sm-2">
          <h5 class="white">Community</h5>
          <ul class="list-unstyled white" role="menu">
      <li><a href="http://community.apache.org/">Overview</a></li>
      <li><a href="/foundation/conferences.html">Conferences</a></li>
      <li><a href="http://community.apache.org/gsoc.html">Summer of Code</a></li>
      <li><a href="http://community.apache.org/newcomers/">Getting Started</a></li>
      <li><a href="/foundation/how-it-works.html">The Apache Way</a></li>
      <li><a href="/travel/">Travel Assistance</a></li>
      <li><a href="/foundation/getinvolved.html">Get
 Involved</a></li>
      <li><a href="http://community.apache.org/newbiefaq.html">Community FAQ</a></li>
          </ul>
    </div>
```

```
   <div class="col-sm-2">
    <h5 class="white">Innovation</h5>
          <ul class="list-unstyled white" role="menu">
     <li><a href="http://incubator.apache.org/">Incubator</a></li>
     <li><a href="http://labs.apache.org/">Labs</a></li>
     <li><a href="/licenses/">Licensing</a></li>
     <li><a href="/foundation/license-faq.html">Licensing FAQ</a></li>
     <li><a href="/foundation/marks/">Trademark Policy</a></li>
     <li><a href="/foundation/contact.html">Contacts</a></li>
          </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Tech Operations</h5>
         <ul class="list-unstyled white" role="menu">
      <li><a href="/dev/">Developer Information</a></li>
      <li><a href="/dev/infrastructure.html">Infrastructure</a></li>
      <li><a href="/security/">Security</a></li>
       <li><a href="http://status.apache.org">Status</a></li>
      <li><a href="/foundation/contact.html">Contacts</a></li>
         </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Press</h5>
       <ul class="list-unstyled white" role="menu">
     <li><a href="/press/">Overview</a></li>
     <li><a href="https://blogs.apache.org/">ASF News</a></li>
     <li><a href="https://blogs.apache.org/foundation/">Announcements</a></li>
     <li><a href="https://twitter.com/TheASF">Twitter Feed</a></li>
     <li><a href="/press/#contact">Contacts</a></li>
       </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Legal</h5>
       <ul class="list-unstyled white" role="menu">
     <li><a href="/legal/">Legal Affairs</a></li>
     <li><a href="/licenses/">Licenses</a></li>
     <li><a href="/foundation/marks/">Trademark Policy</a></li>
     <li><a href="/foundation/records/">Public Records</a></li>
          <li><a href="/foundation/policies/privacy.html">Privacy
Policy</a></li>
     <li><a href="/licenses/exports/">Export Information</a></li>
     <li><a href="/foundation/license-faq.html">License/Distribution FAQ</a></li>
     <li><a href="/foundation/contact.html">Contacts</a></li>
       </ul>
   </div>
```

```
    <div class="col-sm-1">
    </div>

   </div>
   <hr class="col-lg-12 hr-white" />
   <div class="row">
    <div class="col-lg-12">
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    </div>
   </div>
  </div>

</footer>

<!-- / Footer -->

<script src="/js/jquery-2.1.1.min.js"></script>
<script src="/js/bootstrap.js"></script>
</body>
</html>
```

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1.509 kafka-protobuf-serializer 7.0.5

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It is currently developed by a community of developers, as well as supported
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Java ClassMate library was originally written by Tatu Saloranta (tatu.saloranta@iki.fi)

Other developers who have contributed code are:

* Brian Langel
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```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="utf-8">
 <meta http-equiv="X-UA-Compatible" content="IE=edge">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <meta name="description" content="Home page of The Apache Software Foundation">

 <link rel="apple-touch-icon" sizes="57x57" href="/favicons/apple-touch-icon-57x57.png">
 <link rel="apple-touch-icon" sizes="60x60" href="/favicons/apple-touch-icon-60x60.png">
 <link rel="apple-touch-icon" sizes="72x72" href="/favicons/apple-touch-icon-72x72.png">
 <link rel="apple-touch-icon" sizes="76x76" href="/favicons/apple-touch-icon-76x76.png">
 <link rel="apple-touch-icon" sizes="114x114" href="/favicons/apple-touch-icon-114x114.png">
 <link rel="apple-touch-icon" sizes="120x120" href="/favicons/apple-touch-icon-120x120.png">
 <link rel="apple-touch-icon" sizes="144x144" href="/favicons/apple-touch-icon-144x144.png">
 <link rel="apple-touch-icon" sizes="152x152" href="/favicons/apple-touch-icon-152x152.png">
  <link rel="apple-touch-icon" sizes="180x180" href="/favicons/apple-touch-icon-180x180.png">
 <link rel="icon" type="image/png" href="/favicons/favicon-32x32.png" sizes="32x32">
 <link rel="icon" type="image/png" href="/favicons/favicon-194x194.png" sizes="194x194">
 <link rel="icon" type="image/png" href="/favicons/favicon-96x96.png" sizes="96x96">
 <link rel="icon" type="image/png" href="/favicons/android-chrome-192x192.png" sizes="192x192">
 <link rel="icon" type="image/png" href="/favicons/favicon-16x16.png" sizes="16x16">
 <link rel="manifest" href="/favicons/manifest.json">
 <link rel="shortcut icon" href="/favicons/favicon.ico">
 <meta name="msapplication-TileColor" content="#603cba">
 <meta name="msapplication-TileImage" content="/favicons/mstile-144x144.png">
 <meta name="msapplication-config" content="/favicons/browserconfig.xml">
```

```
 <meta name="theme-color" content="#303284">

 <title>Apache License, Version 2.0</title>
 <link href='https://fonts.googleapis.com/css?family=Source+Sans+Pro:400,700%7cDroid+Serif:400,700'
 rel='stylesheet' type='text/css'>
 <link href="/css/min.bootstrap.css" rel="stylesheet">
 <link href="/css/styles.css" rel="stylesheet">



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 -->

</head>

<body>
<!-- Navigation -->
<header>
 <nav class="navbar navbar-default navbar-fixed-top">
   <div class="container">
     <div class="navbar-header">
       <button class="navbar-toggle" type="button" data-toggle="collapse" data-target="#mainnav-collapse">
         <span class="sr-only">Toggle navigation</span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
       </button>
       <a href="#" class="navbar-brand"><span class="glyphicon glyphicon-home"></span></a>
     </div>
     <div class="collapse navbar-collapse" id="mainnav-collapse">
       <div style="line-height:20px; padding-top:5px; float:left"><a href="/">Home</a>&nbsp;&raquo&nbsp;<a
href="/licenses/">Licenses</a></div>
       <ul class="nav navbar-nav navbar-right">
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">About <span class="caret"></span></a>
          <ul class="dropdown-menu"
 role="menu">
         <li><a href="/foundation">Overview</a></li>
         <li><a href="/foundation/members.html">Members</a></li>
         <li><a href="/foundation/how-it-works.html">Process</a></li>
         <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
         <li><a href="/foundation/glossary.html">Glossary</a></li>
```

```
         <li><a href="/foundation/preFAQ.html">FAQ</a></li>
         <li><a href="/foundation/contact.html ">Contact</a></li>
          </ul>
         </li>
   <li><a href="/index.html#projects-list">Projects</a></li>
     <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">People <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
       <li><a href="http://people.apache.org/">Overview</a></li>
       <li><a href="http://people.apache.org/committer-index.html">Committers</a></li>
       <li><a href="/foundation/how-it-works.html#meritocracy">Meritocracy</a></li>
        <li><a href="/foundation/how-it-works.html#roles">Roles</a></li>
       <li><a href="http://planet.apache.org/">Planet Apache</a></li>
          </ul>
         </li>
         <li class="dropdown">
           <a href="#" class="dropdown-toggle" data-toggle="dropdown">Get Involved <span
class="caret"></span></a>
           <ul class="dropdown-menu" role="menu">
             <li><a href="/foundation/getinvolved.html">Overview</a></li>
         <li><a href="http://community.apache.org/">Community Development</a></li>
                   <li><a href="http://helpwanted.apache.org/">Help Wanted</a></li>
         <li><a href="http://www.apachecon.com/">ApacheCon</a></li>
           </ul>
     </li>
         <li><a href="/dyn/closer.cgi">Download</a></li>
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">Support Apache <span
class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">

     <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
         <li><a href="/foundation/contributing.html">Donations</a></li>
         <li><a href="/foundation/buy_stuff.html">Buy Stuff</a></li>
         <li><a href="/foundation/thanks.html">Thanks</a></li>
          </ul>
         </li>
       </ul>
     </div>
   </div>
 </nav>
</header>
<!-- / Navigation -->
<div class="container">
 <div class="row">
   <div class="col-md-9 col-sm-8 col-xs-12">
     <img src="/img/asf_logo.png" alt="Apache Logo" style="max-width: 100%;">
   </div>
```

```
   <div class="col-md-3 col-sm-4 col-xs-12">
     <div class="input-group" style="margin-bottom: 5px;">
    <script>
 (function() {
   var cx = '005703438322411770421:5mgshgrgx2u';
   var gcse = document.createElement('script');
   gcse.type = 'text/javascript';
   gcse.async = true;
   gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:') +
       '//cse.google.com/cse.js?cx=' + cx;
   var s = document.getElementsByTagName('script')[0];
    s.parentNode.insertBefore(gcse, s);
 })();
</script>
    <gcse:searchbox-only></gcse:searchbox-only>
   </div>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/governance/">The Apache Way</a>
   <a role="button" class="btn btn-block btn-default btn-xs"
href="https://community.apache.org/contributors/">Contribute</a>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/thanks.html">ASF Sponsors</a>
   </div>
 </div>
</div>
<div class="container"><style type="text/css">
/* The following code is added by mdx_elementid.py
  It was originally lifted from http://subversion.apache.org/style/site.css */
/*
* Hide class="elementid-permalink", except when an enclosing heading
* has the :hover property.
*/
.headerlink, .elementid-permalink {
 visibility: hidden;
}
h2:hover > .headerlink, h3:hover > .headerlink, h1:hover > .headerlink, h6:hover > .headerlink, h4:hover >
.headerlink, h5:hover >
 .headerlink, dt:hover > .elementid-permalink { visibility: visible }</style>
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 <div class="container">
   <div class="row">
    <br />
    <div class="col-sm-1">

    </div>
    <div class="col-sm-2">
          <h5 class="white">Community</h5>
          <ul class="list-unstyled white" role="menu">
      <li><a href="http://community.apache.org/">Overview</a></li>
      <li><a href="/foundation/conferences.html">Conferences</a></li>
      <li><a href="http://community.apache.org/gsoc.html">Summer of Code</a></li>
```

```
     <li><a href="http://community.apache.org/newcomers/">Getting Started</a></li>
     <li><a href="/foundation/how-it-works.html">The Apache Way</a></li>
     <li><a href="/travel/">Travel Assistance</a></li>
     <li><a href="/foundation/getinvolved.html">Get Involved</a></li>
     <li><a href="http://community.apache.org/newbiefaq.html">Community
FAQ</a></li>
          </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Innovation</h5>
          <ul class="list-unstyled white" role="menu">
     <li><a href="http://incubator.apache.org/">Incubator</a></li>
     <li><a href="http://labs.apache.org/">Labs</a></li>
     <li><a href="/licenses/">Licensing</a></li>
     <li><a href="/foundation/license-faq.html">Licensing FAQ</a></li>
     <li><a href="/foundation/marks/">Trademark Policy</a></li>
     <li><a href="/foundation/contact.html">Contacts</a></li>
          </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Tech Operations</h5>
         <ul class="list-unstyled white" role="menu">
      <li><a href="/dev/">Developer Information</a></li>
      <li><a href="/dev/infrastructure.html">Infrastructure</a></li>
      <li><a href="/security/">Security</a></li>
      <li><a href="http://status.apache.org">Status</a></li>
      <li><a href="/foundation/contact.html">Contacts</a></li>

       </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Press</h5>
       <ul class="list-unstyled white" role="menu">
     <li><a href="/press/">Overview</a></li>
     <li><a href="https://blogs.apache.org/">ASF News</a></li>
     <li><a href="https://blogs.apache.org/foundation/">Announcements</a></li>
     <li><a href="https://twitter.com/TheASF">Twitter Feed</a></li>
     <li><a href="/press/#contact">Contacts</a></li>
       </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Legal</h5>
       <ul class="list-unstyled white" role="menu">
     <li><a href="/legal/">Legal Affairs</a></li>
```

```
      <li><a href="/licenses/">Licenses</a></li>
      <li><a href="/foundation/marks/">Trademark Policy</a></li>
      <li><a href="/foundation/records/">Public Records</a></li>
           <li><a href="/foundation/policies/privacy.html">Privacy Policy</a></li>
      <li><a href="/licenses/exports/">Export Information</a></li>
      <li><a
 href="/foundation/license-faq.html">License/Distribution FAQ</a></li>
      <li><a href="/foundation/contact.html">Contacts</a></li>
        </ul>
    </div>

    <div class="col-sm-1">
    </div>

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<script src="/js/bootstrap.js"></script>
</body>
</html>
```

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```

```
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```

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```
cd <SRC_PATH>
mvn package -DskipTests
mkdir /tmp/jars
mkdir /tmp/overrides
cp package-schema-registry/target/kafka-schema-registry-package-<VERSION>-package/share/java/schema-registry/*.jar /tmp/jars/
cp package-kafka-serde-tools/target/kafka-serde-tools-package-<VERSION>-package/share/java/kafka-serde-tools/*.jar /tmp/jars/
cd <LICENSE_TOOL_PATH>
./bin/run_license_job.bash -i /tmp/jars -l <SRC_PATH>/licenses -n <SRC_PATH>/notices -h <SRC_PATH>/licenses-and-notices.html -o /tmp/overrides
```

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<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
<title>Untitled Document</title>
</head>

<body>
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<!--    @page { margin: 0.79in }    P { margin-bottom: 0.08in }    H1 { margin-top: 0in; margin-bottom: 0.17in; widows:
0; orphans: 0 }    H1.western { font-family: "Times New Roman", serif; font-size: 12pt; font-weight: normal }    H1.cjk
{ font-family: "Andale Sans UI"; font-size: 12pt; font-weight: normal }    H1.ctl { font-family: "Tahoma"; font-size:
12pt; font-weight: normal }   -->
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 <style type="text/css">
  li {display: block;}
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<body leftmargin="0" topmargin="0" marginheight="0" marginwidth="0" bgcolor="#ffffff">

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    executable, regardless of the license terms of these independent modules,
    and to copy and distribute the resulting executable under terms of your
    choice, provided that you also meet, for each linked independent module,
    the terms and conditions of the license of that module.? An independent
    module is a module which is not derived from or based on this library.? If
    you modify this library, you may extend this exception to your version of
    the library, but you are not obligated to do so.? If you do not wish to do
    so, delete this exception statement from your version.
   </p>
  </li>

 </ul>

</body>
</html>
```

Jackson JSON processor

Jackson is a high-performance, Free/Open Source JSON processing library.
It was originally written by Tatu Saloranta (tatu.saloranta@iki.fi), and has
been in development since 2007.
It is currently developed by a community of developers, as well as supported
commercially by FasterXML.com.

Licensing

Jackson core and extension components may be licensed under different licenses.
To find the details that apply to this artifact see the accompanying LICENSE file.
For more information, including possible other licensing options, contact
FasterXML.com (http://fasterxml.com).

Credits

A list of contributors may be found from CREDITS file, which is included
in some artifacts (usually source distributions); but is always available
from the source code management (SCM) system project uses.

```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="utf-8">
 <meta http-equiv="X-UA-Compatible" content="IE=edge">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <meta name="description" content="Home page of The Apache Software Foundation">

 <link rel="apple-touch-icon" sizes="57x57" href="/favicons/apple-touch-icon-57x57.png">
 <link rel="apple-touch-icon" sizes="60x60" href="/favicons/apple-touch-icon-60x60.png">
```

```
 <link rel="apple-touch-icon" sizes="72x72" href="/favicons/apple-touch-icon-72x72.png">
 <link rel="apple-touch-icon" sizes="76x76" href="/favicons/apple-touch-icon-76x76.png">
 <link rel="apple-touch-icon" sizes="114x114" href="/favicons/apple-touch-icon-114x114.png">
 <link rel="apple-touch-icon" sizes="120x120" href="/favicons/apple-touch-icon-120x120.png">
 <link rel="apple-touch-icon" sizes="144x144" href="/favicons/apple-touch-icon-144x144.png">
 <link rel="apple-touch-icon" sizes="152x152" href="/favicons/apple-touch-icon-152x152.png">
  <link rel="apple-touch-icon" sizes="180x180" href="/favicons/apple-touch-icon-180x180.png">
 <link rel="icon" type="image/png" href="/favicons/favicon-32x32.png" sizes="32x32">
 <link rel="icon" type="image/png" href="/favicons/favicon-194x194.png" sizes="194x194">
 <link rel="icon" type="image/png" href="/favicons/favicon-96x96.png" sizes="96x96">
 <link rel="icon" type="image/png" href="/favicons/android-chrome-192x192.png" sizes="192x192">
 <link rel="icon" type="image/png" href="/favicons/favicon-16x16.png" sizes="16x16">
 <link rel="manifest" href="/favicons/manifest.json">
 <link rel="shortcut icon" href="/favicons/favicon.ico">
 <meta name="msapplication-TileColor" content="#603cba">
 <meta name="msapplication-TileImage" content="/favicons/mstile-144x144.png">
 <meta name="msapplication-config" content="/favicons/browserconfig.xml">
 <meta name="theme-color" content="#303284">

 <title>Licenses</title>
 <link href='https://fonts.googleapis.com/css?family=Source+Sans+Pro:400,700%7cDroid+Serif:400,700'
 rel='stylesheet' type='text/css'>
 <link href="/css/min.bootstrap.css" rel="stylesheet">
 <link href="/css/styles.css" rel="stylesheet">



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http://www.apache.org/licenses/LICENSE-2.0 . Unless required by applicable law or agreed to in writing, software
distributed under the License is distributed on an &quot;AS IS&quot; BASIS, WITHOUT WARRANTIES OR
CONDITIONS OF ANY KIND, either express or implied.  See the License for the specific language governing
permissions and limitations under the License. -->

</head>

<body>
<!--
 Navigation -->
<header>
 <nav class="navbar navbar-default navbar-fixed-top">
   <div class="container">
     <div class="navbar-header">
       <button class="navbar-toggle" type="button" data-toggle="collapse" data-target="#mainnav-collapse">
         <span class="sr-only">Toggle navigation</span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
```

```
        <span class="icon-bar"></span>
      </button>
      <a href="#" class="navbar-brand"><span class="glyphicon glyphicon-home"></span></a>
    </div>
    <div class="collapse navbar-collapse" id="mainnav-collapse">
      <div style="line-height:20px; padding-top:5px; float:left"><a href="/">Home</a>&nbsp;&raquo&nbsp;<a
href="/licenses/">Licenses</a></div>
      <ul class="nav navbar-nav navbar-right">
        <li class="dropdown">
         <a href="#" class="dropdown-toggle" data-toggle="dropdown">About <span class="caret"></span></a>
         <ul class="dropdown-menu" role="menu">
         <li><a href="/foundation">Overview</a></li>
        <li><a href="/foundation/members.html">Members</a></li>
        <li><a href="/foundation/how-it-works.html">Process</a></li>
        <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
        <li><a href="/foundation/glossary.html">Glossary</a></li>
        <li><a href="/foundation/preFAQ.html">FAQ</a></li>
        <li><a href="/foundation/contact.html ">Contact</a></li>
         </ul>
        </li>
   <li><a href="/index.html#projects-list">Projects</a></li>
    <li class="dropdown">
         <a href="#" class="dropdown-toggle" data-toggle="dropdown">People <span class="caret"></span></a>
         <ul class="dropdown-menu" role="menu">
      <li><a href="http://people.apache.org/">Overview</a></li>
      <li><a href="http://people.apache.org/committer-index.html">Committers</a></li>
      <li><a href="/foundation/how-it-works.html#meritocracy">Meritocracy</a></li>
       <li><a href="/foundation/how-it-works.html#roles">Roles</a></li>
      <li><a href="http://planet.apache.org/">Planet Apache</a></li>
         </ul>
        </li>
        <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">Get Involved <span
class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
            <li><a href="/foundation/getinvolved.html">Overview</a></li>
        <li><a href="http://community.apache.org/">Community Development</a></li>
                 <li><a href="http://helpwanted.apache.org/">Help Wanted</a></li>
        <li><a href="http://www.apachecon.com/">ApacheCon</a></li>
          </ul>
    </li>
        <li><a href="/dyn/closer.cgi">Download</a></li>
        <li class="dropdown">
         <a href="#" class="dropdown-toggle" data-toggle="dropdown">Support Apache <span
class="caret"></span></a>
         <ul class="dropdown-menu" role="menu">
        <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
```

```
          <li><a href="/foundation/contributing.html">Donations</a></li>
         <li><a href="/foundation/buy_stuff.html">Buy Stuff</a></li>
         <li><a href="/foundation/thanks.html">Thanks</a></li>
          </ul>
         </li>
       </ul>
     </div>
   </div>
 </nav>
</header>
<!-- / Navigation -->
<div class="container">
 <div class="row">
   <div class="col-md-9 col-sm-8 col-xs-12">
     <img src="/img/asf_logo.png" alt="Apache Logo" style="max-width: 100%;">
   </div>
   <div class="col-md-3 col-sm-4 col-xs-12">
     <div class="input-group" style="margin-bottom: 5px;">
    <script>
 (function() {
   var cx = '005703438322411770421:5mgshgrgx2u';
   var gcse = document.createElement('script');
   gcse.type = 'text/javascript';
   gcse.async = true;
   gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:') +
       '//cse.google.com/cse.js?cx=' + cx;
   var s = document.getElementsByTagName('script')[0];
    s.parentNode.insertBefore(gcse, s);
 })();
</script>
    <gcse:searchbox-only></gcse:searchbox-only>
   </div>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/governance/">The Apache Way</a>
   <a role="button" class="btn btn-block btn-default btn-xs"
href="https://community.apache.org/contributors/">Contribute</a>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/thanks.html">ASF Sponsors</a>
   </div>
 </div>
</div>
<div class="container"><style type="text/css">
/* The following code is added by mdx_elementid.py
  It was originally lifted from http://subversion.apache.org/style/site.css */
/*
* Hide class="elementid-permalink", except when an enclosing heading
* has the :hover property.
*/
.headerlink, .elementid-permalink {
 visibility: hidden;
```

```
}
h2:hover > .headerlink, h3:hover > .headerlink, h1:hover > .headerlink, h6:hover > .headerlink, h4:hover >
.headerlink, h5:hover > .headerlink, dt:hover
 > .elementid-permalink { visibility: visible }</style>
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listed below.</p>
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link">&para;</a></h3>
<p><a href="LICENSE-2.0">http://www.apache.org/licenses/LICENSE-2.0</a> (
<a href="LICENSE-2.0.txt">TXT</a> or <a href="LICENSE-2.0.html">HTML</a> )</p>
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by any project (including non-ASF projects), to allow the license to be
included by reference instead of listed in every file, to clarify the
license on submission of contributions, to require a patent license on
contributions that necessarily infringe the contributor's own patents, and
to move comments regarding Apache and other inherited attribution notices
to a location outside the license terms (the <a href="example-NOTICE.txt">NOTICE
file</a> ).</p>
<p>The
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determine if this version of the Apache License is <a href="GPL-compatibility.html">compatible with the
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documentation on how to apply the Apache License to your work can be found
in * <a href="../dev/apply-license.html">Applying the Apache License, Version 2.0</a>
*.</p>
<h3 id="1.1">Apache License, Version 1.1 (historic)<a class="headerlink" href="#1.1" title="Permanent
link">&para;</a></h3>
```

```
<p><a href="LICENSE-1.1">http://www.apache.org/licenses/LICENSE-1.1</a> </p>
<p>The 1.1 version of the Apache License was approved by the
 ASF in 2000. The
primary change from the 1.0 license is in the 'advertising clause' (section
3 of the 1.0 license); derived products are no longer required to include
attribution in their advertising materials, only in their documentation.</p>
<p>Individual packages licensed under the 1.1 version may have used different
wording due to varying requirements for attribution or mark identification,
but the binding terms were all the same.</p>
<h3 id="1.0">Apache License, Version 1.0 (historic)<a class="headerlink" href="#1.0" title="Permanent
link">&para;</a></h3>
<p><a href="LICENSE-1.0">http://www.apache.org/licenses/LICENSE-1.0</a> </p>
<p>This is the original Apache License which applies only to older versions of
Apache packages (such as version 1.2 of the Web server).</p>
<h1 id="clas">Contributor License Agreements<a class="headerlink" href="#clas" title="Permanent
link">&para;</a></h1>
<p>The ASF desires that all contributors of ideas, code, or documentation to
any Apache projects
 complete, sign, and submit (via fax or
email) an <a href="icla.pdf">Individual Contributor License Agreement</a> (ICLA).
The purpose of this agreement is to clearly define the
terms under which intellectual property has been contributed to the ASF and
thereby allow us to defend the project should there be a legal dispute
regarding the software at some future time. A signed ICLA is required to be
on file before an individual is given commit rights to an ASF project.</p>
<p>For a corporation that has assigned employees to work on an Apache project,
a <a href="cla-corporate.txt">Corporate CLA</a> (CCLA) is available for contributing
intellectual property via the corporation, that may have been assigned as
part of an employment agreement. Note that a Corporate CLA does not remove
the need for every developer to sign their own ICLA as an individual, to
cover any of their contributions which are not owned by the corporation
signing the CCLA.</p>
<p>The ICLA is not tied to any employer you
 may have, so it is recommended to
use one's personal email address in the contact details, rather than an @work
address.</p>
<p>Your Full name will be published unless you provide an alternative Public name.
For example if your full name is Andrew Bernard Charles Dickens, but you wish
to be known as Andrew Dickens, please enter the latter as your Public name.</p>
<p>The email address and other contact details are not published.</p>
<h1 id="grants">Software Grants<a class="headerlink" href="#grants" title="Permanent link">&para;</a></h1>
<p>When an individual or corporation decides to donate a body of existing
software or documentation to one of the Apache projects, they need to
execute a formal <a href="software-grant-template.pdf">Software Grant Agreement</a> (SGA) with
the ASF. Typically, this is done after negotiating approval with the ASF
<a href="http://incubator.apache.org/">Incubator</a> or one of the PMCs, since the ASF
will not accept software unless there is a viable community
```

```html
 available to
support a collaborative project.</p>
<h1 id="submitting">Submitting License Agreements and Grants<a class="headerlink" href="#submitting"
title="Permanent link">&para;</a></h1>
<p>Documents may be submitted by fax or email.</p>
<p>If submitting by fax, please print, sign, and fax all pages of the document
to +1-919-573-9199. Please send documents right-side-up, first page first;
and send only one document per fax.</p>
<p>If submitting by email, please fill the form with a pdf viewer,
print, sign, scan all pages into a single pdf file,
and email the pdf file as an attachment to secretary@apache.org. If possible,
send the attachment from the email address in the document.
Please send only one document per email.</p>
<p>If you prefer to sign electronically, please fill the form, save it locally (e.g. icla.pdf), and sign the
file by preparing a detached PGP signature. For example,</p>
<blockquote>
<p>gpg --armor --detach-sign icla.pdf</p>
</blockquote>
<p>The above will create
 a file icla.pdf.asc. Send both the file and signature
as attachments in the same email to secretary@apache.org. Please send only one
document (file plus signature) per email. Please do not submit your public key to Apache.
Instead, please upload your public key to pgpkeys.mit.edu. </p>
<p>The files typically are named
icla.pdf and icla.pdf.asc for individual agreements;
ccla.pdf and ccla.pdf.asc  for corporate agreements;
software-grant.pdf and software-grant.pdf.asc for grants. </p>
<h1 id="crypto">Export restrictions<a class="headerlink" href="#crypto" title="Permanent link">&para;</a></h1>
<p>For export restriction information, please consult our <a href="/licenses/exports/">ASF Export
Classifications</a> page.</p>
<h1 id="trademarks">Trademark and Logo Usage<a class="headerlink" href="#trademarks" title="Permanent
link">&para;</a></h1>
<p>For ASF trademark and logo usage information, please consult our <a href="/foundation/marks/">ASF
Trademark Use Policy</a> page.</p>
<h1 id="questions">Questions?<a
 class="headerlink" href="#questions" title="Permanent link">&para;</a></h1>
<p>For answers to frequently asked licensing questions, please consult our
<a href="/foundation/license-faq.html">Licensing Frequently Asked Questions</a> page.</p></div>

<!-- Footer -->

<footer class="bg-primary">
 <div class="container">
   <div class="row">
    <br />
    <div class="col-sm-1">

    </div>
```

```
    <div class="col-sm-2">
           <h5 class="white">Community</h5>
           <ul class="list-unstyled white" role="menu">
      <li><a href="http://community.apache.org/">Overview</a></li>
      <li><a href="/foundation/conferences.html">Conferences</a></li>
      <li><a href="http://community.apache.org/gsoc.html">Summer of Code</a></li>
      <li><a href="http://community.apache.org/newcomers/">Getting Started</a></li>
      <li><a href="/foundation/how-it-works.html">The Apache Way</a></li>
      <li><a href="/travel/">Travel Assistance</a></li>
      <li><a href="/foundation/getinvolved.html">Get
Involved</a></li>
      <li><a href="http://community.apache.org/newbiefaq.html">Community FAQ</a></li>
           </ul>
    </div>

    <div class="col-sm-2">
     <h5 class="white">Innovation</h5>
           <ul class="list-unstyled white" role="menu">
      <li><a href="http://incubator.apache.org/">Incubator</a></li>
      <li><a href="http://labs.apache.org/">Labs</a></li>
      <li><a href="/licenses/">Licensing</a></li>
      <li><a href="/foundation/license-faq.html">Licensing FAQ</a></li>
      <li><a href="/foundation/marks/">Trademark Policy</a></li>
      <li><a href="/foundation/contact.html">Contacts</a></li>
           </ul>
    </div>

    <div class="col-sm-2">
     <h5 class="white">Tech Operations</h5>
          <ul class="list-unstyled white" role="menu">
       <li><a href="/dev/">Developer Information</a></li>
       <li><a href="/dev/infrastructure.html">Infrastructure</a></li>
       <li><a href="/security/">Security</a></li>
        <li><a href="http://status.apache.org">Status</a></li>
       <li><a href="/foundation/contact.html">Contacts</a></li>
          </ul>
    </div>

    <div class="col-sm-2">
     <h5 class="white">Press</h5>
        <ul class="list-unstyled white" role="menu">
      <li><a href="/press/">Overview</a></li>
      <li><a href="https://blogs.apache.org/">ASF News</a></li>
      <li><a href="https://blogs.apache.org/foundation/">Announcements</a></li>
      <li><a href="https://twitter.com/TheASF">Twitter Feed</a></li>
      <li><a href="/press/#contact">Contacts</a></li>
        </ul>
    </div>
```

```
    <div class="col-sm-2">
     <h5 class="white">Legal</h5>
        <ul class="list-unstyled white" role="menu">
      <li><a href="/legal/">Legal Affairs</a></li>
      <li><a href="/licenses/">Licenses</a></li>
      <li><a href="/foundation/marks/">Trademark Policy</a></li>
      <li><a href="/foundation/records/">Public Records</a></li>
           <li><a href="/foundation/policies/privacy.html">Privacy
 Policy</a></li>
      <li><a href="/licenses/exports/">Export Information</a></li>
      <li><a href="/foundation/license-faq.html">License/Distribution FAQ</a></li>
      <li><a href="/foundation/contact.html">Contacts</a></li>
        </ul>
    </div>

    <div class="col-sm-1">
    </div>

   </div>
   <hr class="col-lg-12 hr-white" />
   <div class="row">
    <div class="col-lg-12">
     <p class="text-center">Copyright &#169; 2016 The Apache Software Foundation, Licensed under the <a
class="white" href="http://www.apache.org/licenses/LICENSE-2.0">Apache License, Version 2.0</a>.</p>
     <p class="text-center">Apache and the Apache feather logo are trademarks of The Apache Software
Foundation.</p>
    </div>
   </div>
  </div>

</footer>

<!-- / Footer -->

<script src="/js/jquery-2.1.1.min.js"></script>
<script src="/js/bootstrap.js"></script>
</body>
</html>
```

This product currently only contains code developed by authors
of specific components, as identified by the source code files;
if such notes are missing files have been created by
Tatu Saloranta.

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1.510 dropwizard-logging 2.1.2

1.510.1 Available under license :

No license file was found, but licenses were detected in source scan.

/*
* Logback: the reliable, generic, fast and flexible logging framework.
* Copyright (C) 1999-2015, QOS.ch. All rights reserved.
*
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*/

Found in path(s):
* /opt/cola/permits/1685970528_1684868680.5124846/0/dropwizard-logging-2-1-2-sources-jar/io/dropwizard/logging/ResilientOutputStreamBase.java

1.511 kafka-avro-serializer 7.0.5

1.511.1 Available under license :

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Jackson JSON processor

Jackson is a high-performance, Free/Open Source JSON processing library.
It was originally written by Tatu Saloranta (tatu.saloranta@iki.fi), and has
been in development since 2007.
It is currently developed by a community of developers, as well as supported
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Java ClassMate library was originally written by Tatu Saloranta (tatu.saloranta@iki.fi)

Other developers who have contributed code are:

* Brian Langel

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```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="utf-8">
 <meta http-equiv="X-UA-Compatible" content="IE=edge">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <meta name="description" content="Home page of The Apache Software Foundation">

 <link rel="apple-touch-icon" sizes="57x57" href="/favicons/apple-touch-icon-57x57.png">
 <link rel="apple-touch-icon" sizes="60x60" href="/favicons/apple-touch-icon-60x60.png">
 <link rel="apple-touch-icon" sizes="72x72" href="/favicons/apple-touch-icon-72x72.png">
 <link rel="apple-touch-icon" sizes="76x76" href="/favicons/apple-touch-icon-76x76.png">
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  <link rel="apple-touch-icon" sizes="180x180" href="/favicons/apple-touch-icon-180x180.png">
 <link rel="icon" type="image/png" href="/favicons/favicon-32x32.png" sizes="32x32">
 <link rel="icon" type="image/png" href="/favicons/favicon-194x194.png" sizes="194x194">
 <link rel="icon" type="image/png" href="/favicons/favicon-96x96.png" sizes="96x96">
 <link rel="icon" type="image/png" href="/favicons/android-chrome-192x192.png" sizes="192x192">
 <link rel="icon" type="image/png" href="/favicons/favicon-16x16.png" sizes="16x16">
 <link rel="manifest" href="/favicons/manifest.json">
 <link rel="shortcut icon" href="/favicons/favicon.ico">
 <meta name="msapplication-TileColor" content="#603cba">
 <meta name="msapplication-TileImage" content="/favicons/mstile-144x144.png">
 <meta name="msapplication-config" content="/favicons/browserconfig.xml">
 <meta name="theme-color" content="#303284">

 <title>Apache License, Version 2.0</title>
 <link href='https://fonts.googleapis.com/css?family=Source+Sans+Pro:400,700%7cDroid+Serif:400,700'
 rel='stylesheet' type='text/css'>
 <link href="/css/min.bootstrap.css" rel="stylesheet">
 <link href="/css/styles.css" rel="stylesheet">
```

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```
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 -->

</head>

<body>
<!-- Navigation -->
<header>
 <nav class="navbar navbar-default navbar-fixed-top">
   <div class="container">
     <div class="navbar-header">
       <button class="navbar-toggle" type="button" data-toggle="collapse" data-target="#mainnav-collapse">
         <span class="sr-only">Toggle navigation</span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
       </button>
       <a href="#" class="navbar-brand"><span class="glyphicon glyphicon-home"></span></a>
     </div>
     <div class="collapse navbar-collapse" id="mainnav-collapse">
       <div style="line-height:20px; padding-top:5px; float:left"><a href="/">Home</a>&nbsp;&raquo&nbsp;<a
href="/licenses/">Licenses</a></div>
       <ul class="nav navbar-nav navbar-right">
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">About <span class="caret"></span></a>
          <ul class="dropdown-menu"
 role="menu">
         <li><a href="/foundation">Overview</a></li>
         <li><a href="/foundation/members.html">Members</a></li>
         <li><a href="/foundation/how-it-works.html">Process</a></li>
         <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
         <li><a href="/foundation/glossary.html">Glossary</a></li>
         <li><a href="/foundation/preFAQ.html">FAQ</a></li>
         <li><a href="/foundation/contact.html ">Contact</a></li>
          </ul>
         </li>
   <li><a href="/index.html#projects-list">Projects</a></li>
     <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">People <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
       <li><a href="http://people.apache.org/">Overview</a></li>
       <li><a href="http://people.apache.org/committer-index.html">Committers</a></li>
       <li><a href="/foundation/how-it-works.html#meritocracy">Meritocracy</a></li>
        <li><a href="/foundation/how-it-works.html#roles">Roles</a></li>
       <li><a href="http://planet.apache.org/">Planet Apache</a></li>
          </ul>
         </li>
         <li class="dropdown">
```

```
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">Get Involved <span
class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
            <li><a href="/foundation/getinvolved.html">Overview</a></li>
        <li><a href="http://community.apache.org/">Community Development</a></li>
                 <li><a href="http://helpwanted.apache.org/">Help Wanted</a></li>
        <li><a href="http://www.apachecon.com/">ApacheCon</a></li>
          </ul>
     </li>
        <li><a href="/dyn/closer.cgi">Download</a></li>
        <li class="dropdown">
         <a href="#" class="dropdown-toggle" data-toggle="dropdown">Support Apache <span
class="caret"></span></a>
         <ul class="dropdown-menu" role="menu">

     <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
        <li><a href="/foundation/contributing.html">Donations</a></li>
        <li><a href="/foundation/buy_stuff.html">Buy Stuff</a></li>
        <li><a href="/foundation/thanks.html">Thanks</a></li>
         </ul>
        </li>
      </ul>
     </div>
   </div>
 </nav>
</header>
<!-- / Navigation -->
<div class="container">
 <div class="row">
   <div class="col-md-9 col-sm-8 col-xs-12">
     <img src="/img/asf_logo.png" alt="Apache Logo" style="max-width: 100%;">
   </div>
   <div class="col-md-3 col-sm-4 col-xs-12">
     <div class="input-group" style="margin-bottom: 5px;">
    <script>
 (function() {
   var cx = '005703438322411770421:5mgshgrgx2u';
   var gcse = document.createElement('script');
   gcse.type = 'text/javascript';
   gcse.async = true;
   gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:') +
       '//cse.google.com/cse.js?cx=' + cx;
   var s = document.getElementsByTagName('script')[0];
    s.parentNode.insertBefore(gcse, s);
 })();
</script>
    <gcse:searchbox-only></gcse:searchbox-only>
   </div>
```

```html
  <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/governance/">The Apache Way</a>
  <a role="button" class="btn btn-block btn-default btn-xs"
href="https://community.apache.org/contributors/">Contribute</a>
  <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/thanks.html">ASF Sponsors</a>
  </div>
 </div>
</div>
<div class="container"><style type="text/css">
/* The following code is added by mdx_elementid.py
  It was originally lifted from http://subversion.apache.org/style/site.css */
/*
* Hide class="elementid-permalink", except when an enclosing heading
* has the :hover property.
*/
.headerlink, .elementid-permalink {
 visibility: hidden;
}
h2:hover > .headerlink, h3:hover > .headerlink, h1:hover > .headerlink, h6:hover > .headerlink, h4:hover >
.headerlink, h5:hover >
 .headerlink, dt:hover > .elementid-permalink { visibility: visible }</style>
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<footer class="bg-primary">
 <div class="container">
   <div class="row">
    <br />
    <div class="col-sm-1">

    </div>
    <div class="col-sm-2">
          <h5 class="white">Community</h5>
          <ul class="list-unstyled white" role="menu">
     <li><a href="http://community.apache.org/">Overview</a></li>
     <li><a href="/foundation/conferences.html">Conferences</a></li>
     <li><a href="http://community.apache.org/gsoc.html">Summer of Code</a></li>
     <li><a href="http://community.apache.org/newcomers/">Getting Started</a></li>
     <li><a href="/foundation/how-it-works.html">The Apache Way</a></li>
     <li><a href="/travel/">Travel Assistance</a></li>
     <li><a href="/foundation/getinvolved.html">Get Involved</a></li>
     <li><a href="http://community.apache.org/newbiefaq.html">Community
 FAQ</a></li>
          </ul>
    </div>

    <div class="col-sm-2">
     <h5 class="white">Innovation</h5>
          <ul class="list-unstyled white" role="menu">
     <li><a href="http://incubator.apache.org/">Incubator</a></li>
     <li><a href="http://labs.apache.org/">Labs</a></li>
     <li><a href="/licenses/">Licensing</a></li>
     <li><a href="/foundation/license-faq.html">Licensing FAQ</a></li>
```

```
     <li><a href="/foundation/marks/">Trademark Policy</a></li>
     <li><a href="/foundation/contact.html">Contacts</a></li>
          </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Tech Operations</h5>
         <ul class="list-unstyled white" role="menu">
      <li><a href="/dev/">Developer Information</a></li>
      <li><a href="/dev/infrastructure.html">Infrastructure</a></li>
      <li><a href="/security/">Security</a></li>
      <li><a href="http://status.apache.org">Status</a></li>
      <li><a href="/foundation/contact.html">Contacts</a></li>

       </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Press</h5>
       <ul class="list-unstyled white" role="menu">
     <li><a href="/press/">Overview</a></li>
     <li><a href="https://blogs.apache.org/">ASF News</a></li>
     <li><a href="https://blogs.apache.org/foundation/">Announcements</a></li>
     <li><a href="https://twitter.com/TheASF">Twitter Feed</a></li>
     <li><a href="/press/#contact">Contacts</a></li>
       </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Legal</h5>
       <ul class="list-unstyled white" role="menu">
     <li><a href="/legal/">Legal Affairs</a></li>
     <li><a href="/licenses/">Licenses</a></li>
     <li><a href="/foundation/marks/">Trademark Policy</a></li>
     <li><a href="/foundation/records/">Public Records</a></li>
          <li><a href="/foundation/policies/privacy.html">Privacy Policy</a></li>
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     <li><a
href="/foundation/license-faq.html">License/Distribution FAQ</a></li>
     <li><a href="/foundation/contact.html">Contacts</a></li>
       </ul>
   </div>

   <div class="col-sm-1">
   </div>

  </div>
  <hr class="col-lg-12 hr-white" />
```

```
   <div class="row">
    <div class="col-lg-12">
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<script src="/js/bootstrap.js"></script>
</body>
</html>
```

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</body></html>
```

```
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Upstream-Name: schema-registry
Source: https://github.com/confluentinc/schema-registry

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```
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mvn package -DskipTests
mkdir /tmp/jars
mkdir /tmp/overrides
cp package-schema-registry/target/kafka-schema-registry-package-<VERSION>-package/share/java/schema-registry/*.jar /tmp/jars/
cp package-kafka-serde-tools/target/kafka-serde-tools-package-<VERSION>-package/share/java/kafka-serde-tools/*.jar /tmp/jars/
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<html xmlns="http://www.w3.org/1999/xhtml">
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<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
<title>Untitled Document</title>
</head>
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<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<HTML>
<!--    @page { margin: 0.79in }    P { margin-bottom: 0.08in }    H1 { margin-top: 0in; margin-bottom: 0.17in; widows:
0; orphans: 0 }    H1.western { font-family: "Times New Roman", serif; font-size: 12pt; font-weight: normal }    H1.cjk
{ font-family: "Andale Sans UI"; font-size: 12pt; font-weight: normal }    H1.ctl { font-family: "Tahoma"; font-size:
12pt; font-weight: normal }   -->
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<p><br />
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</p>
</body>
</html>
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  li {display: block;}
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<body leftmargin="0" topmargin="0" marginheight="0" marginwidth="0" bgcolor="#ffffff">
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    For example, if a patent license would not permit royalty-free redistribution
    of the Program by all those who receive copies directly or indirectly through
    you, then the only way you could satisfy both it and this License would be
    to refrain entirely from distribution of the Program.
   </p>
   <p>
    If any portion of this section is held invalid or unenforceable under any
    particular circumstance, the balance of the section is intended to apply and
    the section as a whole is intended to apply in other circumstances.
   </p>
   <p>
    It is not the purpose of this section to induce you to infringe any patents
    or other property right claims or to contest validity of any such claims;
    this section has the sole purpose of protecting the integrity of the free
    software distribution system, which is implemented by public license practices.
    Many people have made generous contributions
to the wide range of software
    distributed through that system in reliance on consistent application of that
    system; it is up to the author/donor to decide if he or she is willing to
    distribute software through any other system and a licensee cannot impose that
    choice.
   </p>
   <p>
    This section is intended to make thoroughly clear what is believed to be a
    consequence of the rest of this License.
   </p>
  </li>

  <li>
   <p>
    <b>8.</b> If the distribution and/or use of the Program is restricted in
    certain countries either by patents or by copyrighted interfaces, the
    original copyright holder who places the Program under this License may
    add an explicit geographical distribution limitation excluding those
    countries, so that distribution is permitted only in or among countries
    not thus excluded. In such case, this License incorporates the limitation
    as if written in the body of this License.
   </p>
  </li>

   <li>
   <p>
    <b>9.</b> The Free Software Foundation may publish revised and/or new
    versions of the General Public License from time to time. Such new versions
    will be similar in spirit to the present version, but may differ in detail
    to address new problems or concerns.
```

```
  </p>
  <p>
   Each version is given a distinguishing version number. If the Program
   specifies a version number of this License which applies to it and "any later
   version", you have the option of following the terms and conditions either
   of that version or of any later version published by the Free Software
   Foundation. If the Program does not specify a version number of this License,
   you may choose any version ever published by the Free Software Foundation.
  </p>
 </li>

 <li>
  <p>
   <b>10.</b> If you wish to incorporate parts of the Program into other free
   programs whose distribution conditions are different, write to the author
   to ask for
permission. For software which is copyrighted by the Free Software
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   for this. Our decision will be guided by the two goals of preserving the
   free status of all derivatives of our free software and of promoting the
   sharing and reuse of software generally.
  </p>
 </li>

 <li>
  <p>NO WARRANTY</p>
 </li>

 <li>
  <p>
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YOU ASSUME THE COST OF ALL NECESSARY
   SERVICING, REPAIR OR CORRECTION.
  </p>
 </li>

 <li>
  <p>
   <b>12.</b> IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN
   WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR
   REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES,
```

```
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    OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO
    LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR
    THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS),
    EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH
DAMAGES.
   </p>
  </li>

  <li>
   <p>END OF TERMS AND CONDITIONS</p>
  </li>

  <li>
   <p><b>How to Apply These Terms to Your New Programs</b></p>
   <p>
    If you develop a new program, and you want it to be of the greatest
 possible
    use to the public, the best way to achieve this is to make it free software
    which everyone can redistribute and change under these terms.
   </p>
   <p>
    To do so, attach the following notices to the program. It is safest to attach
    them to the start of each source file to most effectively convey the exclusion
    of warranty; and each file should have at least the "copyright" line and a
    pointer to where the full notice is found.
   </p>
   <ul>
    <li>
     <p>
      One line to give the program's name and a brief idea of what it does.
     </p>
    </li>
    <li>
     <p>
      Copyright (C) <year> <name of author>
     </p>
    </li>
    <li>
     <p>
      This program is free software; you can redistribute it and/or modify it
      under the terms of the GNU General Public License as published by the
      Free Software Foundation; either version 2 of the License, or (at your
      option) any later version.
     </p>

   </li>
    <li>
```

```
   <p>
    This program is distributed in the hope that it will be useful, but
    WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY
    or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License
    for more details.
   </p>
  </li>
  <li>
   <p>
    You should have received a copy of the GNU General Public License along
    with this program; if not, write to the Free Software Foundation, Inc.,
    59 Temple Place, Suite 330, Boston, MA 02111-1307 USA
   </p>
  </li>
 </ul>
 <p>
  Also add information on how to contact you by electronic and paper mail.
 </p>
 <p>
  If the program is interactive, make it output a short notice like this
  when it starts in an interactive mode:
 </p>
 <ul>
  <li>
   <p>
    Gnomovision version 69, Copyright (C) year name of author<br />
    Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type
    `show w'.
This is free software, and you are welcome to redistribute
    it under certain conditions; type `show c' for details.
   </p>
  </li>
 </ul>
 <p>
  The hypothetical commands `show w' and `show c' should show the appropriate
  parts of the General Public License. Of course, the commands you use may
  be called something other than `show w' and `show c'; they could even be
  mouse-clicks or menu items--whatever suits your program.
 </p>
 <p>
  You should also get your employer (if you work as a programmer) or your
  school, if any, to sign a "copyright disclaimer" for the program, if
  necessary. Here is a sample; alter the names:
 </p>
 <ul>
  <li>
   <p>
    Yoyodyne, Inc., hereby disclaims all copyright interest in the program
```

```
     `Gnomovision' (which makes passes at compilers) written by James Hacker.
    </p>
    <p>
     signature of Ty Coon, 1 April 1989<br />
     Ty Coon, President of Vice
    </p>
   </li>
   </ul>
  <p>
   This General Public License does not permit incorporating your program into
   proprietary programs. If your program is a subroutine library, you may
   consider it more useful to permit linking proprietary applications with
   the library. If this is what you want to do, use the GNU Library General
   Public License instead of this License.
  </p>
 </li>

 <li style="background-color:yellow;">
  <p><b>"CLASSPATH" EXCEPTION TO THE GPL VERSION 2</b></p>
  <p>
   Certain source files distributed by Sun Microsystems, Inc. are subject to
   the following clarification and special exception to the GPL Version 2, but
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   header the words<br />
   "Sun designates this particular file as subject to the "Classpath"
   exception as provided by Sun in the License file that accompanied this code."
  </p>
  <p>
   Linking this library statically or dynamically with
other modules is making
   a combined work based on this library. Thus, the terms and conditions of the
   GNU General Public License Version 2 cover the whole combination.
  </p>
  <p>
   As a special exception, the copyright holders of this library give you
   permission to link this library with independent modules to produce an
   executable, regardless of the license terms of these independent modules,
   and to copy and distribute the resulting executable under terms of your
   choice, provided that you also meet, for each linked independent module,
   the terms and conditions of the license of that module.? An independent
   module is a module which is not derived from or based on this library.? If
   you modify this library, you may extend this exception to your version of
   the library, but you are not obligated to do so.? If you do not wish to do
   so, delete this exception statement from your version.
  </p>
 </li>

</ul>
```

```
</body>
</html>
```

Jackson JSON processor

Jackson is a high-performance, Free/Open Source JSON processing library.
It was originally written by Tatu Saloranta (tatu.saloranta@iki.fi), and has
been in development since 2007.
It is currently developed by a community of developers, as well as supported
commercially by FasterXML.com.

Licensing

Jackson core and extension components may be licensed under different licenses.
To find the details that apply to this artifact see the accompanying LICENSE file.
For more information, including possible other licensing options, contact
FasterXML.com (http://fasterxml.com).

Credits

A list of contributors may be found from CREDITS file, which is included
in some artifacts (usually source distributions); but is always available
from the source code management (SCM) system project uses.

```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="utf-8">
 <meta http-equiv="X-UA-Compatible" content="IE=edge">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <meta name="description" content="Home page of The Apache Software Foundation">

 <link rel="apple-touch-icon" sizes="57x57" href="/favicons/apple-touch-icon-57x57.png">
 <link rel="apple-touch-icon" sizes="60x60" href="/favicons/apple-touch-icon-60x60.png">
 <link rel="apple-touch-icon" sizes="72x72" href="/favicons/apple-touch-icon-72x72.png">
 <link rel="apple-touch-icon" sizes="76x76" href="/favicons/apple-touch-icon-76x76.png">
 <link rel="apple-touch-icon" sizes="114x114" href="/favicons/apple-touch-icon-114x114.png">
 <link rel="apple-touch-icon" sizes="120x120" href="/favicons/apple-touch-icon-120x120.png">
 <link rel="apple-touch-icon" sizes="144x144" href="/favicons/apple-touch-icon-144x144.png">
 <link rel="apple-touch-icon" sizes="152x152" href="/favicons/apple-touch-icon-152x152.png">
  <link rel="apple-touch-icon" sizes="180x180" href="/favicons/apple-touch-icon-180x180.png">
 <link rel="icon" type="image/png" href="/favicons/favicon-32x32.png" sizes="32x32">
 <link rel="icon" type="image/png" href="/favicons/favicon-194x194.png" sizes="194x194">
 <link rel="icon" type="image/png" href="/favicons/favicon-96x96.png" sizes="96x96">
 <link rel="icon" type="image/png" href="/favicons/android-chrome-192x192.png" sizes="192x192">
 <link rel="icon" type="image/png" href="/favicons/favicon-16x16.png" sizes="16x16">
 <link rel="manifest" href="/favicons/manifest.json">
 <link rel="shortcut icon" href="/favicons/favicon.ico">
 <meta name="msapplication-TileColor" content="#603cba">
```

```
 <meta name="msapplication-TileImage" content="/favicons/mstile-144x144.png">
 <meta name="msapplication-config" content="/favicons/browserconfig.xml">
 <meta name="theme-color" content="#303284">

 <title>Licenses</title>
 <link href='https://fonts.googleapis.com/css?family=Source+Sans+Pro:400,700%7cDroid+Serif:400,700'
 rel='stylesheet' type='text/css'>
 <link href="/css/min.bootstrap.css" rel="stylesheet">
 <link href="/css/styles.css" rel="stylesheet">



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distributed under the License is distributed on an &quot;AS IS&quot; BASIS, WITHOUT WARRANTIES OR
CONDITIONS OF ANY KIND, either express or implied.  See the License for the specific language governing
permissions and limitations under the License. -->

</head>

<body>
<!--
 Navigation -->
<header>
 <nav class="navbar navbar-default navbar-fixed-top">
   <div class="container">
     <div class="navbar-header">
       <button class="navbar-toggle" type="button" data-toggle="collapse" data-target="#mainnav-collapse">
         <span class="sr-only">Toggle navigation</span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
       </button>
       <a href="#" class="navbar-brand"><span class="glyphicon glyphicon-home"></span></a>
     </div>
     <div class="collapse navbar-collapse" id="mainnav-collapse">
       <div style="line-height:20px; padding-top:5px; float:left"><a href="/">Home</a>&nbsp;&raquo&nbsp;<a
href="/licenses/">Licenses</a></div>
       <ul class="nav navbar-nav navbar-right">
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">About <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
          <li><a href="/foundation">Overview</a></li>
         <li><a href="/foundation/members.html">Members</a></li>
         <li><a href="/foundation/how-it-works.html">Process</a></li>
         <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
```

```
         <li><a href="/foundation/glossary.html">Glossary</a></li>
         <li><a href="/foundation/preFAQ.html">FAQ</a></li>
         <li><a href="/foundation/contact.html ">Contact</a></li>
          </ul>
         </li>
   <li><a href="/index.html#projects-list">Projects</a></li>
     <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">People <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
       <li><a href="http://people.apache.org/">Overview</a></li>
       <li><a href="http://people.apache.org/committer-index.html">Committers</a></li>
       <li><a href="/foundation/how-it-works.html#meritocracy">Meritocracy</a></li>
        <li><a href="/foundation/how-it-works.html#roles">Roles</a></li>
       <li><a href="http://planet.apache.org/">Planet Apache</a></li>
          </ul>
         </li>
         <li class="dropdown">
           <a href="#" class="dropdown-toggle" data-toggle="dropdown">Get Involved <span
class="caret"></span></a>
           <ul class="dropdown-menu" role="menu">
             <li><a href="/foundation/getinvolved.html">Overview</a></li>
         <li><a href="http://community.apache.org/">Community Development</a></li>
                    <li><a href="http://helpwanted.apache.org/">Help Wanted</a></li>
         <li><a href="http://www.apachecon.com/">ApacheCon</a></li>
           </ul>
     </li>
         <li><a href="/dyn/closer.cgi">Download</a></li>
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">Support Apache <span
class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
         <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
          <li><a href="/foundation/contributing.html">Donations</a></li>
         <li><a href="/foundation/buy_stuff.html">Buy Stuff</a></li>
         <li><a href="/foundation/thanks.html">Thanks</a></li>
          </ul>
         </li>
       </ul>
     </div>
   </div>
 </nav>
</header>
<!-- / Navigation -->
<div class="container">
 <div class="row">
   <div class="col-md-9 col-sm-8 col-xs-12">
     <img src="/img/asf_logo.png" alt="Apache Logo" style="max-width: 100%;">
   </div>
```

```
  <div class="col-md-3 col-sm-4 col-xs-12">
    <div class="input-group" style="margin-bottom: 5px;">
   <script>
 (function() {
  var cx = '005703438322411770421:5mgshgrgx2u';
  var gcse = document.createElement('script');
  gcse.type = 'text/javascript';
  gcse.async = true;
  gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:') +
      '//cse.google.com/cse.js?cx=' + cx;
  var s = document.getElementsByTagName('script')[0];
   s.parentNode.insertBefore(gcse, s);
 })();
</script>
   <gcse:searchbox-only></gcse:searchbox-only>
  </div>
  <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/governance/">The Apache Way</a>
  <a role="button" class="btn btn-block btn-default btn-xs"
href="https://community.apache.org/contributors/">Contribute</a>
  <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/thanks.html">ASF Sponsors</a>
  </div>
 </div>
</div>
<div class="container"><style type="text/css">
/* The following code is added by mdx_elementid.py
  It was originally lifted from http://subversion.apache.org/style/site.css */
/*
* Hide class="elementid-permalink", except when an enclosing heading
* has the :hover property.
*/
.headerlink, .elementid-permalink {
 visibility: hidden;
}
h2:hover > .headerlink, h3:hover > .headerlink, h1:hover > .headerlink, h6:hover > .headerlink, h4:hover >
.headerlink, h5:hover > .headerlink, dt:hover
 > .elementid-permalink { visibility: visible }</style>
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link">&para;</a></h1>
```

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link">&para;</a></h3>
<p><a href="LICENSE-2.0">http://www.apache.org/licenses/LICENSE-2.0</a> (
<a href="LICENSE-2.0.txt">TXT</a> or <a href="LICENSE-2.0.html">HTML</a> )</p>
<p>The 2.0 version of the Apache License was approved by the ASF in 2004. The
goals of this license revision have been to reduce the number of frequently
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by any project (including non-ASF projects), to allow the license to be
included by reference instead of listed in every file, to clarify the
license on submission of contributions, to require a patent license on
contributions that necessarily infringe the contributor's own patents, and
to move comments regarding Apache and other inherited attribution notices
to a location outside the license terms (the <a href="example-NOTICE.txt">NOTICE
file</a> ).</p>
<p>The
 result is a license that is supposed to be compatible with other open
source licenses, while remaining true to the original goals of the Apache
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determine if this version of the Apache License is <a href="GPL-compatibility.html">compatible with the
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documentation on how to apply the Apache License to your work can be found
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*.</p>
<h3 id="1.1">Apache License, Version 1.1 (historic)<a class="headerlink" href="#1.1" title="Permanent
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<p><a href="LICENSE-1.1">http://www.apache.org/licenses/LICENSE-1.1</a> </p>
<p>The 1.1 version of the Apache License was approved by the
 ASF in 2000. The
primary change from the 1.0 license is in the 'advertising clause' (section
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wording due to varying requirements for attribution or mark identification,
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<h3 id="1.0">Apache License, Version 1.0 (historic)<a class="headerlink" href="#1.0" title="Permanent
link">&para;</a></h3>
<p><a href="LICENSE-1.0">http://www.apache.org/licenses/LICENSE-1.0</a> </p>
<p>This is the original Apache License which applies only to older versions of
Apache packages (such as version 1.2 of the Web server).</p>
<h1 id="clas">Contributor License Agreements<a class="headerlink" href="#clas" title="Permanent
link">&para;</a></h1>
```

```
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 complete, sign, and submit (via fax or
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a <a href="cla-corporate.txt">Corporate CLA</a> (CCLA) is available for contributing
intellectual property via the corporation, that may have been assigned as
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<p>The ICLA is not tied to any employer you
 may have, so it is recommended to
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<p>Your Full name will be published unless you provide an alternative Public name.
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<p>The email address and other contact details are not published.</p>
<h1 id="grants">Software Grants<a class="headerlink" href="#grants" title="Permanent link">&para;</a></h1>
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support a collaborative project.</p>
<h1 id="submitting">Submitting License Agreements and Grants<a class="headerlink" href="#submitting"
title="Permanent link">&para;</a></h1>
<p>Documents may be submitted by fax or email.</p>
<p>If submitting by fax, please print, sign, and fax all pages of the document
to +1-919-573-9199. Please send documents right-side-up, first page first;
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<p>If submitting by email, please fill the form with a pdf viewer,
print, sign, scan all pages into a single pdf file,
and email the pdf file as an attachment to secretary@apache.org. If possible,
send the attachment from the email address in the document.
Please send only one document per email.</p>
<p>If you prefer to sign electronically, please fill the form, save it locally (e.g. icla.pdf), and sign the
file by preparing a detached PGP signature. For example,</p>
<blockquote>
<p>gpg --armor --detach-sign icla.pdf</p>
```

```
</blockquote>
<p>The above will create
 a file icla.pdf.asc. Send both the file and signature
as attachments in the same email to secretary@apache.org. Please send only one
document (file plus signature) per email. Please do not submit your public key to Apache.
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icla.pdf and icla.pdf.asc for individual agreements;
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<h1 id="questions">Questions?<a
 class="headerlink" href="#questions" title="Permanent link">&para;</a></h1>
<p>For answers to frequently asked licensing questions, please consult our
<a href="/foundation/license-faq.html">Licensing Frequently Asked Questions</a> page.</p></div>

<!-- Footer -->

<footer class="bg-primary">
 <div class="container">
   <div class="row">
    <br />
    <div class="col-sm-1">

    </div>
    <div class="col-sm-2">
          <h5 class="white">Community</h5>
          <ul class="list-unstyled white" role="menu">
      <li><a href="http://community.apache.org/">Overview</a></li>
      <li><a href="/foundation/conferences.html">Conferences</a></li>
      <li><a href="http://community.apache.org/gsoc.html">Summer of Code</a></li>
      <li><a href="http://community.apache.org/newcomers/">Getting Started</a></li>
      <li><a href="/foundation/how-it-works.html">The Apache Way</a></li>
      <li><a href="/travel/">Travel Assistance</a></li>
      <li><a href="/foundation/getinvolved.html">Get
 Involved</a></li>
      <li><a href="http://community.apache.org/newbiefaq.html">Community FAQ</a></li>
          </ul>
    </div>

    <div class="col-sm-2">
     <h5 class="white">Innovation</h5>
```

```
        <ul class="list-unstyled white" role="menu">
   <li><a href="http://incubator.apache.org/">Incubator</a></li>
   <li><a href="http://labs.apache.org/">Labs</a></li>
   <li><a href="/licenses/">Licensing</a></li>
   <li><a href="/foundation/license-faq.html">Licensing FAQ</a></li>
   <li><a href="/foundation/marks/">Trademark Policy</a></li>
   <li><a href="/foundation/contact.html">Contacts</a></li>
        </ul>
  </div>

  <div class="col-sm-2">
   <h5 class="white">Tech Operations</h5>
       <ul class="list-unstyled white" role="menu">
    <li><a href="/dev/">Developer Information</a></li>
    <li><a href="/dev/infrastructure.html">Infrastructure</a></li>
    <li><a href="/security/">Security</a></li>
     <li><a href="http://status.apache.org">Status</a></li>
    <li><a href="/foundation/contact.html">Contacts</a></li>
       </ul>
  </div>

  <div class="col-sm-2">
   <h5 class="white">Press</h5>
     <ul class="list-unstyled white" role="menu">
   <li><a href="/press/">Overview</a></li>
   <li><a href="https://blogs.apache.org/">ASF News</a></li>
   <li><a href="https://blogs.apache.org/foundation/">Announcements</a></li>
   <li><a href="https://twitter.com/TheASF">Twitter Feed</a></li>
   <li><a href="/press/#contact">Contacts</a></li>
     </ul>
  </div>

  <div class="col-sm-2">
   <h5 class="white">Legal</h5>
     <ul class="list-unstyled white" role="menu">
   <li><a href="/legal/">Legal Affairs</a></li>
   <li><a href="/licenses/">Licenses</a></li>
   <li><a href="/foundation/marks/">Trademark Policy</a></li>
   <li><a href="/foundation/records/">Public Records</a></li>
        <li><a href="/foundation/policies/privacy.html">Privacy
Policy</a></li>
   <li><a href="/licenses/exports/">Export Information</a></li>
   <li><a href="/foundation/license-faq.html">License/Distribution FAQ</a></li>
   <li><a href="/foundation/contact.html">Contacts</a></li>
     </ul>
  </div>

  <div class="col-sm-1">
```

```
    </div>

   </div>
   <hr class="col-lg-12 hr-white" />
   <div class="row">
    <div class="col-lg-12">
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    </div>
   </div>
  </div>

</footer>

<!-- / Footer -->

<script src="/js/jquery-2.1.1.min.js"></script>
<script src="/js/bootstrap.js"></script>
</body>
</html>
```

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1.512 dropwizard-web-security 1.2.1

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* /opt/cola/permits/1685970394_1684869085.095612/0/dropwizard-web-security-1-2-1-sources-1-jar/com/palantir/websecurity/WebSecurityConfigurable.java
* /opt/cola/permits/1685970394_1684869085.095612/0/dropwizard-web-security-1-2-1-sources-1-jar/com/palantir/websecurity/filters/WebSecurityFilter.java
* /opt/cola/permits/1685970394_1684869085.095612/0/dropwizard-web-security-1-2-1-sources-1-jar/com/palantir/websecurity/filters/WebSecurityHeaderInjector.java
* /opt/cola/permits/1685970394_1684869085.095612/0/dropwizard-web-security-1-2-1-sources-1-jar/com/palantir/websecurity/filters/JerseyAwareWebSecurityFilter.java
* /opt/cola/permits/1685970394_1684869085.095612/0/dropwizard-web-security-1-2-1-sources-1-jar/com/palantir/websecurity/CorsConfiguration.java
*
/opt/cola/permits/1685970394_1684869085.095612/0/dropwizard-web-security-1-2-1-sources-1-jar/com/palantir/websecurity/ImmutableStyles.java

* /opt/cola/permits/1685970394_1684869085.095612/0/dropwizard-web-security-1-2-1-sources-1-jar/com/palantir/websecurity/WebSecurityConfiguration.java

1.513 kafka-protobuf-provider 7.0.5

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Other developers who have contributed code are:

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```
  limitations under the License.
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="utf-8">
 <meta http-equiv="X-UA-Compatible" content="IE=edge">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <meta name="description" content="Home page of The Apache Software Foundation">

 <link rel="apple-touch-icon" sizes="57x57" href="/favicons/apple-touch-icon-57x57.png">
 <link rel="apple-touch-icon" sizes="60x60" href="/favicons/apple-touch-icon-60x60.png">
 <link rel="apple-touch-icon" sizes="72x72" href="/favicons/apple-touch-icon-72x72.png">
 <link rel="apple-touch-icon" sizes="76x76" href="/favicons/apple-touch-icon-76x76.png">
 <link rel="apple-touch-icon" sizes="114x114" href="/favicons/apple-touch-icon-114x114.png">
 <link rel="apple-touch-icon" sizes="120x120" href="/favicons/apple-touch-icon-120x120.png">
 <link rel="apple-touch-icon" sizes="144x144" href="/favicons/apple-touch-icon-144x144.png">
 <link rel="apple-touch-icon" sizes="152x152" href="/favicons/apple-touch-icon-152x152.png">
  <link rel="apple-touch-icon" sizes="180x180" href="/favicons/apple-touch-icon-180x180.png">
 <link rel="icon" type="image/png" href="/favicons/favicon-32x32.png" sizes="32x32">
 <link rel="icon" type="image/png" href="/favicons/favicon-194x194.png" sizes="194x194">
 <link rel="icon" type="image/png" href="/favicons/favicon-96x96.png" sizes="96x96">
 <link rel="icon" type="image/png" href="/favicons/android-chrome-192x192.png" sizes="192x192">
 <link rel="icon" type="image/png" href="/favicons/favicon-16x16.png" sizes="16x16">
 <link rel="manifest" href="/favicons/manifest.json">
 <link rel="shortcut icon" href="/favicons/favicon.ico">
 <meta name="msapplication-TileColor" content="#603cba">
 <meta name="msapplication-TileImage" content="/favicons/mstile-144x144.png">
 <meta name="msapplication-config" content="/favicons/browserconfig.xml">
 <meta name="theme-color" content="#303284">

 <title>Apache License, Version 2.0</title>
 <link href='https://fonts.googleapis.com/css?family=Source+Sans+Pro:400,700%7cDroid+Serif:400,700'
 rel='stylesheet' type='text/css'>
 <link href="/css/min.bootstrap.css" rel="stylesheet">
 <link href="/css/styles.css" rel="stylesheet">



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permissions and limitations under the License.
 -->

</head>
```

```
<body>
<!-- Navigation -->
<header>
 <nav class="navbar navbar-default navbar-fixed-top">
   <div class="container">
     <div class="navbar-header">
       <button class="navbar-toggle" type="button" data-toggle="collapse" data-target="#mainnav-collapse">
         <span class="sr-only">Toggle navigation</span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
       </button>
       <a href="#" class="navbar-brand"><span class="glyphicon glyphicon-home"></span></a>
     </div>
     <div class="collapse navbar-collapse" id="mainnav-collapse">
       <div style="line-height:20px; padding-top:5px; float:left"><a href="/">Home</a>&nbsp;&raquo&nbsp;<a
href="/licenses/">Licenses</a></div>
       <ul class="nav navbar-nav navbar-right">
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">About <span class="caret"></span></a>
          <ul class="dropdown-menu"
 role="menu">
         <li><a href="/foundation">Overview</a></li>
         <li><a href="/foundation/members.html">Members</a></li>
         <li><a href="/foundation/how-it-works.html">Process</a></li>
         <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
         <li><a href="/foundation/glossary.html">Glossary</a></li>
         <li><a href="/foundation/preFAQ.html">FAQ</a></li>
         <li><a href="/foundation/contact.html ">Contact</a></li>
          </ul>
         </li>
   <li><a href="/index.html#projects-list">Projects</a></li>
     <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">People <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
       <li><a href="http://people.apache.org/">Overview</a></li>
       <li><a href="http://people.apache.org/committer-index.html">Committers</a></li>
       <li><a href="/foundation/how-it-works.html#meritocracy">Meritocracy</a></li>
        <li><a href="/foundation/how-it-works.html#roles">Roles</a></li>
       <li><a href="http://planet.apache.org/">Planet Apache</a></li>
          </ul>
         </li>
         <li class="dropdown">
           <a href="#" class="dropdown-toggle" data-toggle="dropdown">Get Involved <span
class="caret"></span></a>
           <ul class="dropdown-menu" role="menu">
             <li><a href="/foundation/getinvolved.html">Overview</a></li>
```

```
        <li><a href="http://community.apache.org/">Community Development</a></li>
                  <li><a href="http://helpwanted.apache.org/">Help Wanted</a></li>
        <li><a href="http://www.apachecon.com/">ApacheCon</a></li>
          </ul>
     </li>
        <li><a href="/dyn/closer.cgi">Download</a></li>
        <li class="dropdown">
         <a href="#" class="dropdown-toggle" data-toggle="dropdown">Support Apache <span
class="caret"></span></a>
         <ul class="dropdown-menu" role="menu">

     <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
        <li><a href="/foundation/contributing.html">Donations</a></li>
        <li><a href="/foundation/buy_stuff.html">Buy Stuff</a></li>
        <li><a href="/foundation/thanks.html">Thanks</a></li>
         </ul>
        </li>
      </ul>
     </div>
   </div>
 </nav>
</header>
<!-- / Navigation -->
<div class="container">
 <div class="row">
   <div class="col-md-9 col-sm-8 col-xs-12">
     <img src="/img/asf_logo.png" alt="Apache Logo" style="max-width: 100%;">
   </div>
   <div class="col-md-3 col-sm-4 col-xs-12">
     <div class="input-group" style="margin-bottom: 5px;">
    <script>
 (function() {
   var cx = '005703438322411770421:5mgshgrgx2u';
   var gcse = document.createElement('script');
   gcse.type = 'text/javascript';
   gcse.async = true;
   gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:') +
       '//cse.google.com/cse.js?cx=' + cx;
   var s = document.getElementsByTagName('script')[0];
    s.parentNode.insertBefore(gcse, s);
 })();
</script>
    <gcse:searchbox-only></gcse:searchbox-only>
   </div>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/governance/">The Apache Way</a>
   <a role="button" class="btn btn-block btn-default btn-xs"
href="https://community.apache.org/contributors/">Contribute</a>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/thanks.html">ASF Sponsors</a>
```

```
   </div>
 </div>
</div>
<div class="container"><style type="text/css">
/* The following code is added by mdx_elementid.py
  It was originally lifted from http://subversion.apache.org/style/site.css */
/*
* Hide class="elementid-permalink", except when an enclosing heading
* has the :hover property.
*/
.headerlink, .elementid-permalink {
 visibility: hidden;
}
h2:hover > .headerlink, h3:hover > .headerlink, h1:hover > .headerlink, h6:hover > .headerlink, h4:hover >
.headerlink, h5:hover >
 .headerlink, dt:hover > .elementid-permalink { visibility: visible }</style>
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```
</pre></div></div>

<!-- Footer -->

<footer class="bg-primary">
 <div class="container">
   <div class="row">
    <br />
    <div class="col-sm-1">

    </div>
    <div class="col-sm-2">
          <h5 class="white">Community</h5>
          <ul class="list-unstyled white" role="menu">
      <li><a href="http://community.apache.org/">Overview</a></li>
      <li><a href="/foundation/conferences.html">Conferences</a></li>
      <li><a href="http://community.apache.org/gsoc.html">Summer of Code</a></li>
      <li><a href="http://community.apache.org/newcomers/">Getting Started</a></li>
      <li><a href="/foundation/how-it-works.html">The Apache Way</a></li>
      <li><a href="/travel/">Travel Assistance</a></li>
      <li><a href="/foundation/getinvolved.html">Get Involved</a></li>
      <li><a href="http://community.apache.org/newbiefaq.html">Community
 FAQ</a></li>
          </ul>
    </div>

    <div class="col-sm-2">
     <h5 class="white">Innovation</h5>
          <ul class="list-unstyled white" role="menu">
      <li><a href="http://incubator.apache.org/">Incubator</a></li>
      <li><a href="http://labs.apache.org/">Labs</a></li>
      <li><a href="/licenses/">Licensing</a></li>
      <li><a href="/foundation/license-faq.html">Licensing FAQ</a></li>
      <li><a href="/foundation/marks/">Trademark Policy</a></li>
      <li><a href="/foundation/contact.html">Contacts</a></li>
          </ul>
```

```
    </div>

    <div class="col-sm-2">
     <h5 class="white">Tech Operations</h5>
          <ul class="list-unstyled white" role="menu">
       <li><a href="/dev/">Developer Information</a></li>
       <li><a href="/dev/infrastructure.html">Infrastructure</a></li>
       <li><a href="/security/">Security</a></li>
       <li><a href="http://status.apache.org">Status</a></li>
       <li><a href="/foundation/contact.html">Contacts</a></li>

        </ul>
    </div>

    <div class="col-sm-2">
     <h5 class="white">Press</h5>
        <ul class="list-unstyled white" role="menu">
      <li><a href="/press/">Overview</a></li>
      <li><a href="https://blogs.apache.org/">ASF News</a></li>
      <li><a href="https://blogs.apache.org/foundation/">Announcements</a></li>
      <li><a href="https://twitter.com/TheASF">Twitter Feed</a></li>
      <li><a href="/press/#contact">Contacts</a></li>
        </ul>
    </div>

    <div class="col-sm-2">
     <h5 class="white">Legal</h5>
        <ul class="list-unstyled white" role="menu">
      <li><a href="/legal/">Legal Affairs</a></li>
      <li><a href="/licenses/">Licenses</a></li>
      <li><a href="/foundation/marks/">Trademark Policy</a></li>
      <li><a href="/foundation/records/">Public Records</a></li>
           <li><a href="/foundation/policies/privacy.html">Privacy Policy</a></li>
      <li><a href="/licenses/exports/">Export Information</a></li>
      <li><a
href="/foundation/license-faq.html">License/Distribution FAQ</a></li>
      <li><a href="/foundation/contact.html">Contacts</a></li>
        </ul>
    </div>

    <div class="col-sm-1">
    </div>

   </div>
   <hr class="col-lg-12 hr-white" />
   <div class="row">
    <div class="col-lg-12">
     <p class="text-center">Copyright &#169; 2016 The Apache Software Foundation, Licensed under the <a
```

```
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    </div>
   </div>
  </div>

</footer>

<!-- / Footer -->

<script src="/js/jquery-2.1.1.min.js"></script>
<script src="/js/bootstrap.js"></script>
</body>
</html>
```

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```
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">
<html><head>
<title>301 Moved Permanently</title>
</head><body>
<h1>Moved Permanently</h1>
<p>The document has moved <a href="https://opensource.org/licenses/mit-license.php">here</a>.</p>
</body></html>
```

Format: http://www.debian.org/doc/packaging-manuals/copyright-format/1.0/
Upstream-Name: schema-registry
Source: https://github.com/confluentinc/schema-registry

Files: *
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Files: core/*
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```
cd <SRC_PATH>
mvn package -DskipTests
mkdir /tmp/jars
mkdir /tmp/overrides
cp package-schema-registry/target/kafka-schema-registry-package-<VERSION>-package/share/java/schema-registry/*.jar /tmp/jars/
cp package-kafka-serde-tools/target/kafka-serde-tools-package-<VERSION>-package/share/java/kafka-serde-tools/*.jar /tmp/jars/
cd <LICENSE_TOOL_PATH>
./bin/run_license_job.bash -i /tmp/jars -l <SRC_PATH>/licenses -n <SRC_PATH>/notices -h <SRC_PATH>/licenses-and-notices.html -o /tmp/overrides
```

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{ font-family: "Andale Sans UI"; font-size: 12pt; font-weight: normal }    H1.ctl { font-family: "Tahoma"; font-size:
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```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">

<html lang="en-US">
<head>
 <title>GlassFish Dual License Header and License Notice GPL v2 and CDDL</title>
 <meta http-equiv="content-type" content="text/html; charset=UTF-8">
 <style type="text/css">
  li {display: block;}
 </style>
</head>

<body leftmargin="0" topmargin="0" marginheight="0" marginwidth="0" bgcolor="#ffffff">

 <h3>COMMON DEVELOPMENT AND DISTRIBUTION LICENSE (CDDL) Version 1.0</h3>
```

```
<ul>
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    </p>
   </li>

   <li>
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   </li>

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   </li>

   <li>
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     Covered Software in any form other than Source Code.
    </p>
   </li>

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   <li>
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   </li>

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    </p>
   </li>

   <li>
    <p>
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    </p>
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      </p>
     </li>
     <li>
      <p>
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       the Original Software or previous Modification; or
      </p>
     </li>
     <li>
      <p>
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      </p>
     </li>
    </ul>
   </li>

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    </p>
   </li>

   <li>
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    </p>
   </li>

   <li>
    <p>
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     with such code.
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   </li>

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    </p>
   </li>
  </ul>
 </li>

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     </li>
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      </p>
     </li>
     <li>
      <p>
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   </li>
  </ul>
 </li>

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   </li>
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 <li>
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   venue lying in Santa Clara County, California.
  </p>
 </li>
</ul>

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```

```
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```

```
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 </p>
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</li>
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 </p>
 <ul>
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   </p>
  </li>
  <li>
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   </p>
```

```
   </li>
   <li>
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    </p>
   </li>
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 </li>

 <li>
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```

```
  </p>
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   <li>
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    </p>
   </li>
   <li>
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    </p>
   </li>
   <li>
    <p>
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   </li>
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```

```
  </p>
 </li>

 <li>
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 <li>
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  </li>

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  </li>

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   </p>
   <p>
    To do so, attach the following notices to the program. It is safest to attach
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   </p>
   <ul>
    <li>
     <p>
      One line to give the program's name and a brief idea of what it does.
     </p>
    </li>
    <li>
     <p>
      Copyright (C) <year> <name of author>
     </p>
    </li>
    <li>
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   </li>
    <li>
     <p>
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<p>
Also add information on how to contact you by electronic and paper mail.
</p>
<p>
If the program is interactive, make it output a short notice like this
when it starts in an interactive mode:
</p>

<p>
Gnomovision version 69, Copyright (C) year name of author
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type
`show w'.
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it under certain conditions; type `show c' for details.
</p>

<p>
The hypothetical commands `show w' and `show c' should show the appropriate
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</p>
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</p>

<p>
Yoyodyne, Inc., hereby disclaims all copyright interest in the program
`Gnomovision' (which makes passes at compilers) written by James Hacker.

```
    </p>
    <p>
     signature of Ty Coon, 1 April 1989<br />
     Ty Coon, President of Vice
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   </li>
   </ul>
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   so, delete this exception statement from your version.
  </p>
 </li>

</ul>
```

```
</body>
</html>
```

Jackson JSON processor

Jackson is a high-performance, Free/Open Source JSON processing library.
It was originally written by Tatu Saloranta (tatu.saloranta@iki.fi), and has
been in development since 2007.
It is currently developed by a community of developers, as well as supported
commercially by FasterXML.com.

Licensing

Jackson core and extension components may be licensed under different licenses.
To find the details that apply to this artifact see the accompanying LICENSE file.
For more information, including possible other licensing options, contact
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Credits

A list of contributors may be found from CREDITS file, which is included
in some artifacts (usually source distributions); but is always available
from the source code management (SCM) system project uses.

```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="utf-8">
 <meta http-equiv="X-UA-Compatible" content="IE=edge">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <meta name="description" content="Home page of The Apache Software Foundation">

 <link rel="apple-touch-icon" sizes="57x57" href="/favicons/apple-touch-icon-57x57.png">
 <link rel="apple-touch-icon" sizes="60x60" href="/favicons/apple-touch-icon-60x60.png">
 <link rel="apple-touch-icon" sizes="72x72" href="/favicons/apple-touch-icon-72x72.png">
 <link rel="apple-touch-icon" sizes="76x76" href="/favicons/apple-touch-icon-76x76.png">
 <link rel="apple-touch-icon" sizes="114x114" href="/favicons/apple-touch-icon-114x114.png">
 <link rel="apple-touch-icon" sizes="120x120" href="/favicons/apple-touch-icon-120x120.png">
 <link rel="apple-touch-icon" sizes="144x144" href="/favicons/apple-touch-icon-144x144.png">
 <link rel="apple-touch-icon" sizes="152x152" href="/favicons/apple-touch-icon-152x152.png">
  <link rel="apple-touch-icon" sizes="180x180" href="/favicons/apple-touch-icon-180x180.png">
 <link rel="icon" type="image/png" href="/favicons/favicon-32x32.png" sizes="32x32">
 <link rel="icon" type="image/png" href="/favicons/favicon-194x194.png" sizes="194x194">
 <link rel="icon" type="image/png" href="/favicons/favicon-96x96.png" sizes="96x96">
 <link rel="icon" type="image/png" href="/favicons/android-chrome-192x192.png" sizes="192x192">
 <link rel="icon" type="image/png" href="/favicons/favicon-16x16.png" sizes="16x16">
 <link rel="manifest" href="/favicons/manifest.json">
 <link rel="shortcut icon" href="/favicons/favicon.ico">
 <meta name="msapplication-TileColor" content="#603cba">
 <meta name="msapplication-TileImage" content="/favicons/mstile-144x144.png">
```

```
 <meta name="msapplication-config" content="/favicons/browserconfig.xml">
 <meta name="theme-color" content="#303284">

 <title>Licenses</title>
 <link href='https://fonts.googleapis.com/css?family=Source+Sans+Pro:400,700%7cDroid+Serif:400,700'
 rel='stylesheet' type='text/css'>
 <link href="/css/min.bootstrap.css" rel="stylesheet">
 <link href="/css/styles.css" rel="stylesheet">



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CONDITIONS OF ANY KIND, either express or implied.  See the License for the specific language governing
permissions and limitations under the License. -->

</head>

<body>
<!--
 Navigation -->
<header>
 <nav class="navbar navbar-default navbar-fixed-top">
   <div class="container">
     <div class="navbar-header">
       <button class="navbar-toggle" type="button" data-toggle="collapse" data-target="#mainnav-collapse">
         <span class="sr-only">Toggle navigation</span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
         <span class="icon-bar"></span>
       </button>
       <a href="#" class="navbar-brand"><span class="glyphicon glyphicon-home"></span></a>
     </div>
     <div class="collapse navbar-collapse" id="mainnav-collapse">
       <div style="line-height:20px; padding-top:5px; float:left"><a href="/">Home</a>&nbsp;&raquo&nbsp;<a
href="/licenses/">Licenses</a></div>
       <ul class="nav navbar-nav navbar-right">
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">About <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
          <li><a href="/foundation">Overview</a></li>
         <li><a href="/foundation/members.html">Members</a></li>
         <li><a href="/foundation/how-it-works.html">Process</a></li>
         <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
         <li><a href="/foundation/glossary.html">Glossary</a></li>
```

```
         <li><a href="/foundation/preFAQ.html">FAQ</a></li>
         <li><a href="/foundation/contact.html ">Contact</a></li>
          </ul>
         </li>
   <li><a href="/index.html#projects-list">Projects</a></li>
     <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">People <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
       <li><a href="http://people.apache.org/">Overview</a></li>
       <li><a href="http://people.apache.org/committer-index.html">Committers</a></li>
       <li><a href="/foundation/how-it-works.html#meritocracy">Meritocracy</a></li>
        <li><a href="/foundation/how-it-works.html#roles">Roles</a></li>
       <li><a href="http://planet.apache.org/">Planet Apache</a></li>
          </ul>
         </li>
         <li class="dropdown">
           <a href="#" class="dropdown-toggle" data-toggle="dropdown">Get Involved <span
class="caret"></span></a>
           <ul class="dropdown-menu" role="menu">
             <li><a href="/foundation/getinvolved.html">Overview</a></li>
         <li><a href="http://community.apache.org/">Community Development</a></li>
                   <li><a href="http://helpwanted.apache.org/">Help Wanted</a></li>
         <li><a href="http://www.apachecon.com/">ApacheCon</a></li>
           </ul>
     </li>
         <li><a href="/dyn/closer.cgi">Download</a></li>
         <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">Support Apache <span
class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
         <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
          <li><a href="/foundation/contributing.html">Donations</a></li>
         <li><a href="/foundation/buy_stuff.html">Buy Stuff</a></li>
         <li><a href="/foundation/thanks.html">Thanks</a></li>
          </ul>
         </li>
       </ul>
     </div>
   </div>
 </nav>
</header>
<!-- / Navigation -->
<div class="container">
 <div class="row">
   <div class="col-md-9 col-sm-8 col-xs-12">
     <img src="/img/asf_logo.png" alt="Apache Logo" style="max-width: 100%;">
   </div>
   <div class="col-md-3 col-sm-4 col-xs-12">
```

```
     <div class="input-group" style="margin-bottom: 5px;">
    <script>
 (function() {
   var cx = '005703438322411770421:5mgshgrgx2u';
   var gcse = document.createElement('script');
   gcse.type = 'text/javascript';
   gcse.async = true;
   gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:') +
       '//cse.google.com/cse.js?cx=' + cx;
   var s = document.getElementsByTagName('script')[0];
    s.parentNode.insertBefore(gcse, s);
 })();
</script>
    <gcse:searchbox-only></gcse:searchbox-only>
   </div>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/governance/">The Apache Way</a>
   <a role="button" class="btn btn-block btn-default btn-xs"
href="https://community.apache.org/contributors/">Contribute</a>
   <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/thanks.html">ASF Sponsors</a>
   </div>
 </div>
</div>
<div class="container"><style type="text/css">
/* The following code is added by mdx_elementid.py
  It was originally lifted from http://subversion.apache.org/style/site.css */
/*
* Hide class="elementid-permalink", except when an enclosing heading
* has the :hover property.
*/
.headerlink, .elementid-permalink {
 visibility: hidden;
}
h2:hover > .headerlink, h3:hover > .headerlink, h1:hover > .headerlink, h6:hover > .headerlink, h4:hover >
.headerlink, h5:hover > .headerlink, dt:hover
 > .elementid-permalink { visibility: visible }</style>
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<p>If you prefer to sign electronically, please fill the form, save it locally (e.g. icla.pdf), and sign the
file by preparing a detached PGP signature. For example,</p>
<blockquote>
<p>gpg --armor --detach-sign icla.pdf</p>
</blockquote>
```

```
<p>The above will create
 a file icla.pdf.asc. Send both the file and signature
as attachments in the same email to secretary@apache.org. Please send only one
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<!-- Footer -->

<footer class="bg-primary">
 <div class="container">
   <div class="row">
    <br />
    <div class="col-sm-1">

    </div>
    <div class="col-sm-2">
           <h5 class="white">Community</h5>
           <ul class="list-unstyled white" role="menu">
      <li><a href="http://community.apache.org/">Overview</a></li>
      <li><a href="/foundation/conferences.html">Conferences</a></li>
      <li><a href="http://community.apache.org/gsoc.html">Summer of Code</a></li>
      <li><a href="http://community.apache.org/newcomers/">Getting Started</a></li>
      <li><a href="/foundation/how-it-works.html">The Apache Way</a></li>
      <li><a href="/travel/">Travel Assistance</a></li>
      <li><a href="/foundation/getinvolved.html">Get
 Involved</a></li>
      <li><a href="http://community.apache.org/newbiefaq.html">Community FAQ</a></li>
           </ul>
    </div>

    <div class="col-sm-2">
     <h5 class="white">Innovation</h5>
           <ul class="list-unstyled white" role="menu">
```

```
     <li><a href="http://incubator.apache.org/">Incubator</a></li>
     <li><a href="http://labs.apache.org/">Labs</a></li>
     <li><a href="/licenses/">Licensing</a></li>
     <li><a href="/foundation/license-faq.html">Licensing FAQ</a></li>
     <li><a href="/foundation/marks/">Trademark Policy</a></li>
     <li><a href="/foundation/contact.html">Contacts</a></li>
          </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Tech Operations</h5>
         <ul class="list-unstyled white" role="menu">
      <li><a href="/dev/">Developer Information</a></li>
      <li><a href="/dev/infrastructure.html">Infrastructure</a></li>
      <li><a href="/security/">Security</a></li>
       <li><a href="http://status.apache.org">Status</a></li>
      <li><a href="/foundation/contact.html">Contacts</a></li>
         </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Press</h5>
       <ul class="list-unstyled white" role="menu">
     <li><a href="/press/">Overview</a></li>
     <li><a href="https://blogs.apache.org/">ASF News</a></li>
     <li><a href="https://blogs.apache.org/foundation/">Announcements</a></li>
     <li><a href="https://twitter.com/TheASF">Twitter Feed</a></li>
     <li><a href="/press/#contact">Contacts</a></li>
       </ul>
   </div>

   <div class="col-sm-2">
    <h5 class="white">Legal</h5>
       <ul class="list-unstyled white" role="menu">
     <li><a href="/legal/">Legal Affairs</a></li>
     <li><a href="/licenses/">Licenses</a></li>
     <li><a href="/foundation/marks/">Trademark Policy</a></li>
     <li><a href="/foundation/records/">Public Records</a></li>
          <li><a href="/foundation/policies/privacy.html">Privacy
Policy</a></li>
     <li><a href="/licenses/exports/">Export Information</a></li>
     <li><a href="/foundation/license-faq.html">License/Distribution FAQ</a></li>
     <li><a href="/foundation/contact.html">Contacts</a></li>
       </ul>
   </div>

   <div class="col-sm-1">
   </div>
```

```
   </div>
   <hr class="col-lg-12 hr-white" />
   <div class="row">
    <div class="col-lg-12">
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    </div>
   </div>
  </div>

</footer>

<!-- / Footer -->

<script src="/js/jquery-2.1.1.min.js"></script>
<script src="/js/bootstrap.js"></script>
</body>
</html>
```

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1.517 jackson-dataformat-yaml 2.15.1

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1.522 micronaut-http-server 3.8.8

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1.523 st4 4.3.2

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1.524 micronaut-validation 3.8.8

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1.525 micronaut-core-reactive 3.8.8

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1.526 micronaut-context 3.8.8

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*MapClaims.java
* Note: rewritten to standard Java 8 DateTime by zemiak (c) 2016
* Forked from: https://github.com/frode-carlsen/cron
*/

Found in path(s):
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/cron/CronExpression.java
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Found in path(s):
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/event/AbstractEmbeddedApplicationEvent.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/event/ApplicationStartupEvent.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/converters/time/TimeConverterRegistrar.java
*
/opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/TaskExecutors.java

* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/executor/IOExecutorServiceConfig.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/context/env/ConfigurationAdvice.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/annotation/package-info.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/TaskScheduler.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/context/env/package-info.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/context/scope/package-info.java
*
 /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/instrument/InvocationInstrumenterFactory.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/Micronaut.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/annotation/Scheduled.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/instrument/package-info.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/instrument/MultipleInvocationInstrumenter.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/server/event/ServerShutdownEvent.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/event/annotation/EventListener.java
*
 /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/context/scope/ScopedProxy.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/instrument/NoopInstrumentation.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/server/event/package-info.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/ScheduledExecutorTaskScheduler.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/executor/ExecutorSelector.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/exceptions/TaskExecutionException.java
*
 /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/context/scope/refresh/package-info.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/EmbeddedApplication.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/processor/ScheduledMethodProcessor.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-

jar/io/micronaut/scheduling/instrument/InstrumentedExecutorService.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/package-info.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/context/scope/ThreadLocalCustomScope.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/converters/reactive/package-info.java
*
 /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/context/scope/Refreshable.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/executor/UserExecutorConfiguration.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/TaskExceptionHandler.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/executor/package-info.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/DefaultTaskExceptionHandler.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/instrument/Instrumentation.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/io/watch/FileWatchConfiguration.java
*
 /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/io/watch/event/WatchEventType.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/server/package-info.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/context/CompositeMessageSource.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/event/ApplicationShutdownEvent.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/event/package-info.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/package-info.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/executor/NamedThreadFactory.java
*
 /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/async/package-info.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/exceptions/package-info.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/instrument/ExecutorServiceInstrumenter.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/io/watch/package-info.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/io/watch/event/FileChangedEvent.java

* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/context/scope/ThreadLocal.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/executor/DefaultThreadFactory.java
*
/opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/event/annotation/package-info.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/exceptions/ApplicationStartupException.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/io/watch/DefaultWatchThread.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/executor/DefaultExecutorSelector.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/ApplicationConfiguration.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/io/watch/FileWatchCondition.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/converters/time/package-info.java
*
/opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/executor/ScheduledExecutorServiceConfig.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/instrument/InvocationInstrumenterWrappedRunnable.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/exceptions/package-info.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/instrument/InvocationInstrumenterWrappedCallable.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/context/scope/refresh/RefreshScope.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/annotation/ExecuteOn.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/annotation/Async.java
*
/opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/io/watch/WatchServiceFactory.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/async/AsyncInterceptor.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/context/scope/refresh/RefreshInterceptor.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/io/watch/event/package-info.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/instrument/ReactiveInvocationInstrumenterFactory.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/context/env/ConfigurationIntroductionAdvice.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-

jar/io/micronaut/runtime/server/event/ServerStartupEvent.java
*
/opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/context/scope/refresh/RefreshEvent.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/annotation/Schedules.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/processor/package-info.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/exceptions/SchedulerConfigurationException.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/executor/ExecutorType.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/cron/package-info.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/instrument/InstrumentedExecutor.java
*
/opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/instrument/InvocationInstrumenter.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/server/EmbeddedServer.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/executor/ExecutorFactory.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/instrument/RunnableInstrumenter.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/NextFireTime.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/executor/ThreadSelection.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/ReschedulingTask.java
*
/opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/instrument/InstrumentedScheduledExecutorService.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/scheduling/executor/ExecutorConfiguration.java
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* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/context/scope/refresh/RefreshEventListener.java
* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/converters/reactive/ReactiveTypeConverterRegistrar.java
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* /opt/cola/permits/1701043789_1685703605.0879838/0/micronaut-context-3-8-8-sources-jar/io/micronaut/runtime/server/watch/event/FileWatchRestartListener.java

1.527 dropwizard-core 2.1.2

1.527.1 Available under license :

Apache-2.0

1.528 jackson-module-guice 2.15.0

1.528.1 Available under license :

Jackson JSON processor

Jackson is a high-performance, Free/Open Source JSON processing library.
It was originally written by Tatu Saloranta (tatu.saloranta@iki.fi), and has
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It is currently developed by a community of developers, as well as supported
commercially by FasterXML.com.

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For more information, including possible other licensing options, contact
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Credits

A list of contributors may be found from CREDITS file, which is included
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1.529 bind-license 9.11.4-26.P2.el7_9.13

1.529.1 Available under license :

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* /opt/cola/permits/1701043592_1685703124.6755614/0/bind-zip/bind/SPECS/bind.spec
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From 346683631ae0f83ad4f09a69cfa5e5c6ea49e5d9 Mon Sep 17 00:00:00 2001
From: Evan Hunt <each@isc.org>
Date: Tue, 12 Sep 2017 19:05:46 -0700
Subject: [PATCH] rebased rt31459c

[rt31459d] update the newer tools

[rt31459d] setup entropy in dns_lib_init()

[rt31459d] silence compiler warning

DNS_OPENSSL_LIBS -> DST_OPENSSL_LIBS

Include new unit test

```
---
bin/confgen/keygen.c                     |   7 +
bin/dnssec/dnssec-dsfromkey.c            |   8 +-
bin/dnssec/dnssec-importkey.c            |   8 +-
bin/dnssec/dnssec-revoke.c               |   8 +-
bin/dnssec/dnssec-settime.c              |   8 +-
bin/dnssec/dnssec-signzone.c             |  11 +-
bin/dnssec/dnssec-verify.c               |   8 +-
bin/dnssec/dnssectool.c                  |  11 +-
bin/named/server.c                       |   6 +
bin/nsupdate/nsupdate.c                  |  14 +-
bin/tests/makejournal.c                  |   6 +-
bin/tests/system/pipelined/pipequeries.c
 |  20 +-
bin/tests/system/pipelined/tests.sh      |   4 +-
bin/tests/system/rsabigexponent/bigkey.c |   4 +
bin/tests/system/tkey/keycreate.c        |  26 ++-
bin/tests/system/tkey/keydelete.c        |  26 ++-
bin/tests/system/tkey/tests.sh           |   8 +-
bin/tools/mdig.c                         |   3 +-
configure                                | 250 +++++++++++++-----------
configure.ac                             |  77 ++++++-
lib/dns/dst_api.c                        |  21 +-
lib/dns/include/dst/dst.h                |   8 +
lib/dns/lib.c                            |  15 +-
lib/dns/openssl_link.c                   |  72 ++++++-
lib/dns/pkcs11.c                         |  29 ++-
lib/dns/tests/Kyuafile                   |   1 +
lib/dns/tests/Makefile.in                |   7 +
lib/dns/tests/dstrandom_test.c           | 115 +++++++++++
lib/dns/win32/libdns.def.in              |   7 +
lib/isc/entropy.c                        |  24 +++
lib/isc/include/isc/entropy.h
          |  12 ++
lib/isc/include/isc/platform.h.in        |   5 +
lib/isc/include/isc/types.h              |   2 +
lib/isc/pk11.c                           |  12 +-
lib/isc/win32/include/isc/platform.h.in  |   5 +
win32utils/Configure                     |  28 ++-
36 files changed, 701 insertions(+), 175 deletions(-)
create mode 100644 lib/dns/tests/dstrandom_test.c

diff --git a/bin/confgen/keygen.c b/bin/confgen/keygen.c
index 40cf74c..bd269e7 100644
--- a/bin/confgen/keygen.c
+++ b/bin/confgen/keygen.c
```

```
@@ -165,6 +165,13 @@ generate_key(isc_mem_t *mctx, const char *randomfile, dns_secalg_t alg,
  randomfile = NULL;
  open_keyboard = ISC_ENTROPY_KEYBOARDYES;
 }
+#ifdef ISC_PLATFORM_CRYPTORANDOM
+ if (randomfile != NULL &&
+     strcmp(randomfile, ISC_PLATFORM_CRYPTORANDOM) == 0) {
+  randomfile = NULL;
+  isc_entropy_usehook(ectx, true);
+ }
+#endif
 DO("start entropy source", isc_entropy_usebestsource(ectx,
           &entropy_source,

    randomfile,
diff --git a/bin/dnssec/dnssec-dsfromkey.c b/bin/dnssec/dnssec-dsfromkey.c
index 4420f2d..9cb63a8 100644
--- a/bin/dnssec/dnssec-dsfromkey.c
+++ b/bin/dnssec/dnssec-dsfromkey.c
@@ -498,14 +498,14 @@ main(int argc, char **argv) {

 if (ectx == NULL)
  setup_entropy(mctx, NULL, &ectx);
- result = isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE);
- if (result != ISC_R_SUCCESS)
-  fatal("could not initialize hash");
 result = dst_lib_init(mctx, ectx,
        ISC_ENTROPY_BLOCKING | ISC_ENTROPY_GOODONLY);
 if (result != ISC_R_SUCCESS)
  fatal("could not initialize dst: %s",
       isc_result_totext(result));
+ result = isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE);
+ if (result != ISC_R_SUCCESS)
+  fatal("could not initialize hash");
 isc_entropy_stopcallbacksources(ectx);

 setup_logging(mctx, &log);
@@ -574,8 +574,8 @@ main(int argc, char **argv) {
 if (dns_rdataset_isassociated(&rdataset))
  dns_rdataset_disassociate(&rdataset);
 cleanup_logging(&log);
- dst_lib_destroy();
  isc_hash_destroy();
+ dst_lib_destroy();
 cleanup_entropy(&ectx);
 dns_name_destroy();
 if (verbose > 10)
diff --git a/bin/dnssec/dnssec-importkey.c b/bin/dnssec/dnssec-importkey.c
```

```
index dc9a293..52863a1 100644
--- a/bin/dnssec/dnssec-importkey.c
+++ b/bin/dnssec/dnssec-importkey.c
@@ -404,14 +404,14 @@ main(int argc, char **argv) {

 if (ectx == NULL)
  setup_entropy(mctx, NULL, &ectx);
- result = isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE);
- if (result != ISC_R_SUCCESS)
-  fatal("could not initialize hash");
 result = dst_lib_init(mctx, ectx,
        ISC_ENTROPY_BLOCKING | ISC_ENTROPY_GOODONLY);
 if (result != ISC_R_SUCCESS)
  fatal("could not initialize dst: %s",
       isc_result_totext(result));
+ result = isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE);
+ if (result != ISC_R_SUCCESS)
+  fatal("could not initialize hash");
 isc_entropy_stopcallbacksources(ectx);

 setup_logging(mctx, &log);
@@ -455,8 +455,8 @@ main(int argc, char **argv) {
 if (dns_rdataset_isassociated(&rdataset))
   dns_rdataset_disassociate(&rdataset);
 cleanup_logging(&log);
- dst_lib_destroy();
 isc_hash_destroy();
+ dst_lib_destroy();
 cleanup_entropy(&ectx);
 dns_name_destroy();
 if (verbose > 10)
diff --git a/bin/dnssec/dnssec-revoke.c b/bin/dnssec/dnssec-revoke.c
index 0121a34..74a99b0 100644
--- a/bin/dnssec/dnssec-revoke.c
+++ b/bin/dnssec/dnssec-revoke.c
@@ -184,14 +184,14 @@ main(int argc, char **argv) {

 if (ectx == NULL)
  setup_entropy(mctx, NULL, &ectx);
- result = isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE);
- if (result != ISC_R_SUCCESS)
-  fatal("Could not initialize hash");
 result = dst_lib_init2(mctx, ectx, engine,
         ISC_ENTROPY_BLOCKING | ISC_ENTROPY_GOODONLY);
 if (result != ISC_R_SUCCESS)
  fatal("Could not initialize dst: %s",
       isc_result_totext(result));
+ result = isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE);
```

```
+ if (result != ISC_R_SUCCESS)
+  fatal("Could not initialize hash");
 isc_entropy_stopcallbacksources(ectx);

 result = dst_key_fromnamedfile(filename, dir,
@@ -273,8 +273,8 @@ main(int argc, char **argv) {

cleanup:
 dst_key_free(&key);
- dst_lib_destroy();
 isc_hash_destroy();
+ dst_lib_destroy();
 cleanup_entropy(&ectx);
 if (verbose > 10)
  isc_mem_stats(mctx, stdout);
diff --git a/bin/dnssec/dnssec-settime.c b/bin/dnssec/dnssec-settime.c
index f017895..2c568fc 100644
--- a/bin/dnssec/dnssec-settime.c
+++ b/bin/dnssec/dnssec-settime.c
@@ -391,14 +391,14 @@ main(int argc, char **argv) {

 if (ectx == NULL)
  setup_entropy(mctx, NULL, &ectx);
- result = isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE);
- if (result != ISC_R_SUCCESS)
-  fatal("Could not initialize hash");
 result = dst_lib_init2(mctx, ectx, engine,
          ISC_ENTROPY_BLOCKING | ISC_ENTROPY_GOODONLY);
 if (result != ISC_R_SUCCESS)
  fatal("Could not initialize dst: %s",
        isc_result_totext(result));
+ result = isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE);
+ if (result != ISC_R_SUCCESS)
+  fatal("Could
 not initialize hash");
 isc_entropy_stopcallbacksources(ectx);

 if (predecessor != NULL) {
@@ -683,8 +683,8 @@ main(int argc, char **argv) {
 if (prevkey != NULL)
  dst_key_free(&prevkey);
 dst_key_free(&key);
- dst_lib_destroy();
 isc_hash_destroy();
+ dst_lib_destroy();
 cleanup_entropy(&ectx);
 if (verbose > 10)
  isc_mem_stats(mctx, stdout);
```

```
diff --git a/bin/dnssec/dnssec-signzone.c b/bin/dnssec/dnssec-signzone.c
index a097ac8..6567421 100644
--- a/bin/dnssec/dnssec-signzone.c
+++ b/bin/dnssec/dnssec-signzone.c
@@ -3472,14 +3472,15 @@ main(int argc, char *argv[]) {
 if (!pseudorandom)
  eflags |= ISC_ENTROPY_GOODONLY;

- result = isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE);
- if (result != ISC_R_SUCCESS)
-  fatal("could not create hash context");
-
 result = dst_lib_init2(mctx, ectx, engine, eflags);
 if (result != ISC_R_SUCCESS)
  fatal("could not initialize dst: %s",
       isc_result_totext(result));
+
+ result = isc_hash_create(mctx, ectx,
 DNS_NAME_MAXWIRE);
+ if (result != ISC_R_SUCCESS)
+  fatal("could not create hash context");
+
 isc_stdtime_get(&now);

 if (startstr != NULL) {
@@ -3896,8 +3897,8 @@ main(int argc, char *argv[]) {
 dns_master_styledestroy(&dsstyle, mctx);

 cleanup_logging(&log);
- dst_lib_destroy();
 isc_hash_destroy();
+ dst_lib_destroy();
 cleanup_entropy(&ectx);
 dns_name_destroy();
 if (verbose > 10)
diff --git a/bin/dnssec/dnssec-verify.c b/bin/dnssec/dnssec-verify.c
index 087cd5d..07c7294 100644
--- a/bin/dnssec/dnssec-verify.c
+++ b/bin/dnssec/dnssec-verify.c
@@ -281,15 +281,15 @@ main(int argc, char *argv[]) {
 if (ectx == NULL)
  setup_entropy(mctx, NULL, &ectx);

- result = isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE);
- if (result != ISC_R_SUCCESS)
-  fatal("could not create hash context");
-
 result = dst_lib_init2(mctx, ectx, engine, ISC_ENTROPY_BLOCKING);
```

```
 if (result != ISC_R_SUCCESS)
  fatal("could not initialize dst: %s",
        isc_result_totext(result));

+ result
 = isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE);
+ if (result != ISC_R_SUCCESS)
+  fatal("could not create hash context");
+
 isc_stdtime_get(&now);

 rdclass = strtoclass(classname);
diff --git a/bin/dnssec/dnssectool.c b/bin/dnssec/dnssectool.c
index 7f045e8..2a0f9c6 100644
--- a/bin/dnssec/dnssectool.c
+++ b/bin/dnssec/dnssectool.c
@@ -34,6 +34,7 @@
#include <isc/heap.h>
#include <isc/list.h>
#include <isc/mem.h>
+#include <isc/platform.h>
#include <isc/print.h>
#include <isc/string.h>
#include <isc/time.h>
@@ -235,7 +236,8 @@ setup_entropy(isc_mem_t *mctx, const char *randomfile, isc_entropy_t **ectx) {
 if (*ectx == NULL) {
  result = isc_entropy_create(mctx, ectx);
  if (result != ISC_R_SUCCESS)
-   fatal("could not create entropy object");
+   fatal("could not create entropy object: %s",
+         isc_result_totext(result));
  ISC_LIST_INIT(sources);
 }

@@ -244,6 +246,13 @@ setup_entropy(isc_mem_t *mctx, const char *randomfile, isc_entropy_t **ectx) {
  randomfile
 = NULL;
 }

+#ifdef ISC_PLATFORM_CRYPTORANDOM
+ if (randomfile != NULL &&
+     strcmp(randomfile, ISC_PLATFORM_CRYPTORANDOM) == 0) {
+  randomfile = NULL;
+  isc_entropy_usehook(*ectx, true);
+ }
+#endif
 result = isc_entropy_usebestsource(*ectx, &source, randomfile,
        usekeyboard);
```

```
diff --git a/bin/named/server.c b/bin/named/server.c
index 9826588..b3e3fc3 100644
--- a/bin/named/server.c
+++ b/bin/named/server.c
@@ -36,6 +36,7 @@
#include <isc/lex.h>
#include <isc/meminfo.h>
#include <isc/parseint.h>
+#include <isc/platform.h>
#include <isc/portset.h>
#include <isc/print.h>
#include <isc/random.h>
@@ -8291,6 +8292,10 @@ load_configuration(const char *filename, ns_server_t *server,
          "no source of entropy found");
  } else {
   const char *randomdev = cfg_obj_asstring(obj);
+#ifdef ISC_PLATFORM_CRYPTORANDOM
+   if (strcmp(randomdev, ISC_PLATFORM_CRYPTORANDOM) == 0)
+    isc_entropy_usehook(ns_g_entropy, true);
+#else
   int level = ISC_LOG_ERROR;
   result
 = isc_entropy_createfilesource(ns_g_entropy,
            randomdev);
@@ -8325,6 +8330,7 @@ load_configuration(const char *filename, ns_server_t *server,
    }
    isc_entropy_detach(&ns_g_fallbackentropy);
   }
+#endif
#endif
  }

diff --git a/bin/nsupdate/nsupdate.c b/bin/nsupdate/nsupdate.c
index 52b0274..23b69c9 100644
--- a/bin/nsupdate/nsupdate.c
+++ b/bin/nsupdate/nsupdate.c
@@ -279,7 +279,8 @@ setup_entropy(isc_mem_t *mctx, const char *randomfile, isc_entropy_t **ectx) {
 if (*ectx == NULL) {
  result = isc_entropy_create(mctx, ectx);
  if (result != ISC_R_SUCCESS)
-   fatal("could not create entropy object");
+   fatal("could not create entropy object: %s",
+         isc_result_totext(result));
  ISC_LIST_INIT(sources);
 }

@@ -288,6 +289,13 @@ setup_entropy(isc_mem_t *mctx, const char *randomfile, isc_entropy_t **ectx) {
```

```
  randomfile = NULL;
 }

+#ifdef ISC_PLATFORM_CRYPTORANDOM
+ if (randomfile != NULL &&
+     strcmp(randomfile, ISC_PLATFORM_CRYPTORANDOM)
 == 0) {
+  randomfile = NULL;
+  isc_entropy_usehook(*ectx, true);
+ }
+#endif
 result = isc_entropy_usebestsource(*ectx, &source, randomfile,
        usekeyboard);

@@ -990,11 +998,11 @@ setup_system(void) {
  }
 }

- setup_entropy(gmctx, NULL, &entropy);
+ if (entropy == NULL)
+  setup_entropy(gmctx, NULL, &entropy);

 result = isc_hash_create(gmctx, entropy, DNS_NAME_MAXWIRE);
 check_result(result, "isc_hash_create");
- isc_hash_init();

 result = dns_dispatchmgr_create(gmctx, entropy, &dispatchmgr);
 check_result(result, "dns_dispatchmgr_create");
diff --git a/bin/tests/makejournal.c b/bin/tests/makejournal.c
index 68b5e5a..cd54c8d 100644
--- a/bin/tests/makejournal.c
+++ b/bin/tests/makejournal.c
@@ -102,12 +102,12 @@ main(int argc, char **argv) {
 CHECK(isc_mem_create(0, 0, &mctx));
 CHECK(isc_entropy_create(mctx, &ectx));

- CHECK(isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE));
- hash_active = true;
-
 CHECK(dst_lib_init(mctx, ectx, ISC_ENTROPY_BLOCKING));
  dst_active = true;

+ CHECK(isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE));
+ hash_active = true;
+
 CHECK(isc_log_create(mctx, &lctx, &logconfig));
 isc_log_registercategories(lctx, categories);
 isc_log_setcontext(lctx);
```

```
diff --git a/bin/tests/system/pipelined/pipequeries.c b/bin/tests/system/pipelined/pipequeries.c
index e16ec11..95b65bf 100644
--- a/bin/tests/system/pipelined/pipequeries.c
+++ b/bin/tests/system/pipelined/pipequeries.c
@@ -204,6 +204,7 @@ sendqueries(isc_task_t *task, isc_event_t *event) {

int
main(int argc, char *argv[]) {
+ char *randomfile = NULL;
 isc_sockaddr_t bind_any;
 struct in_addr inaddr;
 isc_result_t result;
@@ -222,7 +223,7 @@ main(int argc, char *argv[]) {
 int c;

 isc_commandline_errprint = false;
- while ((c = isc_commandline_parse(argc, argv, "p:")) != -1) {
+ while ((c = isc_commandline_parse(argc, argv, "p:r:")) != -1) {
  switch (c) {
  case 'p':
   result = isc_parse_uint16(&port,
@@ -233,6 +234,9 @@ main(int argc, char *argv[])
 {
    exit(1);
   }
   break;
+  case 'r':
+   randomfile = isc_commandline_argument;
+   break;
  case '?':
   fprintf(stderr, "%s: invalid argument '%c'",
    argv[0], c);
@@ -275,10 +279,18 @@ main(int argc, char *argv[]) {

 ectx = NULL;
 RUNCHECK(isc_entropy_create(mctx, &ectx));
- RUNCHECK(isc_entropy_createfilesource(ectx, "../random.data"));
- RUNCHECK(isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE));
+#ifdef ISC_PLATFORM_CRYPTORANDOM
+ if (randomfile != NULL &&
+     strcmp(randomfile, ISC_PLATFORM_CRYPTORANDOM) == 0) {
+  randomfile = NULL;
+  isc_entropy_usehook(ectx, true);
+ }
+#endif
+ if (randomfile != NULL)
+  RUNCHECK(isc_entropy_createfilesource(ectx, randomfile));
```

```
 RUNCHECK(dst_lib_init(mctx, ectx, ISC_ENTROPY_GOODONLY));
+ RUNCHECK(isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE));

 taskmgr = NULL;
 RUNCHECK(isc_taskmgr_create(mctx, 1, 0, &taskmgr));
@@ -331,8 +343,8 @@ main(int argc, char *argv[]) {
 isc_task_detach(&task);
 isc_taskmgr_destroy(&taskmgr);

- dst_lib_destroy();
 isc_hash_destroy();
+ dst_lib_destroy();
 isc_entropy_detach(&ectx);

 isc_log_destroy(&lctx);
diff --git a/bin/tests/system/pipelined/tests.sh b/bin/tests/system/pipelined/tests.sh
index c0a99a2..0245527 100644
--- a/bin/tests/system/pipelined/tests.sh
+++ b/bin/tests/system/pipelined/tests.sh
@@ -19,7 +19,7 @@ status=0

echo_i "check pipelined TCP queries"
ret=0
-$PIPEQUERIES -p ${PORT} < input > raw || ret=1
+$PIPEQUERIES -p ${PORT} -r $RANDFILE < input > raw || ret=1
awk '{ print $1 " " $5 }' < raw > output
sort < output > output-sorted
$DIFF ref output-sorted || { ret=1 ; echo_i "diff sorted failed"; }
@@ -43,7 +43,7 @@ status=`expr $status + $ret`

echo_i "check keep-response-order"
ret=0
-$PIPEQUERIES -p ${PORT} ++ < inputb > rawb || ret=1
+$PIPEQUERIES -p ${PORT} -r $RANDFILE ++ < inputb > rawb || ret=1
awk '{ print $1 " " $5 }' < rawb > outputb
$DIFF refb outputb || ret=1
if [ $ret != 0 ]; then echo_i "failed"; fi
diff --git a/bin/tests/system/rsabigexponent/bigkey.c
 b/bin/tests/system/rsabigexponent/bigkey.c
index abf12ed..fa5182c 100644
--- a/bin/tests/system/rsabigexponent/bigkey.c
+++ b/bin/tests/system/rsabigexponent/bigkey.c
@@ -20,6 +20,7 @@
#include <isc/buffer.h>
#include <isc/entropy.h>
#include <isc/mem.h>
+#include <isc/platform.h>
#include <isc/print.h>
```

```
#include <isc/region.h>
#include <isc/stdio.h>
@@ -183,6 +184,9 @@ main(int argc, char **argv) {

 CHECK(isc_mem_create(0, 0, &mctx), "isc_mem_create()");
 CHECK(isc_entropy_create(mctx, &ectx), "isc_entropy_create()");
+#ifdef ISC_PLATFORM_CRYPTORANDOM
+ isc_entropy_usehook(ectx, true);
+#endif
 CHECK(isc_entropy_usebestsource(ectx, &source,
     "../random.data",
     ISC_ENTROPY_KEYBOARDNO),
diff --git a/bin/tests/system/tkey/keycreate.c b/bin/tests/system/tkey/keycreate.c
index 34360aa..3236968 100644
--- a/bin/tests/system/tkey/keycreate.c
+++ b/bin/tests/system/tkey/keycreate.c
@@ -206,6 +206,7 @@ sendquery(isc_task_t *task, isc_event_t
 *event) {
int
main(int argc, char *argv[]) {
 char *ourkeyname;
+ char *randomfile;
 isc_taskmgr_t *taskmgr;
 isc_timermgr_t *timermgr;
 isc_socketmgr_t *socketmgr;
@@ -225,10 +226,21 @@ main(int argc, char *argv[]) {

 RUNCHECK(isc_app_start());

+ randomfile = NULL;
+
 if (argc < 2) {
  fprintf(stderr, "I:no DH key provided\n");
  exit(-1);
 }
+ if (strcmp(argv[1], "-r") == 0) {
+  if (argc < 4) {
+   fprintf(stderr, "I:no DH key provided\n");
+   exit(-1);
+  }
+  randomfile = argv[2];
+  argv += 2;
+  argc -= 2;
+ }
 ourkeyname = argv[1];

 if (argc >= 3)
@@ -242,14 +254,22 @@ main(int argc, char *argv[]) {
```

```
 ectx = NULL;
 RUNCHECK(isc_entropy_create(mctx, &ectx));
- RUNCHECK(isc_entropy_createfilesource(ectx, "../random.data"));
- RUNCHECK(isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE));
+#ifdef ISC_PLATFORM_CRYPTORANDOM
+ if (randomfile != NULL &&
+     strcmp(randomfile, ISC_PLATFORM_CRYPTORANDOM) == 0) {
+  randomfile = NULL;
+  isc_entropy_usehook(ectx,
 true);
+ }
+#endif
+ if (randomfile != NULL)
+  RUNCHECK(isc_entropy_createfilesource(ectx, randomfile));

 log = NULL;
 logconfig = NULL;
 RUNCHECK(isc_log_create(mctx, &log, &logconfig));

 RUNCHECK(dst_lib_init(mctx, ectx, ISC_ENTROPY_GOODONLY));
+ RUNCHECK(isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE));

 taskmgr = NULL;
 RUNCHECK(isc_taskmgr_create(mctx, 1, 0, &taskmgr));
@@ -328,8 +348,8 @@ main(int argc, char *argv[]) {

 isc_log_destroy(&log);

- dst_lib_destroy();
 isc_hash_destroy();
+ dst_lib_destroy();
 isc_entropy_detach(&ectx);

 isc_mem_destroy(&mctx);
diff --git a/bin/tests/system/tkey/keydelete.c b/bin/tests/system/tkey/keydelete.c
index a3dd450..350723f 100644
--- a/bin/tests/system/tkey/keydelete.c
+++ b/bin/tests/system/tkey/keydelete.c
@@ -137,6 +137,7 @@ sendquery(isc_task_t *task, isc_event_t *event) {
int
main(int argc, char **argv) {
 char *keyname;
+ char *randomfile;
 isc_taskmgr_t *taskmgr;
 isc_timermgr_t *timermgr;
 isc_socketmgr_t
```

```
 *socketmgr;
@@ -157,10 +158,21 @@ main(int argc, char **argv) {

 RUNCHECK(isc_app_start());

+ randomfile = NULL;
+
 if (argc < 2) {
  fprintf(stderr, "I:no key to delete\n");
  exit(-1);
 }
+ if (strcmp(argv[1], "-r") == 0) {
+  if (argc < 4) {
+   fprintf(stderr, "I:no DH key provided\n");
+   exit(-1);
+  }
+  randomfile = argv[2];
+  argv += 2;
+  argc -= 2;
+ }
 keyname = argv[1];

 dns_result_register();
@@ -170,14 +182,22 @@ main(int argc, char **argv) {

 ectx = NULL;
 RUNCHECK(isc_entropy_create(mctx, &ectx));
- RUNCHECK(isc_entropy_createfilesource(ectx, "../random.data"));
- RUNCHECK(isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE));
+#ifdef ISC_PLATFORM_CRYPTORANDOM
+ if (randomfile != NULL &&
+     strcmp(randomfile, ISC_PLATFORM_CRYPTORANDOM) == 0) {
+  randomfile = NULL;
+  isc_entropy_usehook(ectx, true);
+ }
+#endif
+ if (randomfile != NULL)
+  RUNCHECK(isc_entropy_createfilesource(ectx, randomfile));

 log = NULL;
 logconfig = NULL;
 RUNCHECK(isc_log_create(mctx,
 &log, &logconfig));

 RUNCHECK(dst_lib_init(mctx, ectx, ISC_ENTROPY_GOODONLY));
+ RUNCHECK(isc_hash_create(mctx, ectx, DNS_NAME_MAXWIRE));

 taskmgr = NULL;
```

```
 RUNCHECK(isc_taskmgr_create(mctx, 1, 0, &taskmgr));
@@ -265,8 +285,8 @@ main(int argc, char **argv) {

 isc_log_destroy(&log);

- dst_lib_destroy();
 isc_hash_destroy();
+ dst_lib_destroy();
 isc_entropy_detach(&ectx);

 isc_mem_destroy(&mctx);
diff --git a/bin/tests/system/tkey/tests.sh b/bin/tests/system/tkey/tests.sh
index b265156..bcd60a6 100644
--- a/bin/tests/system/tkey/tests.sh
+++ b/bin/tests/system/tkey/tests.sh
@@ -33,7 +33,7 @@ for owner in . foo.example.
do
 echo_i "creating new key using owner name \"$owner\" ($n)"
 ret=0
- keyname=`$KEYCREATE $dhkeyname $owner` || ret=1
+ keyname=`$KEYCREATE -r $RANDFILE $dhkeyname $owner` || ret=1
 if [ $ret != 0 ]; then
  echo_i "failed"
  status=$((status+ret))
@@ -57,7 +57,7 @@ do

 echo_i "deleting new key ($n)"
 ret=0
- $KEYDELETE $keyname ||
 ret=1
+ $KEYDELETE -r $RANDFILE $keyname || ret=1
 if [ $ret != 0 ]; then
  echo_i "failed"
 fi
@@ -79,7 +79,7 @@ done

echo_i "creating new key using owner name bar.example. ($n)"
ret=0
-keyname=`$KEYCREATE $dhkeyname bar.example.` || ret=1
+keyname=`$KEYCREATE -r $RANDFILE $dhkeyname bar.example.` || ret=1
if [ $ret != 0 ]; then
        echo_i "failed"
 status=$((status+ret))
@@ -124,7 +124,7 @@ n=$((n+1))

echo_i "recreating the bar.example. key ($n)"
ret=0
-keyname=`$KEYCREATE $dhkeyname bar.example.` || ret=1
```

```
+keyname=`$KEYCREATE -r $RANDFILE $dhkeyname bar.example.` || ret=1
if [ $ret != 0 ]; then
        echo_i "failed"
 status=$((status+ret))
diff --git a/bin/tools/mdig.c b/bin/tools/mdig.c
index 26fa609..fb34aa0 100644
--- a/bin/tools/mdig.c
+++ b/bin/tools/mdig.c
@@ -2005,12 +2005,11 @@ main(int argc, char *argv[]) {

 ectx = NULL;
 RUNCHECK(isc_entropy_create(mctx, &ectx));
+ RUNCHECK(dst_lib_init(mctx, ectx, ISC_ENTROPY_GOODONLY));
 RUNCHECK(isc_hash_create(mctx,
 ectx, DNS_NAME_MAXWIRE));
 RUNCHECK(isc_entropy_getdata(ectx, cookie_secret,
         sizeof(cookie_secret), NULL, 0));

- RUNCHECK(dst_lib_init(mctx, ectx, ISC_ENTROPY_GOODONLY));
-
 ISC_LIST_INIT(queries);
 parse_args(false, argc, argv);
 if (server == NULL)
diff --git a/configure b/configure
index 368112f..e060e9d 100755
--- a/configure
+++ b/configure
@@ -640,6 +640,7 @@ ac_includes_default="\

ac_subst_vars='LTLIBOBJS
LIBOBJS
+LIBDIR_SUFFIX
BUILD_LIBS
BUILD_LDFLAGS
BUILD_CPPFLAGS
@@ -822,6 +823,7 @@ LIBXML2_CFLAGS
NZDTARGETS
NZDSRCS
NZD_TOOLS
+ISC_PLATFORM_CRYPTORANDOM
PKCS11_TEST
PKCS11_ED25519
PKCS11_GOST
@@ -1046,6 +1048,7 @@ with_eddsa
with_aes
enable_openssl_hash
with_cc_alg
+enable_crypto_rand
```

```
with_lmdb
with_libxml2
with_libjson
@@ -1747,6 +1750,7 @@ Optional Features:
  --enable-threads        enable multithreading
  --enable-native-pkcs11  use native PKCS11 for all crypto [default=no]
  --enable-openssl-hash   use OpenSSL for hash functions
 [default=no]
+  --enable-crypto-rand    use the crypto provider for random [default=yes]
  --enable-largefile      64-bit file support
  --enable-backtrace      log stack backtrace on abort [default=yes]
  --enable-symtable       use internal symbol table for backtrace
@@ -17204,6 +17208,7 @@ case "$use_openssl" in
$as_echo "disabled because of native PKCS11" >&6; }
  DST_OPENSSL_INC=""
  CRYPTO="-DPKCS11CRYPTO"
+  CRYPTOLIB="pkcs11"
  OPENSSLECDSALINKOBJS=""
  OPENSSLECDSALINKSRCS=""
  OPENSSLEDDSALINKOBJS=""
@@ -17218,6 +17223,7 @@ $as_echo "disabled because of native PKCS11" >&6; }
$as_echo "no" >&6; }
  DST_OPENSSL_INC=""
  CRYPTO=""
+  CRYPTOLIB=""
  OPENSSLECDSALINKOBJS=""
  OPENSSLECDSALINKSRCS=""
  OPENSSLEDDSALINKOBJS=""
@@ -17230,6 +17236,7 @@ $as_echo "no" >&6; }
 auto)
  DST_OPENSSL_INC=""
  CRYPTO=""
+  CRYPTOLIB=""
  OPENSSLECDSALINKOBJS=""
  OPENSSLECDSALINKSRCS=""
  OPENSSLEDDSALINKOBJS=""
@@ -17239,7 +17246,7 @@ $as_echo "no" >&6; }
  OPENSSLLINKOBJS=""
   OPENSSLLINKSRCS=""
  as_fn_error $? "OpenSSL was not found in any of $openssldirs; use --with-openssl=/path
-If you don't want OpenSSL, use --without-openssl" "$LINENO" 5
+If you do not want OpenSSL, use --without-openssl" "$LINENO" 5
  ;;
 *)
  if test "yes" = "$want_native_pkcs11"
@@ -17270,6 +17277,7 @@ $as_echo "not found" >&6; }
   as_fn_error $? "\"$use_openssl/include/openssl/opensslv.h\" not found" "$LINENO" 5
  fi
```

```
  CRYPTO='-DOPENSSL'
+  CRYPTOLIB="openssl"
  if test "/usr" = "$use_openssl"
  then
   DST_OPENSSL_INC=""
@@ -17904,8 +17912,6 @@ fi
# Use OpenSSL for hash functions
#

-{ $as_echo "$as_me:${as_lineno-$LINENO}: checking for using OpenSSL for hash functions" >&5
-$as_echo_n "checking for using OpenSSL for hash functions... " >&6; }
ISC_PLATFORM_OPENSSLHASH="#undef ISC_PLATFORM_OPENSSLHASH"
case $want_openssl_hash in
 yes)
@@ -18280,6 +18286,86 @@ if test "rt" = "$have_clock_gt"; then
 LIBS="-lrt $LIBS"
fi

+#
+# Use the crypto provider
 (OpenSSL/PKCS#11) for random functions
+#
+
+{ $as_echo "$as_me:${as_lineno-$LINENO}: checking for using the crypto library (vs. builtin) for random
functions" >&5
+$as_echo_n "checking for using the crypto library (vs. builtin) for random functions... " >&6; }
+# Check whether --enable-crypto-rand was given.
+if test "${enable_crypto_rand+set}" = set; then :
+  enableval=$enable_crypto_rand; want_crypto_rand="$enableval"
+else
+  want_crypto_rand="auto"
+fi
+
+if test "$want_crypto_rand" = "auto"
+then
+ case "$CRYPTOLIB" in
+ "")
+  want_crypto_rand="no"
+  ;;
+ pkcs11)
+  want_crypto_rand="yes"
+  ;;
+ openssl)
+  saved_cflags="$CFLAGS"
+  saved_libs="$LIBS"
+  CFLAGS="$CFLAGS $DST_OPENSSL_INC"
+  LIBS="$LIBS $DST_OPENSSL_LIBS"
+  if test "$cross_compiling" = yes; then :
```

```
+  want_crypto_rand="yes"
+else
+  cat confdefs.h - <<_ACEOF >conftest.$ac_ext
+/* end confdefs.h.  */
+
+#include <openssl/rand.h>
+
+unsigned char buf[128];
+
+int main()
+{
+ if (RAND_bytes(buf, 128) != 1)
+  return
 (1);
+ return (0);
+}
+
+_ACEOF
+if ac_fn_c_try_run "$LINENO"; then :
+  want_crypto_rand="yes"
+else
+  want_crypto_rand="no"
+fi
+rm -f core *.core core.conftest.* gmon.out bb.out conftest$ac_exeext \
+  conftest.$ac_objext conftest.beam conftest.$ac_ext
+fi
+
+  CFLAGS="$saved_cflags"
+  LIBS="$saved_libs"
+  ;;
+ *)
+  as_fn_error $? "Unknown crypto library define $CRYPTOLIB" "$LINENO" 5
+  ;;
+ esac
+fi
+case $want_crypto_rand in
+ yes)
+  if test "$CRYPTOLIB" = ""
+  then
+   as_fn_error $? "No crypto library for random functions" "$LINENO" 5
+  fi
+  { $as_echo "$as_me:${as_lineno-$LINENO}: result: \"$CRYPTOLIB\"" >&5
+$as_echo "\"$CRYPTOLIB\"" >&6; }
+  ISC_PLATFORM_CRYPTORANDOM="#define ISC_PLATFORM_CRYPTORANDOM \"$CRYPTOLIB\""
+  ;;
+ no)
+  { $as_echo "$as_me:${as_lineno-$LINENO}: result: no" >&5
+$as_echo "no" >&6; }
```

```
+  ISC_PLATFORM_CRYPTORANDOM="#undef ISC_PLATFORM_CRYPTORANDOM"
+  ;;
+esac
+
+
#
# was --with-lmdb specified?
#
@@ -20556,9 +20642,12 @@ _ACEOF
if ac_fn_c_try_compile
 "$LINENO"; then :
  { $as_echo "$as_me:${as_lineno-$LINENO}: result: size_t for buflen; int for flags" >&5
$as_echo "size_t for buflen; int for flags" >&6; }
-  $as_echo "#define IRS_GETNAMEINFO_SOCKLEN_T size_t" >>confdefs.h
+ # Changed to solve multilib conflict on Fedora
+ # AC_DEFINE(IRS_GETNAMEINFO_SOCKLEN_T, size_t)
+ # AC_DEFINE(IRS_GETNAMEINFO_BUFLEN_T, size_t)
+  $as_echo "#define IRS_GETNAMEINFO_SOCKLEN_T socklen_t" >>confdefs.h

-  $as_echo "#define IRS_GETNAMEINFO_BUFLEN_T size_t" >>confdefs.h
+  $as_echo "#define IRS_GETNAMEINFO_BUFLEN_T socklen_t" >>confdefs.h

  $as_echo "#define IRS_GETNAMEINFO_FLAGS_T int" >>confdefs.h

@@ -21856,12 +21945,7 @@ ISC_PLATFORM_USEGCCASM="#undef ISC_PLATFORM_USEGCCASM"
ISC_PLATFORM_USESTDASM="#undef ISC_PLATFORM_USESTDASM"
ISC_PLATFORM_USEMACASM="#undef ISC_PLATFORM_USEMACASM"
if test "yes" = "$use_atomic"; then
- have_atomic=yes  # set default
- case "$host" in
- i[3456]86-*)
-  # XXX: some old x86 architectures
 actually do not support
-  #      (some of) these operations.  Do we need stricter checks?
-  # The cast to long int works around a bug in the HP C Compiler
+ # The cast to long int works around a bug in the HP C Compiler
# version HP92453-01 B.11.11.23709.GP, which incorrectly rejects
# declarations like `int a3[[(sizeof (unsigned char)) >= 0]];'.
# This bug is HP SR number 8606223364.
@@ -21894,6 +21978,11 @@ cat >>confdefs.h <<_ACEOF
_ACEOF



+ have_atomic=yes  # set default
+ case "$host" in
+ i[3456]86-*)
+  # XXX: some old x86 architectures actually do not support
+  #      (some of) these operations.  Do we need stricter checks?
```

```
  if test $ac_cv_sizeof_void_p = 8; then
   arch=x86_64
   have_xaddq=yes
@@ -21902,39 +21991,6 @@ _ACEOF
  fi
 ;;
 x86_64-*|amd64-*)
-  # The cast to long int works around a bug in the HP C Compiler
-# version HP92453-01 B.11.11.23709.GP, which incorrectly rejects
-# declarations like `int a3[[(sizeof (unsigned char)) >= 0]];'.
-# This bug
 is HP SR number 8606223364.
-{ $as_echo "$as_me:${as_lineno-$LINENO}: checking size of void *" >&5
-$as_echo_n "checking size of void *... " >&6; }
-if ${ac_cv_sizeof_void_p+:} false; then :
-  $as_echo_n "(cached) " >&6
-else
-  if ac_fn_c_compute_int "$LINENO" "(long int) (sizeof (void *))" "ac_cv_sizeof_void_p"
"$ac_includes_default"; then :
-
-else
-  if test "$ac_cv_type_void_p" = yes; then
-     { { $as_echo "$as_me:${as_lineno-$LINENO}: error: in \`$ac_pwd':" >&5
-$as_echo "$as_me: error: in \`$ac_pwd':" >&2;}
-as_fn_error 77 "cannot compute sizeof (void *)
-See \`config.log' for more details" "$LINENO" 5; }
-   else
-     ac_cv_sizeof_void_p=0
-   fi
-fi
-
-fi
-{ $as_echo "$as_me:${as_lineno-$LINENO}: result: $ac_cv_sizeof_void_p" >&5
-$as_echo "$ac_cv_sizeof_void_p" >&6; }
-
-
-
-cat >>confdefs.h <<_ACEOF
-#define SIZEOF_VOID_P $ac_cv_sizeof_void_p
-_ACEOF
-
-
  if test $ac_cv_sizeof_void_p = 8; then
   arch=x86_64
   have_xaddq=yes
@@ -21965,6 +22021,10 @@ $as_echo_n
 "checking architecture type for atomic operations... " >&6; }
$as_echo "$arch" >&6; }
```

```
fi

+if test ! "$arch" = "x86_64" -a "$have_xaddq" = "yes"; then
+ as_fn_error $? "XADDQ present but disabled by Fedora patch!" "$LINENO" 5
+fi
+
if test "yes" = "$have_atomic"; then
 { $as_echo "$as_me:${as_lineno-$LINENO}: checking compiler support for inline assembly code" >&5
$as_echo_n "checking compiler support for inline assembly code... " >&6; }
@@ -24547,6 +24607,30 @@ CFLAGS="$CFLAGS $SO_CFLAGS"
#
dlzdir='${DLZ_DRIVER_DIR}'

+{ $as_echo "$as_me:${as_lineno-$LINENO}: checking for target libdir" >&5
+$as_echo_n "checking for target libdir... " >&6; }
+if test "$cross_compiling" = yes; then :
+  { { $as_echo "$as_me:${as_lineno-$LINENO}: error: in \`$ac_pwd':" >&5
+$as_echo "$as_me: error: in \`$ac_pwd':" >&2;}
+as_fn_error $? "cannot run test program while cross compiling
+See \`config.log' for more details" "$LINENO" 5; }
+else
+  cat confdefs.h - <<_ACEOF >conftest.$ac_ext
+/* end
 confdefs.h.  */
+int main(void) {exit((sizeof(void *) == 8) ? 0 : 1);}
+_ACEOF
+if ac_fn_c_try_run "$LINENO"; then :
+  target_lib=lib64
+else
+  target_lib=lib
+fi
+rm -f core *.core core.conftest.* gmon.out bb.out conftest$ac_exeext \
+  conftest.$ac_objext conftest.beam conftest.$ac_ext
+fi
+
+{ $as_echo "$as_me:${as_lineno-$LINENO}: result: \"$target_lib\"" >&5
+$as_echo "\"$target_lib\"" >&6; }
+
#
# Private autoconf macro to simplify configuring drivers:
#
@@ -24877,11 +24961,11 @@ $as_echo "no" >&6; }
$as_echo "using mysql with libs ${mysql_lib} and includes ${mysql_include}" >&6; }
  ;;
 *)
-  if test -d "$use_dlz_mysql/lib/mysql"
+  if test -d $use_dlz_mysql/${target_lib}/mysql
  then
```

```
-   mysql_lib="$use_dlz_mysql/lib/mysql"
+   mysql_lib=$use_dlz_mysql/${target_lib}/mysql
  else
-   mysql_lib="$use_dlz_mysql/lib"
+   mysql_lib=$use_dlz_mysql/${target_lib}
  fi

 CONTRIB_DLZ="$CONTRIB_DLZ -DDLZ_MYSQL"
@@ -24966,7 +25050,7 @@ $as_echo "" >&6; }
   # Check other locations
 for includes.
   # Order is important (sigh).

-   bdb_incdirs="/db53 /db51 /db48 /db47 /db46 /db45 /db44 /db43 /db42 /db41 /db4 /db"
+   bdb_incdirs="/db53 /db51 /db48 /db47 /db46 /db45 /db44 /db43 /db42 /db41 /db4 /libdb /db"
   # include a blank element first
   for d in "" $bdb_incdirs
   do
@@ -24991,57 +25075,9 @@ $as_echo "" >&6; }
   bdb_libnames="db53 db-5.3 db51 db-5.1 db48 db-4.8 db47 db-4.7 db46 db-4.6 db45 db-4.5 db44 db-4.4 db43 db-
4.3 db42 db-4.2 db41 db-4.1 db"
   for d in $bdb_libnames
   do
-    if test "$dd" = "/usr"
-    then
-     as_ac_Lib=`$as_echo "ac_cv_lib_$d"_db_create" | $as_tr_sh`
-{ $as_echo "$as_me:${as_lineno-$LINENO}: checking for db_create in -l$d" >&5
-$as_echo_n "checking for db_create in -l$d... " >&6; }
-if eval \${$as_ac_Lib+:} false; then :
-  $as_echo_n "(cached) " >&6
-else
-  ac_check_lib_save_LIBS=$LIBS
-LIBS="-l$d  $LIBS"
-cat confdefs.h - <<_ACEOF >conftest.$ac_ext
-/* end confdefs.h.  */
-
-/* Override any GCC internal prototype
 to avoid an error.
-   Use char because int might match the return type of a GCC
-   builtin and then its argument prototype would still apply.  */
-#ifdef __cplusplus
-extern "C"
-#endif
-char db_create ();
-int
-main ()
-{
-return db_create ();
```

```
-  ;
-  return 0;
-}
-_ACEOF
-if ac_fn_c_try_link "$LINENO"; then :
-  eval "$as_ac_Lib=yes"
-else
-  eval "$as_ac_Lib=no"
-fi
-rm -f core conftest.err conftest.$ac_objext \
-    conftest$ac_exeext conftest.$ac_ext
-LIBS=$ac_check_lib_save_LIBS
-fi
-eval ac_res=\$$as_ac_Lib
-        { $as_echo "$as_me:${as_lineno-$LINENO}: result: $ac_res" >&5
-$as_echo "$ac_res" >&6; }
-if eval test \"x\$"$as_ac_Lib"\" = x"yes"; then :
-  dlz_bdb_libs="-l${d}"
-fi
-
-     if test $dlz_bdb_libs != "yes"
-     then
-      break
-     fi
-    elif test -f "$dd/lib/lib${d}.so"
+     if test -f "$dd/${target_lib}/lib${d}.so"
     then
-     dlz_bdb_libs="-L${dd}/lib -l${d}"
+      dlz_bdb_libs="-L${dd}/${target_lib}/libdb -l${d}"
      break
    fi
   done
@@
 -25200,10 +25236,10 @@ $as_echo "no" >&6; }
  DLZ_DRIVER_INCLUDES="$DLZ_DRIVER_INCLUDES -I$use_dlz_ldap/include"
  DLZ_DRIVER_LDAP_INCLUDES="-I$use_dlz_ldap/include"
 fi
- if test -n "-L$use_dlz_ldap/lib -lldap -llber"
+ if test -n "-L$use_dlz_ldap/${target_lib} -lldap -llber"
 then
-  DLZ_DRIVER_LIBS="$DLZ_DRIVER_LIBS -L$use_dlz_ldap/lib -lldap -llber"
-  DLZ_DRIVER_LDAP_LIBS="-L$use_dlz_ldap/lib -lldap -llber"
+  DLZ_DRIVER_LIBS="$DLZ_DRIVER_LIBS -L$use_dlz_ldap/${target_lib} -lldap -llber"
+  DLZ_DRIVER_LDAP_LIBS="-L$use_dlz_ldap/${target_lib} -lldap -llber"
 fi


@@ -25289,11 +25325,11 @@ fi
```

```
  odbcdirs="/usr /usr/local /usr/pkg"
  for d in $odbcdirs
  do
-   if test -f $d/include/sql.h -a -f $d/lib/libodbc.a
+   if test -f $d/include/sql.h -a -f $d/${target_lib}/libodbc.a
   then
    use_dlz_odbc=$d
    dlz_odbc_include="-I$use_dlz_odbc/include"
-    dlz_odbc_libs="-L$use_dlz_odbc/lib -lodbc"
+    dlz_odbc_libs="-L$use_dlz_odbc/${target_lib} -lodbc"
    break
   fi
   done
@@ -25568,6 +25604,8 @@ DNS_CRYPTO_LIBS="$NEWFLAGS"



+
+
#
# Commands to run at the end of config.status.
# Don't just put these into configure, it won't work right if somebody
@@ -27946,6 +27984,8 @@ report() {
     echo "    IPv6 support (--enable-ipv6)"
 test "X$CRYPTO" = "X" -o "yes" = "$want_native_pkcs11" || \
  echo "    OpenSSL cryptography/DNSSEC (--with-openssl)"
+        test "no" = "$want_crypto_rand" || \
+                echo "    Crypto provider entropy source (--enable-crypto-rand)"
 test "X$PYTHON" = "X" || echo "    Python tools (--with-python)"
 test "X$XMLSTATS" = "X" || echo "    XML statistics (--with-libxml2)"
 test "X$JSONSTATS" = "X" || echo "    JSON statistics (--with-libjson)"
@@ -27986,6 +28026,8 @@ report() {
 echo "    Very verbose query trace logging (--enable-querytrace)"
    test "no" = "$with_cmocka" || echo "    CMocka Unit Testing Framework (--with-cmocka)"

+    echo "    Cryptographic library for DNSSEC: $CRYPTOLIB"
+

    echo "    Dynamically loadable zone (DLZ) drivers:"
    test "no" = "$use_dlz_bdb" || \
 echo "        Berkeley DB (--with-dlz-bdb)"
@@ -28033,6 +28075,8 @@ report() {
 echo "    ECDSA algorithm support (--with-ecdsa)"
    test "X$CRYPTO" = "X" -o "yes" = "$OPENSSL_ED25519" -o "yes" = "$PKCS11_ED25519" || \
 echo "    EDDSA algorithm support (--with-eddsa)"
+    test "yes" = "$want_crypto_rand" || \
+        echo "    Crypto provider entropy source (--enable-crypto-rand)"
```

```
    test "yes" = "$enable_seccomp" || \
 echo "    Use libseccomp system call filtering (--enable-seccomp)"
diff --git a/configure.ac b/configure.ac
index 11f41e8..fdcfc62 100644
--- a/configure.ac
+++ b/configure.ac
@@ -1600,6 +1600,7 @@ case "$use_openssl" in
  AC_MSG_RESULT(disabled because of native PKCS11)
  DST_OPENSSL_INC=""
  CRYPTO="-DPKCS11CRYPTO"
+  CRYPTOLIB="pkcs11"
  OPENSSLECDSALINKOBJS=""
  OPENSSLECDSALINKSRCS=""
  OPENSSLEDDSALINKOBJS=""
@@ -1613,6 +1614,7 @@ case "$use_openssl" in
   AC_MSG_RESULT(no)
  DST_OPENSSL_INC=""
  CRYPTO=""
+  CRYPTOLIB=""
  OPENSSLECDSALINKOBJS=""
  OPENSSLECDSALINKSRCS=""
  OPENSSLEDDSALINKOBJS=""
@@ -1625,6 +1627,7 @@ case "$use_openssl" in
 auto)
  DST_OPENSSL_INC=""
  CRYPTO=""
+  CRYPTOLIB=""
  OPENSSLECDSALINKOBJS=""
  OPENSSLECDSALINKSRCS=""
  OPENSSLEDDSALINKOBJS=""
@@ -1635,7 +1638,7 @@ case "$use_openssl" in
  OPENSSLLINKSRCS=""
  AC_MSG_ERROR(
[OpenSSL was not found in any of $openssldirs; use --with-openssl=/path
-If you don't want OpenSSL, use --without-openssl])
+If you do not want OpenSSL, use --without-openssl])
  ;;
 *)
  if test "yes" = "$want_native_pkcs11"
@@ -1665,6 +1668,7 @@ If you don't want OpenSSL, use --without-openssl])
   AC_MSG_ERROR(["$use_openssl/include/openssl/opensslv.h" not found])
  fi
  CRYPTO='-DOPENSSL'
+  CRYPTOLIB="openssl"
  if test "/usr" = "$use_openssl"
  then
   DST_OPENSSL_INC=""
@@ -2109,7 +2113,6 @@ fi
```

```
# Use OpenSSL for hash functions
#

-AC_MSG_CHECKING(for using
 OpenSSL for hash functions)
ISC_PLATFORM_OPENSSLHASH="#undef ISC_PLATFORM_OPENSSLHASH"
case $want_openssl_hash in
 yes)
@@ -2381,6 +2384,67 @@ if test "rt" = "$have_clock_gt"; then
 LIBS="-lrt $LIBS"
fi

+#
+# Use the crypto provider (OpenSSL/PKCS#11) for random functions
+#
+
+AC_MSG_CHECKING(for using the crypto library (vs. builtin) for random functions)
+AC_ARG_ENABLE(crypto-rand,
+ [  --enable-crypto-rand    use the crypto provider for random [[default=yes]]],
+ want_crypto_rand="$enableval", want_crypto_rand="auto")
+if test "$want_crypto_rand" = "auto"
+then
+ case "$CRYPTOLIB" in
+ "")
+  want_crypto_rand="no"
+  ;;
+ pkcs11)
+  want_crypto_rand="yes"
+  ;;
+ openssl)
+  saved_cflags="$CFLAGS"
+  saved_libs="$LIBS"
+  CFLAGS="$CFLAGS $DST_OPENSSL_INC"
+  LIBS="$LIBS $DST_OPENSSL_LIBS"
+  AC_TRY_RUN([
+#include <openssl/rand.h>
+
+unsigned char buf[128];
+
+int main()
+{
+ if (RAND_bytes(buf, 128) != 1)
+  return (1);
+ return (0);
+}
+],
+  [want_crypto_rand="yes"],
+  [want_crypto_rand="no"],
```

```
+  [want_crypto_rand="yes"])
+  CFLAGS="$saved_cflags"
+  LIBS="$saved_libs"
+  ;;
+ *)
+  AC_MSG_ERROR([Unknown
 crypto library define $CRYPTOLIB])
+  ;;
+ esac
+fi
+case $want_crypto_rand in
+ yes)
+  if test "$CRYPTOLIB" = ""
+  then
+   AC_MSG_ERROR([No crypto library for random functions])
+  fi
+  AC_MSG_RESULT(["$CRYPTOLIB"])
+  ISC_PLATFORM_CRYPTORANDOM="#define ISC_PLATFORM_CRYPTORANDOM \"$CRYPTOLIB\""
+  ;;
+ no)
+  AC_MSG_RESULT(no)
+  ISC_PLATFORM_CRYPTORANDOM="#undef ISC_PLATFORM_CRYPTORANDOM"
+  ;;
+esac
+AC_SUBST(ISC_PLATFORM_CRYPTORANDOM)
+
#
# was --with-lmdb specified?
#
@@ -4174,12 +4238,12 @@ ISC_PLATFORM_USEGCCASM="#undef ISC_PLATFORM_USEGCCASM"
ISC_PLATFORM_USESTDASM="#undef ISC_PLATFORM_USESTDASM"
ISC_PLATFORM_USEMACASM="#undef ISC_PLATFORM_USEMACASM"
if test "yes" = "$use_atomic"; then
+ AC_CHECK_SIZEOF([void *])
 have_atomic=yes  # set default
 case "$host" in
 [i[3456]86-*])
  # XXX: some old x86 architectures actually do not
 support
  #      (some of) these operations.  Do we need stricter checks?
-  AC_CHECK_SIZEOF([void *])
  if test $ac_cv_sizeof_void_p = 8; then
   arch=x86_64
   have_xaddq=yes
@@ -4188,7 +4252,6 @@ if test "yes" = "$use_atomic"; then
  fi
 ;;
 x86_64-*|amd64-*)
```

```
-  AC_CHECK_SIZEOF([void *])
  if test $ac_cv_sizeof_void_p = 8; then
   arch=x86_64
   have_xaddq=yes
@@ -5622,6 +5685,8 @@ report() {
     echo "    IPv6 support (--enable-ipv6)"
 test "X$CRYPTO" = "X" -o "yes" = "$want_native_pkcs11" || \
  echo "    OpenSSL cryptography/DNSSEC (--with-openssl)"
+        test "no" = "$want_crypto_rand" || \
+                echo "    Crypto provider entropy source (--enable-crypto-rand)"
 test "X$PYTHON" = "X" || echo "    Python tools (--with-python)"
 test "X$XMLSTATS" = "X" || echo "    XML statistics (--with-libxml2)"
 test "X$JSONSTATS" = "X" || echo "    JSON statistics (--with-libjson)"
@@ -5662,6 +5727,8 @@ report() {
 echo "    Very verbose query trace logging (--enable-querytrace)"
     test "no" = "$with_cmocka" || echo "    CMocka Unit Testing Framework (--with-cmocka)"

+    echo "    Cryptographic library for DNSSEC: $CRYPTOLIB"
+
    echo "    Dynamically loadable zone (DLZ) drivers:"
    test "no" = "$use_dlz_bdb" || \
 echo "        Berkeley DB (--with-dlz-bdb)"
@@ -5709,6 +5776,8 @@ report() {
 echo "    ECDSA algorithm support (--with-ecdsa)"
    test "X$CRYPTO" = "X" -o "yes" = "$OPENSSL_ED25519" -o "yes" = "$PKCS11_ED25519" || \
 echo "    EDDSA algorithm support (--with-eddsa)"
+    test "yes" = "$want_crypto_rand" || \
+        echo "    Crypto provider entropy source (--enable-crypto-rand)"

    test "yes" = "$enable_seccomp" || \
 echo "    Use libseccomp system call filtering (--enable-seccomp)"
diff --git a/lib/dns/dst_api.c b/lib/dns/dst_api.c
index 7a86506..aa54afc 100644
--- a/lib/dns/dst_api.c
+++ b/lib/dns/dst_api.c
@@ -277,6 +277,12 @@ dst_lib_init2(isc_mem_t *mctx, isc_entropy_t *ectx,
#ifdef GSSAPI
 RETERR(dst__gssapi_init(&dst_t_func[DST_ALG_GSSAPI]));
 #endif
+#if defined(OPENSSL) || defined(PKCS11CRYPTO)
+#ifdef ISC_PLATFORM_CRYPTORANDOM
+ if (dst_entropy_pool != NULL)
+  isc_entropy_sethook(dst_random_getdata);
+#endif
+#endif /* defined(OPENSSL) || defined(PKCS11CRYPTO) */
 dst_initialized = true;
 return (ISC_R_SUCCESS);
```

```
@@ -296,11 +302,19 @@ dst_lib_destroy(void) {
 for (i = 0; i < DST_MAX_ALGS; i++)
  if (dst_t_func[i] != NULL && dst_t_func[i]->cleanup != NULL)
   dst_t_func[i]->cleanup();
+#if defined(OPENSSL) || defined(PKCS11CRYPTO)
+#ifdef ISC_PLATFORM_CRYPTORANDOM
+ if (dst_entropy_pool != NULL) {
+  isc_entropy_usehook(dst_entropy_pool, false);
+  isc_entropy_sethook(NULL);
+ }
+#endif
#ifdef OPENSSL
 dst__openssl_destroy();
#elif PKCS11CRYPTO
 (void) dst__pkcs11_destroy();
#endif /* if OPENSSL, elif PKCS11CRYPTO */
+#endif /* defined(OPENSSL) || defined(PKCS11CRYPTO) */
 if (dst__memory_pool != NULL)
  isc_mem_detach(&dst__memory_pool);
 if (dst_entropy_pool
 != NULL)
@@ -2002,13 +2016,17 @@ dst__entropy_getdata(void *buf, unsigned int len, bool pseudo) {
  flags &= ~ISC_ENTROPY_GOODONLY;
 else
  flags |= ISC_ENTROPY_BLOCKING;
+#ifdef ISC_PLATFORM_CRYPTORANDOM
+ return (dst_random_getdata(buf, len, NULL, flags));
+#else
 return (isc_entropy_getdata(dst_entropy_pool, buf, len, NULL, flags));
+#endif
#endif /* PKCS11CRYPTO */
}

unsigned int
dst__entropy_status(void) {
-#ifndef PKCS11CRYPTO
+#if !defined(PKCS11CRYPTO) && !defined(ISC_PLATFORM_CRYPTORANDOM)
#ifdef GSSAPI
 unsigned int flags = dst_entropy_flags;
 isc_result_t ret;
@@ -2031,6 +2049,7 @@ dst__entropy_status(void) {
#endif
 return (isc_entropy_status(dst_entropy_pool));
#else
+ /* Doesn't matter as it is not used in this case. */
 return (0);
#endif
}
```

```
diff --git a/lib/dns/include/dst/dst.h b/lib/dns/include/dst/dst.h
index 5b42ab4..3aba028 100644
--- a/lib/dns/include/dst/dst.h
+++ b/lib/dns/include/dst/dst.h
@@ -159,6 +159,14 @@ dst_lib_destroy(void);
 * Releases
 all resources allocated by DST.
 */

+isc_result_t
+dst_random_getdata(void *data, unsigned int length,
+     unsigned int *returned, unsigned int flags);
+/*%<
+ * \brief Return data from the crypto random generator.
+ * Specialization of isc_entropy_getdata().
+ */
+
bool
dst_algorithm_supported(unsigned int alg);
/*%<
diff --git a/lib/dns/lib.c b/lib/dns/lib.c
index d9417de..0dc935d 100644
--- a/lib/dns/lib.c
+++ b/lib/dns/lib.c
@@ -16,6 +16,7 @@
#include <stdbool.h>
#include <stddef.h>

+#include <isc/entropy.h>
#include <isc/hash.h>
#include <isc/mem.h>
#include <isc/msgcat.h>
@@ -76,6 +77,7 @@ static unsigned int references = 0;
static void
initialize(void) {
 isc_result_t result;
+ isc_entropy_t *ectx = NULL;

 REQUIRE(initialize_done == false);

@@ -86,11 +88,14 @@ initialize(void) {
 result = dns_ecdb_register(dns_g_mctx, &dbimp);
 if (result != ISC_R_SUCCESS)
  goto cleanup_mctx;
- result = isc_hash_create(dns_g_mctx, NULL, DNS_NAME_MAXWIRE);
+ result
 = isc_entropy_create(dns_g_mctx, &ectx);
 if (result != ISC_R_SUCCESS)
```

```
  goto cleanup_db;
+ result = isc_hash_create(dns_g_mctx, NULL, DNS_NAME_MAXWIRE);
+ if (result != ISC_R_SUCCESS)
+  goto cleanup_ectx;

- result = dst_lib_init(dns_g_mctx, NULL, 0);
+ result = dst_lib_init(dns_g_mctx, ectx, 0);
 if (result != ISC_R_SUCCESS)
  goto cleanup_hash;

@@ -98,11 +103,17 @@ initialize(void) {
 if (result != ISC_R_SUCCESS)
  goto cleanup_dst;

+ isc_hash_init();
+ isc_entropy_detach(&ectx);
+
 initialize_done = true;
 return;

  cleanup_dst:
 dst_lib_destroy();
+  cleanup_ectx:
+ if (ectx != NULL)
+  isc_entropy_detach(&ectx);
  cleanup_hash:
 isc_hash_destroy();
  cleanup_db:
diff --git a/lib/dns/openssl_link.c b/lib/dns/openssl_link.c
index 1e57c71..3f4f822 100644
--- a/lib/dns/openssl_link.c
+++ b/lib/dns/openssl_link.c
@@ -31,6 +31,7 @@
#include <isc/mem.h>
#include <isc/mutex.h>
#include <isc/mutexblock.h>
+#include <isc/platform.h>
#include <isc/string.h>
#include
 <isc/thread.h>
#include <isc/util.h>
@@ -46,8 +47,6 @@
#include <openssl/engine.h>
#endif

-static RAND_METHOD *rm = NULL;
-
#if OPENSSL_VERSION_NUMBER < 0x10100000L || defined(LIBRESSL_VERSION_NUMBER)
```

```
static isc_mutex_t *locks = NULL;
static int nlocks;
@@ -57,6 +56,9 @@ static int nlocks;
static ENGINE *e = NULL;
#endif

+#ifndef ISC_PLATFORM_CRYPTORANDOM
+static RAND_METHOD *rm = NULL;
+
static int
entropy_get(unsigned char *buf, int num) {
 isc_result_t result;
@@ -102,6 +104,7 @@ entropy_add(const void *buf, int num, double entropy) {
 return (1);
}
#endif
+#endif /* !ISC_PLATFORM_CRYPTORANDOM */

#if OPENSSL_VERSION_NUMBER < 0x10100000L || defined(LIBRESSL_VERSION_NUMBER)
static void
@@ -192,7 +195,7 @@ _set_thread_id(CRYPTO_THREADID *id)
isc_result_t
dst__openssl_init(const char *engine) {
 isc_result_t result;
-#if !defined(OPENSSL_NO_ENGINE)
+#if !defined(OPENSSL_NO_ENGINE) && !defined(ISC_PLATFORM_CRYPTORANDOM)
 ENGINE *re;
#else
 UNUSED(engine);
@@
 -222,6 +225,7 @@ dst__openssl_init(const char *engine) {
 ERR_load_crypto_strings();
#endif

+#ifndef ISC_PLATFORM_CRYPTORANDOM
 rm = mem_alloc(sizeof(RAND_METHOD) FILELINE);
 if (rm == NULL) {
  result = ISC_R_NOMEMORY;
@@ -233,6 +237,7 @@ dst__openssl_init(const char *engine) {
 rm->add = entropy_add;
 rm->pseudorand = entropy_getpseudo;
 rm->status = entropy_status;
+#endif

#if !defined(OPENSSL_NO_ENGINE)
#if !defined(CONF_MFLAGS_DEFAULT_SECTION)
@@ -266,6 +271,7 @@ dst__openssl_init(const char *engine) {
  }
```

```
 }

+#ifndef ISC_PLATFORM_CRYPTORANDOM
 re = ENGINE_get_default_RAND();
 if (re == NULL) {
  re = ENGINE_new();
@@ -278,9 +284,21 @@ dst__openssl_init(const char *engine) {
  ENGINE_free(re);
 } else
  ENGINE_finish(re);
+#endif
#else
+#ifndef ISC_PLATFORM_CRYPTORANDOM
 RAND_set_rand_method(rm);
+#endif
#endif /* !defined(OPENSSL_NO_ENGINE) */
+
+ /* Protect ourselves against unseeded PRNG */
+ if (RAND_status() != 1) {
+  FATAL_ERROR(__FILE__, __LINE__,
+
    "OpenSSL pseudorandom number generator "
+       "cannot be initialized (see the `PRNG not "
+       "seeded' message in the OpenSSL FAQ)");
+ }
+
 return (ISC_R_SUCCESS);

#if !defined(OPENSSL_NO_ENGINE)
@@ -288,10 +306,14 @@ dst__openssl_init(const char *engine) {
 if (e != NULL)
  ENGINE_free(e);
 e = NULL;
+#ifndef ISC_PLATFORM_CRYPTORANDOM
 mem_free(rm FILELINE);
 rm = NULL;
#endif
+#endif
+#ifndef ISC_PLATFORM_CRYPTORANDOM
 cleanup_mutexinit:
+#endif
#if OPENSSL_VERSION_NUMBER < 0x10100000L || defined(LIBRESSL_VERSION_NUMBER)
 CRYPTO_set_locking_callback(NULL);
 DESTROYMUTEXBLOCK(locks, nlocks);
@@ -306,14 +328,17 @@ void
dst__openssl_destroy(void) {
#if !defined(LIBRESSL_VERSION_NUMBER) && (OPENSSL_VERSION_NUMBER >= 0x10100000L)
 OPENSSL_cleanup();
```

```
+#ifndef ISC_PLATFORM_CRYPTORANDOM
 if (rm != NULL) {
  mem_free(rm FILELINE);
  rm = NULL;
 }
+#endif
#else
 /*
  * Sequence taken from apps_shutdown() in <apps/apps.h>.
  */
+#ifndef ISC_PLATFORM_CRYPTORANDOM
  if (rm != NULL) {
#if OPENSSL_VERSION_NUMBER >= 0x00907000L
  RAND_cleanup();
@@ -321,6 +346,7 @@ dst__openssl_destroy(void) {
  mem_free(rm FILELINE);
  rm = NULL;
 }
+#endif
#if (OPENSSL_VERSION_NUMBER >= 0x00907000L)
 CONF_modules_free();
#endif
@@ -456,11 +482,45 @@ dst__openssl_getengine(const char *engine) {
}
#endif

-#else /* OPENSSL */
+isc_result_t
+dst_random_getdata(void *data, unsigned int length,
+     unsigned int *returned, unsigned int flags) {
+#ifdef ISC_PLATFORM_CRYPTORANDOM
+#ifndef DONT_REQUIRE_DST_LIB_INIT
+ INSIST(dst__memory_pool != NULL);
+#endif
+ REQUIRE(data != NULL);
+ REQUIRE(length > 0);

-#include <isc/util.h>
+#if OPENSSL_VERSION_NUMBER < 0x10100000L || defined(LIBRESSL_VERSION_NUMBER)
+ if ((flags & ISC_ENTROPY_GOODONLY) == 0) {
+  if (RAND_pseudo_bytes((unsigned char *)data, (int)length) < 0)
+   return (dst__openssl_toresult2("RAND_pseudo_bytes",
+             DST_R_OPENSSLFAILURE));
+ } else {
+  if (RAND_bytes((unsigned
 char *)data, (int)length) != 1)
+   return (dst__openssl_toresult2("RAND_bytes",
+             DST_R_OPENSSLFAILURE));
```

```
+ }
+#else
+ UNUSED(flags);

-EMPTY_TRANSLATION_UNIT
+ if (RAND_bytes((unsigned char *)data, (int)length) != 1)
+  return (dst__openssl_toresult2("RAND_bytes",
+            DST_R_OPENSSLFAILURE));
+#endif
+ if (returned != NULL)
+  *returned = length;
+ return (ISC_R_SUCCESS);
+#else
+ UNUSED(data);
+ UNUSED(length);
+ UNUSED(returned);
+ UNUSED(flags);
+
+ return (ISC_R_NOTIMPLEMENTED);
+#endif
+}

#endif /* OPENSSL */
/*! \file */
diff --git a/lib/dns/pkcs11.c b/lib/dns/pkcs11.c
index 6b30309..20552fa 100644
--- a/lib/dns/pkcs11.c
+++ b/lib/dns/pkcs11.c
@@ -13,12 +13,15 @@

#include <config.h>

+#include <isc/util.h>
+
#include <dns/log.h>
#include <dns/result.h>

#include <pk11/pk11.h>
#include <pk11/internal.h>

+#include "dst_internal.h"
#include "dst_pkcs11.h"

isc_result_t
@@ -34,12 +37,32 @@ dst__pkcs11_toresult(const char *funcname, const char
 *file, int line,
 return (fallback);
}
```

```
+isc_result_t
+dst_random_getdata(void *data, unsigned int length,
+     unsigned int *returned, unsigned int flags) {
+#ifdef ISC_PLATFORM_CRYPTORANDOM
+ isc_result_t ret;

-#else /* PKCS11CRYPTO */
+#ifndef DONT_REQUIRE_DST_LIB_INIT
+ INSIST(dst__memory_pool != NULL);
+#endif
+ REQUIRE(data != NULL);
+ REQUIRE(length > 0);
+ UNUSED(flags);

-#include <isc/util.h>
+ ret = pk11_rand_bytes(data, (int) length);
+ if ((ret == ISC_R_SUCCESS) && (returned != NULL))
+  *returned = length;
+ return (ret);
+#else
+ UNUSED(data);
+ UNUSED(length);
+ UNUSED(returned);
+ UNUSED(flags);

-EMPTY_TRANSLATION_UNIT
+ return (ISC_R_NOTIMPLEMENTED);
+#endif
+}

#endif /* PKCS11CRYPTO */
/*! \file */
diff --git a/lib/dns/tests/Kyuafile b/lib/dns/tests/Kyuafile
index 937b548..f3c0e38 100644
--- a/lib/dns/tests/Kyuafile
+++ b/lib/dns/tests/Kyuafile
@@ -10,6 +10,7 @@ tap_test_program{name='dh_test'}
tap_test_program{name='dispatch_test'}
tap_test_program{name='dnstap_test'}
 tap_test_program{name='dst_test'}
+tap_test_program{name='dstrandom_test'}
tap_test_program{name='geoip_test'}
tap_test_program{name='gost_test'}
tap_test_program{name='keytable_test'}
diff --git a/lib/dns/tests/Makefile.in b/lib/dns/tests/Makefile.in
index 4126372..30cab17 100644
--- a/lib/dns/tests/Makefile.in
```

```
+++ b/lib/dns/tests/Makefile.in
@@ -37,6 +37,7 @@ SRCS =  acl_test.c \
  dnstap_test.c \
  dst_test.c \
  dnstest.c \
+  dstrandom_test.c \
  geoip_test.c \
  gost_test.c \
  keytable_test.c \
@@ -69,6 +70,7 @@ TARGETS = acl_test@EXEEXT@ \
  dh_test@EXEEXT@ \
  dispatch_test@EXEEXT@ \
  dnstap_test@EXEEXT@ \
+  dstrandom_test@EXEEXT@ \
  dst_test@EXEEXT@ \
  geoip_test@EXEEXT@ \
  gost_test@EXEEXT@ \
@@ -258,6 +260,11 @@ zt_test@EXEEXT@: zt_test.@O@ dnstest.@O@ ${ISCDEPLIBS} ${DNSDEPLIBS}
  ${LDFLAGS} -o $@ zt_test.@O@ dnstest.@O@ \
  ${DNSLIBS} ${ISCLIBS} ${LIBS}

+dstrandom_test@EXEEXT@: dstrandom_test.@O@ ${ISCDEPLIBS} ${DNSDEPLIBS}
+ ${LIBTOOL_MODE_LINK}
 ${PURIFY} ${CC} ${CFLAGS} ${LDFLAGS} -o $@ \
+   dstrandom_test.@O@ ${DNSLIBS} \
+   ${ISCLIBS} ${ISCPK11LIBS} ${LIBS}
+
unit::
 sh ${top_builddir}/unit/unittest.sh

diff --git a/lib/dns/tests/dstrandom_test.c b/lib/dns/tests/dstrandom_test.c
new file mode 100644
index 0000000..bd3d164
--- /dev/null
+++ b/lib/dns/tests/dstrandom_test.c
@@ -0,0 +1,115 @@
+/*
+ * Copyright (C) Internet Systems Consortium, Inc. ("ISC")
+ *
+ * This Source Code Form is subject to the terms of the Mozilla Public
+ * License, v. 2.0. If a copy of the MPL was not distributed with this
+ * file, You can obtain one at http://mozilla.org/MPL/2.0/.
+ *
+ * See the COPYRIGHT file distributed with this work for additional
+ * information regarding copyright ownership.
+ */
+
+#include <config.h>
```

```
+
+#if HAVE_CMOCKA
+
+#include <stdarg.h>
+#include <stddef.h>
+#include <setjmp.h>
+
+#include <stdlib.h>
+#include <stdio.h>
+#include <string.h>
+#include <unistd.h>
+
+#define UNIT_TESTING
+#include
 <cmocka.h>
+
+#include <isc/entropy.h>
+#include <isc/mem.h>
+#include <isc/print.h>
+#include <isc/platform.h>
+#include <isc/util.h>
+
+#include <dst/dst.h>
+
+isc_mem_t *mctx = NULL;
+isc_entropy_t *ectx = NULL;
+unsigned char buffer[128];
+
+/* isc_entropy_getdata() examples */
+static void
+isc_entropy_getdata_test(void **state) {
+ isc_result_t result;
+ unsigned int returned, status;
+ const char *randomfile = "testdata/dstrandom/random.data";
+ int ret;
+
+ UNUSED(state);
+
+ isc_mem_debugging |= ISC_MEM_DEBUGRECORD;
+ result = isc_mem_create(0, 0, &mctx);
+ assert_int_equal(result, ISC_R_SUCCESS);
+ result = isc_entropy_create(mctx, &ectx);
+ assert_int_equal(result, ISC_R_SUCCESS);
+ result = dst_lib_init(mctx, ectx, 0);
+ assert_int_equal(result, ISC_R_SUCCESS);
+
+#ifdef ISC_PLATFORM_CRYPTORANDOM
+ isc_entropy_usehook(ectx, true);
```

```
+
+ returned = 0;
+ result = isc_entropy_getdata(ectx, buffer, sizeof(buffer),
+         &returned, 0);
+ assert_int_equal(result, ISC_R_SUCCESS);
+ assert_int_equal(returned,
 sizeof(buffer));
+
+ status = isc_entropy_status(ectx);
+ assert_int_equal(status, 0);
+
+ isc_entropy_usehook(ectx, false);
+#endif
+
+ ret = chdir(TESTS);
+ assert_int_equal(ret, 0);
+
+ result = isc_entropy_createfilesource(ectx, randomfile);
+ assert_int_equal(result, ISC_R_SUCCESS);
+
+ returned = 0;
+ result = isc_entropy_getdata(ectx, buffer, sizeof(buffer),
+         &returned, 0);
+ assert_int_equal(result, ISC_R_SUCCESS);
+ assert_int_equal(returned, sizeof(buffer));
+
+ status = isc_entropy_status(ectx);
+ assert_true(status > 0);
+
+ dst_lib_destroy();
+ isc_entropy_detach(&ectx);
+ assert_null(ectx);
+
+ isc_mem_destroy(&mctx);
+ assert_null(mctx);
+}
+
+int
+main(void) {
+ const struct CMUnitTest tests[] = {
+  cmocka_unit_test(isc_entropy_getdata_test),
+ };
+
+ return (cmocka_run_group_tests(tests, NULL, NULL));
+}
+
+#else /* HAVE_CMOCKA */
+
```

```
+#include <stdio.h>
+
+int
+main(void) {
+ printf("1..0 # Skipped: cmocka not available\n");
+ return
 (0);
+}
+
+#endif
diff --git a/lib/dns/win32/libdns.def.in b/lib/dns/win32/libdns.def.in
index 9c2ef79..f597049 100644
--- a/lib/dns/win32/libdns.def.in
+++ b/lib/dns/win32/libdns.def.in
@@ -1487,6 +1487,13 @@ dst_lib_destroy
dst_lib_init
dst_lib_init2
dst_lib_initmsgcat
+@IF PKCS11
+dst_random_getdata
+@ELSE PKCS11
+@IF OPENSSL
+dst_random_getdata
+@END OPENSSL
+@END PKCS11
dst_region_computeid
dst_region_computerid
dst_result_register
diff --git a/lib/isc/entropy.c b/lib/isc/entropy.c
index 0c1f3ed..fdd17d7 100644
--- a/lib/isc/entropy.c
+++ b/lib/isc/entropy.c
@@ -104,11 +104,15 @@ struct isc_entropy {
 uint32_t   initialized;
 uint32_t   initcount;
 isc_entropypool_t  pool;
+ bool    usehook;
 unsigned int   nsources;
 isc_entropysource_t        *nextsource;
 ISC_LIST(isc_entropysource_t) sources;
};

+/*% Global Hook */
+static isc_entropy_getdata_t hook;
+
/*% Sample Queue */
typedef struct {
 uint32_t last_time; /*%< last time recorded */
```

```
@@ -557,6 +561,11
 @@ isc_entropy_getdata(isc_entropy_t *ent, void *data, unsigned int length,

 LOCK(&ent->lock);

+ if (ent->usehook && (hook != NULL)) {
+  UNLOCK(&ent->lock);
+  return (hook(data, length, returned, flags));
+ }
+
 remain = length;
 buf = data;
 total = 0;
@@ -708,6 +717,7 @@ isc_entropy_create(isc_mem_t *mctx, isc_entropy_t **entp) {
 ent->refcnt = 1;
 ent->initialized = 0;
 ent->initcount = 0;
+ ent->usehook = false;
 ent->magic = ENTROPY_MAGIC;

 isc_entropypool_init(&ent->pool);
@@ -1286,3 +1296,17 @@ isc_entropy_usebestsource(isc_entropy_t *ectx, isc_entropysource_t **source,
  */
 return (final_result);
}
+
+void
+isc_entropy_usehook(isc_entropy_t *ectx, bool onoff) {
+ REQUIRE(VALID_ENTROPY(ectx));
+
+ LOCK(&ectx->lock);
+ ectx->usehook = onoff;
+ UNLOCK(&ectx->lock);
+}
+
+void
+isc_entropy_sethook(isc_entropy_getdata_t myhook) {
+ hook = myhook;
+}
diff --git a/lib/isc/include/isc/entropy.h b/lib/isc/include/isc/entropy.h
index b5bc956..f32c9dc 100644
--- a/lib/isc/include/isc/entropy.h
+++
 b/lib/isc/include/isc/entropy.h
@@ -302,6 +302,18 @@ isc_entropy_usebestsource(isc_entropy_t *ectx, isc_entropysource_t **source,
 * isc_entropy_createcallbacksource().
 */
```

```
+void
+isc_entropy_usehook(isc_entropy_t *ectx, bool onoff);
+/*!<
+ * \brief Mark/unmark the given entropy structure as being hooked.
+ */
+
+void
+isc_entropy_sethook(isc_entropy_getdata_t myhook);
+/*!<
+ * \brief Set the getdata hook (e.g., for a crypto random generator).
+ */
+
ISC_LANG_ENDDECLS

#endif /* ISC_ENTROPY_H */
diff --git a/lib/isc/include/isc/platform.h.in b/lib/isc/include/isc/platform.h.in
index 2bf8758..f4c684e 100644
--- a/lib/isc/include/isc/platform.h.in
+++ b/lib/isc/include/isc/platform.h.in
@@ -359,6 +359,11 @@
 */
@ISC_PLATFORM_HAVESTRINGSH@

+/*
+ * Define if the random functions are provided by crypto.
+ */
+@ISC_PLATFORM_CRYPTORANDOM@
+
/*
 * Define if the hash functions must be provided by OpenSSL.
 */
diff --git a/lib/isc/include/isc/types.h
 b/lib/isc/include/isc/types.h
index 3bdd54f..d5acd39 100644
--- a/lib/isc/include/isc/types.h
+++ b/lib/isc/include/isc/types.h
@@ -95,6 +95,8 @@ typedef struct isc_time   isc_time_t;  /*%< Time */
typedef struct isc_timer  isc_timer_t;  /*%< Timer */
typedef struct isc_timermgr  isc_timermgr_t;  /*%< Timer Manager */

+typedef isc_result_t (*isc_entropy_getdata_t)(void *, unsigned int,
+           unsigned int *, unsigned int);
typedef void (*isc_taskaction_t)(isc_task_t *, isc_event_t *);
typedef int (*isc_sockfdwatch_t)(isc_task_t *, isc_socket_t *, void *, int);

diff --git a/lib/isc/pk11.c b/lib/isc/pk11.c
index 227f807..4a63fdf 100644
--- a/lib/isc/pk11.c
```

```
+++ b/lib/isc/pk11.c
@@ -321,14 +321,16 @@ pk11_rand_seed_fromfile(const char *randomfile) {
 ret = isc_stdio_open(randomfile, "r", &stream);
 if (ret != ISC_R_SUCCESS)
  goto cleanup;
- ret = isc_stdio_read(seed, 1, SEEDSIZE, stream, &cc);
- if (ret!= ISC_R_SUCCESS)
-  goto cleanup;
+ while (ret == ISC_R_SUCCESS) {
+  ret
 = isc_stdio_read(seed, 1, SEEDSIZE, stream, &cc);
+  if ((ret != ISC_R_SUCCESS) && (ret != ISC_R_EOF))
+   goto cleanup;
+  (void) pkcs_C_SeedRandom(ctx.session, seed, (CK_ULONG) cc);
+ }
 ret = isc_stdio_close(stream);
 stream = NULL;
- if (ret!= ISC_R_SUCCESS)
+ if (ret != ISC_R_SUCCESS)
  goto cleanup;
- (void) pkcs_C_SeedRandom(ctx.session, seed, (CK_ULONG) cc);

    cleanup:
 if (stream != NULL)
diff --git a/lib/isc/win32/include/isc/platform.h.in b/lib/isc/win32/include/isc/platform.h.in
index 1f785e0..f9051c3 100644
--- a/lib/isc/win32/include/isc/platform.h.in
+++ b/lib/isc/win32/include/isc/platform.h.in
@@ -73,6 +73,11 @@
#define ISC_PLATFORM_NORETURN_PRE __declspec(noreturn)
#define ISC_PLATFORM_NORETURN_POST

+/*
+ * Define if the random functions are provided by crypto.
+ */
+@ISC_PLATFORM_CRYPTORANDOM@
+
/*
 * Define if the hash functions must be provided by OpenSSL.
 */
diff --git a/win32utils/Configure b/win32utils/Configure
index 7ac30fb..55b6c23 100644
---
 a/win32utils/Configure
+++ b/win32utils/Configure
@@ -382,6 +382,7 @@ my @substdefh = ("ALLOW_FILTER_AAAA",
my %configdefp;
```

```
my @substdefp = ("ISC_PLATFORM_BUSYWAITNOP",
+                "ISC_PLATFORM_CRYPTORANDOM",
                 "ISC_PLATFORM_HAVEATOMICSTORE",
                 "ISC_PLATFORM_HAVEATOMICSTOREQ",
                 "ISC_PLATFORM_HAVECMPXCHG",
@@ -516,7 +517,8 @@ my @allcond = (@substcond, "NOTYET", "NOLONGER");

# enable-xxx/disable-xxx

-my @enablelist = ("developer",
+my @enablelist = ("crypto-rand",
+                  "developer",
                   "fixed-rrset",
                   "intrinsics",
                   "native-pkcs11",
@@ -578,6 +580,7 @@ my @help = (
"\nOptional Features:\n",
"  enable-intrinsics     enable intrinsic/atomic functions [default=yes]\n",
"  enable-native-pkcs11  use native PKCS#11 for all crypto [default=no]\n",
+"  enable-crypto-rand    use crypto provider for random [default=yes]\n",
"  enable-openssl-hash   use OpenSSL
 for hash functions [default=yes]\n",
"  enable-filter-aaaa    enable filtering of AAAA records [default=yes]\n",
"  enable-fixed-rrset    enable fixed rrset ordering [default=no]\n",
@@ -625,7 +628,9 @@ my $want_clean = "no";
my $want_unknown = "no";
my $unknown_value;
my $enable_intrinsics = "yes";
+my $cryptolib = "";
my $enable_native_pkcs11 = "no";
+my $enable_crypto_rand = "yes";
my $enable_openssl_hash = "auto";
my $enable_filter_aaaa = "yes";
my $enable_fixed_rrset = "no";
@@ -844,6 +849,10 @@ sub myenable {
        if ($val =~ /^yes$/i) {
            $enable_native_pkcs11 = "yes";
        }
+    } elsif ($key =~ /^crypto-rand$/i) {
+        if ($val =~ /^no$/i) {
+            $enable_crypto_rand = "no";
+        }
    } elsif ($key =~ /^openssl-hash$/i) {
        if ($val =~ /^yes$/i) {
            $enable_openssl_hash = "yes";
@@ -1146,6 +1155,11 @@ if ($verbose) {
    } else {
        print "native-pkcs11: disabled\n";
```

```
    }
+    if ($enable_crypto_rand
 eq "yes") {
+        print "crypto-rand: enabled\n";
+    } else {
+        print "crypto-rand: disabled\n";
+    }
    if ($enable_openssl_hash eq "yes") {
        print "openssl-hash: enabled\n";
    } else {
@@ -1498,6 +1512,7 @@ if ($enable_intrinsics eq "yes") {

# enable-native-pkcs11
if ($enable_native_pkcs11 eq "yes") {
+    $cryptolib = "pkcs11";
    if ($use_openssl eq "auto") {
        $use_openssl = "no";
    }
@@ -1707,6 +1722,7 @@ if ($use_openssl eq "yes") {
        $openssl_dll = File::Spec->catdir($openssl_path, "@dirlist[0]");
    }

+    $cryptolib = "openssl";
    $configcond{"OPENSSL"} = 1;
    $configdefd{"CRYPTO"} = "OPENSSL";
    $configvar{"OPENSSL_PATH"} = "$openssl_path";
@@ -2278,6 +2294,15 @@ if ($use_aes eq "yes") {
}



+# enable-crypto-rand
+if ($enable_crypto_rand eq "yes") {
+    if (($use_openssl eq "no") && ($enable_native_pkcs11 eq "no")) {
+        die "No crypto provider for random functions\n";
+    }
+    $configdefp{"ISC_PLATFORM_CRYPTORANDOM"}
 = "\"$cryptolib\"";
+}
+print "Cryptographic library for DNSSEC: $cryptolib";
+
# enable-openssl-hash
if ($enable_openssl_hash eq "yes") {
    if ($use_openssl eq "no") {
@@ -3650,6 +3675,7 @@ exit 0;
#  --enable-developer partially supported
#  --enable-newstats (9.9/9.9sub only)
#  --enable-native-pkcs11 supported
+#  --enable-crypto-rand supported
```

```
#  --enable-openssl-version-check included without a way to disable it
#  --enable-openssl-hash supported
#  --enable-threads included without a way to disable it
--
2.31.1
```

Found in path(s):
* /opt/cola/permits/1701043592_1685703124.6755614/0/bind-zip/bind/SOURCES/bind-9.11-rt31459.patch
No license file was found, but licenses were detected in source scan.

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.\" purpose with or without fee is hereby granted, provided that the above
.\" copyright notice and this permission notice appear in all copies.

Found in path(s):
* /opt/cola/permits/1701043592_1685703124.6755614/0/bind-zip/bind/SOURCES/ldap2zone.1
No license file was found, but licenses were detected in source scan.

```
From 800ef75553881527e2406f22887e976bb1ba3bfe Mon Sep 17 00:00:00 2001
From: Mark Andrews <marka@isc.org>
Date: Tue, 18 Jan 2022 00:19:47 +1100
Subject: [PATCH] Add tests for forwarder cache poisoning scenarios

- Check that an NS in an authority section returned from a forwarder
 which is above the name in a configured "forward first" or "forward
 only" zone (i.e., net/NS in a response from a forwarder configured for
 local.net) is not cached.
- Test that a DNAME for a parent domain will not be cached when sent
 in a response from a forwarder configured to answer for a child.
- Check that glue is rejected if its name falls below that of zone
 configured locally.
- Check that an extra out-of-bailiwick data in the answer section is
 not cached (this was already working correctly, but was not explicitly
 tested before).

- v9_11 backport: Revert primary/secondary to master/slave,
 backport rndc helper, backport
 ns8 config.

(cherry picked from commit bf3fffff67e1de78e9387a93674d471bf4291604)
(cherry picked from commit 29f08170f05c2c96fb67f3b561b46aa0bae356f7)
---
bin/tests/system/forward/ans11/ans.py        | 136 +++++++++++++++++
bin/tests/system/forward/clean.sh            |   2 +
bin/tests/system/forward/ns1/diditwork.net.db |  20 +++
bin/tests/system/forward/ns1/named.conf.in   |  20 +++
bin/tests/system/forward/ns1/net.example.lll  |  13 ++
bin/tests/system/forward/ns1/spoofed.net.db   |  20 +++
```

```
bin/tests/system/forward/ns1/sub.local.net.db |  20 +++
bin/tests/system/forward/ns10/fakenet.zone    |  15 ++
bin/tests/system/forward/ns10/fakenet2.zone   |  13 ++
.../system/forward/ns10/fakesublocalnet.zone  |  13 ++
.../system/forward/ns10/fakesublocaltld.zone  |  13 ++
bin/tests/system/forward/ns10/named.conf.in   |  51 +++++++
bin/tests/system/forward/ns10/net.example.lll |  13 ++
bin/tests/system/forward/ns10/spoofednet.zone |  14 ++
bin/tests/system/forward/ns4/named.conf.in
    |   5 +
bin/tests/system/forward/ns4/sibling.tld.db   |  20 +++
bin/tests/system/forward/ns8/named.conf.in    |  33 +++++
bin/tests/system/forward/ns8/root.db          |  11 ++
bin/tests/system/forward/ns8/sub.local.tld.db |  13 ++
bin/tests/system/forward/ns9/local.net.db     |  14 ++
bin/tests/system/forward/ns9/local.tld.db     |  13 ++
bin/tests/system/forward/ns9/named1.conf.in   |  65 +++++++++
bin/tests/system/forward/ns9/named2.conf.in   |  68 +++++++++
bin/tests/system/forward/ns9/named3.conf.in   |  48 +++++++
bin/tests/system/forward/ns9/named4.conf.in   |  45 ++++++
bin/tests/system/forward/ns9/root.db          |  11 ++
bin/tests/system/forward/prereq.sh            |  14 ++
bin/tests/system/forward/setup.sh             |   3 +
bin/tests/system/forward/tests.sh             | 126 ++++++++++++++++
bin/tests/system/ifconfig.sh                  |   8 +-
30 files changed, 856 insertions(+), 4 deletions(-)
create mode 100644 bin/tests/system/forward/ans11/ans.py
 create mode 100644 bin/tests/system/forward/ns1/diditwork.net.db
create mode 100644 bin/tests/system/forward/ns1/net.example.lll
create mode 100644 bin/tests/system/forward/ns1/spoofed.net.db
create mode 100644 bin/tests/system/forward/ns1/sub.local.net.db
create mode 100644 bin/tests/system/forward/ns10/fakenet.zone
create mode 100644 bin/tests/system/forward/ns10/fakenet2.zone
create mode 100644 bin/tests/system/forward/ns10/fakesublocalnet.zone
create mode 100644 bin/tests/system/forward/ns10/fakesublocaltld.zone
create mode 100644 bin/tests/system/forward/ns10/named.conf.in
create mode 100644 bin/tests/system/forward/ns10/net.example.lll
create mode 100644 bin/tests/system/forward/ns10/spoofednet.zone
create mode 100644 bin/tests/system/forward/ns4/sibling.tld.db
create mode 100644 bin/tests/system/forward/ns8/named.conf.in
create mode 100644 bin/tests/system/forward/ns8/root.db
create mode 100644 bin/tests/system/forward/ns8/sub.local.tld.db
create mode 100644
 bin/tests/system/forward/ns9/local.net.db
create mode 100644 bin/tests/system/forward/ns9/local.tld.db
create mode 100644 bin/tests/system/forward/ns9/named1.conf.in
create mode 100644 bin/tests/system/forward/ns9/named2.conf.in
create mode 100644 bin/tests/system/forward/ns9/named3.conf.in
```

```
create mode 100644 bin/tests/system/forward/ns9/named4.conf.in
create mode 100644 bin/tests/system/forward/ns9/root.db

diff --git a/bin/tests/system/forward/ans11/ans.py b/bin/tests/system/forward/ans11/ans.py
new file mode 100644
index 0000000000..2956cf6eff
--- /dev/null
+++ b/bin/tests/system/forward/ans11/ans.py
@@ -0,0 +1,136 @@
+############################################################################
+# Copyright (C) Internet Systems Consortium, Inc. ("ISC")
+#
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+# License, v. 2.0. If a copy of the MPL was not distributed with this
+# file, you can obtain one at https://mozilla.org/MPL/2.0/.
+#
+# See the COPYRIGHT
 file distributed with this work for additional
+# information regarding copyright ownership.
+############################################################################
+
+from __future__ import print_function
+import os
+import sys
+import signal
+import socket
+import select
+from datetime import datetime, timedelta
+import time
+import functools
+
+import dns, dns.message, dns.query, dns.flags
+from dns.rdatatype import *
+from dns.rdataclass import *
+from dns.rcode import *
+from dns.name import *
+
+# Log query to file
+def logquery(type, qname):
+    with open("qlog", "a") as f:
+        f.write("%s %s\n", type, qname)
+
+############################################################################
+# Respond to a DNS query.
+############################################################################
+def create_response(msg):
+    m = dns.message.from_wire(msg)
+    qname = m.question[0].name.to_text()
```

```
+    rrtype = m.question[0].rdtype
+    typename = dns.rdatatype.to_text(rrtype)
+
+
    with open("query.log", "a") as f:
+        f.write("%s %s\n" % (typename, qname))
+        print("%s %s" % (typename, qname), end=" ")
+
+    r = dns.message.make_response(m)
+    r.set_rcode(NOERROR)
+    if rrtype == A:
+        tld=qname.split('.')[-2] + '.'
+        ns="local." + tld
+        r.answer.append(dns.rrset.from_text(qname, 300, IN, A, "10.53.0.11"))
+        r.answer.append(dns.rrset.from_text(tld, 300, IN, NS, "local." + tld))
+        r.additional.append(dns.rrset.from_text(ns, 300, IN, A, "10.53.0.11"))
+    elif rrtype == NS:
+        r.answer.append(dns.rrset.from_text(qname, 300, IN, NS, "."))
+    elif rrtype == SOA:
+        r.answer.append(dns.rrset.from_text(qname, 300, IN, SOA, ". . 0 0 0 0 0"))
+    else:
+        r.authority.append(dns.rrset.from_text(qname, 300, IN, SOA, ". . 0 0 0 0 0"))
+    r.flags |= dns.flags.AA
+    return r
+
+def sigterm(signum, frame):
+    print ("Shutting down now...")
+    os.remove('ans.pid')
+    running
 = False
+    sys.exit(0)
+
+############################################################################
+# Main
+#
+# Set up responder and control channel, open the pid file, and start
+# the main loop, listening for queries on the query channel or commands
+# on the control channel and acting on them.
+############################################################################
+ip4 = "10.53.0.11"
+ip6 = "fd92:7065:b8e:ffff::11"
+
+try: port=int(os.environ['PORT'])
+except: port=5300
+
+query4_socket = socket.socket(socket.AF_INET, socket.SOCK_DGRAM)
+query4_socket.bind((ip4, port))
+havev6 = True
```

```
+try:
+    query6_socket = socket.socket(socket.AF_INET6, socket.SOCK_DGRAM)
+    try:
+        query6_socket.bind((ip6, port))
+    except:
+        query6_socket.close()
+        havev6 = False
+except:
+    havev6 = False
+signal.signal(signal.SIGTERM, sigterm)
+
+f = open('ans.pid', 'w')
+pid = os.getpid()
+print (pid, file=f)
+f.close()
+
+running = True
+
+print ("Listening on %s port
 %d" % (ip4, port))
+if havev6:
+    print ("Listening on %s port %d" % (ip6, port))
+print ("Ctrl-c to quit")
+
+if havev6:
+    input = [query4_socket, query6_socket]
+else:
+    input = [query4_socket]
+
+while running:
+    try:
+        inputready, outputready, exceptready = select.select(input, [], [])
+    except select.error as e:
+        break
+    except socket.error as e:
+        break
+    except KeyboardInterrupt:
+        break
+
+    for s in inputready:
+        if s == query4_socket or s == query6_socket:
+            print ("Query received on %s" %
+                    (ip4 if s == query4_socket else ip6), end=" ")
+            # Handle incoming queries
+            msg = s.recvfrom(65535)
+            rsp = create_response(msg[0])
+            if rsp:
+                print(dns.rcode.to_text(rsp.rcode()))
```

```
+               s.sendto(rsp.to_wire(), msg[1])
+           else:
+               print("NO RESPONSE")
+    if not running:
+        break
diff --git a/bin/tests/system/forward/clean.sh
 b/bin/tests/system/forward/clean.sh
index 26e4e76db6..26a550db49 100644
--- a/bin/tests/system/forward/clean.sh
+++ b/bin/tests/system/forward/clean.sh
@@ -10,8 +10,10 @@
#
# Clean up after forward tests.
#
+rm -f ./ans11/query.log
rm -f ./dig.out.*
rm -f ./*/named.conf
rm -f ./*/named.memstats
rm -f ./*/named.run ./*/named.run.prev
+rm -f ./*/named_dump.db
rm -f ./ns*/named.lock
diff --git a/bin/tests/system/forward/ns1/diditwork.net.db b/bin/tests/system/forward/ns1/diditwork.net.db
new file mode 100644
index 0000000000..be9a7f72bc
--- /dev/null
+++ b/bin/tests/system/forward/ns1/diditwork.net.db
@@ -0,0 +1,20 @@
+; Copyright (C) Internet Systems Consortium, Inc. ("ISC")
+;
+; This Source Code Form is subject to the terms of the Mozilla Public
+; License, v. 2.0. If a copy of the MPL was not distributed with this
+; file, you can obtain one at https://mozilla.org/MPL/2.0/.
+;
+; See the COPYRIGHT file distributed with this work for additional
+; information
 regarding copyright ownership.
+
+$TTL 300 ; 5 minutes
+@   IN SOA ns root (
+    2000082401 ; serial
+    1800       ; refresh (30 minutes)
+    1800       ; retry (30 minutes)
+    1814400    ; expire (3 weeks)
+    3600       ; minimum (1 hour)
+    )
+   NS ns
+   TXT "recursed"
+ns   A 10.53.0.1
```

```
diff --git a/bin/tests/system/forward/ns1/named.conf.in b/bin/tests/system/forward/ns1/named.conf.in
index 9904f37ef5..1c31d84608 100644
--- a/bin/tests/system/forward/ns1/named.conf.in
+++ b/bin/tests/system/forward/ns1/named.conf.in
@@ -54,3 +54,23 @@ zone "example5." {
zone "example6" {
 type forward;
};
+
+zone "diditwork.net" {
+ type master;
+ file "diditwork.net.db";
+};
+
+zone "spoofed.net" {
+ type master;
+ file "spoofed.net.db";
+};
+
+zone "sub.local.net" {
+ type master;
+ file "sub.local.net.db";
+};
+
+zone "net.example.lll" {
+ type master;
+ file "net.example.lll";
+};
diff --git a/bin/tests/system/forward/ns1/net.example.lll b/bin/tests/system/forward/ns1/net.example.lll
new
 file mode 100644
index 0000000000..d179853fa5
--- /dev/null
+++ b/bin/tests/system/forward/ns1/net.example.lll
@@ -0,0 +1,13 @@
+; Copyright (C) Internet Systems Consortium, Inc. ("ISC")
+;
+; This Source Code Form is subject to the terms of the Mozilla Public
+; License, v. 2.0. If a copy of the MPL was not distributed with this
+; file, you can obtain one at https://mozilla.org/MPL/2.0/.
+;
+; See the COPYRIGHT file distributed with this work for additional
+; information regarding copyright ownership.
+
+$TTL 86400
+net.example.lll.  SOA . . 0 0 0 0 0
+net.example.lll.  NS attackSecureDomain.net.
+didItWork.net.example.lll. TXT "if you can see this record the attack worked"
```

```
diff --git a/bin/tests/system/forward/ns1/spoofed.net.db b/bin/tests/system/forward/ns1/spoofed.net.db
new file mode 100644
index 0000000000..d498d5fa0d
--- /dev/null
+++ b/bin/tests/system/forward/ns1/spoofed.net.db
@@ -0,0 +1,20 @@
+; Copyright (C) Internet Systems Consortium, Inc. ("ISC")
+;
+;
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+; file, you can obtain one at https://mozilla.org/MPL/2.0/.
+;
+; See the COPYRIGHT file distributed with this work for additional
+; information regarding copyright ownership.
+
+$TTL 300 ; 5 minutes
+@   IN SOA ns root (
+    2000082401 ; serial
+    1800       ; refresh (30 minutes)
+    1800       ; retry (30 minutes)
+    1814400    ; expire (3 weeks)
+    3600       ; minimum (1 hour)
+    )
+   NS ns
+ns   A 10.53.0.1
+sub   TXT "recursed"
diff --git a/bin/tests/system/forward/ns1/sub.local.net.db b/bin/tests/system/forward/ns1/sub.local.net.db
new file mode 100644
index 0000000000..be9a7f72bc
--- /dev/null
+++ b/bin/tests/system/forward/ns1/sub.local.net.db
@@ -0,0 +1,20 @@
+; Copyright (C) Internet Systems Consortium, Inc. ("ISC")
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+; file, you can obtain one at https://mozilla.org/MPL/2.0/.
+;
+; See the COPYRIGHT file distributed with this work for additional
+; information regarding copyright ownership.
+
+$TTL 300 ; 5 minutes
+@   IN SOA ns root (
+    2000082401 ; serial
+    1800       ; refresh (30 minutes)
+    1800       ; retry (30 minutes)
```

```
+    1814400    ; expire (3 weeks)
+    3600       ; minimum (1 hour)
+    )
+   NS ns
+   TXT "recursed"
+ns   A 10.53.0.1
diff --git a/bin/tests/system/forward/ns10/fakenet.zone b/bin/tests/system/forward/ns10/fakenet.zone
new file mode 100644
index 0000000000..14e5c777cb
--- /dev/null
+++ b/bin/tests/system/forward/ns10/fakenet.zone
@@ -0,0 +1,15 @@
+; Copyright (C) Internet Systems Consortium, Inc. ("ISC")
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+; file, you can obtain one at https://mozilla.org/MPL/2.0/.
+;
+; See the COPYRIGHT
 file distributed with this work for additional
+; information regarding copyright ownership.
+
+$TTL 86400
+net.   SOA . . 0 0 0 0 0
+net.   NS attackSecureDomain.net.
+attackSecureDomain.net. A 10.53.0.10
+didItWork.net.  TXT "if you can see this record the attack worked"
+ns.spoofed.net.  A 10.53.0.10
diff --git a/bin/tests/system/forward/ns10/fakenet2.zone b/bin/tests/system/forward/ns10/fakenet2.zone
new file mode 100644
index 0000000000..7ca28a934e
--- /dev/null
+++ b/bin/tests/system/forward/ns10/fakenet2.zone
@@ -0,0 +1,13 @@
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+; file, you can obtain one at https://mozilla.org/MPL/2.0/.
+;
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+; information regarding copyright ownership.
+
+$TTL 86400
+net2.   SOA . . 0 0 0 0 0
+net2.   NS attackSecureDomain.net.
+net2.   DNAME net.example.lll.
diff
```

```
 --git a/bin/tests/system/forward/ns10/fakesublocalnet.zone b/bin/tests/system/forward/ns10/fakesublocalnet.zone
new file mode 100644
index 0000000000..6caa071891
--- /dev/null
+++ b/bin/tests/system/forward/ns10/fakesublocalnet.zone
@@ -0,0 +1,13 @@
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+;
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+; information regarding copyright ownership.
+
+$TTL 86400
+sub.local.net.  SOA . . 0 0 0 0 0
+sub.local.net.  NS ns.spoofed.net.
+sub.local.net.  TXT "if you see this attacker overrode local delegation"
diff --git a/bin/tests/system/forward/ns10/fakesublocaltld.zone b/bin/tests/system/forward/ns10/fakesublocaltld.zone
new file mode 100644
index 0000000000..6a431de47f
---
 /dev/null
+++ b/bin/tests/system/forward/ns10/fakesublocaltld.zone
@@ -0,0 +1,13 @@
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+; file, you can obtain one at https://mozilla.org/MPL/2.0/.
+;
+; See the COPYRIGHT file distributed with this work for additional
+; information regarding copyright ownership.
+
+sub.local.tld.  3600 IN SOA . . 0 0 0 0 0
+sub.local.tld.  3600 IN NS ns.sub.local.tld.
+sub.local.tld.  3600 IN TXT bad
+ns.sub.local.tld. 3600 IN A 10.53.0.8
diff --git a/bin/tests/system/forward/ns10/named.conf.in b/bin/tests/system/forward/ns10/named.conf.in
new file mode 100644
index 0000000000..025c108418
--- /dev/null
+++ b/bin/tests/system/forward/ns10/named.conf.in
@@ -0,0 +1,51 @@
+/*
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+ *
```

```
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+ * information regarding copyright ownership.
+ */
+
+options {
+ query-source address 10.53.0.10;
+ notify-source 10.53.0.10;
+ transfer-source 10.53.0.10;
+ port @PORT@;
+ pid-file "named.pid";
+ listen-on { 10.53.0.10; };
+ listen-on-v6 { none; };
+ minimal-responses no;
+};
+
+zone "net." {
+ type master;
+ file "fakenet.zone";
+};
+
+zone "spoofed.net." {
+ type master;
+ file "spoofednet.zone";
+};
+
+zone "sub.local.net." {
+ type master;
+ file "fakesublocalnet.zone";
+};
+
+zone "net2" {
+ type master;
+ file "fakenet2.zone";
+};
+
+zone "net.example.lll" {
+ type master;
+ file "net.example.lll";
+};
+
+zone "sub.local.tld." {
+ type master;
+ file "fakesublocaltld.zone";
```

```
+};
diff --git a/bin/tests/system/forward/ns10/net.example.lll b/bin/tests/system/forward/ns10/net.example.lll
new
 file mode 100644
index 0000000000..d179853fa5
--- /dev/null
+++ b/bin/tests/system/forward/ns10/net.example.lll
@@ -0,0 +1,13 @@
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+;
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+; information regarding copyright ownership.
+
+$TTL 86400
+net.example.lll.  SOA . . 0 0 0 0 0
+net.example.lll.  NS attackSecureDomain.net.
+didItWork.net.example.lll. TXT "if you can see this record the attack worked"
diff --git a/bin/tests/system/forward/ns10/spoofednet.zone b/bin/tests/system/forward/ns10/spoofednet.zone
new file mode 100644
index 0000000000..13921a08cd
--- /dev/null
+++ b/bin/tests/system/forward/ns10/spoofednet.zone
@@ -0,0 +1,14 @@
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+;
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+;
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+; information regarding copyright ownership.
+
+$TTL 86400
+spoofed.net.  SOA . . 0 0 0 0 0
+spoofed.net.  NS ns.spoofed.net.
+ns.spoofed.net.  A 10.53.0.10
+spoofed.net.  TXT "this record is clearly spoofed"
diff --git a/bin/tests/system/forward/ns4/named.conf.in b/bin/tests/system/forward/ns4/named.conf.in
index d42a9eb797..6db65e71bc 100644
--- a/bin/tests/system/forward/ns4/named.conf.in
+++ b/bin/tests/system/forward/ns4/named.conf.in
@@ -60,3 +60,8 @@ zone "malicious." {
 type master;
```

```
 file "malicious.db";
};
+
+zone "sibling.tld" {
+ type master;
+ file "sibling.tld.db";
+};
diff --git a/bin/tests/system/forward/ns4/sibling.tld.db b/bin/tests/system/forward/ns4/sibling.tld.db
new file mode 100644
index
 0000000000..58037d093b
--- /dev/null
+++ b/bin/tests/system/forward/ns4/sibling.tld.db
@@ -0,0 +1,20 @@
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+
+$TTL    86400
+@       IN      SOA     malicious. admin.malicious. (
+                              1         ; Serial
+                         604800         ; Refresh
+                          86400         ; Retry
+                        2419200         ; Expire
+                          86400 )       ; Negative Cache TTL
+
+@           IN    NS      ns
+
+ns          IN    A       10.53.0.4
diff --git a/bin/tests/system/forward/ns8/named.conf.in b/bin/tests/system/forward/ns8/named.conf.in
new
 file mode 100644
index 0000000000..9260f69ded
--- /dev/null
+++ b/bin/tests/system/forward/ns8/named.conf.in
@@ -0,0 +1,33 @@
+/*
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+ *
```

```
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+ */
+
+options {
+ query-source address 10.53.0.8;
+ notify-source 10.53.0.8;
+ transfer-source 10.53.0.8;
+ port @PORT@;
+ pid-file "named.pid";
+ listen-on { 10.53.0.8; };
+ listen-on-v6 { none; };
+ forwarders { 10.53.0.2; }; // returns referrals
+ forward first;
+ dnssec-validation yes;
+};
+
+zone "." {
+ type hint;
+ file "root.db";
+};
+
+zone "sub.local.tld" {
+ type master;
+ file "sub.local.tld.db";
+};
diff --git a/bin/tests/system/forward/ns8/root.db b/bin/tests/system/forward/ns8/root.db
new
 file mode 100644
index 0000000000..4f30322270
--- /dev/null
+++ b/bin/tests/system/forward/ns8/root.db
@@ -0,0 +1,11 @@
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+
+.   NS a.root-servers.nil.
+a.root-servers.nil. A 10.53.0.1
diff --git a/bin/tests/system/forward/ns8/sub.local.tld.db b/bin/tests/system/forward/ns8/sub.local.tld.db
new file mode 100644
index 0000000000..eb20683ae9
--- /dev/null
```

```
+++ b/bin/tests/system/forward/ns8/sub.local.tld.db
@@ -0,0 +1,13 @@
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+;
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+; information regarding copyright ownership.
+
+sub.local.tld.  3600 IN SOA . . 0 0 0 0 0
+sub.local.tld.  3600 IN NS ns.sub.local.tld.
+sub.local.tld.  3600 IN TXT good
+ns.sub.local.tld. 3600 IN A 10.53.0.8
diff --git a/bin/tests/system/forward/ns9/local.net.db b/bin/tests/system/forward/ns9/local.net.db
new file mode 100644
index 0000000000..2c971e1e93
--- /dev/null
+++ b/bin/tests/system/forward/ns9/local.net.db
@@ -0,0 +1,14 @@
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+; file, you can obtain one at https://mozilla.org/MPL/2.0/.
+;
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+; information regarding copyright ownership.
+
+local.net.  3600 IN SOA .
 . 0 0 0 0 0
+local.net.  3600 IN NS localhost.
+ns.local.net.  3600 IN A 10.53.0.9
+txt.local.net.  3600 IN TXT "something in the local auth zone"
+sub.local.net.  3600 IN NS ns.spoofed.net.  ; attacker will try to override this
diff --git a/bin/tests/system/forward/ns9/local.tld.db b/bin/tests/system/forward/ns9/local.tld.db
new file mode 100644
index 0000000000..59403915fb
--- /dev/null
+++ b/bin/tests/system/forward/ns9/local.tld.db
@@ -0,0 +1,13 @@
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+; file, you can obtain one at https://mozilla.org/MPL/2.0/.
```

```
+;
+; See the COPYRIGHT file distributed with this work for additional
+; information regarding copyright ownership.
+
+local.tld.  3600 IN SOA . . 0 0 0 0 0
+local.tld.  3600 IN NS localhost.
+sub.local.tld.  3600 IN NS ns.sub.local.tld.
+ns.sub.local.tld. 3600 IN A 10.53.0.8
diff
 --git a/bin/tests/system/forward/ns9/named1.conf.in b/bin/tests/system/forward/ns9/named1.conf.in
new file mode 100644
index 0000000000..943e037d09
--- /dev/null
+++ b/bin/tests/system/forward/ns9/named1.conf.in
@@ -0,0 +1,65 @@
+/*
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+ *
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+ */
+
+options {
+ query-source address 10.53.0.9;
+ notify-source 10.53.0.9;
+ transfer-source 10.53.0.9;
+ port @PORT@;
+ pid-file "named.pid";
+ listen-on { 10.53.0.9; };
+ listen-on-v6 { none; };
+ dnssec-validation no;
+ edns-udp-size 1232;
+};
+
+key rndc_key {
+ secret "1234abcd8765";
+ algorithm hmac-sha256;
+};
+
+controls {
+ inet 10.53.0.9
 port @CONTROLPORT@ allow { any; } keys { rndc_key; };
+};
+
```

```
+server 10.53.0.10 {
+ edns no;
+};
+
+server 10.53.0.11 {
+ edns no;
+};
+
+zone "." {
+ type hint;
+ file "root.db";
+};
+
+zone "attacksecuredomain.net." {
+ type forward;
+ forwarders { 10.53.0.10; };
+};
+
+zone "attacksecuredomain.net2." {
+ type forward;
+ forwarders { 10.53.0.10; };
+};
+
+zone "attacksecuredomain.net3." {
+ type forward;
+ forwarders { 10.53.0.11; };
+};
+
+zone "local.net." {
+ type master;
+ file "local.net.db";
+ forwarders {};
+};
diff --git a/bin/tests/system/forward/ns9/named2.conf.in b/bin/tests/system/forward/ns9/named2.conf.in
new file mode 100644
index 0000000000..5a17d1998a
--- /dev/null
+++ b/bin/tests/system/forward/ns9/named2.conf.in
@@ -0,0 +1,68 @@
+/*
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 one at https://mozilla.org/MPL/2.0/.
+ *
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```

```
+ * information regarding copyright ownership.
+ */
+
+options {
+ query-source address 10.53.0.9;
+ notify-source 10.53.0.9;
+ transfer-source 10.53.0.9;
+ port @PORT@;
+ pid-file "named.pid";
+ listen-on { 10.53.0.9; };
+ listen-on-v6 { none; };
+ dnssec-validation no;
+ edns-udp-size 1232;
+};
+
+key rndc_key {
+ secret "1234abcd8765";
+ algorithm hmac-sha256;
+};
+
+controls {
+ inet 10.53.0.9 port @CONTROLPORT@ allow { any; } keys { rndc_key; };
+};
+
+server 10.53.0.10 {
+ edns no;
+};
+
+server 10.53.0.11 {
+ edns no;
+};
+
+zone "." {
+ type hint;
+ file "root.db";
+};
+
+zone "attacksecuredomain.net." {
+ type forward;
+ forward only;
+ forwarders { 10.53.0.10; };
+};
+
+zone "attacksecuredomain.net2." {
+ type forward;
+ forward only;
+ forwarders { 10.53.0.10; };
+};
```

```
+
+zone "attacksecuredomain.net3." {
+ type forward;
+ forward only;
+ forwarders { 10.53.0.11; };
+};
+
+zone
 "local.net." {
+ type master;
+ file "local.net.db";
+ forwarders {};
+};
diff --git a/bin/tests/system/forward/ns9/named3.conf.in b/bin/tests/system/forward/ns9/named3.conf.in
new file mode 100644
index 0000000000..1e70d1ae51
--- /dev/null
+++ b/bin/tests/system/forward/ns9/named3.conf.in
@@ -0,0 +1,48 @@
+/*
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+ * information regarding copyright ownership.
+ */
+
+options {
+ query-source address 10.53.0.9;
+ notify-source 10.53.0.9;
+ transfer-source 10.53.0.9;
+ port @PORT@;
+ pid-file "named.pid";
+ listen-on { 10.53.0.9; };
+ listen-on-v6 { none; };
+ dnssec-validation no;
+ edns-udp-size 1232;
+ forward only;
+ forwarders { 10.53.0.10;
 };
+};
+
+key rndc_key {
+ secret "1234abcd8765";
+ algorithm hmac-sha256;
```

```
+};
+
+controls {
+ inet 10.53.0.9 port @CONTROLPORT@ allow { any; } keys { rndc_key; };
+};
+
+server 10.53.0.10 {
+ edns no;
+};
+
+zone "." {
+ type hint;
+ file "root.db";
+};
+
+zone "local.net." {
+ type master;
+ file "local.net.db";
+ forwarders {};
+};
diff --git a/bin/tests/system/forward/ns9/named4.conf.in b/bin/tests/system/forward/ns9/named4.conf.in
new file mode 100644
index 0000000000..6f7b1075b5
--- /dev/null
+++ b/bin/tests/system/forward/ns9/named4.conf.in
@@ -0,0 +1,45 @@
+/*
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+ *
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+ */
+
+options {
+ query-source
 address 10.53.0.9;
+ notify-source 10.53.0.9;
+ transfer-source 10.53.0.9;
+ port @PORT@;
+ pid-file "named.pid";
+ listen-on { 10.53.0.9; };
+ listen-on-v6 { none; };
+ dnssec-validation no;
+ edns-udp-size 1232;
```

```
+};
+
+key rndc_key {
+ secret "1234abcd8765";
+ algorithm hmac-sha256;
+};
+
+controls {
+ inet 10.53.0.9 port @CONTROLPORT@ allow { any; } keys { rndc_key; };
+};
+
+server 10.53.0.10 {
+ edns no;
+};
+
+zone "." {
+ type hint;
+ file "root.db";
+};
+
+zone "local.tld." {
+ type master;
+ file "local.tld.db";
+};
diff --git a/bin/tests/system/forward/ns9/root.db b/bin/tests/system/forward/ns9/root.db
new file mode 100644
index 0000000000..4f30322270
--- /dev/null
+++ b/bin/tests/system/forward/ns9/root.db
@@ -0,0 +1,11 @@
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+; file, you can obtain one at https://mozilla.org/MPL/2.0/.
+;
+;
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+; information regarding copyright ownership.
+
+.   NS a.root-servers.nil.
+a.root-servers.nil. A 10.53.0.1
diff --git a/bin/tests/system/forward/prereq.sh b/bin/tests/system/forward/prereq.sh
index d2ca8fc2bf..53fb5817df 100644
--- a/bin/tests/system/forward/prereq.sh
+++ b/bin/tests/system/forward/prereq.sh
@@ -12,6 +12,20 @@
SYSTEMTESTTOP=..
```

```
. $SYSTEMTESTTOP/conf.sh

+if test -n "$PYTHON"
+then
+    if $PYTHON -c "import dns" 2> /dev/null
+    then
+        :
+    else
+        echo_i "This test requires the dnspython module." >&2
+        exit 1
+    fi
+else
+    echo_i "This test requires Python and the dnspython module." >&2
+    exit 1
+fi
+
if $PERL -e 'use Net::DNS;' 2>/dev/null
then
    :
diff --git a/bin/tests/system/forward/setup.sh b/bin/tests/system/forward/setup.sh
index 87452b9a88..18e81d277d 100644
--- a/bin/tests/system/forward/setup.sh
+++ b/bin/tests/system/forward/setup.sh
@@
 -18,3 +18,6 @@ copy_setports ns3/named.conf.in ns3/named.conf
copy_setports ns4/named.conf.in ns4/named.conf
copy_setports ns5/named.conf.in ns5/named.conf
copy_setports ns7/named.conf.in ns7/named.conf
+copy_setports ns8/named.conf.in ns8/named.conf
+copy_setports ns9/named1.conf.in ns9/named.conf
+copy_setports ns10/named.conf.in ns10/named.conf
diff --git a/bin/tests/system/forward/tests.sh b/bin/tests/system/forward/tests.sh
index e3549c5bc7..ce9b309a27 100644
--- a/bin/tests/system/forward/tests.sh
+++ b/bin/tests/system/forward/tests.sh
@@ -19,6 +19,10 @@ sendcmd() (
 "$PERL" ../send.pl 10.53.0.6 "$EXTRAPORT1"
)

+rndccmd() {
+    "$RNDC" -c ../common/rndc.conf -p "$CONTROLPORT" -s "$@"
+}
+
root=10.53.0.1
hidden=10.53.0.2
f1=10.53.0.3
@@ -223,5 +227,127 @@ if [ $ret != 0 ]; then echo_i "failed"; fi
status=$((status+ret))
```

```
+#
+# Check various spoofed response scenarios. The same tests will be
+# run twice, with "forward first" and "forward only" configurations.
+#
+run_spooftests
 () {
+    n=$((n+1))
+    echo_i "checking spoofed response scenario 1 - out of bailiwick NS ($n)"
+    ret=0
+    # prime
+    dig_with_opts @10.53.0.9 attackSecureDomain.net > dig.out.$n.prime || ret=1
+    # check 'net' is not poisoned.
+    dig_with_opts @10.53.0.9 diditwork.net. TXT > dig.out.$n.net || ret=1
+    grep '^diditwork\.net\..*TXT.*"recursed"' dig.out.$n.net > /dev/null || ret=1
+    # check 'sub.local.net' is not poisoned.
+    dig_with_opts @10.53.0.9 sub.local.net TXT > dig.out.$n.sub || ret=1
+    grep '^sub\.local\.net\..*TXT.*"recursed"' dig.out.$n.sub > /dev/null || ret=1
+    if [ $ret != 0 ]; then echo_i "failed"; fi
+    status=$((status+ret))
+
+    n=$((n+1))
+    echo_i "checking spoofed response scenario 2 - inject DNAME/net2. ($n)"
+    ret=0
+    # prime
+    dig_with_opts @10.53.0.9 attackSecureDomain.net2 > dig.out.$n.prime || ret=1
+    # check that net2/DNAME is not cached
+    dig_with_opts @10.53.0.9 net2. DNAME > dig.out.$n.net2 || ret=1
+
   grep "ANSWER: 0," dig.out.$n.net2 > /dev/null || ret=1
+    grep "status: NXDOMAIN" dig.out.$n.net2 > /dev/null || ret=1
+    if [ $ret != 0 ]; then echo_i "failed"; fi
+    status=$((status+ret))
+
+    n=$((n+1))
+    echo_i "checking spoofed response scenario 3 - extra answer ($n)"
+    ret=0
+    # prime
+    dig_with_opts @10.53.0.9 attackSecureDomain.net3 > dig.out.$n.prime || ret=1
+    # check extra net3 records are not cached
+    rndccmd 10.53.0.9 dumpdb -cache 2>&1 | sed 's/^/ns9 /' | cat_i
+    for try in 1 2 3 4 5; do
+        lines=$(grep "net3" ns9/named_dump.db | wc -l)
+        if [ ${lines} -eq 0 ]; then
+                sleep 1
+                continue
+        fi
```

```
+        [ ${lines} -eq 1 ] || ret=1
+        grep -q '^attackSecureDomain.net3' ns9/named_dump.db || ret=1
+        grep -q '^local.net3' ns9/named_dump.db && ret=1
+    done
+    if [ $ret != 0 ]; then echo_i "failed"; fi
+    status=$((status+ret))
+}
+
+echo_i "checking spoofed response scenarios
 with forward first zones"
+run_spooftests
+
+copy_setports ns9/named2.conf.in ns9/named.conf
+rndccmd 10.53.0.9 reconfig 2>&1 | sed 's/^/ns3 /' | cat_i
+rndccmd 10.53.0.9 flush 2>&1 | sed 's/^/ns3 /' | cat_i
+sleep 1
+
+echo_i "rechecking spoofed response scenarios with forward only zones"
+run_spooftests
+
+#
+# This scenario expects the spoofed response to succeed. The tests are
+# similar to the ones above, but not identical.
+#
+echo_i "rechecking spoofed response scenarios with 'forward only' set globally"
+copy_setports ns9/named3.conf.in ns9/named.conf
+rndccmd 10.53.0.9 reconfig 2>&1 | sed 's/^/ns3 /' | cat_i
+rndccmd 10.53.0.9 flush 2>&1 | sed 's/^/ns3 /' | cat_i
+sleep 1
+
+n=$((n+1))
+echo_i "checking spoofed response scenario 1 - out of bailiwick NS ($n)"
+ret=0
+# prime
+dig_with_opts @10.53.0.9 attackSecureDomain.net > dig.out.$n.prime || ret=1
+# check 'net' is poisoned.
+dig_with_opts @10.53.0.9 diditwork.net. TXT > dig.out.$n.net || ret=1
+grep '^didItWork\.net\..*TXT.*"if
 you can see this record the attack worked"' dig.out.$n.net > /dev/null || ret=1
+# check 'sub.local.net' is poisoned.
+dig_with_opts @10.53.0.9 sub.local.net TXT > dig.out.$n.sub || ret=1
+grep '^sub\.local\.net\..*TXT.*"if you see this attacker overrode local delegation"' dig.out.$n.sub > /dev/null || ret=1
+if [ $ret != 0 ]; then echo_i "failed"; fi
+status=$((status+ret))
+
+n=$((n+1))
+echo_i "checking spoofed response scenario 2 - inject DNAME/net2. ($n)"
```

```
+ret=0
+# prime
+dig_with_opts @10.53.0.9 attackSecureDomain.net2 > dig.out.$n.prime || ret=1
+# check that net2/DNAME is cached
+dig_with_opts @10.53.0.9 net2. DNAME > dig.out.$n.net2 || ret=1
+grep "ANSWER: 1," dig.out.$n.net2 > /dev/null || ret=1
+grep "net2\..*IN.DNAME.net\.example\.lll\." dig.out.$n.net2 > /dev/null || ret=1
+if [ $ret != 0 ]; then echo_i "failed"; fi
+status=$((status+ret))
+
+#
+# This test doesn't use any forwarder clauses but is here because it
+# is similar to forwarders, as the set of servers
 that can populate
+# the namespace is defined by the zone content.
+#
+echo_i "rechecking spoofed response scenarios glue below local zone"
+copy_setports ns9/named4.conf.in ns9/named.conf
+rndccmd 10.53.0.9 reconfig 2>&1 | sed 's/^/ns3 /' | cat_i
+rndccmd 10.53.0.9 flush 2>&1 | sed 's/^/ns3 /' | cat_i
+sleep 1
+
+n=$((n+1))
+echo_i "checking sibling glue below zone ($n)"
+ret=0
+# prime
+dig_with_opts @10.53.0.9 sibling.tld > dig.out.$n.prime || ret=1
+# check for glue A record for sub.local.tld is not used
+dig_with_opts @10.53.0.9 sub.local.tld TXT > dig.out.$n.sub || ret=1
+grep "ANSWER: 1," dig.out.$n.sub > /dev/null || ret=1
+grep 'sub\.local\.tld\..*IN.TXT."good"$' dig.out.$n.sub > /dev/null || ret=1
+if [ $ret != 0 ]; then echo_i "failed"; fi
+status=$((status+ret))
+
echo_i "exit status: $status"
[ $status -eq 0 ] || exit 1
diff --git a/bin/tests/system/ifconfig.sh b/bin/tests/system/ifconfig.sh
index d0eb9fa61d..8b9212c3e0 100755
--- a/bin/tests/system/ifconfig.sh
+++ b/bin/tests/system/ifconfig.sh
@@
 -12,10 +12,10 @@
#
# Set up interface aliases for bind9 system tests.
#
-# IPv4: 10.53.0.{1..10}    RFC 1918
+# IPv4: 10.53.0.{1..11}    RFC 1918
#       10.53.1.{1..2}
```

```
#       10.53.2.{1..2}
-# IPv6: fd92:7065:b8e:ffff::{1..10}  ULA
+# IPv6: fd92:7065:b8e:ffff::{1..11}  ULA
#       fd92:7065:b8e:99ff::{1..2}
#       fd92:7065:b8e:ff::{1..2}
#
@@ -65,7 +65,7 @@ case "$1" in
    2) ipv6="00" ;;
    *) ipv6="" ;;
  esac
-  for ns in 1 2 3 4 5 6 7 8 9 10
+  for ns in 1 2 3 4 5 6 7 8 9 10 11
  do
   [ $i -gt 0 -a $ns -gt 2 ] && break
   int=`expr $i \* 10 + $ns`
@@ -165,7 +165,7 @@ case "$1" in
    2) ipv6="00" ;;
    *) ipv6="" ;;
  esac
-  for ns in 10 9 8 7 6 5 4 3 2 1
+  for ns in 11 10 9 8 7 6 5 4 3 2 1
  do
   [ $i -gt 0 -a $ns -gt 2 ] && continue
   int=`expr $i \* 10 + $ns - 1`
--
2.34.1
```

Found in path(s):
* /opt/cola/permits/1701043592_1685703124.6755614/0/bind-zip/bind/SOURCES/bind-9.11-CVE-2021-25220-test.patch
No license file was found, but licenses were detected in source scan.

```
From d55a57427ee696dec51149950478394e43019607 Mon Sep 17 00:00:00 2001
From: =?UTF-8?q?Petr=20Men=C5=A1=C3=ADk?= <pemensik@redhat.com>
Date: Thu, 7 Nov 2019 14:31:03 +0100
Subject: [PATCH] Implement serve-stale in 9.11
MIME-Version: 1.0
Content-Type: text/plain; charset=UTF-8
Content-Transfer-Encoding: 8bit

Squashed commit of the following:

commit 32f47f36e545223b2a4757588d7bd4af8c5f5760
Author: Petr Menšík <pemensik@redhat.com>
Date:   Tue Sep 3 18:45:54 2019 +0200

    convert serve_stale to db_test
```

```
    Manual checkout from commit e8f61dd315c5d1c88915bb79361182241e42e47a.
    Use test modified for cmocka, including serve-stale tests.

commit 071eb1fb0786f6d614955813d99c3caabff33383
Author: Micha Kpie <michal@isc.org>
Date:   Fri Apr 27 09:13:26 2018 +0200

    Detect recursion loops during query processing

    Interrupt query processing when query_recurse() attempts to ask the same
    name servers for the same
 QNAME/QTYPE tuple for two times in a row as
    this indicates that query processing may be stuck for an indeterminate
    period of time, e.g. due to interactions between features able to
    restart query_lookup().

    (cherry picked from commit 46bb4dd124ed031d4c219d1e37a3c6322092e30c)

commit c12090bc361c7fa4522ace73899e778e44e9b295
Author: Petr Menšík <pemensik@redhat.com>
Date:   Mon Sep 2 11:12:32 2019 +0200

    Fix test name used in whole test-suite

    Correct name is serve-stale

commit ff4d826f295d268a248ca06941d65c903e1b405c
Author: Petr Menšík <pemensik@redhat.com>
Date:   Fri Aug 30 17:43:28 2019 +0200

    Clean files in more generic rules

commit 8d81ed15eda9a2a11e1433d1fdddacfc772708b6
Author: Petr Menšík <pemensik@redhat.com>
Date:   Thu Aug 29 21:27:57 2019 +0200

    [rt46602] Pass port numbers to tests via environment variables

    Manually applied commit f5d8f079008b648d2e343543e66dd728054c6101

commit 94fafa477891576286def8c4041ad127734af2d1
Author: Tony
 Finch <dot@dotat.at>
Date:   Tue Apr 10 16:17:57 2018 +0100

    Move serve-stale logging to its own category, so that its verbosity can be curtailed.

    (cherry picked from commit 4b442c309dfb2c8880b19af4133047655bb734df)
```

```
commit e0c884bee98c3d2533dfaa667f58c6a80d8a3a00
Author: Micha Kpie <michal@isc.org>
Date:   Fri Apr 27 09:13:26 2018 +0200

    Prevent check_stale_header() from leaking rdataset headers

    check_stale_header() fails to update the pointer to the previous header
    while processing rdataset headers eligible for serve-stale, thus
    enabling rdataset headers to be leaked (i.e. disassociated from a node
    and left on the relevant TTL heap) while iterating through a node.  This
    can lead to several different assertion failures.  Add the missing
    pointer update.

    (cherry picked from commit 391fac1fc8d2e470287b5cc4344b3adb90c6f54a)

commit d724cc1d80ee8d46113eaf82549d49636739b67c
Author: Matthijs Mekking <matthijs@isc.org>
Date:   Thu Jan 24 10:24:44
 2019 +0100

    Print in dump-file stale ttl

    This change makes rndc dumpdb correctly print the "; stale" line.
    It also provides extra information on how long this data may still
    be served to clients (in other words how long the stale RRset may
    still be used).

    (cherry picked from commit 924ebc605db798e2a383ee5eaaebad739e7c789c)

commit 625da4bd4590ac6108bb30eddd23ceffb245ae49
Author: Micha Kpie <michal@isc.org>
Date:   Mon Oct 22 15:26:45 2018 +0200

    Check serve-stale behavior with a cold cache

    Ensure that serve-stale works as expected when returning stale answers
    is enabled, the authoritative server does not respond, and there is no
    cached answer available.

    (cherry picked from commit 27cfe83a388147edfa0451b28c06c746912ea684)

commit d67ae10461c409fdafdbbe64f857db2552b71059
Author: Micha Kpie <michal@isc.org>
Date:   Mon Oct 22 15:26:45 2018 +0200

    Check TTL of stale answers
```

```
    Make sure that stale answers returned when the serve-stale
 feature is
    enabled have a TTL matching the value of the stale-answer-ttl setting.

    (cherry picked from commit 893ab37ce78c658215bd3a019f25afe795b37d5a)

commit 50459107805e68e4a63a8e497bf58ef3ce013ddb
Author: Micha Kpie <michal@isc.org>
Date:   Mon Jul 9 14:35:12 2018 +0200

    Do not use Net::DNS::Nameserver in the "serve-stale" system test

    Net::DNS versions older than 0.67 respond to queries sent to a
    Net::DNS::Nameserver even if its ReplyHandler returns undef.  This makes
    the "serve-stale" system test fail as it takes advantage of the newer
    behavior.  Since the latest Net::DNS version available with stock
    RHEL/CentOS 6 packages is 0.65 and we officially support that operating
    system, bin/tests/system/serve-stale/ans2/ans.pl should behave
    consistently for various Net::DNS versions.  Ensure that by reworking it
    so that it does not use Net::DNS::Nameserver.

    (cherry picked from commit c4209418a50c09142375f7edadca731c526f3d3a)

commit
 4b5befc714bb386bd245b1c14ce3bce5ae6fb5fa
Author: Petr Menšík <pemensik@redhat.com>
Date:   Tue Jun 5 21:38:29 2018 +0200

    Fix server-stale requirement, skip without Time::HiRes

    (cherry picked from commit 7a0c7bf9c8e6a724e52635eed213ad25b9504e66)

commit 5ce51a3a7e5ef3087c4d022e3fca42fb2fd0c996
Author: Ondej Surý <ondrej@sury.org>
Date:   Wed Oct 18 13:01:14 2017 +0200

    [rt46602] Update server-stale test to run on port passed from run.sh script

    (cherry picked from commit f83ebd34b9555a5a834c58146035173bcbd01dda)

commit 3954a9bf3437f6fab050294a7f2f954a23d161ec
Author: Ondej Surý <ondrej@sury.org>
Date:   Wed Oct 18 14:18:59 2017 +0200

    [rt46602] Add serve-stale working files to .gitignore

    (cherry picked from commit cba162e70e7fac43435a606106841a69ce468526)
```

```
commit 112aa21f5fa875494820e4d1eb70e41e10e1aae7
Author: Mark Andrews <marka@isc.org>
Date:   Thu Oct 12 15:33:47 2017 +1100

   test for Net::DNS::Nameserver

   (cherry picked from commit 5b60d0608ac2852753180b762d1917163f9dc315)

commit
 9d610e46af8a636f44914cee4cf8b2016054db1e
Author: Mark Andrews <marka@isc.org>
Date:   Thu Oct 12 15:19:45 2017 +1100

   add Net::DNS prerequiste test

   (cherry picked from commit fa644181f51559da3e3913acd72dbc3f6d916e71)

commit e4ea7ba88d9a9a0c79579400c68a5dabe03e8572
Author: Mark Andrews <marka@isc.org>
Date:   Wed Sep 6 19:26:10 2017 +1000

   add quotes arount $send_response

   (cherry picked from commit 023ab19634b287543169e9b7b5259f3126cd60ff)

commit 0af0c5d33c2de34da164571288b650282c6be10a
Author: Mark Andrews <marka@isc.org>
Date:   Thu Nov 23 16:11:49 2017 +1100

   initalise serve_stale_ttl

   (cherry picked from commit 2f4e0e5a81278f59037bf06ae99ff52245cd57e9)

commit fbadd90ee81863d617c4c319d5f0079b877fe102
Author: Evan Hunt <each@isc.org>
Date:   Thu Sep 14 11:48:21 2017 -0700

   [master] add thanks to APNIC and add missing note for serve-stale

commit deb8adaa59955970b9d2f2fe58060a3cbf08312b
Author: Mark Andrews <marka@isc.org>
Date:
   Wed Sep 6 12:16:10 2017 +1000

   silence 'staleanswersok' may be used uninitialized in this function warning. [RT #14147

commit 0e2d03823768dc545015e6ce309777210f4a9f85
Author: Petr Menšík <pemensik@redhat.com>
```

```
Date:   Thu Aug 29 19:57:58 2019 +0200

  More fixes to merge

commit 360e25ffe7623ea0a2eec49395001f4940967776
Author: Mark Andrews <marka@isc.org>
Date:   Wed Sep 6 09:58:29 2017 +1000

  4700.   [func]        Serving of stale answers is now supported. This
                        allows named to provide stale cached answers when
                        the authoritative server is under attack.
                        See max-stale-ttl, stale-answer-enable,
                        stale-answer-ttl. [RT #44790]

Signed-off-by: Petr Menšík <pemensik@redhat.com>
---
bin/named/config.c                         |   9 +-
bin/named/control.c                        |   2 +
bin/named/include/named/control.h          |   1 +
bin/named/include/named/log.h
               |   1 +
bin/named/include/named/query.h            |  15 +
bin/named/include/named/server.h           |  13 +-
bin/named/log.c                            |   1 +
bin/named/query.c                          | 164 +++++-
bin/named/server.c                         | 177 +++++-
bin/named/statschannel.c                   |   6 +
bin/rndc/rndc.c                            |   2 +
bin/rndc/rndc.docbook                      |  19 +
bin/tests/system/chain/prereq.sh           |   7 +
bin/tests/system/conf.sh.in                |   2 +-
bin/tests/system/dyndb/driver/db.c         |   2 +
bin/tests/system/serve-stale/.gitignore    |  11 +
bin/tests/system/serve-stale/ans2/ans.pl.in  | 178 ++++++
bin/tests/system/serve-stale/clean.sh      |  15 +
.../system/serve-stale/ns1/named1.conf.in  |  35 ++
.../system/serve-stale/ns1/named2.conf.in  |  35 ++
bin/tests/system/serve-stale/ns1/root.db   |   5 +
 .../system/serve-stale/ns3/named.conf.in  |  35 ++
bin/tests/system/serve-stale/prereq.sh     |  38 ++
bin/tests/system/serve-stale/setup.sh      |  13 +
bin/tests/system/serve-stale/tests.sh      | 536 +++++++++++++++++
doc/arm/Bv9ARM-book.xml                    |  77 ++-
doc/arm/logging-categories.xml             |  11 +
doc/arm/notes-rh-changes.xml               |  14 +-
doc/misc/options                           |  10 +
lib/bind9/check.c                          |  78 ++-
lib/dns/cache.c                            |  38 +-
```

```
lib/dns/db.c                               |  22 +
lib/dns/ecdb.c                             |   4 +-
lib/dns/include/dns/cache.h                |  21 +
lib/dns/include/dns/db.h                   |  35 ++
lib/dns/include/dns/rdataset.h             |  11 +
lib/dns/include/dns/resolver.h             |  43 +-
lib/dns/include/dns/types.h                |   6 +
lib/dns/include/dns/view.h
         |   3 +
lib/dns/master.c                           |  14 +-
lib/dns/masterdump.c                       |  23 +
lib/dns/rbtdb.c                            | 207 ++++++-
lib/dns/resolver.c                         |  79 ++-
lib/dns/sdb.c                              |   4 +-
lib/dns/sdlz.c                             |   4 +-
lib/dns/tests/db_test.c                    | 198 ++++++-
lib/dns/view.c                             |   3 +
lib/isccfg/namedconf.c                     |   5 +
48 files changed, 2126 insertions(+), 106 deletions(-)
create mode 100644 bin/tests/system/serve-stale/.gitignore
create mode 100644 bin/tests/system/serve-stale/ans2/ans.pl.in
create mode 100644 bin/tests/system/serve-stale/clean.sh
create mode 100644 bin/tests/system/serve-stale/ns1/named1.conf.in
create mode 100644 bin/tests/system/serve-stale/ns1/named2.conf.in
create mode 100644 bin/tests/system/serve-stale/ns1/root.db
create mode 100644 bin/tests/system/serve-stale/ns3/named.conf.in
 create mode 100644 bin/tests/system/serve-stale/prereq.sh
create mode 100644 bin/tests/system/serve-stale/setup.sh
create mode 100755 bin/tests/system/serve-stale/tests.sh

diff --git a/bin/named/config.c b/bin/named/config.c
index 9e071bb..d2cd3bc 100644
--- a/bin/named/config.c
+++ b/bin/named/config.c
@@ -182,13 +182,14 @@ options {\n\
#ifdef HAVE_LMDB
" lmdb-mapsize 32M;\n"
#endif
-" max-acache-size 16M;\n\
- max-cache-size 90%;\n\
+" max-cache-size 90%;\n\
+ max-acache-size 16M;\n\
 max-cache-ttl 604800; /* 1 week */\n\
 max-clients-per-query 100;\n\
 max-ncache-ttl 10800; /* 3 hours */\n\
 max-recursion-depth 7;\n\
 max-recursion-queries 100;\n\
+ max-stale-ttl 604800; /* 1 week */\n\
```

```
 message-compression yes;\n\
# min-roots <obsolete>;\n\
 minimal-any false;\n\
@@ -203,10 +204,14 @@ options {\n\
 request-expire true;\n\
 request-ixfr true;\n\
 require-server-cookie no;\n\
+ resolver-nonbackoff-tries 3;\n\
+ resolver-retry-interval
 800; /* in milliseconds */\n\
# rfc2308-type1 <obsolete>;\n\
 root-key-sentinel yes;\n\
 servfail-ttl 1;\n\
# sortlist <none>\n\
+ stale-answer-enable false;\n\
+ stale-answer-ttl 1; /* 1 second */\n\
# topology <none>\n\
 transfer-format many-answers;\n\
 v6-bias 50;\n\
diff --git a/bin/named/control.c b/bin/named/control.c
index 23620b4..0756c73 100644
--- a/bin/named/control.c
+++ b/bin/named/control.c
@@ -282,6 +282,8 @@ ns_control_docommand(isccc_sexpr_t *message, bool readonly,
  result = ns_server_validation(ns_g_server, lex, text);
 } else if (command_compare(command, NS_COMMAND_ZONESTATUS)) {
  result = ns_server_zonestatus(ns_g_server, lex, text);
+ } else if (command_compare(command, NS_COMMAND_SERVESTALE)) {
+  result = ns_server_servestale(ns_g_server, lex, text);
 } else {
  isc_log_write(ns_g_lctx, NS_LOGCATEGORY_GENERAL,
        NS_LOGMODULE_CONTROL, ISC_LOG_WARNING,
diff --git a/bin/named/include/named/control.h b/bin/named/include/named/control.h
index 56bad8d..37403f1
 100644
--- a/bin/named/include/named/control.h
+++ b/bin/named/include/named/control.h
@@ -67,6 +67,7 @@
#define NS_COMMAND_MKEYS "managed-keys"
#define NS_COMMAND_DNSTAPREOPEN "dnstap-reopen"
#define NS_COMMAND_DNSTAP "dnstap"
+#define NS_COMMAND_SERVESTALE "serve-stale"

isc_result_t
ns_controls_create(ns_server_t *server, ns_controls_t **ctrlsp);
diff --git a/bin/named/include/named/log.h b/bin/named/include/named/log.h
index 76e3a51..0d1d985 100644
--- a/bin/named/include/named/log.h
```

```
+++ b/bin/named/include/named/log.h
@@ -30,6 +30,7 @@
#define NS_LOGCATEGORY_UPDATE_SECURITY (&ns_g_categories[6])
#define NS_LOGCATEGORY_QUERY_ERRORS (&ns_g_categories[7])
#define NS_LOGCATEGORY_TAT  (&ns_g_categories[8])
+#define NS_LOGCATEGORY_SERVE_STALE (&ns_g_categories[9])

/*
 * Backwards compatibility.
diff --git a/bin/named/include/named/query.h b/bin/named/include/named/query.h
index ef1b172..53c052b 100644
--- a/bin/named/include/named/query.h
+++ b/bin/named/include/named/query.h
@@
 -35,6 +35,18 @@ typedef struct ns_dbversion {
 ISC_LINK(struct ns_dbversion) link;
} ns_dbversion_t;

+/*%
+ * nameserver recursion parameters, to uniquely identify a recursion
+ * query; this is used to detect a recursion loop
+ */
+typedef struct ns_query_recparam {
+ dns_rdatatype_t   qtype;
+ dns_name_t *   qname;
+ dns_fixedname_t   fqname;
+ dns_name_t *   qdomain;
+ dns_fixedname_t   fqdomain;
+} ns_query_recparam_t;
+
/*% nameserver query structure */
struct ns_query {
 unsigned int   attributes;
@@ -63,6 +75,7 @@ struct ns_query {
 unsigned int   dns64_aaaaoklen;
 unsigned int   dns64_options;
 unsigned int   dns64_ttl;
+
 struct {
  dns_db_t *       db;
  dns_zone_t *       zone;
@@ -76,6 +89,8 @@ struct ns_query {
  bool  authoritative;
  bool  is_zone;
 } redirect;
+
+ ns_query_recparam_t  recparam;
 dns_keytag_t root_key_sentinel_keyid;
```

```
 bool root_key_sentinel_is_ta;
 bool root_key_sentinel_not_ta;
diff --git a/bin/named/include/named/server.h
 b/bin/named/include/named/server.h
index 0ba2627..08a02dc 100644
--- a/bin/named/include/named/server.h
+++ b/bin/named/include/named/server.h
@@ -227,7 +227,10 @@ enum {

 dns_nsstatscounter_reclimitdropped = 58,

- dns_nsstatscounter_max = 59
+ dns_nsstatscounter_trystale = 59,
+ dns_nsstatscounter_usedstale = 60,
+
+ dns_nsstatscounter_max = 61
};

/*%
@@ -766,4 +769,12 @@ ns_server_mkeys(ns_server_t *server, isc_lex_t *lex, isc_buffer_t **text);
isc_result_t
ns_server_dnstap(ns_server_t *server, isc_lex_t *lex, isc_buffer_t **text);

+
+/*%
+ * Control whether stale answers are served or not when configured in
+ * named.conf.
+ */
+isc_result_t
+ns_server_servestale(ns_server_t *server, isc_lex_t *lex,
+       isc_buffer_t **text);
#endif /* NAMED_SERVER_H */
diff --git a/bin/named/log.c b/bin/named/log.c
index acfa766..ea6f114 100644
--- a/bin/named/log.c
+++ b/bin/named/log.c
@@ -38,6 +38,7 @@ static isc_logcategory_t categories[] = {
 { "update-security",  0
 },
 { "query-errors",  0 },
 { "trust-anchor-telemetry", 0 },
+ { "serve-stale",                0 },
 { NULL,    0 }
};

diff --git a/bin/named/query.c b/bin/named/query.c
index b14f081..a95f5ad 100644
--- a/bin/named/query.c
```

```
+++ b/bin/named/query.c
@@ -149,10 +149,14 @@ last_cmpxchg(isc_stdtime_t *x, isc_stdtime_t *e, isc_stdtime_t r) {
#define REDIRECT(c)  (((c)->query.attributes & \
      NS_QUERYATTR_REDIRECT) != 0)

-/*% No QNAME Proof? */
+/*% Does the rdataset 'r' have an attached 'No QNAME Proof'? */
#define NOQNAME(r)  (((r)->attributes & \
      DNS_RDATASETATTR_NOQNAME) != 0)

+/*% Does the rdataset 'r' contain a stale answer? */
+#define STALE(r)  (((r)->attributes & \
+      DNS_RDATASETATTR_STALE) != 0)
+
#ifdef WANT_QUERYTRACE
static inline void
client_trace(ns_client_t *client, int level, const char *message) {
@@ -241,6 +245,10 @@ static bool
rpz_ck_dnssec(ns_client_t *client, isc_result_t qresult,
       dns_rdataset_t *rdataset, dns_rdataset_t *sigrdataset);

+static void
+recparam_update(ns_query_recparam_t *param, dns_rdatatype_t qtype,
+  const dns_name_t *qname, const dns_name_t *qdomain);
+
/*%
 * Increment query statistics counters.
 */
@@ -494,6 +502,7 @@ query_reset(ns_client_t *client, bool everything) {
 client->query.isreferral = false;
 client->query.dns64_options = 0;
 client->query.dns64_ttl = UINT32_MAX;
+ recparam_update(&client->query.recparam, 0, NULL, NULL);
 client->query.root_key_sentinel_keyid = 0;
 client->query.root_key_sentinel_is_ta = false;
 client->query.root_key_sentinel_not_ta = false;
@@ -4305,6 +4314,54 @@ log_quota(ns_client_t *client, isc_stdtime_t *last, isc_stdtime_t now,
 }
}

+/*%
+ * Check whether the recursion parameters in 'param' match the current query's
+ * recursion parameters provided in 'qtype', 'qname', and 'qdomain'.
+ */
+static bool
+recparam_match(const ns_query_recparam_t *param, dns_rdatatype_t qtype,
+        const dns_name_t *qname, const dns_name_t *qdomain)
+{
```

```
+ REQUIRE(param
 != NULL);
+
+ return (param->qtype == qtype &&
+         param->qname != NULL && qname != NULL &&
+         param->qdomain != NULL && qdomain != NULL &&
+         dns_name_equal(param->qname, qname) &&
+         dns_name_equal(param->qdomain, qdomain));
+}
+
+/*%
+ * Update 'param' with current query's recursion parameters provided in
+ * 'qtype', 'qname', and 'qdomain'.
+ */
+static void
+recparam_update(ns_query_recparam_t *param, dns_rdatatype_t qtype,
+  const dns_name_t *qname, const dns_name_t *qdomain)
+{
+ isc_result_t result;
+
+ REQUIRE(param != NULL);
+
+ param->qtype = qtype;
+
+ if (qname == NULL) {
+  param->qname = NULL;
+ } else {
+  param->qname = dns_fixedname_initname(&param->fqname);
+  result = dns_name_copy(qname, param->qname, NULL);
+  RUNTIME_CHECK(result == ISC_R_SUCCESS);
+ }
+
+ if (qdomain == NULL) {
+  param->qdomain = NULL;
+ } else {
+  param->qdomain = dns_fixedname_initname(&param->fqdomain);
+  result = dns_name_copy(qdomain, param->qdomain,
 NULL);
+  RUNTIME_CHECK(result == ISC_R_SUCCESS);
+ }
+}
+
static isc_result_t
query_recurse(ns_client_t *client, dns_rdatatype_t qtype, dns_name_t *qname,
      dns_name_t *qdomain, dns_rdataset_t *nameservers,
@@ -4314,6 +4371,19 @@ query_recurse(ns_client_t *client, dns_rdatatype_t qtype, dns_name_t *qname,
 dns_rdataset_t *rdataset, *sigrdataset;
 isc_sockaddr_t *peeraddr;
```

```
+ /*
+  * Check recursion parameters from the previous query to see if they
+  * match.  If not, update recursion parameters and proceed.
+  */
+ if (recparam_match(&client->query.recparam, qtype, qname, qdomain)) {
+  ns_client_log(client, NS_LOGCATEGORY_CLIENT,
+         NS_LOGMODULE_QUERY, ISC_LOG_INFO,
+         "recursion loop detected");
+  return (ISC_R_FAILURE);
+ }
+
+ recparam_update(&client->query.recparam, qtype, qname, qdomain);
+
 if (!resuming)
  inc_stats(client, dns_nsstatscounter_recursion);

@@ -6821,6 +6891,7 @@ query_find(ns_client_t *client, dns_fetchevent_t *event, dns_rdatatype_t
 qtype)
 int line = -1;
 bool dns64_exclude, dns64, rpz;
 bool nxrewrite = false;
+ bool want_stale = false;
 bool redirected = false;
 dns_clientinfomethods_t cm;
 dns_clientinfo_t ci;
@@ -7130,6 +7201,7 @@ query_find(ns_client_t *client, dns_fetchevent_t *event, dns_rdatatype_t qtype)
  type = qtype;

 restart:
+ // query_start
 CTRACE(ISC_LOG_DEBUG(3), "query_find: restart");
 want_restart = false;
 authoritative = false;
@@ -7274,6 +7346,7 @@ query_find(ns_client_t *client, dns_fetchevent_t *event, dns_rdatatype_t qtype)
 }

 db_find:
+ // query_lookup
 CTRACE(ISC_LOG_DEBUG(3), "query_find: db_find");
 /*
  * We'll need some resources...
@@ -7331,6 +7404,35 @@ query_find(ns_client_t *client, dns_fetchevent_t *event, dns_rdatatype_t qtype)
 if (!is_zone)
  dns_cache_updatestats(client->view->cache, result);

+ if (want_stale) {
+  char namebuf[DNS_NAME_FORMATSIZE];
```

```
+  bool success;
+
+  client->query.dboptions &= ~DNS_DBFIND_STALEOK;
+  want_stale = false;
+
+  if
 (dns_rdataset_isassociated(rdataset) &&
+      dns_rdataset_count(rdataset) > 0 &&
+      STALE(rdataset)) {
+   rdataset->ttl = client->view->staleanswerttl;
+   success = true;
+  } else {
+   success = false;
+  }
+
+  dns_name_format(client->query.qname,
+    namebuf, sizeof(namebuf));
+  isc_log_write(ns_g_lctx, NS_LOGCATEGORY_SERVE_STALE,
+         NS_LOGMODULE_QUERY, ISC_LOG_INFO,
+         "%s resolver failure, stale answer %s",
+         namebuf, success ? "used" : "unavailable");
+
+  if (!success) {
+   QUERY_ERROR(DNS_R_SERVFAIL);
+   goto cleanup;
+  }
+ }
+
 resume:
 CTRACE(ISC_LOG_DEBUG(3), "query_find: resume");

@@ -7676,6 +7778,7 @@ query_find(ns_client_t *client, dns_fetchevent_t *event, dns_rdatatype_t qtype)
   * The cache doesn't even have the root NS.  Get them from
   * the hints DB.
   */
+  // query_notfound
  INSIST(!is_zone);
  if (db != NULL)
   dns_db_detach(&db);
@@ -7738,12 +7841,14 @@ query_find(ns_client_t *client, dns_fetchevent_t
 *event, dns_rdatatype_t qtype)
   */
  /* FALLTHROUGH */
 case DNS_R_DELEGATION:
+  // query_delegation
  authoritative = false;
  if (is_zone) {
   /*
```

```
    * Look to see if we are authoritative for the
    * child zone if the query type is DS.
    */
+   // query_zone_delegation
   if (!RECURSIONOK(client) &&
       (options & DNS_GETDB_NOEXACT) != 0 &&
       qtype == dns_rdatatype_ds) {
@@ -8130,6 +8235,7 @@ query_find(ns_client_t *client, dns_fetchevent_t *event, dns_rdatatype_t qtype)
             false, true);
    }
  }
+  // query_nxdomain
  if (dns_rdataset_isassociated(rdataset)) {
   /*
    * If we've got a NSEC record, we need to save the
@@ -8450,7 +8556,8 @@ query_find(ns_client_t *client, dns_fetchevent_t *event, dns_rdatatype_t qtype)
  /*
   * If we have a zero ttl from the cache refetch it.
   */
-  if (!is_zone && !resuming && rdataset->ttl == 0 &&
+  // query_cname
+  if (!is_zone && !resuming && !STALE(rdataset) && rdataset->ttl == 0 &&
      RECURSIONOK(client))
   {
   if (dns_rdataset_isassociated(rdataset))
@@ -8676,7 +8783,11 @@ query_find(ns_client_t *client, dns_fetchevent_t *event, dns_rdatatype_t qtype)
    "query_find: unexpected error after resuming: %s",
    isc_result_totext(result));
  CTRACE(ISC_LOG_ERROR, errmsg);
-  QUERY_ERROR(DNS_R_SERVFAIL);
+  if (resuming) {
+   want_stale = true;
+  } else {
+   QUERY_ERROR(DNS_R_SERVFAIL);
+  }
  goto cleanup;
 }

@@ -8932,7 +9043,7 @@ query_find(ns_client_t *client, dns_fetchevent_t *event, dns_rdatatype_t qtype)
  /*
   * If we have a zero ttl from the cache refetch it.
   */
-  if (!is_zone && !resuming && rdataset->ttl == 0 &&
+  if (!is_zone && !resuming && !STALE(rdataset) && rdataset->ttl == 0 &&
     RECURSIONOK(client))
  {
   if (dns_rdataset_isassociated(rdataset))
@@ -8943,6 +9054,7 @@ query_find(ns_client_t *client, dns_fetchevent_t *event, dns_rdatatype_t qtype)
```

```
   if (node != NULL)
    dns_db_detachnode(db, &node);

+   // query_respond
    INSIST(!REDIRECT(client));
   result = query_recurse(client, qtype,
            client->query.qname,
@@ -9223,6 +9335,7 @@ query_find(ns_client_t *client, dns_fetchevent_t *event, dns_rdatatype_t qtype)
           dns_fixedname_name(&wildcardname),
           true, false);
 cleanup:
+ // query_done
 CTRACE(ISC_LOG_DEBUG(3), "query_find: cleanup");
 /*
  * General cleanup.
@@ -9279,6 +9392,49 @@ query_find(ns_client_t *client, dns_fetchevent_t *event, dns_rdatatype_t qtype)
  goto restart;
 }

+ if (want_stale) {
+  dns_ttl_t stale_ttl = 0;
+  isc_result_t result;
+  bool staleanswersok = false;
+
+  /*
+   * Stale answers only make sense if stale_ttl > 0 but
+   * we want rndc to be able to control returning stale
+   * answers if they are configured.
+   */
+  dns_db_attach(client->view->cachedb, &db);
+  result = dns_db_getservestalettl(db, &stale_ttl);
+  if (result == ISC_R_SUCCESS && stale_ttl > 0)  {
+   switch (client->view->staleanswersok) {
+   case dns_stale_answer_yes:
+    staleanswersok
 = true;
+    break;
+   case dns_stale_answer_conf:
+    staleanswersok =
+     client->view->staleanswersenable;
+    break;
+   case dns_stale_answer_no:
+    staleanswersok = false;
+    break;
+   }
+  } else {
+   staleanswersok = false;
+  }
```

```
+
+  if (staleanswersok) {
+   client->query.dboptions |= DNS_DBFIND_STALEOK;
+   inc_stats(client, dns_nsstatscounter_trystale);
+   if (client->query.fetch != NULL)
+    dns_resolver_destroyfetch(
+         &client->query.fetch);
+   goto db_find;
+  }
+  dns_db_detach(&db);
+  want_stale = false;
+  QUERY_ERROR(DNS_R_SERVFAIL);
+  goto cleanup;
+ }
+
 if (eresult != ISC_R_SUCCESS &&
     (!PARTIALANSWER(client) || WANTRECURSION(client)
      || eresult == DNS_R_DROP)) {
diff --git a/bin/named/server.c b/bin/named/server.c
index 2bdf690..3a5ba91 100644
--- a/bin/named/server.c
+++ b/bin/named/server.c
@@ -1720,7 +1720,8 @@ static bool
cache_sharable(dns_view_t *originview, dns_view_t *view,
        bool new_zero_no_soattl,
         unsigned int new_cleaning_interval,
-        uint64_t new_max_cache_size)
+        uint64_t new_max_cache_size,
+        uint32_t new_stale_ttl)
{
 /*
  * If the cache cannot even reused for the same view, it cannot be
@@ -1735,6 +1736,7 @@ cache_sharable(dns_view_t *originview, dns_view_t *view,
  */
 if (dns_cache_getcleaninginterval(originview->cache) !=
     new_cleaning_interval ||
+     dns_cache_getservestalettl(originview->cache) != new_stale_ttl ||
     dns_cache_getcachesize(originview->cache) != new_max_cache_size) {
  return (false);
 }
@@ -3290,6 +3292,7 @@ configure_view(dns_view_t *view, dns_viewlist_t *viewlist,
 size_t max_acache_size;
 size_t max_adb_size;
 uint32_t lame_ttl, fail_ttl;
+ uint32_t max_stale_ttl;
 dns_tsig_keyring_t *ring = NULL;
 dns_view_t *pview = NULL; /* Production view */
 isc_mem_t *cmctx = NULL, *hmctx = NULL;
```

```
@@ -3318,6 +3321,7 @@ configure_view(dns_view_t *view, dns_viewlist_t *viewlist,
 bool old_rpz_ok
 = false;
 isc_dscp_t dscp4 = -1, dscp6 = -1;
 dns_dyndbctx_t *dctx = NULL;
+ unsigned int resolver_param;

 REQUIRE(DNS_VIEW_VALID(view));

@@ -3732,6 +3736,24 @@ configure_view(dns_view_t *view, dns_viewlist_t *viewlist,
 if (view->maxncachettl > 7 * 24 * 3600)
  view->maxncachettl = 7 * 24 * 3600;

+ obj = NULL;
+ result = ns_config_get(maps, "max-stale-ttl", &obj);
+ INSIST(result == ISC_R_SUCCESS);
+ max_stale_ttl = cfg_obj_asuint32(obj);
+
+ obj = NULL;
+ result = ns_config_get(maps, "stale-answer-enable", &obj);
+ INSIST(result == ISC_R_SUCCESS);
+ view->staleanswersenable = cfg_obj_asboolean(obj);
+
+ result = dns_viewlist_find(&ns_g_server->viewlist, view->name,
+       view->rdclass, &pview);
+ if (result == ISC_R_SUCCESS) {
+  view->staleanswersok = pview->staleanswersok;
+  dns_view_detach(&pview);
+ } else
+  view->staleanswersok = dns_stale_answer_conf;
+
 /*
  * Configure the view's cache.
  *
@@ -3765,7 +3787,8 @@ configure_view(dns_view_t *view, dns_viewlist_t
 *viewlist,
 nsc = cachelist_find(cachelist, cachename, view->rdclass);
 if (nsc != NULL) {
  if (!cache_sharable(nsc->primaryview, view, zero_no_soattl,
-       cleaning_interval, max_cache_size)) {
+        cleaning_interval, max_cache_size,
+        max_stale_ttl)) {
   isc_log_write(ns_g_lctx, NS_LOGCATEGORY_GENERAL,
         NS_LOGMODULE_SERVER, ISC_LOG_ERROR,
         "views %s and %s can't share the cache "
@@ -3864,9 +3887,15 @@ configure_view(dns_view_t *view, dns_viewlist_t *viewlist,

 dns_cache_setcleaninginterval(cache, cleaning_interval);
```

```
 dns_cache_setcachesize(cache, max_cache_size);
+ dns_cache_setservestalettl(cache, max_stale_ttl);

 dns_cache_detach(&cache);

+ obj = NULL;
+ result = ns_config_get(maps, "stale-answer-ttl", &obj);
+ INSIST(result == ISC_R_SUCCESS);
+ view->staleanswerttl = ISC_MAX(cfg_obj_asuint32(obj), 1);
+
 /*
  * Resolver.
  *
@@ -4055,6 +4084,21 @@ configure_view(dns_view_t *view, dns_viewlist_t *viewlist,
  maxbits = 4096;
  view->maxbits = maxbits;

+ /*
+  * Set resolver retry parameters.
+  */
+ obj = NULL;
+ CHECK(ns_config_get(maps, "resolver-retry-interval", &obj));
+ resolver_param = cfg_obj_asuint32(obj);
+ if (resolver_param > 0)
+  dns_resolver_setretryinterval(view->resolver, resolver_param);
+
+ obj = NULL;
+ CHECK(ns_config_get(maps, "resolver-nonbackoff-tries", &obj));
+ resolver_param = cfg_obj_asuint32(obj);
+ if (resolver_param > 0)
+  dns_resolver_setnonbackofftries(view->resolver, resolver_param);
+
 /*
  * Set supported DNSSEC algorithms.
  */
@@ -14559,3 +14603,132 @@ ns_server_dnstap(ns_server_t *server, isc_lex_t *lex, isc_buffer_t **text) {
 return (ISC_R_NOTIMPLEMENTED);
#endif
}
+
+isc_result_t
+ns_server_servestale(ns_server_t *server, isc_lex_t *lex,
+       isc_buffer_t **text)
+{
+ char *ptr, *classtxt, *viewtxt = NULL;
+ char msg[128];
+ dns_rdataclass_t rdclass = dns_rdataclass_in;
+ dns_view_t *view;
```

```
+ bool found = false;
+ dns_stale_answer_t staleanswersok = dns_stale_answer_conf;
+ bool
 wantstatus = false;
+ isc_result_t result = ISC_R_SUCCESS;
+
+ /* Skip the command name. */
+ ptr = next_token(lex, text);
+ if (ptr == NULL)
+  return (ISC_R_UNEXPECTEDEND);
+
+ ptr = next_token(lex, NULL);
+ if (ptr == NULL)
+  return (ISC_R_UNEXPECTEDEND);
+
+ if (strcasecmp(ptr, "on") == 0 || strcasecmp(ptr, "yes") == 0) {
+  staleanswersok = dns_stale_answer_yes;
+ } else if (strcasecmp(ptr, "off") == 0 || strcasecmp(ptr, "no") == 0) {
+  staleanswersok = dns_stale_answer_no;
+ } else if (strcasecmp(ptr, "reset") == 0) {
+  staleanswersok = dns_stale_answer_conf;
+ } else if (strcasecmp(ptr, "status") == 0) {
+  wantstatus = true;
+ } else
+  return (DNS_R_SYNTAX);
+
+ /* Look for the optional class name. */
+ classtxt = next_token(lex, text);
+ if (classtxt != NULL) {
+  /* Look for the optional view name. */
+  viewtxt = next_token(lex, text);
+ }
+
+ if (classtxt != NULL) {
+  isc_textregion_t r;
+
+  r.base = classtxt;
+  r.length = strlen(classtxt);
+  result
 = dns_rdataclass_fromtext(&rdclass, &r);
+  if (result != ISC_R_SUCCESS) {
+   if (viewtxt == NULL) {
+    viewtxt = classtxt;
+    classtxt = NULL;
+    result = ISC_R_SUCCESS;
+   } else {
+    snprintf(msg, sizeof(msg),
+      "unknown class '%s'", classtxt);
```

```
+    (void) putstr(text, msg);
+    goto cleanup;
+   }
+  }
+ }
+
+ result = isc_task_beginexclusive(server->task);
+ RUNTIME_CHECK(result == ISC_R_SUCCESS);
+
+ for (view = ISC_LIST_HEAD(server->viewlist);
+      view != NULL;
+      view = ISC_LIST_NEXT(view, link))
+ {
+  dns_ttl_t stale_ttl = 0;
+  dns_db_t *db = NULL;
+
+  if (classtxt != NULL && rdclass != view->rdclass)
+   continue;
+
+  if (viewtxt != NULL && strcmp(view->name, viewtxt) != 0)
+   continue;
+
+  if (!wantstatus) {
+   view->staleanswersok = staleanswersok;
+   found = true;
+   continue;
+  }
+
+  db = NULL;
+  dns_db_attach(view->cachedb, &db);
+  (void)dns_db_getservestalettl(db, &stale_ttl);
+  dns_db_detach(&db);
+  if (found)
+   CHECK(putstr(text,
 "\n"));
+  CHECK(putstr(text, view->name));
+  CHECK(putstr(text, ": "));
+  switch (view->staleanswersok) {
+  case dns_stale_answer_yes:
+   if (stale_ttl > 0)
+    CHECK(putstr(text, "on (rndc)"));
+   else
+    CHECK(putstr(text, "off (not-cached)"));
+   break;
+  case dns_stale_answer_no:
+   CHECK(putstr(text, "off (rndc)"));
+   break;
+  case dns_stale_answer_conf:
```

```
+   if (view->staleanswersenable && stale_ttl > 0)
+    CHECK(putstr(text, "on"));
+   else if (view->staleanswersenable)
+    CHECK(putstr(text, "off (not-cached)"));
+   else
+    CHECK(putstr(text, "off"));
+   break;
+  }
+  if (stale_ttl > 0) {
+   snprintf(msg, sizeof(msg),
+     " (stale-answer-ttl=%u max-stale-ttl=%u)",
+     view->staleanswerttl, stale_ttl);
+   CHECK(putstr(text, msg));
+  }
+  found = true;
+ }
+ isc_task_endexclusive(ns_g_server->task);
+
+ if (!found)
+  result = ISC_R_NOTFOUND;
+
+cleanup:
+ if (isc_buffer_usedlength(*text) > 0)
+  (void) putnull(text);
+
+ return (result);
+}
diff
 --git a/bin/named/statschannel.c b/bin/named/statschannel.c
index 12ab048..4938c03 100644
--- a/bin/named/statschannel.c
+++ b/bin/named/statschannel.c
@@ -300,6 +300,12 @@ init_desc(void) {
 SET_NSSTATDESC(reclimitdropped,
        "queries dropped due to recursive client limit",
        "RecLimitDropped");
+ SET_NSSTATDESC(trystale,
+        "attempts to use stale cache data after lookup failure",
+        "QryTryStale");
+ SET_NSSTATDESC(usedstale,
+        "successful uses of stale cache data after lookup failure",
+        "QryUsedStale");
 INSIST(i == dns_nsstatscounter_max);

 /* Initialize resolver statistics */
diff --git a/bin/rndc/rndc.c b/bin/rndc/rndc.c
index 0acfe3a..2c21c1d 100644
--- a/bin/rndc/rndc.c
```

```
+++ b/bin/rndc/rndc.c
@@ -160,6 +160,8 @@ command is one of the following:\n\
  scan  Scan available network interfaces for changes.\n\
  secroots [view ...]\n\
  Write security roots to the secroots file.\n\
+  serve-stale ( yes | no | reset ) [class
 [view]]\n\
+  Control whether stale answers are returned\n\
  showzone zone [class [view]]\n\
  Print a zone's configuration.\n\
  sign zone [class [view]]\n\
diff --git a/bin/rndc/rndc.docbook b/bin/rndc/rndc.docbook
index 159ded9..12a7208 100644
--- a/bin/rndc/rndc.docbook
+++ b/bin/rndc/rndc.docbook
@@ -689,6 +689,25 @@
 </listitem>
      </varlistentry>

+      <varlistentry>
+ <term><userinput>serve-stale ( on | off | reset | status) <optional><replaceable>class</replaceable>
<optional><replaceable>view</replaceable></optional></optional></userinput></term>
+ <listitem>
+   <para>
+     Enable, disable, or reset the serving of stale answers
+     as configured in named.conf. Serving of stale answers
+     will remain disabled across <filename>named.conf</filename>
+     reloads if disabled via rndc until it is reset via rndc.
+   </para>
+   <para>
+     Status will report whether serving of stale answers is
+     currently enabled, disabled or not configured for a
+
  view.  If serving of stale records is configured then
+     the values of stale-answer-ttl and max-stale-ttl are
+     reported.
+   </para>
+ </listitem>
+      </varlistentry>
+
      <varlistentry>
 <term><userinput>secroots <optional>-</optional> <optional><replaceable>view
...</replaceable></optional></userinput></term>
 <listitem>
diff --git a/bin/tests/system/chain/prereq.sh b/bin/tests/system/chain/prereq.sh
index 23bedcd..43385de 100644
--- a/bin/tests/system/chain/prereq.sh
+++ b/bin/tests/system/chain/prereq.sh
```

```
@@ -48,3 +48,10 @@ else
    echo_i "This test requires the Net::DNS::Nameserver library." >&2
    exit 1
fi
+if $PERL -e 'use Net::DNS::Nameserver;' 2>/dev/null
+then
+ :
+else
+    echo "I:This test requires the Net::DNS::Nameserver library." >&2
+    exit 1
+fi
diff --git a/bin/tests/system/conf.sh.in b/bin/tests/system/conf.sh.in
index f6412f6..26c8901 100644
--- a/bin/tests/system/conf.sh.in
+++ b/bin/tests/system/conf.sh.in
@@ -128,7 +128,7 @@ PARALLELDIRS="dnssec
 rpzrecurse \
 reclimit redirect resolver rndc rootkeysentinel rpz \
 rrchecker rrl rrsetorder rsabigexponent runtime \
 sfcache smartsign sortlist \
- spf staticstub statistics statschannel stub \
+ spf serve-stale staticstub statistics statschannel stub \
 tcp tsig tsiggss \
 unknown upforwd verify views wildcard \
 xfer xferquota zero zonechecks"
diff --git a/bin/tests/system/dyndb/driver/db.c b/bin/tests/system/dyndb/driver/db.c
index 02aa6ab..a77c7de 100644
--- a/bin/tests/system/dyndb/driver/db.c
+++ b/bin/tests/system/dyndb/driver/db.c
@@ -629,6 +629,8 @@ static dns_dbmethods_t sampledb_methods = {
 hashsize,
 NULL,
 NULL,
+ NULL,
+ NULL,
};

/* Auxiliary driver functions. */
diff --git a/bin/tests/system/serve-stale/.gitignore b/bin/tests/system/serve-stale/.gitignore
new file mode 100644
index 0000000..2272eef
--- /dev/null
+++ b/bin/tests/system/serve-stale/.gitignore
@@ -0,0 +1,11 @@
+/ans2/ans.pid
+/ans2/ans.pl
+/dig.out*
+/ns1/named.conf
```

```
+/ns3/named.conf
+/ns3/root.bk
+/rndc.out*
+named.lock
+named.pid
+named.port
+named.run
diff
 --git a/bin/tests/system/serve-stale/ans2/ans.pl.in b/bin/tests/system/serve-stale/ans2/ans.pl.in
new file mode 100644
index 0000000..2b39eca
--- /dev/null
+++ b/bin/tests/system/serve-stale/ans2/ans.pl.in
@@ -0,0 +1,178 @@
+#!/usr/bin/env perl
+#
+# Copyright (C) 2014-2016  Internet Systems Consortium, Inc. ("ISC")
+#
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+# License, v. 2.0. If a copy of the MPL was not distributed with this
+# file, You can obtain one at http://mozilla.org/MPL/2.0/.
+
+use strict;
+use warnings;
+
+use IO::File;
+use IO::Socket;
+use Getopt::Long;
+use Net::DNS;
+use Time::HiRes qw(usleep nanosleep);
+
+my $pidf = new IO::File "ans.pid", "w" or die "cannot open pid file: $!";
+print $pidf "$$\n" or die "cannot write pid file: $!";
+$pidf->close or die "cannot close pid file: $!";
+sub rmpid { unlink "ans.pid"; exit 1; };
+
+$SIG{INT} = \&rmpid;
+$SIG{TERM}
 = \&rmpid;
+
+my $send_response = 1;
+
+my $localaddr = "10.53.0.2";
+my $localport = @PORT@;
+my $udpsock = IO::Socket::INET->new(LocalAddr => "$localaddr",
+   LocalPort => $localport, Proto => "udp", Reuse => 1) or die "$!";
+
+#
```

```
+# Delegation
+#
+my $SOA = "example 300 IN SOA . . 0 0 0 0 300";
+my $NS = "example 300 IN NS ns.example";
+my $A = "ns.example 300 IN A $localaddr";
+#
+# Records to be TTL stretched
+#
+my $TXT = "data.example 1 IN TXT \"A text record with a 1 second ttl\"";
+my $negSOA = "example 1 IN SOA . . 0 0 0 0 300";
+
+sub reply_handler {
+    my ($qname, $qclass, $qtype) = @_;
+    my ($rcode, @ans, @auth, @add);
+
+    print ("request: $qname/$qtype\n");
+    STDOUT->flush();
+
+    # Control whether we send a response or not.
+    # We always respond to control commands.
+    if ($qname eq "enable" ) {
+ if ($qtype eq "TXT") {
+     $send_response = 1;
+            my $rr = new Net::DNS::RR("$qname 0 $qclass TXT \"$send_response\"");
+            push @ans, $rr;
+ }
+ $rcode
 = "NOERROR";
+        return ($rcode, \@ans, \@auth, \@add, { aa => 1 });
+    } elsif ($qname eq "disable" ) {
+ if ($qtype eq "TXT") {
+     $send_response = 0;
+            my $rr = new Net::DNS::RR("$qname 0 $qclass TXT \"$send_response\"");
+            push @ans, $rr;
+ }
+ $rcode = "NOERROR";
+        return ($rcode, \@ans, \@auth, \@add, { aa => 1 });
+    }
+
+    # If we are not responding to queries we are done.
+    return if (!$send_response);
+
+    # Construct the response and send it.
+    if ($qname eq "ns.example" ) {
+ if ($qtype eq "A") {
+     my $rr = new Net::DNS::RR($A);
+     push @ans, $rr;
+ } else {
```

```
+     my $rr = new Net::DNS::RR($SOA);
+     push @auth, $rr;
+ }
+ $rcode = "NOERROR";
+    } elsif ($qname eq "example") {
+ if ($qtype eq "NS") {
+     my $rr = new Net::DNS::RR($NS);
+     push @auth, $rr;
+     $rr = new Net::DNS::RR($A);
+     push @add, $rr;
+ } elsif ($qtype eq "SOA") {
+     my $rr = new Net::DNS::RR($SOA);
+     push @ans,
 $rr;
+ } else {
+     my $rr = new Net::DNS::RR($SOA);
+     push @auth, $rr;
+ }
+ $rcode = "NOERROR";
+    } elsif ($qname eq "nodata.example") {
+ my $rr = new Net::DNS::RR($negSOA);
+ push @auth, $rr;
+ $rcode = "NOERROR";
+    } elsif ($qname eq "data.example") {
+ if ($qtype eq "TXT") {
+     my $rr = new Net::DNS::RR($TXT);
+     push @ans, $rr;
+ } else {
+     my $rr = new Net::DNS::RR($negSOA);
+     push @auth, $rr;
+ }
+ $rcode = "NOERROR";
+    } elsif ($qname eq "nxdomain.example") {
+ my $rr = new Net::DNS::RR($negSOA);
+ push @auth, $rr;
+ $rcode = "NXDOMAIN";
+    } else {
+        my $rr = new Net::DNS::RR($SOA);
+ push @auth, $rr;
+ $rcode = "NXDOMAIN";
+    }
+
+    # mark the answer as authoritive (by setting the 'aa' flag
+    return ($rcode, \@ans, \@auth, \@add, { aa => 1 });
+}
+
+GetOptions(
+    'port=i' => \$localport,
```

```
+);
+
+my $rin;
+my $rout;
+
+for (;;) {
+ $rin = '';
+ vec($rin, fileno($udpsock), 1) = 1;
+
+ select($rout = $rin, undef, undef, undef);
+
+ if
 (vec($rout, fileno($udpsock), 1)) {
+  my ($buf, $request, $err);
+  $udpsock->recv($buf, 512);
+
+  if ($Net::DNS::VERSION > 0.68) {
+   $request = new Net::DNS::Packet(\$buf, 0);
+   $@ and die $@;
+  } else {
+   my $err;
+   ($request, $err) = new Net::DNS::Packet(\$buf, 0);
+   $err and die $err;
+  }
+
+  my @questions = $request->question;
+  my $qname = $questions[0]->qname;
+  my $qclass = $questions[0]->qclass;
+  my $qtype = $questions[0]->qtype;
+  my $id = $request->header->id;
+
+  my ($rcode, $ans, $auth, $add, $headermask) = reply_handler($qname, $qclass, $qtype);
+
+  if (!defined($rcode)) {
+   print "  Silently ignoring query\n";
+   next;
+  }
+
+  my $reply = Net::DNS::Packet->new();
+  $reply->header->qr(1);
+  $reply->header->aa(1) if $headermask->{'aa'};
+  $reply->header->id($id);
+  $reply->header->rcode($rcode);
+  $reply->push("question",   @questions);
+  $reply->push("answer",     @$ans)  if $ans;
+  $reply->push("authority",  @$auth) if $auth;
+  $reply->push("additional",
```

```
 @$add)  if $add;
+
+  my $num_chars = $udpsock->send($reply->data);
+  print "  Sent $num_chars bytes via UDP\n";
+ }
+}
diff --git a/bin/tests/system/serve-stale/clean.sh b/bin/tests/system/serve-stale/clean.sh
new file mode 100644
index 0000000..2397326
--- /dev/null
+++ b/bin/tests/system/serve-stale/clean.sh
@@ -0,0 +1,15 @@
+# Copyright (C) 2017  Internet Systems Consortium, Inc. ("ISC")
+#
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+# License, v. 2.0. If a copy of the MPL was not distributed with this
+# file, You can obtain one at http://mozilla.org/MPL/2.0/.
+
+rm -f test.output
+rm -f dig.out.test*
+rm -f ans2/ans.pl
+rm -f ns3/root.bk
+rm -f rndc.out.test*
+rm -f ns*/named.memstats
+rm -f ns*/managed-keys.bind
+rm -f ns*/named.conf
+rm -f ns*/named.run
diff --git a/bin/tests/system/serve-stale/ns1/named1.conf.in b/bin/tests/system/serve-stale/ns1/named1.conf.in
new file mode 100644
index 0000000..8a75a10
--- /dev/null
+++
 b/bin/tests/system/serve-stale/ns1/named1.conf.in
@@ -0,0 +1,35 @@
+/*
+ * Copyright (C) 2017  Internet Systems Consortium, Inc. ("ISC")
+ *
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+ * License, v. 2.0. If a copy of the MPL was not distributed with this
+ * file, You can obtain one at http://mozilla.org/MPL/2.0/.
+ */
+
+key rndc_key {
+	secret "1234abcd8765";
+	algorithm hmac-sha256;
+};
+
+controls {
```

```
+ inet 10.53.0.1 port @CONTROLPORT@ allow { any; } keys { rndc_key; };
+};
+
+options {
+ query-source address 10.53.0.1;
+ notify-source 10.53.0.1;
+ transfer-source 10.53.0.1;
+ port @PORT@;
+ pid-file "named.pid";
+ listen-on { 10.53.0.1; };
+ listen-on-v6 { none; };
+ recursion yes;
+ max-stale-ttl 3600;
+ stale-answer-ttl 1;
+ stale-answer-enable yes;
+};
+
+zone "." {
+ type master;
+ file "root.db";
+};
diff --git a/bin/tests/system/serve-stale/ns1/named2.conf.in b/bin/tests/system/serve-stale/ns1/named2.conf.in
new file mode 100644
index
 0000000..072e6ec
--- /dev/null
+++ b/bin/tests/system/serve-stale/ns1/named2.conf.in
@@ -0,0 +1,35 @@
+/*
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+ *
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+ * License, v. 2.0. If a copy of the MPL was not distributed with this
+ * file, You can obtain one at http://mozilla.org/MPL/2.0/.
+ */
+
+key rndc_key {
+	secret "1234abcd8765";
+	algorithm hmac-sha256;
+};
+
+controls {
+ inet 10.53.0.1 port @CONTROLPORT@ allow { any; } keys { rndc_key; };
+};
+
+options {
+ query-source address 10.53.0.1;
+ notify-source 10.53.0.1;
```

```
+ transfer-source 10.53.0.1;
+ port @PORT@;
+ pid-file "named.pid";
+ listen-on { 10.53.0.1; };
+ listen-on-v6 { none; };
+ recursion yes;
+ max-stale-ttl 7200;
+ stale-answer-ttl 2;
+ stale-answer-enable yes;
+};
+
+zone "." {
+ type master;
+ file "root.db";
+};
diff --git a/bin/tests/system/serve-stale/ns1/root.db b/bin/tests/system/serve-stale/ns1/root.db
new
 file mode 100644
index 0000000..eb9ad3e
--- /dev/null
+++ b/bin/tests/system/serve-stale/ns1/root.db
@@ -0,0 +1,5 @@
+.  300 SOA . . 0 0 0 0 0
+.  300 NS ns.nil.
+ns.nil.  300 A 10.53.0.1
+example. 300 NS ns.example.
+ns.example. 300 A 10.53.0.2
diff --git a/bin/tests/system/serve-stale/ns3/named.conf.in b/bin/tests/system/serve-stale/ns3/named.conf.in
new file mode 100644
index 0000000..24a3293
--- /dev/null
+++ b/bin/tests/system/serve-stale/ns3/named.conf.in
@@ -0,0 +1,35 @@
+/*
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+ * License, v. 2.0. If a copy of the MPL was not distributed with this
+ * file, You can obtain one at http://mozilla.org/MPL/2.0/.
+ */
+
+key rndc_key {
+	secret "1234abcd8765";
+	algorithm hmac-sha256;
+};
+
+controls {
+ inet 10.53.0.3 port @CONTROLPORT@ allow { any; } keys { rndc_key; };
```

```
+};
+
+options {
+ query-source address 10.53.0.3;
+ notify-source
 10.53.0.3;
+ transfer-source 10.53.0.3;
+ port @PORT@;
+ pid-file "named.pid";
+ listen-on { 10.53.0.3; };
+ listen-on-v6 { none; };
+ recursion yes;
+ // max-stale-ttl 3600;
+ // stale-answer-ttl 3;
+};
+
+zone "." {
+ type slave;
+ masters { 10.53.0.1; };
+ file "root.bk";
+};
diff --git a/bin/tests/system/serve-stale/prereq.sh b/bin/tests/system/serve-stale/prereq.sh
new file mode 100644
index 0000000..a3bbef8
--- /dev/null
+++ b/bin/tests/system/serve-stale/prereq.sh
@@ -0,0 +1,38 @@
+#!/bin/sh
+#
+# Copyright (C) 2011, 2012, 2014, 2016  Internet Systems Consortium, Inc. ("ISC")
+#
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+# License, v. 2.0. If a copy of the MPL was not distributed with this
+# file, You can obtain one at http://mozilla.org/MPL/2.0/.
+
+SYSTEMTESTTOP=..
+. $SYSTEMTESTTOP/conf.sh
+
+if $PERL -e 'use Net::DNS;' 2>/dev/null
+then
+    if $PERL -e 'use Net::DNS; die if ($Net::DNS::VERSION >= 0.69 && $Net::DNS::VERSION <= 0.74);'
 2>/dev/null
+    then
+        :
+    else
+        echo "I:Net::DNS versions 0.69 to 0.74 have bugs that cause this test to fail: please update." >&2
+        exit 1
+    fi
```

```
+else
+    echo "I:This test requires the Net::DNS library." >&2
+    exit 1
+fi
+if $PERL -e 'use Net::DNS::Nameserver;' 2>/dev/null
+then
+ :
+else
+ echo "I:This test requires the Net::DNS::Nameserver library." >&2
+ exit 1
+fi
+if $PERL -e 'use Time::HiRes;' 2>/dev/null
+then
+ :
+else
+ echo "I:This test requires the Time::HiRes library." >&2
+ exit 1
+fi
diff --git a/bin/tests/system/serve-stale/setup.sh b/bin/tests/system/serve-stale/setup.sh
new file mode 100644
index 0000000..690f43c
--- /dev/null
+++ b/bin/tests/system/serve-stale/setup.sh
@@ -0,0 +1,13 @@
+#!/bin/sh
+# Copyright (C) 2017  Internet Systems Consortium, Inc. ("ISC")
+#
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+# License, v. 2.0. If a copy of the MPL was not distributed with this
+# file, You can obtain one at
 http://mozilla.org/MPL/2.0/.
+
+SYSTEMTESTTOP=..
+. $SYSTEMTESTTOP/conf.sh
+
+copy_setports ns1/named1.conf.in ns1/named.conf
+copy_setports ans2/ans.pl.in ans2/ans.pl
+copy_setports ns3/named.conf.in ns3/named.conf
diff --git a/bin/tests/system/serve-stale/tests.sh b/bin/tests/system/serve-stale/tests.sh
new file mode 100755
index 0000000..201c996
--- /dev/null
+++ b/bin/tests/system/serve-stale/tests.sh
@@ -0,0 +1,536 @@
+#!/bin/sh
+#
+# Copyright (C) 2000, 2001, 2004, 2007, 2009-2016  Internet Systems Consortium, Inc. ("ISC")
+#
```

```
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+# License, v. 2.0. If a copy of the MPL was not distributed with this
+# file, You can obtain one at http://mozilla.org/MPL/2.0/.
+
+SYSTEMTESTTOP=..
+. $SYSTEMTESTTOP/conf.sh
+
+while getopts "p:c:" flag; do
+    case "$flag" in
+ p) port=$OPTARG ;;
+ c) controlport=$OPTARG ;;
+ *) exit 1 ;;
+    esac
+done
+
+RNDCCMD="$RNDC -c $SYSTEMTESTTOP/common/rndc.conf -p ${CONTROLPORT} -s"
+
+echo
 "RNDCCMD: ${RNDCCMD}"
+
+status=0
+n=0
+
+#echo "I:check ans.pl server ($n)"
+#$DIG -p ${PORT} @10.53.0.2 example NS
+#$DIG -p ${PORT} @10.53.0.2 example SOA
+#$DIG -p ${PORT} @10.53.0.2 ns.example A
+#$DIG -p ${PORT} @10.53.0.2 ns.example AAAA
+#$DIG -p ${PORT} @10.53.0.2 txt enable
+#$DIG -p ${PORT} @10.53.0.2 txt disable
+#$DIG -p ${PORT} @10.53.0.2 ns.example AAAA
+#$DIG -p ${PORT} @10.53.0.2 txt enable
+#$DIG -p ${PORT} @10.53.0.2 ns.example AAAA
+##$DIG -p ${PORT} @10.53.0.2 data.example TXT
+#$DIG -p ${PORT} @10.53.0.2 nodata.example TXT
+#$DIG -p ${PORT} @10.53.0.2 nxdomain.example TXT
+
+n=`expr $n + 1`
+echo "I:prime cache data.example ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.1 data.example TXT > dig.out.test$n
+grep "status: NOERROR" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 1," dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:prime cache nodata.example ($n)"
```

```
+ret=0
+$DIG -p ${PORT}
 @10.53.0.1 nodata.example TXT > dig.out.test$n
+grep "status: NOERROR" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 0," dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:prime cache nxdomain.example ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.1 nxdomain.example TXT > dig.out.test$n
+grep "status: NXDOMAIN" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 0," dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:disable responses from authoritative server ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.2 txt disable  > dig.out.test$n
+grep "ANSWER: 1," dig.out.test$n > /dev/null || ret=1
+grep "TXT.\"0\"" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+sleep 1
+
+n=`expr $n + 1`
+echo "I:check 'rndc serve-stale status' ($n)"
+ret=0
+$RNDCCMD 10.53.0.1 serve-stale
 status > rndc.out.test$n 2>&1 || ret=1
+grep '_default: on (stale-answer-ttl=1 max-stale-ttl=3600)' rndc.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check stale data.example ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.1 data.example TXT > dig.out.test$n
+grep "status: NOERROR" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 1," dig.out.test$n > /dev/null || ret=1
+grep "example.*1.*IN" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
```

```
+echo "I:check stale nodata.example ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.1 nodata.example TXT > dig.out.test$n
+grep "status: NOERROR" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 0," dig.out.test$n > /dev/null || ret=1
+grep "example.*1.*IN" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo
 "I:check stale nxdomain.example ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.1 nxdomain.example TXT > dig.out.test$n
+grep "status: NXDOMAIN" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 0," dig.out.test$n > /dev/null || ret=1
+grep "example.*1.*IN" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:running 'rndc serve-stale off' ($n)"
+ret=0
+$RNDCCMD 10.53.0.1 serve-stale off || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check 'rndc serve-stale status' ($n)"
+ret=0
+$RNDCCMD 10.53.0.1 serve-stale status > rndc.out.test$n 2>&1 || ret=1
+grep '_default: off (rndc) (stale-answer-ttl=1 max-stale-ttl=3600)' rndc.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check stale data.example (serve-stale off) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.1 data.example
 TXT > dig.out.test$n
+grep "status: SERVFAIL" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check stale nodata.example (serve-stale off) ($n)"
```

```
+ret=0
+$DIG -p ${PORT} @10.53.0.1 nodata.example TXT > dig.out.test$n
+grep "status: SERVFAIL" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check stale nxdomain.example (serve-stale off) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.1 nxdomain.example TXT > dig.out.test$n
+grep "status: SERVFAIL" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:running 'rndc serve-stale on' ($n)"
+ret=0
+$RNDCCMD 10.53.0.1 serve-stale on || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr
 $n + 1`
+echo "I:check 'rndc serve-stale status' ($n)"
+ret=0
+$RNDCCMD 10.53.0.1 serve-stale status > rndc.out.test$n 2>&1 || ret=1
+grep '_default: on (rndc) (stale-answer-ttl=1 max-stale-ttl=3600)' rndc.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check stale data.example (serve-stale on) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.1 data.example TXT > dig.out.test$n
+grep "status: NOERROR" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 1," dig.out.test$n > /dev/null || ret=1
+grep "example.*1.*IN" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check stale nodata.example (serve-stale on) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.1 nodata.example TXT > dig.out.test$n
+grep "status: NOERROR" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 0," dig.out.test$n > /dev/null || ret=1
+grep "example.*1.*IN" dig.out.test$n
```

```
 > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check stale nxdomain.example (serve-stale on) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.1 nxdomain.example TXT > dig.out.test$n
+grep "status: NXDOMAIN" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 0," dig.out.test$n > /dev/null || ret=1
+grep "example.*1.*IN" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:running 'rndc serve-stale no' ($n)"
+ret=0
+$RNDCCMD 10.53.0.1 serve-stale no || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check 'rndc serve-stale status' ($n)"
+ret=0
+$RNDCCMD 10.53.0.1 serve-stale status > rndc.out.test$n 2>&1 || ret=1
+grep '_default: off (rndc) (stale-answer-ttl=1 max-stale-ttl=3600)' rndc.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr
 $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check stale data.example (serve-stale no) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.1 data.example TXT > dig.out.test$n
+grep "status: SERVFAIL" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check stale nodata.example (serve-stale no) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.1 nodata.example TXT > dig.out.test$n
+grep "status: SERVFAIL" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
```

```
+n=`expr $n + 1`
+echo "I:check stale nxdomain.example (serve-stale no) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.1 nxdomain.example TXT > dig.out.test$n
+grep "status: SERVFAIL" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:running 'rndc serve-stale
 yes' ($n)"
+ret=0
+$RNDCCMD 10.53.0.1 serve-stale yes || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check 'rndc serve-stale status' ($n)"
+ret=0
+$RNDCCMD 10.53.0.1 serve-stale status > rndc.out.test$n 2>&1 || ret=1
+grep '_default: on (rndc) (stale-answer-ttl=1 max-stale-ttl=3600)' rndc.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check stale data.example (serve-stale yes) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.1 data.example TXT > dig.out.test$n
+grep "status: NOERROR" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 1," dig.out.test$n > /dev/null || ret=1
+grep "example.*1.*IN" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check stale nodata.example (serve-stale yes) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.1 nodata.example TXT > dig.out.test$n
+grep
 "status: NOERROR" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 0," dig.out.test$n > /dev/null || ret=1
+grep "example.*1.*IN" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check stale nxdomain.example (serve-stale yes) ($n)"
+ret=0
```

```
+$DIG -p ${PORT} @10.53.0.1 nxdomain.example TXT > dig.out.test$n
+grep "status: NXDOMAIN" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 0," dig.out.test$n > /dev/null || ret=1
+grep "example.*1.*IN" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:running 'rndc serve-stale off' ($n)"
+ret=0
+$RNDCCMD 10.53.0.1 serve-stale off || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:running 'rndc serve-stale reset' ($n)"
+ret=0
+$RNDCCMD 10.53.0.1 serve-stale reset || ret=1
+if [ $ret != 0 ]; then echo "I:failed";
 fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check 'rndc serve-stale status' ($n)"
+ret=0
+$RNDCCMD 10.53.0.1 serve-stale status > rndc.out.test$n 2>&1 || ret=1
+grep '_default: on (stale-answer-ttl=1 max-stale-ttl=3600)' rndc.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check stale data.example (serve-stale reset) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.1 data.example TXT > dig.out.test$n
+grep "status: NOERROR" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 1," dig.out.test$n > /dev/null || ret=1
+grep "example.*1.*IN" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check stale nodata.example (serve-stale reset) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.1 nodata.example TXT > dig.out.test$n
+grep "status: NOERROR" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 0," dig.out.test$n
 > /dev/null || ret=1
+grep "example.*1.*IN" dig.out.test$n > /dev/null || ret=1
```

```
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check stale nxdomain.example (serve-stale reset) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.1 nxdomain.example TXT > dig.out.test$n
+grep "status: NXDOMAIN" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 0," dig.out.test$n > /dev/null || ret=1
+grep "example.*1.*IN" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:running 'rndc serve-stale off' ($n)"
+ret=0
+$RNDCCMD 10.53.0.1 serve-stale off || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check 'rndc serve-stale status' ($n)"
+ret=0
+$RNDCCMD 10.53.0.1 serve-stale status > rndc.out.test$n 2>&1 || ret=1
+grep '_default: off (rndc) (stale-answer-ttl=1 max-stale-ttl=3600)' rndc.out.test$n > /dev/null || ret=1
+if
 [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:updating ns1/named.conf ($n)"
+ret=0
+sed -e "s/@PORT@/${PORT}/g;s/@CONTROLPORT@/${CONTROLPORT}/g" < ns1/named2.conf.in >
ns1/named.conf
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:running 'rndc reload' ($n)"
+ret=0
+$RNDCCMD 10.53.0.1 reload > rndc.out.test$n 2>&1 || ret=1
+grep "server reload successful" rndc.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check 'rndc serve-stale status' ($n)"
+ret=0
```

```
+$RNDCCMD 10.53.0.1 serve-stale status > rndc.out.test$n 2>&1 || ret=1
+grep '_default: off (rndc) (stale-answer-ttl=2 max-stale-ttl=7200)' rndc.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check 'rndc serve-stale' ($n)"
+ret=0
+$RNDCCMD 10.53.0.1 serve-stale
 > rndc.out.test$n 2>&1 && ret=1
+grep "unexpected end of input" rndc.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check 'rndc serve-stale unknown' ($n)"
+ret=0
+$RNDCCMD 10.53.0.1 serve-stale unknown > rndc.out.test$n 2>&1 && ret=1
+grep "syntax error" rndc.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo_i "flush cache, re-enable serve-stale and query again ($n)"
+ret=0
+$RNDCCMD 10.53.0.1 flushtree example > rndc.out.test$n.1 2>&1 || ret=1
+$RNDCCMD 10.53.0.1 serve-stale on > rndc.out.test$n.2 2>&1 || ret=1
+$DIG -p ${PORT} @10.53.0.1 data.example TXT > dig.out.test$n
+grep "status: SERVFAIL" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 0," dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo_i "failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+ret=0
+$DIG -p ${PORT} @10.53.0.2 txt enable
  > dig.out.test$n
+grep "ANSWER: 1," dig.out.test$n > /dev/null || ret=1
+grep "TXT.\"1\"" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:prime cache data.example (max-stale-ttl default) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.3 data.example TXT > dig.out.test$n
+grep "status: NOERROR" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 1," dig.out.test$n > /dev/null || ret=1
```

```
+grep "example.*1.*IN" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:prime cache nodata.example (max-stale-ttl default) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.3 nodata.example TXT > dig.out.test$n
+grep "status: NOERROR" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 0," dig.out.test$n > /dev/null || ret=1
+grep "example.*1.*IN" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status
 + $ret`
+
+n=`expr $n + 1`
+echo "I:prime cache nxdomain.example (max-stale-ttl default) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.3 nxdomain.example TXT > dig.out.test$n
+grep "status: NXDOMAIN" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 0," dig.out.test$n > /dev/null || ret=1
+grep "example.*1.*IN" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:disable responses from authoritative server ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.2 txt disable  > dig.out.test$n
+grep "ANSWER: 1," dig.out.test$n > /dev/null || ret=1
+grep "TXT.\"0\"" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+sleep 1
+
+n=`expr $n + 1`
+echo "I:check 'rndc serve-stale status' ($n)"
+ret=0
+$RNDCCMD 10.53.0.3 serve-stale status > rndc.out.test$n 2>&1 || ret=1
+grep '_default: off (stale-answer-ttl=1 max-stale-ttl=604800)' rndc.out.test$n > /dev/null || ret=1
+if
 [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check fail of data.example (max-stale-ttl default) ($n)"
+ret=0
```

```
+$DIG -p ${PORT} @10.53.0.3 data.example TXT > dig.out.test$n
+grep "status: SERVFAIL" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 0," dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check fail of nodata.example (max-stale-ttl default) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.3 nodata.example TXT > dig.out.test$n
+grep "status: SERVFAIL" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 0," dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check fail of nxdomain.example (max-stale-ttl default) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.3 nxdomain.example TXT > dig.out.test$n
+grep "status: SERVFAIL" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER:
 0," dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check 'rndc serve-stale on' ($n)"
+ret=0
+$RNDCCMD 10.53.0.3 serve-stale on > rndc.out.test$n 2>&1 || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check 'rndc serve-stale status' ($n)"
+ret=0
+$RNDCCMD 10.53.0.3 serve-stale status > rndc.out.test$n 2>&1 || ret=1
+grep '_default: on (rndc) (stale-answer-ttl=1 max-stale-ttl=604800)' rndc.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check data.example (max-stale-ttl default) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.3 data.example TXT > dig.out.test$n
+grep "status: NOERROR" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 1," dig.out.test$n > /dev/null || ret=1
+grep "example.*1.*IN" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo
```

```
 "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check nodata.example (max-stale-ttl default) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.3 nodata.example TXT > dig.out.test$n
+grep "status: NOERROR" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 0," dig.out.test$n > /dev/null || ret=1
+grep "example.*1.*IN" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+n=`expr $n + 1`
+echo "I:check nxdomain.example (max-stale-ttl default) ($n)"
+ret=0
+$DIG -p ${PORT} @10.53.0.3 nxdomain.example TXT > dig.out.test$n
+grep "status: NXDOMAIN" dig.out.test$n > /dev/null || ret=1
+grep "ANSWER: 0," dig.out.test$n > /dev/null || ret=1
+grep "example.*1.*IN" dig.out.test$n > /dev/null || ret=1
+if [ $ret != 0 ]; then echo "I:failed"; fi
+status=`expr $status + $ret`
+
+echo "I:exit status: $status"
+[ $status -eq 0 ] || exit 1
diff --git a/doc/arm/Bv9ARM-book.xml b/doc/arm/Bv9ARM-book.xml
index 99c8680..5fbabfe 100644
---
 a/doc/arm/Bv9ARM-book.xml
+++ b/doc/arm/Bv9ARM-book.xml
@@ -4336,6 +4336,9 @@ badresp:1,adberr:0,findfail:0,valfail:0]
   statement in the <filename>named.conf</filename> file:
 </para>
 <xi:include xmlns:xi="http://www.w3.org/2001/XInclude" href="options.grammar.xml"/>
+  [ <command>max-stale-ttl</command> <replaceable>number</replaceable> ; ]
+  [ <command>stale-answer-enable</command> <replaceable>yes_or_no</replaceable> ; ]
+  [ <command>stale-answer-ttl</command> <replaceable>number</replaceable> ; ]
      </section>

      <section xml:id="options"><info><title><command>options</command> Statement Definition and
@@ -4429,6 +4432,7 @@ badresp:1,adberr:0,findfail:0,valfail:0]
    <command>dnssec-validation</command>,
    <command>max-cache-ttl</command>,
    <command>max-ncache-ttl</command>,
+    <command>max-stale-ttl</command>,
    <command>max-cache-size</command>, and
    <command>zero-no-soa-ttl</command>.
  </para>
```

```
@@ -5438,7 +5442,6 @@ options {
     </listitem>
    </varlistentry>

-
   <varlistentry>
     <term><command>max-zone-ttl</command></term>
     <listitem>
@@ -5474,6 +5477,21 @@ options {
     </listitem>
   </varlistentry>

+   <varlistentry>
+     <term><command>stale-answer-ttl</command></term>
+     <listitem>
+       <para>
+  Specifies the TTL to be returned on stale answers.
+  The default is 1 second. The minimal allowed is
+  also 1 second; a value of 0 will be updated silently
+  to 1 second.  For stale answers to be returned
+  <option>max-stale-ttl</option> must be set to a
+  non zero value and they must not have been disabled
+  by <command>rndc</command>.
+       </para>
+     </listitem>
+   </varlistentry>
+
   <varlistentry>
     <term><command>serial-update-method</command></term>
     <listitem>
@@ -6227,6 +6245,22 @@ options {
       </listitem>
     </varlistentry>

+     <varlistentry>
+       <term><command>serve-stale-enable</command></term>
+       <listitem>
+  <para>
+    Enable the
 returning of stale answers when the
+    nameservers for the zone are not answering.  This
+    is off by default but can be enabled/disabled via
+    <command>rndc server-stale on</command> and
+    <command>rndc server-stale off</command> which
+    override the named.conf setting.  <command>rndc
+    server-stale reset</command> will restore control
+    via named.conf.
+  </para>
```

```
+      </listitem>
+    </varlistentry>
+
     <varlistentry>
       <term><command>nocookie-udp-size</command></term>
       <listitem>
@@ -7449,13 +7483,19 @@ options {
       <term><command>resolver-query-timeout</command></term>
       <listitem>
  <para>
-    This is the amount of time in seconds that the
-    resolver spends attempting to resolve a recursive
-    query before failing.  The default and minimum
-    is <literal>10</literal> and the maximum is
-    <literal>30</literal>.  Setting it to
-    <literal>0</literal> results in the default
-    being used.
+    The amount of time in
 milliseconds that the resolver
+     will spend attempting to resolve a recursive
+     query before failing.  The default and minimum
+    is <literal>10000</literal> and the maximum is
+    <literal>30000</literal>.  Setting it to
+     <literal>0</literal> will result in the default
+     being used.
+  </para>
+  <para>
+    This value was originally specified in seconds.
+    Values less than or equal to 300 will be be treated
+    as seconds and converted to milliseconds before
+    applying the above limits.
  </para>
       </listitem>
     </varlistentry>
@@ -9016,6 +9056,27 @@ avoid-v6-udp-ports { 40000; range 50000 60000; };
       </listitem>
     </varlistentry>

+     <varlistentry>
+       <term><command>max-stale-ttl</command></term>
+       <listitem>
+  <para>
+    Sets the maximum time for which the server will
+    retain records past their normal expiry to
+    return them as stale records when the servers
+    for those records are not reachable.  The default
+
```

```
  is to not retain the record.
+  </para>
+  <para>
+    <command>rndc serve-stale</command> can be used
+    to disable and re-enable the serving of stale
+    records at runtime.  Reloading or reconfiguring
+    <command>named</command> will not re-enable serving
+    of stale records if they have been disabled via
+    <command>rndc</command>.
+  </para>
+       </listitem>
+     </varlistentry>
+
     <varlistentry>
       <term><command>min-roots</command></term>
       <listitem>
diff --git a/doc/arm/logging-categories.xml b/doc/arm/logging-categories.xml
index 56d05e8..098342b 100644
--- a/doc/arm/logging-categories.xml
+++ b/doc/arm/logging-categories.xml
@@ -311,6 +311,17 @@
   </para>
 </entry>
      </row>
+      <row rowsep="0">
+ <entry colname="1">
+   <para><command>serve-stale</command></para>
+ </entry>
+ <entry colname="2">
+   <para>
+     Whether or not a stale answer is used
+     following a resolver failure.
+   </para>
+ </entry>
+      </row>

   <row rowsep="0">
 <entry colname="1">
   <para><command>spill</command></para>
diff --git a/doc/arm/notes-rh-changes.xml b/doc/arm/notes-rh-changes.xml
index 89a4961..80b7dee 100644
--- a/doc/arm/notes-rh-changes.xml
+++ b/doc/arm/notes-rh-changes.xml
@@ -12,6 +12,9 @@
<section xml:id="relnotes_rh_changes"><info><title>Red Hat Specific Changes</title></info>
  <itemizedlist>
    <listitem>
+      <para>
```

```
+        This version includes some features not present in releases by ISC.
+      </para>
      <para>
        By default, BIND now uses the random number generation functions
        in the cryptographic library (i.e., OpenSSL or a PKCS#11
@@ -36,7 +39,16 @@
        case <filename>/dev/random</filename> will be the default
        entropy source.  [RT #31459] [RT #46047]
      </para>
-    </listitem>
+      <para>
+        When acting as a recursive resolver, <command>named</command>
+        can now continue returning answers whose TTLs have expired
+        when the
 authoritative server is under attack and unable to
+        respond. This is controlled by the
+        <command>stale-answer-enable</command>,
+        <command>stale-answer-ttl</command> and
+        <command>max-stale-ttl</command> options. [RT #44790]
+      </para>
+    </listitem>
  </itemizedlist>
</section>

diff --git a/doc/misc/options b/doc/misc/options
index e11beed..fde93c7 100644
--- a/doc/misc/options
+++ b/doc/misc/options
@@ -225,6 +225,7 @@ options {
        max-refresh-time <integer>;
        max-retry-time <integer>;
        max-rsa-exponent-size <integer>;
+        max-stale-ttl <ttlval>;
        max-transfer-idle-in <integer>;
        max-transfer-idle-out <integer>;
        max-transfer-time-in <integer>;
@@ -298,7 +299,9 @@ options {
        request-sit <boolean>; // obsolete
        require-server-cookie <boolean>;
        reserved-sockets <integer>;
+        resolver-nonbackoff-tries <integer>;
        resolver-query-timeout <integer>;
+        resolver-retry-interval
 <integer>;
        response-policy { zone <string> [ log <boolean> ] [ max-policy-ttl
            <integer> ] [ policy ( cname | disabled | drop | given | no-op
            | nodata | nxdomain | passthru | tcp-only <quoted_string> ) ] [
@@ -328,6 +331,8 @@ options {
```

```
        sit-secret <string>; // obsolete
        sortlist { <address_match_element>; ... };
        stacksize ( default | unlimited | <sizeval> );
+         stale-answer-enable <boolean>;
+         stale-answer-ttl <ttlval>;
        startup-notify-rate <integer>;
        statistics-file <quoted_string>;
        statistics-interval <integer>; // not yet implemented
@@ -539,6 +544,7 @@ view <string> [ <class> ] {
        max-recursion-queries <integer>;
        max-refresh-time <integer>;
        max-retry-time <integer>;
+         max-stale-ttl <ttlval>;
        max-transfer-idle-in <integer>;
        max-transfer-idle-out <integer>;
        max-transfer-time-in <integer>;
@@ -600,7 +606,9
 @@ view <string> [ <class> ] {
        request-nsid <boolean>;
        request-sit <boolean>; // obsolete
        require-server-cookie <boolean>;
+         resolver-nonbackoff-tries <integer>;
        resolver-query-timeout <integer>;
+         resolver-retry-interval <integer>;
        response-policy { zone <string> [ log <boolean> ] [ max-policy-ttl
            <integer> ] [ policy ( cname | disabled | drop | given | no-op
            | nodata | nxdomain | passthru | tcp-only <quoted_string> ) ] [
@@ -655,6 +663,8 @@ view <string> [ <class> ] {
        sig-signing-type <integer>;
        sig-validity-interval <integer> [ <integer> ];
        sortlist { <address_match_element>; ... };
+         stale-answer-enable <boolean>;
+         stale-answer-ttl <ttlval>;
        suppress-initial-notify <boolean>; // not yet implemented
        topology { <address_match_element>; ... }; // not implemented
        transfer-format ( many-answers | one-answer );
diff --git a/lib/bind9/check.c
 b/lib/bind9/check.c
index bf769fe..6c57fa4 100644
--- a/lib/bind9/check.c
+++ b/lib/bind9/check.c
@@ -99,7 +99,8 @@ check_orderent(const cfg_obj_t *ent, isc_log_t *logctx) {
   cfg_obj_log(obj, logctx, ISC_LOG_ERROR,
        "rrset-order: invalid class '%s'",
        r.base);
-   result = ISC_R_FAILURE;
+   if (result == ISC_R_SUCCESS)
+    result = ISC_R_FAILURE;
```

```
  }
 }

@@ -112,7 +113,8 @@ check_orderent(const cfg_obj_t *ent, isc_log_t *logctx) {
   cfg_obj_log(obj, logctx, ISC_LOG_ERROR,
        "rrset-order: invalid type '%s'",
        r.base);
-   result = ISC_R_FAILURE;
+   if (result == ISC_R_SUCCESS)
+    result = ISC_R_FAILURE;
  }
 }

@@ -126,7 +128,8 @@ check_orderent(const cfg_obj_t *ent, isc_log_t *logctx) {
  if (tresult != ISC_R_SUCCESS) {
   cfg_obj_log(obj, logctx, ISC_LOG_ERROR,
        "rrset-order: invalid name '%s'", str);
-   result = ISC_R_FAILURE;
+   if (result == ISC_R_SUCCESS)
+    result = ISC_R_FAILURE;
  }
 }

@@ -135,14 +138,16 @@
 check_orderent(const cfg_obj_t *ent, isc_log_t *logctx) {
     strcasecmp("order", cfg_obj_asstring(obj)) != 0) {
  cfg_obj_log(ent, logctx, ISC_LOG_ERROR,
       "rrset-order: keyword 'order' missing");
-  result = ISC_R_FAILURE;
+  if (result == ISC_R_SUCCESS)
+   result = ISC_R_FAILURE;
 }

 obj = cfg_tuple_get(ent, "ordering");
 if (!cfg_obj_isstring(obj)) {
     cfg_obj_log(ent, logctx, ISC_LOG_ERROR,
   "rrset-order: missing ordering");
-  result = ISC_R_FAILURE;
+  if (result == ISC_R_SUCCESS)
+   result = ISC_R_FAILURE;
 } else if (strcasecmp(cfg_obj_asstring(obj), "fixed") == 0) {
#if !DNS_RDATASET_FIXED
  cfg_obj_log(obj, logctx, ISC_LOG_WARNING,
@@ -154,7 +159,8 @@ check_orderent(const cfg_obj_t *ent, isc_log_t *logctx) {
  cfg_obj_log(obj, logctx, ISC_LOG_ERROR,
       "rrset-order: invalid order '%s'",
       cfg_obj_asstring(obj));
-  result = ISC_R_FAILURE;
```

```
+  if (result == ISC_R_SUCCESS)
+   result = ISC_R_FAILURE;
 }
 return (result);
}
@@ -174,7 +180,7
 @@ check_order(const cfg_obj_t *options, isc_log_t *logctx) {
      element = cfg_list_next(element))
 {
  tresult = check_orderent(cfg_listelt_value(element), logctx);
-  if (tresult != ISC_R_SUCCESS)
+  if (result == ISC_R_SUCCESS && tresult != ISC_R_SUCCESS)
   result = tresult;
 }
 return (result);
@@ -204,7 +210,8 @@ check_dual_stack(const cfg_obj_t *options, isc_log_t *logctx) {
  if (val > UINT16_MAX) {
   cfg_obj_log(obj, logctx, ISC_LOG_ERROR,
        "port '%u' out of range", val);
-   result = ISC_R_FAILURE;
+   if (result == ISC_R_SUCCESS)
+    result = ISC_R_RANGE;
  }
 }
 obj = cfg_tuple_get(alternates, "addresses");
@@ -224,7 +231,8 @@ check_dual_stack(const cfg_obj_t *options, isc_log_t *logctx) {
  if (tresult != ISC_R_SUCCESS) {
   cfg_obj_log(obj, logctx, ISC_LOG_ERROR,
        "bad name '%s'", str);
-   result = ISC_R_FAILURE;
+   if (result == ISC_R_SUCCESS)
+    result = tresult;
  }
  obj = cfg_tuple_get(value, "port");
  if (cfg_obj_isuint32(obj))
 {
@@ -232,7 +240,8 @@ check_dual_stack(const cfg_obj_t *options, isc_log_t *logctx) {
   if (val > UINT16_MAX) {
    cfg_obj_log(obj, logctx, ISC_LOG_ERROR,
         "port '%u' out of range", val);
-    result = ISC_R_FAILURE;
+    if (result == ISC_R_SUCCESS)
+     result = ISC_R_RANGE;
   }
  }
 }
@@ -1271,7 +1280,8 @@ check_options(const cfg_obj_t *options, isc_log_t *logctx, isc_mem_t *mctx,
   cfg_obj_log(obj, logctx, ISC_LOG_ERROR,
```

```
        "auto-dnssec may only be activated at the "
        "zone level");
-   result = ISC_R_FAILURE;
+   if (result == ISC_R_SUCCESS)
+    result = ISC_R_FAILURE;
  }
 }

@@ -1291,7 +1301,7 @@ check_options(const cfg_obj_t *options, isc_log_t *logctx, isc_mem_t *mctx,
  {
   obj = cfg_listelt_value(element);
   tresult = mustbesecure(obj, symtab, logctx, mctx);
-   if (tresult != ISC_R_SUCCESS)
+   if (result == ISC_R_SUCCESS && tresult != ISC_R_SUCCESS)
    result = tresult;
  }
  if (symtab != NULL)
@@ -1310,7 +1320,8 @@ check_options(const
 cfg_obj_t *options, isc_log_t *logctx, isc_mem_t *mctx,
    cfg_obj_log(obj, logctx, ISC_LOG_ERROR,
         "%s: invalid name '%s'",
         server_contact[i], str);
-    result = ISC_R_FAILURE;
+    if (result == ISC_R_SUCCESS)
+     result = ISC_R_FAILURE;
   }
  }
 }
@@ -1330,7 +1341,8 @@ check_options(const cfg_obj_t *options, isc_log_t *logctx, isc_mem_t *mctx,
   cfg_obj_log(obj, logctx, ISC_LOG_ERROR,
        "disable-empty-zone: invalid name '%s'",
        str);
-   result = ISC_R_FAILURE;
+   if (result == ISC_R_SUCCESS)
+    result = ISC_R_FAILURE;
  }
 }

@@ -1344,11 +1356,12 @@ check_options(const cfg_obj_t *options, isc_log_t *logctx, isc_mem_t *mctx,
     strlen(cfg_obj_asstring(obj)) > 1024U) {
  cfg_obj_log(obj, logctx, ISC_LOG_ERROR,
      "'server-id' too big (>1024 bytes)");
-  result = ISC_R_FAILURE;
+  if (result == ISC_R_SUCCESS)
+   result = ISC_R_FAILURE;
 }

 tresult = check_dscp(options, logctx);
```

```
- if (tresult != ISC_R_SUCCESS)
+ if
 (result == ISC_R_SUCCESS && tresult != ISC_R_SUCCESS)
  result = tresult;

 obj = NULL;
@@ -1358,11 +1371,13 @@ check_options(const cfg_obj_t *options, isc_log_t *logctx, isc_mem_t *mctx,
  if (lifetime > 604800) { /* 7 days */
   cfg_obj_log(obj, logctx, ISC_LOG_ERROR,
        "'nta-lifetime' cannot exceed one week");
-   result = ISC_R_RANGE;
+   if (result == ISC_R_SUCCESS)
+    result = ISC_R_RANGE;
  } else if (lifetime == 0) {
   cfg_obj_log(obj, logctx, ISC_LOG_ERROR,
        "'nta-lifetime' may not be zero");
-   result = ISC_R_RANGE;
+   if (result == ISC_R_SUCCESS)
+    result = ISC_R_RANGE;
  }
 }

@@ -1373,7 +1388,8 @@ check_options(const cfg_obj_t *options, isc_log_t *logctx, isc_mem_t *mctx,
  if (recheck > 604800) {  /* 7 days */
   cfg_obj_log(obj, logctx, ISC_LOG_ERROR,
        "'nta-recheck' cannot exceed one week");
-   result = ISC_R_RANGE;
+   if (result == ISC_R_SUCCESS)
+    result = ISC_R_RANGE;
  }

  if (recheck > lifetime)
@@ -1391,7
 +1407,8 @@ check_options(const cfg_obj_t *options, isc_log_t *logctx, isc_mem_t *mctx,
 if (strcasecmp(ccalg, "aes") == 0) {
  cfg_obj_log(obj, logctx, ISC_LOG_ERROR,
       "cookie-algorithm: '%s' not supported", ccalg);
-  result = ISC_R_NOTIMPLEMENTED;
+  if (result == ISC_R_SUCCESS)
+   result = ISC_R_NOTIMPLEMENTED;
 }
#endif

@@ -1480,7 +1497,8 @@ check_options(const cfg_obj_t *options, isc_log_t *logctx, isc_mem_t *mctx,
    cfg_obj_log(obj, logctx, ISC_LOG_ERROR,
         "%s out of range (%u < %u)",
         fstrm[i].name, value, fstrm[i].min);
-   result = ISC_R_RANGE;
```

```
+   if (result == ISC_R_SUCCESS)
+    result = ISC_R_RANGE;
  }

  if (strcmp(fstrm[i].name, "fstrm-set-input-queue-size") == 0) {
@@ -1494,7 +1512,8 @@ check_options(const cfg_obj_t *options, isc_log_t *logctx, isc_mem_t *mctx,
         "%s '%u' not a power-of-2",
         fstrm[i].name,
         cfg_obj_asuint32(obj));
-    result = ISC_R_RANGE;
+    if (result == ISC_R_SUCCESS)
+     result
 = ISC_R_RANGE;
   }
  }
 }
@@ -1512,7 +1531,8 @@ check_options(const cfg_obj_t *options, isc_log_t *logctx, isc_mem_t *mctx,
        "%" PRId64 "' "
        "is too small",
        mapsize);
-   return (ISC_R_RANGE);
+   if (result == ISC_R_SUCCESS)
+    result = ISC_R_RANGE;
  } else if (mapsize > (1ULL << 40)) { /* 1 terabyte */
   cfg_obj_log(obj, logctx,
       ISC_LOG_ERROR,
@@ -1520,10 +1540,20 @@ check_options(const cfg_obj_t *options, isc_log_t *logctx, isc_mem_t *mctx,
       "%" PRId64 "' "
       "is too large",
       mapsize);
-   return (ISC_R_RANGE);
+   if (result == ISC_R_SUCCESS)
+    result = ISC_R_RANGE;
  }
 }

+ obj = NULL;
+ (void)cfg_map_get(options, "resolver-nonbackoff-tries", &obj);
+ if (obj != NULL && cfg_obj_asuint32(obj) == 0U) {
+  cfg_obj_log(obj, logctx, ISC_LOG_ERROR,
+       "'resolver-nonbackoff-tries' must be >= 1");
+  if (result == ISC_R_SUCCESS)
+   result = ISC_R_RANGE;
+ }
+
 return (result);
}
```

```
diff --git a/lib/dns/cache.c
 b/lib/dns/cache.c
index 2965a4f..617737a 100644
--- a/lib/dns/cache.c
+++ b/lib/dns/cache.c
@@ -138,6 +138,7 @@ struct dns_cache {
 int   db_argc;
 char   **db_argv;
 size_t   size;
+ dns_ttl_t  serve_stale_ttl;
 isc_stats_t  *stats;

 /* Locked by 'filelock'. */
@@ -167,9 +168,13 @@ overmem_cleaning_action(isc_task_t *task, isc_event_t *event);

static inline isc_result_t
cache_create_db(dns_cache_t *cache, dns_db_t **db) {
- return (dns_db_create(cache->mctx, cache->db_type, dns_rootname,
-         dns_dbtype_cache, cache->rdclass,
-         cache->db_argc, cache->db_argv, db));
+ isc_result_t result;
+ result = dns_db_create(cache->mctx, cache->db_type, dns_rootname,
+          dns_dbtype_cache, cache->rdclass,
+          cache->db_argc, cache->db_argv, db);
+ if (result == ISC_R_SUCCESS)
+  dns_db_setservestalettl(*db, cache->serve_stale_ttl);
+ return (result);
}

isc_result_t
@@ -238,6 +243,7 @@ dns_cache_create3(isc_mem_t *cmctx, isc_mem_t *hmctx, isc_taskmgr_t
 *taskmgr,
 cache->references = 1;
 cache->live_tasks = 0;
 cache->rdclass = rdclass;
+ cache->serve_stale_ttl = 0;

 cache->stats = NULL;
 result = isc_stats_create(cmctx, &cache->stats,
@@ -1092,6 +1098,32 @@ dns_cache_getcachesize(dns_cache_t *cache) {
 return (size);
}

+void
+dns_cache_setservestalettl(dns_cache_t *cache, dns_ttl_t ttl) {
+ REQUIRE(VALID_CACHE(cache));
+
+ LOCK(&cache->lock);
```

```
+ cache->serve_stale_ttl = ttl;
+ UNLOCK(&cache->lock);
+
+ (void)dns_db_setservestalettl(cache->db, ttl);
+}
+
+dns_ttl_t
+dns_cache_getservestalettl(dns_cache_t *cache) {
+ dns_ttl_t ttl;
+ isc_result_t result;
+
+ REQUIRE(VALID_CACHE(cache));
+
+ /*
+  * Could get it straight from the dns_cache_t, but use db
+  * to confirm the value that the db is really using.
+  */
+ result = dns_db_getservestalettl(cache->db, &ttl);
+ return result == ISC_R_SUCCESS ? ttl : 0;
+}
+
/*
 * The cleaner task is shutting down; do the necessary cleanup.
 */
diff --git a/lib/dns/db.c b/lib/dns/db.c
index
 a28a566..c581646 100644
--- a/lib/dns/db.c
+++ b/lib/dns/db.c
@@ -1130,3 +1130,25 @@ dns_db_nodefullname(dns_db_t *db, dns_dbnode_t *node, dns_name_t *name) {
  return (ISC_R_NOTIMPLEMENTED);
 return ((db->methods->nodefullname)(db, node, name));
}
+
+isc_result_t
+dns_db_setservestalettl(dns_db_t *db, dns_ttl_t ttl)
+{
+ REQUIRE(DNS_DB_VALID(db));
+ REQUIRE((db->attributes & DNS_DBATTR_CACHE) != 0);
+
+ if (db->methods->setservestalettl != NULL)
+  return ((db->methods->setservestalettl)(db, ttl));
+ return (ISC_R_NOTIMPLEMENTED);
+}
+
+isc_result_t
+dns_db_getservestalettl(dns_db_t *db, dns_ttl_t *ttl)
+{
```

```
+ REQUIRE(DNS_DB_VALID(db));
+ REQUIRE((db->attributes & DNS_DBATTR_CACHE) != 0);
+
+ if (db->methods->getservestalettl != NULL)
+  return ((db->methods->getservestalettl)(db, ttl));
+ return (ISC_R_NOTIMPLEMENTED);
+}
diff --git a/lib/dns/ecdb.c b/lib/dns/ecdb.c
index fc94ccf..76d0417 100644
--- a/lib/dns/ecdb.c
+++ b/lib/dns/ecdb.c
@@ -588,7 +588,9 @@ static dns_dbmethods_t
 ecdb_methods = {
 NULL,   /* setcachestats */
 NULL,   /* hashsize */
 NULL,   /* nodefullname */
- NULL   /* getsize */
+ NULL,   /* getsize */
+ NULL,   /* setservestalettl */
+ NULL   /* getservestalettl */
};

static isc_result_t
diff --git a/lib/dns/include/dns/cache.h b/lib/dns/include/dns/cache.h
index ab4b0b5..e158014 100644
--- a/lib/dns/include/dns/cache.h
+++ b/lib/dns/include/dns/cache.h
@@ -260,6 +260,27 @@ dns_cache_getcachesize(dns_cache_t *cache);
 * Get the maximum cache size.
 */

+void
+dns_cache_setservestalettl(dns_cache_t *cache, dns_ttl_t ttl);
+/*%<
+ * Sets the maximum length of time that cached answers may be retained
+ * past their normal TTL.  Default value for the library is 0, disabling
+ * the use of stale data.
+ *
+ * Requires:
+ *\li 'cache' to be valid.
+ */
+
+dns_ttl_t
+dns_cache_getservestalettl(dns_cache_t *cache);
+/*%<
+ * Gets the maximum length of time that cached answers may be kept past
+ * normal expiry.
+ *
```

```
+ * Requires:
+ *\li 'cache'
 to be valid.
+ */
+
isc_result_t
dns_cache_flush(dns_cache_t *cache);
/*%<
diff --git a/lib/dns/include/dns/db.h b/lib/dns/include/dns/db.h
index 96f3a8f..452770f 100644
--- a/lib/dns/include/dns/db.h
+++ b/lib/dns/include/dns/db.h
@@ -195,6 +195,8 @@ typedef struct dns_dbmethods {
     dns_name_t *name);
 isc_result_t (*getsize)(dns_db_t *db, dns_dbversion_t *version,
       uint64_t *records, uint64_t *bytes);
+ isc_result_t (*setservestalettl)(dns_db_t *db, dns_ttl_t ttl);
+ isc_result_t (*getservestalettl)(dns_db_t *db, dns_ttl_t *ttl);
} dns_dbmethods_t;

typedef isc_result_t
@@ -253,6 +255,7 @@ struct dns_dbonupdatelistener {
#define DNS_DBFIND_FORCENSEC3  0x0080
#define DNS_DBFIND_ADDITIONALOK  0x0100
#define DNS_DBFIND_NOZONECUT  0x0200
+#define DNS_DBFIND_STALEOK  0x0400
/*@}*/

/*@{*/
@@ -1683,6 +1686,38 @@ dns_db_nodefullname(dns_db_t *db, dns_dbnode_t *node, dns_name_t *name);
 * \li 'db' is a valid database
 * \li 'node' and 'name' are not NULL
  */
+
+isc_result_t
+dns_db_setservestalettl(dns_db_t *db, dns_ttl_t ttl);
+/*%<
+ * Sets the maximum length of time that cached answers may be retained
+ * past their normal TTL. Default value for the library is 0, disabling
+ * the use of stale data.
+ *
+ * Requires:
+ * \li 'db' is a valid cache database.
+ * \li 'ttl' is the number of seconds to retain data past its normal expiry.
+ *
+ * Returns:
+ * \li #ISC_R_SUCCESS
+ * \li #ISC_R_NOTIMPLEMENTED - Not supported by this DB implementation.
```

```
+ */
+
+isc_result_t
+dns_db_getservestalettl(dns_db_t *db, dns_ttl_t *ttl);
+/*%<
+ * Gets maximum length of time that cached answers may be kept past
+ * normal TTL expiration.
+ *
+ * Requires:
+ * \li 'db' is a valid cache database.
+ * \li 'ttl' is the number of seconds to retain data past its normal expiry.
+ *
+ * Returns:
+ * \li #ISC_R_SUCCESS
+ * \li #ISC_R_NOTIMPLEMENTED - Not supported by this DB implementation.
+ */
+
ISC_LANG_ENDDECLS

#endif /* DNS_DB_H */
diff --git a/lib/dns/include/dns/rdataset.h
 b/lib/dns/include/dns/rdataset.h
index ed9119a..710e97c 100644
--- a/lib/dns/include/dns/rdataset.h
+++ b/lib/dns/include/dns/rdataset.h
@@ -128,6 +128,7 @@ struct dns_rdataset {
 unsigned int   magic;  /* XXX ? */
 dns_rdatasetmethods_t *  methods;
 ISC_LINK(dns_rdataset_t) link;
+
 /*
  * XXX do we need these, or should they be retrieved by methods?
  * Leaning towards the latter, since they are not frequently required
@@ -136,12 +137,19 @@ struct dns_rdataset {
 dns_rdataclass_t  rdclass;
 dns_rdatatype_t   type;
 dns_ttl_t   ttl;
+ /*
+  * Stale ttl is used to see how long this RRset can still be used
+  * to serve to clients, after the TTL has expired.
+  */
+ dns_ttl_t   stale_ttl;
 dns_trust_t   trust;
 dns_rdatatype_t   covers;
+
 /*
  * attributes
  */
```

```
 unsigned int   attributes;
+
 /*%
  * the counter provides the starting point in the "cyclic" order.
  * The value UINT32_MAX has a special meaning of "picking up a
@@ -149,11 +157,13
 @@ struct dns_rdataset {
  * increment the counter.
  */
 uint32_t   count;
+
 /*
  * This RRSIG RRset should be re-generated around this time.
  * Only valid if DNS_RDATASETATTR_RESIGN is set in attributes.
  */
 isc_stdtime_t   resign;
+
 /*@{*/
 /*%
  * These are for use by the rdataset implementation, and MUST NOT
@@ -206,6 +216,7 @@ struct dns_rdataset {
#define DNS_RDATASETATTR_OPTOUT  0x00100000 /*%< OPTOUT proof */
#define DNS_RDATASETATTR_NEGATIVE 0x00200000
#define DNS_RDATASETATTR_PREFETCH 0x00400000
+#define DNS_RDATASETATTR_STALE  0x01000000

/*%
 * _OMITDNSSEC:
diff --git a/lib/dns/include/dns/resolver.h b/lib/dns/include/dns/resolver.h
index 7b3c047..bd7d225 100644
--- a/lib/dns/include/dns/resolver.h
+++ b/lib/dns/include/dns/resolver.h
@@ -547,9 +547,12 @@ dns_resolver_getmustbesecure(dns_resolver_t *resolver, dns_name_t *name);


void
-dns_resolver_settimeout(dns_resolver_t *resolver, unsigned int seconds);
+dns_resolver_settimeout(dns_resolver_t *resolver,
 unsigned int timeout);
/*%<
- * Set the length of time the resolver will work on a query, in seconds.
+ * Set the length of time the resolver will work on a query, in milliseconds.
+ *
+ * 'timeout' was originally defined in seconds, and later redefined to be in
+ * milliseconds.  Values less than or equal to 300 are treated as seconds.
 *
 * If timeout is 0, the default timeout will be applied.
 *
```

```
@@ -560,7 +563,8 @@ dns_resolver_settimeout(dns_resolver_t *resolver, unsigned int seconds);
unsigned int
dns_resolver_gettimeout(dns_resolver_t *resolver);
/*%<
- * Get the current length of time the resolver will work on a query, in seconds.
+ * Get the current length of time the resolver will work on a query,
+ * in milliseconds.
 *
 * Requires:
 * \li  resolver to be valid.
@@ -582,6 +586,39 @@ dns_resolver_getzeronosoattl(dns_resolver_t *resolver);
void
dns_resolver_setzeronosoattl(dns_resolver_t *resolver, bool state);

+unsigned int
+dns_resolver_getretryinterval(dns_resolver_t
 *resolver);
+
+void
+dns_resolver_setretryinterval(dns_resolver_t *resolver, unsigned int interval);
+/*%<
+ * Sets the amount of time, in millseconds, that is waited for a reply
+ * to a server before another server is tried.  Interacts with the
+ * value of dns_resolver_getnonbackofftries() by trying that number of times
+ * at this interval, before doing exponential backoff and doubling the interval
+ * on each subsequent try, to a maximum of 10 seconds.  Defaults to 800 ms;
+ * silently capped at 2000 ms.
+ *
+ * Requires:
+ * \li resolver to be valid.
+ * \li  interval > 0.
+ */
+
+unsigned int
+dns_resolver_getnonbackofftries(dns_resolver_t *resolver);
+
+void
+dns_resolver_setnonbackofftries(dns_resolver_t *resolver, unsigned int tries);
+/*%<
+ * Sets the number of failures of getting a reply from remote servers for
+ * a query before backing off by doubling the retry interval for each
+ * subsequent request sent.  Defaults to 3.
+ *
+ * Requires:
+ * \li resolver
 to be valid.
+ * \li  tries > 0.
+ */
```

```
+
unsigned int
dns_resolver_getoptions(dns_resolver_t *resolver);

diff --git a/lib/dns/include/dns/types.h b/lib/dns/include/dns/types.h
index 2468e3c..934a641 100644
--- a/lib/dns/include/dns/types.h
+++ b/lib/dns/include/dns/types.h
@@ -390,6 +390,12 @@ typedef struct {
 size_t      count;
} dns_indent_t;

+typedef enum {
+ dns_stale_answer_no,
+ dns_stale_answer_yes,
+ dns_stale_answer_conf
+} dns_stale_answer_t;
+
/*
 * Functions.
 */
diff --git a/lib/dns/include/dns/view.h b/lib/dns/include/dns/view.h
index 53f1db1..96148c7 100644
--- a/lib/dns/include/dns/view.h
+++ b/lib/dns/include/dns/view.h
@@ -229,6 +229,9 @@ struct dns_view {
 dns_dtenv_t   *dtenv;  /* Dnstap environment */
 dns_dtmsgtype_t   dttypes; /* Dnstap message types
          to log */
+ dns_ttl_t   staleanswerttl;
+ dns_stale_answer_t  staleanswersok;  /* rndc setting */
+ bool    staleanswersenable; /* named.conf setting */
};

#define DNS_VIEW_MAGIC   ISC_MAGIC('V','i','e','w')
diff
 --git a/lib/dns/master.c b/lib/dns/master.c
index 7d26b81..36999b5 100644
--- a/lib/dns/master.c
+++ b/lib/dns/master.c
@@ -1948,12 +1948,18 @@ load_text(dns_loadctx_t *lctx) {

  if ((lctx->options & DNS_MASTER_AGETTL) != 0) {
   /*
-    * Adjust the TTL for $DATE.  If the RR has already
-    * expired, ignore it.
+    * Adjust the TTL for $DATE. If the RR has
+    * already expired, set its TTL to 0. This
```

```
+    * should be okay even if the TTL stretching
+    * feature is not in effect, because it will
+    * just be quickly expired by the cache, and the
+    * way this was written before the patch it
+    * could potentially add 0 TTLs anyway.
    */
   if (lctx->ttl < ttl_offset)
-    continue;
-   lctx->ttl -= ttl_offset;
+    lctx->ttl = 0;
+   else
+    lctx->ttl -= ttl_offset;
  }

  /*
diff --git a/lib/dns/masterdump.c b/lib/dns/masterdump.c
index fa839a0..91b3cab 100644
--- a/lib/dns/masterdump.c
+++ b/lib/dns/masterdump.c
@@ -81,6 +81,9 @@
 struct dns_master_style {
 */
#define DNS_TOTEXT_LINEBREAK_MAXLEN 100

+/*% Does the rdataset 'r' contain a stale answer? */
+#define STALE(r) (((r)->attributes & DNS_RDATASETATTR_STALE) != 0)
+
/*%
 * Context structure for a masterfile dump in progress.
 */
@@ -94,6 +97,7 @@ typedef struct dns_totext_ctx {
 dns_fixedname_t  origin_fixname;
 uint32_t   current_ttl;
 bool    current_ttl_valid;
+ dns_ttl_t  serve_stale_ttl;
} dns_totext_ctx_t;

LIBDNS_EXTERNAL_DATA const dns_master_style_t
@@ -382,6 +386,7 @@ totext_ctx_init(const dns_master_style_t *style, dns_totext_ctx_t *ctx) {
 ctx->neworigin = NULL;
 ctx->current_ttl = 0;
 ctx->current_ttl_valid = false;
+ ctx->serve_stale_ttl = 0;

 return (ISC_R_SUCCESS);
}
@@ -1028,6 +1033,11 @@ dump_rdatasets_text(isc_mem_t *mctx, dns_name_t *name,
      (ctx->style.flags & DNS_STYLEFLAG_NCACHE) == 0) {
```

```
   /* Omit negative cache entries */
  } else {
+   if (STALE(rds)) {
+    fprintf(f, "; stale (for %u more seconds)\n",
+     (rds->stale_ttl
 -
+      ctx->serve_stale_ttl));
+   }
   isc_result_t result =
    dump_rdataset(mctx, name, rds, ctx,
            buffer, f);
@@ -1496,6 +1506,16 @@ dumpctx_create(isc_mem_t *mctx, dns_db_t *db, dns_dbversion_t *version,
 dns_db_attach(db, &dctx->db);

 dctx->do_date = dns_db_iscache(dctx->db);
+ if (dctx->do_date) {
+  /*
+   * Adjust the date backwards by the serve-stale TTL, if any.
+   * This is so the TTL will be loaded correctly when next
+   * started.
+   */
+  (void)dns_db_getservestalettl(dctx->db,
+           &dctx->tctx.serve_stale_ttl);
+  dctx->now -= dctx->tctx.serve_stale_ttl;
+ }

 if (dctx->format == dns_masterformat_text &&
     (dctx->tctx.style.flags & DNS_STYLEFLAG_REL_OWNER) != 0) {
@@ -1555,6 +1575,9 @@ writeheader(dns_dumpctx_t *dctx) {
   * it in the zone case.
   */
  if (dctx->do_date) {
+   fprintf(dctx->f,
+    "; using a %d second stale ttl\n",
+    dctx->tctx.serve_stale_ttl);
   result = dns_time32_totext(dctx->now,
 &buffer);
   RUNTIME_CHECK(result == ISC_R_SUCCESS);
   isc_buffer_usedregion(&buffer, &r);
diff --git a/lib/dns/rbtdb.c b/lib/dns/rbtdb.c
index 3a60bcf..8ea4d47 100644
--- a/lib/dns/rbtdb.c
+++ b/lib/dns/rbtdb.c
@@ -511,6 +511,7 @@ typedef ISC_LIST(rdatasetheader_t)      rdatasetheaderlist_t;
typedef ISC_LIST(dns_rbtnode_t)         rbtnodelist_t;

#define RDATASET_ATTR_NONEXISTENT       0x0001
+/*%< May be potentially served as stale data. */
```

```
#define RDATASET_ATTR_STALE             0x0002
#define RDATASET_ATTR_IGNORE            0x0004
#define RDATASET_ATTR_RETAIN            0x0008
@@ -523,6 +524,8 @@ typedef ISC_LIST(dns_rbtnode_t)         rbtnodelist_t;
#define RDATASET_ATTR_CASESET           0x0400
#define RDATASET_ATTR_ZEROTTL           0x0800
#define RDATASET_ATTR_CASEFULLYLOWER    0x1000
+/*%< Ancient - awaiting cleanup. */
+#define RDATASET_ATTR_ANCIENT           0x2000

typedef struct acache_cbarg {
 dns_rdatasetadditional_t        type;
@@ -573,6 +576,8 @@ struct
 acachectl {
 (((header)->attributes & RDATASET_ATTR_ZEROTTL) != 0)
#define CASEFULLYLOWER(header) \
 (((header)->attributes & RDATASET_ATTR_CASEFULLYLOWER) != 0)
+#define ANCIENT(header) \
+ (((header)->attributes & RDATASET_ATTR_ANCIENT) != 0)


#define ACTIVE(header, now) \
@@ -632,6 +637,12 @@ typedef enum {
 expire_flush
} expire_t;

+typedef enum {
+ rdataset_ttl_fresh,
+ rdataset_ttl_stale,
+ rdataset_ttl_ancient
+} rdataset_ttl_t;
+
typedef struct rbtdb_version {
 /* Not locked */
 rbtdb_serial_t                 serial;
@@ -699,6 +710,12 @@ struct dns_rbtdb {
 dns_dbnode_t                    *soanode;
 dns_dbnode_t                    *nsnode;

+ /*
+  * Maximum length of time to keep using a stale answer past its
+  * normal TTL expiry.
+ */
+ dns_ttl_t   serve_stale_ttl;
+
 /*
  * This is a linked list used to implement the LRU cache.  There will
  * be node_lock_count linked lists here.  Nodes in bucket 1 will be
```

```
@@ -742,6 +759,8 @@ struct dns_rbtdb {
#define
 RBTDB_ATTR_LOADED              0x01
#define RBTDB_ATTR_LOADING              0x02

+#define KEEPSTALE(rbtdb) ((rbtdb)->serve_stale_ttl > 0)
+
/*%
 * Search Context
 */
@@ -1816,15 +1835,15 @@ rollback_node(dns_rbtnode_t *node, rbtdb_serial_t serial) {
}

static inline void
-mark_stale_header(dns_rbtdb_t *rbtdb, rdatasetheader_t *header) {
+mark_header_ancient(dns_rbtdb_t *rbtdb, rdatasetheader_t *header) {

 /*
-  * If we are already stale there is nothing to do.
+  * If we are already ancient there is nothing to do.
  */
- if ((header->attributes & RDATASET_ATTR_STALE) != 0)
+ if (ANCIENT(header))
  return;

- header->attributes |= RDATASET_ATTR_STALE;
+ header->attributes |= RDATASET_ATTR_ANCIENT;
 header->node->dirty = 1;

 /*
@@ -1865,8 +1884,8 @@ clean_cache_node(dns_rbtdb_t *rbtdb, dns_rbtnode_t *node) {
  /*
   * If current is nonexistent or stale, we can clean it up.
   */
-  if ((current->attributes &
-      (RDATASET_ATTR_NONEXISTENT|RDATASET_ATTR_STALE))
 != 0) {
+  if (NONEXISTENT(current) || ANCIENT(current) ||
+      (STALE(current) && ! KEEPSTALE(rbtdb))) {
   if (top_prev != NULL)
    top_prev->next = current->next;
   else
@@ -2111,6 +2130,80 @@ delete_node(dns_rbtdb_t *rbtdb, dns_rbtnode_t *node) {
 }
}

+#if 0
+static void
```

```
+clean_now_or_later(dns_rbtnode_t *node, dns_rbtdb_t *rbtdb,
+     rdatasetheader_t *header, rdatasetheader_t **header_prevp)
+{
+ if (dns_rbtnode_refcurrent(node) == 0) {
+  isc_mem_t *mctx;
+
+  /*
+   * header->down can be non-NULL if the refcount has just
+   * decremented to 0 but decrement_reference() has not performed
+   * clean_cache_node(), in which case we need to purge the stale
+   * headers first.
+   */
+  mctx = rbtdb->common.mctx;
+  clean_stale_headers(rbtdb, mctx, header);
+  if (*header_prevp != NULL)
+   (*header_prevp)->next = header->next;
+  else
+   node->data = header->next;
+  free_rdataset(rbtdb, mctx, header);
+ } else {
+  header->attributes |= RDATASET_ATTR_STALE |
+
                    RDATASET_ATTR_ANCIENT;
+  node->dirty = 1;
+  *header_prevp = header;
+ }
+}
+
+static rdataset_ttl_t
+check_ttl(dns_rbtnode_t *node, rbtdb_search_t *search,
+   rdatasetheader_t *header, rdatasetheader_t **header_prevp,
+   nodelock_t *lock, isc_rwlocktype_t *locktype)
+{
+ dns_rbtdb_t *rbtdb = search->rbtdb;
+
+ if (header->rdh_ttl > search->now)
+  return rdataset_ttl_fresh;
+
+ /*
+  * This rdataset is stale, but perhaps still usable.
+  */
+ if (KEEPSTALE(rbtdb) &&
+     header->rdh_ttl + rbtdb->serve_stale_ttl > search->now) {
+  header->attributes |= RDATASET_ATTR_STALE;
+  /* Doesn't set dirty because it doesn't need removal. */
+  return rdataset_ttl_stale;
+ }
+
```

```
+ /*
+  * This rdataset is so stale it is no longer usable, even with
+  * KEEPSTALE.  If no one else is using the node, we can clean it up
+  * right now, otherwise we mark it as ancient, and the node as dirty,
+  * so it will get cleaned up later.
+  */
+ if ((header->rdh_ttl <= search->now - RBTDB_VIRTUAL)
 &&
+     (*locktype == isc_rwlocktype_write ||
+      NODE_TRYUPGRADE(lock) == ISC_R_SUCCESS)) {
+  /*
+   * We update the node's status only when we can get write
+   * access; otherwise, we leave others to this work.  Periodical
+   * cleaning will eventually take the job as the last resort.
+   * We won't downgrade the lock, since other rdatasets are
+   * probably stale, too.
+   */
+  *locktype = isc_rwlocktype_write;
+  clean_now_or_later(node, rbtdb, header, header_prevp);
+ } else
+  *header_prevp = header;
+
+ return rdataset_ttl_ancient;
+}
+#endif
+
/*
 * Caller must be holding the node lock.
 */
@@ -3343,6 +3436,12 @@ bind_rdataset(dns_rbtdb_t *rbtdb, dns_rbtnode_t *node, rdatasetheader_t *header,
  rdataset->attributes |= DNS_RDATASETATTR_OPTOUT;
 if (PREFETCH(header))
  rdataset->attributes |= DNS_RDATASETATTR_PREFETCH;
+ if (STALE(header)) {
+  rdataset->attributes |= DNS_RDATASETATTR_STALE;
+  rdataset->stale_ttl =
+   (rbtdb->serve_stale_ttl + header->rdh_ttl)
 - now;
+  rdataset->ttl = 0;
+ }
 rdataset->private1 = rbtdb;
 rdataset->private2 = node;
 raw = (unsigned char *)header + sizeof(*header);
@@ -4698,6 +4797,19 @@ check_stale_header(dns_rbtnode_t *node, rdatasetheader_t *header,
#endif

 if (!ACTIVE(header, search->now)) {
+  dns_ttl_t stale = header->rdh_ttl +
```

```
+      search->rbtdb->serve_stale_ttl;
+  /*
+   * If this data is in the stale window keep it and if
+   * DNS_DBFIND_STALEOK is not set we tell the caller to
+   * skip this record.
+   */
+  if (KEEPSTALE(search->rbtdb) && stale > search->now) {
+   header->attributes |= RDATASET_ATTR_STALE;
+   *header_prev = header;
+   return ((search->options & DNS_DBFIND_STALEOK) == 0);
+  }
+
  /*
   * This rdataset is stale.  If no one else is using the
   * node, we can clean it up right now, otherwise we mark
@@ -4737,7 +4849,7 @@ check_stale_header(dns_rbtnode_t *node, rdatasetheader_t *header,
     node->data = header->next;
    free_rdataset(search->rbtdb, mctx,
 header);
   } else {
-    mark_stale_header(search->rbtdb, header);
+    mark_header_ancient(search->rbtdb, header);
    *header_prev = header;
   }
  } else
@@ -5178,7 +5290,7 @@ cache_find(dns_db_t *db, dns_name_t *name, dns_dbversion_t *version,
          &locktype, lock, &search,
         &header_prev)) {
   /* Do nothing. */
-  } else if (EXISTS(header) && (!STALE(header))) {
+  } else if (EXISTS(header) && !ANCIENT(header)) {
   /*
    * We now know that there is at least one active
    * non-stale rdataset at this node.
@@ -5661,7 +5773,7 @@ expirenode(dns_db_t *db, dns_dbnode_t *node, isc_stdtime_t now) {
    * refcurrent(rbtnode) must be non-zero.  This is so
    * because 'node' is an argument to the function.
    */
-   mark_stale_header(rbtdb, header);
+   mark_header_ancient(rbtdb, header);
   if (log)
    isc_log_write(dns_lctx, category, module,
         level, "overmem cache: stale %s",
@@ -5669,7 +5781,7 @@ expirenode(dns_db_t *db, dns_dbnode_t
 *node, isc_stdtime_t now) {
  } else if (force_expire) {
   if (! RETAIN(header)) {
   set_ttl(rbtdb, header, 0);
```

```
-    mark_stale_header(rbtdb, header);
+    mark_header_ancient(rbtdb, header);
   } else if (log) {
    isc_log_write(dns_lctx, category, module,
           level, "overmem cache: "
@@ -5928,9 +6040,9 @@ cache_findrdataset(dns_db_t *db, dns_dbnode_t *node, dns_dbversion_t *version,
     * non-zero.  This is so because 'node' is an
     * argument to the function.
     */
-    mark_stale_header(rbtdb, header);
+    mark_header_ancient(rbtdb, header);
   }
-  } else if (EXISTS(header) && (!STALE(header))) {
+  } else if (EXISTS(header) && !ANCIENT(header)) {
   if (header->type == matchtype)
    found = header;
   else if (header->type == RBTDB_RDATATYPE_NCACHEANY ||
@@ -6232,7 +6344,7 @@ add32(dns_rbtdb_t *rbtdb, dns_rbtnode_t *rbtnode, rbtdb_version_t *rbtversion,
        topheader = topheader->next)
    {
     set_ttl(rbtdb, topheader, 0);
-     mark_stale_header(rbtdb,
 topheader);
+     mark_header_ancient(rbtdb, topheader);
    }
    goto find_header;
   }
@@ -6293,7 +6405,7 @@ add32(dns_rbtdb_t *rbtdb, dns_rbtnode_t *rbtnode, rbtdb_version_t *rbtversion,
     * ncache entry.
     */
    set_ttl(rbtdb, topheader, 0);
-    mark_stale_header(rbtdb, topheader);
+    mark_header_ancient(rbtdb, topheader);
    topheader = NULL;
    goto find_header;
   }
@@ -6331,8 +6443,11 @@ add32(dns_rbtdb_t *rbtdb, dns_rbtnode_t *rbtnode, rbtdb_version_t *rbtversion,
  }

  /*
-   * Trying to add an rdataset with lower trust to a cache DB
-   * has no effect, provided that the cache data isn't stale.
+   * Trying to add an rdataset with lower trust to a cache
+   * DB has no effect, provided that the cache data isn't
+   * stale. If the cache data is stale, new lower trust
+   * data will supersede it below. Unclear what the best
+   * policy is here.
   */
```

```
  if (rbtversion == NULL && trust < header->trust &&
      (ACTIVE(header, now)
 || header_nx)) {
@@ -6362,6 +6477,10 @@ add32(dns_rbtdb_t *rbtdb, dns_rbtnode_t *rbtnode, rbtdb_version_t *rbtversion,

   if ((options & DNS_DBADD_EXACT) != 0)
    flags |= DNS_RDATASLAB_EXACT;
+   /*
+    * TTL use here is irrelevant to the cache;
+    * merge is only done with zonedbs.
+    */
   if ((options & DNS_DBADD_EXACTTTL) != 0 &&
       newheader->rdh_ttl != header->rdh_ttl)
     result = DNS_R_NOTEXACT;
@@ -6405,11 +6524,12 @@ add32(dns_rbtdb_t *rbtdb, dns_rbtnode_t *rbtnode, rbtdb_version_t *rbtversion,
   }
  }
  /*
-   * Don't replace existing NS, A and AAAA RRsets
-   * in the cache if they are already exist.  This
-   * prevents named being locked to old servers.
-   * Don't lower trust of existing record if the
-   * update is forced.
+   * Don't replace existing NS, A and AAAA RRsets in the
+   * cache if they are already exist. This prevents named
+   * being locked to old servers. Don't lower trust of
+   * existing record if the update is forced. Nothing
+
 * special to be done w.r.t stale data; it gets replaced
+   * normally further down.
   */
  if (IS_CACHE(rbtdb) && ACTIVE(header, now) &&
      header->type == dns_rdatatype_ns &&
@@ -6582,10 +6702,10 @@ add32(dns_rbtdb_t *rbtdb, dns_rbtnode_t *rbtnode, rbtdb_version_t *rbtversion,
    changed->dirty = true;
   if (rbtversion == NULL) {
    set_ttl(rbtdb, header, 0);
-    mark_stale_header(rbtdb, header);
+    mark_header_ancient(rbtdb, header);
    if (sigheader != NULL) {
     set_ttl(rbtdb, sigheader, 0);
-     mark_stale_header(rbtdb, sigheader);
+     mark_header_ancient(rbtdb, sigheader);
    }
   }
   if (rbtversion != NULL && !header_nx) {
@@ -8436,6 +8556,30 @@ nodefullname(dns_db_t *db, dns_dbnode_t *node, dns_name_t *name) {
 return (result);
```

```
}

+static isc_result_t
+setservestalettl(dns_db_t *db, dns_ttl_t ttl) {
+ dns_rbtdb_t *rbtdb = (dns_rbtdb_t *)db;
+
+ REQUIRE(VALID_RBTDB(rbtdb));
+ REQUIRE(IS_CACHE(rbtdb));
+
+ /* currently no bounds checking.
  0 means disable. */
+ rbtdb->serve_stale_ttl = ttl;
+ return ISC_R_SUCCESS;
+}
+
+static isc_result_t
+getservestalettl(dns_db_t *db, dns_ttl_t *ttl) {
+ dns_rbtdb_t *rbtdb = (dns_rbtdb_t *)db;
+
+ REQUIRE(VALID_RBTDB(rbtdb));
+ REQUIRE(IS_CACHE(rbtdb));
+
+ *ttl = rbtdb->serve_stale_ttl;
+ return ISC_R_SUCCESS;
+}
+
+
static dns_dbmethods_t zone_methods = {
 attach,
 detach,
@@ -8481,7 +8625,9 @@ static dns_dbmethods_t zone_methods = {
 NULL,
 hashsize,
 nodefullname,
- getsize
+ getsize,
+ NULL,
+ NULL
};

static dns_dbmethods_t cache_methods = {
@@ -8529,7 +8675,9 @@ static dns_dbmethods_t cache_methods = {
 setcachestats,
 hashsize,
 nodefullname,
- NULL
+ NULL,
+ setservestalettl,
```

```
+ getservestalettl
};

isc_result_t
@@ -8800,7 +8948,7 @@ dns_rbtdb_create
 rbtdb->rpzs = NULL;
 rbtdb->load_rpzs = NULL;
 rbtdb->rpz_num = DNS_RPZ_INVALID_NUM;
-
+ rbtdb->serve_stale_ttl = 0;
 /*
  * Version Initialization.
  */
@@ -9218,7 +9366,8 @@ rdatasetiter_first(dns_rdatasetiter_t
 *iterator) {
     * rdatasets to work.
     */
    if (NONEXISTENT(header) ||
-       (now != 0 && now > header->rdh_ttl))
+       (now != 0 && now > header->rdh_ttl
+          + rbtdb->serve_stale_ttl))
     header = NULL;
    break;
   } else
@@ -10427,7 +10576,7 @@ static inline bool
need_headerupdate(rdatasetheader_t *header, isc_stdtime_t now) {
 if ((header->attributes &
      (RDATASET_ATTR_NONEXISTENT |
-      RDATASET_ATTR_STALE |
+      RDATASET_ATTR_ANCIENT |
      RDATASET_ATTR_ZEROTTL)) != 0)
  return (false);

@@ -10533,7 +10682,7 @@ expire_header(dns_rbtdb_t *rbtdb, rdatasetheader_t *header,
      bool tree_locked, expire_t reason)
{
 set_ttl(rbtdb, header, 0);
- mark_stale_header(rbtdb, header);
+ mark_header_ancient(rbtdb, header);

 /*
  * Caller must hold the node (write) lock.
diff --git a/lib/dns/resolver.c b/lib/dns/resolver.c
index 49ec49c..2de70a6 100644
--- a/lib/dns/resolver.c
+++ b/lib/dns/resolver.c
@@ -141,16 +141,17 @@
#endif
```

```
 /* WANT_QUERYTRACE */

#define US_PER_SEC 1000000U
+#define US_PER_MSEC 1000U
/*
 * The maximum time we will wait for a single query.
 */
-#define MAX_SINGLE_QUERY_TIMEOUT 9U
-#define MAX_SINGLE_QUERY_TIMEOUT_US (MAX_SINGLE_QUERY_TIMEOUT*US_PER_SEC)
+#define MAX_SINGLE_QUERY_TIMEOUT 9000U
+#define MAX_SINGLE_QUERY_TIMEOUT_US (MAX_SINGLE_QUERY_TIMEOUT*US_PER_MSEC)

/*
 * We need to allow a individual query time to complete / timeout.
 */
-#define MINIMUM_QUERY_TIMEOUT (MAX_SINGLE_QUERY_TIMEOUT + 1U)
+#define MINIMUM_QUERY_TIMEOUT (MAX_SINGLE_QUERY_TIMEOUT + 1000U)

/* The default time in seconds for the whole query to live. */
#ifndef DEFAULT_QUERY_TIMEOUT
@@ -159,7 +160,7 @@

/* The maximum time in seconds for the whole query to live. */
#ifndef MAXIMUM_QUERY_TIMEOUT
-#define MAXIMUM_QUERY_TIMEOUT 30
+#define MAXIMUM_QUERY_TIMEOUT 30000
#endif

/* The default maximum number of recursions to follow before giving up. */
@@ -529,6 +530,11 @@ struct dns_resolver {
 dns_fetch_t
 *   primefetch;
 /* Locked by nlock. */
 unsigned int   nfctx;
+
+ /* Unlocked. Additions for serve-stale feature. */
+ unsigned int   retryinterval; /* in milliseconds */
+ unsigned int   nonbackofftries;
+
};

#define RES_MAGIC   ISC_MAGIC('R', 'e', 's', '!')
@@ -1650,14 +1656,12 @@ fctx_setretryinterval(fetchctx_t *fctx, unsigned int rtt) {
 unsigned int seconds;
 unsigned int us;

+ us = fctx->res->retryinterval * 1000;
 /*
```

```
-  * We retry every .8 seconds the first two times through the address
-  * list, and then we do exponential back-off.
+  * Exponential backoff after the first few tries.
   */
- if (fctx->restarts < 3)
-  us = 800000;
- else
-  us = (800000 << (fctx->restarts - 2));
+ if (fctx->restarts >= fctx->res->nonbackofftries)
+  us <<= (fctx->restarts - fctx->res->nonbackofftries - 1);

 /*
  * Add a fudge factor to the expected rtt based on the current
@@ -4542,7 +4546,8 @@ fctx_create(dns_resolver_t *res, dns_name_t *name, dns_rdatatype_t type,
  /*
  * Compute an expiration time for the entire fetch.
  */
- isc_interval_set(&interval, res->query_timeout, 0);
+ isc_interval_set(&interval, res->query_timeout / 1000,
+    res->query_timeout % 1000 * 1000000);
 iresult = isc_time_nowplusinterval(&fctx->expires, &interval);
 if (iresult != ISC_R_SUCCESS) {
  UNEXPECTED_ERROR(__FILE__, __LINE__,
@@ -9105,6 +9110,8 @@ dns_resolver_create(dns_view_t *view,
 res->spillattimer = NULL;
 res->zspill = 0;
 res->zero_no_soa_ttl = false;
+ res->retryinterval = 30000;
+ res->nonbackofftries = 3;
 res->query_timeout = DEFAULT_QUERY_TIMEOUT;
 res->maxdepth = DEFAULT_RECURSION_DEPTH;
 res->maxqueries = DEFAULT_MAX_QUERIES;
@@ -10439,17 +10446,20 @@ dns_resolver_gettimeout(dns_resolver_t *resolver) {
}

void
-dns_resolver_settimeout(dns_resolver_t *resolver, unsigned int seconds) {
+dns_resolver_settimeout(dns_resolver_t *resolver, unsigned int timeout) {
 REQUIRE(VALID_RESOLVER(resolver));

- if (seconds == 0)
-  seconds = DEFAULT_QUERY_TIMEOUT;
- if
 (seconds > MAXIMUM_QUERY_TIMEOUT)
-  seconds = MAXIMUM_QUERY_TIMEOUT;
- if (seconds < MINIMUM_QUERY_TIMEOUT)
-  seconds =  MINIMUM_QUERY_TIMEOUT;
+ if (timeout <= 300)
```

```
+  timeout *= 1000;
+
+ if (timeout == 0)
+  timeout = DEFAULT_QUERY_TIMEOUT;
+ if (timeout > MAXIMUM_QUERY_TIMEOUT)
+  timeout = MAXIMUM_QUERY_TIMEOUT;
+ if (timeout < MINIMUM_QUERY_TIMEOUT)
+  timeout =  MINIMUM_QUERY_TIMEOUT;

- resolver->query_timeout = seconds;
+ resolver->query_timeout = timeout;
}

void
@@ -10546,3 +10556,34 @@ dns_resolver_getquotaresponse(dns_resolver_t *resolver, dns_quotatype_t which)

 return (resolver->quotaresp[which]);
}
+
+unsigned int
+dns_resolver_getretryinterval(dns_resolver_t *resolver) {
+ REQUIRE(VALID_RESOLVER(resolver));
+
+ return (resolver->retryinterval);
+}
+
+void
+dns_resolver_setretryinterval(dns_resolver_t *resolver, unsigned int interval)
+{
+ REQUIRE(VALID_RESOLVER(resolver));
+ REQUIRE(interval > 0);
+
+ resolver->retryinterval = ISC_MIN(interval,
 2000);
+}
+
+unsigned int
+dns_resolver_getnonbackofftries(dns_resolver_t *resolver) {
+ REQUIRE(VALID_RESOLVER(resolver));
+
+ return (resolver->nonbackofftries);
+}
+
+void
+dns_resolver_setnonbackofftries(dns_resolver_t *resolver, unsigned int tries) {
+ REQUIRE(VALID_RESOLVER(resolver));
+ REQUIRE(tries > 0);
+
```

```
+ resolver->nonbackofftries = tries;
+}
diff --git a/lib/dns/sdb.c b/lib/dns/sdb.c
index 477bb74..09cf932 100644
--- a/lib/dns/sdb.c
+++ b/lib/dns/sdb.c
@@ -1370,7 +1370,9 @@ static dns_dbmethods_t sdb_methods = {
 NULL,   /* setcachestats */
 NULL,   /* hashsize */
 NULL,   /* nodefullname */
- NULL   /* getsize */
+ NULL,   /* getsize */
+ NULL,   /* setservestalettl */
+ NULL   /* getservestalettl */
};

static isc_result_t
diff --git a/lib/dns/sdlz.c b/lib/dns/sdlz.c
index 037d74a..9218fed 100644
--- a/lib/dns/sdlz.c
+++ b/lib/dns/sdlz.c
@@ -1336,7 +1336,9 @@ static dns_dbmethods_t sdlzdb_methods = {
 NULL,   /* setcachestats */
 NULL,   /* hashsize */
  NULL,   /* nodefullname */
- NULL   /* getsize */
+ NULL,   /* getsize */
+ NULL,   /* setservestalettl */
+ NULL   /* getservestalettl */
};

/*
diff --git a/lib/dns/tests/db_test.c b/lib/dns/tests/db_test.c
index bc1cc3f..60fdb81 100644
--- a/lib/dns/tests/db_test.c
+++ b/lib/dns/tests/db_test.c
@@ -28,8 +28,9 @@

#include <dns/db.h>
#include <dns/dbiterator.h>
-#include <dns/name.h>
#include <dns/journal.h>
+#include <dns/name.h>
+#include <dns/rdatalist.h>

#include "dnstest.h"

@@ -76,7 +77,7 @@ getoriginnode_test(void **state) {
```

```
 assert_int_equal(result, ISC_R_SUCCESS);

 result = dns_db_create(mymctx, "rbt", dns_rootname, dns_dbtype_zone,
-	dns_rdataclass_in, 0, NULL, &db);
+	    dns_rdataclass_in, 0, NULL, &db);
 assert_int_equal(result, ISC_R_SUCCESS);

 result = dns_db_getoriginnode(db, &node);
@@ -91,6 +92,197 @@ getoriginnode_test(void **state) {
 isc_mem_detach(&mymctx);
}

+/* test getservestalettl and setservestalettl */
+static void
+getsetservestalettl_test(void
 **state) {
+ dns_db_t *db = NULL;
+ isc_mem_t *mymctx = NULL;
+ isc_result_t result;
+ dns_ttl_t ttl;
+
+ UNUSED(state);
+
+ result = isc_mem_create(0, 0, &mymctx);
+ assert_int_equal(result, ISC_R_SUCCESS);
+
+ result = dns_db_create(mymctx, "rbt", dns_rootname, dns_dbtype_cache,
+	    dns_rdataclass_in, 0, NULL, &db);
+ assert_int_equal(result, ISC_R_SUCCESS);
+
+ ttl = 5000;
+ result = dns_db_getservestalettl(db, &ttl);
+ assert_int_equal(result, ISC_R_SUCCESS);
+ assert_int_equal(ttl, 0);
+
+ ttl = 6 * 3600;
+ result = dns_db_setservestalettl(db, ttl);
+ assert_int_equal(result, ISC_R_SUCCESS);
+
+ ttl = 5000;
+ result = dns_db_getservestalettl(db, &ttl);
+ assert_int_equal(result, ISC_R_SUCCESS);
+ assert_int_equal(ttl, 6 * 3600);
+
+ dns_db_detach(&db);
+ isc_mem_detach(&mymctx);
+}
+
```

```
+/* check DNS_DBFIND_STALEOK works */
+static void
+dns_dbfind_staleok_test(void **state) {
+ dns_db_t *db = NULL;
+ dns_dbnode_t *node = NULL;
+ dns_fixedname_t example_fixed;
+ dns_fixedname_t
 found_fixed;
+ dns_name_t *example;
+ dns_name_t *found;
+ dns_rdatalist_t rdatalist;
+ dns_rdataset_t rdataset;
+ int count;
+ int pass;
+ isc_mem_t *mymctx = NULL;
+ isc_result_t result;
+ unsigned char data[] = { 0x0a, 0x00, 0x00, 0x01 };
+
+ UNUSED(state);
+
+ result = isc_mem_create(0, 0, &mymctx);
+ assert_int_equal(result, ISC_R_SUCCESS);
+
+ result = dns_db_create(mymctx, "rbt", dns_rootname, dns_dbtype_cache,
+          dns_rdataclass_in, 0, NULL, &db);
+ assert_int_equal(result, ISC_R_SUCCESS);
+
+ example = dns_fixedname_initname(&example_fixed);
+ found = dns_fixedname_initname(&found_fixed);
+
+ result = dns_name_fromstring(example, "example", 0, NULL);
+ assert_int_equal(result, ISC_R_SUCCESS);
+
+ /*
+  * Pass 0: default; no stale processing permitted.
+  * Pass 1: stale processing for 1 second.
+  * Pass 2: stale turned off after being on.
+  */
+ for (pass = 0; pass < 3; pass++) {
+  dns_rdata_t rdata = DNS_RDATA_INIT;
+
+  /* 10.0.0.1 */
+  rdata.data
 = data;
+  rdata.length = 4;
+  rdata.rdclass = dns_rdataclass_in;
+  rdata.type = dns_rdatatype_a;
+
```

```
+  dns_rdatalist_init(&rdatalist);
+  rdatalist.ttl = 2;
+  rdatalist.type = dns_rdatatype_a;
+  rdatalist.rdclass = dns_rdataclass_in;
+  ISC_LIST_APPEND(rdatalist.rdata, &rdata, link);
+
+  switch (pass) {
+  case 0:
+   /* default: stale processing off */
+   break;
+  case 1:
+   /* turn on stale processing */
+   result = dns_db_setservestalettl(db, 1);
+   assert_int_equal(result, ISC_R_SUCCESS);
+   break;
+  case 2:
+   /* turn off stale processing */
+   result = dns_db_setservestalettl(db, 0);
+   assert_int_equal(result, ISC_R_SUCCESS);
+   break;
+  }
+
+  dns_rdataset_init(&rdataset);
+  result = dns_rdatalist_tordataset(&rdatalist, &rdataset);
+  assert_int_equal(result, ISC_R_SUCCESS);
+
+  result = dns_db_findnode(db, example, true, &node);
+  assert_int_equal(result, ISC_R_SUCCESS);
+
+  result = dns_db_addrdataset(db, node, NULL, 0, &rdataset, 0,
+
 NULL);
+  assert_int_equal(result, ISC_R_SUCCESS);
+
+  dns_db_detachnode(db, &node);
+  dns_rdataset_disassociate(&rdataset);
+
+  result = dns_db_find(db, example, NULL, dns_rdatatype_a,
+         0, 0, &node, found, &rdataset, NULL);
+  assert_int_equal(result, ISC_R_SUCCESS);
+
+  /*
+   * May loop for up to 2 seconds performing non stale lookups.
+   */
+  count = 0;
+  do {
+   count++;
+   assert_in_range(count, 0, 20); /* loop sanity */
```

```
+   assert_int_equal(rdataset.attributes &
+         DNS_RDATASETATTR_STALE, 0);
+   assert_true(rdataset.ttl > 0);
+   dns_db_detachnode(db, &node);
+   dns_rdataset_disassociate(&rdataset);
+
+   usleep(100000); /* 100 ms */
+
+   result = dns_db_find(db, example, NULL,
+          dns_rdatatype_a, 0, 0,
+          &node, found, &rdataset, NULL);
+  } while (result == ISC_R_SUCCESS);
+
+  assert_int_equal(result, ISC_R_NOTFOUND);
+
+  /*
+   * Check whether we can get stale data.
+   */
+  result = dns_db_find(db, example, NULL, dns_rdatatype_a,
+
    DNS_DBFIND_STALEOK, 0,
+         &node, found, &rdataset, NULL);
+  switch (pass) {
+  case 0:
+   assert_int_equal(result, ISC_R_NOTFOUND);
+   break;
+  case 1:
+   /*
+    * Should loop for 1 second with stale lookups then
+    * stop.
+    */
+   count = 0;
+   do {
+    count++;
+    assert_in_range(count, 0, 49); /* loop sanity */
+    assert_int_equal(result, ISC_R_SUCCESS);
+    assert_int_equal(rdataset.ttl, 0);
+    assert_int_equal(rdataset.attributes &
+          DNS_RDATASETATTR_STALE,
+          DNS_RDATASETATTR_STALE);
+    dns_db_detachnode(db, &node);
+    dns_rdataset_disassociate(&rdataset);
+
+    usleep(100000); /* 100 ms */
+
+    result = dns_db_find(db, example, NULL,
+           dns_rdatatype_a,
+           DNS_DBFIND_STALEOK,
```

```
+          0, &node, found,
+          &rdataset, NULL);
+   } while (result == ISC_R_SUCCESS);
+   assert_in_range(count, 1, 10);
+   assert_int_equal(result, ISC_R_NOTFOUND);
+   break;
+  case 2:
+   assert_int_equal(result,
 ISC_R_NOTFOUND);
+   break;
+  }
+ }
+
+ dns_db_detach(&db);
+ isc_mem_detach(&mymctx);
+}
+
/* database class */
static void
class_test(void **state) {
@@ -213,6 +405,8 @@ int
main(void) {
 const struct CMUnitTest tests[] = {
  cmocka_unit_test(getoriginnode_test),
+  cmocka_unit_test(getsetservestalettl_test),
+  cmocka_unit_test(dns_dbfind_staleok_test),
  cmocka_unit_test_setup_teardown(class_test,
      _setup, _teardown),
  cmocka_unit_test_setup_teardown(dbtype_test,
diff --git a/lib/dns/view.c b/lib/dns/view.c
index a7ba613..a644c5f 100644
--- a/lib/dns/view.c
+++ b/lib/dns/view.c
@@ -229,6 +229,9 @@ dns_view_create(isc_mem_t *mctx, dns_rdataclass_t rdclass,
 view->flush = false;
 view->dlv = NULL;
 view->maxudp = 0;
+ view->staleanswerttl = 1;
+ view->staleanswersok = dns_stale_answer_conf;
+ view->staleanswersenable = false;
 view->nocookieudp = 0;
 view->maxbits = 0;
 view->v4_aaaa = dns_aaaa_ok;
diff --git a/lib/isccfg/namedconf.c b/lib/isccfg/namedconf.c
index
 212194e..b562f95 100644
--- a/lib/isccfg/namedconf.c
+++ b/lib/isccfg/namedconf.c
```

```
@@ -1778,6 +1778,7 @@ view_clauses[] = {
 { "max-ncache-ttl", &cfg_type_uint32, 0 },
 { "max-recursion-depth", &cfg_type_uint32, 0 },
 { "max-recursion-queries", &cfg_type_uint32, 0 },
+ { "max-stale-ttl", &cfg_type_ttlval, 0 },
 { "max-udp-size", &cfg_type_uint32, 0 },
 { "message-compression", &cfg_type_boolean, 0 },
 { "min-roots", &cfg_type_uint32, CFG_CLAUSEFLAG_NOTIMP },
@@ -1806,7 +1807,9 @@ view_clauses[] = {
 { "request-nsid", &cfg_type_boolean, 0 },
 { "request-sit", &cfg_type_boolean, CFG_CLAUSEFLAG_OBSOLETE },
 { "require-server-cookie", &cfg_type_boolean, 0 },
+ { "resolver-nonbackoff-tries", &cfg_type_uint32, 0 },
 { "resolver-query-timeout", &cfg_type_uint32, 0 },
+ { "resolver-retry-interval", &cfg_type_uint32, 0 },
 { "response-policy", &cfg_type_rpz, 0 },
 { "rfc2308-type1", &cfg_type_boolean, CFG_CLAUSEFLAG_NYI },
 { "root-delegation-only",  &cfg_type_optional_exclude,
 0 },
@@ -1815,6 +1818,8 @@ view_clauses[] = {
 { "send-cookie", &cfg_type_boolean, 0 },
 { "servfail-ttl", &cfg_type_ttlval, 0 },
 { "sortlist", &cfg_type_bracketed_aml, 0 },
+ { "stale-answer-enable", &cfg_type_boolean, 0 },
+ { "stale-answer-ttl", &cfg_type_ttlval, 0 },
 { "suppress-initial-notify", &cfg_type_boolean, CFG_CLAUSEFLAG_NYI },
 { "topology", &cfg_type_bracketed_aml, CFG_CLAUSEFLAG_NOTIMP },
 { "transfer-format", &cfg_type_transferformat, 0 },
--
2.26.2
```

Found in path(s):
* /opt/cola/permits/1701043592_1685703124.6755614/0/bind-zip/bind/SOURCES/bind-9.11-serve-stale.patch
No license file was found, but licenses were detected in source scan.

```
From af3b530773231f8cff6548e36962ad1f25e38c5d Mon Sep 17 00:00:00 2001
From: Evan Hunt <each@isc.org>
Date: Thu, 28 Sep 2017 10:09:22 -0700
Subject: [PATCH] completed and corrected the crypto-random change

4724. [func]  By default, BIND now uses the random number
   functions provided by the crypto library (i.e.,
   OpenSSL or a PKCS#11 provider) as a source of
   randomness rather than /dev/random.  This is
   suitable for virtual machine environments
   which have limited entropy pools and lack
   hardware random number generators.
```

```
    This can be overridden by specifying another
    entropy source via the "random-device" option
    in named.conf, or via the -r command line option;
    however, for functions requiring full cryptographic
    strength, such as DNSSEC key generation, this
    cannot be overridden. In particular, the -r
    command line option no longer has any effect on
    dnssec-keygen.

    This can be disabled
  by building with
    "configure --disable-crypto-rand".
    [RT #31459] [RT #46047]
---
bin/confgen/keygen.c                      | 12 +++---
bin/dnssec/dnssec-keygen.docbook          | 24 +++++++----
bin/dnssec/dnssectool.c                   | 12 +++---
bin/named/client.c                        |  3 +-
bin/named/config.c                        |  4 +-
bin/named/controlconf.c                   | 19 +++++---
bin/named/include/named/server.h          |  2 +
bin/named/interfacemgr.c                  |  1 +
bin/named/query.c                         |  1 +
bin/named/server.c                        | 52 ++++++++++++++--------
bin/nsupdate/nsupdate.c                   |  4 +-
bin/tests/system/pipelined/pipequeries.c |  4 +-
bin/tests/system/tkey/keycreate.c         |  4 +-
bin/tests/system/tkey/keydelete.c         |  5 +--
doc/arm/Bv9ARM-book.xml                   | 55 +++++++++++++++++-------
doc/arm/notes-rh-changes.xml              | 42 ++++++++++++++++++
doc/arm/notes.xml
                |  1 +
lib/dns/dst_api.c                         |  4 +-
lib/dns/include/dst/dst.h                 | 14 +++++-
lib/dns/openssl_link.c                    |  3 +-
lib/isc/include/isc/entropy.h             | 48 +++++++++++++++------
lib/isc/include/isc/random.h              | 26 +++++++----
lib/isccfg/namedconf.c                    |  2 +-
23 files changed, 240 insertions(+), 102 deletions(-)
create mode 100644 doc/arm/notes-rh-changes.xml

diff --git a/bin/confgen/keygen.c b/bin/confgen/keygen.c
index bd269e7..1ac775f 100644
--- a/bin/confgen/keygen.c
+++ b/bin/confgen/keygen.c
@@ -161,17 +161,15 @@ generate_key(isc_mem_t *mctx, const char *randomfile, dns_secalg_t alg,

 DO("create entropy context", isc_entropy_create(mctx, &ectx));
```

```
- if (randomfile != NULL && strcmp(randomfile, "keyboard") == 0) {
-  randomfile = NULL;
-  open_keyboard = ISC_ENTROPY_KEYBOARDYES;
- }
#ifdef ISC_PLATFORM_CRYPTORANDOM
- if (randomfile != NULL &&
-     strcmp(randomfile, ISC_PLATFORM_CRYPTORANDOM)
 == 0) {
-  randomfile = NULL;
+ if (randomfile == NULL) {
  isc_entropy_usehook(ectx, true);
 }
#endif
+ if (randomfile != NULL && strcmp(randomfile, "keyboard") == 0) {
+  randomfile = NULL;
+  open_keyboard = ISC_ENTROPY_KEYBOARDYES;
+ }
 DO("start entropy source", isc_entropy_usebestsource(ectx,
           &entropy_source,
           randomfile,
diff --git a/bin/dnssec/dnssec-keygen.docbook b/bin/dnssec/dnssec-keygen.docbook
index bd19e1d..2c09b30 100644
--- a/bin/dnssec/dnssec-keygen.docbook
+++ b/bin/dnssec/dnssec-keygen.docbook
@@ -349,15 +349,23 @@
 <term>-r <replaceable class="parameter">randomdev</replaceable></term>
 <listitem>
   <para>
-     Specifies the source of randomness.  If the operating
-     system does not provide a <filename>/dev/random</filename>
-     or equivalent device, the default source of randomness
-     is keyboard input.  <filename>randomdev</filename>
-     specifies
+     Specifies a source of randomness.  Normally, when generating
+
    DNSSEC keys, this option has no effect; the random number
+     generation function provided by the cryptographic library will
+     be used.
+   </para>
+   <para>
+     If that behavior is disabled at compile time, however,
+     the specified file will be used as entropy source
+     for key generation.  <filename>randomdev</filename> is
     the name of a character device or file containing random
-     data to be used instead of the default.  The special value
-     <filename>keyboard</filename> indicates that keyboard
-     input should be used.
```

```
+    data to be used.  The special value <filename>keyboard</filename>
+    indicates that keyboard input should be used.
+   </para>
+   <para>
+    The default is <filename>/dev/random</filename> if the
+    operating system provides it or an equivalent device;
+    if not, the default source of randomness is keyboard input.
   </para>
  </listitem>
      </varlistentry>
diff --git a/bin/dnssec/dnssectool.c b/bin/dnssec/dnssectool.c
index
 2a0f9c6..6fcd411 100644
--- a/bin/dnssec/dnssectool.c
+++ b/bin/dnssec/dnssectool.c
@@ -241,18 +241,16 @@ setup_entropy(isc_mem_t *mctx, const char *randomfile, isc_entropy_t **ectx) {
  ISC_LIST_INIT(sources);
 }

+#ifdef ISC_PLATFORM_CRYPTORANDOM
+ if (randomfile == NULL) {
+  isc_entropy_usehook(*ectx, true);
+ }
+#endif
 if (randomfile != NULL && strcmp(randomfile, "keyboard") == 0) {
  usekeyboard = ISC_ENTROPY_KEYBOARDYES;
  randomfile = NULL;
 }

-#ifdef ISC_PLATFORM_CRYPTORANDOM
- if (randomfile != NULL &&
-     strcmp(randomfile, ISC_PLATFORM_CRYPTORANDOM) == 0) {
-  randomfile = NULL;
-  isc_entropy_usehook(*ectx, true);
- }
-#endif
 result = isc_entropy_usebestsource(*ectx, &source, randomfile,
       usekeyboard);

diff --git a/bin/named/client.c b/bin/named/client.c
index 4a50ad9..4d140e8 100644
--- a/bin/named/client.c
+++ b/bin/named/client.c
@@ -1768,7 +1768,8 @@ ns_client_addopt(ns_client_t *client, dns_message_t *message,

  isc_buffer_init(&buf,
 cookie, sizeof(cookie));
  isc_stdtime_get(&now);
```

```
-  isc_random_get(&nonce);
+  nonce = ((isc_rng_random(ns_g_server->rngctx) << 16) |
+    isc_rng_random(ns_g_server->rngctx));

  compute_cookie(client, now, nonce, ns_g_server->secret, &buf);

diff --git a/bin/named/config.c b/bin/named/config.c
index 9b343fa..5e663c6 100644
--- a/bin/named/config.c
+++ b/bin/named/config.c
@@ -98,7 +98,9 @@ options {\n\
# pid-file \"" NS_LOCALSTATEDIR "/run/named/named.pid\"; /* or /lwresd.pid */\n\
 port 53;\n\
 prefetch 2 9;\n"
-#ifdef PATH_RANDOMDEV
+#if defined(ISC_PLATFORM_CRYPTORANDOM)
+" random-device none;\n"
+#elif defined(PATH_RANDOMDEV)
" random-device \"" PATH_RANDOMDEV "\";\n"
#endif
" recursing-file \"named.recursing\";\n\
diff --git a/bin/named/controlconf.c b/bin/named/controlconf.c
index 9fdf49b..42128dc 100644
--- a/bin/named/controlconf.c
+++ b/bin/named/controlconf.c
@@ -327,9 +327,10 @@ log_invalid(isccc_ccmsg_t *ccmsg, isc_result_t result) {

static void
 control_recvmessage(isc_task_t *task, isc_event_t *event) {
- controlconnection_t *conn;
- controllistener_t *listener;
- controlkey_t *key;
+ controlconnection_t *conn = NULL;
+ controllistener_t *listener = NULL;
+ ns_server_t *server = NULL;
+ controlkey_t *key = NULL;
 isccc_sexpr_t *request = NULL;
 isccc_sexpr_t *response = NULL;
 uint32_t algorithm;
@@ -340,16 +341,17 @@ control_recvmessage(isc_task_t *task, isc_event_t *event) {
 isc_buffer_t *text;
 isc_result_t result;
 isc_result_t eresult;
- isccc_sexpr_t *_ctrl;
+ isccc_sexpr_t *_ctrl = NULL;
 isccc_time_t sent;
 isccc_time_t exp;
 uint32_t nonce;
```

```
- isccc_sexpr_t *data;
+ isccc_sexpr_t *data = NULL;

 REQUIRE(event->ev_type == ISCCC_EVENT_CCMSG);

 conn = event->ev_arg;
 listener = conn->listener;
+ server = listener->controls->server;
 algorithm = DST_ALG_UNKNOWN;
 secret.rstart = NULL;
 text = NULL;
@@ -462,8 +464,11 @@ control_recvmessage(isc_task_t *task, isc_event_t *event) {
  * Establish nonce.
   */
 if (conn->nonce == 0) {
-  while (conn->nonce == 0)
-   isc_random_get(&conn->nonce);
+  while (conn->nonce == 0) {
+   uint16_t r1 = isc_rng_random(server->rngctx);
+   uint16_t r2 = isc_rng_random(server->rngctx);
+   conn->nonce = (r1 << 16) | r2;
+  }
  eresult = ISC_R_SUCCESS;
 } else
  eresult = ns_control_docommand(request, listener->readonly, &text);
diff --git a/bin/named/include/named/server.h b/bin/named/include/named/server.h
index 4fd0194..0ba2627 100644
--- a/bin/named/include/named/server.h
+++ b/bin/named/include/named/server.h
@@ -20,6 +20,7 @@
#include <isc/log.h>
#include <isc/magic.h>
#include <isc/quota.h>
+#include <isc/random.h>
#include <isc/sockaddr.h>
#include <isc/types.h>
#include <isc/xml.h>
@@ -135,6 +136,7 @@ struct ns_server {
 char *   lockfile;

 uint16_t  transfer_tcp_message_size;
+ isc_rng_t *  rngctx;
};

struct ns_altsecret {
diff --git a/bin/named/interfacemgr.c b/bin/named/interfacemgr.c
index 93aac31..e12fad9 100644
---
```

```
 a/bin/named/interfacemgr.c
+++ b/bin/named/interfacemgr.c
@@ -17,6 +17,7 @@

#include <isc/interfaceiter.h>
#include <isc/os.h>
+#include <isc/random.h>
#include <isc/string.h>
#include <isc/task.h>
#include <isc/util.h>
diff --git a/bin/named/query.c b/bin/named/query.c
index 58b5914..edf42d2 100644
--- a/bin/named/query.c
+++ b/bin/named/query.c
@@ -20,6 +20,7 @@
#include <isc/mem.h>
#include <isc/platform.h>
#include <isc/print.h>
+#include <isc/random.h>
#include <isc/rwlock.h>
#include <isc/serial.h>
#include <isc/stats.h>
diff --git a/bin/named/server.c b/bin/named/server.c
index b2ae57c..cca7fe8 100644
--- a/bin/named/server.c
+++ b/bin/named/server.c
@@ -8279,21 +8279,32 @@ load_configuration(const char *filename, ns_server_t *server,
  * Open the source of entropy.
  */
 if (first_time) {
+  const char *randomdev = NULL;
+  int level = ISC_LOG_ERROR;
  obj = NULL;
  result = ns_config_get(maps, "random-device", &obj);
-  if (result != ISC_R_SUCCESS) {
+  if (result
 == ISC_R_SUCCESS) {
+   if (!cfg_obj_isvoid(obj)) {
+    level = ISC_LOG_INFO;
+    randomdev = cfg_obj_asstring(obj);
+   }
+  }
+  if (randomdev == NULL) {
+#ifdef ISC_PLATFORM_CRYPTORANDOM
+   isc_entropy_usehook(ns_g_entropy, true);
+#else
+   if ((obj != NULL) && !cfg_obj_isvoid(obj))
+    level = ISC_LOG_INFO;
```

```
   isc_log_write(ns_g_lctx, NS_LOGCATEGORY_GENERAL,
-         NS_LOGMODULE_SERVER, ISC_LOG_INFO,
+          NS_LOGMODULE_SERVER, level,
         "no source of entropy found");
+   if ((obj == NULL) || cfg_obj_isvoid(obj)) {
+    CHECK(ISC_R_FAILURE);
+   }
+#endif
  } else {
-   const char *randomdev = cfg_obj_asstring(obj);
-#ifdef ISC_PLATFORM_CRYPTORANDOM
-   if (strcmp(randomdev, ISC_PLATFORM_CRYPTORANDOM) == 0)
-    isc_entropy_usehook(ns_g_entropy, true);
-#else
-   int level = ISC_LOG_ERROR;
   result = isc_entropy_createfilesource(ns_g_entropy,
-            randomdev);
+                                       randomdev);
#ifdef PATH_RANDOMDEV
   if
 (ns_g_fallbackentropy != NULL) {
    level = ISC_LOG_INFO;
@@ -8304,8 +8315,8 @@ load_configuration(const char *filename, ns_server_t *server,
          NS_LOGCATEGORY_GENERAL,
          NS_LOGMODULE_SERVER,
         level,
-          "could not open entropy source "
-          "%s: %s",
+           "could not open "
+           "entropy source %s: %s",
         randomdev,
         isc_result_totext(result));
   }
@@ -8325,7 +8336,6 @@ load_configuration(const char *filename, ns_server_t *server,
    }
    isc_entropy_detach(&ns_g_fallbackentropy);
   }
-#endif
#endif
  }

@@ -9097,6 +9107,7 @@ ns_server_create(isc_mem_t *mctx, ns_server_t **serverp) {
 server->in_roothints = NULL;
 server->blackholeacl = NULL;
 server->keepresporder = NULL;
+ server->rngctx = NULL;

 /* Must be first. */
```

```
 CHECKFATAL(dst_lib_init2(ns_g_mctx, ns_g_entropy,
@@ -9123,6 +9134,9 @@ ns_server_create(isc_mem_t *mctx, ns_server_t **serverp) {
 CHECKFATAL(dns_tkeyctx_create(ns_g_mctx,
 ns_g_entropy,
          &server->tkeyctx),
    "creating TKEY context");
+ server->rngctx = NULL;
+ CHECKFATAL(isc_rng_create(ns_g_mctx, ns_g_entropy, &server->rngctx),
+           "creating random numbers context");

 /*
  * Setup the server task, which is responsible for coordinating
@@ -9329,7 +9343,8 @@ ns_server_destroy(ns_server_t **serverp) {

 if (server->zonemgr != NULL)
  dns_zonemgr_detach(&server->zonemgr);
-
+ if (server->rngctx != NULL)
+  isc_rng_detach(&server->rngctx);
 if (server->tkeyctx != NULL)
  dns_tkeyctx_destroy(&server->tkeyctx);

@@ -13366,10 +13381,10 @@ newzone_cfgctx_destroy(void **cfgp) {

static isc_result_t
generate_salt(unsigned char *salt, size_t saltlen) {
- int i, n;
+ size_t i, n;
 union {
  unsigned char rnd[256];
-  uint32_t rnd32[64];
+  uint16_t rnd16[128];
 } rnd;
 unsigned char text[512 + 1];
 isc_region_t r;
@@ -13379,9 +13394,10 @@ generate_salt(unsigned char *salt, size_t saltlen) {
 if (saltlen > 256U)
  return
 (ISC_R_RANGE);

- n = (int) (saltlen + sizeof(uint32_t) - 1) / sizeof(uint32_t);
- for (i = 0; i < n; i++)
-  isc_random_get(&rnd.rnd32[i]);
+ n = (saltlen + sizeof(uint16_t) - 1) / sizeof(uint16_t);
+ for (i = 0; i < n; i++) {
+  rnd.rnd16[i] = isc_rng_random(ns_g_server->rngctx);
+ }
```

```
 memmove(salt, rnd.rnd, saltlen);

diff --git a/bin/nsupdate/nsupdate.c b/bin/nsupdate/nsupdate.c
index 7f15cbc..458aa76 100644
--- a/bin/nsupdate/nsupdate.c
+++ b/bin/nsupdate/nsupdate.c
@@ -289,9 +289,7 @@ setup_entropy(isc_mem_t *mctx, const char *randomfile, isc_entropy_t **ectx) {
 }

#ifdef ISC_PLATFORM_CRYPTORANDOM
- if (randomfile != NULL &&
-     strcmp(randomfile, ISC_PLATFORM_CRYPTORANDOM) == 0) {
-  randomfile = NULL;
+ if (randomfile == NULL) {
  isc_entropy_usehook(*ectx, true);
 }
#endif
diff --git a/bin/tests/system/pipelined/pipequeries.c b/bin/tests/system/pipelined/pipequeries.c
index 95b65bf..7a81d4e 100644
--- a/bin/tests/system/pipelined/pipequeries.c
+++ b/bin/tests/system/pipelined/pipequeries.c
@@
 -280,9 +280,7 @@ main(int argc, char *argv[]) {
 ectx = NULL;
 RUNCHECK(isc_entropy_create(mctx, &ectx));
#ifdef ISC_PLATFORM_CRYPTORANDOM
- if (randomfile != NULL &&
-     strcmp(randomfile, ISC_PLATFORM_CRYPTORANDOM) == 0) {
-  randomfile = NULL;
+ if (randomfile == NULL) {
  isc_entropy_usehook(ectx, true);
 }
#endif
diff --git a/bin/tests/system/tkey/keycreate.c b/bin/tests/system/tkey/keycreate.c
index 3236968..4fa77b6 100644
--- a/bin/tests/system/tkey/keycreate.c
+++ b/bin/tests/system/tkey/keycreate.c
@@ -255,9 +255,7 @@ main(int argc, char *argv[]) {
 ectx = NULL;
 RUNCHECK(isc_entropy_create(mctx, &ectx));
#ifdef ISC_PLATFORM_CRYPTORANDOM
- if (randomfile != NULL &&
-     strcmp(randomfile, ISC_PLATFORM_CRYPTORANDOM) == 0) {
-  randomfile = NULL;
+ if (randomfile == NULL) {
  isc_entropy_usehook(ectx, true);
 }
#endif
```

```
diff --git a/bin/tests/system/tkey/keydelete.c b/bin/tests/system/tkey/keydelete.c
index 43fb6b0..105e151 100644
--- a/bin/tests/system/tkey/keydelete.c
+++
 b/bin/tests/system/tkey/keydelete.c
@@ -171,6 +171,7 @@ main(int argc, char **argv) {
  randomfile = argv[2];
  argv += 2;
  argc -= 2;
+  POST(argc);
 }
 keyname = argv[1];

@@ -182,9 +183,7 @@ main(int argc, char **argv) {
 ectx = NULL;
 RUNCHECK(isc_entropy_create(mctx, &ectx));
#ifdef ISC_PLATFORM_CRYPTORANDOM
- if (randomfile != NULL &&
-     strcmp(randomfile, ISC_PLATFORM_CRYPTORANDOM) == 0) {
-  randomfile = NULL;
+ if (randomfile == NULL) {
  isc_entropy_usehook(ectx, true);
 }
#endif
diff --git a/doc/arm/Bv9ARM-book.xml b/doc/arm/Bv9ARM-book.xml
index ca98726..1f9df2c 100644
--- a/doc/arm/Bv9ARM-book.xml
+++ b/doc/arm/Bv9ARM-book.xml
@@ -5034,22 +5034,45 @@ badresp:1,adberr:0,findfail:0,valfail:0]
     <term><command>random-device</command></term>
     <listitem>
       <para>
-  This specifies a source of entropy to be used by the server.  Entropy is
-  primarily needed
-  for DNSSEC operations, such as TKEY transactions
 and dynamic
-  update of signed
-  zones.  This option specifies the device (or file) from which
-  to read
-  entropy.  If it is a file, operations requiring entropy will
-  fail when the
-  file has been exhausted.  If <command>random-device</command> is not specified, the default value
-  is
-  <filename>/dev/random</filename>
-  (or equivalent) when present, and none otherwise.  The
-  <command>random-device</command> option takes
-  effect during
-  the initial configuration load at server startup time and
```

```
-  is ignored on subsequent reloads.
+  Specifies a source of entropy to be used by the server.
+  This is a device or file from which to read entropy.
+  If it is a file, operations requiring entropy
+  will fail when the file has been exhausted.
+       </para>
+       <para>
+  Entropy is needed for cryptographic operations such as
+  TKEY transactions, dynamic update of signed zones, and
+  generation of TSIG session keys. It is also used for
+  seeding and stirring the pseudo-random
 number generator,
+  which is used for less critical functions requiring
+  randomness such as generation of DNS message transaction
+  ID's.
+       </para>
+       <para>
+  If <command>random-device</command> is not specified, or
+  if it is set to <literal>none</literal>, entropy will be
+  read from the random number generation function supplied
+  by the cryptographic library with which BIND was linked
+  (i.e.  OpenSSL or a PKCS#11 provider).
+       </para>
+       <para>
+  The <command>random-device</command> option takes
+  effect during the initial configuration load at server
+  startup time and is ignored on subsequent reloads.
+       </para>
+       <para>
+  If BIND is built with
+  <command>configure --disable-crypto-rand</command>, then
+  entropy is <emphasis>not</emphasis> sourced from the
+  cryptographic library. In this case, if
+  <command>random-device</command> is not specified, the
+  default value is the system random device,
+  <filename>/dev/random</filename>
 or the equivalent.
+  This default can be overridden with
+  <command>configure --with-randomdev</command>.
+  If no system random device exists, then no entropy source
+  will be configured, and <command>named</command> will only
+  be able to use pseudo-random numbers.
       </para>
     </listitem>
   </varlistentry>
diff --git a/doc/arm/notes-rh-changes.xml b/doc/arm/notes-rh-changes.xml
new file mode 100644
index 0000000..89a4961
```

```
--- /dev/null
+++ b/doc/arm/notes-rh-changes.xml
@@ -0,0 +1,42 @@
+<!--
+ - Copyright (C) Internet Systems Consortium, Inc. ("ISC")
+ -
+ - This Source Code Form is subject to the terms of the Mozilla Public
+ - License, v. 2.0. If a copy of the MPL was not distributed with this
+ - file, You can obtain one at http://mozilla.org/MPL/2.0/.
+ -
+ - See the COPYRIGHT file distributed with this work for additional
+ - information regarding copyright ownership.
+-->
+
+<section xml:id="relnotes_rh_changes"><info><title>Red Hat Specific Changes</title></info>
+
  <itemizedlist>
+    <listitem>
+     <para>
+       By default, BIND now uses the random number generation functions
+       in the cryptographic library (i.e., OpenSSL or a PKCS#11
+       provider) as a source of high-quality randomness rather than
+       <filename>/dev/random</filename>.  This is suitable for virtual
+       machine environments, which may have limited entropy pools and
+       lack hardware random number generators.
+     </para>
+     <para>
+       This can be overridden by specifying another entropy source via
+       the <command>random-device</command> option in
+       <filename>named.conf</filename>, or via the <command>-r</command>
+       command line option.  However, for functions requiring full
+       cryptographic strength, such as DNSSEC key generation, this
+       <emphasis>cannot</emphasis> be overridden. In particular, the
+       <command>-r</command> command line option no longer has any
+       effect on
 <command>dnssec-keygen</command>.
+     </para>
+     <para>
+       This can be disabled by building with
+       <command>configure --disable-crypto-rand</command>, in which
+       case <filename>/dev/random</filename> will be the default
+       entropy source.  [RT #31459] [RT #46047]
+     </para>
+   </listitem>
+  </itemizedlist>
+</section>
+
diff --git a/doc/arm/notes.xml b/doc/arm/notes.xml
```

```
index a5e42c0..f8cb1f9 100644
--- a/doc/arm/notes.xml
+++ b/doc/arm/notes.xml
@@ -47,6 +47,7 @@
  <xi:include xmlns:xi="http://www.w3.org/2001/XInclude" href="notes-9.11.1.xml"/>
  <xi:include xmlns:xi="http://www.w3.org/2001/XInclude" href="notes-9.11.0.xml"/>

+  <xi:include xmlns:xi="http://www.w3.org/2001/XInclude" href="notes-rh-changes.xml"/>
  <xi:include xmlns:xi="http://www.w3.org/2001/XInclude" href="notes-eol.xml"/>
  <xi:include xmlns:xi="http://www.w3.org/2001/XInclude" href="notes-thankyou.xml"/>
</section>
diff --git a/lib/dns/dst_api.c b/lib/dns/dst_api.c
index
 aa54afc..2156384 100644
--- a/lib/dns/dst_api.c
+++ b/lib/dns/dst_api.c
@@ -2017,10 +2017,12 @@ dst__entropy_getdata(void *buf, unsigned int len, bool pseudo) {
 else
  flags |= ISC_ENTROPY_BLOCKING;
#ifdef ISC_PLATFORM_CRYPTORANDOM
+ /* get entropy directly from crypto provider */
 return (dst_random_getdata(buf, len, NULL, flags));
#else
+ /* get entropy from entropy source or hook function */
 return (isc_entropy_getdata(dst_entropy_pool, buf, len, NULL, flags));
-#endif
+#endif /* ISC_PLATFORM_CRYPTORANDOM */
#endif /* PKCS11CRYPTO */
}

diff --git a/lib/dns/include/dst/dst.h b/lib/dns/include/dst/dst.h
index 3aba028..180c841 100644
--- a/lib/dns/include/dst/dst.h
+++ b/lib/dns/include/dst/dst.h
@@ -163,8 +163,18 @@ isc_result_t
dst_random_getdata(void *data, unsigned int length,
     unsigned int *returned, unsigned int flags);
/*%<
- * \brief Return data from the crypto random generator.
- * Specialization of isc_entropy_getdata().
+ * Gets random data from the random
 generator provided by the
+ * crypto library, if BIND was built with --enable-crypto-rand.
+ *
+ * See isc_entropy_getdata() for parameter usage. Normally when
+ * this function is available, it will be set up as a hook in the
+ * entropy context, so that isc_entropy_getdata() is a front-end to
+ * this function.
```

```
+ *
+ * Returns:
+ * \li ISC_R_SUCCESS on success
+ * \li ISC_R_NOTIMPLEMENTED if BIND is built with --disable-crypto-rand
+ * \li DST_R_OPENSSLFAILURE, DST_R_CRYPTOFAILURE, or other codes on error
 */

bool
diff --git a/lib/dns/openssl_link.c b/lib/dns/openssl_link.c
index 3f4f822..cfdc757 100644
--- a/lib/dns/openssl_link.c
+++ b/lib/dns/openssl_link.c
@@ -484,7 +484,8 @@ dst__openssl_getengine(const char *engine) {

isc_result_t
dst_random_getdata(void *data, unsigned int length,
-     unsigned int *returned, unsigned int flags) {
+     unsigned int *returned, unsigned int flags)
+{
#ifdef ISC_PLATFORM_CRYPTORANDOM
#ifndef DONT_REQUIRE_DST_LIB_INIT
 INSIST(dst__memory_pool
 != NULL);
diff --git a/lib/isc/include/isc/entropy.h b/lib/isc/include/isc/entropy.h
index f32c9dc..bed276b 100644
--- a/lib/isc/include/isc/entropy.h
+++ b/lib/isc/include/isc/entropy.h
@@ -189,9 +189,8 @@ isc_entropy_createcallbacksource(isc_entropy_t *ent,
/*!<
 * \brief Create an entropy source that is polled via a callback.
 *
- * This would
- * be used when keyboard input is used, or a GUI input method.  It can
- * also be used to hook in any external entropy source.
+ * This would be used when keyboard input is used, or a GUI input method.
+ * It can also be used to hook in any external entropy source.
 *
 * Samples are added via isc_entropy_addcallbacksample(), below.
 * _addcallbacksample() is the only function which may be called from
@@ -232,15 +231,32 @@ isc_result_t
isc_entropy_getdata(isc_entropy_t *ent, void *data, unsigned int length,
      unsigned int *returned, unsigned int flags);
/*!<
- * \brief Extract data from the entropy pool.  This may load
 the pool from various
- * sources.
+ * \brief Get random data from entropy pool 'ent'.
 *
```

```
- * Do this by stirring the pool and returning a part of hash as randomness.
- * Note that no secrets are given away here since parts of the hash are
- * xored together before returned.
+ * If a hook has been set up using isc_entropy_sethook() and
+ * isc_entropy_usehook(), then the hook function will be called to get
+ * random data.
 *
- * Honor the request from the caller to only return good data, any data,
- * etc.
+ * Otherwise, randomness is extracted from the entropy pool set up in BIND.
+ * This may cause the pool to be loaded from various sources. Ths is done
+ * by stirring the pool and returning a part of hash as randomness.
+ * (Note that no secrets are given away here since parts of the hash are
+ * XORed together before returning.)
+ *
+ * 'flags' may contain ISC_ENTROPY_GOODONLY, ISC_ENTROPY_PARTIAL, or
+ * ISC_ENTROPY_BLOCKING. These will be honored if the hook function is
+
 * not in use. If it is, the flags will be passed to the hook function
+ * but it may ignore them.
+ *
+ * Up to 'length' bytes of randomness are retrieved and copied into 'data'.
+ * (If 'returned' is not NULL, and the number of bytes copied is less than
+ * 'length' - which may happen if ISC_ENTROPY_PARTIAL was used - then the
+ * number of bytes copied will be stored in *returned.)
+ *
+ * Returns:
+ * \li ISC_R_SUCCESS on success
+ * \li ISC_R_NOENTROPY if entropy pool is empty
+ * \li other error codes are possible when a hook is in use
 */

void
@@ -305,13 +321,21 @@ isc_entropy_usebestsource(isc_entropy_t *ectx, isc_entropysource_t **source,
void
isc_entropy_usehook(isc_entropy_t *ectx, bool onoff);
/*!<
- * \brief Mark/unmark the given entropy structure as being hooked.
+ * \brief Configure entropy context 'ectx' to use the hook function
+ *
+ * Sets the entropy context to call the hook function for random number
+ * generation, if such a function has been configured via
+
 * isc_entropy_sethook(), whenever isc_entropy_getdata() is called.
 */

void
isc_entropy_sethook(isc_entropy_getdata_t myhook);
```

```
/*!<
- * \brief Set the getdata hook (e.g., for a crypto random generator).
+ * \brief Set the hook function.
+ *
+ * The hook function is a global value: only one hook function
+ * can be set in the system. Individual entropy contexts may be
+ * configured to use it, or not, by calling isc_entropy_usehook().
 */

ISC_LANG_ENDDECLS
diff --git a/lib/isc/include/isc/random.h b/lib/isc/include/isc/random.h
index f38e80d..3cb1c56 100644
--- a/lib/isc/include/isc/random.h
+++ b/lib/isc/include/isc/random.h
@@ -19,13 +19,23 @@
#include <isc/mutex.h>

/*! \file isc/random.h
- * \brief Implements a random state pool which will let the caller return a
- * series of possibly non-reproducible random values.
+ * \brief Implements pseudo random number generators.
 *
- * Note that the
- * strength of these numbers is not all that high, and should not be
- * used
 in cryptography functions.  It is useful for jittering values
- * a bit here and there, such as timeouts, etc.
+ * Two pseudo-random number generators are implemented, in isc_random_*
+ * and isc_rng_*. Neither one is very strong; they should not be used
+ * in cryptography functions.
+ *
+ * isc_random_* is based on arc4random if it is available on the system.
+ * Otherwise it is based on the posix srand() and rand() functions.
+ * It is useful for jittering values a bit here and there, such as
+ * timeouts, etc, but should not be relied upon to generate
+ * unpredictable sequences (for example, when choosing transaction IDs).
+  *
+ * isc_rng_* is based on ChaCha20, and is seeded and stirred from the
+ * system entropy source. It is stronger than isc_random_* and can
+ * be used for generating unpredictable sequences. It is still not as
+ * good as using system entropy directly (see entropy.h) and should not
+ * be used for cryptographic functions such as key generation.
 */

ISC_LANG_BEGINDECLS
@@
 -113,8 +123,8 @@ isc_rng_random(isc_rng_t *rngctx);
uint16_t
```

```
isc_rng_uniformrandom(isc_rng_t *rngctx, uint16_t upper_bound);
/*%<
- * Returns a uniformly distributed pseudo random 16-bit unsigned
- * integer.
+ * Returns a uniformly distributed pseudo-random 16-bit unsigned integer
+ * less than 'upper_bound'.
 */

ISC_LANG_ENDDECLS
diff --git a/lib/isccfg/namedconf.c b/lib/isccfg/namedconf.c
index e74c93b..212194e 100644
--- a/lib/isccfg/namedconf.c
+++ b/lib/isccfg/namedconf.c
@@ -1109,7 +1109,7 @@ options_clauses[] = {
 { "pid-file", &cfg_type_qstringornone, 0 },
 { "port", &cfg_type_uint32, 0 },
 { "querylog", &cfg_type_boolean, 0 },
- { "random-device", &cfg_type_qstring, 0 },
+ { "random-device", &cfg_type_qstringornone, 0 },
 { "recursing-file", &cfg_type_qstring, 0 },
 { "recursive-clients", &cfg_type_uint32, 0 },
 { "reserved-sockets", &cfg_type_uint32, 0 },
--
2.26.2
```

Found in path(s):

* /opt/cola/permits/1701043592_1685703124.6755614/0/bind-zip/bind/SOURCES/bind-9.11-rt46047.patch

No license file was found, but licenses were detected in source scan.

```
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```

Found in path(s):

* /opt/cola/permits/1701043592_1685703124.6755614/0/bind-zip/bind/SOURCES/zonetodb.1
* /opt/cola/permits/1701043592_1685703124.6755614/0/bind-zip/bind/SOURCES/zone2sqlite.1

No license file was found, but licenses were detected in source scan.

```
/*
* Copyright (C) 2004, 2005 Stig Venaas <venaas@uninett.no>
* $Id: ldap2zone.c,v 1.1 2007/07/24 15:18:00 atkac Exp $
*
* Permission to use, copy, modify, and distribute this software for any
* purpose with or without fee is hereby granted, provided that the above
* copyright notice and this permission notice appear in all copies.
*/
```

Found in path(s):

* /opt/cola/permits/1701043592_1685703124.6755614/0/bind-zip/bind/SOURCES/ldap2zone.c

1.530 micronaut-inject-java 3.8.8

1.530.1 Available under license :

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<url>http://www.apache.org/licenses/LICENSE-2.0.txt</url>

Found in path(s):
* /opt/cola/permits/1701043949_1685472426.070663/0/micronaut-inject-java-3-8-8-jar/META-INF/maven/io.micronaut/micronaut-inject-java/pom.xml

1.531 micronaut-jackson-databind 3.8.8

1.531.1 Available under license :

No license file was found, but licenses were detected in source scan.

<url>http://www.apache.org/licenses/LICENSE-2.0.txt</url>

Found in path(s):
* /opt/cola/permits/1701043735_1685472889.8611712/0/micronaut-jackson-databind-3-8-8-jar/META-INF/maven/io.micronaut/micronaut-jackson-databind/pom.xml

1.532 dropwizard-request-logging 2.1.2

1.532.1 Available under license :

Apache-2.0

1.533 antlr 4.10

1.533.1 Available under license :

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*/

Found in path(s):
* /opt/cola/permits/1701043699_1685472631.4170268/0/micronaut-http-3-8-8-sources-jar/io/micronaut/http/util/HttpHeadersUtil.java
* /opt/cola/permits/1701043699_1685472631.4170268/0/micronaut-http-3-8-8-sources-jar/io/micronaut/http/bind/binders/PartAnnotationBinder.java
* /opt/cola/permits/1701043699_1685472631.4170268/0/micronaut-http-3-8-8-sources-jar/io/micronaut/http/hateoas/GenericResource.java
*
/opt/cola/permits/1701043699_1685472631.4170268/0/micronaut-http-3-8-8-sources-jar/io/micronaut/http/ssl/SslConfiguration.java
* /opt/cola/permits/1701043699_1685472631.4170268/0/micronaut-http-3-8-8-sources-jar/io/micronaut/http/ssl/ClientSslConfiguration.java
* /opt/cola/permits/1701043699_1685472631.4170268/0/micronaut-http-3-8-8-sources-jar/io/micronaut/http/MediaTypeConvertersRegistrar.java
* /opt/cola/permits/1701043699_1685472631.4170268/0/micronaut-http-3-8-8-sources-jar/io/micronaut/http/ssl/ServerSslConfiguration.java
No license file was found, but licenses were detected in source scan.

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Found in path(s):
* /opt/cola/permits/1701043699_1685472631.4170268/0/micronaut-http-3-8-8-sources-jar/io/micronaut/http/util/HttpTypeInformationProvider.java

* /opt/cola/permits/1701043699_1685472631.4170268/0/micronaut-http-3-8-8-sources-jar/io/micronaut/http/filter/FilterPatternStyle.java
* /opt/cola/permits/1701043699_1685472631.4170268/0/micronaut-http-3-8-8-sources-jar/io/micronaut/http/ssl/AbstractClientSslConfiguration.java
* /opt/cola/permits/1701043699_1685472631.4170268/0/micronaut-http-3-8-8-sources-jar/io/micronaut/http/cookie/SameSiteConverter.java
* /opt/cola/permits/1701043699_1685472631.4170268/0/micronaut-http-3-8-8-sources-jar/io/micronaut/http/bind/binders/HttpCoroutineContextFactory.kt
* /opt/cola/permits/1701043699_1685472631.4170268/0/micronaut-http-3-8-8-sources-jar/io/micronaut/http/PushCapableHttpRequest.java

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```
# This file maps Internet media types to unique file extension(s).
# Although created for httpd, this file is used by many software systems
# and has been placed in the public domain for unlimited redisribution.
#
# The table below contains both registered and (common) unregistered types.
# A type that has no unique extension can be ignored -- they are listed
# here to guide configurations toward known types and to make it easier to
# identify "new" types.  File extensions are also commonly used to indicate
# content languages and encodings, so choose them carefully.
#
# Internet media types should be registered as described in RFC 4288.
# The registry is at <https://www.iana.org/assignments/media-types/>.
#
# https://svn.apache.org/viewvc/httpd/httpd/trunk/docs/conf/mime.types?revision=1810121&view=co
#
# MIME type (lowercased)   Extensions
# ============================================ ==========
# application/1d-interleaved-parityfec
#
 application/3gpdash-qoe-report+xml
# application/3gpp-ims+xml
# application/a2l
# application/activemessage
# application/alto-costmap+json
# application/alto-costmapfilter+json
# application/alto-directory+json
# application/alto-endpointcost+json
# application/alto-endpointcostparams+json
# application/alto-endpointprop+json
# application/alto-endpointpropparams+json
# application/alto-error+json
# application/alto-networkmap+json
# application/alto-networkmapfilter+json
# application/aml
application/andrew-inset   ez
```

```
# application/applefile
application/applixware    aw
# application/atf
# application/atfx
application/atom+xml    atom
application/atomcat+xml    atomcat
# application/atomdeleted+xml
# application/atomicmail
application/atomsvc+xml    atomsvc
# application/atxml
# application/auth-policy+xml
# application/bacnet-xdd+zip
# application/batch-smtp
# application/beep+xml
# application/calendar+json
# application/calendar+xml
# application/call-completion
#
 application/cals-1840
# application/cbor
# application/ccmp+xml
application/ccxml+xml    ccxml
# application/cdfx+xml
application/cdmi-capability   cdmia
application/cdmi-container   cdmic
application/cdmi-domain    cdmid
application/cdmi-object    cdmio
application/cdmi-queue    cdmiq
# application/cdni
# application/cea
# application/cea-2018+xml
# application/cellml+xml
# application/cfw
# application/cms
# application/cnrp+xml
# application/coap-group+json
# application/commonground
# application/conference-info+xml
# application/cpl+xml
# application/csrattrs
# application/csta+xml
# application/cstadata+xml
# application/csvm+json
application/cu-seeme    cu
# application/cybercash
# application/dash+xml
# application/dashdelta
application/davmount+xml   davmount
```

```
# application/dca-rft
# application/dcd
# application/dec-dx
# application/dialog-info+xml
# application/dicom
# application/dii
# application/dit
# application/dns
application/docbook+xml    dbk
# application/dskpp+xml
application/dssc+der    dssc
application/dssc+xml    xdssc
#
 application/dvcs
application/ecmascript    ecma
# application/edi-consent
# application/edi-x12
# application/edifact
# application/efi
# application/emergencycalldata.comment+xml
# application/emergencycalldata.deviceinfo+xml
# application/emergencycalldata.providerinfo+xml
# application/emergencycalldata.serviceinfo+xml
# application/emergencycalldata.subscriberinfo+xml
application/emma+xml    emma
# application/emotionml+xml
# application/encaprtp
# application/epp+xml
application/epub+zip    epub
# application/eshop
# application/example
application/exi     exi
# application/fastinfoset
# application/fastsoap
# application/fdt+xml
# application/fits
application/font-tdpfr    pfr
# application/framework-attributes+xml
# application/geo+json
application/gml+xml    gml
application/gpx+xml    gpx
application/gxf     gxf
# application/gzip
# application/h224
# application/held+xml
# application/http
application/hyperstudio    stk
#
```

```
 application/ibe-key-request+xml
# application/ibe-pkg-reply+xml
# application/ibe-pp-data
# application/iges
# application/im-iscomposing+xml
# application/index
# application/index.cmd
# application/index.obj
# application/index.response
# application/index.vnd
application/inkml+xml    ink inkml
# application/iotp
application/ipfix    ipfix
# application/ipp
# application/isup
# application/its+xml
application/java-archive   jar
application/java-serialized-object  ser
application/java-vm    class
application/javascript    js
application/javascript    mjs
# application/jose
# application/jose+json
# application/jrd+json
application/json    json
# application/json-patch+json
# application/json-seq
application/jsonml+json    jsonml
# application/jwk+json
# application/jwk-set+json
# application/jwt
# application/kpml-request+xml
# application/kpml-response+xml
# application/ld+json
# application/lgr+xml
# application/link-format
# application/load-control+xml
application/lost+xml    lostxml
#
 application/lostsync+xml
# application/lxf
application/mac-binhex40   hqx
application/mac-compactpro   cpt
# application/macwriteii
application/mads+xml    mads
application/marc    mrc
application/marcxml+xml    mrcx
application/mathematica    ma nb mb
```

```
application/mathml+xml    mathml
# application/mathml-content+xml
# application/mathml-presentation+xml
# application/mbms-associated-procedure-description+xml
# application/mbms-deregister+xml
# application/mbms-envelope+xml
# application/mbms-msk+xml
# application/mbms-msk-response+xml
# application/mbms-protection-description+xml
# application/mbms-reception-report+xml
# application/mbms-register+xml
# application/mbms-register-response+xml
# application/mbms-schedule+xml
# application/mbms-user-service-description+xml
application/mbox    mbox
# application/media-policy-dataset+xml
# application/media_control+xml
application/mediaservercontrol+xml  mscml
# application/merge-patch+json
application/metalink+xml   metalink
application/metalink4+xml   meta4
application/mets+xml    mets
#
 application/mf4
# application/mikey
application/mods+xml    mods
# application/moss-keys
# application/moss-signature
# application/mosskey-data
# application/mosskey-request
application/mp21    m21 mp21
application/mp4     mp4s
# application/mpeg4-generic
# application/mpeg4-iod
# application/mpeg4-iod-xmt
# application/mrb-consumer+xml
# application/mrb-publish+xml
# application/msc-ivr+xml
# application/msc-mixer+xml
application/msword    doc dot
application/mxf     mxf
# application/nasdata
# application/news-checkgroups
# application/news-groupinfo
# application/news-transmission
# application/nlsml+xml
# application/nss
# application/ocsp-request
```

```
# application/ocsp-response
application/octet-stream bin dms lrf mar so dist distz pkg bpk dump elc deploy
application/oda     oda
# application/odx
application/oebps-package+xml   opf
application/ogg     ogx
application/omdoc+xml    omdoc
application/onenote    onetoc
 onetoc2 onetmp onepkg
application/oxps    oxps
# application/p2p-overlay+xml
# application/parityfec
application/patch-ops-error+xml   xer
application/pdf     pdf
# application/pdx
application/pgp-encrypted   pgp
# application/pgp-keys
application/pgp-signature   asc sig
application/pics-rules    prf
# application/pidf+xml
# application/pidf-diff+xml
application/pkcs10    p10
# application/pkcs12
application/pkcs7-mime    p7m p7c
application/pkcs7-signature   p7s
application/pkcs8    p8
application/pkix-attr-cert   ac
application/pkix-cert    cer
application/pkix-crl    crl
application/pkix-pkipath   pkipath
application/pkixcmp    pki
application/pls+xml    pls
# application/poc-settings+xml
application/postscript    ai eps ps
# application/ppsp-tracker+json
# application/problem+json
# application/problem+xml
# application/provenance+xml
# application/prs.alvestrand.titrax-sheet
application/prs.cww    cww
# application/prs.hpub+zip
# application/prs.nprend
# application/prs.plucker
#
 application/prs.rdf-xml-crypt
# application/prs.xsf+xml
application/pskc+xml    pskcxml
# application/qsig
```

```
# application/raptorfec
# application/rdap+json
application/rdf+xml    rdf
application/reginfo+xml    rif
application/relax-ng-compact-syntax  rnc
# application/remote-printing
# application/reputon+json
application/resource-lists+xml   rl
application/resource-lists-diff+xml  rld
# application/rfc+xml
# application/riscos
# application/rlmi+xml
application/rls-services+xml   rs
application/rpki-ghostbusters   gbr
application/rpki-manifest   mft
application/rpki-roa    roa
# application/rpki-updown
application/rsd+xml    rsd
application/rss+xml    rss
application/rtf     rtf
# application/rtploopback
# application/rtx
# application/samlassertion+xml
# application/samlmetadata+xml
application/sbml+xml    sbml
# application/scaip+xml
# application/scim+json
application/scvp-cv-request   scq
application/scvp-cv-response   scs
application/scvp-vp-request   spq
application/scvp-vp-response   spp
application/sdp     sdp
#
 application/sep+xml
# application/sep-exi
# application/session-info
# application/set-payment
application/set-payment-initiation  setpay
# application/set-registration
application/set-registration-initiation  setreg
# application/sgml
# application/sgml-open-catalog
application/shf+xml    shf
# application/sieve
# application/simple-filter+xml
# application/simple-message-summary
# application/simplesymbolcontainer
# application/slate
```

```
# application/smil
application/smil+xml    smi smil
# application/smpte336m
# application/soap+fastinfoset
# application/soap+xml
application/sparql-query   rq
application/sparql-results+xml   srx
# application/spirits-event+xml
# application/sql
application/srgs    gram
application/srgs+xml    grxml
application/sru+xml    sru
application/ssdl+xml    ssdl
application/ssml+xml    ssml
# application/tamp-apex-update
# application/tamp-apex-update-confirm
# application/tamp-community-update
# application/tamp-community-update-confirm
#
 application/tamp-error
# application/tamp-sequence-adjust
# application/tamp-sequence-adjust-confirm
# application/tamp-status-query
# application/tamp-status-response
# application/tamp-update
# application/tamp-update-confirm
application/tei+xml    tei teicorpus
application/thraud+xml    tfi
# application/timestamp-query
# application/timestamp-reply
application/timestamped-data   tsd
# application/ttml+xml
# application/tve-trigger
# application/ulpfec
# application/urc-grpsheet+xml
# application/urc-ressheet+xml
# application/urc-targetdesc+xml
# application/urc-uisocketdesc+xml
# application/vcard+json
# application/vcard+xml
# application/vemmi
# application/vividence.scriptfile
# application/vnd.3gpp-prose+xml
# application/vnd.3gpp-prose-pc3ch+xml
# application/vnd.3gpp.access-transfer-events+xml
# application/vnd.3gpp.bsf+xml
# application/vnd.3gpp.mid-call+xml
application/vnd.3gpp.pic-bw-large  plb
```

```
application/vnd.3gpp.pic-bw-small  psb
application/vnd.3gpp.pic-bw-var   pvb
#
 application/vnd.3gpp.sms
# application/vnd.3gpp.sms+xml
# application/vnd.3gpp.srvcc-ext+xml
# application/vnd.3gpp.srvcc-info+xml
# application/vnd.3gpp.state-and-event-info+xml
# application/vnd.3gpp.ussd+xml
# application/vnd.3gpp2.bcmcsinfo+xml
# application/vnd.3gpp2.sms
application/vnd.3gpp2.tcap   tcap
# application/vnd.3lightssoftware.imagescal
application/vnd.3m.post-it-notes  pwn
application/vnd.accpac.simply.aso  aso
application/vnd.accpac.simply.imp  imp
application/vnd.acucobol   acu
application/vnd.acucorp    atc acutc
application/vnd.adobe.air-application-installer-package+zip air
# application/vnd.adobe.flash.movie
application/vnd.adobe.formscentral.fcdt  fcdt
application/vnd.adobe.fxp   fxp fxpl
# application/vnd.adobe.partial-upload
application/vnd.adobe.xdp+xml   xdp
application/vnd.adobe.xfdf   xfdf
# application/vnd.aether.imp
# application/vnd.ah-barcode
application/vnd.ahead.space   ahead
application/vnd.airzip.filesecure.azf  azf
application/vnd.airzip.filesecure.azs  azs
application/vnd.amazon.ebook   azw
#
 application/vnd.amazon.mobi8-ebook
application/vnd.americandynamics.acc  acc
application/vnd.amiga.ami   ami
# application/vnd.amundsen.maze+xml
application/vnd.android.package-archive  apk
# application/vnd.anki
application/vnd.anser-web-certificate-issue-initiation cii
application/vnd.anser-web-funds-transfer-initiation fti
application/vnd.antix.game-component  atx
# application/vnd.apache.thrift.binary
# application/vnd.apache.thrift.compact
# application/vnd.apache.thrift.json
# application/vnd.api+json
application/vnd.apple.installer+xml  mpkg
application/vnd.apple.mpegurl   m3u8
# application/vnd.arastra.swi
```

```
application/vnd.aristanetworks.swi  swi
# application/vnd.artsquare
application/vnd.astraea-software.iota  iota
application/vnd.audiograph   aep
# application/vnd.autopackage
# application/vnd.avistar+xml
# application/vnd.balsamiq.bmml+xml
# application/vnd.balsamiq.bmpr
# application/vnd.bekitzur-stech+json
# application/vnd.biopax.rdf+xml
application/vnd.blueice.multipass  mpm
#
 application/vnd.bluetooth.ep.oob
# application/vnd.bluetooth.le.oob
application/vnd.bmi    bmi
application/vnd.businessobjects   rep
# application/vnd.cab-jscript
# application/vnd.canon-cpdl
# application/vnd.canon-lips
# application/vnd.cendio.thinlinc.clientconf
# application/vnd.century-systems.tcp_stream
application/vnd.chemdraw+xml   cdxml
# application/vnd.chess-pgn
application/vnd.chipnuts.karaoke-mmd  mmd
application/vnd.cinderella   cdy
# application/vnd.cirpack.isdn-ext
# application/vnd.citationstyles.style+xml
application/vnd.claymore   cla
application/vnd.cloanto.rp9   rp9
application/vnd.clonk.c4group   c4g c4d c4f c4p c4u
application/vnd.cluetrust.cartomobile-config  c11amc
application/vnd.cluetrust.cartomobile-config-pkg c11amz
# application/vnd.coffeescript
# application/vnd.collection+json
# application/vnd.collection.doc+json
# application/vnd.collection.next+json
# application/vnd.comicbook+zip
#
 application/vnd.commerce-battelle
application/vnd.commonspace   csp
application/vnd.contact.cmsg   cdbcmsg
# application/vnd.coreos.ignition+json
application/vnd.cosmocaller   cmc
application/vnd.crick.clicker   clkx
application/vnd.crick.clicker.keyboard  clkk
application/vnd.crick.clicker.palette  clkp
application/vnd.crick.clicker.template  clkt
application/vnd.crick.clicker.wordbank  clkw
```

```
application/vnd.criticaltools.wbs+xml  wbs
application/vnd.ctc-posml   pml
# application/vnd.ctct.ws+xml
# application/vnd.cups-pdf
# application/vnd.cups-postscript
application/vnd.cups-ppd   ppd
# application/vnd.cups-raster
# application/vnd.cups-raw
# application/vnd.curl
application/vnd.curl.car   car
application/vnd.curl.pcurl   pcurl
# application/vnd.cyan.dean.root+xml
# application/vnd.cybank
application/vnd.dart    dart
application/vnd.data-vision.rdz   rdz
# application/vnd.debian.binary-package
application/vnd.dece.data   uvf uvvf uvd uvvd
application/vnd.dece.ttml+xml   uvt uvvt
application/vnd.dece.unspecified  uvx
 uvvx
application/vnd.dece.zip   uvz uvvz
application/vnd.denovo.fcselayout-link  fe_launch
# application/vnd.desmume.movie
# application/vnd.dir-bi.plate-dl-nosuffix
# application/vnd.dm.delegation+xml
application/vnd.dna    dna
# application/vnd.document+json
application/vnd.dolby.mlp   mlp
# application/vnd.dolby.mobile.1
# application/vnd.dolby.mobile.2
# application/vnd.doremir.scorecloud-binary-document
application/vnd.dpgraph    dpg
application/vnd.dreamfactory   dfac
# application/vnd.drive+json
application/vnd.ds-keypoint   kpxx
# application/vnd.dtg.local
# application/vnd.dtg.local.flash
# application/vnd.dtg.local.html
application/vnd.dvb.ait    ait
# application/vnd.dvb.dvbj
# application/vnd.dvb.esgcontainer
# application/vnd.dvb.ipdcdftnotifaccess
# application/vnd.dvb.ipdcesgaccess
# application/vnd.dvb.ipdcesgaccess2
# application/vnd.dvb.ipdcesgpdd
# application/vnd.dvb.ipdcroaming
# application/vnd.dvb.iptv.alfec-base
# application/vnd.dvb.iptv.alfec-enhancement
```

```
#
 application/vnd.dvb.notif-aggregate-root+xml
# application/vnd.dvb.notif-container+xml
# application/vnd.dvb.notif-generic+xml
# application/vnd.dvb.notif-ia-msglist+xml
# application/vnd.dvb.notif-ia-registration-request+xml
# application/vnd.dvb.notif-ia-registration-response+xml
# application/vnd.dvb.notif-init+xml
# application/vnd.dvb.pfr
application/vnd.dvb.service   svc
# application/vnd.dxr
application/vnd.dynageo    geo
# application/vnd.dzr
# application/vnd.easykaraoke.cdgdownload
# application/vnd.ecdis-update
application/vnd.ecowin.chart   mag
# application/vnd.ecowin.filerequest
# application/vnd.ecowin.fileupdate
# application/vnd.ecowin.series
# application/vnd.ecowin.seriesrequest
# application/vnd.ecowin.seriesupdate
# application/vnd.emclient.accessrequest+xml
application/vnd.enliven    nml
# application/vnd.enphase.envoy
# application/vnd.eprints.data+xml
application/vnd.epson.esf   esf
application/vnd.epson.msf   msf
application/vnd.epson.quickanime  qam
application/vnd.epson.salt   slt
application/vnd.epson.ssf   ssf
#
 application/vnd.ericsson.quickcall
application/vnd.eszigno3+xml   es3 et3
# application/vnd.etsi.aoc+xml
# application/vnd.etsi.asic-e+zip
# application/vnd.etsi.asic-s+zip
# application/vnd.etsi.cug+xml
# application/vnd.etsi.iptvcommand+xml
# application/vnd.etsi.iptvdiscovery+xml
# application/vnd.etsi.iptvprofile+xml
# application/vnd.etsi.iptvsad-bc+xml
# application/vnd.etsi.iptvsad-cod+xml
# application/vnd.etsi.iptvsad-npvr+xml
# application/vnd.etsi.iptvservice+xml
# application/vnd.etsi.iptvsync+xml
# application/vnd.etsi.iptvueprofile+xml
# application/vnd.etsi.mcid+xml
# application/vnd.etsi.mheg5
```

```
# application/vnd.etsi.overload-control-policy-dataset+xml
# application/vnd.etsi.pstn+xml
# application/vnd.etsi.sci+xml
# application/vnd.etsi.simservs+xml
# application/vnd.etsi.timestamp-token
# application/vnd.etsi.tsl+xml
# application/vnd.etsi.tsl.der
# application/vnd.eudora.data
application/vnd.ezpix-album   ez2
application/vnd.ezpix-package   ez3
#
 application/vnd.f-secure.mobile
# application/vnd.fastcopy-disk-image
application/vnd.fdf    fdf
application/vnd.fdsn.mseed   mseed
application/vnd.fdsn.seed   seed dataless
# application/vnd.ffsns
# application/vnd.filmit.zfc
# application/vnd.fints
# application/vnd.firemonkeys.cloudcell
application/vnd.flographit   gph
application/vnd.fluxtime.clip   ftc
# application/vnd.font-fontforge-sfd
application/vnd.framemaker   fm frame maker book
application/vnd.frogans.fnc   fnc
application/vnd.frogans.ltf   ltf
application/vnd.fsc.weblaunch   fsc
application/vnd.fujitsu.oasys   oas
application/vnd.fujitsu.oasys2   oa2
application/vnd.fujitsu.oasys3   oa3
application/vnd.fujitsu.oasysgp   fg5
application/vnd.fujitsu.oasysprs  bh2
# application/vnd.fujixerox.art-ex
# application/vnd.fujixerox.art4
application/vnd.fujixerox.ddd   ddd
application/vnd.fujixerox.docuworks  xdw
application/vnd.fujixerox.docuworks.binder xbd
# application/vnd.fujixerox.docuworks.container
#
 application/vnd.fujixerox.hbpl
# application/vnd.fut-misnet
application/vnd.fuzzysheet   fzs
application/vnd.genomatix.tuxedo  txd
# application/vnd.geo+json
# application/vnd.geocube+xml
application/vnd.geogebra.file   ggb
application/vnd.geogebra.tool   ggt
application/vnd.geometry-explorer  gex gre
```

```
application/vnd.geonext    gxt
application/vnd.geoplan    g2w
application/vnd.geospace   g3w
# application/vnd.gerber
# application/vnd.globalplatform.card-content-mgt
# application/vnd.globalplatform.card-content-mgt-response
application/vnd.gmx    gmx
application/vnd.google-earth.kml+xml  kml
application/vnd.google-earth.kmz  kmz
# application/vnd.gov.sk.e-form+xml
# application/vnd.gov.sk.e-form+zip
# application/vnd.gov.sk.xmldatacontainer+xml
application/vnd.grafeq    gqf gqs
# application/vnd.gridmp
application/vnd.groove-account   gac
application/vnd.groove-help   ghf
application/vnd.groove-identity-message  gim
application/vnd.groove-injector   grv
application/vnd.groove-tool-message  gtm
application/vnd.groove-tool-template  tpl
application/vnd.groove-vcard   vcg
#
 application/vnd.hal+json
application/vnd.hal+xml    hal
application/vnd.handheld-entertainment+xml zmm
application/vnd.hbci    hbci
# application/vnd.hcl-bireports
# application/vnd.hdt
# application/vnd.heroku+json
application/vnd.hhe.lesson-player  les
application/vnd.hp-hpgl    hpgl
application/vnd.hp-hpid    hpid
application/vnd.hp-hps    hps
application/vnd.hp-jlyt    jlt
application/vnd.hp-pcl    pcl
application/vnd.hp-pclxl   pclxl
# application/vnd.httphone
application/vnd.hydrostatix.sof-data  sfd-hdstx
# application/vnd.hyperdrive+json
# application/vnd.hzn-3d-crossword
# application/vnd.ibm.afplinedata
# application/vnd.ibm.electronic-media
application/vnd.ibm.minipay   mpy
application/vnd.ibm.modcap   afp listafp list3820
application/vnd.ibm.rights-management  irm
application/vnd.ibm.secure-container  sc
application/vnd.iccprofile   icc icm
#
```

```
 application/vnd.ieee.1905
application/vnd.igloader   igl
application/vnd.immervision-ivp   ivp
application/vnd.immervision-ivu   ivu
# application/vnd.ims.imsccv1p1
# application/vnd.ims.imsccv1p2
# application/vnd.ims.imsccv1p3
# application/vnd.ims.lis.v2.result+json
# application/vnd.ims.lti.v2.toolconsumerprofile+json
# application/vnd.ims.lti.v2.toolproxy+json
# application/vnd.ims.lti.v2.toolproxy.id+json
# application/vnd.ims.lti.v2.toolsettings+json
# application/vnd.ims.lti.v2.toolsettings.simple+json
# application/vnd.informedcontrol.rms+xml
# application/vnd.informix-visionary
# application/vnd.infotech.project
# application/vnd.infotech.project+xml
# application/vnd.innopath.wamp.notification
application/vnd.insors.igm   igm
application/vnd.intercon.formnet  xpw xpx
application/vnd.intergeo   i2g
# application/vnd.intertrust.digibox
# application/vnd.intertrust.nncp
application/vnd.intu.qbo   qbo
application/vnd.intu.qfx   qfx
# application/vnd.iptc.g2.catalogitem+xml
# application/vnd.iptc.g2.conceptitem+xml
#
 application/vnd.iptc.g2.knowledgeitem+xml
# application/vnd.iptc.g2.newsitem+xml
# application/vnd.iptc.g2.newsmessage+xml
# application/vnd.iptc.g2.packageitem+xml
# application/vnd.iptc.g2.planningitem+xml
application/vnd.ipunplugged.rcprofile  rcprofile
application/vnd.irepository.package+xml  irp
application/vnd.is-xpr    xpr
application/vnd.isac.fcs   fcs
application/vnd.jam    jam
# application/vnd.japannet-directory-service
# application/vnd.japannet-jpnstore-wakeup
# application/vnd.japannet-payment-wakeup
# application/vnd.japannet-registration
# application/vnd.japannet-registration-wakeup
# application/vnd.japannet-setstore-wakeup
# application/vnd.japannet-verification
# application/vnd.japannet-verification-wakeup
application/vnd.jcp.javame.midlet-rms  rms
application/vnd.jisp    jisp
```

```
application/vnd.joost.joda-archive  joda
# application/vnd.jsk.isdn-ngn
application/vnd.kahootz    ktz ktr
application/vnd.kde.karbon   karbon
application/vnd.kde.kchart   chrt
application/vnd.kde.kformula   kfo
application/vnd.kde.kivio   flw
application/vnd.kde.kontour   kon
application/vnd.kde.kpresenter   kpr
 kpt
application/vnd.kde.kspread   ksp
application/vnd.kde.kword   kwd kwt
application/vnd.kenameaapp   htke
application/vnd.kidspiration   kia
application/vnd.kinar    kne knp
application/vnd.koan    skp skd skt skm
application/vnd.kodak-descriptor  sse
application/vnd.las.las+xml   lasxml
# application/vnd.liberty-request+xml
application/vnd.llamagraphics.life-balance.desktop lbd
application/vnd.llamagraphics.life-balance.exchange+xml lbe
application/vnd.lotus-1-2-3   123
application/vnd.lotus-approach   apr
application/vnd.lotus-freelance   pre
application/vnd.lotus-notes   nsf
application/vnd.lotus-organizer   org
application/vnd.lotus-screencam   scm
application/vnd.lotus-wordpro   lwp
application/vnd.macports.portpkg  portpkg
# application/vnd.mapbox-vector-tile
# application/vnd.marlin.drm.actiontoken+xml
# application/vnd.marlin.drm.conftoken+xml
#
 application/vnd.marlin.drm.license+xml
# application/vnd.marlin.drm.mdcf
# application/vnd.mason+json
# application/vnd.maxmind.maxmind-db
application/vnd.mcd    mcd
application/vnd.medcalcdata   mc1
application/vnd.mediastation.cdkey  cdkey
# application/vnd.meridian-slingshot
application/vnd.mfer    mwf
application/vnd.mfmp    mfm
# application/vnd.micro+json
application/vnd.micrografx.flo   flo
application/vnd.micrografx.igx   igx
# application/vnd.microsoft.portable-executable
# application/vnd.miele+json
```

```
application/vnd.mif    mif
# application/vnd.minisoft-hp3000-save
# application/vnd.mitsubishi.misty-guard.trustweb
application/vnd.mobius.daf   daf
application/vnd.mobius.dis   dis
application/vnd.mobius.mbk   mbk
application/vnd.mobius.mqy   mqy
application/vnd.mobius.msl   msl
application/vnd.mobius.plc   plc
application/vnd.mobius.txf   txf
application/vnd.mophun.application  mpn
application/vnd.mophun.certificate  mpc
# application/vnd.motorola.flexsuite
#
 application/vnd.motorola.flexsuite.adsi
# application/vnd.motorola.flexsuite.fis
# application/vnd.motorola.flexsuite.gotap
# application/vnd.motorola.flexsuite.kmr
# application/vnd.motorola.flexsuite.ttc
# application/vnd.motorola.flexsuite.wem
# application/vnd.motorola.iprm
application/vnd.mozilla.xul+xml   xul
# application/vnd.ms-3mfdocument
application/vnd.ms-artgalry   cil
# application/vnd.ms-asf
application/vnd.ms-cab-compressed  cab
# application/vnd.ms-color.iccprofile
application/vnd.ms-excel   xls xlm xla xlc xlt xlw
application/vnd.ms-excel.addin.macroenabled.12  xlam
application/vnd.ms-excel.sheet.binary.macroenabled.12 xlsb
application/vnd.ms-excel.sheet.macroenabled.12  xlsm
application/vnd.ms-excel.template.macroenabled.12 xltm
application/vnd.ms-fontobject   eot
application/vnd.ms-htmlhelp   chm
application/vnd.ms-ims    ims
application/vnd.ms-lrm    lrm
# application/vnd.ms-office.activex+xml
application/vnd.ms-officetheme   thmx
# application/vnd.ms-opentype
#
 application/vnd.ms-package.obfuscated-opentype
application/vnd.ms-pki.seccat   cat
application/vnd.ms-pki.stl   stl
# application/vnd.ms-playready.initiator+xml
application/vnd.ms-powerpoint   ppt pps pot
application/vnd.ms-powerpoint.addin.macroenabled.12  ppam
application/vnd.ms-powerpoint.presentation.macroenabled.12 pptm
application/vnd.ms-powerpoint.slide.macroenabled.12  sldm
```

```
application/vnd.ms-powerpoint.slideshow.macroenabled.12  ppsm
application/vnd.ms-powerpoint.template.macroenabled.12  potm
# application/vnd.ms-printdevicecapabilities+xml
# application/vnd.ms-printing.printticket+xml
# application/vnd.ms-printschematicket+xml
application/vnd.ms-project   mpp mpt
# application/vnd.ms-tnef
# application/vnd.ms-windows.devicepairing
# application/vnd.ms-windows.nwprinting.oob
# application/vnd.ms-windows.printerpairing
# application/vnd.ms-windows.wsd.oob
# application/vnd.ms-wmdrm.lic-chlg-req
# application/vnd.ms-wmdrm.lic-resp
# application/vnd.ms-wmdrm.meter-chlg-req
#
 application/vnd.ms-wmdrm.meter-resp
application/vnd.ms-word.document.macroenabled.12 docm
application/vnd.ms-word.template.macroenabled.12 dotm
application/vnd.ms-works   wps wks wcm wdb
application/vnd.ms-wpl    wpl
application/vnd.ms-xpsdocument   xps
# application/vnd.msa-disk-image
application/vnd.mseq    mseq
# application/vnd.msign
# application/vnd.multiad.creator
# application/vnd.multiad.creator.cif
# application/vnd.music-niff
application/vnd.musician   mus
application/vnd.muvee.style   msty
application/vnd.mynfc    taglet
# application/vnd.ncd.control
# application/vnd.ncd.reference
# application/vnd.nervana
# application/vnd.netfpx
application/vnd.neurolanguage.nlu  nlu
# application/vnd.nintendo.nitro.rom
# application/vnd.nintendo.snes.rom
application/vnd.nitf    ntf nitf
application/vnd.noblenet-directory  nnd
application/vnd.noblenet-sealer   nns
application/vnd.noblenet-web   nnw
# application/vnd.nokia.catalogs
# application/vnd.nokia.conml+wbxml
# application/vnd.nokia.conml+xml
#
 application/vnd.nokia.iptv.config+xml
# application/vnd.nokia.isds-radio-presets
# application/vnd.nokia.landmark+wbxml
```

```
# application/vnd.nokia.landmark+xml
# application/vnd.nokia.landmarkcollection+xml
# application/vnd.nokia.n-gage.ac+xml
application/vnd.nokia.n-gage.data  ngdat
application/vnd.nokia.n-gage.symbian.install n-gage
# application/vnd.nokia.ncd
# application/vnd.nokia.pcd+wbxml
# application/vnd.nokia.pcd+xml
application/vnd.nokia.radio-preset  rpst
application/vnd.nokia.radio-presets  rpss
application/vnd.novadigm.edm   edm
application/vnd.novadigm.edx   edx
application/vnd.novadigm.ext   ext
# application/vnd.ntt-local.content-share
# application/vnd.ntt-local.file-transfer
# application/vnd.ntt-local.ogw_remote-access
# application/vnd.ntt-local.sip-ta_remote
# application/vnd.ntt-local.sip-ta_tcp_stream
application/vnd.oasis.opendocument.chart  odc
application/vnd.oasis.opendocument.chart-template otc
application/vnd.oasis.opendocument.database  odb
application/vnd.oasis.opendocument.formula  odf
application/vnd.oasis.opendocument.formula-template odft
application/vnd.oasis.opendocument.graphics  odg
application/vnd.oasis.opendocument.graphics-template otg
application/vnd.oasis.opendocument.image  odi
application/vnd.oasis.opendocument.image-template oti
application/vnd.oasis.opendocument.presentation  odp
application/vnd.oasis.opendocument.presentation-template otp
application/vnd.oasis.opendocument.spreadsheet  ods
application/vnd.oasis.opendocument.spreadsheet-template ots
application/vnd.oasis.opendocument.text   odt
application/vnd.oasis.opendocument.text-master  odm
application/vnd.oasis.opendocument.text-template ott
application/vnd.oasis.opendocument.text-web  oth
#
 application/vnd.obn
# application/vnd.oftn.l10n+json
# application/vnd.oipf.contentaccessdownload+xml
# application/vnd.oipf.contentaccessstreaming+xml
# application/vnd.oipf.cspg-hexbinary
# application/vnd.oipf.dae.svg+xml
# application/vnd.oipf.dae.xhtml+xml
#
 application/vnd.oipf.mippvcontrolmessage+xml
# application/vnd.oipf.pae.gem
# application/vnd.oipf.spdiscovery+xml
# application/vnd.oipf.spdlist+xml
```

```
# application/vnd.oipf.ueprofile+xml
# application/vnd.oipf.userprofile+xml
application/vnd.olpc-sugar   xo
# application/vnd.oma-scws-config
# application/vnd.oma-scws-http-request
# application/vnd.oma-scws-http-response
# application/vnd.oma.bcast.associated-procedure-parameter+xml
# application/vnd.oma.bcast.drm-trigger+xml
# application/vnd.oma.bcast.imd+xml
# application/vnd.oma.bcast.ltkm
# application/vnd.oma.bcast.notification+xml
# application/vnd.oma.bcast.provisioningtrigger
# application/vnd.oma.bcast.sgboot
# application/vnd.oma.bcast.sgdd+xml
# application/vnd.oma.bcast.sgdu
# application/vnd.oma.bcast.simple-symbol-container
# application/vnd.oma.bcast.smartcard-trigger+xml
# application/vnd.oma.bcast.sprov+xml
# application/vnd.oma.bcast.stkm
# application/vnd.oma.cab-address-book+xml
# application/vnd.oma.cab-feature-handler+xml
#
 application/vnd.oma.cab-pcc+xml
# application/vnd.oma.cab-subs-invite+xml
# application/vnd.oma.cab-user-prefs+xml
# application/vnd.oma.dcd
# application/vnd.oma.dcdc
application/vnd.oma.dd2+xml   dd2
# application/vnd.oma.drm.risd+xml
# application/vnd.oma.group-usage-list+xml
# application/vnd.oma.lwm2m+json
# application/vnd.oma.lwm2m+tlv
# application/vnd.oma.pal+xml
# application/vnd.oma.poc.detailed-progress-report+xml
# application/vnd.oma.poc.final-report+xml
# application/vnd.oma.poc.groups+xml
# application/vnd.oma.poc.invocation-descriptor+xml
# application/vnd.oma.poc.optimized-progress-report+xml
# application/vnd.oma.push
# application/vnd.oma.scidm.messages+xml
# application/vnd.oma.xcap-directory+xml
# application/vnd.omads-email+xml
# application/vnd.omads-file+xml
# application/vnd.omads-folder+xml
# application/vnd.omaloc-supl-init
# application/vnd.onepager
# application/vnd.openblox.game+xml
# application/vnd.openblox.game-binary
```

```
# application/vnd.openeye.oeb
application/vnd.openofficeorg.extension  oxt
#
 application/vnd.openxmlformats-officedocument.custom-properties+xml
# application/vnd.openxmlformats-officedocument.customxmlproperties+xml
# application/vnd.openxmlformats-officedocument.drawing+xml
# application/vnd.openxmlformats-officedocument.drawingml.chart+xml
# application/vnd.openxmlformats-officedocument.drawingml.chartshapes+xml
# application/vnd.openxmlformats-officedocument.drawingml.diagramcolors+xml
# application/vnd.openxmlformats-officedocument.drawingml.diagramdata+xml
# application/vnd.openxmlformats-officedocument.drawingml.diagramlayout+xml
# application/vnd.openxmlformats-officedocument.drawingml.diagramstyle+xml
# application/vnd.openxmlformats-officedocument.extended-properties+xml
# application/vnd.openxmlformats-officedocument.presentationml.commentauthors+xml
# application/vnd.openxmlformats-officedocument.presentationml.comments+xml
# application/vnd.openxmlformats-officedocument.presentationml.handoutmaster+xml
#
 application/vnd.openxmlformats-officedocument.presentationml.notesmaster+xml
# application/vnd.openxmlformats-officedocument.presentationml.notesslide+xml
application/vnd.openxmlformats-officedocument.presentationml.presentation pptx
# application/vnd.openxmlformats-officedocument.presentationml.presentation.main+xml
# application/vnd.openxmlformats-officedocument.presentationml.presprops+xml
application/vnd.openxmlformats-officedocument.presentationml.slide sldx
# application/vnd.openxmlformats-officedocument.presentationml.slide+xml
# application/vnd.openxmlformats-officedocument.presentationml.slidelayout+xml
# application/vnd.openxmlformats-officedocument.presentationml.slidemaster+xml
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# application/vnd.openxmlformats-officedocument.presentationml.slideshow.main+xml
# application/vnd.openxmlformats-officedocument.presentationml.slideupdateinfo+xml
# application/vnd.openxmlformats-officedocument.presentationml.tablestyles+xml
#
 application/vnd.openxmlformats-officedocument.presentationml.tags+xml
application/vnd.openxmlformats-officedocument.presentationml.template potx
# application/vnd.openxmlformats-officedocument.presentationml.template.main+xml
# application/vnd.openxmlformats-officedocument.presentationml.viewprops+xml
# application/vnd.openxmlformats-officedocument.spreadsheetml.calcchain+xml
# application/vnd.openxmlformats-officedocument.spreadsheetml.chartsheet+xml
# application/vnd.openxmlformats-officedocument.spreadsheetml.comments+xml
# application/vnd.openxmlformats-officedocument.spreadsheetml.connections+xml
# application/vnd.openxmlformats-officedocument.spreadsheetml.dialogsheet+xml
# application/vnd.openxmlformats-officedocument.spreadsheetml.externallink+xml
# application/vnd.openxmlformats-officedocument.spreadsheetml.pivotcachedefinition+xml
# application/vnd.openxmlformats-officedocument.spreadsheetml.pivotcacherecords+xml
# application/vnd.openxmlformats-officedocument.spreadsheetml.pivottable+xml
#
 application/vnd.openxmlformats-officedocument.spreadsheetml.querytable+xml
# application/vnd.openxmlformats-officedocument.spreadsheetml.revisionheaders+xml
# application/vnd.openxmlformats-officedocument.spreadsheetml.revisionlog+xml
```

```
# application/vnd.openxmlformats-officedocument.spreadsheetml.sharedstrings+xml
application/vnd.openxmlformats-officedocument.spreadsheetml.sheet xlsx
# application/vnd.openxmlformats-officedocument.spreadsheetml.sheet.main+xml
# application/vnd.openxmlformats-officedocument.spreadsheetml.sheetmetadata+xml
# application/vnd.openxmlformats-officedocument.spreadsheetml.styles+xml
# application/vnd.openxmlformats-officedocument.spreadsheetml.table+xml
# application/vnd.openxmlformats-officedocument.spreadsheetml.tablesinglecells+xml
application/vnd.openxmlformats-officedocument.spreadsheetml.template xltx
# application/vnd.openxmlformats-officedocument.spreadsheetml.template.main+xml
# application/vnd.openxmlformats-officedocument.spreadsheetml.usernames+xml
#
 application/vnd.openxmlformats-officedocument.spreadsheetml.volatiledependencies+xml
# application/vnd.openxmlformats-officedocument.spreadsheetml.worksheet+xml
# application/vnd.openxmlformats-officedocument.theme+xml
# application/vnd.openxmlformats-officedocument.themeoverride+xml
# application/vnd.openxmlformats-officedocument.vmldrawing
# application/vnd.openxmlformats-officedocument.wordprocessingml.comments+xml
application/vnd.openxmlformats-officedocument.wordprocessingml.document docx
# application/vnd.openxmlformats-officedocument.wordprocessingml.document.glossary+xml
# application/vnd.openxmlformats-officedocument.wordprocessingml.document.main+xml
# application/vnd.openxmlformats-officedocument.wordprocessingml.endnotes+xml
# application/vnd.openxmlformats-officedocument.wordprocessingml.fonttable+xml
# application/vnd.openxmlformats-officedocument.wordprocessingml.footer+xml
# application/vnd.openxmlformats-officedocument.wordprocessingml.footnotes+xml
#
 application/vnd.openxmlformats-officedocument.wordprocessingml.numbering+xml
# application/vnd.openxmlformats-officedocument.wordprocessingml.settings+xml
# application/vnd.openxmlformats-officedocument.wordprocessingml.styles+xml
application/vnd.openxmlformats-officedocument.wordprocessingml.template dotx
# application/vnd.openxmlformats-officedocument.wordprocessingml.template.main+xml
# application/vnd.openxmlformats-officedocument.wordprocessingml.websettings+xml
# application/vnd.openxmlformats-package.core-properties+xml
# application/vnd.openxmlformats-package.digital-signature-xmlsignature+xml
# application/vnd.openxmlformats-package.relationships+xml
# application/vnd.oracle.resource+json
# application/vnd.orange.indata
# application/vnd.osa.netdeploy
application/vnd.osgeo.mapguide.package  mgp
# application/vnd.osgi.bundle
application/vnd.osgi.dp    dp
application/vnd.osgi.subsystem   esa
# application/vnd.otps.ct-kip+xml
# application/vnd.oxli.countgraph
#
 application/vnd.pagerduty+json
application/vnd.palm    pdb pqa oprc
# application/vnd.panoply
# application/vnd.paos.xml
```

```
application/vnd.pawaafile   paw
# application/vnd.pcos
application/vnd.pg.format   str
application/vnd.pg.osasli   ei6
# application/vnd.piaccess.application-licence
application/vnd.picsel    efif
application/vnd.pmi.widget   wg
# application/vnd.poc.group-advertisement+xml
application/vnd.pocketlearn   plf
application/vnd.powerbuilder6   pbd
# application/vnd.powerbuilder6-s
# application/vnd.powerbuilder7
# application/vnd.powerbuilder7-s
# application/vnd.powerbuilder75
# application/vnd.powerbuilder75-s
# application/vnd.preminet
application/vnd.previewsystems.box  box
application/vnd.proteus.magazine  mgz
application/vnd.publishare-delta-tree  qps
application/vnd.pvi.ptid1   ptid
# application/vnd.pwg-multiplexed
# application/vnd.pwg-xhtml-print+xml
# application/vnd.qualcomm.brew-app-res
# application/vnd.quarantainenet
application/vnd.quark.quarkxpress  qxd
 qxt qwd qwt qxl qxb
# application/vnd.quobject-quoxdocument
# application/vnd.radisys.moml+xml
# application/vnd.radisys.msml+xml
# application/vnd.radisys.msml-audit+xml
# application/vnd.radisys.msml-audit-conf+xml
# application/vnd.radisys.msml-audit-conn+xml
# application/vnd.radisys.msml-audit-dialog+xml
# application/vnd.radisys.msml-audit-stream+xml
# application/vnd.radisys.msml-conf+xml
# application/vnd.radisys.msml-dialog+xml
# application/vnd.radisys.msml-dialog-base+xml
# application/vnd.radisys.msml-dialog-fax-detect+xml
# application/vnd.radisys.msml-dialog-fax-sendrecv+xml
# application/vnd.radisys.msml-dialog-group+xml
# application/vnd.radisys.msml-dialog-speech+xml
# application/vnd.radisys.msml-dialog-transform+xml
# application/vnd.rainstor.data
# application/vnd.rapid
# application/vnd.rar
application/vnd.realvnc.bed   bed
application/vnd.recordare.musicxml  mxl
application/vnd.recordare.musicxml+xml  musicxml
```

```
# application/vnd.renlearn.rlprint
application/vnd.rig.cryptonote   cryptonote
application/vnd.rim.cod    cod
application/vnd.rn-realmedia   rm
application/vnd.rn-realmedia-vbr  rmvb
application/vnd.route66.link66+xml  link66
#
 application/vnd.rs-274x
# application/vnd.ruckus.download
# application/vnd.s3sms
application/vnd.sailingtracker.track  st
# application/vnd.sbm.cid
# application/vnd.sbm.mid2
# application/vnd.scribus
# application/vnd.sealed.3df
# application/vnd.sealed.csf
# application/vnd.sealed.doc
# application/vnd.sealed.eml
# application/vnd.sealed.mht
# application/vnd.sealed.net
# application/vnd.sealed.ppt
# application/vnd.sealed.tiff
# application/vnd.sealed.xls
# application/vnd.sealedmedia.softseal.html
# application/vnd.sealedmedia.softseal.pdf
application/vnd.seemail    see
application/vnd.sema    sema
application/vnd.semd    semd
application/vnd.semf    semf
application/vnd.shana.informed.formdata  ifm
application/vnd.shana.informed.formtemplate itp
application/vnd.shana.informed.interchange iif
application/vnd.shana.informed.package  ipk
application/vnd.simtech-mindmapper  twd
 twds
# application/vnd.siren+json
application/vnd.smaf    mmf
# application/vnd.smart.notebook
application/vnd.smart.teacher   teacher
# application/vnd.software602.filler.form+xml
# application/vnd.software602.filler.form-xml-zip
application/vnd.solent.sdkm+xml   sdkm sdkd
application/vnd.spotfire.dxp   dxp
application/vnd.spotfire.sfs   sfs
# application/vnd.sss-cod
# application/vnd.sss-dtf
# application/vnd.sss-ntf
application/vnd.stardivision.calc  sdc
```

```
application/vnd.stardivision.draw  sda
application/vnd.stardivision.impress  sdd
application/vnd.stardivision.math  smf
application/vnd.stardivision.writer  sdw vor
application/vnd.stardivision.writer-global sgl
application/vnd.stepmania.package  smzip
application/vnd.stepmania.stepchart  sm
# application/vnd.street-stream
# application/vnd.sun.wadl+xml
application/vnd.sun.xml.calc   sxc
application/vnd.sun.xml.calc.template  stc
application/vnd.sun.xml.draw   sxd
application/vnd.sun.xml.draw.template  std
application/vnd.sun.xml.impress   sxi
application/vnd.sun.xml.impress.template sti
application/vnd.sun.xml.math   sxm
application/vnd.sun.xml.writer   sxw
application/vnd.sun.xml.writer.global  sxg
application/vnd.sun.xml.writer.template  stw
application/vnd.sus-calendar   sus
 susp
application/vnd.svd    svd
# application/vnd.swiftview-ics
application/vnd.symbian.install   sis sisx
application/vnd.syncml+xml   xsm
application/vnd.syncml.dm+wbxml   bdm
application/vnd.syncml.dm+xml   xdm
# application/vnd.syncml.dm.notification
# application/vnd.syncml.dmddf+wbxml
# application/vnd.syncml.dmddf+xml
# application/vnd.syncml.dmtnds+wbxml
# application/vnd.syncml.dmtnds+xml
# application/vnd.syncml.ds.notification
application/vnd.tao.intent-module-archive tao
application/vnd.tcpdump.pcap   pcap cap dmp
# application/vnd.tmd.mediaflex.api+xml
# application/vnd.tml
application/vnd.tmobile-livetv   tmo
application/vnd.trid.tpt   tpt
application/vnd.triscape.mxs   mxs
application/vnd.trueapp    tra
#
 application/vnd.truedoc
# application/vnd.ubisoft.webplayer
application/vnd.ufdl    ufd ufdl
application/vnd.uiq.theme   utz
application/vnd.umajin    umj
application/vnd.unity    unityweb
```

```
application/vnd.uoml+xml   uoml
# application/vnd.uplanet.alert
# application/vnd.uplanet.alert-wbxml
# application/vnd.uplanet.bearer-choice
# application/vnd.uplanet.bearer-choice-wbxml
# application/vnd.uplanet.cacheop
# application/vnd.uplanet.cacheop-wbxml
# application/vnd.uplanet.channel
# application/vnd.uplanet.channel-wbxml
# application/vnd.uplanet.list
# application/vnd.uplanet.list-wbxml
# application/vnd.uplanet.listcmd
# application/vnd.uplanet.listcmd-wbxml
# application/vnd.uplanet.signal
# application/vnd.uri-map
# application/vnd.valve.source.material
application/vnd.vcx    vcx
# application/vnd.vd-study
# application/vnd.vectorworks
# application/vnd.vel+json
# application/vnd.verimatrix.vcas
# application/vnd.vidsoft.vidconference
application/vnd.visio    vsd
 vst vss vsw
application/vnd.visionary   vis
# application/vnd.vividence.scriptfile
application/vnd.vsf    vsf
# application/vnd.wap.sic
# application/vnd.wap.slc
application/vnd.wap.wbxml   wbxml
application/vnd.wap.wmlc   wmlc
application/vnd.wap.wmlscriptc   wmlsc
application/vnd.webturbo   wtb
# application/vnd.wfa.p2p
# application/vnd.wfa.wsc
# application/vnd.windows.devicepairing
# application/vnd.wmc
# application/vnd.wmf.bootstrap
# application/vnd.wolfram.mathematica
# application/vnd.wolfram.mathematica.package
application/vnd.wolfram.player   nbp
application/vnd.wordperfect   wpd
application/vnd.wqd    wqd
# application/vnd.wrq-hp3000-labelled
application/vnd.wt.stf    stf
# application/vnd.wv.csp+wbxml
# application/vnd.wv.csp+xml
# application/vnd.wv.ssp+xml
```

```
# application/vnd.xacml+json
application/vnd.xara    xar
application/vnd.xfdl    xfdl
# application/vnd.xfdl.webform
# application/vnd.xmi+xml
# application/vnd.xmpie.cpkg
#
 application/vnd.xmpie.dpkg
# application/vnd.xmpie.plan
# application/vnd.xmpie.ppkg
# application/vnd.xmpie.xlim
application/vnd.yamaha.hv-dic   hvd
application/vnd.yamaha.hv-script  hvs
application/vnd.yamaha.hv-voice   hvp
application/vnd.yamaha.openscoreformat   osf
application/vnd.yamaha.openscoreformat.osfpvg+xml osfpvg
# application/vnd.yamaha.remote-setup
application/vnd.yamaha.smaf-audio  saf
application/vnd.yamaha.smaf-phrase  spf
# application/vnd.yamaha.through-ngn
# application/vnd.yamaha.tunnel-udpencap
# application/vnd.yaoweme
application/vnd.yellowriver-custom-menu  cmp
application/vnd.zul    zir zirz
application/vnd.zzazz.deck+xml   zaz
application/voicexml+xml   vxml
# application/vq-rtcpxr
# application/watcherinfo+xml
# application/whoispp-query
# application/whoispp-response
application/widget    wgt
application/winhlp    hlp
# application/wita
# application/wordperfect5.1
application/wsdl+xml    wsdl
application/wspolicy+xml   wspolicy
application/x-7z-compressed   7z
application/x-abiword    abw
application/x-ace-compressed   ace
#
 application/x-amf
application/x-apple-diskimage   dmg
application/x-authorware-bin   aab x32 u32 vox
application/x-authorware-map   aam
application/x-authorware-seg   aas
application/x-bcpio    bcpio
application/x-bittorrent   torrent
application/x-blorb    blb blorb
```

```
application/x-bzip    bz
application/x-bzip2    bz2 boz
application/x-cbr    cbr cba cbt cbz cb7
application/x-cdlink    vcd
application/x-cfs-compressed   cfs
application/x-chat    chat
application/x-chess-pgn    pgn
# application/x-compress
application/x-conference   nsc
application/x-cpio    cpio
application/x-csh    csh
application/x-debian-package   deb udeb
application/x-dgc-compressed   dgc
application/x-director   dir dcr dxr cst cct cxt w3d fgd swa
application/x-doom    wad
application/x-dtbncx+xml   ncx
application/x-dtbook+xml   dtb
application/x-dtbresource+xml   res
application/x-dvi    dvi
application/x-envoy    evy
application/x-eva    eva
application/x-font-bdf    bdf
#
 application/x-font-dos
# application/x-font-framemaker
application/x-font-ghostscript   gsf
# application/x-font-libgrx
application/x-font-linux-psf   psf
application/x-font-pcf    pcf
application/x-font-snf    snf
# application/x-font-speedo
# application/x-font-sunos-news
application/x-font-type1   pfa pfb pfm afm
# application/x-font-vfont
application/x-freearc    arc
application/x-futuresplash   spl
application/x-gca-compressed   gca
application/x-glulx    ulx
application/x-gnumeric    gnumeric
application/x-gramps-xml   gramps
application/x-gtar    gtar
# application/x-gzip
application/x-hdf    hdf
application/x-install-instructions  install
application/x-iso9660-image   iso
application/x-java-jnlp-file   jnlp
application/x-latex    latex
application/x-lzh-compressed   lzh lha
```

application/x-mie   mie
application/x-mobipocket-ebook   prc mobi
application/x-ms-application   application
application/x-ms-shortcut   lnk
application/x-ms-wmd   wmd
application/x-ms-wmz   wmz
application/x-ms-xbap   xbap
application/x-msaccess   mdb
application/x-msbinder   obd
application/x-mscardfile   crd
application/x-msclip   clp
application/x-msdownload   exe
 dll com bat msi
application/x-msmediaview   mvb m13 m14
application/x-msmetafile   wmf wmz emf emz
application/x-msmoney   mny
application/x-mspublisher   pub
application/x-msschedule   scd
application/x-msterminal   trm
application/x-mswrite   wri
application/x-netcdf   nc cdf
application/x-nzb   nzb
application/x-pkcs12   p12 pfx
application/x-pkcs7-certificates p7b spc
application/x-pkcs7-certreqresp   p7r
application/x-rar-compressed   rar
application/x-research-info-systems ris
application/x-sh   sh
application/x-shar   shar
application/x-shockwave-flash   swf
application/x-silverlight-app   xap
application/x-sql   sql
application/x-stuffit   sit
application/x-stuffitx   sitx
application/x-subrip   srt
application/x-sv4cpio   sv4cpio
application/x-sv4crc   sv4crc
application/x-t3vm-image   t3
application/x-tads   gam
application/x-tar   tar
application/x-tcl   tcl
application/x-tex   tex
application/x-tex-tfm   tfm
application/x-texinfo   texinfo
 texi
application/x-tgif   obj
application/x-ustar   ustar
application/x-wais-source   src

```
# application/x-www-form-urlencoded
application/x-x509-ca-cert   der crt
application/x-xfig    fig
application/x-xliff+xml    xlf
application/x-xpinstall    xpi
application/x-xz    xz
application/x-zmachine    z1 z2 z3 z4 z5 z6 z7 z8
# application/x400-bp
# application/xacml+xml
application/xaml+xml    xaml
# application/xcap-att+xml
# application/xcap-caps+xml
application/xcap-diff+xml   xdf
# application/xcap-el+xml
# application/xcap-error+xml
# application/xcap-ns+xml
# application/xcon-conference-info+xml
# application/xcon-conference-info-diff+xml
application/xenc+xml    xenc
application/xhtml+xml    xhtml xht
# application/xhtml-voice+xml
application/xml     xml xsl
application/xml-dtd    dtd
#
 application/xml-external-parsed-entity
# application/xml-patch+xml
# application/xmpp+xml
application/xop+xml    xop
application/xproc+xml    xpl
application/xslt+xml    xslt
application/xspf+xml    xspf
application/xv+xml    mxml xhvml xvml xvm
application/yang    yang
application/yin+xml    yin
application/zip     zip
# application/zlib
# audio/1d-interleaved-parityfec
# audio/32kadpcm
# audio/3gpp
# audio/3gpp2
# audio/ac3
audio/adpcm     adp
# audio/amr
# audio/amr-wb
# audio/amr-wb+
# audio/aptx
# audio/asc
# audio/atrac-advanced-lossless
```

```
# audio/atrac-x
# audio/atrac3
audio/basic     au snd
# audio/bv16
# audio/bv32
# audio/clearmode
# audio/cn
# audio/dat12
# audio/dls
# audio/dsr-es201108
# audio/dsr-es202050
# audio/dsr-es202211
# audio/dsr-es202212
# audio/dv
# audio/dvi4
# audio/eac3
# audio/encaprtp
# audio/evrc
# audio/evrc-qcp
# audio/evrc0
# audio/evrc1
# audio/evrcb
# audio/evrcb0
# audio/evrcb1
# audio/evrcnw
# audio/evrcnw0
# audio/evrcnw1
# audio/evrcwb
# audio/evrcwb0
#
 audio/evrcwb1
# audio/evs
# audio/example
# audio/fwdred
# audio/g711-0
# audio/g719
# audio/g722
# audio/g7221
# audio/g723
# audio/g726-16
# audio/g726-24
# audio/g726-32
# audio/g726-40
# audio/g728
# audio/g729
# audio/g7291
# audio/g729d
# audio/g729e
```

```
# audio/gsm
# audio/gsm-efr
# audio/gsm-hr-08
# audio/ilbc
# audio/ip-mr_v2.5
# audio/isac
# audio/l16
# audio/l20
# audio/l24
# audio/l8
# audio/lpc
audio/midi     mid midi kar rmi
# audio/mobile-xmf
audio/mp4     m4a mp4a
# audio/mp4a-latm
# audio/mpa
# audio/mpa-robust
audio/mpeg     mpga mp2 mp2a mp3 m2a m3a
# audio/mpeg4-generic
# audio/musepack
audio/ogg     oga ogg spx
# audio/opus
# audio/parityfec
# audio/pcma
# audio/pcma-wb
# audio/pcmu
# audio/pcmu-wb
# audio/prs.sid
# audio/qcelp
# audio/raptorfec
# audio/red
# audio/rtp-enc-aescm128
# audio/rtp-midi
# audio/rtploopback
# audio/rtx
audio/s3m     s3m
audio/silk     sil
# audio/smv
# audio/smv-qcp
# audio/smv0
# audio/sp-midi
# audio/speex
# audio/t140c
# audio/t38
#
 audio/telephone-event
# audio/tone
# audio/uemclip
```

```
# audio/ulpfec
# audio/vdvi
# audio/vmr-wb
# audio/vnd.3gpp.iufp
# audio/vnd.4sb
# audio/vnd.audiokoz
# audio/vnd.celp
# audio/vnd.cisco.nse
# audio/vnd.cmles.radio-events
# audio/vnd.cns.anp1
# audio/vnd.cns.inf1
audio/vnd.dece.audio    uva uvva
audio/vnd.digital-winds    eol
# audio/vnd.dlna.adts
# audio/vnd.dolby.heaac.1
# audio/vnd.dolby.heaac.2
# audio/vnd.dolby.mlp
# audio/vnd.dolby.mps
# audio/vnd.dolby.pl2
# audio/vnd.dolby.pl2x
# audio/vnd.dolby.pl2z
# audio/vnd.dolby.pulse.1
audio/vnd.dra     dra
audio/vnd.dts     dts
audio/vnd.dts.hd    dtshd
# audio/vnd.dvb.file
# audio/vnd.everad.plj
# audio/vnd.hns.audio
audio/vnd.lucent.voice    lvp
audio/vnd.ms-playready.media.pya  pya
# audio/vnd.nokia.mobile-xmf
# audio/vnd.nortel.vbk
audio/vnd.nuera.ecelp4800   ecelp4800
audio/vnd.nuera.ecelp7470   ecelp7470
audio/vnd.nuera.ecelp9600   ecelp9600
# audio/vnd.octel.sbc
# audio/vnd.qcelp
# audio/vnd.rhetorex.32kadpcm
audio/vnd.rip     rip
#
 audio/vnd.sealedmedia.softseal.mpeg
# audio/vnd.vmx.cvsd
# audio/vorbis
# audio/vorbis-config
audio/webm     weba
audio/x-aac     aac
audio/x-aiff     aif aiff aifc
audio/x-caf     caf
```

```
audio/x-flac     flac
audio/x-matroska    mka
audio/x-mpegurl     m3u
audio/x-ms-wax     wax
audio/x-ms-wma     wma
audio/x-pn-realaudio    ram ra
audio/x-pn-realaudio-plugin   rmp
# audio/x-tta
audio/x-wav     wav
audio/xm     xm
chemical/x-cdx     cdx
chemical/x-cif     cif
chemical/x-cmdf     cmdf
chemical/x-cml     cml
chemical/x-csml     csml
# chemical/x-pdb
chemical/x-xyz     xyz
font/collection     ttc
font/otf     otf
# font/sfnt
font/ttf     ttf
font/woff     woff
font/woff2     woff2
image/bmp     bmp
image/cgm     cgm
# image/dicom-rle
# image/emf
# image/example
# image/fits
image/g3fax     g3
image/gif     gif
image/ief     ief
# image/jls
# image/jp2
image/jpeg     jpeg jpg jpe
# image/jpm
# image/jpx
image/ktx     ktx
# image/naplps
image/png     png
image/prs.btif     btif
# image/prs.pti
#
 image/pwg-raster
image/sgi     sgi
image/svg+xml     svg svgz
# image/t38
image/tiff     tiff tif
```

```
# image/tiff-fx
image/vnd.adobe.photoshop   psd
# image/vnd.airzip.accelerator.azv
# image/vnd.cns.inf2
image/vnd.dece.graphic    uvi uvvi uvg uvvg
image/vnd.djvu     djvu djv
image/vnd.dvb.subtitle    sub
image/vnd.dwg     dwg
image/vnd.dxf     dxf
image/vnd.fastbidsheet    fbs
image/vnd.fpx     fpx
image/vnd.fst     fst
image/vnd.fujixerox.edmics-mmr   mmr
image/vnd.fujixerox.edmics-rlc   rlc
# image/vnd.globalgraphics.pgb
# image/vnd.microsoft.icon
# image/vnd.mix
# image/vnd.mozilla.apng
image/vnd.ms-modi    mdi
image/vnd.ms-photo    wdp
image/vnd.net-fpx    npx
# image/vnd.radiance
# image/vnd.sealed.png
# image/vnd.sealedmedia.softseal.gif
# image/vnd.sealedmedia.softseal.jpg
# image/vnd.svf
# image/vnd.tencent.tap
# image/vnd.valve.source.texture
image/vnd.wap.wbmp    wbmp
image/vnd.xiff     xif
# image/vnd.zbrush.pcx
image/webp     webp
# image/wmf
image/x-3ds     3ds
image/x-cmu-raster    ras
image/x-cmx     cmx
image/x-freehand    fh
 fhc fh4 fh5 fh7
image/x-icon     ico
image/x-mrsid-image    sid
image/x-pcx     pcx
image/x-pict     pic pct
image/x-portable-anymap    pnm
image/x-portable-bitmap    pbm
image/x-portable-graymap   pgm
image/x-portable-pixmap    ppm
image/x-rgb     rgb
image/x-tga     tga
```

```
image/x-xbitmap     xbm
image/x-xpixmap     xpm
image/x-xwindowdump    xwd
# message/cpim
# message/delivery-status
# message/disposition-notification
# message/example
# message/external-body
# message/feedback-report
# message/global
# message/global-delivery-status
# message/global-disposition-notification
# message/global-headers
# message/http
# message/imdn+xml
# message/news
# message/partial
message/rfc822     eml mime
# message/s-http
# message/sip
# message/sipfrag
# message/tracking-status
# message/vnd.si.simp
# message/vnd.wfa.wsc
# model/example
# model/gltf+json
model/iges     igs iges
model/mesh     msh mesh silo
model/vnd.collada+xml    dae
model/vnd.dwf     dwf
#
 model/vnd.flatland.3dml
model/vnd.gdl     gdl
# model/vnd.gs-gdl
# model/vnd.gs.gdl
model/vnd.gtw     gtw
# model/vnd.moml+xml
model/vnd.mts     mts
# model/vnd.opengex
# model/vnd.parasolid.transmit.binary
# model/vnd.parasolid.transmit.text
# model/vnd.rosette.annotated-data-model
# model/vnd.valve.source.compiled-map
model/vnd.vtu     vtu
model/vrml     wrl vrml
model/x3d+binary    x3db x3dbz
# model/x3d+fastinfoset
model/x3d+vrml     x3dv x3dvz
```

```
model/x3d+xml    x3d x3dz
# model/x3d-vrml
# multipart/alternative
# multipart/appledouble
# multipart/byteranges
# multipart/digest
# multipart/encrypted
# multipart/example
# multipart/form-data
# multipart/header-set
# multipart/mixed
# multipart/parallel
# multipart/related
# multipart/report
# multipart/signed
# multipart/voice-message
# multipart/x-mixed-replace
# text/1d-interleaved-parityfec
text/cache-manifest    appcache
text/calendar    ics ifb
text/css    css
text/csv    csv
# text/csv-schema
#
 text/directory
# text/dns
# text/ecmascript
# text/encaprtp
# text/enriched
# text/example
# text/fwdred
# text/grammar-ref-list
text/html    html htm
# text/javascript
# text/jcr-cnd
# text/markdown
# text/mizar
text/n3    n3
# text/parameters
# text/parityfec
text/plain    txt text conf def list log in
# text/provenance-notation
# text/prs.fallenstein.rst
text/prs.lines.tag    dsc
# text/prs.prop.logic
# text/raptorfec
# text/red
# text/rfc822-headers
```

```
text/richtext     rtx
# text/rtf
# text/rtp-enc-aescm128
# text/rtploopback
# text/rtx
text/sgml     sgml sgm
# text/t140
text/tab-separated-values   tsv
text/troff     t tr roff man me ms
text/turtle     ttl
# text/ulpfec
text/uri-list     uri uris urls
text/vcard     vcard
# text/vnd.a
# text/vnd.abc
text/vnd.curl     curl
text/vnd.curl.dcurl    dcurl
text/vnd.curl.mcurl    mcurl
text/vnd.curl.scurl    scurl
# text/vnd.debian.copyright
# text/vnd.dmclientscript
text/vnd.dvb.subtitle    sub
# text/vnd.esmertec.theme-descriptor
text/vnd.fly     fly
text/vnd.fmi.flexstor    flx
text/vnd.graphviz    gv
text/vnd.in3d.3dml    3dml
text/vnd.in3d.spot    spot
#
 text/vnd.iptc.newsml
# text/vnd.iptc.nitf
# text/vnd.latex-z
# text/vnd.motorola.reflex
# text/vnd.ms-mediapackage
# text/vnd.net2phone.commcenter.command
# text/vnd.radisys.msml-basic-layout
# text/vnd.si.uricatalogue
text/vnd.sun.j2me.app-descriptor  jad
# text/vnd.trolltech.linguist
# text/vnd.wap.si
# text/vnd.wap.sl
text/vnd.wap.wml    wml
text/vnd.wap.wmlscript    wmls
text/x-asm     s asm
text/x-c     c cc cxx cpp h hh dic
text/x-fortran     f for f77 f90
text/x-java-source    java
text/x-nfo     nfo
```

```
text/x-opml     opml
text/x-pascal     p pas
text/x-setext     etx
text/x-sfv     sfv
text/x-uuencode     uu
text/x-vcalendar    vcs
text/x-vcard     vcf
# text/xml
# text/xml-external-parsed-entity
# video/1d-interleaved-parityfec
video/3gpp     3gp
# video/3gpp-tt
video/3gpp2     3g2
# video/bmpeg
# video/bt656
# video/celb
# video/dv
# video/encaprtp
# video/example
video/h261     h261
video/h263     h263
#
 video/h263-1998
# video/h263-2000
video/h264     h264
# video/h264-rcdo
# video/h264-svc
# video/h265
# video/iso.segment
video/jpeg     jpgv
# video/jpeg2000
video/jpm     jpm jpgm
video/mj2     mj2 mjp2
# video/mp1s
# video/mp2p
# video/mp2t
video/mp4     mp4 mp4v mpg4
# video/mp4v-es
video/mpeg     mpeg mpg mpe m1v m2v
# video/mpeg4-generic
# video/mpv
# video/nv
video/ogg     ogv
# video/parityfec
# video/pointer
video/quicktime     qt mov
# video/raptorfec
# video/raw
```

```
# video/rtp-enc-aescm128
# video/rtploopback
# video/rtx
# video/smpte292m
# video/ulpfec
# video/vc1
# video/vnd.cctv
video/vnd.dece.hd    uvh uvvh
video/vnd.dece.mobile    uvm uvvm
# video/vnd.dece.mp4
video/vnd.dece.pd    uvp uvvp
video/vnd.dece.sd    uvs uvvs
video/vnd.dece.video    uvv uvvv
# video/vnd.directv.mpeg
# video/vnd.directv.mpeg-tts
# video/vnd.dlna.mpeg-tts
video/vnd.dvb.file    dvb
video/vnd.fvt     fvt
# video/vnd.hns.video
# video/vnd.iptvforum.1dparityfec-1010
#
 video/vnd.iptvforum.1dparityfec-2005
# video/vnd.iptvforum.2dparityfec-1010
# video/vnd.iptvforum.2dparityfec-2005
# video/vnd.iptvforum.ttsavc
# video/vnd.iptvforum.ttsmpeg2
# video/vnd.motorola.video
# video/vnd.motorola.videop
video/vnd.mpegurl    mxu m4u
video/vnd.ms-playready.media.pyv  pyv
# video/vnd.nokia.interleaved-multimedia
# video/vnd.nokia.videovoip
# video/vnd.objectvideo
# video/vnd.radgamettools.bink
# video/vnd.radgamettools.smacker
# video/vnd.sealed.mpeg1
# video/vnd.sealed.mpeg4
# video/vnd.sealed.swf
# video/vnd.sealedmedia.softseal.mov
video/vnd.uvvu.mp4    uvu uvvu
video/vnd.vivo     viv
# video/vp8
video/webm     webm
video/x-f4v     f4v
video/x-fli     fli
video/x-flv     flv
video/x-m4v     m4v
video/x-matroska    mkv mk3d mks
```

```
video/x-mng     mng
video/x-ms-asf     asf asx
video/x-ms-vob     vob
video/x-ms-wm     wm
video/x-ms-wmv     wmv
video/x-ms-wmx     wmx
video/x-ms-wvx     wvx
video/x-msvideo     avi
video/x-sgi-movie    movie
video/x-smv     smv
x-conference/x-cooltalk    ice
```

Found
 in path(s):
* /opt/cola/permits/1701043699_1685472631.4170268/0/micronaut-http-3-8-8-sources-jar/META-INF/http/mime.types
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* /opt/cola/permits/1701043699_1685472631.4170268/0/micronaut-http-3-8-8-sources-jar/META-INF/native-image/io.micronaut.http/micronaut-http/native-image.properties
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1.536 micronaut-json-core 3.8.8

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* /opt/cola/permits/1701043805_1685472414.5554533/0/micronaut-json-core-3-8-8-sources-jar/io/micronaut/json/codec/JsonMediaTypeCodec.java
* /opt/cola/permits/1701043805_1685472414.5554533/0/micronaut-json-core-3-8-8-sources-jar/io/micronaut/json/bind/JsonBeanPropertyBinder.java
*
/opt/cola/permits/1701043805_1685472414.5554533/0/micronaut-json-core-3-8-8-sources-jar/io/micronaut/json/convert/JsonNodeConvertibleValues.java
* /opt/cola/permits/1701043805_1685472414.5554533/0/micronaut-json-core-3-8-8-sources-jar/io/micronaut/json/codec/MapperMediaTypeCodec.java
* /opt/cola/permits/1701043805_1685472414.5554533/0/micronaut-json-core-3-8-8-sources-jar/io/micronaut/json/JsonObjectSerializer.java
* /opt/cola/permits/1701043805_1685472414.5554533/0/micronaut-json-core-3-8-8-sources-jar/io/micronaut/json/bind/package-info.java
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* /opt/cola/permits/1701043805_1685472414.5554533/0/micronaut-json-core-3-8-8-sources-jar/io/micronaut/json/JsonFeatures.java
* /opt/cola/permits/1701043805_1685472414.5554533/0/micronaut-json-core-3-8-8-sources-jar/io/micronaut/json/tree/JsonArray.java
*
/opt/cola/permits/1701043805_1685472414.5554533/0/micronaut-json-core-3-8-8-sources-jar/io/micronaut/json/tree/JsonBoolean.java
* /opt/cola/permits/1701043805_1685472414.5554533/0/micronaut-json-core-3-8-8-sources-jar/io/micronaut/json/JsonMapper.java
* /opt/cola/permits/1701043805_1685472414.5554533/0/micronaut-json-core-3-8-8-sources-jar/io/micronaut/json/tree/JsonScalar.java
* /opt/cola/permits/1701043805_1685472414.5554533/0/micronaut-json-core-3-8-8-sources-jar/io/micronaut/json/convert/JsonConverterRegistrar.java
* /opt/cola/permits/1701043805_1685472414.5554533/0/micronaut-json-core-3-8-8-sources-jar/io/micronaut/json/tree/JsonContainer.java
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/opt/cola/permits/1701043805_1685472414.5554533/0/micronaut-json-core-3-8-8-sources-jar/io/micronaut/json/JsonStreamConfig.java
* /opt/cola/permits/1701043805_1685472414.5554533/0/micronaut-json-core-3-8-8-sources-jar/io/micronaut/json/tree/JsonNumber.java
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* /opt/cola/permits/1701043805_1685472414.5554533/0/micronaut-json-core-3-8-8-sources-jar/io/micronaut/json/tree/JsonObject.java

1.537 dropwizard-configuration 2.1.2

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1.538 micronaut-http-client-core 3.8.8

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* /opt/cola/permits/1701043668_1685472858.5070913/0/micronaut-http-client-core-3-8-8-sources-jar/io/micronaut/http/client/interceptor/configuration/DefaultClientVersioningConfiguration.java
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/opt/cola/permits/1701043668_1685472858.5070913/0/micronaut-http-client-core-3-8-8-sources-jar/io/micronaut/http/client/StreamingHttpClientFactoryResolver.java
* /opt/cola/permits/1701043668_1685472858.5070913/0/micronaut-http-client-core-3-8-8-sources-jar/io/micronaut/http/client/bind/binders/VersionClientRequestBinder.java

* /opt/cola/permits/1701043668_1685472858.5070913/0/micronaut-http-client-core-3-8-8-sources-jar/io/micronaut/http/client/sse/SseClientFactory.java
* /opt/cola/permits/1701043668_1685472858.5070913/0/micronaut-http-client-core-3-8-8-sources-jar/io/micronaut/http/client/sse/package-info.java
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* /opt/cola/permits/1701043668_1685472858.5070913/0/micronaut-http-client-core-3-8-8-sources-jar/io/micronaut/http/client/sse/SseClientFactoryResolver.java
* /opt/cola/permits/1701043668_1685472858.5070913/0/micronaut-http-client-core-3-8-8-sources-jar/io/micronaut/http/client/ProxyHttpClientFactory.java
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* /opt/cola/permits/1701043668_1685472858.5070913/0/micronaut-http-client-core-3-8-8-sources-jar/io/micronaut/http/client/StreamingHttpClientFactory.java
* /opt/cola/permits/1701043668_1685472858.5070913/0/micronaut-http-client-core-3-8-8-sources-jar/io/micronaut/http/client/HttpClientFactory.java
* /opt/cola/permits/1701043668_1685472858.5070913/0/micronaut-http-client-core-3-8-8-sources-jar/io/micronaut/http/client/HttpClientFactoryResolver.java
* /opt/cola/permits/1701043668_1685472858.5070913/0/micronaut-http-client-core-3-8-8-sources-jar/io/micronaut/http/client/bind/binders/AttributeClientRequestBinder.java
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* /opt/cola/permits/1701043668_1685472858.5070913/0/micronaut-http-client-core-3-8-8-sources-jar/io/micronaut/http/client/ProxyRequestOptions.java

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1.542 dropwizard-jetty 2.1.2

1.542.1 Available under license :

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1.543 micronaut-router 3.8.8

1.543.1 Available under license :

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/*

Found in path(s):
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/resource/StaticResourceResolverFactory.java
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Found in path(s):
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/version/RouteVersionFilter.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/Route.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/exceptions/UnsatisfiedPartRouteException.java
*
/opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/version/DefaultVersionProvider.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/qualifier/ConsumesMediaTypeQualifier.java

* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/version/resolution/VersionResolver.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/naming/package-info.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/RouteMatchUtils.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/version/resolution/HeaderVersionResolverConfiguration.java
*
 /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/MethodBasedRouteMatch.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/ErrorRoute.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/GroovyRouteBuilder.groovy
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/MethodBasedRoute.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/RouteMatch.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/DefaultUriRouteMatch.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/UriRouteMatch.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/exceptions/DuplicateRouteException.java
*
 /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/exceptions/RoutingException.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/resource/package-info.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/BasicObjectRouteMatch.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/DefaultFilterRoute.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/DefaultRouter.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/FilterRoute.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/naming/HyphenatedUriNamingStrategy.java
*
 /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/naming/ConfigurableUriNamingStrategy.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/qualifier/ProducesMediaTypeQualifier.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/BeanDefinitionFilterRoute.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-

jar/io/micronaut/web/router/Router.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/exceptions/UnsatisfiedRouteException.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/AnnotatedFilterRouteBuilder.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/exceptions/UnsatisfiedQueryValueRouteException.java
*
 /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/UnresolvedArgument.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/AbstractRouteMatch.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/exceptions/UnsatisfiedBodyRouteException.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/qualifier/package-info.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/version/resolution/HeaderVersionResolver.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/ResourceRoute.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/AnnotatedMethodRouteBuilder.java
*
 /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/version/VersionRouteMatchFilter.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/RouteInfo.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/filter/RouteMatchFilter.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/version/resolution/ParameterVersionResolverConfiguration.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/resource/StaticResourceResolver.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/version/VersionAwareRouterListener.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/exceptions/UnsatisfiedHeaderRouteException.java
*
 /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/resource/StaticResourceConfiguration.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/NullArgument.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/DefaultRouteBuilder.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/version/resolution/package-info.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/StatusRouteMatch.java

* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/package-info.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/version/RoutesVersioningConfiguration.java
*
 /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/UriRoute.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/StatusRoute.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/exceptions/UnsatisfiedPathVariableRouteException.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/filter/FilteredRouter.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/exceptions/UnsatisfiedRequestAttributeRouteException.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/version/ConfigurationDefaultVersionProvider.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/exceptions/UnsatisfiedCookieValueRouteException.java
*
 /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/version/resolution/ParameterVersionResolver.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/RouteBuilder.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/version/package-info.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/version/resolution/RequestVersionResolver.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/exceptions/package-info.java
* /opt/cola/permits/1701043876_1685472661.0120518/0/micronaut-router-3-8-8-sources-jar/io/micronaut/web/router/ErrorRouteMatch.java

1.544 antlr-runtime 4.10

1.544.1 Available under license :

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Manifest-Version: 1.0
Created-By: Apache Maven Bundle Plugin
Build-Jdk-Spec: 11
Implementation-Title: ANTLR 4 Runtime
Implementation-Version: 4.10
Implementation-Vendor: ANTLR
Automatic-Module-Name: org.antlr.antlr4.runtime
Bnd-LastModified: 1649697827331
Build-Jdk: 11.0.13

```
Built-By: parrt
Bundle-Description: The ANTLR 4 Runtime
Bundle-DocURL: http://www.antlr.org
Bundle-License: http://www.antlr.org/license.html
Bundle-ManifestVersion: 2
Bundle-Name: ANTLR 4 Runtime
Bundle-SymbolicName: org.antlr.antlr4-runtime
Bundle-Vendor: ANTLR
Bundle-Version: 4.10.0
Export-Package: org.antlr.v4.runtime;uses:="org.antlr.v4.runtime.atn,org
.antlr.v4.runtime.dfa,org.antlr.v4.runtime.misc,org.antlr.v4.runtime.tr
ee,org.antlr.v4.runtime.tree.pattern";version="4.10.0",org.antlr.v4.run
time.misc;uses:="org.antlr.v4.runtime";version="4.10.0",org.antlr.v4.ru
ntime.tree;uses:="org.antlr.v4.runtime,org.antlr.v4.runtime.misc";versi
on="4.10.0",org.antlr.v4.runtime.tree.xpath;uses:="org.antlr.v4.runtime
 ,org.antlr.v4.runtime.atn,org.antlr.v4.runtime.tree";version="4.10.0",o
rg.antlr.v4.runtime.tree.pattern;uses:="org.antlr.v4.runtime,org.antlr.
v4.runtime.misc,org.antlr.v4.runtime.tree";version="4.10.0",org.antlr.v
4.runtime.dfa;uses:="org.antlr.v4.runtime,org.antlr.v4.runtime.atn";ver
sion="4.10.0",org.antlr.v4.runtime.atn;uses:="org.antlr.v4.runtime,org.
antlr.v4.runtime.dfa,org.antlr.v4.runtime.misc";version="4.10.0"
Implementation-URL: http://www.antlr.org/runtime/antlr4-runtime
Implementation-Vendor-Id: org.antlr
Import-Package: org.antlr.v4.gui,org.antlr.v4.runtime,org.antlr.v4.runti
me.atn,org.antlr.v4.runtime.dfa,org.antlr.v4.runtime.misc,org.antlr.v4.
runtime.tree,org.antlr.v4.runtime.tree.pattern,org.antlr.v4.runtime.tre
e.xpath
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.8))"
Tool: Bnd-5.1.1.202006162103
```

Found in path(s):
* /opt/cola/permits/1701043715_1685472510.8335857/0/antlr4-runtime-4-10-3-jar/META-INF/MANIFEST.MF
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```
<!--
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 ~ can be found in the LICENSE.txt file in the project root.
 -->
```

Found in path(s):
* /opt/cola/permits/1701043715_1685472510.8335857/0/antlr4-runtime-4-10-3-jar/META-INF/maven/org.antlr/antlr4-runtime/pom.xml

1.545 micronaut-inject 3.8.8

1.545.1 Available under license :

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Found in path(s):
* /opt/cola/permits/1701043884_1685472419.2782958/0/micronaut-inject-3-8-8-jar/META-INF/native-image/io.micronaut/micronaut-inject/native-image.properties
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Found in path(s):
* /opt/cola/permits/1701043884_1685472419.2782958/0/micronaut-inject-3-8-8-jar/META-INF/maven/io.micronaut/micronaut-inject/pom.xml

1.546 micronaut-aop 3.8.8

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Found in path(s):
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/InterceptorBindingDefinitions.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/chain/AbstractInterceptorChain.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/ConstructorInterceptor.java

*
/opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/kotlin/KotlinInterceptedMethod.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/internal/InterceptorRegistryBean.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/internal/InterceptorBeanMapper.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/AroundConstruct.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/InterceptorKind.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/chain/DefaultInterceptorRegistry.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/InterceptorRegistry.java
*
/opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/InterceptorBean.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/chain/ConstructorInterceptorChain.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/ConstructorInvocationContext.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/InterceptorBinding.java
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Found in path(s):
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/exceptions/UnimplementedAdviceException.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/Intercepted.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-

jar/io/micronaut/aop/chain/package-info.java
*
/opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/MethodInterceptor.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/util/KotlinInterceptedMethodHelper.kt
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/internal/intercepted/KotlinInterceptedMethod.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/Introduced.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/Around.java
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* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/util/CompletableFutureContinuation.kt
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/InterceptedMethod.java
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/opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/Interceptor.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/Introduction.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/writer/AopProxyWriter.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/exceptions/package-info.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/util/DelegatingContextContinuation.kt
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/internal/intercepted/SynchronousInterceptedMethod.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/HotSwappableInterceptedProxy.java
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* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/internal/intercepted/InterceptedMethodUtil.java
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* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/chain/AdapterIntroduction.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/chain/InterceptorChain.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/internal/intercepted/PublisherInterceptedMethod.java

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 /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/internal/intercepted/CompletionStageInterceptedMethod.java
* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/InterceptPhase.java
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* /opt/cola/permits/1701043636_1685472619.6557014/0/micronaut-aop-3-8-8-sources-jar/io/micronaut/aop/InvocationContext.java

1.547 jersey-entity-filtering 2.37

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1.553 javax-el 3.0.1-b11

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permissions
* and limitations under the License.
*/
/**
   * <p>
   * Creates a new secret. A secret in Secrets Manager consists of both the protected secret data and the important
   * information needed to manage the secret.
   * </p>
   * <p>
   * Secrets Manager stores the encrypted secret data in one of a collection of "versions" associated with the secret.
   * Each version contains
 a copy of the encrypted secret data. Each version is associated with one or more
   * "staging labels" that identify where the version is in the rotation cycle. The
   * <code>SecretVersionsToStages</code> field of the secret contains the mapping of staging labels to the active
   * versions of the secret. Versions without a staging label are considered deprecated and not included in the list.
   * </p>
   * <p>
   * You provide the secret data to be encrypted by putting text in either the <code>SecretString</code> parameter
or
   * binary data in the <code>SecretBinary</code> parameter, but not both. If you include
<code>SecretString</code> or
   * <code>SecretBinary</code> then Secrets Manager also creates an initial secret version and automatically
attaches
   * the staging label <code>AWSCURRENT</code> to the new version.
   * </p>
   * <note>
   * <ul>
   * <li>
   * <p>
   * If you call an operation to encrypt or decrypt the <code>SecretString</code>
```

```
 or <code>SecretBinary</code> for a
    * secret in the same account as the calling user and that secret doesn't specify a AWS KMS encryption key, Secrets
    * Manager uses the account's default AWS managed customer master key (CMK) with the alias
    * <code>aws/secretsmanager</code>. If this key doesn't already exist in your account then Secrets Manager creates
    * it for you automatically. All users and roles in the same AWS account automatically have access to use the
    * default CMK. Note that if an Secrets Manager API call results in AWS creating the account's AWS-managed CMK, it
    * can result in a one-time significant delay in returning the result.
    * </p>
    * </li>
    * <li>
    * <p>
    * If the secret resides in a different AWS account from the credentials calling an API that requires encryption or
    * decryption of the secret value then you must create and use a custom AWS KMS CMK because you can't access the
    * default CMK for the account
 using credentials from a different AWS account. Store the ARN of the CMK in the
    * secret when you create the secret or when you update it by including it in the <code>KMSKeyId</code>. If you call
    * an API that must encrypt or decrypt <code>SecretString</code> or <code>SecretBinary</code> using credentials from
    * a different account then the AWS KMS key policy must grant cross-account access to that other account's user or
    * role for both the kms:GenerateDataKey and kms:Decrypt operations.
    * </p>
    * </li>
    * </ul>
    * </note>
    * <p>
    * </p>
    * <p>
    * <b>Minimum permissions</b>
    * </p>
    * <p>
    * To run this command, you must have the following permissions:
    * </p>
    * <ul>
    * <li>
    * <p>
    * secretsmanager:CreateSecret
    * </p>
    * </li>
    * <li>
    * <p>
    * kms:GenerateDataKey - needed only if you use a customer-managed AWS KMS key to encrypt the secret. You do not
```

```
    * need this permission
 to use the account default AWS managed CMK for Secrets Manager.
    * </p>
    * </li>
    * <li>
    * <p>
    * kms:Decrypt - needed only if you use a customer-managed AWS KMS key to encrypt the secret. You do not
need this
    * permission to use the account default AWS managed CMK for Secrets Manager.
    * </p>
    * </li>
    * <li>
    * <p>
    * secretsmanager:TagResource - needed only if you include the <code>Tags</code> parameter.
    * </p>
    * </li>
    * </ul>
    * <p>
    * <b>Related operations</b>
    * </p>
    * <ul>
    * <li>
    * <p>
    * To delete a secret, use <a>DeleteSecret</a>.
    * </p>
    * </li>
    * <li>
    * <p>
    * To modify an existing secret, use <a>UpdateSecret</a>.
    * </p>
    * </li>
    * <li>
    * <p>
    * To create a new version of a secret, use <a>PutSecretValue</a>.
    * </p>
    * </li>
    * <li>
    * <p>
    * To retrieve the encrypted secure string and secure binary values, use <a>GetSecretValue</a>.
     * </p>
    * </li>
    * <li>
    * <p>
    * To retrieve all other details for a secret, use <a>DescribeSecret</a>. This does not include the encrypted secure
    * string and secure binary values.
    * </p>
    * </li>
    * <li>
```

```
    * <p>
    * To retrieve the list of secret versions associated with the current secret, use <a>DescribeSecret</a> and examine
    * the <code>SecretVersionsToStages</code> response value.
    * </p>
    * </li>
    * </ul>
    *
    * @param createSecretRequest
    * @return A Java Future containing the result of the CreateSecret operation returned by the service.
    * @sample AWSSecretsManagerAsync.CreateSecret
    * @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/CreateSecret"
target="_top">AWS
    *      API Documentation</a>
    */
/**
    * <p>
    * Retrieves the contents of the encrypted fields <code>SecretString</code> or <code>SecretBinary</code> from
the
    * specified
 version of a secret, whichever contains content.
    * </p>
    * <p>
    * <b>Minimum permissions</b>
    * </p>
    * <p>
    * To run this command, you must have the following permissions:
    * </p>
    * <ul>
    * <li>
    * <p>
    * secretsmanager:GetSecretValue
    * </p>
    * </li>
    * <li>
    * <p>
    * kms:Decrypt - required only if you use a customer-managed AWS KMS key to encrypt the secret. You do not
need this
    * permission to use the account's default AWS managed CMK for Secrets Manager.
    * </p>
    * </li>
    * </ul>
    * <p>
    * <b>Related operations</b>
    * </p>
    * <ul>
    * <li>
    * <p>
    * To create a new version of the secret with different encrypted information, use <a>PutSecretValue</a>.
```

```
    * </p>
    * </li>
    * <li>
    * <p>
    * To retrieve the non-encrypted details for the secret, use <a>DescribeSecret</a>.
    * </p>
    * </li>
    * </ul>
    *
    * @param getSecretValueRequest
     * @return A Java Future containing the result of the GetSecretValue operation returned by the service.
    * @sample AWSSecretsManagerAsync.GetSecretValue
    * @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/GetSecretValue"
target="_top">AWS
    *      API Documentation</a>
    */
/**
    * <p>
    * Stores a new encrypted secret value in the specified secret. To do this, the operation creates a new version and
    * attaches it to the secret. The version can contain a new <code>SecretString</code> value or a new
    * <code>SecretBinary</code> value. You can also specify the staging labels that are initially attached to the new
    * version.
    * </p>
    * <note>
    * <p>
    * The Secrets Manager console uses only the <code>SecretString</code> field. To add binary data to a secret
with
    * the <code>SecretBinary</code> field you must use the AWS CLI or one of the AWS SDKs.
    * </p>
    * </note>
    * <ul>
    * <li>

  * <p>
    * If this operation creates the first version for the secret then Secrets Manager automatically attaches the
    * staging label <code>AWSCURRENT</code> to the new version.
    * </p>
    * </li>
    * <li>
    * <p>
    * If another version of this secret already exists, then this operation does not automatically move any staging
    * labels other than those that you explicitly specify in the <code>VersionStages</code> parameter.
    * </p>
    * </li>
    * <li>
    * <p>
    * If this operation moves the staging label <code>AWSCURRENT</code> from another version to this version
(because
```

```
 * you included it in the <code>StagingLabels</code> parameter) then Secrets Manager also automatically moves the
 * staging label <code>AWSPREVIOUS</code> to the version that <code>AWSCURRENT</code> was removed from.
 * </p>
 * </li>
 * <li>
 * <p>
 * This operation is idempotent. If a version with a <code>VersionId</code> with the same value as the
  * <code>ClientRequestToken</code> parameter already exists and you specify the same secret data, the operation
 * succeeds but does nothing. However, if the secret data is different, then the operation fails because you cannot
 * modify an existing version; you can only create new ones.
 * </p>
 * </li>
 * </ul>
 * <note>
 * <ul>
 * <li>
 * <p>
 * If you call an operation to encrypt or decrypt the <code>SecretString</code> or <code>SecretBinary</code> for a
 * secret in the same account as the calling user and that secret doesn't specify a AWS KMS encryption key, Secrets
 * Manager uses the account's default AWS managed customer master key (CMK) with the alias
 * <code>aws/secretsmanager</code>. If this key doesn't already exist in your account then Secrets Manager creates
 * it for you automatically. All users and roles in the same AWS account automatically have access to use the
 * default CMK. Note that if an Secrets
 Manager API call results in AWS creating the account's AWS-managed CMK, it
 * can result in a one-time significant delay in returning the result.
 * </p>
 * </li>
 * <li>
 * <p>
 * If the secret resides in a different AWS account from the credentials calling an API that requires encryption or
 * decryption of the secret value then you must create and use a custom AWS KMS CMK because you can't access the
 * default CMK for the account using credentials from a different AWS account. Store the ARN of the CMK in the
 * secret when you create the secret or when you update it by including it in the <code>KMSKeyId</code>. If you call
 * an API that must encrypt or decrypt <code>SecretString</code> or <code>SecretBinary</code> using credentials from
 * a different account then the AWS KMS key policy must grant cross-account access to that other account's user or
 * role for both the kms:GenerateDataKey and kms:Decrypt operations.
 * </p>
```

```
  * </li>
  * </ul>
  * </note>
  * <p>
  * <b>Minimum permissions</b>
  * </p>
  * <p>
  * To run this command, you must have the following permissions:
  * </p>
  * <ul>
  * <li>
  * <p>
  * secretsmanager:PutSecretValue
  * </p>
  * </li>
  * <li>
  * <p>
  * kms:GenerateDataKey - needed only if you use a customer-managed AWS KMS key to encrypt the secret. You
do not
  * need this permission to use the account's default AWS managed CMK for Secrets Manager.
  * </p>
  * </li>
  * </ul>
  * <p>
  * <b>Related operations</b>
  * </p>
  * <ul>
  * <li>
  * <p>
  * To retrieve the encrypted value you store in the version of a secret, use <a>GetSecretValue</a>.
  * </p>
  * </li>
  * <li>
  * <p>
  * To create a secret, use <a>CreateSecret</a>.
  * </p>
  * </li>
  * <li>
  * <p>
  * To get the details for a secret, use <a>DescribeSecret</a>.
  * </p>
  * </li>
  * <li>
   * <p>
  * To list the versions attached to a secret, use <a>ListSecretVersionIds</a>.
  * </p>
  * </li>
  * </ul>
```

```
    *
    * @param putSecretValueRequest
    * @return A Java Future containing the result of the PutSecretValue operation returned by the service.
    * @sample AWSSecretsManagerAsync.PutSecretValue
    * @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/PutSecretValue"
target="_top">AWS
    *      API Documentation</a>
    */
/**
    * <p>
    * Modifies many of the details of the specified secret. If you include a <code>ClientRequestToken</code> and
    * <i>either</i> <code>SecretString</code> or <code>SecretBinary</code> then it also creates a new version
attached
    * to the secret.
    * </p>
    * <p>
    * To modify the rotation configuration of a secret, use <a>RotateSecret</a> instead.
    * </p>
    * <note>
    * <p>
    * The Secrets Manager console uses only the <code>SecretString</code> parameter
 and therefore limits you to
    * encrypting and storing only a text string. To encrypt and store binary data as part of the version of a secret,
    * you must use either the AWS CLI or one of the AWS SDKs.
    * </p>
    * </note>
    * <ul>
    * <li>
    * <p>
    * If a version with a <code>VersionId</code> with the same value as the <code>ClientRequestToken</code>
parameter
    * already exists, the operation results in an error. You cannot modify an existing version, you can only create a
    * new version.
    * </p>
    * </li>
    * <li>
    * <p>
    * If you include <code>SecretString</code> or <code>SecretBinary</code> to create a new secret version,
Secrets
    * Manager automatically attaches the staging label <code>AWSCURRENT</code> to the new version.
    * </p>
    * </li>
    * </ul>
    * <note>
    * <ul>
    * <li>
    * <p>
    * If you call an operation to encrypt or decrypt the <code>SecretString</code> or <code>SecretBinary</code>
```

```
 for a
   * secret in the same account as the calling user and that secret doesn't specify a AWS KMS encryption key, Secrets
   * Manager uses the account's default AWS managed customer master key (CMK) with the alias
   * <code>aws/secretsmanager</code>. If this key doesn't already exist in your account then Secrets Manager creates
   * it for you automatically. All users and roles in the same AWS account automatically have access to use the
   * default CMK. Note that if an Secrets Manager API call results in AWS creating the account's AWS-managed CMK, it
   * can result in a one-time significant delay in returning the result.
   * </p>
   * </li>
   * <li>
   * <p>
   * If the secret resides in a different AWS account from the credentials calling an API that requires encryption or
   * decryption of the secret value then you must create and use a custom AWS KMS CMK because you can't access the
   * default CMK for the account using credentials from a different
 AWS account. Store the ARN of the CMK in the
   * secret when you create the secret or when you update it by including it in the <code>KMSKeyId</code>. If you call
   * an API that must encrypt or decrypt <code>SecretString</code> or <code>SecretBinary</code> using credentials from
   * a different account then the AWS KMS key policy must grant cross-account access to that other account's user or
   * role for both the kms:GenerateDataKey and kms:Decrypt operations.
   * </p>
   * </li>
   * </ul>
   * </note>
   * <p>
   * <b>Minimum permissions</b>
   * </p>
   * <p>
   * To run this command, you must have the following permissions:
   * </p>
   * <ul>
   * <li>
   * <p>
   * secretsmanager:UpdateSecret
   * </p>
   * </li>
   * <li>
   * <p>
   * kms:GenerateDataKey - needed only if you use a custom AWS KMS key to encrypt the secret. You do not need this
   * permission to use the account's AWS managed CMK for Secrets Manager.
```

```
 * </p>
 * </li>
 * <li>
 * <p>
 * kms:Decrypt - needed only if you use a custom AWS KMS key to encrypt the secret. You do not need this
permission
 * to use the account's AWS managed CMK for Secrets Manager.
 * </p>
 * </li>
 * </ul>
 * <p>
 * <b>Related operations</b>
 * </p>
 * <ul>
 * <li>
 * <p>
 * To create a new secret, use <a>CreateSecret</a>.
 * </p>
 * </li>
 * <li>
 * <p>
 * To add only a new version to an existing secret, use <a>PutSecretValue</a>.
 * </p>
 * </li>
 * <li>
 * <p>
 * To get the details for a secret, use <a>DescribeSecret</a>.
 * </p>
 * </li>
 * <li>
 * <p>
 * To list the versions contained in a secret, use <a>ListSecretVersionIds</a>.
 * </p>
 * </li>
 * </ul>
 *
 * @param updateSecretRequest
 * @return A Java Future containing the result of the UpdateSecret operation returned by the service.
 * @sample AWSSecretsManagerAsync.UpdateSecret
 * @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/UpdateSecret"
target="_top">AWS
 *      API Documentation</a>
 */
```

Found in path(s):
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/AWSSecretsManagerAsync.java

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Found in path(s):
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/PutSecretValueResultJsonUnmarshaller.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/CancelRotateSecretResult.java
*
 /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/CreateSecretResultJsonUnmarshaller.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/ListSecretsResult.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/RestoreSecretResult.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/UntagResourceResult.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/PutResourcePolicyRequest.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/InvalidRequestExceptionUnmarshaller.java
*
 /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/RestoreSecretRequest.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/GetRandomPasswordResultJsonUnmarshaller.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/ValidateResourcePolicyRequest.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/InternalServiceErrorExceptionUnmarshaller.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/UntagResourceRequestMarshaller.java
*

/opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/ResourceNotFoundExceptionUnmarshaller.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/EncryptionFailureExceptionUnmarshaller.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/UpdateSecretVersionStageResultJsonUnmarshaller.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/UpdateSecretVersionStageRequestProtocolMarshaller.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/GetRandomPasswordResult.java
*
/opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/SecretVersionsListEntryJsonUnmarshaller.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/ValidateResourcePolicyResult.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/DeleteSecretRequestProtocolMarshaller.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/DeleteResourcePolicyResult.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/CreateSecretRequestProtocolMarshaller.java
*
/opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/TagResourceResult.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/MalformedPolicyDocumentExceptionUnmarshaller.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/UntagResourceRequestProtocolMarshaller.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/RestoreSecretResultJsonUnmarshaller.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/TagResourceRequestMarshaller.java
*
/opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/EncryptionFailureException.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/ValidationErrorsEntryMarshaller.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/AWSSecretsManagerException.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/DescribeSecretResult.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/UntagResourceRequest.java
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* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/DescribeSecretResultJsonUnmarshaller.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/GetRandomPasswordRequest.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/ResourceNotFoundException.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/model/transform/PutResourcePolicyResultJsonUnmarshaller.java
No license file was found, but licenses were detected in source scan.

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*/
/**
   * <p>
   * Creates a new secret. A secret in Secrets Manager consists of both the protected secret data and the important
   * information needed to manage the secret.
   * </p>
   * <p>
   * Secrets Manager stores the encrypted secret data in one of a collection of "versions" associated with the secret.
   * Each version contains
 a copy of the encrypted secret data. Each version is associated with one or more
   * "staging labels" that identify where the version is in the rotation cycle. The
   * <code>SecretVersionsToStages</code> field of the secret contains the mapping of staging labels to the active
   * versions of the secret. Versions without a staging label are considered deprecated and not included in the list.
   * </p>
   * <p>
   * You provide the secret data to be encrypted by putting text in either the <code>SecretString</code> parameter
or
   * binary data in the <code>SecretBinary</code> parameter, but not both. If you include
<code>SecretString</code> or
   * <code>SecretBinary</code> then Secrets Manager also creates an initial secret version and automatically
attaches
   * the staging label <code>AWSCURRENT</code> to the new version.
   * </p>
   * <note>

```
   * <ul>
   * <li>
   * <p>
   * If you call an operation to encrypt or decrypt the <code>SecretString</code>
 or <code>SecretBinary</code> for a
   * secret in the same account as the calling user and that secret doesn't specify a AWS KMS encryption key,
Secrets
   * Manager uses the account's default AWS managed customer master key (CMK) with the alias
   * <code>aws/secretsmanager</code>. If this key doesn't already exist in your account then Secrets Manager
creates
   * it for you automatically. All users and roles in the same AWS account automatically have access to use the
   * default CMK. Note that if an Secrets Manager API call results in AWS creating the account's AWS-managed
CMK, it
   * can result in a one-time significant delay in returning the result.
   * </p>
   * </li>
   * <li>
   * <p>
   * If the secret resides in a different AWS account from the credentials calling an API that requires encryption or
   * decryption of the secret value then you must create and use a custom AWS KMS CMK because you can't access
the
   * default CMK for the account
 using credentials from a different AWS account. Store the ARN of the CMK in the
   * secret when you create the secret or when you update it by including it in the <code>KMSKeyId</code>. If you
call
   * an API that must encrypt or decrypt <code>SecretString</code> or <code>SecretBinary</code> using
credentials from
   * a different account then the AWS KMS key policy must grant cross-account access to that other account's user
or
   * role for both the kms:GenerateDataKey and kms:Decrypt operations.
   * </p>
   * </li>
   * </ul>
   * </note>
   * <p>
   * </p>
   * <p>
   * <b>Minimum permissions</b>
   * </p>
   * <p>
   * To run this command, you must have the following permissions:
   * </p>
   * <ul>
   * <li>
   * <p>
   * secretsmanager:CreateSecret
   * </p>
   * </li>
```

```
    * <li>
    * <p>
    * kms:GenerateDataKey - needed only if you use a customer-managed AWS KMS key to encrypt the secret. You
do not
    * need this permission
 to use the account default AWS managed CMK for Secrets Manager.
    * </p>
    * </li>
    * <li>
    * <p>
    * kms:Decrypt - needed only if you use a customer-managed AWS KMS key to encrypt the secret. You do not
need this
    * permission to use the account default AWS managed CMK for Secrets Manager.
    * </p>
    * </li>
    * <li>
    * <p>
    * secretsmanager:TagResource - needed only if you include the <code>Tags</code> parameter.
    * </p>
    * </li>
    * </ul>
    * <p>
    * <b>Related operations</b>
    * </p>
    * <ul>
    * <li>
    * <p>
    * To delete a secret, use <a>DeleteSecret</a>.
    * </p>
    * </li>
    * <li>
    * <p>
    * To modify an existing secret, use <a>UpdateSecret</a>.
    * </p>
    * </li>
    * <li>
    * <p>
    * To create a new version of a secret, use <a>PutSecretValue</a>.
    * </p>
    * </li>
    * <li>
    * <p>
    * To retrieve the encrypted secure string and secure binary values, use <a>GetSecretValue</a>.
     * </p>
    * </li>
    * <li>
    * <p>
    * To retrieve all other details for a secret, use <a>DescribeSecret</a>. This does not include the encrypted secure
```

```
   * string and secure binary values.
   * </p>
   * </li>
   * <li>
   * <p>
   * To retrieve the list of secret versions associated with the current secret, use <a>DescribeSecret</a> and examine
   * the <code>SecretVersionsToStages</code> response value.
   * </p>
   * </li>
   * </ul>
   *
   * @param createSecretRequest
   * @return Result of the CreateSecret operation returned by the service.
   * @throws InvalidParameterException
   *         You provided an invalid value for a parameter.
   * @throws InvalidRequestException
   *         You provided a parameter value that is not valid for the current state of the resource.</p>
   *         <p>
   *         Possible causes:
   *         </p>
   *         <ul>
   *         <li>
   *         <p>

  *         You tried to perform the operation on a secret that's currently marked deleted.
   *         </p>
   *         </li>
   *         <li>
   *         <p>
   *         You tried to enable rotation on a secret that doesn't already have a Lambda function ARN configured and
   *         you didn't include such an ARN as a parameter in this call.
   *         </p>
   *         </li>
   * @throws LimitExceededException
   *         The request failed because it would exceed one of the Secrets Manager internal limits.
   * @throws EncryptionFailureException
   *         Secrets Manager can't encrypt the protected secret text using the provided KMS key. Check that the
   *         customer master key (CMK) is available, enabled, and not in an invalid state. For more information, see
   *         <a href="http://docs.aws.amazon.com/kms/latest/developerguide/key-state.html">How Key State Affects
Use
   *         of a Customer Master Key</a>.
   * @throws
 ResourceExistsException
   *         A resource with the ID you requested already exists.
   * @throws ResourceNotFoundException
   *         We can't find the resource that you asked for.
   * @throws MalformedPolicyDocumentException
   *         The policy document that you provided isn't valid.
```

```
 * @throws InternalServiceErrorException
 *         An error occurred on the server side.
 * @throws PreconditionNotMetException
 *         The request failed because you did not complete all the prerequisite steps.
 * @sample AWSSecretsManager.CreateSecret
 * @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/CreateSecret"
target="_top">AWS
 *      API Documentation</a>
 */
/**
 * <p>
 * Retrieves the contents of the encrypted fields <code>SecretString</code> or <code>SecretBinary</code> from
the
 * specified version of a secret, whichever contains content.
 * </p>
 * <p>
 * <b>Minimum permissions</b>
  * </p>
 * <p>
 * To run this command, you must have the following permissions:
 * </p>
 * <ul>
 * <li>
 * <p>
 * secretsmanager:GetSecretValue
 * </p>
 * </li>
 * <li>
 * <p>
 * kms:Decrypt - required only if you use a customer-managed AWS KMS key to encrypt the secret. You do not
need this
 * permission to use the account's default AWS managed CMK for Secrets Manager.
 * </p>
 * </li>
 * </ul>
 * <p>
 * <b>Related operations</b>
 * </p>
 * <ul>
 * <li>
 * <p>
 * To create a new version of the secret with different encrypted information, use <a>PutSecretValue</a>.
 * </p>
 * </li>
 * <li>
 * <p>
 * To retrieve the non-encrypted details for the secret, use <a>DescribeSecret</a>.
 * </p>
```

```
   * </li>
   * </ul>
   *
   * @param getSecretValueRequest
   * @return Result of the GetSecretValue operation returned by the service.
   * @throws ResourceNotFoundException
    *         We can't find the resource that you asked for.
   * @throws InvalidParameterException
   *         You provided an invalid value for a parameter.
   * @throws InvalidRequestException
   *         You provided a parameter value that is not valid for the current state of the resource.</p>
   *         <p>
   *         Possible causes:
   *         </p>
   *         <ul>
   *         <li>
   *         <p>
   *         You tried to perform the operation on a secret that's currently marked deleted.
   *         </p>
   *         </li>
   *         <li>
   *         <p>
   *         You tried to enable rotation on a secret that doesn't already have a Lambda function ARN configured and
   *         you didn't include such an ARN as a parameter in this call.
   *         </p>
   *         </li>
   * @throws DecryptionFailureException
   *         Secrets Manager can't decrypt the protected secret text using the provided KMS key.
    * @throws InternalServiceErrorException
   *         An error occurred on the server side.
   * @sample AWSSecretsManager.GetSecretValue
   * @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/GetSecretValue"
target="_top">AWS
   *      API Documentation</a>
   */
/**
   * <p>
   * Stores a new encrypted secret value in the specified secret. To do this, the operation creates a new version and
   * attaches it to the secret. The version can contain a new <code>SecretString</code> value or a new
   * <code>SecretBinary</code> value. You can also specify the staging labels that are initially attached to the new
   * version.
   * </p>
   * <note>
   * <p>
   * The Secrets Manager console uses only the <code>SecretString</code> field. To add binary data to a secret
with
   * the <code>SecretBinary</code> field you must use the AWS CLI or one of the AWS SDKs.
   * </p>
```

* </note>
*
*
* <p>
*
If this operation creates the first version for the secret then Secrets Manager automatically attaches the
* staging label <code>AWSCURRENT</code> to the new version.
* </p>
*
*
* <p>
* If another version of this secret already exists, then this operation does not automatically move any staging
* labels other than those that you explicitly specify in the <code>VersionStages</code> parameter.
* </p>
*
*
* <p>
* If this operation moves the staging label <code>AWSCURRENT</code> from another version to this version (because
* you included it in the <code>StagingLabels</code> parameter) then Secrets Manager also automatically moves the
* staging label <code>AWSPREVIOUS</code> to the version that <code>AWSCURRENT</code> was removed from.
* </p>
*
*
* <p>
* This operation is idempotent. If a version with a <code>VersionId</code> with the same value as the
* <code>ClientRequestToken</code>
parameter already exists and you specify the same secret data, the operation
* succeeds but does nothing. However, if the secret data is different, then the operation fails because you cannot
* modify an existing version; you can only create new ones.
* </p>
*
*
* <note>
*
*
* <p>
* If you call an operation to encrypt or decrypt the <code>SecretString</code> or <code>SecretBinary</code> for a
* secret in the same account as the calling user and that secret doesn't specify a AWS KMS encryption key, Secrets
* Manager uses the account's default AWS managed customer master key (CMK) with the alias
* <code>aws/secretsmanager</code>. If this key doesn't already exist in your account then Secrets Manager creates
* it for you automatically. All users and roles in the same AWS account automatically have access to use the
* default CMK. Note that if an Secrets Manager API

 call results in AWS creating the account's AWS-managed CMK, it
   * can result in a one-time significant delay in returning the result.
   * </p>
   *
   *
   * <p>
   * If the secret resides in a different AWS account from the credentials calling an API that requires encryption or
   * decryption of the secret value then you must create and use a custom AWS KMS CMK because you can't access the
   * default CMK for the account using credentials from a different AWS account. Store the ARN of the CMK in the
   * secret when you create the secret or when you update it by including it in the <code>KMSKeyId</code>. If you call
   * an API that must encrypt or decrypt <code>SecretString</code> or <code>SecretBinary</code> using credentials from
   * a different account then the AWS KMS key policy must grant cross-account access to that other account's user or
   * role for both the kms:GenerateDataKey and kms:Decrypt operations.
   * </p>
   *

   *
   * </note>
   * <p>
   * Minimum permissions
   * </p>
   * <p>
   * To run this command, you must have the following permissions:
   * </p>
   *
   *
   * <p>
   * secretsmanager:PutSecretValue
   * </p>
   *
   *
   * <p>
   * kms:GenerateDataKey - needed only if you use a customer-managed AWS KMS key to encrypt the secret. You do not
   * need this permission to use the account's default AWS managed CMK for Secrets Manager.
   * </p>
   *
   *
   * <p>
   * Related operations
   * </p>
   *
   *
   * <p>

```
* To retrieve the encrypted value you store in the version of a secret, use <a>GetSecretValue</a>.
* </p>
* </li>
* <li>
* <p>
* To create a secret, use <a>CreateSecret</a>.
* </p>
* </li>
* <li>
* <p>
* To get the details for a secret, use <a>DescribeSecret</a>.
* </p>
* </li>
* <li>
* <p>
 * To list the versions attached to a secret, use <a>ListSecretVersionIds</a>.
* </p>
* </li>
* </ul>
*
* @param putSecretValueRequest
* @return Result of the PutSecretValue operation returned by the service.
* @throws InvalidParameterException
*         You provided an invalid value for a parameter.
* @throws InvalidRequestException
*         You provided a parameter value that is not valid for the current state of the resource.</p>
*         <p>
*         Possible causes:
*         </p>
*         <ul>
*         <li>
*         <p>
*         You tried to perform the operation on a secret that's currently marked deleted.
*         </p>
*         </li>
*         <li>
*         <p>
*         You tried to enable rotation on a secret that doesn't already have a Lambda function ARN configured and
*         you didn't include such an ARN as a parameter in this call.
*
    </p>
*         </li>
* @throws LimitExceededException
*         The request failed because it would exceed one of the Secrets Manager internal limits.
* @throws EncryptionFailureException
*         Secrets Manager can't encrypt the protected secret text using the provided KMS key. Check that the
*         customer master key (CMK) is available, enabled, and not in an invalid state. For more information, see
*         <a href="http://docs.aws.amazon.com/kms/latest/developerguide/key-state.html">How Key State Affects
```

```
Use
    *         of a Customer Master Key</a>.
    * @throws ResourceExistsException
    *         A resource with the ID you requested already exists.
    * @throws ResourceNotFoundException
    *         We can't find the resource that you asked for.
    * @throws InternalServiceErrorException
    *         An error occurred on the server side.
    * @sample AWSSecretsManager.PutSecretValue
    * @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/PutSecretValue"
 target="_top">AWS
    *      API Documentation</a>
    */
/**
    * <p>
    * Modifies many of the details of the specified secret. If you include a <code>ClientRequestToken</code> and
    * <i>either</i> <code>SecretString</code> or <code>SecretBinary</code> then it also creates a new version
attached
    * to the secret.
    * </p>
    * <p>
    * To modify the rotation configuration of a secret, use <a>RotateSecret</a> instead.
    * </p>
    * <note>
    * <p>
    * The Secrets Manager console uses only the <code>SecretString</code> parameter and therefore limits you to
    * encrypting and storing only a text string. To encrypt and store binary data as part of the version of a secret,
    * you must use either the AWS CLI or one of the AWS SDKs.
    * </p>
    * </note>
    * <ul>
    * <li>
    * <p>
    * If a version with a <code>VersionId</code> with the same value as the <code>ClientRequestToken</code>
 parameter
    * already exists, the operation results in an error. You cannot modify an existing version, you can only create a
    * new version.
    * </p>
    * </li>
    * <li>
    * <p>
    * If you include <code>SecretString</code> or <code>SecretBinary</code> to create a new secret version,
Secrets
    * Manager automatically attaches the staging label <code>AWSCURRENT</code> to the new version.
    * </p>
    * </li>
    * </ul>
    * <note>
```

```
   * <ul>
   * <li>
   * <p>
   * If you call an operation to encrypt or decrypt the <code>SecretString</code> or <code>SecretBinary</code>
for a
   * secret in the same account as the calling user and that secret doesn't specify a AWS KMS encryption key,
Secrets
   * Manager uses the account's default AWS managed customer master key (CMK) with the alias
   * <code>aws/secretsmanager</code>. If this key doesn't already exist in your account then Secrets Manager
creates
   * it for you automatically.
 All users and roles in the same AWS account automatically have access to use the
   * default CMK. Note that if an Secrets Manager API call results in AWS creating the account's AWS-managed
CMK, it
   * can result in a one-time significant delay in returning the result.
   * </p>
   * </li>
   * <li>
   * <p>
   * If the secret resides in a different AWS account from the credentials calling an API that requires encryption or
   * decryption of the secret value then you must create and use a custom AWS KMS CMK because you can't access
the
   * default CMK for the account using credentials from a different AWS account. Store the ARN of the CMK in the
   * secret when you create the secret or when you update it by including it in the <code>KMSKeyId</code>. If you
call
   * an API that must encrypt or decrypt <code>SecretString</code> or <code>SecretBinary</code> using
credentials from
   * a different account then the AWS KMS key policy must grant cross-account
 access to that other account's user or
   * role for both the kms:GenerateDataKey and kms:Decrypt operations.
   * </p>
   * </li>
   * </ul>
   * </note>
   * <p>
   * <b>Minimum permissions</b>
   * </p>
   * <p>
   * To run this command, you must have the following permissions:
   * </p>
   * <ul>
   * <li>
   * <p>
   * secretsmanager:UpdateSecret
   * </p>
   * </li>
   * <li>
   * <p>
```

```
     * kms:GenerateDataKey - needed only if you use a custom AWS KMS key to encrypt the secret. You do not need
this
     * permission to use the account's AWS managed CMK for Secrets Manager.
     * </p>
     * </li>
     * <li>
     * <p>
     * kms:Decrypt - needed only if you use a custom AWS KMS key to encrypt the secret. You do not need this
permission
     * to use the account's AWS managed CMK for Secrets Manager.
     * </p>
     * </li>
     * </ul>
     * <p>
     * <b>Related operations</b>
     * </p>
     * <ul>
     * <li>
     * <p>
     * To
 create a new secret, use <a>CreateSecret</a>.
     * </p>
     * </li>
     * <li>
     * <p>
     * To add only a new version to an existing secret, use <a>PutSecretValue</a>.
     * </p>
     * </li>
     * <li>
     * <p>
     * To get the details for a secret, use <a>DescribeSecret</a>.
     * </p>
     * </li>
     * <li>
     * <p>
     * To list the versions contained in a secret, use <a>ListSecretVersionIds</a>.
     * </p>
     * </li>
     * </ul>
     * 
     * @param updateSecretRequest
     * @return Result of the UpdateSecret operation returned by the service.
     * @throws InvalidParameterException
     *         You provided an invalid value for a parameter.
     * @throws InvalidRequestException
     *         You provided a parameter value that is not valid for the current state of the resource.</p>
     *         <p>
     *         Possible causes:
```

```
    *        </p>
    *        <ul>
    *        <li>
    *        <p>
    *        You tried to perform the
 operation on a secret that's currently marked deleted.
    *        </p>
    *        </li>
    *        <li>
    *        <p>
    *        You tried to enable rotation on a secret that doesn't already have a Lambda function ARN configured and
    *        you didn't include such an ARN as a parameter in this call.
    *        </p>
    *        </li>
    * @throws LimitExceededException
    *         The request failed because it would exceed one of the Secrets Manager internal limits.
    * @throws EncryptionFailureException
    *         Secrets Manager can't encrypt the protected secret text using the provided KMS key. Check that the
    *         customer master key (CMK) is available, enabled, and not in an invalid state. For more information, see
    *         <a href="http://docs.aws.amazon.com/kms/latest/developerguide/key-state.html">How Key State Affects
Use
    *         of a Customer Master Key</a>.
    * @throws ResourceExistsException
    *
    A resource with the ID you requested already exists.
    * @throws ResourceNotFoundException
    *         We can't find the resource that you asked for.
    * @throws MalformedPolicyDocumentException
    *         The policy document that you provided isn't valid.
    * @throws InternalServiceErrorException
    *         An error occurred on the server side.
    * @throws PreconditionNotMetException
    *         The request failed because you did not complete all the prerequisite steps.
    * @sample AWSSecretsManager.UpdateSecret
    * @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/UpdateSecret"
target="_top">AWS
    *      API Documentation</a>
    */
```

Found in path(s):
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/AWSSecretsManagerClient.java
* /opt/cola/permits/1701365397_1685520294.5569222/0/aws-java-sdk-secretsmanager-1-11-942-sources-1-jar/com/amazonaws/services/secretsmanager/AWSSecretsManager.java

1.556 aws-java-sdk-core 1.12.303

1.556.1 Available under license :

Apache-2.0

1.557 micronaut-messaging 3.4.0

1.557.1 Available under license :

Apache-2.0

1.558 mockserver-netty 5.14.0

1.558.1 Available under license :

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{"version":3,"sources":["../node_modules/react/index.js","../node_modules/prop-types/index.js","../node_modules/babel-runtime/helpers/classCallCheck.js","../node_modules/babel-runtime/helpers/createClass.js","../node_modules/babel-runtime/core-js/object/get-prototype-of.js","../node_modules/babel-runtime/helpers/possibleConstructorReturn.js","../node_modules/babel-runtime/helpers/inherits.js","../node_modules/simple-assign/index.js","../node_modules/babel-runtime/helpers/extends.js","../node_modules/babel-runtime/helpers/objectWithoutProperties.js","../node_modules/redux-form/es/actionTypes.js","../node_modules/material-ui/styles/transitions.js","../node_modules/redux-form/es/structure/plain/splice.js","../node_modules/redux-form/es/structure/plain/getIn.js","../node_modules/redux-form/es/structure/plain/setIn.js","../node_modules/redux-form/es/structure/plain/deepEqual.js","../node_modules/redux-form/es/structure/plain/deleteIn.js","../node_modules/redux-form/es/structure/plain/keys.js","../node_modules/redux-form/es/structure/plain/index.js","../node_modules/@babel/runtime/helpers/esm/defineProperty.js","../node_modules/@babel/runtime/helpers/esm/objectSpread2.js","../node_modules/redux/es/redux.js","../node_modules/material-ui/index.es.js","../node_modules/react-dom/index.js","../node_modules/lodash-es/isArray.js","../node_modules/material-ui/SvgIcon/index.js","../node_modules/lodash-es/_root.js","../node_modules/recompose/pure.js","../node_modules/babel-preset-react-app/node_modules/@babel/runtime/helpers/esm/classCallCheck.js","../node_modules/babel-preset-react-app/node_modules/@babel/runtime/helpers/esm/createClass.js","../node_modules/babel-preset-react-app/node_modules/@babel/runtime/helpers/esm/getPrototypeOf.js","../node_modules/lodash-es/isObject.js","../node_modules/babel-preset-react-app/node_modules/@babel/runtime/helpers/esm/typeof.js","../node_modules/babel-preset-react-app/node_modules/@babel/runtime/helpers/esm/possibleConstructorReturn.js","../node_modules/babel-preset-react-app/node_modules/@babel/runtime/helpers/esm/assertThisInitialized.js","../node_modules/babel-preset-react-app/node_modules/@babel/runtime/helpers/esm/setPrototypeOf.js","../node_modules/babel-preset-react-app/node_modules/@babel/runtime/helpers/esm/inherits.js","../node_modules/core-js/library/modules/_core.js","../node_modules/warning/browser.js","../node_modules/lodash-es/isObjectLike.js","../node_modules/material-ui/Paper/index.js","../node_modules/lodash-es/_coreJsData.js","../node_modules/lodash-es/_isMasked.js","../node_modules/lodash-es/_baseIsNative.js","../node_modules/lodash-es/_getValue.js","../node_modules/lodash-es/_getNative.js","../node_modules/invariant/browser.js","../node_modules/material-ui/utils/propTypes.js","../node_modules/lodash-es/_getRawTag.js","../node_modules/lodash-es/_objectToString.js","../node_modules/lodash-es/_baseGetTag.js","../node_modules/keycode/index.js","../node_modules/@babel/runtime/helpers/esm/setPrototypeOf.js","../node_modules/@babel/runtime/helpers/esm/inheritsLoose.js","../node_modules/react-redux/es/utils/PropTypes.js","../node_modules/react-redux/es/components/Provider.js","../node_modules/@babel/runtime/helpers/esm/assertThisInitialized.js","../node_modules/@babel/runtime/helpers/esm/extends.js","../node_modules/@babel/runtime/helpers/esm/objectWithoutPropertiesLoose.js","../node_modules/react-redux/es/utils/Subscription.js","../node_modules/react-redux/es/components/connectAdvanced.js","../node_modules/react-redux/es/utils/shallowEqual.js","../node_modules/react-redux/es/connect/wrapMapToProps.js","../node_modules/react-redux/es/connect/mapDispatchToProps.js","../node_modules/react-redux/es/connect/mapStateToProps.js","../node_modules/react-redux/es/connect/mergeProps.js","../node_modules/react-redux/es/connect/selectorFactory.js","../node_modules/react-redux/es/connect/connect.js","../node_modules/react-redux/es/index.js","../node_modules/lodash-es/_Symbol.js","../node_modules/core-js/library/modules/_wks.js","../node_modules/material-ui/internal/EnhancedButton.js","../node_modules/lodash-es/_toKey.js","../node_modules/lodash-es/eq.js","../node_modules/redux-form-material-ui/lib/index.js","../node_modules/react-event-listener/dist/react-event-listener.cjs.js","../node_modules/redux-form-material-ui/lib/createComponent.js","../node_modules/lodash-es/_toSource.js","../node_modules/core-js/library/modules/_export.js","../node_modules/core-js/library/modules/_global.js","../node_modules/core-js/library/modules/_object-dp.js","../node_modules/core-js/library/modules/_descriptors.js","../node_modules/material-ui/utils/colorManipulator.js","../node_modules/lodash-es/toPath.js","../node_modules/lodash-es/isSymbol.js","../node_modules/lodash-es/isArrayLike.js","../node_modules/lodash-es/_baseAssignValue.js","../node_modules/lodash-es/_listCacheClear.js","../node_modules/lodash-es/_assocIndexOf.js","../node_modules/lodash-es/_listCacheDelete.js","../node_modules/lodash-es/_li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```

ropsEqual","hasRunAtLeastOnce","handleSubsequentCalls","nextOwnProps","propsChanged","stateChanged","nextStateProps","statePropsChanged","handleNewState","finalPropsSelectorFactory","initMapStateToProps","initMapDispatchToProps","initMergeProps","match","factories","strictEqual","connect_connect","_temp","_ref$connectHOC","connectHOC","_ref$mapStateToPropsF","mapStateToPropsFactories","_ref$mapDispatchToPro","mapDispatchToPropsFactories","_ref$mergePropsFactor","mergePropsFactories","_ref$selectorFactory","_ref3$pure","_ref3$areStatesEqual","_ref3$areOwnPropsEqua","_ref3$areStatePropsEq","_ref3$areMergedPropsE","extraOptions","USE_SYMBOL","_extends3","_objectWithoutProperties3","_getPrototypeOf2","_classCallCheck3","_createClass3","_possibleConstructorReturn3","_inherits3","_simpleAssign2","_react","_react2","_events2","_keycode2","_FocusRipple2","_TouchRipple2","styleInjected","listening","tabPressed","EnhancedButton","_ret","isKeyboardFocused","handleKeyDown","disabled","disableKeyboardFocus","removeKeyboardFocus","onKeyDown","handleKeyUp","onKeyUp","handleBlur","cancelFocusTimeout","onBlur","handleFocus","persist","focusTimeout","setTimeout","setKeyboardFocus","onFocus","handleClick","onClick","_props","keyboardFocused","style","document","createElement","innerHTML","body","appendChild","injectStyle","on","window","button","focus","onKeyboardFocus","clearTimeout","_props2","centerRipple","disableFocusRipple","disableTouchRipple","focusRippleColor","focusRippleOpacity","touchRippleColor","touchRippleOpacity","focusRipple","color","opacity","show","overflow","touchRipple","_this2","_props3","containerElement","href","tabIndex","_context$muiTheme","muiTheme","prepareStyles","enhancedButton","mergedStyles","border","boxSizing","display","fontFamily","baseTheme","WebkitTapHighlightColor","tapHighlightColor","cursor","textDecoration","margin","padding","outline","fontSize","fontWeight","position","verticalAlign","backgroundColor","background","buttonProps","node","buttonChildren","createButtonChildren","cloneElement","Component","defaultProps","_isSymbol_js__WEBPACK_IMPORTED_MODULE_0__","INFINITY","_Toggle","_Slider","_Checkbox","_TextField","_TimePicker","_DatePicker","_SelectField","_AutoComplete","_RadioButtonGroup","_interopDefault","ex","_objectWithoutProperties","React","passiveOption","cache","attr","supportsPassiveOption","addEventListener","defaultEventOptions","capture","passive","mergeDefaultEventOptions","getEventListenerArgs","eventName","off","removeEventListener","EventListener","_React$PureComponent","applyListeners","prevProps","onOrOff","iteratee","eventProps","prop","substr","handler","forEachListener","PureComponent","withOptions","MaterialUIComponent","mapProps","InputComponent","refs","component","global","ctx","hide","has","$export","own","out","IS_FORCED","F","IS_GLOBAL","G","IS_STATIC","S","IS_PROTO","P","IS_BIND","B","IS_WRAP","W","expProto","C","virtual","R","U","__g","anObject","IE8_DOM_DEFINE","toPrimitive","dP","O","Attributes","convertColorToString","convertHexToRGB","decomposeColor","getContrastRatio","foreground","lumA","getLuminance","lumB","contrastRatio","max","min","toFixed","emphasize","coefficient","darken","lighten","fade","clamp","values","colorString","extendedColor","charAt","marker","parseFloat","rgb","val","pow","_arrayMap_js__WEBPACK_IMPORTED_MODULE_0__","_copyArray_js__WEBPACK_IMPORTED_MODULE_1__","_isArray_js__WEBPACK_IMPORTED_MODULE_2__","_isSymbol_js__WEBPACK_IMPORTED_MODULE_3__","_stringToPath_js__WEBPACK_IMPORTED_MODULE_4__","_toKey_js__WEBPACK_IMPORTED_MODULE_5__","_toString_js__WEBPACK_IMPORTED_MODULE_6__","_baseGetTag_js__WEBPACK_IMPORTED_MODULE_0__","_isObjectLike_js__WEBPACK_IMPORTED_MODULE_1__","symbolTag","_isFunction_js__WEBPACK_IMPORTED_MODULE_0__","_isLength_js__WEBPACK_IMPORTED_MODULE_1__","_defineProperty_js__WEBPACK_IMPORTED_MODULE_0__","_listCacheClear","__data__","_assocIndexOf","eq","_listCacheDelete","data","pop","_listCacheGet","_listCacheHas","_listCacheSet","ListCache","entries","entry","set","_getNative_js__WEBPACK_IMPORTED_MODULE_0__","_root_js__WEBPACK_IMPORTED_MODULE_1__","Map","_stackClear","_ListCache","_stackDelete","_stackGet","_stackHas","LARGE_ARRAY_SIZE","_stackSet","pairs","_Map","_MapCache","Stack","sectionPrefix","_reduxForm","it","_IconButton","_IconButton2","_shallowEqual","_TextField2","_root_js__WEBPACK_IMPORTED_MODULE_0__","_stubFalse_js__WEBPACK_IMPORTED_MODULE_1__","freeExports","nodeType","freeModule","Buffer","isBuffer","_nativeCreate","_getNative","_hashClear","_hashDelete","HASH_UNDEFINED","_hashGet_hasOwnProperty","_hashGet","_hashHas_hasOwnProperty","_hashHas","_hashSet_HASH_UNDEFINED","_hashSet","Hash","_Hash","_mapCacheClear","hash","_isKeyable","_getMapData","_mapCacheDelete","_mapCacheGet","_mapCacheHas","_mapCacheSet","MapCache","argsTag","_baseIsArguments","isObjectLike","_baseGetTag","isArguments_hasOwnProperty","prop 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","resultDate","now","dayArray","daysInMonth","week

Array","week","addWeek","emptyDays","date1","date2","m","_FlatButton","_FlatButton2","TableRowColumn","hovered","columnNumber","onMouseEnter","hoverable","onHover","onMouseLeave","onHoverExit","className","tableRowColumn","paddingLeft","spacing","paddingRight","textAlign","whiteSpace","textOverflow","Children","count","getStyles","handlers","clone","addHours","hours","getHours","addMinutes","minutes","setMinutes","getMinutes","addSeconds","seconds","setSeconds","formatTime","pedantic","mins","isAM","additional","rad2deg","rad","getTouchEventOffsetValues","boundingRect","offsetX","clientX","offsetY","clientY","isInner","_baseIsEqual_js__WEBPACK_IMPORTED_MODULE_0__","_baseForOwn","_baseFor","_baseIsMatch","matchData","noCustomizer","srcValue","_baseIsEqual","_isStrictComparable","_getMatchData","_matchesStrictComparable","_baseMatches","reIsDeepProp","reIsPlainProp","_isKey","isSymbol","_castPath","_stringToPath","lodash_es_toString","_baseGet","_toKey","lodash_es_get","defaultValue","_baseHasIn","_hasPath","hasFunc","_isIndex","lodash_es_hasIn","_baseMatchesProperty_COMPARE_PARTIAL_FLAG","_baseMatchesProperty_COMPARE_UNORDERED_FLAG","_baseMatchesProperty","_baseProperty","_basePropertyDeep","lodash_es_property","_baseIteratee","identity","_baseAssignValue","_slicedToArray","_createForOfIteratorHelper","allowArrayLike","minLen","_arrayLikeToArray","_unsupportedIterableToArray","s","done","_e","normalCompletion","didErr","step","_e2","len","strictUriEncode","decodeComponent","splitOnFirst","filterObject","validateArrayFormatSeparator","encode","strict","encodeURIComponent","decode","removeHash","hashStart","extract","queryStart","parseValue","parseNumbers","trim","parseBooleans","parse","query","sort","arrayFormat","arrayFormatSeparator","formatter","accumulator","includes","isEncodedArray","newValue","item","parserForArrayFormat","ret","_step","_iterator","param","_splitOnFirst","_splitOnFirst2","_value","_Object$keys","_i2","_Object$keys2","k","keysSorter","shouldFilter","skipNull","skipEmptyString","encoderForArrayFormat","objectCopy","_i3","_Object$keys3","parseUrl","url","_splitOnFirst3","_splitOnFirst4","url_","parseFragmentIdentifier","fragmentIdentifier","stringifyUrl","queryFromUrl","parsedQueryFromUrl","queryString","getHash","pick","_exports$parseUrl","exclude","exclusionFilter","id","px","$at","iterated","_t","point","once","typeArray","recursiveFunction","attachEvent","detachEvent","isKeyboard","_FontIcon","_FontIcon2","_toArray3","_ClickAwayListener2","_List2","_menuUtils","Menu","_initialiseProps","filteredChildren","getFilteredChildren","selectedIndex","getLastSelectedIndex","newFocusIndex","disableAutoFocus","onMenuItemFocusChange","focusIndex","initiallyKeyboardFocused","keyWidth","desktop","hotKeyHolder","HotKeyHolder","autoWidth","setWidth","setScollPosition","multiple","nextContext","valueLink","requestChange","onChange","childIndex","childIsDisabled","selectedChildStyles","isChildSelected","selectedMenuItem","selectedMenuItemStyle","mergedChildStyles","menuItemStyle","extraProps","isFocused","focusState","handleMenuItemClick","setFocusIndex","menuItemCount","childIsADivider","muiName","menuItemIndex","foundIndex","primaryText","getValueLink","menuValue","itemValue","itemIndex","_menuValue","newMenuValue","onItemClick","maxIndex","getMenuItemCount","childValue","newIndex","focusedMenuItem","menuItemHeight","scrollTop","offsetTop","scrollContainer","stopPropagation","preventDefault","listEl","list","elWidth","minWidth","keyIncrements","newWidth","ceil","_this4","listStyle","onEscKeyDown","menu","divider","marginTop","marginBottom","paddingBottom","paddingTop","userSelect","menuItem","selectedTextColor","mergedRootStyles","mergedListStyles","childName","newChild","cloneMenuItem","onClickAway","handleClickAway","onWheel","handleOnWheel","role","_this5","defaultPrevented","focusedItem","menuItems","incrementKeyboardFocusIndex","shiftKey","decrementKeyboardFocusIndex","hotKeys","append","setFocusIndexStartsWith","scrollHeight","clientHeight","wheelDelta","deltaY","isDeltaPositive","cancelScrollEvent","_MenuItem","_MenuItem2","_colorManipulator","_transitions2","_EnhancedButton2","_expandLess2","_expandMore2","_NestedList2","ListItem","rightIconButtonHovered","rightIconButtonKeyboardFocused","touch","handleKeyboardFocus","handleMouseEnter","handleMouseLeave","primaryTogglesNestedList","handleNestedListToggle","leftCheckbox","onNestedListToggle","handleRightIconButtonKeyboardFocus","iconButton","rightIconButton","handleRightIconButtonMouseLeave","handleRightIconButtonMouseEnter","handleRightIconButtonMouseUp","onMouseUp","handleRightIconButtonClick","handleTouchStart","onTouchStart","handleTouchEnd","onTouchEnd","initiallyOpen","buttonEl","blur","contentChildren","additionalProps","innerDivStyle","mergedDivStyles","innerDiv","mergedLabelStyles","label","baseStyles","autoGenerateNestedIndicator","hoverColor","leftAvatar","insetChildren","leftIcon","nestedItems","nestedLevel","nestedListStyle","rig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"inheritedComponent","u","h","v","E","j","_","w","A","_c","getBase16Theme","createStyling","invertTheme","rgb2yuv","yuv2rgb","defaultBase16","base16Themes","extend","Reflect","init","Promise","removeListener","EventEmitter","_events","_eventsCount","_maxListeners","defaultMaxListeners","newListener","emit","unshift","warned","emitter","warn","fired","wrapFn","RangeError","setMaxListeners","getMaxListeners","addListener","prependListener","prependOnceListener","removeAllListeners","rawListeners","listenerCount","eventNames","Dispatcher","_k","Arguments","KEY","M","_D","I","L","N","z","T","q","V","K","QObject","H","findChild","J","Y","$","Q","Z","X","ee","te","ne","ae","re","for","keyFor","useSetter","useSimple","oe","_t2","isExtensible","preventExtensions","NEED","fastKey","getWeak","onFreeze","isIterable","getIterator","getIteratorMethod","D","placeholder","reverse","NaN","threezerotwofour","apathy","ashes","atelierDune","atelierForest","atelierHeath","atelierLakeside","atelierSeaside","bespin","brewer","bright","chalk","codeschool","colors","eighties","embers","flat","google","grayscale","greenscreen","harmonic","hopscotch","isotope","marrakesh","mocha","monokai","ocean","paraiso","railscasts","shapeshifter","solarized","summerfruit","tomorrow","tube","twilight","scheme","author","base00","base01","base02","base03","base04","base05","base06","base07","base08","base09","base0A","base0B","base0C","base0D","base0E","base0F","round","#","hsl","hex","isConcatSpreadable","_callbacks","_isDispatching","_isHandled","_isPending","_lastID","register","unregister","waitFor","_invokeCallback","_startDispatching","_stopDispatching","_pendingPayload","construct","sham","Proxy","globalFontFamily","globalCursor","indentBlockWidth","braceFontWeight","braceCursor","ellipsisFontSize","ellipsisLineHeight","ellipsisCursor","keyMargin","keyLetterSpacing","keyFontStyle","keyBorderRadius","keyColonWeight","keyVerticalAlign","keyOpacity","keyOpacityHover","keyValPaddingTop","keyValPaddingBottom","keyValPaddingRight","keyValBorderLeft","keyValBorderHover","keyValPaddingHover","pushedContentMarginLeft","variableValuePaddingRight","nullFontSize","nullFontWeight","nullPadding","nullBorderRadius","nanFontSize","nanFontWeight","nanPadding","nanBorderRadius","undefinedFontSize","undefinedFontWeight","undefinedPadding","undefinedBorderRadius","dataTypeFontSize","dataTypeMarginRight","datatypeOpacity","objectSizeBorderRadius","objectSizeFontStyle","objectSizeMargin","clipboardCursor","clipboardCheckMarginLeft","metaDataPadding","arrayGroupMetaPadding","iconContainerWidth","tooltipPadding","editInputMinWidth","editInputBorderRadius","editInputPadding","editInputMarginRight","editInputFontFamily","iconCursor","iconFontSize","iconPaddingRight","dateValueMarginLeft","iconMarginRight","detectedRowPaddingTop","addKeyCoverBackground","addKeyCoverPosition","addKeyCoverPositionPx","addKeyModalWidth","addKeyModalMargin","addKeyModalPadding","addKeyModalRadius","ellipsisColor","braceColor","expandedIcon","collapsedIcon","keyColor","arrayKeyColor","objectSize","copyToClipboard","copyToClipboardCheck","objectBorder","dataTypes","boolean","function","integer","nan","null","regexp","editVariable","editIcon","cancelIcon","removeIcon","addIcon","checkIcon","addKeyModal","labelColor","validationFailure","fontColor","app-container","ellipsis","brace-row","brace","expanded-icon","collapsed-icon","colon","objectKeyVal","borderLeft",":hover","object-key-val-no-border","keyValPadding","pushed-content","variableValue","object-name","letterSpacing","fontStyle","array-key","object-size","data-type-label","date-value","function-value","copy-to-clipboard","copy-icon","copy-icon-copied","array-group-meta-data","object-meta-data","icon-container","removeVarIcon","addVarIcon","editVarIcon","edit-icon-container","check-icon","cancel-icon","edit-input","detected-row","key-modal-request","key-modal","key-modal-label","key-modal-input-container","key-modal-input","key-modal-cancel","key-modal-cancel-icon","key-modal-submit","function-ellipsis","validation-failure","validation-failure-label","validation-failure-clear","rjvId","type_name","displayDataTypes","theme","toLocaleTimeString","hour","minute","objects","handleAction","updated_src","updateSrc","namespace","new_value","existing_value","variable_removed","deepCopy","_e3","toggleCollapsed","collapsed","getFunctionDisplay","collapseStringsAfterLength","useLayoutEffect","min-height","max-height","visibility","z-index","setProperty","currentStyle","se","cacheMeasurements","maxRows","minRows","onHeightChange","useRef","useCallback","getComputedStyle","borderRightWidth","borderLeftWidth","sizingStyle","paddingSize","borderSize","borderBottomWidth","borderTopWidth","setAttribute","rowHeight","_e4","ce","le","ue","xe","viewBox","preserveAspectRatio","fe","pe","de","be","he","ve","me","ye","ge","Ee","je","copiedTimer","handleCopy","clickCallback","clipboardValue","select","execCommand","removeChild","copied","getClippyIcon","hidden","rowHovered","
```

ke","getEditIcon","variable","prepopInput","onEdit","editMode","editValue","parsedInput","getRemoveIcon","getValue","getEditInput","inputRef","submitEdit","showDetected","getDetectedInput","renameKey","singleIndent","indentWidth","enableClipboard","onDelete","onSelect","displayArrayKey","quotesOnKeys","Oe","getObjectSize","displayObjectSize","getAddAttribute","depth","key_name","getRemoveObject","hover","onAdd","Ce","parent_type","jsvRoot","Se","we","Ae","expanded","groupArraysAfterLength","getExpandedIcon","Fe","index_offset","Me","getObjectContent","renderObjectContents","getEllipsis","getObjectMetaData","object_type","sortKeys","Pe","getBraceStart","shouldCollapse","De","Ie","closeModal","submit","isValid","spellCheck","onKeyPress","Re","Le","Be","getListeners","reset","resetState","variable-update","add-key-request","addKeyRequest","existing_src","editKeyRequest","validationMessage","prevSrc","prevName","prevTheme","validateState","propIsEnumerable","test1","test2","test3","letter","shouldUseNative","to","toObject","_AppBar","_AppBar2","toIObject","arrayIndexOf","cof","toInteger","fails","exp","ObjectProto","redefine","$iterCreate","setToStringTag","ITERATOR","BUGGY","returnThis","Base","DEFAULT","IS_SET","FORCED","methods","IteratorPrototype","getMethod","kind","DEF_VALUES","VALUES_BUG","$native","$default","$entries","$anyNative","hiddenKeys","pIE","gOPD","_dom2","_CircleRipple2","TouchRipple","abortOnScroll","touches","startListeningForScrollAbort","startTime","handleTouchMove","abs","stopListeningForScrollAbort","firstTouchY","deltaX","firstTouchX","currentRipples","abortedRipple","aborted","ignoreNextMouseDown","hasRipples","nextKey","isRippleTouchGenerated","getRippleStyle","touchGenerated","elHeight","isTouchEvent","pageX","pageY","pointerX","pointerY","topLeftDiag","calcDiag","topRightDiag","botRightDiag","botLeftDiag","rippleRadius","rippleSize","directionInvariant","sqrt","_state","rippleGroup","classof","ARG","tryGet","parent","scrollLeft","Tooltip","setTooltipPosition","tooltipWidth","horizontalPosition","tooltipHeight","rippleDiameter","verticalPosition","touchMarginOffset","touchOffsetTop","rootWhenShown","rootWhenTouched","rippleWhenShown","rippleBackgroundColor","extendChildren","extendedProps","extendedChildren","newProps","_setStatic","_setStatic2","_getDisplayName","_getDisplayName2","hocName","_reactDom","RenderToLayer","unrenderLayer","unmountComponentAtNode","layerElement","unstable_renderSubtreeIntoContainer","_Badge","_Badge2","BottomNavigation","_BottomNavigation3","_BottomNavigationItem3","CardExpandable","Card","_Card3","_CardHeader3","_CardTitle3","_CardMedia3","_CardText3","_CardActions3","_CardExpandable3","_keyboardArrowUp2","_keyboardArrowDown2","onExpanding","_Chip","_Chip2","_CircularProgress","_CircularProgress2","_AutoLockScrolling2","Overlay","autoLockScrolling","transitionEnabled","willChange","lock","_Drawer","_Drawer2","_FloatingActionButton","_FloatingActionButton2","GridList","_GridList3","_GridTile3","IconMenu","_IconMenu3","_LinearProgress","_LinearProgress2","_List3","_ListItem3","_makeSelectable3","_getMuiTheme2","MuiThemeProvider","plugins","metaData","processedValue","addIfNew","_hyphenateStyleName2","_hyphenateStyleName","_Popover3","_PopoverAnimationVertical3","_EnhancedSwitch2","_radioButtonUnchecked2","_radioButtonChecked2","handleSwitch","enhancedSwitch","isSwitched","newCheckedValue","setSwitched","checkedIcon","uncheckedIcon","checkedColor","targetWhenChecked","fillWhenChecked","targetWhenDisabled","fillWhenDisabled","labelDisabledColor","uncheckedStyles","checkedStyles","uncheckedElement","checkedElement","mergedIconStyle","mergedLabelStyle","_RaisedButton","_RaisedButton2","_RefreshIndicator","_RefreshIndicator2","Step","renderChild","_StepLabel2","StepButton","_context$muiTheme$ste","hoverBackgroundColor","isLabel","_ExpandTransition2","StepContent","transitionDuration","_context","connectorLineColor","transitionProps","_StepConnector2","Stepper","activeStep","connector","linear","alignContent","steps","controlProps","_Snackbar","_Snackbar2","Tabs","_Tab3","_Tabs3","Table","_Table3","_TableBody3","_TableFooter3","_TableHeader3","_TableHeaderColumn3","_TableRow3","_TableRowColumn3","_slicedToArray3","_timeUtils","ClockNumber","pos","isSelected","timePicker","accentColor","selectTextColor","transformPos","_transformPos","_transformPos2","clockNumber","calcAngle","base","ClockPointer","inner","hasSelected","angle","mark","Toolbar","_Toolbar3","_ToolbarGroup3","_ToolbarSeparator3","_ToolbarTitle3","reactIs","contextType","getDerivedStateFromError","MEMO_STATICS","$$typeof","compare","TYPE_STATICS","getStatics","isMemo","ForwardRef","Memo","targetStatics","sourceStatics","allocUnsafe","isDeep","createThunkMiddleware","extraArgument","thunk","withExtraArgument","_objectSpread","isMounted","enqueueForceUpdate","enqueueReplaceState","enqueueSetState","updater","isPureReactComponent","__self","__source","_owner","keyPrefix",":","aa","ba","ReactCurrentDisp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```
ent","Profiler","StrictMode","Suspense","__SECRET_INTERNALS_DO_NOT_USE_OR_YOU_WILL_BE_FIRE
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Handle","useMemo","useReducer","useState","da","ea","fa","ha","ia","onError","ja","la","ma","na","oa","currentTa
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ion","Vg","Wg","Xg","Yg","Zg","$g","ah","bh","ch","dh","tagName","eh","fh","gh","hh","memoizedProps","reveal
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nsition","Oh","Ph","Qh","Rh","Sh","Th","pendingProps","Uh","Vh","Wh","Xh","Yh","Zh","$h","ai","bi","ci","di","
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tionFrame","port2","port1","onmessage","postMessage","sortIndex","priorityLevel","unstable_Profiling","unstable_
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E,IACjD,OCrBQW,EAAA,EAAA+xL,EAAwBnW,EAAA","file":"static/js/2.d40871cb.chunk.js","sourcesContent"
:["'use
 strict';\n\nif (process.env.NODE_ENV === 'production') {\n module.exports =
require('./cjs/react.production.min.js');\n} else {\n module.exports = require('./cjs/react.development.js');\n}","/**\n
* Copyright (c) 2013-present, Facebook, Inc.\n *\n * This source code is licensed under the MIT license found in
the\n * LICENSE file in the root directory of this source tree.\n */\nif (process.env.NODE_ENV !== 'production')
{\n var ReactIs = require('react-is'); // By explicitly using `prop-types` you are opting into new development
behavior.\n // http://fb.me/prop-types-in-prod\n\n\n var throwOnDirectAccess = true;\n module.exports =
require('./factoryWithTypeCheckers')(ReactIs.isElement, throwOnDirectAccess);\n} else {\n // By explicitly using
`prop-types` you are opting into new production behavior.\n // http://fb.me/prop-types-in-prod\n module.exports =
require('./factoryWithThrowingShims')();\n}","\"use
 strict\";\n\nexports.__esModule = true;\n\nexports.default = function (instance, Constructor) {\n if (!(instance
instanceof Constructor)) {\n   throw new TypeError(\"Cannot call a class as a function\");\n }\n};","\"use
strict\";\n\nexports.__esModule = true;\n\nvar _defineProperty = require(\"../core-js/object/define-
property\");\n\nvar _defineProperty2 = _interopRequireDefault(_defineProperty);\n\nfunction
_interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nexports.default
= function () {\n function defineProperties(target, props) {\n   for (var i = 0; i < props.length; i++) {\n   var
descriptor = props[i];\n   descriptor.enumerable = descriptor.enumerable || false;\n   descriptor.configurable =
true;\n   if (\"value\" in descriptor) descriptor.writable = true;\n   (0, _defineProperty2.default)(target,
descriptor.key, descriptor);\n   }\n }\n\n return function (Constructor,
 protoProps, staticProps) {\n   if (protoProps) defineProperties(Constructor.prototype, protoProps);\n   if
(staticProps) defineProperties(Constructor, staticProps);\n   return Constructor;\n };\n}();","module.exports = {\n
\"default\": require(\"core-js/library/fn/object/get-prototype-of\"),\n __esModule: true\n};","\"use
strict\";\n\nexports.__esModule = true;\n\nvar _typeof2 = require(\"../helpers/typeof\");\n\nvar _typeof3 =
_interopRequireDefault(_typeof2);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ?
obj : {\n   default: obj\n };\n}\n\nexports.default = function (self, call) {\n if (!self) {\n   throw new
ReferenceError(\"this hasn't been initialised - super() hasn't been called\");\n }\n\n return call && ((typeof call ===
\"undefined\" ? \"undefined\" : (0, _typeof3.default)(call)) === \"object\" || typeof call === \"function\") ? call :
self;\n};","\"use strict\";\n\nexports.__esModule = true;\n\nvar _setPrototypeOf = require(\"../core-js/object/set-
prototype-of\");\n\nvar
 _setPrototypeOf2 = _interopRequireDefault(_setPrototypeOf);\n\nvar _create = require(\"../core-
js/object/create\");\n\nvar _create2 = _interopRequireDefault(_create);\n\nvar _typeof2 =
require(\"../helpers/typeof\");\n\nvar _typeof3 = _interopRequireDefault(_typeof2);\n\nfunction

```
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.default
= function (subClass, superClass) {\n  if (typeof superClass !== \"function\" && superClass !== null) {\n    throw
new TypeError(\"Super expression must either be null or a function, not \" + (typeof superClass === \"undefined\" ?
\"undefined\" : (0, _typeof3.default)(superClass)));\n  }\n\n  subClass.prototype = (0, _create2.default)(superClass
&& superClass.prototype, {\n    constructor: {\n      value: subClass,\n      enumerable: false,\n      writable: true,\n
configurable: true\n    }\n  });\n  if (superClass) _setPrototypeOf2.default ? (0, _setPrototypeOf2.default)(subClass,
 superClass) : subClass.__proto__ = superClass;\n};","module.exports = function (target) {\n  for (var i = 1; i <
arguments.length; i++) {\n    var source = arguments[i];\n\n    for (var key in source) {\n      if
(Object.prototype.hasOwnProperty.call(source, key)) {\n        target[key] = source[key];\n      }\n    }\n  }\n\n  return
target;\n};","\"use strict\";\n\nexports.__esModule = true;\n\nvar _assign = require(\"../core-
js/object/assign\");\n\nvar _assign2 = _interopRequireDefault(_assign);\n\nfunction _interopRequireDefault(obj) {\n
return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.default = _assign2.default || function
(target) {\n  for (var i = 1; i < arguments.length; i++) {\n    var source = arguments[i];\n\n    for (var key in source)
{\n      if (Object.prototype.hasOwnProperty.call(source, key)) {\n        target[key] = source[key];\n      }\n    }\n
}\n\n  return target;\n};","\"use strict\";\n\nexports.__esModule
 = true;\n\nexports.default = function (obj, keys) {\n  var target = {};\n\n  for (var i in obj) {\n    if (keys.indexOf(i)
>= 0) continue;\n    if (!Object.prototype.hasOwnProperty.call(obj, i)) continue;\n    target[i] = obj[i];\n  }\n\n  return
target;\n};","export var prefix = '@@redux-form/';\nexport var ARRAY_INSERT = prefix +
'ARRAY_INSERT';\nexport var ARRAY_MOVE = prefix + 'ARRAY_MOVE';\nexport var ARRAY_POP = prefix
+ 'ARRAY_POP';\nexport var ARRAY_PUSH = prefix + 'ARRAY_PUSH';\nexport var ARRAY_REMOVE =
prefix + 'ARRAY_REMOVE';\nexport var ARRAY_REMOVE_ALL = prefix +
'ARRAY_REMOVE_ALL';\nexport var ARRAY_SHIFT = prefix + 'ARRAY_SHIFT';\nexport var
ARRAY_SPLICE = prefix + 'ARRAY_SPLICE';\nexport var ARRAY_UNSHIFT = prefix +
'ARRAY_UNSHIFT';\nexport var ARRAY_SWAP = prefix + 'ARRAY_SWAP';\nexport var AUTOFILL = prefix
+ 'AUTOFILL';\nexport var BLUR = prefix + 'BLUR';\nexport var CHANGE = prefix + 'CHANGE';\nexport var
CLEAR_FIELDS = prefix + 'CLEAR_FIELDS';\nexport var
 CLEAR_SUBMIT = prefix + 'CLEAR_SUBMIT';\nexport var CLEAR_SUBMIT_ERRORS = prefix +
'CLEAR_SUBMIT_ERRORS';\nexport var CLEAR_ASYNC_ERROR = prefix +
'CLEAR_ASYNC_ERROR';\nexport var DESTROY = prefix + 'DESTROY';\nexport var FOCUS = prefix +
'FOCUS';\nexport var INITIALIZE = prefix + 'INITIALIZE';\nexport var REGISTER_FIELD = prefix +
'REGISTER_FIELD';\nexport var RESET = prefix + 'RESET';\nexport var RESET_SECTION = prefix +
'RESET_SECTION';\nexport var SET_SUBMIT_FAILED = prefix + 'SET_SUBMIT_FAILED';\nexport var
SET_SUBMIT_SUCCEEDED = prefix + 'SET_SUBMIT_SUCCEEDED';\nexport var
START_ASYNC_VALIDATION = prefix + 'START_ASYNC_VALIDATION';\nexport var START_SUBMIT =
prefix + 'START_SUBMIT';\nexport var STOP_ASYNC_VALIDATION = prefix +
'STOP_ASYNC_VALIDATION';\nexport var STOP_SUBMIT = prefix + 'STOP_SUBMIT';\nexport var SUBMIT
= prefix + 'SUBMIT';\nexport var TOUCH = prefix + 'TOUCH';\nexport var UNREGISTER_FIELD = prefix +
'UNREGISTER_FIELD';\nexport var UNTOUCH = prefix + 'UNTOUCH';\nexport
 var UPDATE_SYNC_ERRORS = prefix + 'UPDATE_SYNC_ERRORS';\nexport var
UPDATE_SYNC_WARNINGS = prefix + 'UPDATE_SYNC_WARNINGS';","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default = {\n
easeOutFunction: 'cubic-bezier(0.23, 1, 0.32, 1)',\n  easeInOutFunction: 'cubic-bezier(0.445, 0.05, 0.55, 0.95)',\n
easeOut: function easeOut(duration, property, delay, easeFunction) {\n    easeFunction = easeFunction ||
this.easeOutFunction;\n\n    if (property && Object.prototype.toString.call(property) === '[object Array]') {\n      var
transitions = '';\n\n      for (var i = 0; i < property.length; i++) {\n        if (transitions) transitions += ',';\n
transitions += this.create(duration, property[i], delay, easeFunction);\n      }\n\n      return transitions;\n    } else {\n
 return this.create(duration, property, delay, easeFunction);\n    }\n  },\n  create: function create(duration, property,
delay, easeFunction) {\n    duration
```

```
 = duration || '450ms';\n    property = property || 'all';\n    delay = delay || '0ms';\n    easeFunction = easeFunction ||
'linear';\n    return property + ' ' + duration + ' ' + easeFunction + ' ' + delay;\n  }\n};","function
_toConsumableArray(arr) {\n  if (Array.isArray(arr)) {\n    for (var i = 0, arr2 = Array(arr.length); i < arr.length;
i++) {\n      arr2[i] = arr[i];\n    }\n\n    return arr2;\n  } else {\n    return Array.from(arr);\n  }\n}\n\nvar splice =
function splice(array, index, removeNum, value) {\n  array = array || [];\n\n  if (index < array.length) {\n    if (value
=== undefined && !removeNum) {\n      // inserting undefined\n      var _copy2 =
[].concat(_toConsumableArray(array));\n\n      _copy2.splice(index, 0, true); // temporary placeholder\n\n\n
_copy2[index] = undefined; // set to undefined\n\n      return _copy2;\n    }\n\n    if (value != null) {\n      var _copy3
= [].concat(_toConsumableArray(array));\n\n      _copy3.splice(index, removeNum, value); //
 removing and adding\n\n\n      return _copy3;\n    }\n\n    var _copy = [].concat(_toConsumableArray(array));\n\n
_copy.splice(index, removeNum); // removing\n\n\n    return _copy;\n  }\n\n  if (removeNum) {\n    // trying to
remove non-existant item: return original array\n    return array;\n  } // trying to add outside of range: just set
value\n\n\n  var copy = [].concat(_toConsumableArray(array));\n  copy[index] = value;\n  return copy;\n};\n\nexport
default splice;","import _toPath from 'lodash-es/toPath';\n\nvar getIn = function getIn(state, field) {\n  if (!state) {\n
return state;\n  }\n\n  var path = _toPath(field);\n\n  var length = path.length;\n\n  if (!length) {\n    return
undefined;\n  }\n\n  var result = state;\n\n  for (var i = 0; i < length && result; ++i) {\n    result = result[path[i]];\n
}\n\n  return result;\n};\n\nexport default getIn;","import _toPath from 'lodash-es/toPath';\n\nvar _extends =
Object.assign || function (target) {\n  for (var i = 1; i < arguments.length;
 i++) {\n    var source = arguments[i];\n\n    for (var key in source) {\n      if
(Object.prototype.hasOwnProperty.call(source, key)) {\n        target[key] = source[key];\n      }\n    }\n  }\n\n  return
target;\n};\n\nfunction _defineProperty(obj, key, value) {\n  if (key in obj) {\n    Object.defineProperty(obj, key, {\n
   value: value,\n      enumerable: true,\n      configurable: true,\n      writable: true\n    });\n  } else {\n    obj[key] =
value;\n  }\n\n  return obj;\n}\n\nvar setInWithPath = function setInWithPath(state, value, path, pathIndex) {\n  if
(pathIndex >= path.length) {\n    return value;\n  }\n\n  var first = path[pathIndex];\n  var firstState = state &&
(Array.isArray(state) ? state[Number(first)] : state[first]);\n  var next = setInWithPath(firstState, value, path,
pathIndex + 1);\n\n  if (!state) {\n    if (isNaN(first)) {\n      return _defineProperty({}, first, next);\n    }\n\n    var
initialized = [];\n    initialized[parseInt(first, 10)]
 = next;\n    return initialized;\n  }\n\n  if (Array.isArray(state)) {\n    var copy = [].concat(state);\n
copy[parseInt(first, 10)] = next;\n    return copy;\n  }\n\n  return _extends({}, state, _defineProperty({}, first,
next));\n};\n\nvar setIn = function setIn(state, field, value) {\n  return setInWithPath(state, value, _toPath(field),
0);\n};\n\nexport default setIn;","import _isEqualWith from 'lodash-es/isEqualWith';\nimport React from
'react';\n\nvar customizer = function customizer(obj, other) {\n  if (obj === other) return true;\n\n  if (!obj &&
!other) {\n    var objIsEmpty = obj === null || obj === undefined || obj === '';\n    var otherIsEmpty = other === null
|| other === undefined || other === '';\n    return objIsEmpty === otherIsEmpty;\n  }\n\n  if (obj && other &&
obj._error !== other._error) return false;\n  if (obj && other && obj._warning !== other._warning) return false;\n  if
(React.isValidElement(obj) || React.isValidElement(other)) return false;\n};\n\nvar
 deepEqual = function deepEqual(a, b) {\n  return _isEqualWith(a, b, customizer);\n};\n\nexport default
deepEqual;","import _toPath from 'lodash-es/toPath';\n\nvar _extends = Object.assign || function (target) {\n  for
(var i = 1; i < arguments.length; i++) {\n    var source = arguments[i];\n\n    for (var key in source) {\n      if
(Object.prototype.hasOwnProperty.call(source, key)) {\n        target[key] = source[key];\n      }\n    }\n  }\n\n  return
target;\n};\n\nfunction _defineProperty(obj, key, value) {\n  if (key in obj) {\n    Object.defineProperty(obj, key, {\n
   value: value,\n      enumerable: true,\n      configurable: true,\n      writable: true\n    });\n  } else {\n    obj[key] =
value;\n  }\n\n  return obj;\n}\n\nfunction _toConsumableArray(arr) {\n  if (Array.isArray(arr)) {\n    for (var i = 0,
arr2 = Array(arr.length); i < arr.length; i++) {\n      arr2[i] = arr[i];\n    }\n\n    return arr2;\n  } else {\n    return
Array.from(arr);\n  }\n}\n\nfunction deleteInWithPath(state,
 first) {\n  if (state === undefined || state === null || first === undefined || first === null) {\n    return state;\n  }\n\n
for (var _len = arguments.length, rest = Array(_len > 2 ? _len - 2 : 0), _key = 2; _key < _len; _key++) {\n
rest[_key - 2] = arguments[_key];\n  }\n\n  if (rest.length) {\n    if (Array.isArray(state)) {\n      if (isNaN(first)) {\n
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throw new Error('Must access array elements with a number, not \"' + String(first) + '\".');\n   }\n\n   var firstIndex = Number(first);\n\n   if (firstIndex < state.length) {\n   var result = deleteInWithPath.apply(undefined, [state && state[firstIndex]].concat(_toConsumableArray(rest)));\n\n   if (result !== state[firstIndex]) {\n   var copy = [].concat(_toConsumableArray(state));\n   copy[firstIndex] = result;\n   return copy;\n   }\n   }\n\n   return state;\n   }\n\n   if (first in state) {\n   var _result = deleteInWithPath.apply(undefined, [state && state[first]].concat(_toConsumableArray(rest)));\n\n   return state[first] === _result ? state : _extends({}, state, _defineProperty({}, first, _result));\n   }\n\n   return state;\n }\n\n if (Array.isArray(state)) {\n   if (isNaN(first)) {\n   throw new Error('Cannot delete non-numerical index from an array. Given: \"' + String(first));\n   }\n\n   var _firstIndex = Number(first);\n\n   if (_firstIndex < state.length) {\n   var _copy = [].concat(_toConsumableArray(state));\n\n   _copy.splice(_firstIndex, 1);\n\n   return _copy;\n   }\n\n   return state;\n }\n\n if (first in state) {\n   var _copy2 = _extends({}, state);\n\n   delete _copy2[first];\n   return _copy2;\n }\n\n return state;\n}\n\nvar deleteIn = function deleteIn(state, field) {\n return deleteInWithPath.apply(undefined, [state].concat(_toConsumableArray(_toPath(field))));\n};\n\nexport default deleteIn;","function keys(value) {\n if (!value) {\n   return [];\n }\n\n if (Array.isArray(value)) {\n   return value.map(function (i) {\n   return i.name;\n   });\n }\n\n return Object.keys(value);\n}\n\nexport default keys;","import splice from './splice';\nimport getIn from './getIn';\nimport setIn from './setIn';\nimport deepEqual from './deepEqual';\nimport deleteIn from './deleteIn';\nimport keys from './keys';\nvar structure = {\n allowsArrayErrors: true,\n empty: {},\n emptyList: [],\n getIn: getIn,\n setIn: setIn,\n deepEqual: deepEqual,\n deleteIn: deleteIn,\n forEach: function forEach(items, callback) {\n   return items.forEach(callback);\n },\n fromJS: function fromJS(value) {\n   return value;\n },\n keys: keys,\n size: function size(array) {\n   return array ? array.length : 0;\n },\n some: function some(items, callback) {\n   return items.some(callback);\n },\n splice: splice,\n toJS: function toJS(value) {\n   return value;\n }\n};\nexport default structure;","export default function _defineProperty(obj, key, value) {\n if (key in obj) {\n   Object.defineProperty(obj, key, {\n   value: value,\n   enumerable: true,\n   configurable: true,\n   writable: true\n   });\n } else {\n   obj[key] = value;\n }\n\n return obj;\n}","import defineProperty from \"./defineProperty.js\";\n\nfunction ownKeys(object, enumerableOnly) {\n var keys = Object.keys(object);\n\n if (Object.getOwnPropertySymbols) {\n   var symbols = Object.getOwnPropertySymbols(object);\n   enumerableOnly && (symbols = symbols.filter(function (sym) {\n   return Object.getOwnPropertyDescriptor(object, sym).enumerable;\n   })), keys.push.apply(keys, symbols);\n }\n\n return keys;\n}\n\nexport default function _objectSpread2(target) {\n for (var i = 1; i < arguments.length; i++) {\n   var source = null != arguments[i] ? arguments[i] : {};\n   i % 2 ? ownKeys(Object(source), !0).forEach(function (key) {\n   defineProperty(target, key, source[key]);\n   }) : Object.getOwnPropertyDescriptors ? Object.defineProperties(target, Object.getOwnPropertyDescriptors(source)) : ownKeys(Object(source)).forEach(function (key) {\n   Object.defineProperty(target, key, Object.getOwnPropertyDescriptor(source, key));\n   });\n }\n\n return target;\n}","import _objectSpread from '@babel/runtime/helpers/esm/objectSpread2';\n/**\n * Adapted from React: https://github.com/facebook/react/blob/master/packages/shared/formatProdErrorMessage.js\n *\n * Do not require this module directly! Use normal throw error calls. These messages will be replaced with error codes\n * during build.\n * @param {number} code\n */\n\nfunction formatProdErrorMessage(code) {\n return \"Minified Redux error #\" + code + \"; visit https://redux.js.org/Errors?code=\" + code + \" for the full message or \" + 'use the non-minified dev environment for full errors. ';\n} // Inlined version of the `symbol-observable` polyfill\n\n\nvar $$observable = function () {\n return typeof Symbol === 'function' && Symbol.observable || '@@observable';\n}();\n/**\n * These are private action types reserved by Redux.\n * For any unknown actions, you must return the current state.\n * If the current state is undefined, you must return the initial state.\n * Do not reference these action types directly in your code.\n */\n\n\nvar randomString = function randomString() {\n return Math.random().toString(36).substring(7).split('').join('.');\n};\n\nvar ActionTypes = {\n INIT: \"@@redux/INIT\" +

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randomString(),\n  REPLACE: \"@@redux/REPLACE\" + randomString(),\n  PROBE_UNKNOWN_ACTION:
function PROBE_UNKNOWN_ACTION() {\n    return \"@@redux/PROBE_UNKNOWN_ACTION\" +
randomString();\n  }\n};\n/**\n * @param {any} obj The object to inspect.\n * @returns {boolean} True if the
argument appears to be a plain object.\n */\n\nfunction isPlainObject(obj) {\n  if (typeof obj !== 'object' || obj ===
null) return false;\n  var proto = obj;\n\n  while (Object.getPrototypeOf(proto) !== null) {\n    proto =
Object.getPrototypeOf(proto);\n  }\n\n  return Object.getPrototypeOf(obj)
 === proto;\n} // Inlined / shortened version of `kindOf` from https://github.com/jonschlinkert/kind-of\n\n\nfunction
miniKindOf(val) {\n  if (val === void 0) return 'undefined';\n  if (val === null) return 'null';\n  var type = typeof
val;\n\n  switch (type) {\n    case 'boolean':\n    case 'string':\n    case 'number':\n    case 'symbol':\n    case
'function':\n      {\n        return type;\n      }\n  }\n\n  if (Array.isArray(val)) return 'array';\n  if (isDate(val)) return
'date';\n  if (isError(val)) return 'error';\n  var constructorName = ctorName(val);\n\n  switch (constructorName) {\n
case 'Symbol':\n    case 'Promise':\n    case 'WeakMap':\n    case 'WeakSet':\n    case 'Map':\n    case 'Set':\n      return
constructorName;\n  } // other\n\n\n  return type.slice(8, -1).toLowerCase().replace(/\\s/g, '');\n}\n\nfunction
ctorName(val) {\n  return typeof val.constructor === 'function' ? val.constructor.name : null;\n}\n\nfunction
isError(val) {\n  return
 val instanceof Error || typeof val.message === 'string' && val.constructor && typeof
val.constructor.stackTraceLimit === 'number';\n}\n\nfunction isDate(val) {\n  if (val instanceof Date) return true;\n
return typeof val.toDateString === 'function' && typeof val.getDate === 'function' && typeof val.setDate ===
'function';\n}\n\nfunction kindOf(val) {\n  var typeOfVal = typeof val;\n\n  if (process.env.NODE_ENV !==
'production') {\n    typeOfVal = miniKindOf(val);\n  }\n\n  return typeOfVal;\n}\n/**\n * Creates a Redux store that
holds the state tree.\n * The only way to change the data in the store is to call `dispatch()` on it.\n *\n * There should
only be a single store in your app. To specify how different\n * parts of the state tree respond to actions, you may
combine several reducers\n * into a single reducer function by using `combineReducers`.\n *\n * @param
{Function} reducer A function that returns the next state tree, given\n * the current state tree and the action to
handle.\n
 *\n * @param {any} [preloadedState] The initial state. You may optionally specify it\n * to hydrate the state from
the server in universal apps, or to restore a\n * previously serialized user session.\n * If you use `combineReducers`
to produce the root reducer function, this must be\n * an object with the same shape as `combineReducers` keys.\n
*\n * @param {Function} [enhancer] The store enhancer. You may optionally specify it\n * to enhance the store
with third-party capabilities such as middleware,\n * time travel, persistence, etc. The only store enhancer that ships
with Redux\n * is `applyMiddleware()`.\n *\n * @returns {Store} A Redux store that lets you read the state,
dispatch actions\n * and subscribe to changes.\n */\n\n\nfunction createStore(reducer, preloadedState, enhancer) {\n
var _ref2;\n\n  if (typeof preloadedState === 'function' && typeof enhancer === 'function' || typeof enhancer ===
'function' && typeof arguments[3] === 'function') {\n    throw new Error(process.env.NODE_ENV
 === \"production\" ? formatProdErrorMessage(0) : 'It looks like you are passing several store enhancers to ' +
'createStore(). This is not supported. Instead, compose them ' + 'together to a single function. See
https://redux.js.org/tutorials/fundamentals/part-4-store#creating-a-store-with-enhancers for an example.');\n  }\n\n  if
(typeof preloadedState === 'function' && typeof enhancer === 'undefined') {\n    enhancer = preloadedState;\n
preloadedState = undefined;\n  }\n\n  if (typeof enhancer !== 'undefined') {\n    if (typeof enhancer !== 'function')
{\n      throw new Error(process.env.NODE_ENV === \"production\" ? formatProdErrorMessage(1) : \"Expected
the enhancer to be a function. Instead, received: '\" + kindOf(enhancer) + \"'\");\n    }\n\n    return
enhancer(createStore)(reducer, preloadedState);\n  }\n\n  if (typeof reducer !== 'function') {\n    throw new
Error(process.env.NODE_ENV === \"production\" ? formatProdErrorMessage(2) : \"Expected the root reducer
 to be a function. Instead, received: '\" + kindOf(reducer) + \"'\");\n  }\n\n  var currentReducer = reducer;\n  var
currentState = preloadedState;\n  var currentListeners = [];\n  var nextListeners = currentListeners;\n  var
isDispatching = false;\n  /**\n   * This makes a shallow copy of currentListeners so we can use\n   * nextListeners as
a temporary list while dispatching.\n   *\n   * This prevents any bugs around consumers calling\n   *
subscribe/unsubscribe in the middle of a dispatch.\n   */\n\n  function ensureCanMutateNextListeners() {\n    if
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(nextListeners === currentListeners) {\n   nextListeners = currentListeners.slice();\n   }\n }\n /**\n   * Reads the state tree managed by the store.\n   *\n   * @returns {any} The current state tree of your application.\n   */\n\n\n function getState() {\n   if (isDispatching) {\n   throw new Error(process.env.NODE_ENV === \"production\" ? formatProdErrorMessage(3) : 'You may not call store.getState() while the reducer is
 executing. ' + 'The reducer has already received the state as an argument. ' + 'Pass it down from the top reducer instead of reading it from the store.');\n   }\n\n   return currentState;\n }\n /**\n   * Adds a change listener. It will be called any time an action is dispatched,\n   * and some part of the state tree may potentially have changed. You may then\n   * call `getState()` to read the current state tree inside the callback.\n   *\n   * You may call `dispatch()` from a change listener, with the following\n   * caveats:\n   *\n   * 1. The subscriptions are snapshotted just before every `dispatch()` call.\n   * If you subscribe or unsubscribe while the listeners are being invoked, this\n   * will not have any effect on the `dispatch()` that is currently in progress.\n   * However, the next `dispatch()` call, whether nested or not, will use a more\n   * recent snapshot of the subscription list.\n   *\n   * 2. The listener should not expect to see all state changes, as the state\n
   * might have been updated multiple times during a nested `dispatch()` before\n   * the listener is called. It is, however, guaranteed that all subscribers\n   * registered before the `dispatch()` started will be called with the latest\n   * state by the time it exits.\n   *\n   * @param {Function} listener A callback to be invoked on every dispatch.\n   * @returns {Function} A function to remove this change listener.\n   */\n\n\n function subscribe(listener) {\n   if (typeof listener !== 'function') {\n   throw new Error(process.env.NODE_ENV === \"production\" ? formatProdErrorMessage(4) : \"Expected the listener to be a function. Instead, received: '\" + kindOf(listener) + \"'\");\n   }\n\n   if (isDispatching) {\n   throw new Error(process.env.NODE_ENV === \"production\" ? formatProdErrorMessage(5) : 'You may not call store.subscribe() while the reducer is executing. ' + 'If you would like to be notified after the store has been updated, subscribe from a ' + 'component
 and invoke store.getState() in the callback to access the latest state. ' + 'See https://redux.js.org/api/store#subscribelistener for more details.');\n   }\n\n   var isSubscribed = true;\n   ensureCanMutateNextListeners();\n   nextListeners.push(listener);\n   return function unsubscribe() {\n   if (!isSubscribed) {\n   return;\n   }\n\n   if (isDispatching) {\n   throw new Error(process.env.NODE_ENV === \"production\" ? formatProdErrorMessage(6) : 'You may not unsubscribe from a store listener while the reducer is executing. ' + 'See https://redux.js.org/api/store#subscribelistener for more details.');\n   }\n\n   isSubscribed = false;\n   ensureCanMutateNextListeners();\n   var index = nextListeners.indexOf(listener);\n   nextListeners.splice(index, 1);\n   currentListeners = null;\n   };\n }\n /**\n   * Dispatches an action. It is the only way to trigger a state change.\n   *\n   * The `reducer` function, used to create the store, will
 be called with the\n   * current state tree and the given `action`. Its return value will\n   * be considered the **next** state of the tree, and the change listeners\n   * will be notified.\n   *\n   * The base implementation only supports plain object actions. If you want to\n   * dispatch a Promise, an Observable, a thunk, or something else, you need to\n   * wrap your store creating function into the corresponding middleware. For\n   * example, see the documentation for the `redux-thunk` package. Even the\n   * middleware will eventually dispatch plain object actions using this method.\n   *\n   * @param {Object} action A plain object representing “what changed”. It is\n   * a good idea to keep actions serializable so you can record and replay user\n   * sessions, or use the time travelling `redux-devtools`. An action must have\n   * a `type` property which may not be `undefined`. It is a good idea to use\n   * string constants for action types.\n   *\n   * @returns {Object} For
 convenience, the same action object you dispatched.\n   *\n   * Note that, if you use a custom middleware, it may wrap `dispatch()` to\n   * return something else (for example, a Promise you can await).\n   */\n\n\n function dispatch(action) {\n   if (!isPlainObject(action)) {\n   throw new Error(process.env.NODE_ENV === \"production\" ? formatProdErrorMessage(7) : \"Actions must be plain objects. Instead, the actual type was: '\" + kindOf(action) + \"'. You may need to add middleware to your store setup to handle dispatching other values, such as 'redux-thunk' to handle dispatching functions. See https://redux.js.org/tutorials/fundamentals/part-4-store#middleware and https://redux.js.org/tutorials/fundamentals/part-6-async-logic#using-the-redux-thunk-middleware for examples.\");\n   }\n\n   if (typeof action.type === 'undefined') {\n   throw new

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Error(process.env.NODE_ENV === \"production\" ? formatProdErrorMessage(8) : 'Actions may not have an
undefined \"type\" property. You
 may have misspelled an action type string constant.');\n    }\n\n    if (isDispatching) {\n      throw new
Error(process.env.NODE_ENV === \"production\" ? formatProdErrorMessage(9) : 'Reducers may not dispatch
actions.');\n    }\n\n    try {\n      isDispatching = true;\n      currentState = currentReducer(currentState, action);\n    }
finally {\n      isDispatching = false;\n    }\n\n    var listeners = currentListeners = nextListeners;\n\n    for (var i = 0; i
< listeners.length; i++) {\n      var listener = listeners[i];\n      listener();\n    }\n\n    return action;\n  }\n  /**\n   *
Replaces the reducer currently used by the store to calculate the state.\n   *\n   * You might need this if your app
implements code splitting and you want to\n   * load some of the reducers dynamically. You might also need this if
you\n   * implement a hot reloading mechanism for Redux.\n   *\n   * @param {Function} nextReducer The reducer
for the store to use instead.\n   * @returns {void}\n   */\n\n\n
  function replaceReducer(nextReducer) {\n    if (typeof nextReducer !== 'function') {\n      throw new
Error(process.env.NODE_ENV === \"production\" ? formatProdErrorMessage(10) : \"Expected the nextReducer to
be a function. Instead, received: '\" + kindOf(nextReducer));\n    }\n\n    currentReducer = nextReducer; // This
action has a similiar effect to ActionTypes.INIT.\n    // Any reducers that existed in both the new and old
rootReducer\n    // will receive the previous state. This effectively populates\n    // the new state tree with any
relevant data from the old one.\n\n    dispatch({\n      type: ActionTypes.REPLACE\n    });\n  }\n  /**\n   *
Interoperability point for observable/reactive libraries.\n   * @returns {observable} A minimal observable of state
changes.\n   * For more information, see the observable proposal:\n   * https://github.com/tc39/proposal-
observable\n   */\n\n\n  function observable() {\n    var _ref;\n\n    var outerSubscribe = subscribe;\n    return
 _ref = {\n      /**\n       * The minimal observable subscription method.\n       * @param {Object} observer Any
object that can be used as an observer.\n       * The observer object should have a `next` method.\n       * @returns
{subscription} An object with an `unsubscribe` method that can\n       * be used to unsubscribe the observable from
the store, and prevent further\n       * emission of values from the observable.\n       */\n      subscribe: function
subscribe(observer) {\n        if (typeof observer !== 'object' || observer === null) {\n          throw new
Error(process.env.NODE_ENV === \"production\" ? formatProdErrorMessage(11) : \"Expected the observer to be
an object. Instead, received: '\" + kindOf(observer) + \"'\");\n        }\n\n        function observeState() {\n          if
(observer.next) {\n            observer.next(getState());\n          }\n        }\n\n        observeState();\n        var unsubscribe
= outerSubscribe(observeState);\n        return {\n
    unsubscribe: unsubscribe\n        };\n      }\n    }, _ref[$$observable] = function () {\n      return this;\n    }, _ref;\n
} // When a store is created, an \"INIT\" action is dispatched so that every\n  // reducer returns their initial state. This
effectively populates\n  // the initial state tree.\n\n\n  dispatch({\n    type: ActionTypes.INIT\n  });\n  return _ref2 =
{\n    dispatch: dispatch,\n    subscribe: subscribe,\n    getState: getState,\n    replaceReducer: replaceReducer\n  },
_ref2[$$observable] = observable, _ref2;\n}\n/**\n * Prints a warning in the console if it exists.\n *\n * @param
{String} message The warning message.\n * @returns {void}\n */\n\n\nfunction warning(message) {\n  /* eslint-
disable no-console */\n  if (typeof console !== 'undefined' && typeof console.error === 'function') {\n
console.error(message);\n  }\n  /* eslint-enable no-console */\n\n\n  try {\n    // This error was thrown as a
convenience so that if you enable\n    // \"break on all exceptions\"
 in your console,\n    // it would pause the execution at this line.\n    throw new Error(message);\n  } catch (e) {} //
eslint-disable-line no-empty\n\n}\n\nfunction getUnexpectedStateShapeWarningMessage(inputState, reducers,
action, unexpectedKeyCache) {\n  var reducerKeys = Object.keys(reducers);\n  var argumentName = action &&
action.type === ActionTypes.INIT ? 'preloadedState argument passed to createStore' : 'previous state received by
the reducer';\n\n  if (reducerKeys.length === 0) {\n    return 'Store does not have a valid reducer. Make sure the
argument passed ' + 'to combineReducers is an object whose values are reducers.';\n  }\n\n  if
(!isPlainObject(inputState)) {\n    return \"The \" + argumentName + \" has unexpected type of \\\"\" +
kindOf(inputState) + \"\\\". Expected argument to be an object with the following \" + (\"keys: \\\"\" +
reducerKeys.join('\", \"') + \"\\\"\");\n  }\n\n  var unexpectedKeys = Object.keys(inputState).filter(function (key) {\n
return
```

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 !reducers.hasOwnProperty(key) && !unexpectedKeyCache[key];\n  });\n  unexpectedKeys.forEach(function (key)
{\n    unexpectedKeyCache[key] = true;\n  });\n  if (action && action.type === ActionTypes.REPLACE) return;\n\n
if (unexpectedKeys.length > 0) {\n    return \"Unexpected \" + (unexpectedKeys.length > 1 ? 'keys' : 'key') + \" \" +
(\"\\\"\" + unexpectedKeys.join('\", \"') + \"\\\" found in \" + argumentName + \". \") + \"Expected to find one of the
known reducer keys instead: \" + (\"\\\"\" + reducerKeys.join('\", \"') + \"\\\". Unexpected keys will be ignored.\");\n
}\n}\n\nfunction assertReducerShape(reducers) {\n  Object.keys(reducers).forEach(function (key) {\n    var reducer
= reducers[key];\n    var initialState = reducer(undefined, {\n      type: ActionTypes.INIT\n    });\n\n    if (typeof
initialState === 'undefined') {\n      throw new Error(process.env.NODE_ENV === \"production\" ?
formatProdErrorMessage(12) : \"The slice reducer for key \\\"\" + key + \"\\\" returned
 undefined during initialization. \" + \"If the state passed to the reducer is undefined, you must \" + \"explicitly return
the initial state. The initial state may \" + \"not be undefined. If you don't want to set a value for this reducer, \" +
\"you can use null instead of undefined.\");\n    }\n\n    if (typeof reducer(undefined, {\n      type:
ActionTypes.PROBE_UNKNOWN_ACTION()\n    }) === 'undefined') {\n      throw new
Error(process.env.NODE_ENV === \"production\" ? formatProdErrorMessage(13) : \"The slice reducer for key
\\\"\" + key + \"\\\" returned undefined when probed with a random type. \" + (\"Don't try to handle '\" +
ActionTypes.INIT + \"' or other actions in \\\"redux/*\\\" \") + \"namespace. They are considered private. Instead,
you must return the \" + \"current state for any unknown actions, unless it is undefined, \" + \"in which case you
must return the initial state, regardless of the \" + \"action type. The initial state may not be undefined, but can be
null.\");\n
    }\n  });\n}\n/**\n * Turns an object whose values are different reducer functions, into a single\n * reducer
function. It will call every child reducer, and gather their results\n * into a single state object, whose keys
correspond to the keys of the passed\n * reducer functions.\n *\n * @param {Object} reducers An object whose
values correspond to different\n * reducer functions that need to be combined into one. One handy way to obtain\n *
it is to use ES6 `import * as reducers` syntax. The reducers may never return\n * undefined for any action. Instead,
they should return their initial state\n * if the state passed to them was undefined, and the current state for any\n *
unrecognized action.\n *\n * @returns {Function} A reducer function that invokes every reducer inside the\n *
passed object, and builds a state object with the same shape.\n */\n\n\nfunction combineReducers(reducers) {\n  var
reducerKeys = Object.keys(reducers);\n  var finalReducers = {};\n\n  for (var i =
 0; i < reducerKeys.length; i++) {\n    var key = reducerKeys[i];\n\n    if (process.env.NODE_ENV !== 'production')
{\n      if (typeof reducers[key] === 'undefined') {\n        warning(\"No reducer provided for key \\\"\" + key +
\"\\\"\");\n      }\n    }\n\n    if (typeof reducers[key] === 'function') {\n      finalReducers[key] = reducers[key];\n
}\n  }\n\n  var finalReducerKeys = Object.keys(finalReducers); // This is used to make sure we don't warn about the
same\n  // keys multiple times.\n\n  var unexpectedKeyCache;\n\n  if (process.env.NODE_ENV !== 'production')
{\n    unexpectedKeyCache = {};\n  }\n\n  var shapeAssertionError;\n\n  try {\n
assertReducerShape(finalReducers);\n  } catch (e) {\n    shapeAssertionError = e;\n  }\n\n  return function
combination(state, action) {\n    if (state === void 0) {\n      state = {};\n    }\n\n    if (shapeAssertionError) {\n
throw shapeAssertionError;\n    }\n\n    if (process.env.NODE_ENV !== 'production') {\n      var warningMessage
 = getUnexpectedStateShapeWarningMessage(state, finalReducers, action, unexpectedKeyCache);\n\n      if
(warningMessage) {\n        warning(warningMessage);\n      }\n    }\n\n    var hasChanged = false;\n    var nextState
= {};\n\n    for (var _i = 0; _i < finalReducerKeys.length; _i++) {\n      var _key = finalReducerKeys[_i];\n      var
reducer = finalReducers[_key];\n      var previousStateForKey = state[_key];\n      var nextStateForKey =
reducer(previousStateForKey, action);\n\n      if (typeof nextStateForKey === 'undefined') {\n        var actionType =
action && action.type;\n        throw new Error(process.env.NODE_ENV === \"production\" ?
formatProdErrorMessage(14) : \"When called with an action of type \" + (actionType ? \"\\\"\" + String(actionType)
+ \"\\\"\" : '(unknown type)') + \", the slice reducer for key \\\"\" + _key + \"\\\" returned undefined. \" + \"To ignore
an action, you must explicitly return the previous state. \" + \"If you want this reducer to hold
 no value, you can return null instead of undefined.\");\n      }\n\n      nextState[_key] = nextStateForKey;\n
hasChanged = hasChanged || nextStateForKey !== previousStateForKey;\n    }\n\n    hasChanged = hasChanged ||
```

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finalReducerKeys.length !== Object.keys(state).length;\n    return hasChanged ? nextState : state;\n
};\n}\n\nfunction bindActionCreator(actionCreator, dispatch) {\n  return function () {\n    return
dispatch(actionCreator.apply(this, arguments));\n  };\n}\n/**\n * Turns an object whose values are action creators,
into an object with the\n * same keys, but with every function wrapped into a `dispatch` call so they\n * may be
invoked directly. This is just a convenience method, as you can call\n *
`store.dispatch(MyActionCreators.doSomething())` yourself just fine.\n *\n * For convenience, you can also pass an
action creator as the first argument,\n * and get a dispatch wrapped function in return.\n *\n * @param
{Function|Object} actionCreators An object whose values
 are action\n * creator functions. One handy way to obtain it is to use ES6 `import * as`\n * syntax. You may also
pass a single function.\n *\n * @param {Function} dispatch The `dispatch` function available on your Redux\n *
store.\n *\n * @returns {Function|Object} The object mimicking the original object, but with\n * every action
creator wrapped into the `dispatch` call. If you passed a\n * function as `actionCreators`, the return value will also be
a single\n * function.\n */\n\n\nfunction bindActionCreators(actionCreators, dispatch) {\n  if (typeof actionCreators
=== 'function') {\n    return bindActionCreator(actionCreators, dispatch);\n  }\n\n  if (typeof actionCreators !==
'object' || actionCreators === null) {\n    throw new Error(process.env.NODE_ENV === \"production\" ?
formatProdErrorMessage(16) : \"bindActionCreators expected an object or a function, but instead received: '\" +
kindOf(actionCreators) + \"'. \" + \"Did you write \\\"import ActionCreators from\\\" instead
 of \\\"import * as ActionCreators from\\\"?\");\n  }\n\n  var boundActionCreators = {};\n\n  for (var key in
actionCreators) {\n    var actionCreator = actionCreators[key];\n\n    if (typeof actionCreator === 'function') {\n
boundActionCreators[key] = bindActionCreator(actionCreator, dispatch);\n    }\n  }\n\n  return
boundActionCreators;\n}\n/**\n * Composes single-argument functions from right to left. The rightmost\n *
function can take multiple arguments as it provides the signature for\n * the resulting composite function.\n *\n *
@param {...Function} funcs The functions to compose.\n * @returns {Function} A function obtained by composing
the argument functions\n * from right to left. For example, compose(f, g, h) is identical to doing\n * (...args) =>
f(g(h(...args))).\n */\n\n\nfunction compose() {\n  for (var _len = arguments.length, funcs = new Array(_len), _key =
0; _key < _len; _key++) {\n    funcs[_key] = arguments[_key];\n  }\n\n  if (funcs.length === 0) {\n    return
 function (arg) {\n      return arg;\n    };\n  }\n\n  if (funcs.length === 1) {\n    return funcs[0];\n  }\n\n  return
funcs.reduce(function (a, b) {\n    return function () {\n      return a(b.apply(void 0, arguments));\n    };\n
});\n}\n/**\n * Creates a store enhancer that applies middleware to the dispatch method\n * of the Redux store. This
is handy for a variety of tasks, such as expressing\n * asynchronous actions in a concise manner, or logging every
action payload.\n *\n * See `redux-thunk` package as an example of the Redux middleware.\n *\n * Because
middleware is potentially asynchronous, this should be the first\n * store enhancer in the composition chain.\n *\n *
Note that each middleware will be given the `dispatch` and `getState` functions\n * as named arguments.\n *\n *
@param {...Function} middlewares The middleware chain to be applied.\n * @returns {Function} A store enhancer
applying the middleware.\n */\n\n\nfunction applyMiddleware() {\n  for (var _len = arguments.length,
 middlewares = new Array(_len), _key = 0; _key < _len; _key++) {\n    middlewares[_key] = arguments[_key];\n
}\n\n  return function (createStore) {\n    return function () {\n      var store = createStore.apply(void 0,
arguments);\n\n      var _dispatch = function dispatch() {\n        throw new Error(process.env.NODE_ENV ===
\"production\" ? formatProdErrorMessage(15) : 'Dispatching while constructing your middleware is not allowed. ' +
'Other middleware would not be applied to this dispatch.');\n      };\n\n      var middlewareAPI = {\n        getState:
store.getState,\n        dispatch: function dispatch() {\n          return _dispatch.apply(void 0, arguments);\n        }\n
};\n      var chain = middlewares.map(function (middleware) {\n        return middleware(middlewareAPI);\n      });\n
   _dispatch = compose.apply(void 0, chain)(store.dispatch);\n      return _objectSpread(_objectSpread({}, store), {},
{\n        dispatch: _dispatch\n      });\n    };\n  };\n}\n/*\n
 * This is a dummy function to check if the function name has been altered by minification.\n * If the function has
been minified and NODE_ENV !== 'production', warn the user.\n */\n\n\nfunction isCrushed() {}\n\nif
(process.env.NODE_ENV !== 'production' && typeof isCrushed.name === 'string' && isCrushed.name !==
'isCrushed') {\n  warning('You are currently using minified code outside of NODE_ENV === \"production\". ' +
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'This means that you are running a slower development build of Redux. ' + 'You can use loose-envify
(https://github.com/zertosh/loose-envify) for browserify ' + 'or setting mode to production in webpack
(https://webpack.js.org/concepts/mode/) ' + 'to ensure you have the correct code for your production
build.');\n}\n\nexport { ActionTypes as __DO_NOT_USE__ActionTypes, applyMiddleware, bindActionCreators,
combineReducers, compose, createStore };","import _AppBar from './AppBar';\nexport { _AppBar as AppBar
};\nimport _AutoComplete from './AutoComplete';\nexport { _AutoComplete
 as AutoComplete };\nimport _Avatar from './Avatar';\nexport { _Avatar as Avatar };\nimport _Badge from
'./Badge';\nexport { _Badge as Badge };\nimport _BottomNavigation from './BottomNavigation';\nexport {
_BottomNavigation as BottomNavigation };\nimport _BottomNavigationItem from
'./BottomNavigation/BottomNavigationItem';\nexport { _BottomNavigationItem as BottomNavigationItem
};\nimport _Card from './Card';\nexport { _Card as Card };\nimport _CardActions from
'./Card/CardActions';\nexport { _CardActions as CardActions };\nimport _CardHeader from
'./Card/CardHeader';\nexport { _CardHeader as CardHeader };\nimport _CardMedia from
'./Card/CardMedia';\nexport { _CardMedia as CardMedia };\nimport _CardTitle from './Card/CardTitle';\nexport {
_CardTitle as CardTitle };\nimport _CardText from './Card/CardText';\nexport { _CardText as CardText };\nimport
_Checkbox from './Checkbox';\nexport { _Checkbox as Checkbox };\nimport _Chip from './Chip';\nexport { _Chip
as Chip };\nimport
 _CircularProgress from './CircularProgress';\nexport { _CircularProgress as CircularProgress };\nimport
_DatePicker from './DatePicker';\nexport { _DatePicker as DatePicker };\nimport _Dialog from './Dialog';\nexport {
_Dialog as Dialog };\nimport _Divider from './Divider';\nexport { _Divider as Divider };\nimport _Drawer from
'./Drawer';\nexport { _Drawer as Drawer };\nimport _DropDownMenu from './DropDownMenu';\nexport {
_DropDownMenu as DropDownMenu };\nimport _FlatButton from './FlatButton';\nexport { _FlatButton as
FlatButton };\nimport _FloatingActionButton from './FloatingActionButton';\nexport { _FloatingActionButton as
FloatingActionButton };\nimport _FontIcon from './FontIcon';\nexport { _FontIcon as FontIcon };\nimport _GridList
from './GridList';\nexport { _GridList as GridList };\nimport _GridTile from './GridList/GridTile';\nexport {
_GridTile as GridTile };\nimport _IconButton from './IconButton';\nexport { _IconButton as IconButton };\nimport
_IconMenu from './IconMenu';\nexport
 { _IconMenu as IconMenu };\nimport _LinearProgress from './LinearProgress';\nexport { _LinearProgress as
LinearProgress };\nimport _List from './List';\nexport { _List as List };\nimport _ListItem from
'./List/ListItem';\nexport { _ListItem as ListItem };\nimport _makeSelectable from './List/makeSelectable';\nexport {
_makeSelectable as makeSelectable };\nimport _Menu from './Menu';\nexport { _Menu as Menu };\nimport
_MenuItem from './MenuItem';\nexport { _MenuItem as MenuItem };\nimport _MuiThemeProvider from
'./styles/MuiThemeProvider';\nexport { _MuiThemeProvider as MuiThemeProvider };\nimport _Paper from
'./Paper';\nexport { _Paper as Paper };\nimport _Popover from './Popover';\nexport { _Popover as Popover
};\nimport _RadioButton from './RadioButton';\nexport { _RadioButton as RadioButton };\nimport
_RadioButtonGroup from './RadioButton/RadioButtonGroup';\nexport { _RadioButtonGroup as RadioButtonGroup
};\nimport _RaisedButton from './RaisedButton';\nexport { _RaisedButton
 as RaisedButton };\nimport _RefreshIndicator from './RefreshIndicator';\nexport { _RefreshIndicator as
RefreshIndicator };\nimport _SelectField from './SelectField';\nexport { _SelectField as SelectField };\nimport
_Slider from './Slider';\nexport { _Slider as Slider };\nimport _Subheader from './Subheader';\nexport { _Subheader
as Subheader };\nimport _SvgIcon from './SvgIcon';\nexport { _SvgIcon as SvgIcon };\nimport _Step from
'./Stepper/Step';\nexport { _Step as Step };\nimport _StepButton from './Stepper/StepButton';\nexport { _StepButton
as StepButton };\nimport _StepContent from './Stepper/StepContent';\nexport { _StepContent as StepContent
};\nimport _StepLabel from './Stepper/StepLabel';\nexport { _StepLabel as StepLabel };\nimport _Stepper from
'./Stepper/Stepper';\nexport { _Stepper as Stepper };\nimport _Snackbar from './Snackbar';\nexport { _Snackbar as
Snackbar };\nimport _Tabs from './Tabs';\nexport { _Tabs as Tabs };\nimport _Tab from './Tabs/Tab';\nexport {
_Tab as
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 Tab };\nimport _Table from './Table';\nexport { _Table as Table };\nimport _TableBody from
'./Table/TableBody';\nexport { _TableBody as TableBody };\nimport _TableFooter from
'./Table/TableFooter';\nexport { _TableFooter as TableFooter };\nimport _TableHeader from
'./Table/TableHeader';\nexport { _TableHeader as TableHeader };\nimport _TableHeaderColumn from
'./Table/TableHeaderColumn';\nexport { _TableHeaderColumn as TableHeaderColumn };\nimport _TableRow from
'./Table/TableRow';\nexport { _TableRow as TableRow };\nimport _TableRowColumn from
'./Table/TableRowColumn';\nexport { _TableRowColumn as TableRowColumn };\nimport _TextField from
'./TextField';\nexport { _TextField as TextField };\nimport _TimePicker from './TimePicker';\nexport { _TimePicker
as TimePicker };\nimport _Toggle from './Toggle';\nexport { _Toggle as Toggle };\nimport _Toolbar from
'./Toolbar';\nexport { _Toolbar as Toolbar };\nimport _ToolbarGroup from './Toolbar/ToolbarGroup';\nexport {
_ToolbarGroup as ToolbarGroup
 };\nimport _ToolbarSeparator from './Toolbar/ToolbarSeparator';\nexport { _ToolbarSeparator as ToolbarSeparator
};\nimport _ToolbarTitle from './Toolbar/ToolbarTitle';\nexport { _ToolbarTitle as ToolbarTitle };","'use
strict';\n\nfunction checkDCE() {\n  /* global __REACT_DEVTOOLS_GLOBAL_HOOK__ */\n  if (typeof
__REACT_DEVTOOLS_GLOBAL_HOOK__ === 'undefined' || typeof
__REACT_DEVTOOLS_GLOBAL_HOOK__.checkDCE !== 'function') {\n    return;\n  }\n\n  if
(process.env.NODE_ENV !== 'production') {\n    // This branch is unreachable because this function is only called\n
  // in production, but the condition is true only in development.\n    // Therefore if the branch is still here, dead code
elimination wasn't\n    // properly applied.\n    // Don't change the message. React DevTools relies on it. Also make
sure\n    // this message doesn't occur elsewhere in this function, or it will cause\n    // a false positive.\n    throw new
Error('^_^');\n  }\n\n  try {\n    // Verify that the code
 above has been dead code eliminated (DCE'd).\n
__REACT_DEVTOOLS_GLOBAL_HOOK__.checkDCE(checkDCE);\n  } catch (err) {\n    // DevTools shouldn't
crash React, no matter what.\n    // We should still report in case we break this code.\n    console.error(err);\n
}\n}\n\nif (process.env.NODE_ENV === 'production') {\n  // DCE check should happen before ReactDOM bundle
executes so that\n  // DevTools can report bad minification during injection.\n  checkDCE();\n  module.exports =
require('./cjs/react-dom.production.min.js');\n} else {\n  module.exports = require('./cjs/react-
dom.development.js');\n}","/**\n * Checks if `value` is classified as an `Array` object.\n *\n * @static\n *
@memberOf _\n * @since 0.1.0\n * @category Lang\n * @param {*} value The value to check.\n * @returns
{boolean} Returns `true` if `value` is an array, else `false`.\n * @example\n *\n * _.isArray([1, 2, 3]);\n * // =>
true\n *\n * _.isArray(document.body.children);\n * // => false\n *\n * _.isArray('abc');\n
 * // => false\n *\n * _.isArray(_.noop);\n * // => false\n */\nvar isArray = Array.isArray;\nexport default
isArray;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default =
undefined;\n\nvar _SvgIcon = require('./SvgIcon');\n\nvar _SvgIcon2 =
_interopRequireDefault(_SvgIcon);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nexports.default = _SvgIcon2.default;","import freeGlobal from
'./_freeGlobal.js';\n/** Detect free variable `self`. */\n\nvar freeSelf = typeof self == 'object' && self && self.Object
=== Object && self;\n/** Used as a reference to the global object. */\n\nvar root = freeGlobal || freeSelf ||
Function('return this')();\nexport default root;","'use strict';\n\nexports.__esModule = true;\n\nvar _shouldUpdate =
require('./shouldUpdate');\n\nvar _shouldUpdate2 = _interopRequireDefault(_shouldUpdate);\n\nvar _shallowEqual
= require('./shallowEqual');\n\nvar
 _shallowEqual2 = _interopRequireDefault(_shallowEqual);\n\nvar _setDisplayName =
require('./setDisplayName');\n\nvar _setDisplayName2 = _interopRequireDefault(_setDisplayName);\n\nvar
_wrapDisplayName = require('./wrapDisplayName');\n\nvar _wrapDisplayName2 =
_interopRequireDefault(_wrapDisplayName);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar pure = function pure(BaseComponent) {\n  var hoc = (0,
_shouldUpdate2.default)(function (props, nextProps) {\n    return !(0, _shallowEqual2.default)(props, nextProps);\n
});\n\n  if (process.env.NODE_ENV !== 'production') {\n    return (0, _setDisplayName2.default)((0,
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_wrapDisplayName2.default)(BaseComponent, 'pure'))(hoc(BaseComponent));\n }\n\n return
hoc(BaseComponent);\n};\n\nexports.default = pure;","export default function _classCallCheck(instance,
Constructor) {\n if (!(instance instanceof Constructor)) {\n   throw new TypeError(\"Cannot call a class as a
function\");\n
  }\n}","function _defineProperties(target, props) {\n for (var i = 0; i < props.length; i++) {\n   var descriptor =
props[i];\n   descriptor.enumerable = descriptor.enumerable || false;\n   descriptor.configurable = true;\n   if
(\"value\" in descriptor) descriptor.writable = true;\n   Object.defineProperty(target, descriptor.key, descriptor);\n
}\n}\n\nexport default function _createClass(Constructor, protoProps, staticProps) {\n if (protoProps)
_defineProperties(Constructor.prototype, protoProps);\n if (staticProps) _defineProperties(Constructor,
staticProps);\n return Constructor;\n}","export default function _getPrototypeOf(o) {\n _getPrototypeOf =
Object.setPrototypeOf ? Object.getPrototypeOf : function _getPrototypeOf(o) {\n   return o.__proto__ ||
Object.getPrototypeOf(o);\n };\n return _getPrototypeOf(o);\n}","/**\n * Checks if `value` is the\n * [language
type](http://www.ecma-international.org/ecma-262/7.0/#sec-ecmascript-language-types)\n * of `Object`.
 (e.g. arrays, functions, objects, regexes, `new Number(0)`, and `new String('')`)\n *\n * @static\n * @memberOf
_\n * @since 0.1.0\n * @category Lang\n * @param {*} value The value to check.\n * @returns {boolean} Returns
`true` if `value` is an object, else `false`.\n * @example\n *\n * _.isObject({});\n * // => true\n *\n * _.isObject([1, 2,
3]);\n * // => true\n *\n * _.isObject(_.noop);\n * // => true\n *\n * _.isObject(null);\n * // => false\n */\nfunction
isObject(value) {\n var type = typeof value;\n return value != null && (type == 'object' || type ==
'function');\n}\n\nexport default isObject;","function _typeof2(obj) { if (typeof Symbol === \"function\" && typeof
Symbol.iterator === \"symbol\") { _typeof2 = function _typeof2(obj) { return typeof obj; }; } else { _typeof2 =
function _typeof2(obj) { return obj && typeof Symbol === \"function\" && obj.constructor === Symbol && obj
!== Symbol.prototype ? \"symbol\" : typeof obj; }; } return _typeof2(obj); }\n\nexport default
 function _typeof(obj) {\n if (typeof Symbol === \"function\" && _typeof2(Symbol.iterator) === \"symbol\") {\n
_typeof = function _typeof(obj) {\n   return _typeof2(obj);\n   };\n } else {\n   _typeof = function _typeof(obj)
{\n   return obj && typeof Symbol === \"function\" && obj.constructor === Symbol && obj !==
Symbol.prototype ? \"symbol\" : _typeof2(obj);\n   };\n }\n\n return _typeof(obj);\n}","import _typeof from
\"../../helpers/esm/typeof\";\nimport assertThisInitialized from \"./assertThisInitialized\";\nexport default function
_possibleConstructorReturn(self, call) {\n if (call && (_typeof(call) === \"object\" || typeof call === \"function\"))
{\n   return call;\n }\n\n return assertThisInitialized(self);\n}","export default function _assertThisInitialized(self)
{\n if (self === void 0) {\n   throw new ReferenceError(\"this hasn't been initialised - super() hasn't been
called\");\n }\n\n return self;\n}","export default function _setPrototypeOf(o,
 p) {\n _setPrototypeOf = Object.setPrototypeOf || function _setPrototypeOf(o, p) {\n   o.__proto__ = p;\n   return
o;\n };\n\n return _setPrototypeOf(o, p);\n}","import setPrototypeOf from \"./setPrototypeOf\";\nexport default
function _inherits(subClass, superClass) {\n if (typeof superClass !== \"function\" && superClass !== null) {\n
throw new TypeError(\"Super expression must either be null or a function\");\n }\n\n subClass.prototype =
Object.create(superClass && superClass.prototype, {\n   constructor: {\n   value: subClass,\n   writable: true,\n
  configurable: true\n   }\n });\n if (superClass) setPrototypeOf(subClass, superClass);\n}","var core =
module.exports = {\n version: '2.6.12'\n};\nif (typeof __e == 'number') __e = core; // eslint-disable-line no-
undef","/**\n * Copyright 2014-2015, Facebook, Inc.\n * All rights reserved.\n *\n * This source code is licensed
under the BSD-style license found in the\n * LICENSE file in the root directory of this
 source tree. An additional grant\n * of patent rights can be found in the PATENTS file in the same directory.\n
*/\n\n'use strict';\n/**\n * Similar to invariant but only logs a warning if the condition is not met.\n * This can be used
to log issues in development environments in critical\n * paths. Removing the logging code for production
environments will keep the\n * same logic and follow the same code paths.\n */\n\nvar warning = function warning()
{};\n\nif (process.env.NODE_ENV !== 'production') {\n warning = function warning(condition, format, args) {\n
var len = arguments.length;\n   args = new Array(len > 2 ? len - 2 : 0);\n\n   for (var key = 2; key < len; key++) {\n
   args[key - 2] = arguments[key];\n   }\n\n   if (format === undefined) {\n   throw new Error('`warning(condition,
format, ...args)` requires a warning ' + 'message argument');\n   }\n\n   if (format.length < 10 ||

/^[s\\W]*$/.test(format)) {\n   throw new Error('The warning format should be able
 to uniquely identify this ' + 'warning. Please, use a more descriptive format than: ' + format);\n   }\n\n   if
(!condition) {\n   var argIndex = 0;\n   var message = 'Warning: ' + format.replace(/%s/g, function () {\n
return args[argIndex++];\n   });\n\n   if (typeof console !== 'undefined') {\n   console.error(message);\n
}\n\n   try {\n   // This error was thrown as a convenience so that you can use this stack\n   // to find the
callsite that caused this warning to fire.\n   throw new Error(message);\n   } catch (x) {}\n   }\n
};\n}\n\nmodule.exports = warning;","/**\n * Checks if `value` is object-like. A value is object-like if it's not
`null`\n * and has a `typeof` result of \"object\".\n *\n * @static\n * @memberOf _\n * @since 4.0.0\n * @category
Lang\n * @param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is object-like, else
`false`.\n * @example\n *\n * _.isObjectLike({});\n * // => true\n
 *\n * _.isObjectLike([1, 2, 3]);\n * // => true\n *\n * _.isObjectLike(_.noop);\n * // => false\n *\n *
_.isObjectLike(null);\n * // => false\n */\nfunction isObjectLike(value) {\n return value != null && typeof value ==
'object';\n}\n\nexport default isObjectLike;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n
value: true\n});\nexports.default = undefined;\n\nvar _Paper = require('./Paper');\n\nvar _Paper2 =
_interopRequireDefault(_Paper);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj
: {\n   default: obj\n };\n}\n\nexports.default = _Paper2.default;","import root from './_root.js';\n/** Used to detect
overreaching core-js shims. */\n\nvar coreJsData = root['__core-js_shared__'];\nexport default coreJsData;","import
coreJsData from './_coreJsData.js';\n/** Used to detect methods masquerading as native. */\n\nvar maskSrcKey =
function () {\n var uid = /[^.]+$/.exec(coreJsData && coreJsData.keys && coreJsData.keys.IE_PROTO
 || ");\n return uid ? 'Symbol(src)_1.' + uid : ";\n}();\n/**\n * Checks if `func` has its source masked.\n *\n *
@private\n * @param {Function} func The function to check.\n * @returns {boolean} Returns `true` if `func` is
masked, else `false`.\n */\n\n\nfunction isMasked(func) {\n return !!maskSrcKey && maskSrcKey in
func;\n}\n\nexport default isMasked;","import isFunction from './isFunction.js';\nimport isMasked from
'./_isMasked.js';\nimport isObject from './isObject.js';\nimport toSource from './_toSource.js';\n/**\n * Used to match
`RegExp`\n * [syntax characters](http://ecma-international.org/ecma-262/7.0/#sec-patterns).\n */\n\nvar
reRegExpChar = /[\\\\^$.*+?()[\\]{}|]/g;\n/** Used to detect host constructors (Safari). */\n\nvar reIsHostCtor =
/^\\[object .+?Constructor\\]$/;\n/** Used for built-in method references. */\n\nvar funcProto =
Function.prototype,\n   objectProto = Object.prototype;\n/** Used to resolve the decompiled source of functions.
*/\n\nvar funcToString
 = funcProto.toString;\n/** Used to check objects for own properties. */\n\nvar hasOwnProperty =
objectProto.hasOwnProperty;\n/** Used to detect if a method is native. */\n\nvar reIsNative = RegExp('^' +
funcToString.call(hasOwnProperty).replace(reRegExpChar,
'\\\\$&').replace(/hasOwnProperty|(function).*?(?=\\\\\\()| for .+?(?=\\\\\\])/g, '$1.*?') + '$');\n/**\n * The base
implementation of `_.isNative` without bad shim checks.\n *\n * @private\n * @param {*} value The value to
check.\n * @returns {boolean} Returns `true` if `value` is a native function,\n * else `false`.\n */\n\nfunction
baseIsNative(value) {\n if (!isObject(value) || isMasked(value)) {\n   return false;\n }\n\n var pattern =
isFunction(value) ? reIsNative : reIsHostCtor;\n return pattern.test(toSource(value));\n}\n\nexport default
baseIsNative;","/**\n * Gets the value at `key` of `object`.\n *\n * @private\n * @param {Object} [object] The
object to query.\n * @param {string} key The key of the property to get.\n
 * @returns {*} Returns the property value.\n */\nfunction getValue(object, key) {\n return object == null ?
undefined : object[key];\n}\n\nexport default getValue;","import baseIsNative from './_baseIsNative.js';\nimport
getValue from './_getValue.js';\n/**\n * Gets the native function at `key` of `object`.\n *\n * @private\n * @param
{Object} object The object to query.\n * @param {string} key The key of the method to get.\n * @returns {*}
Returns the function if it's native, else `undefined`.\n */\n\nfunction getNative(object, key) {\n var value =
getValue(object, key);\n return baseIsNative(value) ? value : undefined;\n}\n\nexport default getNative;","/**\n *
Copyright (c) 2013-present, Facebook, Inc.\n *\n * This source code is licensed under the MIT license found in the\n
* LICENSE file in the root directory of this source tree.\n */\n'use strict';\n/**\n * Use invariant() to assert state
which your program assumes to be true.\n *\n * Provide sprintf-style format (only %s

is supported) and arguments\n * to provide information about what broke and what you were\n * expecting.\n *\n * The invariant message will be stripped in production, but the invariant\n * will remain to ensure logic does not differ in production.\n */\n\nvar invariant = function invariant(condition, format, a, b, c, d, e, f) {\n if (process.env.NODE_ENV !== 'production') {\n   if (format === undefined) {\n   throw new Error('invariant requires an error message argument');\n   }\n }\n\n if (!condition) {\n   var error;\n\n   if (format === undefined) {\n   error = new Error('Minified exception occurred; use the non-minified dev environment ' + 'for the full error message and additional helpful warnings.');\n   } else {\n   var args = [a, b, c, d, e, f];\n   var argIndex = 0;\n   error = new Error(format.replace(/%s/g, function () {\n   return args[argIndex++];\n   }));\n   error.name = 'Invariant Violation';\n   }\n\n   error.framesToPop = 1; // we don't care about invariant's own frame\n\n   throw error;\n }\n};\n\nmodule.exports = invariant;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nvar horizontal = _propTypes2.default.oneOf(['left', 'middle', 'right']);\n\nvar vertical = _propTypes2.default.oneOf(['top', 'center', 'bottom']);\n\nexports.default = {\n corners: _propTypes2.default.oneOf(['bottom-left', 'bottom-right', 'top-left', 'top-right']),\n horizontal: horizontal,\n vertical: vertical,\n origin: _propTypes2.default.shape({\n   horizontal: horizontal,\n   vertical: vertical\n }),\n cornersAndCenter: _propTypes2.default.oneOf(['bottom-center', 'bottom-left', 'bottom-right', 'top-center', 'top-left', 'top-right']),\n stringOrNumber: _propTypes2.default.oneOfType([_propTypes2.default.string, _propTypes2.default.number]),\n zDepth: _propTypes2.default.oneOf([0, 1, 2, 3, 4, 5])\n};","import Symbol from './_Symbol.js';\n/** Used for built-in method references. */\n\nvar objectProto = Object.prototype;\n/** Used to check objects for own properties. */\n\nvar hasOwnProperty = objectProto.hasOwnProperty;\n/**\n * Used to resolve the\n * [`toStringTag`](http://ecma-international.org/ecma-262/7.0/#sec-object.prototype.tostring)\n * of values.\n */\n\nvar nativeObjectToString = objectProto.toString;\n/** Built-in value references. */\n\nvar symToStringTag = Symbol ? Symbol.toStringTag : undefined;\n/**\n * A specialized version of `baseGetTag` which ignores `Symbol.toStringTag` values.\n *\n * @private\n * @param {*} value The value to query.\n * @returns {string} Returns the raw `toStringTag`.\n */\n\nfunction getRawTag(value) {\n var isOwn = hasOwnProperty.call(value, symToStringTag),\n   tag = value[symToStringTag];\n\n try {\n   value[symToStringTag] = undefined;\n   var unmasked = true;\n } catch (e) {}\n\n var result = nativeObjectToString.call(value);\n\n if (unmasked) {\n   if (isOwn) {\n   value[symToStringTag] = tag;\n   } else {\n   delete value[symToStringTag];\n   }\n }\n\n return result;\n}\n\nexport default getRawTag;","/** Used for built-in method references. */\nvar objectProto = Object.prototype;\n/**\n * Used to resolve the\n * [`toStringTag`](http://ecma-international.org/ecma-262/7.0/#sec-object.prototype.tostring)\n * of values.\n */\n\nvar nativeObjectToString = objectProto.toString;\n/**\n * Converts `value` to a string using `Object.prototype.toString`.\n *\n * @private\n * @param {*} value The value to convert.\n * @returns {string} Returns the converted string.\n */\n\nfunction objectToString(value) {\n return nativeObjectToString.call(value);\n}\n\nexport default objectToString;","import Symbol from './_Symbol.js';\nimport getRawTag from './_getRawTag.js';\nimport objectToString from './_objectToString.js';\n/** `Object#toString` result references. */\n\nvar nullTag = '[object Null]',\n   undefinedTag = '[object Undefined]';\n/** Built-in value references. */\n\nvar symToStringTag = Symbol ? Symbol.toStringTag : undefined;\n/**\n * The base implementation of `getTag` without fallbacks for buggy environments.\n *\n * @private\n * @param {*} value The value to query.\n * @returns {string} Returns the `toStringTag`.\n */\n\nfunction baseGetTag(value) {\n if (value == null) {\n   return value === undefined ? undefinedTag : nullTag;\n }\n\n return symToStringTag && symToStringTag in Object(value) ? getRawTag(value) : objectToString(value);\n}\n\nexport default baseGetTag;","// Source: http://jsfiddle.net/vWx8V/\n// http://stackoverflow.com/questions/5603195/full-list-of-javascript-keycodes\n\n/**\n * Conenience method returns corresponding value for given keyName or keyCode.\n *\n * @param {Mixed} keyCode {Number} or keyName

```
{String}\n * @return {Mixed}\n * @api
 public\n */\nfunction keyCode(searchInput) {\n  // Keyboard Events\n  if (searchInput && 'object' === typeof
searchInput) {\n    var hasKeyCode = searchInput.which || searchInput.keyCode || searchInput.charCode;\n    if
(hasKeyCode) searchInput = hasKeyCode;\n  } // Numbers\n\n\n  if ('number' === typeof searchInput) return
names[searchInput]; // Everything else (cast to string)\n\n  var search = String(searchInput); // check codes\n\n  var
foundNamedKey = codes[search.toLowerCase()];\n  if (foundNamedKey) return foundNamedKey; // check
aliases\n\n  var foundNamedKey = aliases[search.toLowerCase()];\n  if (foundNamedKey) return foundNamedKey;
// weird character?\n\n  if (search.length === 1) return search.charCodeAt(0);\n  return undefined;\n}\n/**\n *
Compares a keyboard event with a given keyCode or keyName.\n *\n * @param {Event} event Keyboard event that
should be tested\n * @param {Mixed} keyCode {Number} or keyName {String}\n * @return {Boolean}\n * @api
public\n */\n\n\nkeyCode.isEventKey
 = function isEventKey(event, nameOrCode) {\n  if (event && 'object' === typeof event) {\n    var keyCode =
event.which || event.keyCode || event.charCode;\n\n    if (keyCode === null || keyCode === undefined) {\n      return
false;\n    }\n\n    if (typeof nameOrCode === 'string') {\n      // check codes\n      var foundNamedKey =
codes[nameOrCode.toLowerCase()];\n\n      if (foundNamedKey) {\n        return foundNamedKey === keyCode;\n
   } // check aliases\n\n\n      var foundNamedKey = aliases[nameOrCode.toLowerCase()];\n\n      if
(foundNamedKey) {\n        return foundNamedKey === keyCode;\n      }\n    } else if (typeof nameOrCode ===
'number') {\n      return nameOrCode === keyCode;\n    }\n\n    return false;\n  }\n};\n\nexports = module.exports =
keyCode;\n/**\n * Get by name\n *\n *   exports.code['enter'] // => 13\n */\n\nvar codes = exports.code =
exports.codes = {\n  'backspace': 8,\n  'tab': 9,\n  'enter': 13,\n  'shift': 16,\n  'ctrl': 17,\n  'alt': 18,\n
 'pause/break': 19,\n  'caps lock': 20,\n  'esc': 27,\n  'space': 32,\n  'page up': 33,\n  'page down': 34,\n  'end': 35,\n
'home': 36,\n  'left': 37,\n  'up': 38,\n  'right': 39,\n  'down': 40,\n  'insert': 45,\n  'delete': 46,\n  'command': 91,\n  'left
command': 91,\n  'right command': 93,\n  'numpad *': 106,\n  'numpad +': 107,\n  'numpad -': 109,\n  'numpad .':
110,\n  'numpad /': 111,\n  'num lock': 144,\n  'scroll lock': 145,\n  'my computer': 182,\n  'my calculator': 183,\n  ';':
186,\n  '=': 187,\n  ',': 188,\n  '-': 189,\n  '.': 190,\n  '/': 191,\n  '`': 192,\n  '[': 219,\n  '\\\\': 220,\n  ']': 221,\n  \"'\":
222\n}; // Helper aliases\n\nvar aliases = exports.aliases = {\n  'windows': 91,\n  '': 16,\n  '': 18,\n  '': 17,\n  '': 91,\n
'ctl': 17,\n  'control': 17,\n  'option': 18,\n  'pause': 19,\n  'break': 19,\n  'caps': 20,\n  'return': 13,\n  'escape': 27,\n
'spc': 32,\n  'spacebar': 32,\n  'pgup': 33,\n  'pgdn': 34,\n  'ins': 45,\n  'del': 46,\n  'cmd': 91\n};\n/*!\n
 * Programatically add the following\n */\n// lower case chars\n\nfor (i = 97; i < 123; i++) {\n
codes[String.fromCharCode(i)] = i - 32;\n} // numbers\n\n\nfor (var i = 48; i < 58; i++) {\n  codes[i - 48] = i;\n} //
function keys\n\n\nfor (i = 1; i < 13; i++) {\n  codes['f' + i] = i + 111;\n} // numpad keys\n\n\nfor (i = 0; i < 10; i++)
{\n  codes['numpad ' + i] = i + 96;\n}\n/**\n * Get by code\n *\n *   exports.name[13] // => 'Enter'\n */\n\n\nvar
names = exports.names = exports.title = {}; // title for backward compat\n// Create reverse mapping\n\nfor (i in
codes) {\n  names[codes[i]] = i;\n} // Add aliases\n\n\nfor (var alias in aliases) {\n  codes[alias] =
aliases[alias];\n}","export default function _setPrototypeOf(o, p) {\n  _setPrototypeOf = Object.setPrototypeOf ||
function _setPrototypeOf(o, p) {\n    o.__proto__ = p;\n    return o;\n  };\n\n  return _setPrototypeOf(o,
p);\n}","import setPrototypeOf from \"./setPrototypeOf.js\";\nexport default function _inheritsLoose(subClass,
 superClass) {\n  subClass.prototype = Object.create(superClass.prototype);\n  subClass.prototype.constructor =
subClass;\n  setPrototypeOf(subClass, superClass);\n}","import PropTypes from 'prop-types';\nexport var
subscriptionShape = PropTypes.shape({\n  trySubscribe: PropTypes.func.isRequired,\n  tryUnsubscribe:
PropTypes.func.isRequired,\n  notifyNestedSubs: PropTypes.func.isRequired,\n  isSubscribed:
PropTypes.func.isRequired\n});\nexport var storeShape = PropTypes.shape({\n  subscribe:
PropTypes.func.isRequired,\n  dispatch: PropTypes.func.isRequired,\n  getState:
PropTypes.func.isRequired\n});","import _inheritsLoose from
\"@babel/runtime/helpers/esm/inheritsLoose\";\nimport React, { Component, Children } from 'react';\nimport
PropTypes from 'prop-types';\nimport { storeShape, subscriptionShape } from '../utils/PropTypes';\nimport warning
from '../utils/warning';\nvar prefixUnsafeLifecycleMethods = typeof React.forwardRef !== \"undefined\";\nvar
didWarnAboutReceivingStore =
```

```
 false;\n\nfunction warnAboutReceivingStore() {\n  if (didWarnAboutReceivingStore) {\n    return;\n  }\n\n
didWarnAboutReceivingStore = true;\n  warning('<Provider> does not support changing `store` on the fly. ' + 'It is
most likely that you see this error because you updated to ' + 'Redux 2.x and React Redux 2.x which no longer hot
reload reducers ' + 'automatically. See https://github.com/reduxjs/react-redux/releases/' + 'tag/v2.0.0 for the
migration instructions.');\n}\n\nexport function createProvider(storeKey) {\n  var _Provider$childContex;\n\n  if
(storeKey === void 0) {\n    storeKey = 'store';\n  }\n\n  var subscriptionKey = storeKey + \"Subscription\";\n\n  var
Provider = /*#__PURE__*/function (_Component) {\n    _inheritsLoose(Provider, _Component);\n\n    var _proto =
Provider.prototype;\n\n    _proto.getChildContext = function getChildContext() {\n      var _ref;\n\n      return _ref =
{}, _ref[storeKey] = this[storeKey], _ref[subscriptionKey] = null, _ref;\n    };\n\n
  function Provider(props, context) {\n      var _this;\n\n      _this = _Component.call(this, props, context) || this;\n
_this[storeKey] = props.store;\n      return _this;\n    }\n\n    _proto.render = function render() {\n      return
Children.only(this.props.children);\n    };\n\n    return Provider;\n  }(Component);\n\n  if (process.env.NODE_ENV
!== 'production') {\n    // Use UNSAFE_ event name where supported\n    var eventName =
prefixUnsafeLifecycleMethods ? 'UNSAFE_componentWillReceiveProps' : 'componentWillReceiveProps';\n\n
Provider.prototype[eventName] = function (nextProps) {\n      if (this[storeKey] !== nextProps.store) {\n
warnAboutReceivingStore();\n      }\n    };\n  }\n\n  Provider.propTypes = {\n    store: storeShape.isRequired,\n
children: PropTypes.element.isRequired\n  };\n  Provider.childContextTypes = (_Provider$childContex = {},
_Provider$childContex[storeKey] = storeShape.isRequired, _Provider$childContex[subscriptionKey] =
subscriptionShape,
 _Provider$childContex);\n  return Provider;\n}\nexport default createProvider();","export default function
_assertThisInitialized(self) {\n  if (self === void 0) {\n    throw new ReferenceError(\"this hasn't been initialised -
super() hasn't been called\");\n  }\n\n  return self;\n}","export default function _extends() {\n  _extends =
Object.assign || function (target) {\n    for (var i = 1; i < arguments.length; i++) {\n      var source = arguments[i];\n\n
    for (var key in source) {\n        if (Object.prototype.hasOwnProperty.call(source, key)) {\n          target[key] =
source[key];\n        }\n      }\n    }\n\n    return target;\n  };\n\n  return _extends.apply(this, arguments);\n}","export
default function _objectWithoutPropertiesLoose(source, excluded) {\n  if (source == null) return {};\n  var target =
{};\n  var sourceKeys = Object.keys(source);\n  var key, i;\n\n  for (i = 0; i < sourceKeys.length; i++) {\n    key =
sourceKeys[i];\n    if (excluded.indexOf(key) >= 0) continue;\n
    target[key] = source[key];\n  }\n\n  return target;\n}","// encapsulates the subscription logic for connecting a
component to the redux store, as\n// well as nesting subscriptions of descendant components, so that we can ensure
the\n// ancestor components re-render before descendants\nvar CLEARED = null;\nvar nullListeners = {\n  notify:
function notify() {}\n};\n\nfunction createListenerCollection() {\n  // the current/next pattern is copied from redux's
createStore code.\n  // TODO: refactor+expose that code to be reusable here?\n  var current = [];\n  var next = [];\n
return {\n    clear: function clear() {\n      next = CLEARED;\n      current = CLEARED;\n    },\n    notify: function
notify() {\n      var listeners = current = next;\n\n      for (var i = 0; i < listeners.length; i++) {\n        listeners[i]();\n
}\n    },\n    get: function get() {\n      return next;\n    },\n    subscribe: function subscribe(listener) {\n      var
isSubscribed = true;\n      if
 (next === current) next = current.slice();\n      next.push(listener);\n      return function unsubscribe() {\n        if
(!isSubscribed || current === CLEARED) return;\n        isSubscribed = false;\n        if (next === current) next =
current.slice();\n        next.splice(next.indexOf(listener), 1);\n      };\n    }\n  };\n}\n\nvar Subscription =
/*#__PURE__*/function () {\n  function Subscription(store, parentSub, onStateChange) {\n    this.store = store;\n
this.parentSub = parentSub;\n    this.onStateChange = onStateChange;\n    this.unsubscribe = null;\n    this.listeners
= nullListeners;\n  }\n\n  var _proto = Subscription.prototype;\n\n  _proto.addNestedSub = function
addNestedSub(listener) {\n    this.trySubscribe();\n    return this.listeners.subscribe(listener);\n  };\n\n
_proto.notifyNestedSubs = function notifyNestedSubs() {\n    this.listeners.notify();\n  };\n\n  _proto.isSubscribed =
function isSubscribed() {\n    return Boolean(this.unsubscribe);\n  };\n\n  _proto.trySubscribe
 = function trySubscribe() {\n    if (!this.unsubscribe) {\n      this.unsubscribe = this.parentSub ?
this.parentSub.addNestedSub(this.onStateChange) : this.store.subscribe(this.onStateChange);\n      this.listeners =
```

createListenerCollection();\n   }\n };\n\n _proto.tryUnsubscribe = function tryUnsubscribe() {\n   if (this.unsubscribe) {\n   this.unsubscribe();\n   this.unsubscribe = null;\n   this.listeners.clear();\n this.listeners = nullListeners;\n   }\n };\n\n return Subscription;\n}();\n\nexport { Subscription as default };","import _inheritsLoose from \"@babel/runtime/helpers/esm/inheritsLoose\";\nimport _assertThisInitialized from \"@babel/runtime/helpers/esm/assertThisInitialized\";\nimport _extends from \"@babel/runtime/helpers/esm/extends\";\nimport _objectWithoutPropertiesLoose from \"@babel/runtime/helpers/esm/objectWithoutPropertiesLoose\";\nimport hoistStatics from 'hoist-non-react-statics';\nimport invariant from 'invariant';\nimport React,

{ Component, createElement } from 'react';\nimport { isValidElementType } from 'react-is';\nimport Subscription from '../utils/Subscription';\nimport { storeShape, subscriptionShape } from '../utils/PropTypes';\nvar prefixUnsafeLifecycleMethods = typeof React.forwardRef !== \"undefined\";\nvar hotReloadingVersion = 0;\nvar dummyState = {};\n\nfunction noop() {}\n\nfunction makeSelectorStateful(sourceSelector, store) {\n // wrap the selector in an object that tracks its results between runs.\n var selector = {\n   run: function runComponentSelector(props) {\n   try {\n   var nextProps = sourceSelector(store.getState(), props);\n\n   if (nextProps !== selector.props || selector.error) {\n   selector.shouldComponentUpdate = true;\n selector.props = nextProps;\n   selector.error = null;\n   }\n   } catch (error) {\n selector.shouldComponentUpdate = true;\n   selector.error = error;\n   }\n   }\n };\n return selector;\n}\n\nexport

default function connectAdvanced(\n/*\n selectorFactory is a func that is responsible for returning the selector function used to\n compute new props from state, props, and dispatch. For example:\n   export default connectAdvanced((dispatch, options) => (state, props) => ({\n   thing: state.things[props.thingId],\n   saveThing: fields => dispatch(actionCreators.saveThing(props.thingId, fields)),\n   }))(YourComponent)\n   Access to dispatch is provided to the factory so selectorFactories can bind actionCreators\n outside of their selector as an optimization. Options passed to connectAdvanced are passed to\n the selectorFactory, along with displayName and WrappedComponent, as the second argument.\n   Note that selectorFactory is responsible for all caching/memoization of inbound and outbound\n props. Do not use connectAdvanced directly without memoizing results between calls to your\n selector, otherwise the Connect component will re-render on every state or props

change.\n*/\nselectorFactory, // options object:\n_ref) {\n var _contextTypes, _childContextTypes;\n\n if (_ref === void 0) {\n   _ref = {};\n }\n\n var _ref2 = _ref,\n   _ref2$getDisplayName = _ref2.getDisplayName,\n getDisplayName = _ref2$getDisplayName === void 0 ? function (name) {\n   return \"ConnectAdvanced(\" + name + \")\";\n } : _ref2$getDisplayName,\n   _ref2$methodName = _ref2.methodName,\n   methodName = _ref2$methodName === void 0 ? 'connectAdvanced' : _ref2$methodName,\n   _ref2$renderCountProp = _ref2.renderCountProp,\n   renderCountProp = _ref2$renderCountProp === void 0 ? undefined : _ref2$renderCountProp,\n   _ref2$shouldHandleSta = _ref2.shouldHandleStateChanges,\n shouldHandleStateChanges = _ref2$shouldHandleSta === void 0 ? true : _ref2$shouldHandleSta,\n _ref2$storeKey = _ref2.storeKey,\n   storeKey = _ref2$storeKey === void 0 ? 'store' : _ref2$storeKey,\n _ref2$withRef = _ref2.withRef,\n   withRef = _ref2$withRef

=== void 0 ? false : _ref2$withRef,\n   connectOptions = _objectWithoutPropertiesLoose(_ref2, [\"getDisplayName\", \"methodName\", \"renderCountProp\", \"shouldHandleStateChanges\", \"storeKey\", \"withRef\"]);\n\n var subscriptionKey = storeKey + 'Subscription';\n var version = hotReloadingVersion++;\n var contextTypes = (_contextTypes = {}, _contextTypes[storeKey] = storeShape, _contextTypes[subscriptionKey] = subscriptionShape, _contextTypes);\n var childContextTypes = (_childContextTypes = {}, _childContextTypes[subscriptionKey] = subscriptionShape, _childContextTypes);\n return function wrapWithConnect(WrappedComponent) {\n   invariant(isValidElementType(WrappedComponent), \"You must pass a component to the function returned by \" + (methodName + \". Instead received \" + JSON.stringify(WrappedComponent)));\n   var wrappedComponentName = WrappedComponent.displayName || WrappedComponent.name || 'Component';\n   var displayName = getDisplayName(wrappedComponentName);\n\n

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    var selectorFactoryOptions = _extends({}, connectOptions, {\n      getDisplayName: getDisplayName,\n
methodName: methodName,\n      renderCountProp: renderCountProp,\n      shouldHandleStateChanges:
shouldHandleStateChanges,\n      storeKey: storeKey,\n      withRef: withRef,\n      displayName: displayName,\n
wrappedComponentName: wrappedComponentName,\n      WrappedComponent: WrappedComponent // TODO
Actually fix our use of componentWillReceiveProps\n\n      /* eslint-disable react/no-deprecated */\n\n    });\n\n
var Connect = /*#__PURE__*/function (_Component) {\n      _inheritsLoose(Connect, _Component);\n\n
function Connect(props, context) {\n        var _this;\n\n        _this = _Component.call(this, props, context) || this;\n
  _this.version = version;\n        _this.state = {};\n        _this.renderCount = 0;\n        _this.store = props[storeKey] ||
context[storeKey];\n        _this.propsMode = Boolean(props[storeKey]);\n        _this.setWrappedInstance
 = _this.setWrappedInstance.bind(_assertThisInitialized(_assertThisInitialized(_this)));\n        invariant(_this.store,
\"Could not find \\\"\" + storeKey + \"\\\" in either the context or props of \" + (\"\\\"\" + displayName + \"\\\". Either
wrap the root component in a <Provider>, \") + (\"or explicitly pass \\\"\" + storeKey + \"\\\" as a prop to \\\"\" +
displayName + \"\\\".\"));\n\n        _this.initSelector();\n\n        _this.initSubscription();\n\n        return _this;\n
}\n\n      var _proto = Connect.prototype;\n\n      _proto.getChildContext = function getChildContext() {\n        var
_ref3; // If this component received store from props, its subscription should be transparent\n        // to any
descendants receiving store+subscription from context; it passes along\n        // subscription passed to it. Otherwise,
it shadows the parent subscription, which allows\n        // Connect to control ordering of notifications to flow top-
down.\n\n\n        var subscription
 = this.propsMode ? null : this.subscription;\n        return _ref3 = {}, _ref3[subscriptionKey] = subscription ||
this.context[subscriptionKey], _ref3;\n      };\n\n      _proto.componentDidMount = function componentDidMount()
{\n        if (!shouldHandleStateChanges) return; // componentWillMount fires during server side rendering, but
componentDidMount and\n        // componentWillUnmount do not. Because of this, trySubscribe happens during
...didMount.\n        // Otherwise, unsubscription would never take place during SSR, causing a memory leak.\n        //
To handle the case where a child component may have triggered a state change by\n        // dispatching an action in
its componentWillMount, we have to re-run the select and maybe\n        // re-render.\n\n
this.subscription.trySubscribe();\n        this.selector.run(this.props);\n        if (this.selector.shouldComponentUpdate)
this.forceUpdate();\n      }; // Note: this is renamed below to the UNSAFE_ version in
 React >=16.3.0\n\n\n      _proto.componentWillReceiveProps = function componentWillReceiveProps(nextProps)
{\n        this.selector.run(nextProps);\n      };\n\n      _proto.shouldComponentUpdate = function
shouldComponentUpdate() {\n        return this.selector.shouldComponentUpdate;\n      };\n\n
_proto.componentWillUnmount = function componentWillUnmount() {\n        if (this.subscription)
this.subscription.tryUnsubscribe();\n        this.subscription = null;\n        this.notifyNestedSubs = noop;\n
this.store = null;\n        this.selector.run = noop;\n        this.selector.shouldComponentUpdate = false;\n      };\n\n
_proto.getWrappedInstance = function getWrappedInstance() {\n        invariant(withRef, \"To access the wrapped
instance, you need to specify \" + (\"{ withRef: true } in the options argument of the \" + methodName + \"()
call.\"));\n        return this.wrappedInstance;\n      };\n\n      _proto.setWrappedInstance = function
setWrappedInstance(ref) {\n
        this.wrappedInstance = ref;\n      };\n\n      _proto.initSelector = function initSelector() {\n        var
sourceSelector = selectorFactory(this.store.dispatch, selectorFactoryOptions);\n        this.selector =
makeSelectorStateful(sourceSelector, this.store);\n        this.selector.run(this.props);\n      };\n\n
_proto.initSubscription = function initSubscription() {\n        if (!shouldHandleStateChanges) return; // parentSub's
source should match where store came from: props vs. context. A component\n        // connected to the store via
props shouldn't use subscription from context, or vice versa.\n\n        var parentSub = (this.propsMode ? this.props :
this.context)[subscriptionKey];\n        this.subscription = new Subscription(this.store, parentSub,
this.onStateChange.bind(this)); // `notifyNestedSubs` is duplicated to handle the case where the component is
unmounted in\n        // the middle of the notification loop, where `this.subscription` will then be null.
 An\n        // extra null check every change can be avoided by copying the method onto `this` and then\n        //
replacing it with a no-op on unmount. This can probably be avoided if Subscription's\n        // listeners logic is
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changed to not call listeners that have been unsubscribed in the\n        // middle of the notification loop.\n\n
this.notifyNestedSubs = this.subscription.notifyNestedSubs.bind(this.subscription);\n      };\n\n
_proto.onStateChange = function onStateChange() {\n        this.selector.run(this.props);\n\n        if
(!this.selector.shouldComponentUpdate) {\n          this.notifyNestedSubs();\n        } else {\n
this.componentDidUpdate = this.notifyNestedSubsOnComponentDidUpdate;\n          this.setState(dummyState);\n
   }\n      };\n\n      _proto.notifyNestedSubsOnComponentDidUpdate = function
notifyNestedSubsOnComponentDidUpdate() {\n        // `componentDidUpdate` is conditionally implemented when
`onStateChange` determines it\n
    // needs to notify nested subs. Once called, it unimplements itself until further state\n        // changes occur. Doing
it this way vs having a permanent `componentDidUpdate` that does\n        // a boolean check every time avoids an
extra method call most of the time, resulting\n        // in some perf boost.\n        this.componentDidUpdate =
undefined;\n        this.notifyNestedSubs();\n      };\n\n      _proto.isSubscribed = function isSubscribed() {\n
return Boolean(this.subscription) && this.subscription.isSubscribed();\n      };\n\n      _proto.addExtraProps =
function addExtraProps(props) {\n        if (!withRef && !renderCountProp && !(this.propsMode &&
this.subscription)) return props; // make a shallow copy so that fields added don't leak to the original selector.\n
// this is especially important for 'ref' since that's a reference back to the component\n        // instance. a singleton
memoized selector would then be holding a reference to the\n        //
 instance, preventing the instance from being garbage collected, and that would be bad\n\n        var withExtras =
_extends({}, props);\n\n        if (withRef) withExtras.ref = this.setWrappedInstance;\n        if (renderCountProp)
withExtras[renderCountProp] = this.renderCount++;\n        if (this.propsMode && this.subscription)
withExtras[subscriptionKey] = this.subscription;\n        return withExtras;\n      };\n\n      _proto.render = function
render() {\n        var selector = this.selector;\n        selector.shouldComponentUpdate = false;\n\n        if
(selector.error) {\n          throw selector.error;\n        } else {\n          return createElement(WrappedComponent,
this.addExtraProps(selector.props));\n        }\n      };\n\n      return Connect;\n    }(Component);\n\n    if
(prefixUnsafeLifecycleMethods) {\n      // Use UNSAFE_ event name where supported\n
Connect.prototype.UNSAFE_componentWillReceiveProps = Connect.prototype.componentWillReceiveProps;\n
delete Connect.prototype.componentWillReceiveProps;\n
    }\n    /* eslint-enable react/no-deprecated */\n\n\n    Connect.WrappedComponent = WrappedComponent;\n
Connect.displayName = displayName;\n    Connect.childContextTypes = childContextTypes;\n
Connect.contextTypes = contextTypes;\n    Connect.propTypes = contextTypes;\n\n    if (process.env.NODE_ENV
!== 'production') {\n      // Use UNSAFE_ event name where supported\n      var eventName =
prefixUnsafeLifecycleMethods ? 'UNSAFE_componentWillUpdate' : 'componentWillUpdate';\n\n
Connect.prototype[eventName] = function componentWillUpdate() {\n        var _this2 = this; // We are hot
reloading!\n\n\n        if (this.version !== version) {\n          this.version = version;\n          this.initSelector(); // If any
connected descendants don't hot reload (and resubscribe in the process), their\n          // listeners will be lost when
we unsubscribe. Unfortunately, by copying over all\n          // listeners, this does mean that the
 old versions of connected descendants will still be\n          // notified of state changes; however, their onStateChange
function is a no-op so this\n          // isn't a huge deal.\n\n          var oldListeners = [];\n\n          if (this.subscription)
{\n            oldListeners = this.subscription.listeners.get();\n            this.subscription.tryUnsubscribe();\n          }\n\n
     this.initSubscription();\n\n          if (shouldHandleStateChanges) {\n            this.subscription.trySubscribe();\n
   oldListeners.forEach(function (listener) {\n              return _this2.subscription.listeners.subscribe(listener);\n
});\n          }\n        }\n      };\n    }\n\n    return hoistStatics(Connect, WrappedComponent);\n  };\n}","var hasOwn =
Object.prototype.hasOwnProperty;\n\nfunction is(x, y) {\n  if (x === y) {\n    return x !== 0 || y !== 0 || 1 / x === 1 /
y;\n  } else {\n    return x !== x && y !== y;\n  }\n}\n\nexport default function shallowEqual(objA,
 objB) {\n  if (is(objA, objB)) return true;\n\n  if (typeof objA !== 'object' || objA === null || typeof objB !== 'object'
|| objB === null) {\n    return false;\n  }\n\n  var keysA = Object.keys(objA);\n  var keysB = Object.keys(objB);\n  if
(keysA.length !== keysB.length) return false;\n\n  for (var i = 0; i < keysA.length; i++) {\n    if (!hasOwn.call(objB,
keysA[i]) || !is(objA[keysA[i]], objB[keysA[i]])) {\n      return false;\n    }\n  }\n\n  return true;\n}","import
```

verifyPlainObject from '../utils/verifyPlainObject';\nexport function wrapMapToPropsConstant(getConstant) {\n return function initConstantSelector(dispatch, options) {\n var constant = getConstant(dispatch, options);\n\n function constantSelector() {\n return constant;\n }\n\n constantSelector.dependsOnOwnProps = false;\n return constantSelector;\n };\n} // dependsOnOwnProps is used by createMapToPropsProxy to determine whether to pass props as args\n// to the mapToProps function being wrapped.

It is also used by makePurePropsSelector to determine\n// whether mapToProps needs to be invoked when props have changed.\n// \n// A length of one signals that mapToProps does not depend on props from the parent component.\n// A length of zero is assumed to mean mapToProps is getting args via arguments or ...args and\n// therefore not reporting its length accurately..\n\nexport function getDependsOnOwnProps(mapToProps) {\n return mapToProps.dependsOnOwnProps !== null && mapToProps.dependsOnOwnProps !== undefined ? Boolean(mapToProps.dependsOnOwnProps) : mapToProps.length !== 1;\n} // Used by whenMapStateToPropsIsFunction and whenMapDispatchToPropsIsFunction,\n// this function wraps mapToProps in a proxy function which does several things:\n// \n// * Detects whether the mapToProps function being called depends on props, which\n// is used by selectorFactory to decide if it should reinvoke on props changes.\n// \n// * On first call, handles mapToProps if returns another function,

and treats that\n// new function as the true mapToProps for subsequent calls.\n// \n// * On first call, verifies the first result is a plain object, in order to warn\n// the developer that their mapToProps function is not returning a valid result.\n// \n\nexport function wrapMapToPropsFunc(mapToProps, methodName) {\n return function initProxySelector(dispatch, _ref) {\n var displayName = _ref.displayName;\n\n var proxy = function mapToPropsProxy(stateOrDispatch, ownProps) {\n return proxy.dependsOnOwnProps ? proxy.mapToProps(stateOrDispatch, ownProps) : proxy.mapToProps(stateOrDispatch);\n }; // allow detectFactoryAndVerify to get ownProps\n\n\n proxy.dependsOnOwnProps = true;\n\n proxy.mapToProps = function detectFactoryAndVerify(stateOrDispatch, ownProps) {\n proxy.mapToProps = mapToProps;\n proxy.dependsOnOwnProps = getDependsOnOwnProps(mapToProps);\n var props = proxy(stateOrDispatch, ownProps);\n\n if (typeof props === 'function')

{\n proxy.mapToProps = props;\n proxy.dependsOnOwnProps = getDependsOnOwnProps(props);\n props = proxy(stateOrDispatch, ownProps);\n }\n\n if (process.env.NODE_ENV !== 'production') verifyPlainObject(props, displayName, methodName);\n return props;\n };\n\n return proxy;\n };\n}","import { bindActionCreators } from 'redux';\nimport { wrapMapToPropsConstant, wrapMapToPropsFunc } from './wrapMapToProps';\nexport function whenMapDispatchToPropsIsFunction(mapDispatchToProps) {\n return typeof mapDispatchToProps === 'function' ? wrapMapToPropsFunc(mapDispatchToProps, 'mapDispatchToProps') : undefined;\n}\nexport function whenMapDispatchToPropsIsMissing(mapDispatchToProps) {\n return !mapDispatchToProps ? wrapMapToPropsConstant(function (dispatch) {\n return {\n dispatch: dispatch\n };\n }) : undefined;\n}\nexport function whenMapDispatchToPropsIsObject(mapDispatchToProps) {\n return mapDispatchToProps && typeof mapDispatchToProps

=== 'object' ? wrapMapToPropsConstant(function (dispatch) {\n return bindActionCreators(mapDispatchToProps, dispatch);\n }) : undefined;\n}\nexport default [whenMapDispatchToPropsIsFunction, whenMapDispatchToPropsIsMissing, whenMapDispatchToPropsIsObject];","import { wrapMapToPropsConstant, wrapMapToPropsFunc } from './wrapMapToProps';\nexport function whenMapStateToPropsIsFunction(mapStateToProps) {\n return typeof mapStateToProps === 'function' ? wrapMapToPropsFunc(mapStateToProps, 'mapStateToProps') : undefined;\n}\nexport function whenMapStateToPropsIsMissing(mapStateToProps) {\n return !mapStateToProps ? wrapMapToPropsConstant(function () {\n return {};\n }) : undefined;\n}\nexport default [whenMapStateToPropsIsFunction, whenMapStateToPropsIsMissing];","import _extends from \"@babel/runtime/helpers/esm/extends\";\nimport verifyPlainObject from '../utils/verifyPlainObject';\nexport function defaultMergeProps(stateProps, dispatchProps, ownProps) {\n return _extends({},

ownProps, stateProps, dispatchProps);\n}\nexport function wrapMergePropsFunc(mergeProps) {\n return function initMergePropsProxy(dispatch, _ref) {\n var displayName = _ref.displayName,\n pure = _ref.pure,\n

areMergedPropsEqual = _ref.areMergedPropsEqual;\n   var hasRunOnce = false;\n   var mergedProps;\n   return function mergePropsProxy(stateProps, dispatchProps, ownProps) {\n   var nextMergedProps = mergeProps(stateProps, dispatchProps, ownProps);\n\n   if (hasRunOnce) {\n   if (!pure || !areMergedPropsEqual(nextMergedProps, mergedProps)) mergedProps = nextMergedProps;\n   } else {\n   hasRunOnce = true;\n   mergedProps = nextMergedProps;\n   if (process.env.NODE_ENV !== 'production') verifyPlainObject(mergedProps, displayName, 'mergeProps');\n   }\n\n   return mergedProps;\n   };\n };\n}\nexport function whenMergePropsIsFunction(mergeProps) {\n return typeof mergeProps === 'function' ? wrapMergePropsFunc(mergeProps) : undefined;\n}\nexport
 function whenMergePropsIsOmitted(mergeProps) {\n return !mergeProps ? function () {\n   return defaultMergeProps;\n } : undefined;\n}\nexport default [whenMergePropsIsFunction, whenMergePropsIsOmitted];","import _objectWithoutPropertiesLoose from \"@babel/runtime/helpers/esm/objectWithoutPropertiesLoose\";\nimport verifySubselectors from './verifySubselectors';\nexport function impureFinalPropsSelectorFactory(mapStateToProps, mapDispatchToProps, mergeProps, dispatch) {\n return function impureFinalPropsSelector(state, ownProps) {\n   return mergeProps(mapStateToProps(state, ownProps), mapDispatchToProps(dispatch, ownProps), ownProps);\n };\n}\nexport function pureFinalPropsSelectorFactory(mapStateToProps, mapDispatchToProps, mergeProps, dispatch, _ref) {\n var areStatesEqual = _ref.areStatesEqual,\n   areOwnPropsEqual = _ref.areOwnPropsEqual,\n   areStatePropsEqual = _ref.areStatePropsEqual;\n var hasRunAtLeastOnce = false;\n var state;\n var ownProps;\n var stateProps;\n var dispatchProps;\n var mergedProps;\n\n function handleFirstCall(firstState, firstOwnProps) {\n   state = firstState;\n   ownProps = firstOwnProps;\n   stateProps = mapStateToProps(state, ownProps);\n   dispatchProps = mapDispatchToProps(dispatch, ownProps);\n   mergedProps = mergeProps(stateProps, dispatchProps, ownProps);\n   hasRunAtLeastOnce = true;\n   return mergedProps;\n }\n\n function handleNewPropsAndNewState() {\n   stateProps = mapStateToProps(state, ownProps);\n   if (mapDispatchToProps.dependsOnOwnProps) dispatchProps = mapDispatchToProps(dispatch, ownProps);\n   mergedProps = mergeProps(stateProps, dispatchProps, ownProps);\n   return mergedProps;\n }\n\n function handleNewProps() {\n   if (mapStateToProps.dependsOnOwnProps) stateProps = mapStateToProps(state, ownProps);\n   if (mapDispatchToProps.dependsOnOwnProps) dispatchProps = mapDispatchToProps(dispatch, ownProps);\n   mergedProps = mergeProps(stateProps, dispatchProps,
 ownProps);\n   return mergedProps;\n }\n\n function handleNewState() {\n   var nextStateProps = mapStateToProps(state, ownProps);\n   var statePropsChanged = !areStatePropsEqual(nextStateProps, stateProps);\n   stateProps = nextStateProps;\n   if (statePropsChanged) mergedProps = mergeProps(stateProps, dispatchProps, ownProps);\n   return mergedProps;\n }\n\n function handleSubsequentCalls(nextState, nextOwnProps) {\n   var propsChanged = !areOwnPropsEqual(nextOwnProps, ownProps);\n   var stateChanged = !areStatesEqual(nextState, state);\n   state = nextState;\n   ownProps = nextOwnProps;\n   if (propsChanged && stateChanged) return handleNewPropsAndNewState();\n   if (propsChanged) return handleNewProps();\n   if (stateChanged) return handleNewState();\n   return mergedProps;\n }\n\n return function pureFinalPropsSelector(nextState, nextOwnProps) {\n   return hasRunAtLeastOnce ? handleSubsequentCalls(nextState, nextOwnProps) : handleFirstCall(nextState, nextOwnProps);\n };\n} // TODO: Add more comments\n// If pure is true, the selector returned by selectorFactory will memoize its results,\n// allowing connectAdvanced's shouldComponentUpdate to return false if final\n// props have not changed. If false, the selector will always return a new\n// object and shouldComponentUpdate will always return true.\n\nexport default function finalPropsSelectorFactory(dispatch, _ref2) {\n var initMapStateToProps = _ref2.initMapStateToProps,\n   initMapDispatchToProps = _ref2.initMapDispatchToProps,\n   initMergeProps = _ref2.initMergeProps,\n   options = _objectWithoutPropertiesLoose(_ref2, [\"initMapStateToProps\", \"initMapDispatchToProps\", \"initMergeProps\"]);\n\n var mapStateToProps = initMapStateToProps(dispatch, options);\n var mapDispatchToProps = initMapDispatchToProps(dispatch, options);\n var mergeProps = initMergeProps(dispatch, options);\n\n if (process.env.NODE_ENV !== 'production') {\n   verifySubselectors(mapStateToProps, mapDispatchToProps,

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 mergeProps, options.displayName);\n  }\n\n  var selectorFactory = options.pure ? pureFinalPropsSelectorFactory :
impureFinalPropsSelectorFactory;\n  return selectorFactory(mapStateToProps, mapDispatchToProps, mergeProps,
dispatch, options);\n}","import _extends from \"@babel/runtime/helpers/esm/extends\";\nimport
_objectWithoutPropertiesLoose from \"@babel/runtime/helpers/esm/objectWithoutPropertiesLoose\";\nimport
connectAdvanced from '../components/connectAdvanced';\nimport shallowEqual from
'../utils/shallowEqual';\nimport defaultMapDispatchToPropsFactories from './mapDispatchToProps';\nimport
defaultMapStateToPropsFactories from './mapStateToProps';\nimport defaultMergePropsFactories from
'./mergeProps';\nimport defaultSelectorFactory from './selectorFactory';\n/*\n  connect is a facade over
connectAdvanced. It turns its args into a compatible\n  selectorFactory, which has the signature:\n\n    (dispatch,
options) => (nextState, nextOwnProps) => nextFinalProps\n  \n
  connect passes its args to connectAdvanced as options, which will in turn pass them to\n  selectorFactory each time
a Connect component instance is instantiated or hot reloaded.\n\n  selectorFactory returns a final props selector from
its mapStateToProps,\n  mapStateToPropsFactories, mapDispatchToProps, mapDispatchToPropsFactories,
mergeProps,\n  mergePropsFactories, and pure args.\n\n  The resulting final props selector is called by the Connect
component instance whenever\n  it receives new props or store state.\n */\n\nfunction match(arg, factories, name)
{\n  for (var i = factories.length - 1; i >= 0; i--) {\n    var result = factories[i](arg);\n    if (result) return result;\n  }\n\n
return function (dispatch, options) {\n    throw new Error(\"Invalid value of type \" + typeof arg + \" for \" + name +
\" argument when connecting component \" + options.wrappedComponentName + \".\");\n  };\n}\n\nfunction
strictEqual(a, b) {\n  return a === b;\n} // createConnect with default args builds
 the 'official' connect behavior. Calling it with\n// different options opens up some testing and extensibility
scenarios\n\n\nexport function createConnect(_temp) {\n  var _ref = _temp === void 0 ? {} : _temp,\n
_ref$connectHOC = _ref.connectHOC,\n      connectHOC = _ref$connectHOC === void 0 ? connectAdvanced :
_ref$connectHOC,\n      _ref$mapStateToPropsF = _ref.mapStateToPropsFactories,\n      mapStateToPropsFactories
= _ref$mapStateToPropsF === void 0 ? defaultMapStateToPropsFactories : _ref$mapStateToPropsF,\n
_ref$mapDispatchToPro = _ref.mapDispatchToPropsFactories,\n      mapDispatchToPropsFactories =
_ref$mapDispatchToPro === void 0 ? defaultMapDispatchToPropsFactories : _ref$mapDispatchToPro,\n
_ref$mergePropsFactor = _ref.mergePropsFactories,\n      mergePropsFactories = _ref$mergePropsFactor === void
0 ? defaultMergePropsFactories : _ref$mergePropsFactor,\n      _ref$selectorFactory = _ref.selectorFactory,\n
selectorFactory = _ref$selectorFactory ===
 void 0 ? defaultSelectorFactory : _ref$selectorFactory;\n\n  return function connect(mapStateToProps,
mapDispatchToProps, mergeProps, _ref2) {\n    if (_ref2 === void 0) {\n      _ref2 = {};\n    }\n\n    var _ref3 =
_ref2,\n        _ref3$pure = _ref3.pure,\n        pure = _ref3$pure === void 0 ? true : _ref3$pure,\n
_ref3$areStatesEqual = _ref3.areStatesEqual,\n        areStatesEqual = _ref3$areStatesEqual === void 0 ? strictEqual
: _ref3$areStatesEqual,\n        _ref3$areOwnPropsEqua = _ref3.areOwnPropsEqual,\n        areOwnPropsEqual =
_ref3$areOwnPropsEqua === void 0 ? shallowEqual : _ref3$areOwnPropsEqua,\n        _ref3$areStatePropsEq =
_ref3.areStatePropsEqual,\n        areStatePropsEqual = _ref3$areStatePropsEq === void 0 ? shallowEqual :
_ref3$areStatePropsEq,\n        _ref3$areMergedPropsE = _ref3.areMergedPropsEqual,\n        areMergedPropsEqual
= _ref3$areMergedPropsE === void 0 ? shallowEqual : _ref3$areMergedPropsE,\n        extraOptions =
_objectWithoutPropertiesLoose(_ref3,
 [\"pure\", \"areStatesEqual\", \"areOwnPropsEqual\", \"areStatePropsEqual\", \"areMergedPropsEqual\"]);\n\n    var
initMapStateToProps = match(mapStateToProps, mapStateToPropsFactories, 'mapStateToProps');\n    var
initMapDispatchToProps = match(mapDispatchToProps, mapDispatchToPropsFactories, 'mapDispatchToProps');\n
 var initMergeProps = match(mergeProps, mergePropsFactories, 'mergeProps');\n    return
connectHOC(selectorFactory, _extends({\n      // used in error messages\n      methodName: 'connect',\n      // used to
compute Connect's displayName from the wrapped component's displayName.\n      getDisplayName: function
getDisplayName(name) {\n        return \"Connect(\" + name + \")\";\n      },\n      // if mapStateToProps is falsy, the
Connect component doesn't subscribe to store state changes\n      shouldHandleStateChanges:
Boolean(mapStateToProps),\n      // passed through to selectorFactory\n      initMapStateToProps:
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initMapStateToProps,\n      initMapDispatchToProps:
 initMapDispatchToProps,\n      initMergeProps: initMergeProps,\n      pure: pure,\n      areStatesEqual:
areStatesEqual,\n      areOwnPropsEqual: areOwnPropsEqual,\n      areStatePropsEqual: areStatePropsEqual,\n
areMergedPropsEqual: areMergedPropsEqual\n    }, extraOptions));\n  };\n}\nexport default
createConnect();","import Provider, { createProvider } from './components/Provider';\nimport connectAdvanced
from './components/connectAdvanced';\nimport connect from './connect/connect';\nexport { Provider,
createProvider, connectAdvanced, connect };","import root from './_root.js';\n/** Built-in value references. */\n\nvar
Symbol = root.Symbol;\nexport default Symbol;","var store = require('./_shared')('wks');\n\nvar uid =
require('./_uid');\n\nvar Symbol = require('./_global').Symbol;\n\nvar USE_SYMBOL = typeof Symbol ==
'function';\n\nvar $exports = module.exports = function (name) {\n  return store[name] || (store[name] =
USE_SYMBOL && Symbol[name] || (USE_SYMBOL ? Symbol
 : uid)('Symbol.' + name));\n};\n\n$exports.store = store;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3
= _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3
 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _events = require('../utils/events');\n\nvar _events2 =
_interopRequireDefault(_events);\n\nvar _keycode = require('keycode');\n\nvar _keycode2 =
_interopRequireDefault(_keycode);\n\nvar _FocusRipple = require('./FocusRipple');\n\nvar _FocusRipple2 =
_interopRequireDefault(_FocusRipple);\n\nvar _TouchRipple = require('./TouchRipple');\n\nvar _TouchRipple2 =
_interopRequireDefault(_TouchRipple);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar styleInjected
 = false;\nvar listening = false;\nvar tabPressed = false;\n\nfunction injectStyle() {\n  if (!styleInjected) {\n    //
Remove inner padding and border in Firefox 4+.\n    var style = document.createElement('style');\n
style.innerHTML = '\\n      button::-moz-focus-inner,\\n      input::-moz-focus-inner {\\n        border: 0;\\n
padding: 0;\\n      }\\n    ';\n    document.body.appendChild(style);\n    styleInjected = true;\n  }\n}\n\nfunction
listenForTabPresses() {\n  if (!listening) {\n    _events2.default.on(window, 'keydown', function (event) {\n
tabPressed = (0, _keycode2.default)(event) === 'tab';\n    });\n\n    listening = true;\n  }\n}\n\nvar EnhancedButton =
function (_Component) {\n  (0, _inherits3.default)(EnhancedButton, _Component);\n\n  function EnhancedButton()
{\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this, EnhancedButton);\n\n    for (var
_len = arguments.length, args = Array(_len), _key = 0; _key < _len;
 _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = EnhancedButton.__proto__ || (0,
_getPrototypeOf2.default)(EnhancedButton)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n
isKeyboardFocused: false\n    }, _this.handleKeyDown = function (event) {\n      if (!_this.props.disabled &&
!_this.props.disableKeyboardFocus) {\n        if ((0, _keycode2.default)(event) === 'esc' &&
_this.state.isKeyboardFocused) {\n          _this.removeKeyboardFocus(event);\n        }\n      }\n\n
_this.props.onKeyDown(event);\n    }, _this.handleKeyUp = function (event) {\n      _this.props.onKeyUp(event);\n
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 }, _this.handleBlur = function (event) {\n      _this.cancelFocusTimeout();\n\n
_this.removeKeyboardFocus(event);\n\n      _this.props.onBlur(event);\n    }, _this.handleFocus = function (event)
{\n      if (event) event.persist();\n\n      if (!_this.props.disabled && !_this.props.disableKeyboardFocus)
 {\n        // setTimeout is needed because the focus event fires first\n        // Wait so that we can capture if this was a
keyboard focus\n        // or touch focus\n        _this.focusTimeout = setTimeout(function () {\n          if (tabPressed)
{\n            _this.setKeyboardFocus(event);\n\n            tabPressed = false;\n          }\n        }, 150);\n\n
_this.props.onFocus(event);\n      }\n    }, _this.handleClick = function (event) {\n
_this.cancelFocusTimeout();\n\n      if (!_this.props.disabled) {\n        tabPressed = false;\n\n
_this.removeKeyboardFocus(event);\n\n        _this.props.onClick(event);\n      }\n    }, _temp), (0,
_possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(EnhancedButton, [{\n    key:
'componentWillMount',\n    value: function componentWillMount() {\n      var _props = this.props,\n          disabled
= _props.disabled,\n          disableKeyboardFocus = _props.disableKeyboardFocus,\n
          keyboardFocused = _props.keyboardFocused;\n\n      if (!disabled && keyboardFocused &&
!disableKeyboardFocus) {\n        this.setState({\n          isKeyboardFocused: true\n        });\n      }\n    }\n  }, {\n
key: 'componentDidMount',\n    value: function componentDidMount() {\n      injectStyle();\n
listenForTabPresses();\n\n      if (this.state.isKeyboardFocused) {\n        this.button.focus();\n
this.props.onKeyboardFocus(null, true);\n      }\n    }\n  }, {\n    key: 'componentWillReceiveProps',\n    value:
function componentWillReceiveProps(nextProps) {\n      if ((nextProps.disabled || nextProps.disableKeyboardFocus)
&& this.state.isKeyboardFocused) {\n        this.setState({\n          isKeyboardFocused: false\n        });\n\n        if
(nextProps.onKeyboardFocus) {\n          nextProps.onKeyboardFocus(null, false);\n        }\n      }\n    }\n  }, {\n
key: 'componentWillUnmount',\n    value: function componentWillUnmount() {\n
      if (this.focusTimeout) {\n        clearTimeout(this.focusTimeout);\n      }\n    }\n  }, {\n    key:
'isKeyboardFocused',\n    value: function isKeyboardFocused() {\n      return this.state.isKeyboardFocused;\n    }\n
}, {\n    key: 'removeKeyboardFocus',\n    value: function removeKeyboardFocus(event) {\n      if
(this.state.isKeyboardFocused) {\n        this.setState({\n          isKeyboardFocused: false\n        });\n
this.props.onKeyboardFocus(event, false);\n      }\n    }\n  }, {\n    key: 'setKeyboardFocus',\n    value: function
setKeyboardFocus(event) {\n      if (!this.state.isKeyboardFocused) {\n        this.setState({\n
isKeyboardFocused: true\n        });\n        this.props.onKeyboardFocus(event, true);\n      }\n    }\n  }, {\n    key:
'cancelFocusTimeout',\n    value: function cancelFocusTimeout() {\n      if (this.focusTimeout) {\n
clearTimeout(this.focusTimeout);\n        this.focusTimeout = null;\n      }\n    }\n  }, {\n    key:
'createButtonChildren',\n
    value: function createButtonChildren() {\n      var _props2 = this.props,\n          centerRipple =
_props2.centerRipple,\n          children = _props2.children,\n          disabled = _props2.disabled,\n
disableFocusRipple = _props2.disableFocusRipple,\n          disableKeyboardFocus =
_props2.disableKeyboardFocus,\n          disableTouchRipple = _props2.disableTouchRipple,\n
focusRippleColor = _props2.focusRippleColor,\n          focusRippleOpacity = _props2.focusRippleOpacity,\n
touchRippleColor = _props2.touchRippleColor,\n          touchRippleOpacity = _props2.touchRippleOpacity;\n
var isKeyboardFocused = this.state.isKeyboardFocused; // Focus Ripple\n\n      var focusRipple =
isKeyboardFocused && !disabled && !disableFocusRipple && !disableKeyboardFocus ?
_react2.default.createElement(_FocusRipple2.default, {\n        color: focusRippleColor,\n        opacity:
focusRippleOpacity,\n        show: isKeyboardFocused,\n        style:
 {\n          overflow: 'hidden'\n        },\n        key: 'focusRipple'\n      }) : undefined; // Touch Ripple\n\n      var
touchRipple = !disabled && !disableTouchRipple ? _react2.default.createElement(_TouchRipple2.default, {\n
centerRipple: centerRipple,\n        color: touchRippleColor,\n        opacity: touchRippleOpacity,\n        key:
'touchRipple'\n      }, children) : undefined;\n      return [focusRipple, touchRipple, touchRipple ? undefined :
children];\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var _this2 = this;\n\n      var _props3 =
this.props,\n          centerRipple = _props3.centerRipple,\n          children = _props3.children,\n
containerElement = _props3.containerElement,\n          disabled = _props3.disabled,\n          disableFocusRipple =
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_props3.disableFocusRipple,\n          disableKeyboardFocus = _props3.disableKeyboardFocus,\n
disableTouchRipple = _props3.disableTouchRipple,\n          focusRippleColor
 = _props3.focusRippleColor,\n          focusRippleOpacity = _props3.focusRippleOpacity,\n          href =
_props3.href,\n          keyboardFocused = _props3.keyboardFocused,\n          touchRippleColor =
_props3.touchRippleColor,\n          touchRippleOpacity = _props3.touchRippleOpacity,\n          onBlur =
_props3.onBlur,\n          onClick = _props3.onClick,\n          onFocus = _props3.onFocus,\n          onKeyUp =
_props3.onKeyUp,\n          onKeyDown = _props3.onKeyDown,\n          onKeyboardFocus =
_props3.onKeyboardFocus,\n          style = _props3.style,\n          tabIndex = _props3.tabIndex,\n          type =
_props3.type,\n          other = (0, _objectWithoutProperties3.default)(_props3, ['centerRipple', 'children',
'containerElement', 'disabled', 'disableFocusRipple', 'disableKeyboardFocus', 'disableTouchRipple',
'focusRippleColor', 'focusRippleOpacity', 'href', 'keyboardFocused', 'touchRippleColor', 'touchRippleOpacity',
'onBlur', 'onClick', 'onFocus', 'onKeyUp', 'onKeyDown',
 'onKeyboardFocus', 'style', 'tabIndex', 'type']);\n      var _context$muiTheme = this.context.muiTheme,\n
prepareStyles = _context$muiTheme.prepareStyles,\n          enhancedButton =
_context$muiTheme.enhancedButton;\n      var mergedStyles = (0, _simpleAssign2.default)({\n        border: 10,\n
 boxSizing: 'border-box',\n        display: 'inline-block',\n        fontFamily:
this.context.muiTheme.baseTheme.fontFamily,\n        WebkitTapHighlightColor:
enhancedButton.tapHighlightColor,\n        // Remove mobile color flashing (deprecated)\n        cursor: disabled ?
'default' : 'pointer',\n        textDecoration: 'none',\n        margin: 0,\n        padding: 0,\n        outline: 'none',\n
fontSize: 'inherit',\n        fontWeight: 'inherit',\n        position: 'relative',\n        // This is needed so that ripples do not
bleed past border radius.\n        verticalAlign: href ? 'middle' : null\n      }, style); // Passing both background:none &
backgroundColor can
 break due to object iteration order\n\n      if (!mergedStyles.backgroundColor && !mergedStyles.background) {\n
  mergedStyles.background = 'none';\n      }\n\n      if (disabled && href) {\n        return
_react2.default.createElement('span', (0, _extends3.default)({}, other, {\n          style: mergedStyles\n        }),
children);\n      }\n\n      var buttonProps = (0, _extends3.default)({}, other, {\n        style:
prepareStyles(mergedStyles),\n        ref: function ref(node) {\n          return _this2.button = node;\n        },\n
disabled: disabled,\n        onBlur: this.handleBlur,\n        onFocus: this.handleFocus,\n        onKeyUp:
this.handleKeyUp,\n        onKeyDown: this.handleKeyDown,\n        onClick: this.handleClick,\n        tabIndex:
disabled || disableKeyboardFocus ? -1 : tabIndex\n      });\n      if (href) buttonProps.href = href;\n      var
buttonChildren = this.createButtonChildren();\n\n      if (_react2.default.isValidElement(containerElement)) {\n
        return _react2.default.cloneElement(containerElement, buttonProps, buttonChildren);\n      }\n\n      if (!href
&& containerElement === 'button') {\n        buttonProps.type = type;\n      }\n\n      return
_react2.default.createElement(href ? 'a' : containerElement, buttonProps, buttonChildren);\n    }\n  }]);\n  return
EnhancedButton;\n}(_react.Component);\n\nEnhancedButton.defaultProps = {\n  containerElement: 'button',\n
onBlur: function onBlur() {},\n  onClick: function onClick() {},\n  onFocus: function onFocus() {},\n  onKeyDown:
function onKeyDown() {},\n  onKeyUp: function onKeyUp() {},\n  onKeyboardFocus: function
onKeyboardFocus() {},\n  tabIndex: 0,\n  type: 'button'\n};\nEnhancedButton.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nEnhancedButton.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  centerRipple: _propTypes2.default.bool,\n  children: _propTypes2.default.node,\n
containerElement: _propTypes2.default.oneOfType([_propTypes2.default.string,
 _propTypes2.default.element]),\n  disableFocusRipple: _propTypes2.default.bool,\n  disableKeyboardFocus:
_propTypes2.default.bool,\n  disableTouchRipple: _propTypes2.default.bool,\n  disabled:
_propTypes2.default.bool,\n  focusRippleColor: _propTypes2.default.string,\n  focusRippleOpacity:
_propTypes2.default.number,\n  href: _propTypes2.default.string,\n  keyboardFocused: _propTypes2.default.bool,\n
onBlur: _propTypes2.default.func,\n  onClick: _propTypes2.default.func,\n  onFocus: _propTypes2.default.func,\n
onKeyDown: _propTypes2.default.func,\n  onKeyUp: _propTypes2.default.func,\n  onKeyboardFocus:
_propTypes2.default.func,\n  style: _propTypes2.default.object,\n  tabIndex: _propTypes2.default.number,\n
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touchRippleColor: _propTypes2.default.string,\n touchRippleOpacity: _propTypes2.default.number,\n type: _propTypes2.default.string\n} : {};\nexports.default = EnhancedButton;","import isSymbol from './isSymbol.js';\n\n/** Used as references for various `Number`
 constants. */\n\nvar INFINITY = 1 / 0;\n\n/**\n * Converts `value` to a string key if it's not a string or symbol.\n *\n * @private\n * @param {*} value The value to inspect.\n * @returns {string|symbol} Returns the key.\n */\n\nfunction toKey(value) {\n if (typeof value == 'string' || isSymbol(value)) {\n   return value;\n }\n\n var result = value + '';\n return result == '0' && 1 / value == -INFINITY ? '-0' : result;\n}\n\nexport default toKey;","/**\n * Performs a\n * [`SameValueZero`](http://ecma-international.org/ecma-262/7.0/#sec-samevaluezero)\n * comparison between two values to determine if they are equivalent.\n *\n * @static\n * @memberOf _\n * @since 4.0.0\n * @category Lang\n * @param {*} value The value to compare.\n * @param {*} other The other value to compare.\n * @returns {boolean} Returns `true` if the values are equivalent, else `false`.\n * @example\n *\n * var object = { 'a': 1 };\n * var other = { 'a': 1 };\n *\n * _.eq(object, object);\n * // => true\n
 *\n * _.eq(object, other);\n * // => false\n *\n * _.eq('a', 'a');\n * // => true\n *\n * _.eq('a', Object('a'));\n * // => false\n *\n * _.eq(NaN, NaN);\n * // => true\n */\nfunction eq(value, other) {\n return value === other || value !== value && other !== other;\n}\n\nexport default eq;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _Toggle = require('./Toggle');\n\nObject.defineProperty(exports, 'Toggle', {\n enumerable: true,\n get: function get() {\n   return _interopRequireDefault(_Toggle).default;\n }\n});\n\nvar _Slider = require('./Slider');\n\nObject.defineProperty(exports, 'Slider', {\n enumerable: true,\n get: function get() {\n   return _interopRequireDefault(_Slider).default;\n }\n});\n\nvar _Checkbox = require('./Checkbox');\n\nObject.defineProperty(exports, 'Checkbox', {\n enumerable: true,\n get: function get() {\n   return _interopRequireDefault(_Checkbox).default;\n }\n});\n\nvar _TextField = require('./TextField');\n\nObject.defineProperty(exports,
 'TextField', {\n enumerable: true,\n get: function get() {\n   return _interopRequireDefault(_TextField).default;\n }\n});\n\nvar _TimePicker = require('./TimePicker');\n\nObject.defineProperty(exports, 'TimePicker', {\n enumerable: true,\n get: function get() {\n   return _interopRequireDefault(_TimePicker).default;\n }\n});\n\nvar _DatePicker = require('./DatePicker');\n\nObject.defineProperty(exports, 'DatePicker', {\n enumerable: true,\n get: function get() {\n   return _interopRequireDefault(_DatePicker).default;\n }\n});\n\nvar _SelectField = require('./SelectField');\n\nObject.defineProperty(exports, 'SelectField', {\n enumerable: true,\n get: function get() {\n   return _interopRequireDefault(_SelectField).default;\n }\n});\n\nvar _AutoComplete = require('./AutoComplete');\n\nObject.defineProperty(exports, 'AutoComplete', {\n enumerable: true,\n get: function get() {\n   return _interopRequireDefault(_AutoComplete).default;\n
  }\n});\n\nvar _RadioButtonGroup = require('./RadioButtonGroup');\n\nObject.defineProperty(exports, 'RadioButtonGroup', {\n enumerable: true,\n get: function get() {\n   return _interopRequireDefault(_RadioButtonGroup).default;\n }\n});\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}","'use strict';\n\nObject.defineProperty(exports, '__esModule', {\n value: true\n});\n\nfunction _interopDefault(ex) {\n return ex && typeof ex === 'object' && 'default' in ex ? ex['default'] : ex;\n}\n\nvar _classCallCheck = _interopDefault(require('@babel/runtime/helpers/classCallCheck'));\n\nvar _createClass = _interopDefault(require('@babel/runtime/helpers/createClass'));\n\nvar _possibleConstructorReturn = _interopDefault(require('@babel/runtime/helpers/possibleConstructorReturn'));\n\nvar _getPrototypeOf = _interopDefault(require('@babel/runtime/helpers/getPrototypeOf'));\n\nvar _inherits = _interopDefault(require('@babel/runtime/helpers/inherits'));\n\nvar
 _typeof = _interopDefault(require('@babel/runtime/helpers/typeof'));\n\nvar _objectWithoutProperties = _interopDefault(require('@babel/runtime/helpers/objectWithoutProperties'));\n\nvar _extends = _interopDefault(require('@babel/runtime/helpers/extends'));\n\nvar React = _interopDefault(require('react'));\n\nvar PropTypes = _interopDefault(require('prop-types'));\n\nvar warning = _interopDefault(require('warning'));\n\nfunction defineProperty(object, property, attr) {\n return Object.defineProperty(object, property, attr);\n} // Passive options\n// Inspired by

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https://github.com/Modernizr/Modernizr/blob/master/feature-detects/dom/passiveeventlisteners.js\n\n\nvar
passiveOption = function () {\n  var cache = null;\n  return function () {\n    if (cache !== null) {\n      return cache;\n
  }\n\n    var supportsPassiveOption = false;\n\n    try {\n      window.addEventListener('test', null, defineProperty({},
'passive', {\n        get: function get()
 {\n          supportsPassiveOption = true;\n        }\n      }));\n    } catch (err) {//\n    }\n\n    cache =
supportsPassiveOption;\n    return supportsPassiveOption;\n  }();\n}();\n\nvar defaultEventOptions = {\n  capture:
false,\n  passive: false\n};\n\nfunction mergeDefaultEventOptions(options) {\n  return _extends({},
defaultEventOptions, options);\n}\n\nfunction getEventListenerArgs(eventName, callback, options) {\n  var args =
[eventName, callback];\n  args.push(passiveOption ? options : options.capture);\n  return args;\n}\n\nfunction
on(target, eventName, callback, options) {\n  // eslint-disable-next-line prefer-spread\n
target.addEventListener.apply(target, getEventListenerArgs(eventName, callback, options));\n}\n\nfunction
off(target, eventName, callback, options) {\n  // eslint-disable-next-line prefer-spread\n
target.removeEventListener.apply(target, getEventListenerArgs(eventName, callback, options));\n}\n\nfunction
forEachListener(props, iteratee) {\n  var children
 = props.children,\n      target = props.target,\n      eventProps = _objectWithoutProperties(props, [\"children\",
\"target\"]);\n\n  Object.keys(eventProps).forEach(function (name) {\n    if (name.substring(0, 2) !== 'on') {\n
return;\n    }\n\n    var prop = eventProps[name];\n\n    var type = _typeof(prop);\n\n    var isObject = type ===
'object';\n    var isFunction = type === 'function';\n\n    if (!isObject && !isFunction) {\n      return;\n    }\n\n    var
capture = name.substr(-7).toLowerCase() === 'capture';\n    var eventName = name.substring(2).toLowerCase();\n
eventName = capture ? eventName.substring(0, eventName.length - 7) : eventName;\n\n    if (isObject) {\n
iteratee(eventName, prop.handler, prop.options);\n    } else {\n      iteratee(eventName, prop,
mergeDefaultEventOptions({\n        capture: capture\n      }));\n    }\n  });\n}\n\nfunction withOptions(handler,
options) {\n  process.env.NODE_ENV !== \"production\" ? warning(options, 'react-event-listener:
 should be specified options in withOptions.') : void 0;\n  return {\n    handler: handler,\n    options:
mergeDefaultEventOptions(options)\n  };\n}\n\nvar EventListener = /*#__PURE__*/function
(_React$PureComponent) {\n  _inherits(EventListener, _React$PureComponent);\n\n  function EventListener() {\n
_classCallCheck(this, EventListener);\n\n    return _possibleConstructorReturn(this,
_getPrototypeOf(EventListener).apply(this, arguments));\n  }\n\n  _createClass(EventListener, [{\n    key:
\"componentDidMount\",\n    value: function componentDidMount() {\n      this.applyListeners(on);\n    }\n  }, {\n
key: \"componentDidUpdate\",\n    value: function componentDidUpdate(prevProps) {\n      this.applyListeners(off,
prevProps);\n      this.applyListeners(on);\n    }\n  }, {\n    key: \"componentWillUnmount\",\n    value: function
componentWillUnmount() {\n      this.applyListeners(off);\n    }\n  }, {\n    key: \"applyListeners\",\n    value:
function applyListeners(onOrOff)
 {\n      var props = arguments.length > 1 && arguments[1] !== undefined ? arguments[1] : this.props;\n      var
target = props.target;\n\n      if (target) {\n        var element = target;\n\n        if (typeof target === 'string') {\n
element = window[target];\n        }\n\n        forEachListener(props, onOrOff.bind(null, element));\n      }\n    }\n  },
{\n    key: \"render\",\n    value: function render() {\n      return this.props.children || null;\n    }\n  }]);\n\n  return
EventListener;\n}(React.PureComponent);\n\nEventListener.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  /**\n   * You can provide a single child too.\n   */\n  children: PropTypes.node,\n\n  /**\n   *
The DOM target to listen to.\n   */\n  target: PropTypes.oneOfType([PropTypes.object,
PropTypes.string]).isRequired\n} : {};\nexports.withOptions = withOptions;\nexports.default =
EventListener;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends
 = Object.assign || function (target) {\n  for (var i = 1; i < arguments.length; i++) {\n    var source = arguments[i];\n\n
  for (var key in source) {\n      if (Object.prototype.hasOwnProperty.call(source, key)) {\n        target[key] =
source[key];\n      }\n    }\n  }\n\n  return target;\n};\n\nvar _createClass = function () {\n  function
defineProperties(target, props) {\n    for (var i = 0; i < props.length; i++) {\n      var descriptor = props[i];\n
descriptor.enumerable = descriptor.enumerable || false;\n      descriptor.configurable = true;\n      if (\"value\" in
descriptor) descriptor.writable = true;\n      Object.defineProperty(target, descriptor.key, descriptor);\n    }\n  }\n\n
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return function (Constructor, protoProps, staticProps) {\n    if (protoProps) defineProperties(Constructor.prototype,
protoProps);\n    if (staticProps) defineProperties(Constructor, staticProps);\n    return Constructor;\n
};\n}();\n\nexports.default = createComponent;\n\nvar _react
 = require('react');\n\nfunction _classCallCheck(instance, Constructor) {\n  if (!(instance instanceof Constructor)) {\n
  throw new TypeError(\"Cannot call a class as a function\");\n  }\n}\n\nfunction _possibleConstructorReturn(self,
call) {\n  if (!self) {\n    throw new ReferenceError(\"this hasn't been initialised - super() hasn't been called\");\n
}\n\n  return call && (typeof call === \"object\" || typeof call === \"function\") ? call : self;\n}\n\nfunction
_inherits(subClass, superClass) {\n  if (typeof superClass !== \"function\" && superClass !== null) {\n    throw new
TypeError(\"Super expression must either be null or a function, not \" + typeof superClass);\n  }\n\n
subClass.prototype = Object.create(superClass && superClass.prototype, {\n    constructor: {\n      value:
subClass,\n      enumerable: false,\n      writable: true,\n      configurable: true\n    }\n  });\n  if (superClass)
Object.setPrototypeOf ? Object.setPrototypeOf(subClass, superClass) : subClass.__proto__
 = superClass;\n}\n/**\n * Creates a component class that renders the given Material UI component\n *\n * @param
MaterialUIComponent The material ui component to render\n * @param mapProps A mapping of props provided by
redux-form to the props the Material UI\n * component needs\n */\n\n\nfunction
createComponent(MaterialUIComponent, mapProps) {\n  var InputComponent = function (_Component) {\n
_inherits(InputComponent, _Component);\n\n    function InputComponent() {\n      _classCallCheck(this,
InputComponent);\n\n      return _possibleConstructorReturn(this, (InputComponent.__proto__ ||
Object.getPrototypeOf(InputComponent)).apply(this, arguments));\n    }\n\n    _createClass(InputComponent, [{\n
key: 'getRenderedComponent',\n      value: function getRenderedComponent() {\n        return this.refs.component;\n
    }\n    }, {\n      key: 'render',\n      value: function render() {\n        return (0,
_react.createElement)(MaterialUIComponent, _extends({}, mapProps(this.props),
 {\n          ref: 'component'\n        }));\n      }\n    }]);\n\n    return InputComponent;\n  }(_react.Component);\n\n
InputComponent.displayName = 'ReduxFormMaterialUI' + MaterialUIComponent.name;\n  return
InputComponent;\n}","/** Used for built-in method references. */\nvar funcProto = Function.prototype;\n/** Used
to resolve the decompiled source of functions. */\n\nvar funcToString = funcProto.toString;\n/**\n * Converts
`func` to its source code.\n *\n * @private\n * @param {Function} func The function to convert.\n * @returns
{string} Returns the source code.\n */\n\nfunction toSource(func) {\n  if (func != null) {\n    try {\n      return
funcToString.call(func);\n    } catch (e) {}\n\n    try {\n      return func + '';\n    } catch (e) {}\n  }\n\n  return
'';\n}\n\nexport default toSource;","var global = require('./_global');\n\nvar core = require('./_core');\n\nvar ctx =
require('./_ctx');\n\nvar hide = require('./_hide');\n\nvar has = require('./_has');\n\nvar PROTOTYPE
 = 'prototype';\n\nvar $export = function $export(type, name, source) {\n  var IS_FORCED = type & $export.F;\n
var IS_GLOBAL = type & $export.G;\n  var IS_STATIC = type & $export.S;\n  var IS_PROTO = type &
$export.P;\n  var IS_BIND = type & $export.B;\n  var IS_WRAP = type & $export.W;\n  var exports =
IS_GLOBAL ? core : core[name] || (core[name] = {});\n  var expProto = exports[PROTOTYPE];\n  var target =
IS_GLOBAL ? global : IS_STATIC ? global[name] : (global[name] || {})[PROTOTYPE];\n  var key, own, out;\n  if
(IS_GLOBAL) source = name;\n\n  for (key in source) {\n    // contains in native\n    own = !IS_FORCED &&
target && target[key] !== undefined;\n    if (own && has(exports, key)) continue; // export native or passed\n\n
out = own ? target[key] : source[key]; // prevent global pollution for namespaces\n\n    exports[key] = IS_GLOBAL
&& typeof target[key] != 'function' ? source[key] // bind timers to global for call from export context\n    : IS_BIND
&& own ? ctx(out,
 global) // wrap global constructors for prevent change them in library\n    : IS_WRAP && target[key] == out ?
function (C) {\n      var F = function F(a, b, c) {\n        if (this instanceof C) {\n          switch (arguments.length) {\n
      case 0:\n              return new C();\n\n            case 1:\n              return new C(a);\n\n            case 2:\n
return new C(a, b);\n          }\n\n          return new C(a, b, c);\n        }\n\n        return C.apply(this, arguments);\n
};\n\n      F[PROTOTYPE] = C[PROTOTYPE];\n      return F; // make static versions for prototype methods\n
}(out) : IS_PROTO && typeof out == 'function' ? ctx(Function.call, out) : out; // export proto methods to
core.%CONSTRUCTOR%.methods.%NAME%\n\n    if (IS_PROTO) {\n      (exports.virtual || (exports.virtual =
```

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{}))[key] = out; // export proto methods to core.%CONSTRUCTOR%.prototype.%NAME%\n\n      if (type &
$export.R && expProto && !expProto[key]) hide(expProto, key, out);\n
  }\n  }\n}; // type bitmap\n\n\n$export.F = 1; // forced\n\n$export.G = 2; // global\n\n$export.S = 4; //
static\n\n$export.P = 8; // proto\n\n$export.B = 16; // bind\n\n$export.W = 32; // wrap\n\n$export.U = 64; //
safe\n\n$export.R = 128; // real proto method for `library`\n\nmodule.exports = $export;","//
https://github.com/zloirock/core-js/issues/86#issuecomment-115759028\nvar global = module.exports = typeof
window != 'undefined' && window.Math == Math ? window : typeof self != 'undefined' && self.Math == Math ?
self // eslint-disable-next-line no-new-func\n: Function('return this')();\nif (typeof __g == 'number') __g = global; //
eslint-disable-line no-undef","var anObject = require('./_an-object');\n\nvar IE8_DOM_DEFINE = require('./_ie8-
dom-define');\n\nvar toPrimitive = require('./_to-primitive');\n\nvar dP = Object.defineProperty;\nexports.f =
require('./_descriptors') ? Object.defineProperty : function defineProperty(O, P, Attributes) {\n  anObject(O);\n  P =
toPrimitive(P,
 true);\n  anObject(Attributes);\n  if (IE8_DOM_DEFINE) try {\n    return dP(O, P, Attributes);\n  } catch (e) {\n
/* empty */\n  }\n  if ('get' in Attributes || 'set' in Attributes) throw TypeError('Accessors not supported!');\n  if
('value' in Attributes) O[P] = Attributes.value;\n  return O;\n};","// Thank's IE8 for his funny
defineProperty\nmodule.exports = !require('./_fails')(function () {\n  return Object.defineProperty({}, 'a', {\n    get:
function get() {\n      return 7;\n    }\n  }).a != 7;\n});","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\nexports.convertColorToString =
convertColorToString;\nexports.convertHexToRGB = convertHexToRGB;\nexports.decomposeColor =
decomposeColor;\nexports.getContrastRatio = getContrastRatio;\nexports.getLuminance =
getLuminance;\nexports.emphasize = emphasize;\nexports.fade = fade;\nexports.darken = darken;\nexports.lighten
= lighten;\n\nvar _warning = require('warning');\n\nvar _warning2 = _interopRequireDefault(_warning);\n\nfunction
 _interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n/**\n * Returns
a number whose value is limited to the given range.\n *\n * @param {number} value The value to be clamped\n *
@param {number} min The lower boundary of the output range\n * @param {number} max The upper boundary of
the output range\n * @returns {number} A number in the range [min, max]\n */\n\n\nfunction clamp(value, min,
max) {\n  if (value < min) {\n    return min;\n  }\n\n  if (value > max) {\n    return max;\n  }\n\n  return
value;\n}\n/**\n * Converts a color object with type and values to a string.\n *\n * @param {object} color -
Decomposed color\n * @param {string} color.type - One of, 'rgb', 'rgba', 'hsl', 'hsla'\n * @param {array}
color.values - [n,n,n] or [n,n,n,n]\n * @returns {string} A CSS color string\n */\n\n\nfunction
convertColorToString(color) {\n  var type = color.type,\n      values = color.values;\n\n  if (type.indexOf('rgb')
 > -1) {\n    // Only convert the first 3 values to int (i.e. not alpha)\n    for (var i = 0; i < 3; i++) {\n      values[i] =
parseInt(values[i]);\n    }\n  }\n\n  var colorString = void 0;\n\n  if (type.indexOf('hsl') > -1) {\n    colorString =
color.type + '(' + values[0] + ', ' + values[1] + '%, ' + values[2] + '%';\n  } else {\n    colorString = color.type + '(' +
values[0] + ', ' + values[1] + ', ' + values[2];\n  }\n\n  if (values.length === 4) {\n    colorString += ', ' +
color.values[3] + ')';\n  } else {\n    colorString += ')';\n  }\n\n  return colorString;\n}\n/**\n * Converts a color from
CSS hex format to CSS rgb format.\n *\n *  @param {string} color - Hex color, i.e. #nnn or #nnnnnn\n *  @returns
{string} A CSS rgb color string\n */\n\n\nfunction convertHexToRGB(color) {\n  if (color.length === 4) {\n    var
extendedColor = '#';\n\n    for (var i = 1; i < color.length; i++) {\n      extendedColor += color.charAt(i) +
color.charAt(i);\n    }\n\n    color = extendedColor;\n
  }\n\n  var values = {\n    r: parseInt(color.substr(1, 2), 16),\n    g: parseInt(color.substr(3, 2), 16),\n    b:
parseInt(color.substr(5, 2), 16)\n  };\n  return 'rgb(' + values.r + ', ' + values.g + ', ' + values.b + ')';\n}\n/**\n *
Returns an object with the type and values of a color.\n *\n * Note: Does not support rgb % values and color
names.\n *\n * @param {string} color - CSS color, i.e. one of: #nnn, #nnnnnn, rgb(), rgba(), hsl(), hsla()\n *
@returns {{type: string, values: number[]}} A MUI color object\n */\n\n\nfunction decomposeColor(color) {\n  if
(color.charAt(0) === '#') {\n    return decomposeColor(convertHexToRGB(color));\n  }\n\n  var marker =
color.indexOf('(');\n  process.env.NODE_ENV !== \"production\" ? (0, _warning2.default)(marker !== -1, 'Material-
UI: The ' + color + ' color was not parsed correctly,\\n  because it has an unsupported format (color name or RGB
```

%). This may cause issues in component rendering.') : void 0;\n var type = color.substring(0, marker);\n var values = color.substring(marker + 1, color.length - 1).split(',');\n values = values.map(function (value) {\n   return parseFloat(value);\n });\n return {\n   type: type,\n   values: values\n };\n}\n/**\n * Calculates the contrast ratio between two colors.\n *\n * Formula: http://www.w3.org/TR/2008/REC-WCAG20-20081211/#contrast-ratiodef\n *\n * @param {string} foreground - CSS color, i.e. one of: #nnn, #nnnnnn, rgb(), rgba(), hsl(), hsla()\n * @param {string} background - CSS color, i.e. one of: #nnn, #nnnnnn, rgb(), rgba(), hsl(), hsla()\n * @returns {number} A contrast ratio value in the range 0 - 21 with 2 digit precision.\n */\n\n\nfunction getContrastRatio(foreground, background) {\n var lumA = getLuminance(foreground);\n var lumB = getLuminance(background);\n var contrastRatio = (Math.max(lumA, lumB) + 0.05) / (Math.min(lumA, lumB) + 0.05);\n return Number(contrastRatio.toFixed(2)); // Truncate at two digits\n}\n/**\n * The relative brightness of any point in a color space,\n * normalized to 0 for darkest black and 1 for lightest white.\n *\n * Formula: https://www.w3.org/WAI/GL/wiki/Relative_luminance\n *\n * @param {string} color - CSS color, i.e. one of: #nnn, #nnnnnn, rgb(), rgba(), hsl(), hsla()\n * @returns {number} The relative brightness of the color in the range 0 - 1\n */\n\n\nfunction getLuminance(color) {\n color = decomposeColor(color);\n\n if (color.type.indexOf('rgb') > -1) {\n   var rgb = color.values.map(function (val) {\n   val /= 255; // normalized\n\n   return val <= 0.03928 ? val / 12.92 : Math.pow((val + 0.055) / 1.055, 2.4);\n   });\n   return Number((0.2126 * rgb[0] + 0.7152 * rgb[1] + 0.0722 * rgb[2]).toFixed(3)); // Truncate at 3 digits\n } else if (color.type.indexOf('hsl') > -1) {\n   return color.values[2] / 100;\n }\n}\n/**\n * Darken or lighten a colour, depending on its luminance.\n * Light colors are darkened, dark colors are lightened.\n *\n * @param {string} color - CSS color, i.e. one of: #nnn, #nnnnnn, rgb(), rgba(), hsl(), hsla()\n * @param {number} coefficient=0.15 - multiplier in the range 0 - 1\n * @returns {string} A CSS color string. Hex input values are returned as rgb\n */\n\n\nfunction emphasize(color) {\n var coefficient = arguments.length > 1 && arguments[1] !== undefined ? arguments[1] : 0.15;\n return getLuminance(color) > 0.5 ? darken(color, coefficient) : lighten(color, coefficient);\n}\n/**\n * Set the absolute transparency of a color.\n * Any existing alpha values are overwritten.\n *\n * @param {string} color - CSS color, i.e. one of: #nnn, #nnnnnn, rgb(), rgba(), hsl(), hsla()\n * @param {number} value - value to set the alpha channel to in the range 0 -1\n * @returns {string} A CSS color string. Hex input values are returned as rgb\n */\n\n\nfunction fade(color, value) {\n color = decomposeColor(color);\n value = clamp(value, 0, 1);\n\n if (color.type === 'rgb' || color.type === 'hsl') {\n   color.type += 'a';\n }\n\n color.values[3] = value;\n return convertColorToString(color);\n}\n/**\n * Darkens a color.\n *\n * @param {string} color - CSS color, i.e. one of: #nnn, #nnnnnn, rgb(), rgba(), hsl(), hsla()\n * @param {number} coefficient - multiplier in the range 0 - 1\n * @returns {string} A CSS color string. Hex input values are returned as rgb\n */\n\n\nfunction darken(color, coefficient) {\n color = decomposeColor(color);\n coefficient = clamp(coefficient, 0, 1);\n\n if (color.type.indexOf('hsl') > -1) {\n   color.values[2] *= 1 - coefficient;\n } else if (color.type.indexOf('rgb') > -1) {\n   for (var i = 0; i < 3; i++) {\n   color.values[i] *= 1 - coefficient;\n   }\n }\n\n return convertColorToString(color);\n}\n/**\n * Lightens a color.\n *\n * @param {string} color - CSS color, i.e. one of: #nnn, #nnnnnn, rgb(), rgba(), hsl(), hsla()\n * @param {number} coefficient - multiplier in the range 0 - 1\n * @returns {string} A CSS color string. Hex input values are returned as rgb\n */\n\n\nfunction lighten(color, coefficient) {\n color = decomposeColor(color);\n coefficient = clamp(coefficient, 0, 1);\n\n if (color.type.indexOf('hsl') > -1) {\n   color.values[2] += (100 - color.values[2]) * coefficient;\n } else if (color.type.indexOf('rgb') > -1) {\n   for (var i = 0; i < 3; i++) {\n   color.values[i] += (255 - color.values[i]) * coefficient;\n   }\n }\n\n return convertColorToString(color);\n}","import arrayMap from './_arrayMap.js';\nimport copyArray from './_copyArray.js';\nimport isArray from './isArray.js';\nimport isSymbol from './isSymbol.js';\nimport stringToPath from './_stringToPath.js';\nimport toKey from './_toKey.js';\nimport toString from './toString.js';\n\n/**\n * Converts `value` to a property path array.\n *\n * @static\n * @memberOf _\n * @since 4.0.0\n * @category Util\n * @param {*} value The value to convert.\n * @returns {Array} Returns the new property path array.\n * @example\n *\n * _.toPath('a.b.c');\n * // => ['a', 'b', 'c']\n *\n * _.toPath('a[0].b.c');\n * // => ['a', '0', 'b', 'c']\n */\nfunction toPath(value) {\n if (isArray(value)) {\n   return arrayMap(value, toKey);\n }\n return isSymbol(value) ? [value] : copyArray(stringToPath(toString(value)));\n}\n\nexport default

toPath;","import baseGetTag from './_baseGetTag.js';\nimport isObjectLike from './isObjectLike.js';\n/**
`Object#toString` result references. */\n\nvar symbolTag = '[object Symbol]';\n/**\n * Checks if `value` is classified
as a `Symbol` primitive or object.\n *\n * @static\n * @memberOf _\n * @since 4.0.0\n * @category Lang\n *
@param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is a symbol, else `false`.\n *
@example\n *\n * _.isSymbol(Symbol.iterator);\n * // => true\n *\n * _.isSymbol('abc');\n * // => false\n
*/\n\nfunction isSymbol(value) {\n return typeof value == 'symbol' || isObjectLike(value) && baseGetTag(value)
== symbolTag;\n}\n\nexport default isSymbol;","import isFunction from './isFunction.js';\nimport
 isLength from './isLength.js';\n/**\n * Checks if `value` is array-like. A value is considered array-like if it's\n * not
a function and has a `value.length` that's an integer greater than or\n * equal to `0` and less than or equal to
`Number.MAX_SAFE_INTEGER`.\n *\n * @static\n * @memberOf _\n * @since 4.0.0\n * @category Lang\n *
@param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is array-like, else `false`.\n
* @example\n *\n * _.isArrayLike([1, 2, 3]);\n * // => true\n *\n * _.isArrayLike(document.body.children);\n * //
=> true\n *\n * _.isArrayLike('abc');\n * // => true\n *\n * _.isArrayLike(_.noop);\n * // => false\n */\n\nfunction
isArrayLike(value) {\n return value != null && isLength(value.length) && !isFunction(value);\n}\n\nexport default
isArrayLike;","import defineProperty from './_defineProperty.js';\n/**\n * The base implementation of
`assignValue` and `assignMergeValue` without\n * value checks.\n *\n * @private\n * @param
 {Object} object The object to modify.\n * @param {string} key The key of the property to assign.\n * @param {*}
value The value to assign.\n */\n\nfunction baseAssignValue(object, key, value) {\n if (key == '__proto__' &&
defineProperty) {\n   defineProperty(object, key, {\n   'configurable': true,\n   'enumerable': true,\n   'value':
value,\n   'writable': true\n   });\n } else {\n   object[key] = value;\n }\n}\n\nexport default
baseAssignValue;","/**\n * Removes all key-value entries from the list cache.\n *\n * @private\n * @name clear\n
* @memberOf ListCache\n */\nfunction listCacheClear() {\n this.__data__ = [];\n this.size = 0;\n}\n\nexport
default listCacheClear;","import eq from './eq.js';\n/**\n * Gets the index at which the `key` is found in `array` of
key-value pairs.\n *\n * @private\n * @param {Array} array The array to inspect.\n * @param {*} key The key to
search for.\n * @returns {number} Returns the index of the matched value, else `-1`.\n */\n\nfunction
 assocIndexOf(array, key) {\n var length = array.length;\n\n while (length--) {\n   if (eq(array[length][0], key)) {\n
   return length;\n   }\n }\n\n return -1;\n}\n\nexport default assocIndexOf;","import assocIndexOf from
'./_assocIndexOf.js';\n/** Used for built-in method references. */\n\nvar arrayProto = Array.prototype;\n/** Built-in
value references. */\n\nvar splice = arrayProto.splice;\n/**\n * Removes `key` and its value from the list cache.\n
*\n * @private\n * @name delete\n * @memberOf ListCache\n * @param {string} key The key of the value to
remove.\n * @returns {boolean} Returns `true` if the entry was removed, else `false`.\n */\n\nfunction
listCacheDelete(key) {\n var data = this.__data__,\n   index = assocIndexOf(data, key);\n\n if (index < 0) {\n
return false;\n }\n\n var lastIndex = data.length - 1;\n\n if (index == lastIndex) {\n   data.pop();\n } else {\n
splice.call(data, index, 1);\n }\n\n --this.size;\n return true;\n}\n\nexport
 default listCacheDelete;","import assocIndexOf from './_assocIndexOf.js';\n/**\n * Gets the list cache value for
`key`.\n *\n * @private\n * @name get\n * @memberOf ListCache\n * @param {string} key The key of the value
to get.\n * @returns {*} Returns the entry value.\n */\n\nfunction listCacheGet(key) {\n var data = this.__data__,\n
   index = assocIndexOf(data, key);\n return index < 0 ? undefined : data[index][1];\n}\n\nexport default
listCacheGet;","import assocIndexOf from './_assocIndexOf.js';\n/**\n * Checks if a list cache value for `key`
exists.\n *\n * @private\n * @name has\n * @memberOf ListCache\n * @param {string} key The key of the entry
to check.\n * @returns {boolean} Returns `true` if an entry for `key` exists, else `false`.\n */\n\nfunction
listCacheHas(key) {\n return assocIndexOf(this.__data__, key) > -1;\n}\n\nexport default listCacheHas;","import
assocIndexOf from './_assocIndexOf.js';\n/**\n * Sets the list cache `key` to `value`.\n *\n * @private\n
 * @name set\n * @memberOf ListCache\n * @param {string} key The key of the value to set.\n * @param {*}
value The value to set.\n * @returns {Object} Returns the list cache instance.\n */\n\nfunction listCacheSet(key,
value) {\n var data = this.__data__,\n   index = assocIndexOf(data, key);\n\n if (index < 0) {\n   ++this.size;\n
data.push([key, value]);\n } else {\n   data[index][1] = value;\n }\n\n return this;\n}\n\nexport default
listCacheSet;","import listCacheClear from './_listCacheClear.js';\nimport listCacheDelete from

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'./_listCacheDelete.js';\nimport listCacheGet from './_listCacheGet.js';\nimport listCacheHas from
'./_listCacheHas.js';\nimport listCacheSet from './_listCacheSet.js';\n/**\n * Creates an list cache object.\n *\n *
@private\n * @constructor\n * @param {Array} [entries] The key-value pairs to cache.\n */\n\nfunction
ListCache(entries) {\n  var index = -1,\n      length = entries == null ? 0 : entries.length;\n  this.clear();\n\n  while
(++index < length)
 {\n    var entry = entries[index];\n    this.set(entry[0], entry[1]);\n  }\n} // Add methods to
`ListCache`.\n\n\nListCache.prototype.clear = listCacheClear;\nListCache.prototype['delete'] =
listCacheDelete;\nListCache.prototype.get = listCacheGet;\nListCache.prototype.has =
listCacheHas;\nListCache.prototype.set = listCacheSet;\nexport default ListCache;","import getNative from
'./_getNative.js';\nimport root from './_root.js';\n/* Built-in method references that are verified to be native. */\n\nvar
Map = getNative(root, 'Map');\nexport default Map;","import ListCache from './_ListCache.js';\n/**\n * Removes all
key-value entries from the stack.\n *\n * @private\n * @name clear\n * @memberOf Stack\n */\n\nfunction
stackClear() {\n  this.__data__ = new ListCache();\n  this.size = 0;\n}\n\nexport default stackClear;","/**\n *
Removes `key` and its value from the stack.\n *\n * @private\n * @name delete\n * @memberOf Stack\n *
@param {string} key The key of the value to remove.\n *
 @returns {boolean} Returns `true` if the entry was removed, else `false`.\n */\nfunction stackDelete(key) {\n  var
data = this.__data__,\n      result = data['delete'](key);\n  this.size = data.size;\n  return result;\n}\n\nexport default
stackDelete;","/**\n * Gets the stack value for `key`.\n *\n * @private\n * @name get\n * @memberOf Stack\n *
@param {string} key The key of the value to get.\n * @returns {*} Returns the entry value.\n */\nfunction
stackGet(key) {\n  return this.__data__.get(key);\n}\n\nexport default stackGet;","/**\n * Checks if a stack value for
`key` exists.\n *\n * @private\n * @name has\n * @memberOf Stack\n * @param {string} key The key of the entry
to check.\n * @returns {boolean} Returns `true` if an entry for `key` exists, else `false`.\n */\nfunction
stackHas(key) {\n  return this.__data__.has(key);\n}\n\nexport default stackHas;","import ListCache from
'./_ListCache.js';\nimport Map from './_Map.js';\nimport MapCache from './_MapCache.js';\n/** Used as the
 size to enable large array optimizations. */\n\nvar LARGE_ARRAY_SIZE = 200;\n/**\n * Sets the stack `key` to
`value`.\n *\n * @private\n * @name set\n * @memberOf Stack\n * @param {string} key The key of the value to
set.\n * @param {*} value The value to set.\n * @returns {Object} Returns the stack cache instance.\n
*/\n\nfunction stackSet(key, value) {\n  var data = this.__data__;\n\n  if (data instanceof ListCache) {\n    var pairs =
data.__data__;\n\n    if (!Map || pairs.length < LARGE_ARRAY_SIZE - 1) {\n      pairs.push([key, value]);\n
this.size = ++data.size;\n      return this;\n    }\n\n    data = this.__data__ = new MapCache(pairs);\n  }\n\n
data.set(key, value);\n  this.size = data.size;\n  return this;\n}\n\nexport default stackSet;","import ListCache from
'./_ListCache.js';\nimport stackClear from './_stackClear.js';\nimport stackDelete from './_stackDelete.js';\nimport
stackGet from './_stackGet.js';\nimport stackHas from './_stackHas.js';\nimport stackSet from
 './_stackSet.js';\n/**\n * Creates a stack cache object to store key-value pairs.\n *\n * @private\n * @constructor\n
* @param {Array} [entries] The key-value pairs to cache.\n */\n\nfunction Stack(entries) {\n  var data =
this.__data__ = new ListCache(entries);\n  this.size = data.size;\n} // Add methods to
`Stack`.\n\n\nStack.prototype.clear = stackClear;\nStack.prototype['delete'] = stackDelete;\nStack.prototype.get =
stackGet;\nStack.prototype.has = stackHas;\nStack.prototype.set = stackSet;\nexport default Stack;","var
formatName = function formatName(_ref, name) {\n  var sectionPrefix = _ref._reduxForm.sectionPrefix;\n  return
sectionPrefix ? sectionPrefix + '.' + name : name;\n};\n\nexport default formatName;","var isObject = require('./_is-
object');\n\nmodule.exports = function (it) {\n  if (!isObject(it)) throw TypeError(it + ' is not an object!');\n  return
it;\n};","var hasOwnProperty = {}.hasOwnProperty;\n\nmodule.exports = function (it, key) {\n  return
hasOwnProperty.call(it,
 key);\n};","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default =
undefined;\n\nvar _IconButton = require('./IconButton');\n\nvar _IconButton2 =
_interopRequireDefault(_IconButton);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule
? obj : {\n    default: obj\n  };\n}\n\nexports.default = _IconButton2.default;","'use strict';\n\nexports.__esModule =
true;\n\nvar _shallowEqual = require('fbjs/lib/shallowEqual');\n\nvar _shallowEqual2 =
```

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_interopRequireDefault(_shallowEqual);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.default = _shallowEqual2.default;","\"use
strict\";\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default = {\n  set: function
set(style, key, value) {\n    style[key] = value;\n  }\n};","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\nexports.default
 = undefined;\n\nvar _TextField = require('./TextField');\n\nvar _TextField2 =
_interopRequireDefault(_TextField);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nexports.default = _TextField2.default;","import root from './_root.js';\nimport
stubFalse from './stubFalse.js';\n/** Detect free variable `exports`. */\n\nvar freeExports = typeof exports == 'object'
&& exports && !exports.nodeType && exports;\n/** Detect free variable `module`. */\n\nvar freeModule =
freeExports && typeof module == 'object' && module && !module.nodeType && module;\n/** Detect the popular
CommonJS extension `module.exports`. */\n\nvar moduleExports = freeModule && freeModule.exports ===
freeExports;\n/** Built-in value references. */\n\nvar Buffer = moduleExports ? root.Buffer : undefined;\n/* Built-in
method references for those with the same name as other `lodash` methods. */\n\nvar nativeIsBuffer = Buffer ?
Buffer.isBuffer : undefined;\n/**\n
 * Checks if `value` is a buffer.\n *\n * @static\n * @memberOf _\n * @since 4.3.0\n * @category Lang\n *
@param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is a buffer, else `false`.\n *
@example\n *\n * _.isBuffer(new Buffer(2));\n * // => true\n *\n * _.isBuffer(new Uint8Array(2));\n * // => false\n
*/\n\nvar isBuffer = nativeIsBuffer || stubFalse;\nexport default isBuffer;","import getNative from
'./_getNative.js';\n/* Built-in method references that are verified to be native. */\n\nvar nativeCreate =
getNative(Object, 'create');\nexport default nativeCreate;","import nativeCreate from './_nativeCreate.js';\n/**\n *
Removes all key-value entries from the hash.\n *\n * @private\n * @name clear\n * @memberOf Hash\n
*/\n\nfunction hashClear() {\n  this.__data__ = nativeCreate ? nativeCreate(null) : {};\n  this.size = 0;\n}\n\nexport
default hashClear;","/**\n * Removes `key` and its value from the hash.\n *\n * @private\n * @name delete\n *
@memberOf
 Hash\n * @param {Object} hash The hash to modify.\n * @param {string} key The key of the value to remove.\n *
@returns {boolean} Returns `true` if the entry was removed, else `false`.\n */\nfunction hashDelete(key) {\n  var
result = this.has(key) && delete this.__data__[key];\n  this.size -= result ? 1 : 0;\n  return result;\n}\n\nexport
default hashDelete;","import nativeCreate from './_nativeCreate.js';\n/** Used to stand-in for `undefined` hash
values. */\n\nvar HASH_UNDEFINED = '__lodash_hash_undefined__';\n/** Used for built-in method references.
*/\n\nvar objectProto = Object.prototype;\n/** Used to check objects for own properties. */\n\nvar hasOwnProperty
= objectProto.hasOwnProperty;\n/**\n * Gets the hash value for `key`.\n *\n * @private\n * @name get\n *
@memberOf Hash\n * @param {string} key The key of the value to get.\n * @returns {*} Returns the entry
value.\n */\n\nfunction hashGet(key) {\n  var data = this.__data__;\n\n  if (nativeCreate) {\n    var result =
data[key];\n
    return result === HASH_UNDEFINED ? undefined : result;\n  }\n\n  return hasOwnProperty.call(data, key) ?
data[key] : undefined;\n}\n\nexport default hashGet;","import nativeCreate from './_nativeCreate.js';\n/** Used for
built-in method references. */\n\nvar objectProto = Object.prototype;\n/** Used to check objects for own properties.
*/\n\nvar hasOwnProperty = objectProto.hasOwnProperty;\n/**\n * Checks if a hash value for `key` exists.\n *\n *
@private\n * @name has\n * @memberOf Hash\n * @param {string} key The key of the entry to check.\n *
@returns {boolean} Returns `true` if an entry for `key` exists, else `false`.\n */\n\nfunction hashHas(key) {\n  var
data = this.__data__;\n  return nativeCreate ? data[key] !== undefined : hasOwnProperty.call(data,
key);\n}\n\nexport default hashHas;","import nativeCreate from './_nativeCreate.js';\n/** Used to stand-in for
`undefined` hash values. */\n\nvar HASH_UNDEFINED = '__lodash_hash_undefined__';\n/**\n * Sets the hash
`key`
 to `value`.\n *\n * @private\n * @name set\n * @memberOf Hash\n * @param {string} key The key of the value
to set.\n * @param {*} value The value to set.\n * @returns {Object} Returns the hash instance.\n */\n\nfunction
hashSet(key, value) {\n  var data = this.__data__;\n  this.size += this.has(key) ? 0 : 1;\n  data[key] = nativeCreate
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&& value === undefined ? HASH_UNDEFINED : value;\n return this;\n}\n\nexport default hashSet;","import
hashClear from './_hashClear.js';\nimport hashDelete from './_hashDelete.js';\nimport hashGet from
'./_hashGet.js';\nimport hashHas from './_hashHas.js';\nimport hashSet from './_hashSet.js';\n/**\n * Creates a hash
object.\n *\n * @private\n * @constructor\n * @param {Array} [entries] The key-value pairs to cache.\n
*/\n\nfunction Hash(entries) {\n var index = -1,\n   length = entries == null ? 0 : entries.length;\n this.clear();\n\n
while (++index < length) {\n   var entry = entries[index];\n   this.set(entry[0], entry[1]);\n }\n} // Add
 methods to `Hash`.\n\n\nHash.prototype.clear = hashClear;\nHash.prototype['delete'] =
hashDelete;\nHash.prototype.get = hashGet;\nHash.prototype.has = hashHas;\nHash.prototype.set =
hashSet;\nexport default Hash;","import Hash from './_Hash.js';\nimport ListCache from './_ListCache.js';\nimport
Map from './_Map.js';\n/**\n * Removes all key-value entries from the map.\n *\n * @private\n * @name clear\n *
@memberOf MapCache\n */\n\nfunction mapCacheClear() {\n this.size = 0;\n this.__data__ = {\n   'hash': new
Hash(),\n   'map': new (Map || ListCache)(),\n   'string': new Hash()\n };\n}\n\nexport default
mapCacheClear;","/**\n * Checks if `value` is suitable for use as unique object key.\n *\n * @private\n * @param
{*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is suitable, else `false`.\n
*/\nfunction isKeyable(value) {\n var type = typeof value;\n return type == 'string' || type == 'number' || type ==
'symbol' || type == 'boolean' ? value !== '__proto__'
 : value === null;\n}\n\nexport default isKeyable;","import isKeyable from './_isKeyable.js';\n/**\n * Gets the data
for `map`.\n *\n * @private\n * @param {Object} map The map to query.\n * @param {string} key The reference
key.\n * @returns {*} Returns the map data.\n */\n\nfunction getMapData(map, key) {\n var data =
map.__data__;\n return isKeyable(key) ? data[typeof key == 'string' ? 'string' : 'hash'] : data.map;\n}\n\nexport
default getMapData;","import getMapData from './_getMapData.js';\n/**\n * Removes `key` and its value from the
map.\n *\n * @private\n * @name delete\n * @memberOf MapCache\n * @param {string} key The key of the
value to remove.\n * @returns {boolean} Returns `true` if the entry was removed, else `false`.\n */\n\nfunction
mapCacheDelete(key) {\n var result = getMapData(this, key)['delete'](key);\n this.size -= result ? 1 : 0;\n return
result;\n}\n\nexport default mapCacheDelete;","import getMapData from './_getMapData.js';\n/**\n * Gets the map
 value for `key`.\n *\n * @private\n * @name get\n * @memberOf MapCache\n * @param {string} key The key of
the value to get.\n * @returns {*} Returns the entry value.\n */\n\nfunction mapCacheGet(key) {\n return
getMapData(this, key).get(key);\n}\n\nexport default mapCacheGet;","import getMapData from
'./_getMapData.js';\n/**\n * Checks if a map value for `key` exists.\n *\n * @private\n * @name has\n *
@memberOf MapCache\n * @param {string} key The key of the entry to check.\n * @returns {boolean} Returns
`true` if an entry for `key` exists, else `false`.\n */\n\nfunction mapCacheHas(key) {\n return getMapData(this,
key).has(key);\n}\n\nexport default mapCacheHas;","import getMapData from './_getMapData.js';\n/**\n * Sets the
map `key` to `value`.\n *\n * @private\n * @name set\n * @memberOf MapCache\n * @param {string} key The
key of the value to set.\n * @param {*} value The value to set.\n * @returns {Object} Returns the map cache
instance.\n */\n\nfunction mapCacheSet(key, value)
 {\n var data = getMapData(this, key),\n   size = data.size;\n data.set(key, value);\n this.size += data.size == size
? 0 : 1;\n return this;\n}\n\nexport default mapCacheSet;","import mapCacheClear from
'./_mapCacheClear.js';\nimport mapCacheDelete from './_mapCacheDelete.js';\nimport mapCacheGet from
'./_mapCacheGet.js';\nimport mapCacheHas from './_mapCacheHas.js';\nimport mapCacheSet from
'./_mapCacheSet.js';\n/**\n * Creates a map cache object to store key-value pairs.\n *\n * @private\n *
@constructor\n * @param {Array} [entries] The key-value pairs to cache.\n */\n\nfunction MapCache(entries) {\n
var index = -1,\n   length = entries == null ? 0 : entries.length;\n this.clear();\n\n while (++index < length) {\n
var entry = entries[index];\n   this.set(entry[0], entry[1]);\n }\n} // Add methods to
`MapCache`.\n\n\nMapCache.prototype.clear = mapCacheClear;\nMapCache.prototype['delete'] =
mapCacheDelete;\nMapCache.prototype.get = mapCacheGet;\nMapCache.prototype.has
 = mapCacheHas;\nMapCache.prototype.set = mapCacheSet;\nexport default MapCache;","import baseGetTag from
'./_baseGetTag.js';\nimport isObjectLike from './isObjectLike.js';\n/** `Object#toString` result references. */\n\nvar
argsTag = '[object Arguments]';\n/**\n * The base implementation of `_.isArguments`.\n *\n * @private\n *

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@param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is an `arguments` object,\n
*/\n\nfunction baseIsArguments(value) {\n  return isObjectLike(value) && baseGetTag(value) ==
argsTag;\n}\n\nexport default baseIsArguments;","import baseIsArguments from './_baseIsArguments.js';\nimport
isObjectLike from './isObjectLike.js';\n/** Used for built-in method references. */\n\nvar objectProto =
Object.prototype;\n/** Used to check objects for own properties. */\n\nvar hasOwnProperty =
objectProto.hasOwnProperty;\n/** Built-in value references. */\n\nvar propertyIsEnumerable =
objectProto.propertyIsEnumerable;\n/**\n * Checks if `value`
 is likely an `arguments` object.\n *\n * @static\n * @memberOf _\n * @since 0.1.0\n * @category Lang\n *
@param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is an `arguments` object,\n
*  else `false`.\n * @example\n *\n * _.isArguments(function() { return arguments; }());\n * // => true\n *\n *
_.isArguments([1, 2, 3]);\n * // => false\n */\n\nvar isArguments = baseIsArguments(function () {\n  return
arguments;\n}()) ? baseIsArguments : function (value) {\n  return isObjectLike(value) &&
hasOwnProperty.call(value, 'callee') && !propertyIsEnumerable.call(value, 'callee');\n};\nexport default
isArguments;","var dP = require('./_object-dp');\nvar createDesc = require('./_property-desc');\nmodule.exports
= require('./_descriptors') ? function (object, key, value) {\n  return dP.f(object, key, createDesc(1, value));\n} :
function (object, key, value) {\n  object[key] = value;\n  return object;\n};","module.exports = function (it) {\n
return typeof
 it === 'object' ? it !== null : typeof it === 'function';\n};","module.exports = function (exec) {\n  try {\n    return
!!exec();\n  } catch (e) {\n    return true;\n  }\n};","// to indexed object, toObject with fallback for non-array-like ES3
strings\nvar IObject = require('./_iobject');\nvar defined = require('./_defined');\nmodule.exports = function (it)
{\n  return IObject(defined(it));\n};","// 7.1.13 ToObject(argument)\nvar defined =
require('./_defined');\nmodule.exports = function (it) {\n  return Object(defined(it));\n};","module.exports =
{};","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 =
require('babel-runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar
 _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-dom');\n\nvar
 _reactDom2 = _interopRequireDefault(_reactDom);\n\nvar _reactEventListener = require('react-event-
listener');\n\nvar _reactEventListener2 = _interopRequireDefault(_reactEventListener);\n\nvar _RenderToLayer =
require('../internal/RenderToLayer');\n\nvar _RenderToLayer2 = _interopRequireDefault(_RenderToLayer);\n\nvar
_propTypes3 = require('../utils/propTypes');\n\nvar _propTypes4 = _interopRequireDefault(_propTypes3);\n\nvar
_Paper = require('../Paper');\n\nvar _Paper2 = _interopRequireDefault(_Paper);\n\nvar _lodash =
require('lodash.throttle');\n\nvar _lodash2 = _interopRequireDefault(_lodash);\n\nvar _PopoverAnimationDefault =
require('./PopoverAnimationDefault');\n\nvar _PopoverAnimationDefault2 =
_interopRequireDefault(_PopoverAnimationDefault);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar styles = {\n  root: {\n    display: 'none'\n  }\n};\n\nvar
Popover = function (_Component) {\n  (0, _inherits3.default)(Popover,
```

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 _Component);\n\n  function Popover(props, context) {\n    (0, _classCallCheck3.default)(this, Popover);\n\n    var
_this = (0, _possibleConstructorReturn3.default)(this, (Popover.__proto__ || (0,
_getPrototypeOf2.default)(Popover)).call(this, props, context));\n\n    _this.timeout = null;\n\n    _this.renderLayer =
function () {\n      var _this$props = _this.props,\n          animated = _this$props.animated,\n          animation =
_this$props.animation,\n          anchorEl = _this$props.anchorEl,\n          anchorOrigin =
_this$props.anchorOrigin,\n          autoCloseWhenOffScreen = _this$props.autoCloseWhenOffScreen,\n
canAutoPosition = _this$props.canAutoPosition,\n          children = _this$props.children,\n          onRequestClose =
_this$props.onRequestClose,\n          style = _this$props.style,\n          targetOrigin = _this$props.targetOrigin,\n
 useLayerForClickAway = _this$props.useLayerForClickAway,\n          scrollableContainer
 = _this$props.scrollableContainer,\n          other = (0, _objectWithoutProperties3.default)(_this$props, ['animated',
'animation', 'anchorEl', 'anchorOrigin', 'autoCloseWhenOffScreen', 'canAutoPosition', 'children', 'onRequestClose',
'style', 'targetOrigin', 'useLayerForClickAway', 'scrollableContainer']);\n      var styleRoot = style;\n\n      if
(!animated) {\n        styleRoot = {\n          position: 'fixed',\n          zIndex: _this.context.muiTheme.zIndex.popover\n
      };\n\n        if (!_this.state.open) {\n          return null;\n        }\n\n        return
_react2.default.createElement(_Paper2.default, (0, _extends3.default)({\n          style: (0,
_simpleAssign2.default)(styleRoot, style)\n        }, other), children);\n      }\n\n      var Animation = animation ||
_PopoverAnimationDefault2.default;\n      return _react2.default.createElement(Animation, (0,
_extends3.default)({\n        targetOrigin: targetOrigin,\n        style: styleRoot\n      }, other, {\n        open:
 _this.state.open && !_this.state.closing\n      }), children);\n    };\n\n    _this.componentClickAway = function () {\n
   _this.requestClose('clickAway');\n    };\n\n    _this.setPlacement = function (scrolling) {\n      if (!_this.state.open)
{\n        return;\n      }\n\n      if (!_this.popoverRefs.layer.getLayer()) {\n        return;\n      }\n\n      var targetEl =
_this.popoverRefs.layer.getLayer().children[0];\n\n      if (!targetEl) {\n        return;\n      }\n\n      var _this$props2 =
_this.props,\n          targetOrigin = _this$props2.targetOrigin,\n          anchorOrigin = _this$props2.anchorOrigin;\n
 var anchorEl = _this.props.anchorEl || _this.anchorEl;\n\n      var anchor = _this.getAnchorPosition(anchorEl);\n\n
 var target = _this.getTargetPosition(targetEl);\n\n      var targetPosition = {\n        top: anchor[anchorOrigin.vertical]
- target[targetOrigin.vertical],\n        left: anchor[anchorOrigin.horizontal] - target[targetOrigin.horizontal]\n
   };\n\n      if (scrolling && _this.props.autoCloseWhenOffScreen) {\n
_this.autoCloseWhenOffScreen(anchor);\n      }\n\n      if (_this.props.canAutoPosition) {\n        target =
_this.getTargetPosition(targetEl); // update as height may have changed\n\n        targetPosition =
_this.applyAutoPositionIfNeeded(anchor, target, targetOrigin, anchorOrigin, targetPosition);\n      }\n\n
targetEl.style.top = targetPosition.top + 'px';\n      targetEl.style.left = targetPosition.left + 'px';\n
targetEl.style.maxHeight = window.innerHeight + 'px';\n    };\n\n    _this.handleResize = (0,
_lodash2.default)(_this.setPlacement, 100);\n    _this.handleScroll = (0,
_lodash2.default)(_this.setPlacement.bind(_this, true), 50);\n    _this.popoverRefs = {};\n    _this.state = {\n
open: props.open,\n      closing: false\n    };\n    return _this;\n  }\n\n  (0, _createClass3.default)(Popover, [{\n    key:
'componentDidMount',\n    value: function componentDidMount() {\n      this.placementTimeout
 = setTimeout(this.setPlacement);\n    }\n  }, {\n    key: 'componentWillReceiveProps',\n    value: function
componentWillReceiveProps(nextProps) {\n      var _this2 = this;\n\n      if (nextProps.open === this.props.open) {\n
      return;\n      }\n\n      if (nextProps.open) {\n        clearTimeout(this.timeout);\n        this.timeout = null;\n
this.anchorEl = nextProps.anchorEl || this.props.anchorEl;\n        this.setState({\n          open: true,\n          closing:
false\n        });\n      } else {\n        if (nextProps.animated) {\n          if (this.timeout !== null) return;\n
this.setState({\n            closing: true\n          });\n          this.timeout = setTimeout(function () {\n
_this2.setState({\n              open: false\n            }, function () {\n              _this2.timeout = null;\n            });\n          },
500);\n        } else {\n          this.setState({\n            open: false\n          });\n        }\n
  }\n    }\n  }, {\n    key: 'componentDidUpdate',\n    value: function componentDidUpdate() {\n
clearTimeout(this.placementTimeout);\n      this.placementTimeout = setTimeout(this.setPlacement);\n    }\n  }, {\n
key: 'componentWillUnmount',\n    value: function componentWillUnmount() {\n      this.handleResize.cancel();\n
 this.handleScroll.cancel();\n\n      if (this.placementTimeout) {\n        clearTimeout(this.placementTimeout);\n
```

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this.placementTimeout = null;\n      }\n\n      if (this.timeout) {\n        clearTimeout(this.timeout);\n        this.timeout
= null;\n      }\n    }\n  }, {\n    key: 'requestClose',\n    value: function requestClose(reason) {\n      if
(this.props.onRequestClose) {\n        this.props.onRequestClose(reason);\n      }\n    }\n  }, {\n    key:
'getAnchorPosition',\n    value: function getAnchorPosition(el) {\n      if (!el) {\n        el =
_reactDom2.default.findDOMNode(this);\n      }\n\n      var rect = el.getBoundingClientRect();\n
      var a = {\n        top: rect.top,\n        left: rect.left,\n        width: el.offsetWidth,\n        height: el.offsetHeight\n
};\n      a.right = rect.right || a.left + a.width;\n      a.bottom = rect.bottom || a.top + a.height;\n      a.middle = a.left +
(a.right - a.left) / 2;\n      a.center = a.top + (a.bottom - a.top) / 2;\n      return a;\n    }\n  }, {\n    key:
'getTargetPosition',\n    value: function getTargetPosition(targetEl) {\n      return {\n        top: 0,\n        center:
targetEl.offsetHeight / 2,\n        bottom: targetEl.offsetHeight,\n        left: 0,\n        middle: targetEl.offsetWidth / 2,\n
      right: targetEl.offsetWidth\n      };\n    }\n  }, {\n    key: 'autoCloseWhenOffScreen',\n    value: function
autoCloseWhenOffScreen(anchorPosition) {\n      if (anchorPosition.top < 0 || anchorPosition.top >
window.innerHeight || anchorPosition.left < 0 || anchorPosition.left > window.innerWidth) {\n
this.requestClose('offScreen');\n      }\n    }\n
  }, {\n    key: 'getOverlapMode',\n    value: function getOverlapMode(anchor, target, median) {\n      if ([anchor,
target].indexOf(median) >= 0) return 'auto';\n      if (anchor === target) return 'inclusive';\n      return 'exclusive';\n
}\n  }, {\n    key: 'getPositions',\n    value: function getPositions(anchor, target) {\n      var a = (0,
_extends3.default)({}, anchor);\n      var t = (0, _extends3.default)({}, target);\n      var positions = {\n        x: ['left',
'right'].filter(function (p) {\n          return p !== t.horizontal;\n        }),\n        y: ['top', 'bottom'].filter(function (p) {\n
      return p !== t.vertical;\n        })\n      };\n      var overlap = {\n        x: this.getOverlapMode(a.horizontal,
t.horizontal, 'middle'),\n        y: this.getOverlapMode(a.vertical, t.vertical, 'center')\n      };\n
positions.x.splice(overlap.x === 'auto' ? 0 : 1, 0, 'middle');\n      positions.y.splice(overlap.y === 'auto' ? 0 : 1, 0,
'center');\n\n      if (overlap.y
 !== 'auto') {\n        a.vertical = a.vertical === 'top' ? 'bottom' : 'top';\n\n        if (overlap.y === 'inclusive') {\n
t.vertical = t.vertical;\n        }\n      }\n\n      if (overlap.x !== 'auto') {\n        a.horizontal = a.horizontal === 'left' ?
'right' : 'left';\n\n        if (overlap.y === 'inclusive') {\n          t.horizontal = t.horizontal;\n        }\n      }\n\n      return
{\n        positions: positions,\n        anchorPos: a\n      };\n    }\n  }, {\n    key: 'applyAutoPositionIfNeeded',\n
value: function applyAutoPositionIfNeeded(anchor, target, targetOrigin, anchorOrigin, targetPosition) {\n      var
_getPositions = this.getPositions(anchorOrigin, targetOrigin),\n          positions = _getPositions.positions,\n
anchorPos = _getPositions.anchorPos;\n\n      if (targetPosition.top < 0 || targetPosition.top + target.bottom >
window.innerHeight) {\n        var newTop = anchor[anchorPos.vertical] - target[positions.y[0]];\n\n        if (newTop
 + target.bottom <= window.innerHeight) {\n          targetPosition.top = Math.max(0, newTop);\n        } else {\n
newTop = anchor[anchorPos.vertical] - target[positions.y[1]];\n\n          if (newTop + target.bottom <=
window.innerHeight) {\n            targetPosition.top = Math.max(0, newTop);\n          }\n        }\n      }\n\n      if
(targetPosition.left < 0 || targetPosition.left + target.right > window.innerWidth) {\n        var newLeft =
anchor[anchorPos.horizontal] - target[positions.x[0]];\n\n        if (newLeft + target.right <= window.innerWidth) {\n
       targetPosition.left = Math.max(0, newLeft);\n        } else {\n          newLeft = anchor[anchorPos.horizontal] -
target[positions.x[1]];\n\n          if (newLeft + target.right <= window.innerWidth) {\n            targetPosition.left =
Math.max(0, newLeft);\n          }\n        }\n      }\n\n      return targetPosition;\n    }\n  }, {\n    key: 'render',\n    value:
function render() {\n      var _this3 = this;\n\n
      var eventListener = this.state.open ? _react2.default.createElement(_reactEventListener2.default, {\n        target:
this.props.scrollableContainer,\n        onScroll: this.handleScroll,\n        onResize: this.handleResize\n      }) : null;\n
   return _react2.default.createElement('div', {\n        style: styles.root\n      }, eventListener,
_react2.default.createElement(_RenderToLayer2.default, {\n        ref: function ref(_ref) {\n          return
_this3.popoverRefs.layer = _ref;\n        },\n        open: this.state.open,\n        componentClickAway:
this.componentClickAway,\n        useLayerForClickAway: this.props.useLayerForClickAway,\n        render:
this.renderLayer\n      }));\n    }\n  }]);\n  return Popover;\n}(_react.Component);\n\nPopover.defaultProps = {\n
anchorOrigin: {\n    vertical: 'bottom',\n    horizontal: 'left'\n  },\n  animated: true,\n  autoCloseWhenOffScreen:
```

```
true,\n  canAutoPosition: true,\n  onRequestClose: function onRequestClose() {},\n
  open: false,\n  scrollableContainer: 'window',\n  style: {\n    overflowY: 'auto'\n  },\n  targetOrigin: {\n    vertical:
'top',\n    horizontal: 'left'\n  },\n  useLayerForClickAway: true,\n  zDepth: 1\n};\nPopover.contextTypes = {\n
muiTheme: _propTypes2.default.object.isRequired\n};\nPopover.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  /**\n   * This is the DOM element that will be used to set the position of the\n   * popover.\n
*/\n  anchorEl: _propTypes2.default.object,\n\n  /**\n   * This is the point on the anchor where the popover's\n   *
`targetOrigin` will attach to.\n   * Options:\n   * vertical: [top, center, bottom]\n   * horizontal: [left, middle, right].\n
 */\n  anchorOrigin: _propTypes4.default.origin,\n\n  /**\n   * If true, the popover will apply transitions when\n   * it
is added to the DOM.\n   */\n  animated: _propTypes2.default.bool,\n\n  /**\n   * Override the default animation
component used.\n   */\n  animation: _propTypes2.default.func,\n\n
  /**\n   * If true, the popover will hide when the anchor is scrolled off the screen.\n   */\n
autoCloseWhenOffScreen: _propTypes2.default.bool,\n\n  /**\n   * If true, the popover (potentially) ignores
`targetOrigin`\n   * and `anchorOrigin` to make itself fit on screen,\n   * which is useful for mobile devices.\n   */\n
canAutoPosition: _propTypes2.default.bool,\n\n  /**\n   * The content of the popover.\n   */\n  children:
_propTypes2.default.node,\n\n  /**\n   * The CSS class name of the root element.\n   */\n  className:
_propTypes2.default.string,\n\n  /**\n   * Callback function fired when the popover is requested to be closed.\n   *\n
* @param {string} reason The reason for the close request. Possibles values\n   * are 'clickAway' and 'offScreen'.\n
*/\n  onRequestClose: _propTypes2.default.func,\n\n  /**\n   * If true, the popover is visible.\n   */\n  open:
_propTypes2.default.bool,\n\n  /**\n   * Represents the parent scrollable container.\n   * It can be an element
 or a string like `window`.\n   */\n  scrollableContainer:
_propTypes2.default.oneOfType([_propTypes2.default.object, _propTypes2.default.string]),\n\n  /**\n   * Override
the inline-styles of the root element.\n   */\n  style: _propTypes2.default.object,\n\n  /**\n   * This is the point on the
popover which will attach to\n   * the anchor's origin.\n   * Options:\n   * vertical: [top, center, bottom]\n   *
horizontal: [left, middle, right].\n   */\n  targetOrigin: _propTypes4.default.origin,\n\n  /**\n   * If true, the popover
will render on top of an invisible\n   * layer, which will prevent clicks to the underlying\n   * elements, and trigger
an `onRequestClose('clickAway')` call.\n   */\n  useLayerForClickAway: _propTypes2.default.bool,\n\n  /**\n   *
The zDepth of the popover.\n   */\n  zDepth: _propTypes4.default.zDepth\n} : {};\nexports.default =
Popover;","\"use strict\";\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default =
getPrefixedValue;\n\nfunction
 getPrefixedValue(prefixedValue, value, keepUnprefixed) {\n  if (keepUnprefixed) {\n    return [prefixedValue,
value];\n  }\n\n  return prefixedValue;\n}\n\nmodule.exports = exports[\"default\"];","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends = Object.assign ||
function (target) {\n  for (var i = 1; i < arguments.length; i++) {\n    var source = arguments[i];\n\n    for (var key in
source) {\n      if (Object.prototype.hasOwnProperty.call(source, key)) {\n        target[key] = source[key];\n      }\n
}\n  }\n\n  return target;\n};\n\nfunction _defineProperty(obj, key, value) {\n  if (key in obj) {\n
Object.defineProperty(obj, key, {\n      value: value,\n      enumerable: true,\n      configurable: true,\n      writable:
true\n    });\n  } else {\n    obj[key] = value;\n  }\n\n  return obj;\n}\n\nfunction _objectWithoutProperties(obj, keys)
{\n  var target = {};\n\n  for (var i in obj) {\n    if (keys.indexOf(i)
 >= 0) continue;\n    if (!Object.prototype.hasOwnProperty.call(obj, i)) continue;\n    target[i] = obj[i];\n  }\n\n
return target;\n}\n\nvar mapError = function mapError(_ref) {\n  var errorProp = arguments.length > 1 &&
arguments[1] !== undefined ? arguments[1] : 'errorText';\n  var _ref$meta = _ref.meta;\n  _ref$meta = _ref$meta
=== undefined ? {} : _ref$meta;\n\n  var touched = _ref$meta.touched,\n      error = _ref$meta.error,\n      warning =
_ref$meta.warning,\n      input = _ref.input,\n      props = _objectWithoutProperties(_ref, ['meta', 'input']);\n\n  return
touched && (error || warning) ? _extends({}, props, input, _defineProperty({}, errorProp, error || warning)) :
_extends({}, input, props);\n};\n\nexports.default = mapError;","/**\n * Copyright (c) 2013-present, Facebook,
Inc.\n *\n * This source code is licensed under the MIT license found in the\n * LICENSE file in the root directory
of this source tree.\n */\nfunction componentWillMount() {\n  // Call this.constructor.gDSFP
```

to support sub-classes.\n var state = this.constructor.getDerivedStateFromProps(this.props, this.state);\n\n if (state !== null && state !== undefined) {\n   this.setState(state);\n }\n}\n\nfunction componentWillReceiveProps(nextProps) {\n // Call this.constructor.gDSFP to support sub-classes.\n // Use the setState() updater to ensure state isn't stale in certain edge cases.\n function updater(prevState) {\n   var state = this.constructor.getDerivedStateFromProps(nextProps, prevState);\n   return state !== null && state !== undefined ? state : null;\n } // Binding \"this\" is important for shallow renderer support.\n\n\n this.setState(updater.bind(this));\n}\n\nfunction componentWillUpdate(nextProps, nextState) {\n try {\n   var prevProps = this.props;\n   var prevState = this.state;\n   this.props = nextProps;\n   this.state = nextState;\n   this.__reactInternalSnapshotFlag = true;\n   this.__reactInternalSnapshot = this.getSnapshotBeforeUpdate(prevProps, prevState);\n } finally {\n   this.props = prevProps;\n   this.state = prevState;\n }\n} // React may warn about cWM/cWRP/cWU methods being deprecated.\n// Add a flag to suppress these warnings for this special case.\n\n\ncomponentWillMount.__suppressDeprecationWarning = true;\ncomponentWillReceiveProps.__suppressDeprecationWarning = true;\ncomponentWillUpdate.__suppressDeprecationWarning = true;\n\nfunction polyfill(Component) {\n var prototype = Component.prototype;\n\n if (!prototype || !prototype.isReactComponent) {\n   throw new Error('Can only polyfill class components');\n }\n\n if (typeof Component.getDerivedStateFromProps !== 'function' && typeof prototype.getSnapshotBeforeUpdate !== 'function') {\n   return Component;\n } // If new component APIs are defined, \"unsafe\" lifecycles won't be called.\n // Error if any of these lifecycles are present,\n // Because they would work differently between older and newer (16.3+) versions of React.\n\n\n var foundWillMountName = null;\n var foundWillReceivePropsName = null;\n var foundWillUpdateName = null;\n\n if (typeof prototype.componentWillMount === 'function') {\n   foundWillMountName = 'componentWillMount';\n } else if (typeof prototype.UNSAFE_componentWillMount === 'function') {\n   foundWillMountName = 'UNSAFE_componentWillMount';\n }\n\n if (typeof prototype.componentWillReceiveProps === 'function') {\n   foundWillReceivePropsName = 'componentWillReceiveProps';\n } else if (typeof prototype.UNSAFE_componentWillReceiveProps === 'function') {\n   foundWillReceivePropsName = 'UNSAFE_componentWillReceiveProps';\n }\n\n if (typeof prototype.componentWillUpdate === 'function') {\n   foundWillUpdateName = 'componentWillUpdate';\n } else if (typeof prototype.UNSAFE_componentWillUpdate === 'function') {\n   foundWillUpdateName = 'UNSAFE_componentWillUpdate';\n }\n\n if (foundWillMountName !== null || foundWillReceivePropsName !== null || foundWillUpdateName !== null) {\n   var componentName = Component.displayName || Component.name;\n   var newApiName = typeof Component.getDerivedStateFromProps === 'function' ? 'getDerivedStateFromProps()' : 'getSnapshotBeforeUpdate()';\n   throw Error('Unsafe legacy lifecycles will not be called for components using new component APIs.\\n\\n' + componentName + ' uses ' + newApiName + ' but also contains the following legacy lifecycles:' + (foundWillMountName !== null ? '\\n ' + foundWillMountName : '') + (foundWillReceivePropsName !== null ? '\\n ' + foundWillReceivePropsName : '') + (foundWillUpdateName !== null ? '\\n ' + foundWillUpdateName : '') + '\\n\\nThe above lifecycles should be removed. Learn more about this warning here:\\n' + 'https://fb.me/react-async-component-lifecycle-hooks');\n } // React <= 16.2 does not support static getDerivedStateFromProps.\n // As a workaround, use cWM and cWRP to invoke the new static lifecycle.\n // Newer versions of React will ignore these lifecycles if gDSFP exists.\n\n\n if (typeof Component.getDerivedStateFromProps === 'function') {\n   prototype.componentWillMount = componentWillMount;\n   prototype.componentWillReceiveProps = componentWillReceiveProps;\n } // React <= 16.2 does not support getSnapshotBeforeUpdate.\n // As a workaround, use cWU to invoke the new lifecycle.\n // Newer versions of React will ignore that lifecycle if gSBU exists.\n\n\n if (typeof prototype.getSnapshotBeforeUpdate === 'function') {\n   if (typeof prototype.componentDidUpdate !== 'function') {\n   throw new Error('Cannot polyfill getSnapshotBeforeUpdate() for components that do not define componentDidUpdate() on the prototype');\n   }\n\n   prototype.componentWillUpdate = componentWillUpdate;\n

var componentDidUpdate = prototype.componentDidUpdate;\n\n   prototype.componentDidUpdate = function componentDidUpdatePolyfill(prevProps, prevState, maybeSnapshot) {\n   // 16.3+ will not execute our will-update method;\n   // It will pass a snapshot value to did-update though.\n   // Older versions will require our polyfilled will-update value.\n   // We need to handle both cases, but can't just check for the presence of \"maybeSnapshot\",\n   // Because for <= 15.x versions this might be a \"prevContext\" object.\n   // We also can't just check \"__reactInternalSnapshot\",\n   // Because get-snapshot might return a falsy value.\n   // So check for the explicit __reactInternalSnapshotFlag flag to determine behavior.\n   var snapshot = this.__reactInternalSnapshotFlag ? this.__reactInternalSnapshot : maybeSnapshot;\n componentDidUpdate.call(this, prevProps, prevState, snapshot);\n   };\n }\n\n return Component;\n}\n\nexport { polyfill };","import baseGetTag from './_baseGetTag.js';\nimport isObject from './isObject.js';\n/** `Object#toString` result references. */\n\nvar asyncTag = '[object AsyncFunction]',\n   funcTag = '[object Function]',\n   genTag = '[object GeneratorFunction]',\n   proxyTag = '[object Proxy]';\n/**\n * Checks if `value` is classified as a `Function` object.\n *\n * @static\n * @memberOf _\n * @since 0.1.0\n * @category Lang\n * @param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is a function, else `false`.\n * @example\n *\n * _.isFunction(_);\n * // => true\n *\n * _.isFunction(/abc/);\n * // => false\n */\n\nfunction isFunction(value) {\n if (!isObject(value)) {\n   return false;\n } // The use of `Object#toString` avoids issues with the `typeof` operator\n // in Safari 9 which returns 'object' for typed arrays and other constructors.\n\n\n var tag = baseGetTag(value);\n return tag == funcTag || tag == genTag || tag == asyncTag || tag == proxyTag;\n}\n\nexport default isFunction;","/** Used as references for various `Number` constants. */\nvar MAX_SAFE_INTEGER = 9007199254740991;\n/**\n * Checks if `value` is a valid array-like length.\n *\n * **Note:** This method is loosely based on\n * [`ToLength`](http://ecma-international.org/ecma-262/7.0/#sec-tolength).\n *\n * @static\n * @memberOf _\n * @since 4.0.0\n * @category Lang\n * @param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is a valid length, else `false`.\n * @example\n *\n * _.isLength(3);\n * // => true\n *\n * _.isLength(Number.MIN_VALUE);\n * // => false\n *\n * _.isLength(Infinity);\n * // => false\n *\n * _.isLength('3');\n * // => false\n */\n\nfunction isLength(value) {\n return typeof value == 'number' && value > -1 && value % 1 == 0 && value <= MAX_SAFE_INTEGER;\n}\n\nexport default isLength;","/** Used as references for various `Number` constants. */\nvar MAX_SAFE_INTEGER = 9007199254740991;\n/** Used to detect unsigned integer values. */\n\nvar reIsUint = /^(?:0|[1-9]\\d*)$/;\n/**\n * Checks if `value` is a valid array-like index.\n *\n * @private\n * @param {*} value The value to check.\n * @param {number} [length=MAX_SAFE_INTEGER] The upper bounds of a valid index.\n * @returns {boolean} Returns `true` if `value` is a valid index, else `false`.\n */\n\nfunction isIndex(value, length) {\n var type = typeof value;\n length = length == null ? MAX_SAFE_INTEGER : length;\n return !!length && (type == 'number' || type != 'symbol' && reIsUint.test(value)) && value > -1 && value % 1 == 0 && value < length;\n}\n\nexport default isIndex;","/** Used for built-in method references. */\nvar objectProto = Object.prototype;\n/**\n * Checks if `value` is likely a prototype object.\n *\n * @private\n * @param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is a prototype, else `false`.\n */\n\nfunction isPrototype(value) {\n var Ctor = value && value.constructor,\n   proto = typeof Ctor == 'function' && Ctor.prototype || objectProto;\n return value === proto;\n}\n\nexport default isPrototype;","/**\n * This method returns the first argument it receives.\n *\n * @static\n * @since 0.1.0\n * @memberOf _\n * @category Util\n * @param {*} value Any value.\n * @returns {*} Returns `value`.\n * @example\n *\n * var object = { 'a': 1 };\n *\n * console.log(_.identity(object) === object);\n * // => true\n */\nfunction identity(value) {\n return value;\n}\n\nexport default identity;","module.exports = isPromise;\nmodule.exports.default = isPromise;\n\nfunction isPromise(obj) {\n return !!obj && (typeof obj === 'object' || typeof obj === 'function') && typeof obj.then === 'function';\n}","/** Used to stand-in for `undefined` hash values. */\nvar HASH_UNDEFINED = '__lodash_hash_undefined__';\n/**\n * Adds `value` to the array cache.\n *\n * @private\n * @name add\n * @memberOf SetCache\n * @alias push\n * @param {*} value The value to cache.\n * @returns {Object} Returns the cache instance.\n */\n\nfunction

setCacheAdd(value) {\n this.__data__.set(value, HASH_UNDEFINED);\n\n return this;\n}\n\nexport default setCacheAdd;","/**\n * Checks if `value` is in the array cache.\n *\n * @private\n * @name has\n * @memberOf SetCache\n * @param {*} value The value
to search for.\n * @returns {number} Returns `true` if `value` is found, else `false`.\n */\nfunction setCacheHas(value) {\n return this.__data__.has(value);\n}\n\nexport default setCacheHas;","import MapCache from './_MapCache.js';\nimport setCacheAdd from './_setCacheAdd.js';\nimport setCacheHas from './_setCacheHas.js';\n/**\n *\n * Creates an array cache object to store unique values.\n *\n * @private\n * @constructor\n * @param {Array} [values] The values to cache.\n */\n\nfunction SetCache(values) {\n var index = -1,\n length = values == null ? 0 : values.length;\n this.__data__ = new MapCache();\n\n while (++index < length) {\n this.add(values[index]);\n }\n} // Add methods to `SetCache`.\n\n\nSetCache.prototype.add = SetCache.prototype.push = setCacheAdd;\nSetCache.prototype.has = setCacheHas;\nexport default SetCache;","/**\n * A specialized version of `_.some` for arrays without support for iteratee\n * shorthands.\n *\n * @private\n * @param {Array} [array]
The array to iterate over.\n * @param {Function} predicate The function invoked per iteration.\n * @returns {boolean} Returns `true` if any element passes the predicate check,\n * else `false`.\n */\nfunction arraySome(array, predicate) {\n var index = -1,\n length = array == null ? 0 : array.length;\n\n while (++index < length) {\n if (predicate(array[index], index, array)) {\n return true;\n }\n }\n\n return false;\n}\n\nexport default arraySome;","/**\n * Checks if a `cache` value for `key` exists.\n *\n * @private\n * @param {Object} cache The cache to query.\n * @param {string} key The key of the entry to check.\n * @returns {boolean} Returns `true` if an entry for `key` exists, else `false`.\n */\nfunction cacheHas(cache, key) {\n return cache.has(key);\n}\n\nexport default cacheHas;","import SetCache from './_SetCache.js';\nimport arraySome from './_arraySome.js';\nimport cacheHas from './_cacheHas.js';\n/** Used to compose bitmasks for value comparisons.
*/\n\nvar COMPARE_PARTIAL_FLAG = 1,\n COMPARE_UNORDERED_FLAG = 2;\n/**\n * A specialized version of `baseIsEqualDeep` for arrays with support for\n * partial deep comparisons.\n *\n * @private\n * @param {Array} array The array to compare.\n * @param {Array} other The other array to compare.\n * @param {number} bitmask The bitmask flags. See `baseIsEqual` for more details.\n * @param {Function} customizer The function to customize comparisons.\n * @param {Function} equalFunc The function to determine equivalents of values.\n * @param {Object} stack Tracks traversed `array` and `other` objects.\n * @returns {boolean} Returns `true` if the arrays are equivalent, else `false`.\n */\n\nfunction equalArrays(array, other, bitmask, customizer, equalFunc, stack) {\n var isPartial = bitmask & COMPARE_PARTIAL_FLAG,\n arrLength = array.length,\n othLength = other.length;\n\n if (arrLength != othLength && !(isPartial && othLength > arrLength)) {\n return false;\n } // Check that
cyclic values are equal.\n\n\n var arrStacked = stack.get(array);\n var othStacked = stack.get(other);\n\n if (arrStacked && othStacked) {\n return arrStacked == other && othStacked == array;\n }\n\n var index = -1,\n result = true,\n seen = bitmask & COMPARE_UNORDERED_FLAG ? new SetCache() : undefined;\n stack.set(array, other);\n stack.set(other, array); // Ignore non-index properties.\n\n while (++index < arrLength) {\n var arrValue = array[index],\n othValue = other[index];\n\n if (customizer) {\n var compared = isPartial ? customizer(othValue, arrValue, index, other, array, stack) : customizer(arrValue, othValue, index, array, other, stack);\n }\n\n if (compared !== undefined) {\n if (compared) {\n continue;\n }\n\n result = false;\n break;\n } // Recursively compare arrays (susceptible to call stack limits).\n\n\n if (seen) {\n if (!arraySome(other, function (othValue, othIndex) {\n if (!cacheHas(seen,
othIndex) && (arrValue === othValue || equalFunc(arrValue, othValue, bitmask, customizer, stack))) {\n return seen.push(othIndex);\n }\n })) {\n result = false;\n break;\n }\n } else if (!(arrValue === othValue || equalFunc(arrValue, othValue, bitmask, customizer, stack))) {\n result = false;\n break;\n }\n }\n\n stack['delete'](array);\n stack['delete'](other);\n return result;\n}\n\nexport default equalArrays;","/**\n * Converts `map` to its key-value pairs.\n *\n * @private\n * @param {Object} map The map to convert.\n * @returns {Array} Returns the key-value pairs.\n */\nfunction mapToArray(map) {\n var index = -1,\n result = Array(map.size);\n map.forEach(function (value, key) {\n result[++index] = [key, value];\n });\n return

result;\n}\n\nexport default mapToArray;","/**\n * Converts `set` to an array of its values.\n *\n * @private\n * @param {Object} set The set to convert.\n * @returns {Array}
 Returns the values.\n */\nfunction setToArray(set) {\n var index = -1,\n   result = Array(set.size);\n set.forEach(function (value) {\n   result[++index] = value;\n });\n return result;\n}\n\nexport default setToArray;","import Symbol from './_Symbol.js';\nimport Uint8Array from './_Uint8Array.js';\nimport eq from './eq.js';\nimport equalArrays from './_equalArrays.js';\nimport mapToArray from './_mapToArray.js';\nimport setToArray from './_setToArray.js';\n/** Used to compose bitmasks for value comparisons. */\n\nvar COMPARE_PARTIAL_FLAG = 1,\n   COMPARE_UNORDERED_FLAG = 2;\n/** `Object#toString` result references. */\n\nvar boolTag = '[object Boolean]',\n   dateTag = '[object Date]',\n   errorTag = '[object Error]',\n mapTag = '[object Map]',\n   numberTag = '[object Number]',\n   regexpTag = '[object RegExp]',\n   setTag = '[object Set]',\n   stringTag = '[object String]',\n   symbolTag = '[object Symbol]';\nvar arrayBufferTag = '[object ArrayBuffer]',\n   dataViewTag
 = '[object DataView]';\n/** Used to convert symbols to primitives and strings. */\n\nvar symbolProto = Symbol ? Symbol.prototype : undefined,\n   symbolValueOf = symbolProto ? symbolProto.valueOf : undefined;\n/**\n * A specialized version of `baseIsEqualDeep` for comparing objects of\n * the same `toStringTag`.\n *\n * **Note:** This function only supports comparing values with tags of\n * `Boolean`, `Date`, `Error`, `Number`, `RegExp`, or `String`.\n *\n * @private\n * @param {Object} object The object to compare.\n * @param {Object} other The other object to compare.\n * @param {string} tag The `toStringTag` of the objects to compare.\n * @param {number} bitmask The bitmask flags. See `baseIsEqual` for more details.\n * @param {Function} customizer The function to customize comparisons.\n * @param {Function} equalFunc The function to determine equivalents of values.\n * @param {Object} stack Tracks traversed `object` and `other` objects.\n * @returns {boolean} Returns `true`
 if the objects are equivalent, else `false`.\n */\n\nfunction equalByTag(object, other, tag, bitmask, customizer, equalFunc, stack) {\n switch (tag) {\n   case dataViewTag:\n   if (object.byteLength != other.byteLength || object.byteOffset != other.byteOffset) {\n   return false;\n   }\n\n   object = object.buffer;\n   other = other.buffer;\n\n   case arrayBufferTag:\n   if (object.byteLength != other.byteLength || !equalFunc(new Uint8Array(object), new Uint8Array(other))) {\n   return false;\n   }\n\n   return true;\n\n   case boolTag:\n case dateTag:\n   case numberTag:\n   // Coerce booleans to `1` or `0` and dates to milliseconds.\n   // Invalid dates are coerced to `NaN`.\n   return eq(+object, +other);\n\n   case errorTag:\n   return object.name == other.name && object.message == other.message;\n\n   case regexpTag:\n   case stringTag:\n   // Coerce regexes to strings and treat strings, primitives and objects,\n   // as
 equal. See http://www.ecma-international.org/ecma-262/7.0/#sec-regexp.prototype.tostring\n   // for more details.\n   return object == other + '';\n\n   case mapTag:\n   var convert = mapToArray;\n\n   case setTag:\n var isPartial = bitmask & COMPARE_PARTIAL_FLAG;\n   convert || (convert = setToArray);\n\n   if (object.size != other.size && !isPartial) {\n   return false;\n   } // Assume cyclic values are equal.\n\n\n   var stacked = stack.get(object);\n\n   if (stacked) {\n   return stacked == other;\n   }\n\n   bitmask |= COMPARE_UNORDERED_FLAG; // Recursively compare objects (susceptible to call stack limits).\n\n stack.set(object, other);\n   var result = equalArrays(convert(object), convert(other), bitmask, customizer, equalFunc, stack);\n   stack['delete'](object);\n   return result;\n\n   case symbolTag:\n   if (symbolValueOf) {\n   return symbolValueOf.call(object) == symbolValueOf.call(other);\n   }\n\n
  }\n\n return false;\n}\n\nexport default equalByTag;","/**\n * Appends the elements of `values` to `array`.\n *\n * @private\n * @param {Array} array The array to modify.\n * @param {Array} values The values to append.\n * @returns {Array} Returns `array`.\n */\nfunction arrayPush(array, values) {\n var index = -1,\n   length = values.length,\n   offset = array.length;\n\n while (++index < length) {\n   array[offset + index] = values[index];\n }\n\n return array;\n}\n\nexport default arrayPush;","import arrayPush from './_arrayPush.js';\nimport isArray from './isArray.js';\n/**\n * The base implementation of `getAllKeys` and `getAllKeysIn` which uses\n * `keysFunc` and `symbolsFunc` to get the enumerable property names and\n * symbols of `object`.\n *\n * @private\n * @param {Object} object The object to query.\n * @param {Function} keysFunc The function to get the keys of `object`.\n *

@param {Function} symbolsFunc The function to get the symbols of `object`.\n * @returns
{Array} Returns the array of property names and symbols.\n */\n\nfunction baseGetAllKeys(object, keysFunc,
symbolsFunc) {\n var result = keysFunc(object);\n return isArray(object) ? result : arrayPush(result,
symbolsFunc(object));\n}\n\nexport default baseGetAllKeys;","/**\n * A specialized version of `_.filter` for arrays
without support for\n * iteratee shorthands.\n *\n * @private\n * @param {Array} [array] The array to iterate
over.\n * @param {Function} predicate The function invoked per iteration.\n * @returns {Array} Returns the new
filtered array.\n */\nfunction arrayFilter(array, predicate) {\n var index = -1,\n   length = array == null ? 0 :
array.length,\n   resIndex = 0,\n   result = [];\n\n while (++index < length) {\n   var value = array[index];\n\n
if (predicate(value, index, array)) {\n   result[resIndex++] = value;\n   }\n }\n\n return result;\n}\n\nexport
default arrayFilter;","/**\n * This method returns a new empty array.\n *\n * @static\n *
@memberOf _\n * @since 4.13.0\n * @category Util\n * @returns {Array} Returns the new empty array.\n *
@example\n *\n * var arrays = _.times(2, _.stubArray);\n *\n * console.log(arrays);\n * // => [[], []]\n *\n *
console.log(arrays[0] === arrays[1]);\n * // => false\n */\nfunction stubArray() {\n return [];\n}\n\nexport default
stubArray;","import arrayFilter from './_arrayFilter.js';\nimport stubArray from './stubArray.js';\n/** Used for built-
in method references. */\n\nvar objectProto = Object.prototype;\n/** Built-in value references. */\n\nvar
propertyIsEnumerable = objectProto.propertyIsEnumerable;\n/* Built-in method references for those with the same
name as other `lodash` methods. */\n\nvar nativeGetSymbols = Object.getOwnPropertySymbols;\n/**\n * Creates
an array of the own enumerable symbols of `object`.\n *\n * @private\n * @param {Object} object The object to
query.\n * @returns {Array} Returns the array of symbols.\n */\n\nvar getSymbols = !nativeGetSymbols ?
stubArray
: function (object) {\n if (object == null) {\n   return [];\n }\n\n object = Object(object);\n return
arrayFilter(nativeGetSymbols(object), function (symbol) {\n   return propertyIsEnumerable.call(object, symbol);\n
});\n};\nexport default getSymbols;","import baseGetAllKeys from './_baseGetAllKeys.js';\nimport getSymbols
from './_getSymbols.js';\nimport keys from './keys.js';\n/**\n * Creates an array of own enumerable property names
and symbols of `object`.\n *\n * @private\n * @param {Object} object The object to query.\n * @returns {Array}
Returns the array of property names and symbols.\n */\n\nfunction getAllKeys(object) {\n return
baseGetAllKeys(object, keys, getSymbols);\n}\n\nexport default getAllKeys;","import getAllKeys from
'./_getAllKeys.js';\n/** Used to compose bitmasks for value comparisons. */\n\nvar COMPARE_PARTIAL_FLAG
= 1;\n/** Used for built-in method references. */\n\nvar objectProto = Object.prototype;\n/** Used to check objects
for own properties. */\n\nvar
hasOwnProperty = objectProto.hasOwnProperty;\n/**\n * A specialized version of `baseIsEqualDeep` for objects
with support for\n * partial deep comparisons.\n *\n * @private\n * @param {Object} object The object to
compare.\n * @param {Object} other The other object to compare.\n * @param {number} bitmask The bitmask
flags. See `baseIsEqual` for more details.\n * @param {Function} customizer The function to customize
comparisons.\n * @param {Function} equalFunc The function to determine equivalents of values.\n * @param
{Object} stack Tracks traversed `object` and `other` objects.\n * @returns {boolean} Returns `true` if the objects are
equivalent, else `false`.\n */\n\nfunction equalObjects(object, other, bitmask, customizer, equalFunc, stack) {\n var
isPartial = bitmask & COMPARE_PARTIAL_FLAG,\n   objProps = getAllKeys(object),\n   objLength =
objProps.length,\n   othProps = getAllKeys(other),\n   othLength = othProps.length;\n\n if (objLength !=
othLength && !isPartial)
{\n   return false;\n }\n\n var index = objLength;\n\n while (index--) {\n   var key = objProps[index];\n\n   if
(!(isPartial ? key in other : hasOwnProperty.call(other, key))) {\n   return false;\n   }\n } // Check that cyclic
values are equal.\n\n\n var objStacked = stack.get(object);\n var othStacked = stack.get(other);\n\n if (objStacked
&& othStacked) {\n   return objStacked == other && othStacked == object;\n }\n\n var result = true;\n
stack.set(object, other);\n stack.set(other, object);\n var skipCtor = isPartial;\n\n while (++index < objLength) {\n
key = objProps[index];\n   var objValue = object[key],\n   othValue = other[key];\n\n   if (customizer) {\n   var
compared = isPartial ? customizer(othValue, objValue, key, other, object, stack) : customizer(objValue, othValue,
key, object, other, stack);\n   } // Recursively compare objects (susceptible to call stack limits).\n\n\n   if

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(!(compared === undefined ? objValue === othValue ||
 equalFunc(objValue, othValue, bitmask, customizer, stack) : compared)) {\n      result = false;\n      break;\n    }\n\n
 skipCtor || (skipCtor = key == 'constructor');\n  }\n\n  if (result && !skipCtor) {\n    var objCtor =
object.constructor,\n        othCtor = other.constructor; // Non `Object` object instances with different constructors are
not equal.\n\n    if (objCtor != othCtor && 'constructor' in object && 'constructor' in other && !(typeof objCtor ==
'function' && objCtor instanceof objCtor && typeof othCtor == 'function' && othCtor instanceof othCtor)) {\n
result = false;\n    }\n  }\n\n  stack['delete'](object);\n  stack['delete'](other);\n  return result;\n}\n\nexport default
equalObjects;","import getNative from './_getNative.js';\nimport root from './_root.js';\n/* Built-in method references
that are verified to be native. */\n\nvar DataView = getNative(root, 'DataView');\nexport default DataView;","import
getNative from './_getNative.js';\nimport root from './_root.js';\n/*
 Built-in method references that are verified to be native. */\n\nvar Promise = getNative(root, 'Promise');\nexport
default Promise;","import getNative from './_getNative.js';\nimport root from './_root.js';\n/* Built-in method
references that are verified to be native. */\n\nvar Set = getNative(root, 'Set');\nexport default Set;","import
getNative from './_getNative.js';\nimport root from './_root.js';\n/* Built-in method references that are verified to be
native. */\n\nvar WeakMap = getNative(root, 'WeakMap');\nexport default WeakMap;","import DataView from
'./_DataView.js';\nimport Map from './_Map.js';\nimport Promise from './_Promise.js';\nimport Set from
'./_Set.js';\nimport WeakMap from './_WeakMap.js';\nimport baseGetTag from './_baseGetTag.js';\nimport toSource
from './_toSource.js';\n/** `Object#toString` result references. */\n\nvar mapTag = '[object Map]',\n    objectTag =
'[object Object]',\n    promiseTag = '[object Promise]',\n    setTag = '[object Set]',\n
  weakMapTag = '[object WeakMap]';\nvar dataViewTag = '[object DataView]';\n/** Used to detect maps, sets, and
weakmaps. */\n\nvar dataViewCtorString = toSource(DataView),\n    mapCtorString = toSource(Map),\n
promiseCtorString = toSource(Promise),\n    setCtorString = toSource(Set),\n    weakMapCtorString =
toSource(WeakMap);\n/**\n * Gets the `toStringTag` of `value`.\n *\n * @private\n * @param {*} value The value
to query.\n * @returns {string} Returns the `toStringTag`.\n */\n\nvar getTag = baseGetTag; // Fallback for data
views, maps, sets, and weak maps in IE 11 and promises in Node.js < 6.\n\nif (DataView && getTag(new
DataView(new ArrayBuffer(1))) != dataViewTag || Map && getTag(new Map()) != mapTag || Promise &&
getTag(Promise.resolve()) != promiseTag || Set && getTag(new Set()) != setTag || WeakMap && getTag(new
WeakMap()) != weakMapTag) {\n  getTag = function getTag(value) {\n    var result = baseGetTag(value),\n
Ctor = result == objectTag ? value.constructor : undefined,\n
        ctorString = Ctor ? toSource(Ctor) : '';\n\n    if (ctorString) {\n      switch (ctorString) {\n        case
dataViewCtorString:\n          return dataViewTag;\n\n        case mapCtorString:\n          return mapTag;\n\n        case
promiseCtorString:\n          return promiseTag;\n\n        case setCtorString:\n          return setTag;\n\n        case
weakMapCtorString:\n          return weakMapTag;\n      }\n    }\n\n    return result;\n  };\n}\n\nexport default
getTag;","import Stack from './_Stack.js';\nimport equalArrays from './_equalArrays.js';\nimport equalByTag from
'./_equalByTag.js';\nimport equalObjects from './_equalObjects.js';\nimport getTag from './_getTag.js';\nimport
isArray from './isArray.js';\nimport isBuffer from './isBuffer.js';\nimport isTypedArray from './isTypedArray.js';\n/**
Used to compose bitmasks for value comparisons. */\n\nvar COMPARE_PARTIAL_FLAG = 1;\n/**
`Object#toString` result references. */\n\nvar argsTag = '[object Arguments]',\n
    arrayTag = '[object Array]',\n    objectTag = '[object Object]';\n/** Used for built-in method references. */\n\nvar
objectProto = Object.prototype;\n/** Used to check objects for own properties. */\n\nvar hasOwnProperty =
objectProto.hasOwnProperty;\n/**\n * A specialized version of `baseIsEqual` for arrays and objects which
performs\n * deep comparisons and tracks traversed objects enabling objects with circular\n * references to be
compared.\n *\n * @private\n * @param {Object} object The object to compare.\n * @param {Object} other The
other object to compare.\n * @param {number} bitmask The bitmask flags. See `baseIsEqual` for more details.\n *
@param {Function} customizer The function to customize comparisons.\n * @param {Function} equalFunc The
function to determine equivalents of values.\n * @param {Object} [stack] Tracks traversed `object` and `other`
objects.\n * @returns {boolean} Returns `true` if the objects are equivalent, else `false`.\n */\n\nfunction
baseIsEqualDeep(object,
```

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 other, bitmask, customizer, equalFunc, stack) {\n  var objIsArr = isArray(object),\n      othIsArr = isArray(other),\n
  objTag = objIsArr ? arrayTag : getTag(object),\n      othTag = othIsArr ? arrayTag : getTag(other);\n  objTag =
objTag == argsTag ? objectTag : objTag;\n  othTag = othTag == argsTag ? objectTag : othTag;\n  var objIsObj =
objTag == objectTag,\n      othIsObj = othTag == objectTag,\n      isSameTag = objTag == othTag;\n\n  if
(isSameTag && isBuffer(object)) {\n    if (!isBuffer(other)) {\n      return false;\n    }\n\n    objIsArr = true;\n
objIsObj = false;\n  }\n\n  if (isSameTag && !objIsObj) {\n    stack || (stack = new Stack());\n    return objIsArr ||
isTypedArray(object) ? equalArrays(object, other, bitmask, customizer, equalFunc, stack) : equalByTag(object,
other, objTag, bitmask, customizer, equalFunc, stack);\n  }\n\n  if (!(bitmask & COMPARE_PARTIAL_FLAG)) {\n
  var objIsWrapped = objIsObj && hasOwnProperty.call(object, '__wrapped__'),\n
      othIsWrapped = othIsObj && hasOwnProperty.call(other, '__wrapped__');\n\n    if (objIsWrapped ||
othIsWrapped) {\n      var objUnwrapped = objIsWrapped ? object.value() : object,\n          othUnwrapped =
othIsWrapped ? other.value() : other;\n      stack || (stack = new Stack());\n      return equalFunc(objUnwrapped,
othUnwrapped, bitmask, customizer, stack);\n    }\n  }\n\n  if (!isSameTag) {\n    return false;\n  }\n\n  stack || (stack
= new Stack());\n  return equalObjects(object, other, bitmask, customizer, equalFunc, stack);\n}\n\nexport default
baseIsEqualDeep;","import baseIsEqualDeep from './_baseIsEqualDeep.js';\nimport isObjectLike from
'./isObjectLike.js';\n/**\n * The base implementation of `_.isEqual` which supports partial comparisons\n * and
tracks traversed objects.\n *\n * @private\n * @param {*} value The value to compare.\n * @param {*} other The
other value to compare.\n * @param {boolean} bitmask The bitmask flags.\n *  1 - Unordered comparison\n *  2 -
Partial
 comparison\n * @param {Function} [customizer] The function to customize comparisons.\n * @param {Object}
[stack] Tracks traversed `value` and `other` objects.\n * @returns {boolean} Returns `true` if the values are
equivalent, else `false`.\n */\n\nfunction baseIsEqual(value, other, bitmask, customizer, stack) {\n  if (value ===
other) {\n    return true;\n  }\n\n  if (value == null || other == null || !isObjectLike(value) && !isObjectLike(other))
{\n    return value !== value && other !== other;\n  }\n\n  return baseIsEqualDeep(value, other, bitmask,
customizer, baseIsEqual, stack);\n}\n\nexport default baseIsEqual;","import baseGetTag from
'./_baseGetTag.js';\nimport isLength from './isLength.js';\nimport isObjectLike from './isObjectLike.js';\n/**
`Object#toString` result references. */\n\nvar argsTag = '[object Arguments]',\n    arrayTag = '[object Array]',\n
boolTag = '[object Boolean]',\n    dateTag = '[object Date]',\n    errorTag = '[object Error]',\n    funcTag = '[object
 Function]',\n    mapTag = '[object Map]',\n    numberTag = '[object Number]',\n    objectTag = '[object Object]',\n
regexpTag = '[object RegExp]',\n    setTag = '[object Set]',\n    stringTag = '[object String]',\n    weakMapTag =
'[object WeakMap]';\nvar arrayBufferTag = '[object ArrayBuffer]',\n    dataViewTag = '[object DataView]',\n
float32Tag = '[object Float32Array]',\n    float64Tag = '[object Float64Array]',\n    int8Tag = '[object Int8Array]',\n
int16Tag = '[object Int16Array]',\n    int32Tag = '[object Int32Array]',\n    uint8Tag = '[object Uint8Array]',\n
uint8ClampedTag = '[object Uint8ClampedArray]',\n    uint16Tag = '[object Uint16Array]',\n    uint32Tag = '[object
Uint32Array]';\n/** Used to identify `toStringTag` values of typed arrays. */\n\nvar typedArrayTags =
{};\ntypedArrayTags[float32Tag] = typedArrayTags[float64Tag] = typedArrayTags[int8Tag] =
typedArrayTags[int16Tag] = typedArrayTags[int32Tag] = typedArrayTags[uint8Tag] =
typedArrayTags[uint8ClampedTag]
 = typedArrayTags[uint16Tag] = typedArrayTags[uint32Tag] = true;\ntypedArrayTags[argsTag] =
typedArrayTags[arrayTag] = typedArrayTags[arrayBufferTag] = typedArrayTags[boolTag] =
typedArrayTags[dataViewTag] = typedArrayTags[dateTag] = typedArrayTags[errorTag] =
typedArrayTags[funcTag] = typedArrayTags[mapTag] = typedArrayTags[numberTag] =
typedArrayTags[objectTag] = typedArrayTags[regexpTag] = typedArrayTags[setTag] = typedArrayTags[stringTag]
= typedArrayTags[weakMapTag] = false;\n/**\n * The base implementation of `_.isTypedArray` without Node.js
optimizations.\n *\n * @private\n * @param {*} value The value to check.\n * @returns {boolean} Returns `true` if
`value` is a typed array, else `false`.\n */\n\nfunction baseIsTypedArray(value) {\n  return isObjectLike(value) &&
isLength(value.length) && !!typedArrayTags[baseGetTag(value)];\n}\n\nexport default baseIsTypedArray;","/**\n
* The base implementation of `_.unary` without support for storing metadata.\n *\n * @private\n * @param
```

{Function} func The function to cap arguments for.\n * @returns {Function} Returns the new capped function.\n */\nfunction baseUnary(func) {\n return function (value) {\n   return func(value);\n };\n}\n\nexport default baseUnary;","import baseIsTypedArray from './_baseIsTypedArray.js';\nimport baseUnary from './_baseUnary.js';\nimport nodeUtil from './_nodeUtil.js';\n/* Node.js helper references. */\n\nvar nodeIsTypedArray = nodeUtil && nodeUtil.isTypedArray;\n/**\n * Checks if `value` is classified as a typed array.\n *\n * @static\n * @memberOf _\n * @since 3.0.0\n * @category Lang\n * @param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is a typed array, else `false`.\n * @example\n *\n * _.isTypedArray(new Uint8Array);\n * // => true\n *\n * _.isTypedArray([]);\n * // => false\n */\n\nvar isTypedArray = nodeIsTypedArray ? baseUnary(nodeIsTypedArray) : baseIsTypedArray;\nexport default isTypedArray;","import overArg from './_overArg.js';\n/* Built-in

method references for those with the same name as other `lodash` methods. */\n\nvar nativeKeys = overArg(Object.keys, Object);\nexport default nativeKeys;","import isPrototype from './_isPrototype.js';\nimport nativeKeys from './_nativeKeys.js';\n/** Used for built-in method references. */\n\nvar objectProto = Object.prototype;\n/** Used to check objects for own properties. */\n\nvar hasOwnProperty = objectProto.hasOwnProperty;\n/**\n * The base implementation of `_.keys` which doesn't treat sparse arrays as dense.\n *\n * @private\n * @param {Object} object The object to query.\n * @returns {Array} Returns the array of property names.\n */\n\nfunction baseKeys(object) {\n if (!isPrototype(object)) {\n   return nativeKeys(object);\n }\n\n var result = [];\n\n for (var key in Object(object)) {\n   if (hasOwnProperty.call(object, key) && key != 'constructor') {\n   result.push(key);\n   }\n }\n\n return result;\n}\n\nexport default baseKeys;","import arrayLikeKeys from

'./_arrayLikeKeys.js';\nimport baseKeys from './_baseKeys.js';\nimport isArrayLike from './isArrayLike.js';\n/**\n * Creates an array of the own enumerable property names of `object`.\n *\n * **Note:** Non-object values are coerced to objects. See the\n * [ES spec](http://ecma-international.org/ecma-262/7.0/#sec-object.keys)\n * for more details.\n *\n * @static\n * @since 0.1.0\n * @memberOf _\n * @category Object\n * @param {Object} object The object to query.\n * @returns {Array} Returns the array of property names.\n * @example\n *\n * function Foo() {\n *   this.a = 1;\n *   this.b = 2;\n * }\n *\n * Foo.prototype.c = 3;\n *\n * _.keys(new Foo);\n * // => ['a', 'b'] (iteration order is not guaranteed)\n *\n * _.keys('hi');\n * // => ['0', '1']\n */\n\nfunction keys(object) {\n return isArrayLike(object) ? arrayLikeKeys(object) : baseKeys(object);\n}\n\nexport default keys;","import root from './_root.js';\n/** Built-in value references. */\n\nvar Uint8Array = root.Uint8Array;\nexport

default Uint8Array;","import getNative from './_getNative.js';\n\nvar defineProperty = function () {\n try {\n   var func = getNative(Object, 'defineProperty');\n   func({}, '', {});\n   return func;\n } catch (e) {}\n}();\n\nexport default defineProperty;","module.exports = function (bitmap, value) {\n return {\n   enumerable: !(bitmap & 1),\n   configurable: !(bitmap & 2),\n   writable: !(bitmap & 4),\n   value: value\n };\n};","// 19.1.2.14 / 15.2.3.14 Object.keys(O)\nvar $keys = require('./_object-keys-internal');\n\nvar enumBugKeys = require('./_enum-bug-keys');\n\nmodule.exports = Object.keys || function keys(O) {\n return $keys(O, enumBugKeys);\n};","\"use strict\";\n\nexports.__esModule = true;\n\nvar _iterator = require(\"../core-js/symbol/iterator\");\n\nvar _iterator2 = _interopRequireDefault(_iterator);\n\nvar _symbol = require(\"../core-js/symbol\");\n\nvar _symbol2 = _interopRequireDefault(_symbol);\n\nvar _typeof = typeof _symbol2.default === \"function\"

&& typeof _iterator2.default === \"symbol\" ? function (obj) {\n return typeof obj;\n} : function (obj) {\n return obj && typeof _symbol2.default === \"function\" && obj.constructor === _symbol2.default && obj !== _symbol2.default.prototype ? \"symbol\" : typeof obj;\n};\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nexports.default = typeof _symbol2.default === \"function\" && _typeof(_iterator2.default) === \"symbol\" ? function (obj) {\n return typeof obj === \"undefined\" ? \"undefined\" : _typeof(obj);\n} : function (obj) {\n return obj && typeof _symbol2.default === \"function\" && obj.constructor === _symbol2.default && obj !== _symbol2.default.prototype ? \"symbol\" : typeof obj === \"undefined\" ? \"undefined\" : _typeof(obj);\n};","'use strict';\n\nexports.__esModule = true;\n\nvar _extends = Object.assign || function (target) {\n for (var i = 1; i < arguments.length; i++) {\n   var source = arguments[i];\n\n

for (var key in source) {\n   if (Object.prototype.hasOwnProperty.call(source, key)) {\n   target[key] = source[key];\n   }\n   }\n }\n\n return target;\n};\n\nvar _chainFunction = require('chain-function');\n\nvar _chainFunction2 = _interopRequireDefault(_chainFunction);\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _warning = require('warning');\n\nvar _warning2 = _interopRequireDefault(_warning);\n\nvar _ChildMapping = require('./utils/ChildMapping');\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nfunction _classCallCheck(instance, Constructor) {\n if (!(instance instanceof Constructor)) {\n   throw new TypeError(\"Cannot call a class as a function\");\n }\n}\n\nfunction _possibleConstructorReturn(self, call) {\n if (!self) {\n   throw new ReferenceError(\"this
hasn't been initialised - super() hasn't been called\");\n }\n\n return call && (typeof call === \"object\" || typeof call === \"function\") ? call : self;\n}\n\nfunction _inherits(subClass, superClass) {\n if (typeof superClass !== \"function\" && superClass !== null) {\n   throw new TypeError(\"Super expression must either be null or a function, not \" + typeof superClass);\n }\n\n subClass.prototype = Object.create(superClass && superClass.prototype, {\n   constructor: {\n   value: subClass,\n   enumerable: false,\n   writable: true,\n   configurable: true\n   }\n });\n if (superClass) Object.setPrototypeOf ? Object.setPrototypeOf(subClass, superClass) : subClass.__proto__ = superClass;\n}\n\nvar propTypes = {\n component: _propTypes2.default.any,\n childFactory: _propTypes2.default.func,\n children: _propTypes2.default.node\n};\nvar defaultProps = {\n component: 'span',\n childFactory: function childFactory(child) {\n   return child;\n
}\n};\n\nvar TransitionGroup = function (_React$Component) {\n _inherits(TransitionGroup, _React$Component);\n\n function TransitionGroup(props, context) {\n   _classCallCheck(this, TransitionGroup);\n\n   var _this = _possibleConstructorReturn(this, _React$Component.call(this, props, context));\n\n   _this.performAppear = function (key, component) {\n   _this.currentlyTransitioningKeys[key] = true;\n\n   if (component.componentWillAppear) {\n   component.componentWillAppear(_this._handleDoneAppearing.bind(_this, key, component));\n   } else {\n   _this._handleDoneAppearing(key, component);\n   }\n   };\n\n   _this._handleDoneAppearing = function (key, component) {\n   if (component.componentDidAppear) {\n   component.componentDidAppear();\n   }\n\n   delete _this.currentlyTransitioningKeys[key];\n   var currentChildMapping = (0, _ChildMapping.getChildMapping)(_this.props.children);\n\n   if (!currentChildMapping || !currentChildMapping.hasOwnProperty(key))
{\n   // This was removed before it had fully appeared. Remove it.\n   _this.performLeave(key, component);\n   }\n   };\n\n   _this.performEnter = function (key, component) {\n   _this.currentlyTransitioningKeys[key] = true;\n\n   if (component.componentWillEnter) {\n   component.componentWillEnter(_this._handleDoneEntering.bind(_this, key, component));\n   } else {\n   _this._handleDoneEntering(key, component);\n   }\n   };\n\n   _this._handleDoneEntering = function (key, component) {\n   if (component.componentDidEnter) {\n   component.componentDidEnter();\n   }\n\n   delete _this.currentlyTransitioningKeys[key];\n   var currentChildMapping = (0, _ChildMapping.getChildMapping)(_this.props.children);\n\n   if (!currentChildMapping || !currentChildMapping.hasOwnProperty(key)) {\n   // This was removed before it had fully entered. Remove it.\n   _this.performLeave(key, component);\n   }\n   };\n\n
_this.performLeave = function (key, component) {\n   _this.currentlyTransitioningKeys[key] = true;\n\n   if (component.componentWillLeave) {\n   component.componentWillLeave(_this._handleDoneLeaving.bind(_this, key, component));\n   } else {\n   // Note that this is somewhat dangerous b/c it calls setState()\n   // again, effectively mutating the component before all the work\n   // is done.\n   _this._handleDoneLeaving(key, component);\n   }\n   };\n\n   _this._handleDoneLeaving = function (key, component) {\n   if (component.componentDidLeave) {\n   component.componentDidLeave();\n   }\n\n   delete _this.currentlyTransitioningKeys[key];\n   var currentChildMapping = (0, _ChildMapping.getChildMapping)(_this.props.children);\n\n   if (currentChildMapping &&

currentChildMapping.hasOwnProperty(key)) {\n   // This entered again before it fully left. Add it again.\n _this.keysToEnter.push(key);\n   } else {\n   _this.setState(function (state) {\n   var newChildren = _extends({}, state.children);\n\n   delete newChildren[key];\n   return {\n   children: newChildren\n   };\n   });\n   }\n   };\n\n _this.childRefs = Object.create(null);\n   _this.state = {\n   children: (0, _ChildMapping.getChildMapping)(props.children)\n   };\n   return _this;\n }\n\n TransitionGroup.prototype.componentWillMount = function componentWillMount() {\n this.currentlyTransitioningKeys = {};\n   this.keysToEnter = [];\n   this.keysToLeave = [];\n };\n\n TransitionGroup.prototype.componentDidMount = function componentDidMount() {\n   var initialChildMapping = this.state.children;\n\n   for (var key in initialChildMapping) {\n   if (initialChildMapping[key]) {\n this.performAppear(key, this.childRefs[key]);\n   }\n   }\n };\n\n TransitionGroup.prototype.componentWillReceiveProps = function componentWillReceiveProps(nextProps) {\n   var nextChildMapping = (0, _ChildMapping.getChildMapping)(nextProps.children);\n   var prevChildMapping = this.state.children;\n   this.setState({\n   children: (0, _ChildMapping.mergeChildMappings)(prevChildMapping, nextChildMapping)\n   });\n\n   for (var key in nextChildMapping) {\n   var hasPrev = prevChildMapping && prevChildMapping.hasOwnProperty(key);\n\n   if (nextChildMapping[key] && !hasPrev && !this.currentlyTransitioningKeys[key]) {\n   this.keysToEnter.push(key);\n   }\n   }\n\n   for (var _key in prevChildMapping) {\n   var hasNext = nextChildMapping && nextChildMapping.hasOwnProperty(_key);\n\n if (prevChildMapping[_key] && !hasNext && !this.currentlyTransitioningKeys[_key]) {\n this.keysToLeave.push(_key);\n   }\n   } // If we want to someday check for reordering, we could do it here.\n\n };\n\n TransitionGroup.prototype.componentDidUpdate = function componentDidUpdate() {\n   var _this2 = this;\n\n   var keysToEnter = this.keysToEnter;\n   this.keysToEnter = [];\n   keysToEnter.forEach(function (key) {\n   return _this2.performEnter(key, _this2.childRefs[key]);\n   });\n   var keysToLeave = this.keysToLeave;\n   this.keysToLeave = [];\n keysToLeave.forEach(function (key) {\n   return _this2.performLeave(key, _this2.childRefs[key]);\n   });\n };\n\n TransitionGroup.prototype.render = function render() {\n   var _this3 = this; // TODO: we could get rid of the need for the wrapper node\n   // by cloning a single child\n\n\n   var childrenToRender = [];\n\n   var _loop = function _loop(key) {\n   var child = _this3.state.children[key];\n\n   if (child) {\n   var isCallbackRef = typeof child.ref !== 'string';\n\n   var factoryChild = _this3.props.childFactory(child);\n\n   var ref = function ref(r) {\n   _this3.childRefs[key] = r;\n   };\n\n   process.env.NODE_ENV !== 'production' ? (0, _warning2.default)(isCallbackRef, 'string refs are not supported
 on children of TransitionGroup and will be ignored. ' + 'Please use a callback ref instead: https://facebook.github.io/react/docs/refs-and-the-dom.html#the-ref-callback-attribute') : void 0; // Always chaining the refs leads to problems when the childFactory\n   // wraps the child. The child ref callback gets called twice with the\n   // wrapper and the child. So we only need to chain the ref if the\n   // factoryChild is not different from child.\n\n   if (factoryChild === child && isCallbackRef) {\n   ref = (0, _chainFunction2.default)(child.ref, ref);\n   } // You may need to apply reactive updates to a child as it is leaving.\n   // The normal React way to do it won't work since the child will have\n   // already been removed. In case you need this behavior you can provide\n   // a childFactory function to wrap every child, even the ones that are\n   // leaving.\n\n\n   childrenToRender.push(_react2.default.cloneElement(factoryChild, {\n   key: key,\n   ref: ref\n   }));\n   }\n   };\n\n   for (var key in this.state.children) {\n _loop(key);\n   } // Do not forward TransitionGroup props to primitive DOM nodes\n\n\n   var props = _extends({}, this.props);\n\n   delete props.transitionLeave;\n   delete props.transitionName;\n   delete props.transitionAppear;\n   delete props.transitionEnter;\n   delete props.childFactory;\n   delete props.transitionLeaveTimeout;\n   delete props.transitionEnterTimeout;\n   delete props.transitionAppearTimeout;\n   delete props.component;\n   return _react2.default.createElement(this.props.component, props, childrenToRender);\n };\n\n return TransitionGroup;\n}(_react2.default.Component);\n\nTransitionGroup.displayName =

'TransitionGroup';\nTransitionGroup.propTypes = process.env.NODE_ENV !== \"production\" ? propTypes :
{};\nTransitionGroup.defaultProps = defaultProps;\nexports.default = TransitionGroup;\nmodule.exports =
exports['default'];","\"use
 strict\";\n\nexports.__esModule = true;\n\nvar _from = require(\"../core-js/array/from\");\n\nvar _from2 =
_interopRequireDefault(_from);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj :
{\n   default: obj\n };\n}\n\nexports.default = function (arr) {\n if (Array.isArray(arr)) {\n   for (var i = 0, arr2 =
Array(arr.length); i < arr.length; i++) {\n   arr2[i] = arr[i];\n   }\n\n   return arr2;\n } else {\n   return (0,
_from2.default)(arr);\n }\n};","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value:
true\n});\nexports.default = undefined;\n\nvar _Checkbox = require('./Checkbox');\n\nvar _Checkbox2 =
_interopRequireDefault(_Checkbox);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ?
obj : {\n   default: obj\n };\n}\n\nexports.default = _Checkbox2.default;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\nexports.defaultUtils =
undefined;\nexports.dateTimeFormat
 = dateTimeFormat;\nexports.getYear = getYear;\nexports.setYear = setYear;\nexports.addDays =
addDays;\nexports.addMonths = addMonths;\nexports.addYears = addYears;\nexports.cloneDate =
cloneDate;\nexports.cloneAsDate = cloneAsDate;\nexports.getDaysInMonth =
getDaysInMonth;\nexports.getFirstDayOfMonth = getFirstDayOfMonth;\nexports.getFirstDayOfWeek =
getFirstDayOfWeek;\nexports.getWeekArray = getWeekArray;\nexports.localizedWeekday =
localizedWeekday;\nexports.formatIso = formatIso;\nexports.isEqualDate = isEqualDate;\nexports.isBeforeDate =
isBeforeDate;\nexports.isAfterDate = isAfterDate;\nexports.isBetweenDates = isBetweenDates;\nexports.monthDiff
= monthDiff;\nexports.yearDiff = yearDiff;\n\nvar _warning = require('warning');\n\nvar _warning2 =
_interopRequireDefault(_warning);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ?
obj : {\n   default: obj\n };\n}\n\nvar dayAbbreviation = ['S', 'M', 'T', 'W', 'T', 'F', 'S'];\nvar
 dayList = ['Sun', 'Mon', 'Tue', 'Wed', 'Thu', 'Fri', 'Sat'];\nvar monthList = ['Jan', 'Feb', 'Mar', 'Apr', 'May', 'Jun', 'Jul',
'Aug', 'Sep', 'Oct', 'Nov', 'Dec'];\nvar monthLongList = ['January', 'February', 'March', 'April', 'May', 'June', 'July',
'August', 'September', 'October', 'November', 'December'];\n\nfunction dateTimeFormat(locale, options) {\n
process.env.NODE_ENV !== \"production\" ? (0, _warning2.default)(locale === 'en-US', 'Material-UI: The ' +
locale + ' locale is not supported by the built-in DateTimeFormat.\\n Use the `DateTimeFormat` prop to supply an
alternative implementation.') : void 0;\n\n this.format = function (date) {\n   if (options.month === 'short' &&
options.weekday === 'short' && options.day === '2-digit') {\n   return dayList[date.getDay()] + ', ' +
monthList[date.getMonth()] + ' ' + date.getDate();\n   } else if (options.year === 'numeric' && options.month ===
'numeric' && options.day === 'numeric') {\n   return date.getMonth() + 1 + '/' +
 date.getDate() + '/' + date.getFullYear();\n   } else if (options.year === 'numeric' && options.month === 'long') {\n
    return monthLongList[date.getMonth()] + ' ' + date.getFullYear();\n   } else if (options.weekday === 'narrow')
{\n   return dayAbbreviation[date.getDay()];\n   } else if (options.year === 'numeric') {\n   return
date.getFullYear().toString();\n   } else if (options.day === 'numeric') {\n   return date.getDate();\n   } else {\n
process.env.NODE_ENV !== \"production\" ? (0, _warning2.default)(false, 'Material-UI: Wrong usage of
DateTimeFormat') : void 0;\n   }\n };\n}\n\nfunction getYear(d) {\n return d.getFullYear();\n}\n\nfunction
setYear(d, year) {\n var newDate = cloneDate(d);\n newDate.setFullYear(year);\n return newDate;\n}\n\nfunction
addDays(d, days) {\n var newDate = cloneDate(d);\n newDate.setDate(d.getDate() + days);\n return
newDate;\n}\n\nfunction addMonths(d, months) {\n var newDate = cloneDate(d);\n
newDate.setMonth(d.getMonth()
 + months);\n return newDate;\n}\n\nfunction addYears(d, years) {\n var newDate = cloneDate(d);\n
newDate.setFullYear(d.getFullYear() + years);\n return newDate;\n}\n\nfunction cloneDate(d) {\n return new
Date(d.getTime());\n}\n\nfunction cloneAsDate(d) {\n var clonedDate = cloneDate(d);\n clonedDate.setHours(0, 0,
0, 0);\n return clonedDate;\n}\n\nfunction getDaysInMonth(d) {\n var resultDate = getFirstDayOfMonth(d);\n
resultDate.setMonth(resultDate.getMonth() + 1);\n resultDate.setDate(resultDate.getDate() - 1);\n return
resultDate.getDate();\n}\n\nfunction getFirstDayOfMonth(d) {\n return new Date(d.getFullYear(), d.getMonth(),

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1);\n}\n\nfunction getFirstDayOfWeek() {\n  var now = new Date();\n  return new Date(now.setDate(now.getDate()
- now.getDay()));\n}\n\nfunction getWeekArray(d, firstDayOfWeek) {\n  var dayArray = [];\n  var daysInMonth =
getDaysInMonth(d);\n  var weekArray = [];\n  var week = [];\n\n  for (var i = 1; i <= daysInMonth; i++) {\n
dayArray.push(new
 Date(d.getFullYear(), d.getMonth(), i));\n  }\n\n  var addWeek = function addWeek(week) {\n    var emptyDays = 7
- week.length;\n\n    for (var _i = 0; _i < emptyDays; ++_i) {\n      week[weekArray.length ? 'push' :
'unshift'](null);\n    }\n\n    weekArray.push(week);\n  };\n\n  dayArray.forEach(function (day) {\n    if (week.length
> 0 && day.getDay() === firstDayOfWeek) {\n      addWeek(week);\n      week = [];\n    }\n\n
week.push(day);\n\n    if (dayArray.indexOf(day) === dayArray.length - 1) {\n      addWeek(week);\n    }\n  });\n
return weekArray;\n}\n\nfunction localizedWeekday(DateTimeFormat, locale, day, firstDayOfWeek) {\n  var
weekdayFormatter = new DateTimeFormat(locale, {\n    weekday: 'narrow'\n  });\n  var firstDayDate =
getFirstDayOfWeek();\n  return weekdayFormatter.format(addDays(firstDayDate, day + firstDayOfWeek));\n} //
Convert date to ISO 8601 (YYYY-MM-DD) date string, accounting for current timezone\n\n\nfunction
formatIso(date) {\n  return new Date(date.toDateString()
 + ' 12:00:00 +0000').toISOString().substring(0, 10);\n}\n\nfunction isEqualDate(d1, d2) {\n  return d1 && d2 &&
d1.getFullYear() === d2.getFullYear() && d1.getMonth() === d2.getMonth() && d1.getDate() ===
d2.getDate();\n}\n\nfunction isBeforeDate(d1, d2) {\n  var date1 = cloneAsDate(d1);\n  var date2 =
cloneAsDate(d2);\n  return date1.getTime() < date2.getTime();\n}\n\nfunction isAfterDate(d1, d2) {\n  var date1 =
cloneAsDate(d1);\n  var date2 = cloneAsDate(d2);\n  return date1.getTime() > date2.getTime();\n}\n\nfunction
isBetweenDates(dateToCheck, startDate, endDate) {\n  return !isBeforeDate(dateToCheck, startDate) &&
!isAfterDate(dateToCheck, endDate);\n}\n\nfunction monthDiff(d1, d2) {\n  var m = void 0;\n  m =
(d1.getFullYear() - d2.getFullYear()) * 12;\n  m += d1.getMonth();\n  m -= d2.getMonth();\n  return
m;\n}\n\nfunction yearDiff(d1, d2) {\n  return ~~(monthDiff(d1, d2) / 12);\n}\n\nvar defaultUtils =
exports.defaultUtils = {\n  getYear: getYear,\n  setYear:
 setYear,\n  addDays: addDays,\n  addMonths: addMonths,\n  addYears: addYears,\n  getFirstDayOfMonth:
getFirstDayOfMonth,\n  getWeekArray: getWeekArray,\n  monthDiff: monthDiff\n};","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default = undefined;\n\nvar
_FlatButton = require('./FlatButton');\n\nvar _FlatButton2 = _interopRequireDefault(_FlatButton);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.default
= _FlatButton2.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar
_extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar
 _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj)
 {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var
tableRowColumn = context.muiTheme.tableRowColumn;\n  var styles = {\n    root: {\n      paddingLeft:
tableRowColumn.spacing,\n      paddingRight: tableRowColumn.spacing,\n      height: tableRowColumn.height,\n
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textAlign: 'left',\n      fontSize: 13,\n      overflow: 'hidden',\n      whiteSpace: 'nowrap',\n      textOverflow: 'ellipsis'\n
 }\n  };\n\n  if (_react2.default.Children.count(props.children) === 1 && !isNaN(props.children)) {\n
styles.textAlign = 'right';\n  }\n\n  return styles;\n}\n\nvar TableRowColumn = function (_Component) {\n  (0,
_inherits3.default)(TableRowColumn, _Component);\n\n  function TableRowColumn() {\n    var _ref;\n\n    var
_temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this, TableRowColumn);\n\n    for (var _len =
arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n
    }\n\n    return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref =
TableRowColumn.__proto__ || (0, _getPrototypeOf2.default)(TableRowColumn)).call.apply(_ref,
[this].concat(args))), _this), _this.state = {\n      hovered: false\n    }, _this.onClick = function (event) {\n      if
(_this.props.onClick) {\n        _this.props.onClick(event, _this.props.columnNumber);\n      }\n    },
_this.onMouseEnter = function (event) {\n      if (_this.props.hoverable) {\n        _this.setState({\n          hovered:
true\n        });\n\n        if (_this.props.onHover) {\n          _this.props.onHover(event, _this.props.columnNumber);\n
    }\n      }\n    }, _this.onMouseLeave = function (event) {\n      if (_this.props.hoverable) {\n        _this.setState({\n
      hovered: false\n        });\n\n        if (_this.props.onHoverExit) {\n          _this.props.onHoverExit(event,
_this.props.columnNumber);\n        }\n      }\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this,
 _ret);\n  }\n\n  (0, _createClass3.default)(TableRowColumn, [{\n    key: 'render',\n    value: function render() {\n
var _props = this.props,\n          children = _props.children,\n          className = _props.className,\n
columnNumber = _props.columnNumber,\n          hoverable = _props.hoverable,\n          onClick =
_props.onClick,\n          onHover = _props.onHover,\n          onHoverExit = _props.onHoverExit,\n          style =
_props.style,\n          other = (0, _objectWithoutProperties3.default)(_props, ['children', 'className',
'columnNumber', 'hoverable', 'onClick', 'onHover', 'onHoverExit', 'style']);\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n      var handlers = {\n
 onClick: this.onClick,\n        onMouseEnter: this.onMouseEnter,\n        onMouseLeave: this.onMouseLeave\n
};\n      return _react2.default.createElement('td', (0, _extends3.default)({\n
       className: className,\n        style: prepareStyles((0, _simpleAssign2.default)(styles.root, style))\n      },
handlers, other), children);\n    }\n  }]);\n  return
TableRowColumn;\n}(_react.Component);\n\nTableRowColumn.defaultProps = {\n  hoverable:
false\n};\nTableRowColumn.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nTableRowColumn.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  children: _propTypes2.default.node,\n\n  /**\n   * The css class name of the root element.\n
*/\n  className: _propTypes2.default.string,\n\n  /**\n   * @ignore\n   * Number to identify the header row. This
property\n   * is automatically populated when used with TableHeader.\n   */\n  columnNumber:
_propTypes2.default.number,\n\n  /**\n   * @ignore\n   * If true, this column responds to hover events.\n   */\n
hoverable: _propTypes2.default.bool,\n\n  /** @ignore */\n  onClick: _propTypes2.default.func,\n\n  /** @ignore
*/\n  onHover: _propTypes2.default.func,\n\n
  /**\n   * @ignore\n   * Callback function for hover exit event.\n   */\n  onHoverExit: _propTypes2.default.func,\n\n
/**\n   * Override the inline-styles of the root element.\n   */\n  style: _propTypes2.default.object\n} :
{};\nexports.default = TableRowColumn;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n
value: true\n});\nexports.addHours = addHours;\nexports.addMinutes = addMinutes;\nexports.addSeconds =
addSeconds;\nexports.formatTime = formatTime;\nexports.rad2deg =
rad2deg;\nexports.getTouchEventOffsetValues = getTouchEventOffsetValues;\nexports.isInner =
isInner;\n\nfunction addHours(d, hours) {\n  var newDate = clone(d);\n  newDate.setHours(d.getHours() + hours);\n
return newDate;\n}\n\nfunction addMinutes(d, minutes) {\n  var newDate = clone(d);\n
newDate.setMinutes(d.getMinutes() + minutes);\n  return newDate;\n}\n\nfunction addSeconds(d, seconds) {\n  var
newDate = clone(d);\n  newDate.setSeconds(d.getMinutes() + seconds);\n
  return newDate;\n}\n\nfunction clone(d) {\n  return new Date(d.getTime());\n}\n/**\n * @param date [Date] A
Date object.\n * @param format [String] One of 'ampm', '24hr', defaults to 'ampm'.\n * @param pedantic [Boolean]
Check time-picker/time-picker.jsx file.\n *\n * @return String A string representing the formatted time.\n
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*/\n\n\nfunction formatTime(date) {\n var format = arguments.length > 1 && arguments[1] !== undefined ?
arguments[1] : 'ampm';\n var pedantic = arguments.length > 2 && arguments[2] !== undefined ? arguments[2] :
false;\n if (!date) return '';\n var hours = date.getHours();\n var mins = date.getMinutes().toString();\n\n if (format
=== 'ampm') {\n   var isAM = hours < 12;\n   hours = hours % 12;\n   var additional = isAM ? ' am' : ' pm';\n
hours = (hours || 12).toString();\n   if (mins.length < 2) mins = '0' + mins;\n\n   if (pedantic) {\n   // Treat
midday/midnight specially http://www.nist.gov/pml/div688/times.cfm\n   if (hours === '12' &&
 mins === '00') {\n   return additional === ' pm' ? '12 noon' : '12 midnight';\n   }\n   }\n\n   return hours +
(mins === '00' ? '' : ':' + mins) + additional;\n }\n\n hours = hours.toString();\n if (hours.length < 2) hours = '0' +
hours;\n if (mins.length < 2) mins = '0' + mins;\n return hours + ':' + mins;\n}\n\nfunction rad2deg(rad) {\n return
rad * 57.29577951308232;\n}\n\nfunction getTouchEventOffsetValues(event) {\n var el = event.target;\n var
boundingRect = el.getBoundingClientRect();\n return {\n   offsetX: event.clientX - boundingRect.left,\n   offsetY:
event.clientY - boundingRect.top\n };\n}\n\nfunction isInner(props) {\n if (props.type !== 'hour') {\n   return
false;\n }\n\n return props.value < 1 || props.value > 12;\n}","import baseIsEqual from './_baseIsEqual.js';\n/**\n *
This method is like `_.isEqual` except that it accepts `customizer` which\n * is invoked to compare values. If
`customizer` returns `undefined`, comparisons\n * are handled by
 the method instead. The `customizer` is invoked with up to\n * six arguments: (objValue, othValue [, index|key,
object, other, stack]).\n *\n * @static\n * @memberOf _\n * @since 4.0.0\n * @category Lang\n * @param {*}
value The value to compare.\n * @param {*} other The other value to compare.\n * @param {Function}
[customizer] The function to customize comparisons.\n * @returns {boolean} Returns `true` if the values are
equivalent, else `false`.\n * @example\n *\n * function isGreeting(value) {\n *   return /^h(?:i|ello)$/.test(value);\n *
}\n *\n * function customizer(objValue, othValue) {\n *   if (isGreeting(objValue) && isGreeting(othValue)) {\n *
 return true;\n *   }\n * }\n *\n * var array = ['hello', 'goodbye'];\n * var other = ['hi', 'goodbye'];\n *\n *
_.isEqualWith(array, other, customizer);\n * // => true\n */\n\nfunction isEqualWith(value, other, customizer) {\n
customizer = typeof customizer == 'function' ? customizer : undefined;\n var result = customizer ?
customizer(value,
 other) : undefined;\n return result === undefined ? baseIsEqual(value, other, undefined, customizer) :
!!result;\n}\n\nexport default isEqualWith;","import baseFor from './_baseFor.js';\nimport keys from
'./keys.js';\n/**\n * The base implementation of `_.forOwn` without support for iteratee shorthands.\n *\n *
@private\n * @param {Object} object The object to iterate over.\n * @param {Function} iteratee The function
invoked per iteration.\n * @returns {Object} Returns `object`.\n */\n\nfunction baseForOwn(object, iteratee) {\n
return object && baseFor(object, iteratee, keys);\n}\n\nexport default baseForOwn;","import Stack from
'./_Stack.js';\nimport baseIsEqual from './_baseIsEqual.js';\n/** Used to compose bitmasks for value comparisons.
*/\n\nvar COMPARE_PARTIAL_FLAG = 1,\n   COMPARE_UNORDERED_FLAG = 2;\n/**\n * The base
implementation of `_.isMatch` without support for iteratee shorthands.\n *\n * @private\n * @param {Object}
object The object to inspect.\n * @param
 {Object} source The object of property values to match.\n * @param {Array} matchData The property names,
values, and compare flags to match.\n * @param {Function} [customizer] The function to customize comparisons.\n
* @returns {boolean} Returns `true` if `object` is a match, else `false`.\n */\n\nfunction baseIsMatch(object, source,
matchData, customizer) {\n var index = matchData.length,\n   length = index,\n   noCustomizer =
!customizer;\n\n if (object == null) {\n   return !length;\n }\n\n object = Object(object);\n\n while (index--) {\n
var data = matchData[index];\n\n   if (noCustomizer && data[2] ? data[1] !== object[data[0]] : !(data[0] in object))
{\n   return false;\n   }\n }\n\n while (++index < length) {\n   data = matchData[index];\n   var key = data[0],\n
    objValue = object[key],\n   srcValue = data[1];\n\n   if (noCustomizer && data[2]) {\n   if (objValue ===
undefined && !(key in object)) {\n   return false;\n   }\n   }
 else {\n   var stack = new Stack();\n\n   if (customizer) {\n   var result = customizer(objValue, srcValue, key,
object, source, stack);\n   }\n\n   if (!(result === undefined ? baseIsEqual(srcValue, objValue,
COMPARE_PARTIAL_FLAG | COMPARE_UNORDERED_FLAG, customizer, stack) : result)) {\n   return
false;\n   }\n   }\n }\n\n return true;\n}\n\nexport default baseIsMatch;","import isObject from

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'./isObject.js';\n/**\n * Checks if `value` is suitable for strict equality comparisons, i.e. `===`.\n *\n * @private\n *
@param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` if suitable for strict\n *
equality comparisons, else `false`.\n */\n\nfunction isStrictComparable(value) {\n  return value === value &&
!isObject(value);\n}\n\nexport default isStrictComparable;","import isStrictComparable from
'./_isStrictComparable.js';\nimport keys from './keys.js';\n/**\n * Gets the property names, values, and compare flags
of `object`.\n *\n
 * @private\n * @param {Object} object The object to query.\n * @returns {Array} Returns the match data of
`object`.\n */\n\nfunction getMatchData(object) {\n  var result = keys(object),\n      length = result.length;\n\n  while
(length--) {\n    var key = result[length],\n        value = object[key];\n    result[length] = [key, value,
isStrictComparable(value)];\n  }\n\n  return result;\n}\n\nexport default getMatchData;","/**\n * A specialized
version of `matchesProperty` for source values suitable\n * for strict equality comparisons, i.e. `===`.\n *\n *
@private\n * @param {string} key The key of the property to get.\n * @param {*} srcValue The value to match.\n
* @returns {Function} Returns the new spec function.\n */\nfunction matchesStrictComparable(key, srcValue) {\n
return function (object) {\n    if (object == null) {\n      return false;\n    }\n\n    return object[key] === srcValue &&
(srcValue !== undefined || key in Object(object));\n  };\n}\n\nexport default matchesStrictComparable;","import
 baseIsMatch from './_baseIsMatch.js';\nimport getMatchData from './_getMatchData.js';\nimport
matchesStrictComparable from './_matchesStrictComparable.js';\n/**\n * The base implementation of `_.matches`
which doesn't clone `source`.\n *\n * @private\n * @param {Object} source The object of property values to
match.\n * @returns {Function} Returns the new spec function.\n */\n\nfunction baseMatches(source) {\n  var
matchData = getMatchData(source);\n\n  if (matchData.length == 1 && matchData[0][2]) {\n    return
matchesStrictComparable(matchData[0][0], matchData[0][1]);\n  }\n\n  return function (object) {\n    return object
=== source || baseIsMatch(object, source, matchData);\n  };\n}\n\nexport default baseMatches;","import isArray
from './isArray.js';\nimport isSymbol from './isSymbol.js';\n/** Used to match property names within property paths.
*/\n\nvar reIsDeepProp = /\\.|\\[(?:[^[\\]]*|([\"'])(?:(?!\\1)[^\\\\]|\\\\.)*?\\1)\\]/,\n    reIsPlainProp = /^\\w*$/;\n/**\n
 * Checks if `value` is a property name and not a property path.\n *\n * @private\n * @param {*} value The value
to check.\n * @param {Object} [object] The object to query keys on.\n * @returns {boolean} Returns `true` if
`value` is a property name, else `false`.\n */\n\nfunction isKey(value, object) {\n  if (isArray(value)) {\n    return
false;\n  }\n\n  var type = typeof value;\n\n  if (type == 'number' || type == 'symbol' || type == 'boolean' || value ==
null || isSymbol(value)) {\n    return true;\n  }\n\n  return reIsPlainProp.test(value) || !reIsDeepProp.test(value) ||
object != null && value in Object(object);\n}\n\nexport default isKey;","import isArray from './isArray.js';\nimport
isKey from './_isKey.js';\nimport stringToPath from './_stringToPath.js';\nimport toString from './toString.js';\n/**\n
* Casts `value` to a path array if it's not one.\n *\n * @private\n * @param {*} value The value to inspect.\n *
@param {Object} [object] The object to query keys on.\n * @returns
 {Array} Returns the cast property path array.\n */\n\nfunction castPath(value, object) {\n  if (isArray(value)) {\n
return value;\n  }\n\n  return isKey(value, object) ? [value] : stringToPath(toString(value));\n}\n\nexport default
castPath;","import castPath from './_castPath.js';\nimport toKey from './_toKey.js';\n/**\n * The base
implementation of `_.get` without support for default values.\n *\n * @private\n * @param {Object} object The
object to query.\n * @param {Array|string} path The path of the property to get.\n * @returns {*} Returns the
resolved value.\n */\n\nfunction baseGet(object, path) {\n  path = castPath(path, object);\n  var index = 0,\n
length = path.length;\n\n  while (object != null && index < length) {\n    object = object[toKey(path[index++])];\n
}\n\n  return index && index == length ? object : undefined;\n}\n\nexport default baseGet;","import baseGet from
'./_baseGet.js';\n/**\n * Gets the value at `path` of `object`. If the resolved value is\n
 * `undefined`, the `defaultValue` is returned in its place.\n *\n * @static\n * @memberOf _\n * @since 3.7.0\n *
@category Object\n * @param {Object} object The object to query.\n * @param {Array|string} path The path of
the property to get.\n * @param {*} [defaultValue] The value returned for `undefined` resolved values.\n *
@returns {*} Returns the resolved value.\n * @example\n *\n * var object = { 'a': [{ 'b': { 'c': 3 } }] };\n *\n *
_.get(object, 'a[0].b.c');\n * // => 3\n *\n * _.get(object, ['a', '0', 'b', 'c']);\n * // => 3\n *\n * _.get(object, 'a.b.c',
'default');\n * // => 'default'\n */\n\nfunction get(object, path, defaultValue) {\n  var result = object == null ?
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undefined : baseGet(object, path);\n return result === undefined ? defaultValue : result;\n}\n\nexport default
get;","/**\n * The base implementation of `_.hasIn` without support for deep paths.\n *\n * @private\n * @param
{Object} [object] The object to query.\n * @param {Array|string} key The key to check.\n
 * @returns {boolean} Returns `true` if `key` exists, else `false`.\n */\nfunction baseHasIn(object, key) {\n return
object != null && key in Object(object);\n}\n\nexport default baseHasIn;","import castPath from
'./_castPath.js';\nimport isArguments from './isArguments.js';\nimport isArray from './isArray.js';\nimport isIndex
from './_isIndex.js';\nimport isLength from './isLength.js';\nimport toKey from './_toKey.js';\n/**\n * Checks if
`path` exists on `object`.\n *\n * @private\n * @param {Object} object The object to query.\n * @param
{Array|string} path The path to check.\n * @param {Function} hasFunc The function to check properties.\n *
@returns {boolean} Returns `true` if `path` exists, else `false`.\n */\n\nfunction hasPath(object, path, hasFunc) {\n
path = castPath(path, object);\n var index = -1,\n   length = path.length,\n   result = false;\n\n while (++index <
length) {\n   var key = toKey(path[index]);\n\n   if (!(result = object != null && hasFunc(object, key)))
 {\n   break;\n   }\n\n   object = object[key];\n }\n\n if (result || ++index != length) {\n   return result;\n }\n\n
length = object == null ? 0 : object.length;\n return !!length && isLength(length) && isIndex(key, length) &&
(isArray(object) || isArguments(object));\n}\n\nexport default hasPath;","import baseHasIn from
'./_baseHasIn.js';\nimport hasPath from './_hasPath.js';\n/**\n * Checks if `path` is a direct or inherited property of
`object`.\n *\n * @static\n * @memberOf _\n * @since 4.0.0\n * @category Object\n * @param {Object} object
The object to query.\n * @param {Array|string} path The path to check.\n * @returns {boolean} Returns `true` if
`path` exists, else `false`.\n * @example\n *\n * var object = _.create({ 'a': _.create({ 'b': 2 }) });\n *\n *
_.hasIn(object, 'a');\n * // => true\n *\n * _.hasIn(object, 'a.b');\n * // => true\n *\n * _.hasIn(object, ['a', 'b']);\n * //
=> true\n *\n * _.hasIn(object, 'b');\n * // => false\n */\n\nfunction hasIn(object,
 path) {\n return object != null && hasPath(object, path, baseHasIn);\n}\n\nexport default hasIn;","import
baseIsEqual from './_baseIsEqual.js';\nimport get from './get.js';\nimport hasIn from './hasIn.js';\nimport isKey from
'./_isKey.js';\nimport isStrictComparable from './_isStrictComparable.js';\nimport matchesStrictComparable from
'./_matchesStrictComparable.js';\nimport toKey from './_toKey.js';\n/** Used to compose bitmasks for value
comparisons. */\n\nvar COMPARE_PARTIAL_FLAG = 1,\n   COMPARE_UNORDERED_FLAG = 2;\n/**\n *
The base implementation of `_.matchesProperty` which doesn't clone `srcValue`.\n *\n * @private\n * @param
{string} path The path of the property to get.\n * @param {*} srcValue The value to match.\n * @returns
{Function} Returns the new spec function.\n */\n\nfunction baseMatchesProperty(path, srcValue) {\n if
(isKey(path) && isStrictComparable(srcValue)) {\n   return matchesStrictComparable(toKey(path), srcValue);\n
}\n\n return function (object) {\n
    var objValue = get(object, path);\n   return objValue === undefined && objValue === srcValue ? hasIn(object,
path) : baseIsEqual(srcValue, objValue, COMPARE_PARTIAL_FLAG | COMPARE_UNORDERED_FLAG);\n
};\n}\n\nexport default baseMatchesProperty;","/**\n * The base implementation of `_.property` without support for
deep paths.\n *\n * @private\n * @param {string} key The key of the property to get.\n * @returns {Function}
Returns the new accessor function.\n */\nfunction baseProperty(key) {\n return function (object) {\n   return object
== null ? undefined : object[key];\n };\n}\n\nexport default baseProperty;","import baseGet from
'./_baseGet.js';\n/**\n * A specialized version of `baseProperty` which supports deep paths.\n *\n * @private\n *
@param {Array|string} path The path of the property to get.\n * @returns {Function} Returns the new accessor
function.\n */\n\nfunction basePropertyDeep(path) {\n return function (object) {\n   return baseGet(object, path);\n
};\n}\n\nexport
 default basePropertyDeep;","import baseProperty from './_baseProperty.js';\nimport basePropertyDeep from
'./_basePropertyDeep.js';\nimport isKey from './_isKey.js';\nimport toKey from './_toKey.js';\n/**\n * Creates a
function that returns the value at `path` of a given object.\n *\n * @static\n * @memberOf _\n * @since 2.4.0\n *
@category Util\n * @param {Array|string} path The path of the property to get.\n * @returns {Function} Returns
the new accessor function.\n * @example\n *\n * var objects = [\n *   { 'a': { 'b': 2 } },\n *   { 'a': { 'b': 1 } }\n *];\n
*\n * _.map(objects, _.property('a.b'));\n * // => [2, 1]\n *\n * _.map(_.sortBy(objects, _.property(['a', 'b'])), 'a.b');\n
* // => [1, 2]\n */\n\nfunction property(path) {\n return isKey(path) ? baseProperty(toKey(path)) :

basePropertyDeep(path);\n}\n\nexport default property;","import baseMatches from './_baseMatches.js';\nimport baseMatchesProperty from './_baseMatchesProperty.js';\nimport identity from './identity.js';\nimport isArray from './isArray.js';\nimport property from './property.js';\n/**\n * The base implementation of `_.iteratee`.\n *\n * @private\n * @param {*} [value=_.identity] The value to convert to an iteratee.\n * @returns {Function} Returns the iteratee.\n */\n\nfunction baseIteratee(value) {\n // Don't store the `typeof` result in a variable to avoid a JIT bug in Safari 9.\n // See https://bugs.webkit.org/show_bug.cgi?id=156034 for more details.\n if (typeof value == 'function') {\n   return value;\n }\n\n if (value == null) {\n   return identity;\n }\n\n if (typeof value == 'object') {\n   return isArray(value) ? baseMatchesProperty(value[0], value[1]) : baseMatches(value);\n }\n\n return property(value);\n}\n\nexport default baseIteratee;","import baseAssignValue from './_baseAssignValue.js';\nimport baseForOwn from './_baseForOwn.js';\nimport baseIteratee from './_baseIteratee.js';\n/**\n * Creates an object with the same keys as `object` and values generated\n * by running each own enumerable string keyed property of `object` thru\n * `iteratee`. The iteratee is invoked with three arguments:\n * (value, key, object).\n *\n * @static\n * @memberOf _\n * @since 2.4.0\n * @category Object\n * @param {Object} object The object to iterate over.\n * @param {Function} [iteratee=_.identity] The function invoked per iteration.\n * @returns {Object} Returns the new mapped object.\n * @see _.mapKeys\n * @example\n *\n * var users = {\n *   'fred':   { 'user': 'fred',   'age': 40 },\n *   'pebbles': { 'user': 'pebbles', 'age': 1 }\n * };\n *\n * _.mapValues(users, function(o) { return o.age; });\n * // => { 'fred': 40, 'pebbles': 1 } (iteration order is not guaranteed)\n *\n * // The `_.property` iteratee shorthand.\n * _.mapValues(users, 'age');\n * // => { 'fred': 40, 'pebbles': 1 } (iteration order is not guaranteed)\n */\n\nfunction mapValues(object, iteratee) {\n var result = {};\n iteratee = baseIteratee(iteratee, 3);\n baseForOwn(object, function (value, key, object) {\n   baseAssignValue(result, key, iteratee(value, key, object));\n });\n return result;\n}\n\nexport default mapValues;","'use strict';\n\nvar _slicedToArray = require(\"/Users/jamesbloom/git/mockserver/mockserver-ui/node_modules/babel-preset-react-app/node_modules/@babel/runtime/helpers/slicedToArray\");\n\nvar _toConsumableArray = require(\"/Users/jamesbloom/git/mockserver/mockserver-ui/node_modules/babel-preset-react-app/node_modules/@babel/runtime/helpers/toConsumableArray\");\n\nfunction _createForOfIteratorHelper(o, allowArrayLike) { var it = typeof Symbol !== \"undefined\" && o[Symbol.iterator] || o[\"@@iterator\"]; if (!it) { if (Array.isArray(o) || (it = _unsupportedIterableToArray(o)) || allowArrayLike && o && typeof o.length === \"number\") { if (it) o = it; var i = 0; var F = function F() {}; return { s: F, n: function n() { if (i >= o.length) return { done: true }; return { done: false, value: o[i++] }; }, e: function e(_e) { throw _e; }, f: F }; } throw new TypeError(\"Invalid attempt to iterate non-iterable instance.\\nIn order to be iterable, non-array objects must have a [Symbol.iterator]() method.\"); } var normalCompletion = true, didErr = false, err; return { s: function s() { it = it.call(o); }, n: function n() { var step = it.next(); normalCompletion = step.done; return step; }, e: function e(_e2) { didErr = true; err = _e2; }, f: function f() { try { if (!normalCompletion && it.return != null) it.return(); } finally { if (didErr) throw err; } } }; }\n\nfunction _unsupportedIterableToArray(o, minLen) { if (!o) return; if (typeof o === \"string\") return _arrayLikeToArray(o, minLen); var n = Object.prototype.toString.call(o).slice(8, -1); if (n === \"Object\" && o.constructor) n = o.constructor.name; if (n === \"Map\" || n === \"Set\") return Array.from(o); if (n === \"Arguments\" || /^(?:Ui|I)nt(?:8|16|32)(?:Clamped)?Array$/.test(n)) return _arrayLikeToArray(o, minLen); }\n\nfunction _arrayLikeToArray(arr, len) { if (len == null || len > arr.length) len = arr.length; for (var i = 0, arr2 = new Array(len); i < len; i++) { arr2[i] = arr[i]; } return arr2; }\n\nvar strictUriEncode = require('strict-uri-encode');\n\nvar decodeComponent = require('decode-uri-component');\n\nvar splitOnFirst = require('split-on-first');\n\nvar filterObject = require('filter-obj');\n\nvar isNullOrUndefined = function isNullOrUndefined(value) {\n return value === null || value === undefined;\n};\n\nfunction encoderForArrayFormat(options) {\n switch (options.arrayFormat) {\n   case 'index':\n   return function (key) {\n   return function (result, value) {\n   var index = result.length;\n\n   if (value === undefined || options.skipNull && value === null || options.skipEmptyString && value === '') {\n   return result;\n   }\n\n   if (value === null) {\n   return [].concat(_toConsumableArray(result), [[encode(key,

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options), '[', index, ']'].join("")]);\n          }\n\n
          return [].concat(_toConsumableArray(result), [[encode(key, options), '[', encode(index, options), ']=',
encode(value, options)].join("")]);\n        };\n      };\n\n    case 'bracket':\n      return function (key) {\n        return
function (result, value) {\n          if (value === undefined || options.skipNull && value === null ||
options.skipEmptyString && value === "") {\n            return result;\n          }\n\n          if (value === null) {\n
return [].concat(_toConsumableArray(result), [[encode(key, options), '[]'].join("")]);\n          }\n\n          return
[].concat(_toConsumableArray(result), [[encode(key, options), '[]=', encode(value, options)].join("")]);\n        };\n
};\n\n    case 'comma':\n    case 'separator':\n      return function (key) {\n        return function (result, value) {\n
if (value === null || value === undefined || value.length === 0) {\n            return result;\n          }\n\n          if
(result.length === 0)
 {\n            return [[encode(key, options), '=', encode(value, options)].join("")];\n          }\n\n          return [[result,
encode(value, options)].join(options.arrayFormatSeparator)];\n        };\n      };\n\n    default:\n      return function
(key) {\n        return function (result, value) {\n          if (value === undefined || options.skipNull && value === null
|| options.skipEmptyString && value === "") {\n            return result;\n          }\n\n          if (value === null) {\n
return [].concat(_toConsumableArray(result), [encode(key, options)]);\n          }\n\n          return
[].concat(_toConsumableArray(result), [[encode(key, options), '=', encode(value, options)].join("")]);\n        };\n
};\n  }\n}\n\nfunction parserForArrayFormat(options) {\n  var result;\n\n  switch (options.arrayFormat) {\n    case
'index':\n      return function (key, value, accumulator) {\n        result = /\\[(\\d*)\\]$/.exec(key);\n        key =
key.replace(/\\[\\d*\\]$/, "");\n\n
        if (!result) {\n          accumulator[key] = value;\n          return;\n        }\n\n        if (accumulator[key] ===
undefined) {\n          accumulator[key] = {};\n        }\n\n        accumulator[key][result[1]] = value;\n      };\n\n    case
'bracket':\n      return function (key, value, accumulator) {\n        result = /(\\[\\])$/.exec(key);\n        key =
key.replace(/\\[\\]$/, "");\n\n        if (!result) {\n          accumulator[key] = value;\n          return;\n        }\n\n        if
(accumulator[key] === undefined) {\n          accumulator[key] = [value];\n          return;\n        }\n\n
accumulator[key] = [].concat(accumulator[key], value);\n      };\n\n    case 'comma':\n    case 'separator':\n      return
function (key, value, accumulator) {\n        var isArray = typeof value === 'string' &&
value.includes(options.arrayFormatSeparator);\n        var isEncodedArray = typeof value === 'string' && !isArray
&& decode(value, options).includes(options.arrayFormatSeparator);\n
        value = isEncodedArray ? decode(value, options) : value;\n        var newValue = isArray || isEncodedArray ?
value.split(options.arrayFormatSeparator).map(function (item) {\n          return decode(item, options);\n        }) :
value === null ? value : decode(value, options);\n        accumulator[key] = newValue;\n      };\n\n    default:\n
return function (key, value, accumulator) {\n        if (accumulator[key] === undefined) {\n          accumulator[key] =
value;\n          return;\n        }\n\n        accumulator[key] = [].concat(accumulator[key], value);\n      };\n
}\n}\n\nfunction validateArrayFormatSeparator(value) {\n  if (typeof value !== 'string' || value.length !== 1) {\n
throw new TypeError('arrayFormatSeparator must be single character string');\n  }\n}\n\nfunction encode(value,
options) {\n  if (options.encode) {\n    return options.strict ? strictUriEncode(value) :
encodeURIComponent(value);\n  }\n\n  return value;\n}\n\nfunction decode(value,
 options) {\n  if (options.decode) {\n    return decodeComponent(value);\n  }\n\n  return value;\n}\n\nfunction
keysSorter(input) {\n  if (Array.isArray(input)) {\n    return input.sort();\n  }\n\n  if (typeof input === 'object') {\n
return keysSorter(Object.keys(input)).sort(function (a, b) {\n      return Number(a) - Number(b);\n    }).map(function
(key) {\n      return input[key];\n    });\n  }\n\n  return input;\n}\n\nfunction removeHash(input) {\n  var hashStart =
input.indexOf('#');\n\n  if (hashStart !== -1) {\n    input = input.slice(0, hashStart);\n  }\n\n  return
input;\n}\n\nfunction getHash(url) {\n  var hash = "";\n  var hashStart = url.indexOf('#');\n\n  if (hashStart !== -1) {\n
 hash = url.slice(hashStart);\n  }\n\n  return hash;\n}\n\nfunction extract(input) {\n  input = removeHash(input);\n
var queryStart = input.indexOf('?');\n\n  if (queryStart === -1) {\n    return "";\n  }\n\n  return input.slice(queryStart +
1);\n}\n\nfunction parseValue(value,
 options) {\n  if (options.parseNumbers && !Number.isNaN(Number(value)) && typeof value === 'string' &&
value.trim() !== "") {\n    value = Number(value);\n  } else if (options.parseBooleans && value !== null &&
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(value.toLowerCase() === 'true' || value.toLowerCase() === 'false')) {\n    value = value.toLowerCase() === 'true';\n
}\n\n  return value;\n}\n\nfunction parse(query, options) {\n  options = Object.assign({\n    decode: true,\n    sort:
true,\n    arrayFormat: 'none',\n    arrayFormatSeparator: ',',\n    parseNumbers: false,\n    parseBooleans: false\n  },
options);\n  validateArrayFormatSeparator(options.arrayFormatSeparator);\n  var formatter =
parserForArrayFormat(options); // Create an object with no prototype\n\n  var ret = Object.create(null);\n\n  if
(typeof query !== 'string') {\n    return ret;\n  }\n\n  query = query.trim().replace(/^[?#&]/, '');\n\n  if (!query) {\n
return ret;\n  }\n\n  var _iterator = _createForOfIteratorHelper(query.split('&')),\n      _step;\n\n
  try {\n    for (_iterator.s(); !(_step = _iterator.n()).done;) {\n      var param = _step.value;\n\n      if (param === '')
{\n        continue;\n      }\n\n      var _splitOnFirst = splitOnFirst(options.decode ? param.replace(/\\+/g, ' ') : param,
'='),\n          _splitOnFirst2 = _slicedToArray(_splitOnFirst, 2),\n          _key = _splitOnFirst2[0],\n          _value =
_splitOnFirst2[1]; // Missing `=` should be `null`:\n      // http://w3.org/TR/2012/WD-url-20120524/#collect-url-
parameters\n\n\n      _value = _value === undefined ? null : ['comma', 'separator'].includes(options.arrayFormat) ?
_value : decode(_value, options);\n      formatter(decode(_key, options), _value, ret);\n    }\n  } catch (err) {\n
_iterator.e(err);\n  } finally {\n    _iterator.f();\n  }\n\n  for (var _i = 0, _Object$keys = Object.keys(ret); _i <
_Object$keys.length; _i++) {\n    var key = _Object$keys[_i];\n    var value = ret[key];\n\n    if (typeof value ===
'object' && value !== null) {\n      for
 (var _i2 = 0, _Object$keys2 = Object.keys(value); _i2 < _Object$keys2.length; _i2++) {\n        var k =
_Object$keys2[_i2];\n        value[k] = parseValue(value[k], options);\n      }\n    } else {\n      ret[key] =
parseValue(value, options);\n    }\n  }\n\n  if (options.sort === false) {\n    return ret;\n  }\n\n  return (options.sort
=== true ? Object.keys(ret).sort() : Object.keys(ret).sort(options.sort)).reduce(function (result, key) {\n    var value =
ret[key];\n\n    if (Boolean(value) && typeof value === 'object' && !Array.isArray(value)) {\n      // Sort object
keys, not values\n      result[key] = keysSorter(value);\n    } else {\n      result[key] = value;\n    }\n\n    return
result;\n  }, Object.create(null));\n}\n\nexports.extract = extract;\nexports.parse = parse;\n\nexports.stringify =
function (object, options) {\n  if (!object) {\n    return '';\n  }\n\n  options = Object.assign({\n    encode: true,\n
strict: true,\n    arrayFormat: 'none',\n    arrayFormatSeparator:
 ','\n  }, options);\n  validateArrayFormatSeparator(options.arrayFormatSeparator);\n\n  var shouldFilter = function
shouldFilter(key) {\n    return options.skipNull && isNullOrUndefined(object[key]) || options.skipEmptyString &&
object[key] === '';\n  };\n\n  var formatter = encoderForArrayFormat(options);\n  var objectCopy = {};\n\n  for (var
_i3 = 0, _Object$keys3 = Object.keys(object); _i3 < _Object$keys3.length; _i3++) {\n    var key =
_Object$keys3[_i3];\n\n    if (!shouldFilter(key)) {\n      objectCopy[key] = object[key];\n    }\n  }\n\n  var keys =
Object.keys(objectCopy);\n\n  if (options.sort !== false) {\n    keys.sort(options.sort);\n  }\n\n  return
keys.map(function (key) {\n    var value = object[key];\n\n    if (value === undefined) {\n      return '';\n    }\n\n    if
(value === null) {\n      return encode(key, options);\n    }\n\n    if (Array.isArray(value)) {\n      return
value.reduce(formatter(key), []).join('&');\n    }\n\n    return encode(key, options) + '='
 + encode(value, options);\n  }).filter(function (x) {\n    return x.length > 0;\n  }).join('&');\n};\n\nexports.parseUrl =
function (url, options) {\n  options = Object.assign({\n    decode: true\n  }, options);\n\n  var _splitOnFirst3 =
splitOnFirst(url, '#'),\n      _splitOnFirst4 = _slicedToArray(_splitOnFirst3, 2),\n      url_ = _splitOnFirst4[0],\n
hash = _splitOnFirst4[1];\n\n  return Object.assign({\n    url: url_.split('?')[0] || '',\n    query: parse(extract(url),
options)\n  }, options && options.parseFragmentIdentifier && hash ? {\n    fragmentIdentifier: decode(hash,
options)\n  } : {});\n};\n\nexports.stringifyUrl = function (object, options) {\n  options = Object.assign({\n    encode:
true,\n    strict: true\n  }, options);\n  var url = removeHash(object.url).split('?')[0] || '';\n  var queryFromUrl =
exports.extract(object.url);\n  var parsedQueryFromUrl = exports.parse(queryFromUrl, {\n    sort: false\n  });\n  var
query = Object.assign(parsedQueryFromUrl, object.query);\n
  var queryString = exports.stringify(query, options);\n\n  if (queryString) {\n    queryString =
\"?\".concat(queryString);\n  }\n\n  var hash = getHash(object.url);\n\n  if (object.fragmentIdentifier) {\n    hash =
\"#\".concat(encode(object.fragmentIdentifier, options));\n  }\n\n  return
\"\".concat(url).concat(queryString).concat(hash);\n};\n\nexports.pick = function (input, filter, options) {\n  options
= Object.assign({\n    parseFragmentIdentifier: true\n  }, options);\n\n  var _exports$parseUrl =
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exports.parseUrl(input, options),\n      url = _exports$parseUrl.url,\n      query = _exports$parseUrl.query,\n
fragmentIdentifier = _exports$parseUrl.fragmentIdentifier;\n\n  return exports.stringifyUrl({\n    url: url,\n    query:
filterObject(query, filter),\n    fragmentIdentifier: fragmentIdentifier\n  }, options);\n};\n\nexports.exclude =
function (input, filter, options) {\n  var exclusionFilter = Array.isArray(filter) ? function (key) {\n    return
!filter.includes(key);\n
  } : function (key, value) {\n    return !filter(key, value);\n  };\n  return exports.pick(input, exclusionFilter,
options);\n};","module.exports = true;","var id = 0;\nvar px = Math.random();\n\nmodule.exports = function (key)
{\n  return 'Symbol('.concat(key === undefined ? '' : key, ')_', (++id + px).toString(36));\n};","exports.f =
{}.propertyIsEnumerable;","'use strict';\n\nvar $at = require('./_string-at')(true); // 21.1.3.27
String.prototype[@@iterator]()\n\n\nrequire('./_iter-define')(String, 'String', function (iterated) {\n  this._t =
String(iterated); // target\n\n  this._i = 0; // next index\n  // 21.1.5.2.1 %StringIteratorPrototype%.next()\n}, function
() {\n  var O = this._t;\n  var index = this._i;\n  var point;\n  if (index >= O.length) return {\n    value: undefined,\n
done: true\n  };\n  point = $at(O, index);\n  this._i += point.length;\n  return {\n    value: point,\n    done: false\n
};\n});","'use strict';\n\nObject.defineProperty(exports, \"__esModule\",
 {\n  value: true\n});\nexports.default = {\n  once: function once(el, type, callback) {\n    var typeArray = type ?
type.split(' ') : [];\n\n    var recursiveFunction = function recursiveFunction(event) {\n
event.target.removeEventListener(event.type, recursiveFunction);\n      return callback(event);\n    };\n\n    for (var i
= typeArray.length - 1; i >= 0; i--) {\n      this.on(el, typeArray[i], recursiveFunction);\n    }\n  },\n  on: function
on(el, type, callback) {\n    if (el.addEventListener) {\n      el.addEventListener(type, callback);\n    } else {\n      //
IE8+ Support\n      el.attachEvent('on' + type, function () {\n        callback.call(el);\n      });\n    }\n  },\n  off: function
off(el, type, callback) {\n    if (el.removeEventListener) {\n      el.removeEventListener(type, callback);\n    } else
{\n      // IE8+ Support\n      el.detachEvent('on' + type, callback);\n    }\n  },\n  isKeyboard: function
isKeyboard(event) {\n    return ['keydown', 'keypress',
 'keyup'].indexOf(event.type) !== -1;\n  }\n};","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n
value: true\n});\nexports.default = undefined;\n\nvar _FontIcon = require('./FontIcon');\n\nvar _FontIcon2 =
_interopRequireDefault(_FontIcon);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nexports.default = _FontIcon2.default;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _toArray2 =
require('babel-runtime/helpers/toArray');\n\nvar _toArray3 = _interopRequireDefault(_toArray2);\n\nvar
_getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar
 _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-dom');\n\nvar _reactDom2
= _interopRequireDefault(_reactDom);\n\nvar
 _shallowEqual = require('recompose/shallowEqual');\n\nvar _shallowEqual2 =
_interopRequireDefault(_shallowEqual);\n\nvar _ClickAwayListener =
require('../internal/ClickAwayListener');\n\nvar _ClickAwayListener2 =
_interopRequireDefault(_ClickAwayListener);\n\nvar _keycode = require('keycode');\n\nvar _keycode2 =
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_interopRequireDefault(_keycode);\n\nvar _propTypes3 = require('../utils/propTypes');\n\nvar _propTypes4 =
_interopRequireDefault(_propTypes3);\n\nvar _List = require('../List/List');\n\nvar _List2 =
_interopRequireDefault(_List);\n\nvar _menuUtils = require('./menuUtils');\n\nfunction _interopRequireDefault(obj)
{\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var
desktop = props.desktop,\n      maxHeight = props.maxHeight,\n      width = props.width;\n  var muiTheme =
context.muiTheme;\n  var styles = {\n    root: {\n      // Nested div because the List scales x faster than
 it scales y\n      zIndex: muiTheme.zIndex.menu,\n      maxHeight: maxHeight,\n      overflowY: maxHeight ? 'auto'
: null\n    },\n    divider: {\n      marginTop: 7,\n      marginBottom: 8\n    },\n    list: {\n      display: 'table-cell',\n
paddingBottom: desktop ? 16 : 8,\n      paddingTop: desktop ? 16 : 8,\n      userSelect: 'none',\n      width: width\n
},\n    selectedMenuItem: {\n      color: muiTheme.menuItem.selectedTextColor\n    }\n  };\n  return
styles;\n}\n\nvar Menu = function (_Component) {\n  (0, _inherits3.default)(Menu, _Component);\n\n  function
Menu(props, context) {\n    (0, _classCallCheck3.default)(this, Menu);\n\n    var _this = (0,
_possibleConstructorReturn3.default)(this, (Menu.__proto__ || (0, _getPrototypeOf2.default)(Menu)).call(this,
props, context));\n\n    _initialiseProps.call(_this);\n\n    var filteredChildren =
_this.getFilteredChildren(props.children);\n\n    var selectedIndex = _this.getLastSelectedIndex(props,
filteredChildren);\n\n
   var newFocusIndex = props.disableAutoFocus ? -1 : selectedIndex >= 0 ? selectedIndex : 0;\n\n    if
(newFocusIndex !== -1 && props.onMenuItemFocusChange) {\n      props.onMenuItemFocusChange(null,
newFocusIndex);\n    }\n\n    _this.state = {\n      focusIndex: newFocusIndex,\n      isKeyboardFocused:
props.initiallyKeyboardFocused,\n      keyWidth: props.desktop ? 64 : 56\n    };\n    _this.hotKeyHolder = new
_menuUtils.HotKeyHolder();\n    return _this;\n  }\n\n  (0, _createClass3.default)(Menu, [{\n    key:
'componentDidMount',\n    value: function componentDidMount() {\n      if (this.props.autoWidth) {\n
this.setWidth();\n      }\n\n      this.setScollPosition();\n    }\n  }, {\n    key: 'componentWillReceiveProps',\n    value:
function componentWillReceiveProps(nextProps) {\n      var selectedIndex = void 0;\n      var filteredChildren =
this.getFilteredChildren(nextProps.children);\n\n      if (this.props.multiple !== true) {\n        selectedIndex =
this.getLastSelectedIndex(nextProps,
 filteredChildren);\n      } else {\n        selectedIndex = this.state.focusIndex;\n      }\n\n      var newFocusIndex =
nextProps.disableAutoFocus ? -1 : selectedIndex >= 0 ? selectedIndex : 0;\n      if (newFocusIndex !==
this.state.focusIndex && this.props.onMenuItemFocusChange) {\n        this.props.onMenuItemFocusChange(null,
newFocusIndex);\n      }\n\n      this.setState({\n        focusIndex: newFocusIndex,\n        keyWidth:
nextProps.desktop ? 64 : 56\n      });\n    }\n  }, {\n    key: 'shouldComponentUpdate',\n    value: function
shouldComponentUpdate(nextProps, nextState, nextContext) {\n      return !(0, _shallowEqual2.default)(this.props,
nextProps) || !(0, _shallowEqual2.default)(this.state, nextState) || !(0, _shallowEqual2.default)(this.context,
nextContext);\n    }\n  }, {\n    key: 'componentDidUpdate',\n    value: function componentDidUpdate() {\n      if
(this.props.autoWidth) this.setWidth();\n    }\n  }, {\n    key: 'getValueLink',\n    // Do
 not use outside of this component, it will be removed once valueLink is deprecated\n    value: function
getValueLink(props) {\n      return props.valueLink || {\n        value: props.value,\n        requestChange:
props.onChange\n      };\n    }\n  }, {\n    key: 'setKeyboardFocused',\n    value: function
setKeyboardFocused(keyboardFocused) {\n      this.setState({\n        isKeyboardFocused: keyboardFocused\n
});\n    }\n  }, {\n    key: 'getFilteredChildren',\n    value: function getFilteredChildren(children) {\n      var
filteredChildren = [];\n\n      _react2.default.Children.forEach(children, function (child) {\n        if (child) {\n
filteredChildren.push(child);\n        }\n      });\n\n      return filteredChildren;\n    }\n  }, {\n    key:
'cloneMenuItem',\n    value: function cloneMenuItem(child, childIndex, styles, index) {\n      var _this2 = this;\n\n
var childIsDisabled = child.props.disabled;\n      var selectedChildStyles = {};\n\n      if (!childIsDisabled)
 {\n        var selected = this.isChildSelected(child, this.props);\n\n        if (selected) {\n          (0,
_simpleAssign2.default)(selectedChildStyles, styles.selectedMenuItem, this.props.selectedMenuItemStyle);\n
}\n      }\n\n      var mergedChildStyles = (0, _simpleAssign2.default)({}, child.props.style,
this.props.menuItemStyle, selectedChildStyles);\n      var extraProps = {\n        desktop: this.props.desktop,\n
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style: mergedChildStyles\n      };\n\n      if (!childIsDisabled) {\n        var isFocused = childIndex ===
this.state.focusIndex;\n        var focusState = 'none';\n\n        if (isFocused) {\n          focusState =
this.state.isKeyboardFocused ? 'keyboard-focused' : 'focused';\n        }\n\n        (0,
_simpleAssign2.default)(extraProps, {\n          focusState: focusState,\n          onClick: function onClick(event) {\n
      _this2.handleMenuItemClick(event, child, index);\n\n            if (child.props.onClick)
child.props.onClick(event);\n
         },\n          ref: isFocused ? 'focusedMenuItem' : null\n        });\n      }\n\n      return
_react2.default.cloneElement(child, extraProps);\n    }\n  }, {\n    key: 'decrementKeyboardFocusIndex',\n    value:
function decrementKeyboardFocusIndex(event) {\n      var index = this.state.focusIndex;\n      index--;\n      if (index
< 0) index = 0;\n      this.setFocusIndex(event, index, true);\n    }\n  }, {\n    key: 'getMenuItemCount',\n    value:
function getMenuItemCount(filteredChildren) {\n      var menuItemCount = 0;\n
filteredChildren.forEach(function (child) {\n        var childIsADivider = child.type && child.type.muiName ===
'Divider';\n        var childIsDisabled = child.props.disabled;\n        if (!childIsADivider && !childIsDisabled)
menuItemCount++;\n      });\n      return menuItemCount;\n    }\n  }, {\n    key: 'getLastSelectedIndex',\n    value:
function getLastSelectedIndex(props, filteredChildren) {\n      var _this3 = this;\n\n      var selectedIndex
 = -1;\n      var menuItemIndex = 0;\n      filteredChildren.forEach(function (child) {\n        var childIsADivider =
child.type && child.type.muiName === 'Divider';\n        if (_this3.isChildSelected(child, props)) selectedIndex =
menuItemIndex;\n        if (!childIsADivider) menuItemIndex++;\n      });\n      return selectedIndex;\n    }\n  }, {\n
key: 'setFocusIndexStartsWith',\n    value: function setFocusIndexStartsWith(event, keys, filteredChildren) {\n
var foundIndex = -1;\n\n      _react2.default.Children.forEach(filteredChildren, function (child, index) {\n        if
(foundIndex >= 0) {\n          return;\n        }\n\n        var primaryText = child.props.primaryText;\n\n        if (typeof
primaryText === 'string' && primaryText.substr(0, keys.length).toLowerCase() === keys.toLowerCase()) {\n
foundIndex = index;\n        }\n      });\n\n      if (foundIndex >= 0) {\n        this.setFocusIndex(event, foundIndex,
true);\n        return true;\n      }\n\n
     return false;\n    }\n  }, {\n    key: 'handleMenuItemClick',\n    value: function handleMenuItemClick(event, item,
index) {\n      var children = this.props.children;\n      var multiple = this.props.multiple;\n      var valueLink =
this.getValueLink(this.props);\n      var menuValue = valueLink.value;\n      var itemValue = item.props.value;\n
var focusIndex = _react2.default.isValidElement(children) ? 0 : children.indexOf(item);\n
this.setFocusIndex(event, focusIndex, false);\n\n      if (multiple) {\n        menuValue = menuValue || [];\n        var
itemIndex = menuValue.indexOf(itemValue);\n\n        var _menuValue = menuValue,\n            _menuValue2 = (0,
_toArray3.default)(_menuValue),\n            newMenuValue = _menuValue2.slice(0);\n\n        if (itemIndex === -1)
{\n          newMenuValue.push(itemValue);\n        } else {\n          newMenuValue.splice(itemIndex, 1);\n        }\n\n
    valueLink.requestChange(event, newMenuValue);\n      } else if (!multiple
 && itemValue !== menuValue) {\n        valueLink.requestChange(event, itemValue);\n      }\n\n
this.props.onItemClick(event, item, index);\n    }\n  }, {\n    key: 'incrementKeyboardFocusIndex',\n    value:
function incrementKeyboardFocusIndex(event, filteredChildren) {\n      var index = this.state.focusIndex;\n      var
maxIndex = this.getMenuItemCount(filteredChildren) - 1;\n      index++;\n      if (index > maxIndex) index =
maxIndex;\n      this.setFocusIndex(event, index, true);\n    }\n  }, {\n    key: 'isChildSelected',\n    value: function
isChildSelected(child, props) {\n      var menuValue = this.getValueLink(props).value;\n      var childValue =
child.props.value;\n\n      if (props.multiple) {\n        return menuValue && menuValue.length &&
menuValue.indexOf(childValue) !== -1;\n      } else {\n        return child.props.hasOwnProperty('value') &&
menuValue === childValue;\n      }\n    }\n  }, {\n    key: 'setFocusIndex',\n    value: function setFocusIndex(event,
 newIndex, isKeyboardFocused) {\n      if (this.props.onMenuItemFocusChange) {\n        // Do this even if
`newIndex === this.state.focusIndex` to allow users\n        // to detect up-arrow on the first MenuItem or down-
arrow on the last.\n        this.props.onMenuItemFocusChange(event, newIndex);\n      }\n\n      this.setState({\n
focusIndex: newIndex,\n        isKeyboardFocused: isKeyboardFocused\n      });\n    }\n  }, {\n    key:
'setScollPosition',\n    value: function setScollPosition() {\n      var desktop = this.props.desktop;\n      var
focusedMenuItem = this.refs.focusedMenuItem;\n      var menuItemHeight = desktop ? 32 : 48;\n\n      if
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(focusedMenuItem) {\n        var selectedOffSet = _reactDom2.default.findDOMNode(focusedMenuItem).offsetTop;
// Make the focused item be the 2nd item in the list the user sees\n\n\n        var scrollTop = selectedOffSet -
menuItemHeight;\n        if (scrollTop < menuItemHeight) scrollTop = 0;\n
_reactDom2.default.findDOMNode(this.refs.scrollContainer).scrollTop
 = scrollTop;\n      }\n    }\n  }, {\n    key: 'cancelScrollEvent',\n    value: function cancelScrollEvent(event) {\n
event.stopPropagation();\n      event.preventDefault();\n      return false;\n    }\n  }, {\n    key: 'setWidth',\n    value:
function setWidth() {\n      var el = _reactDom2.default.findDOMNode(this);\n\n      var listEl =
_reactDom2.default.findDOMNode(this.refs.list);\n\n      var elWidth = el.offsetWidth;\n      var keyWidth =
this.state.keyWidth;\n      var minWidth = keyWidth * 1.5;\n      var keyIncrements = elWidth / keyWidth;\n      var
newWidth = void 0;\n      keyIncrements = keyIncrements <= 1.5 ? 1.5 : Math.ceil(keyIncrements);\n      newWidth
= keyIncrements * keyWidth;\n      if (newWidth < minWidth) newWidth = minWidth;\n      el.style.width =
newWidth + 'px';\n      listEl.style.width = newWidth + 'px';\n    }\n  }, {\n    key: 'render',\n    value: function
render() {\n      var _this4 = this;\n\n      var _props
 = this.props,\n          autoWidth = _props.autoWidth,\n          children = _props.children,\n          desktop =
_props.desktop,\n          disableAutoFocus = _props.disableAutoFocus,\n          initiallyKeyboardFocused =
_props.initiallyKeyboardFocused,\n          listStyle = _props.listStyle,\n          maxHeight = _props.maxHeight,\n
 multiple = _props.multiple,\n          onItemClick = _props.onItemClick,\n          onEscKeyDown =
_props.onEscKeyDown,\n          onMenuItemFocusChange = _props.onMenuItemFocusChange,\n
selectedMenuItemStyle = _props.selectedMenuItemStyle,\n          menuItemStyle = _props.menuItemStyle,\n
style = _props.style,\n          value = _props.value,\n          valueLink = _props.valueLink,\n          width =
_props.width,\n          other = (0, _objectWithoutProperties3.default)(_props, ['autoWidth', 'children', 'desktop',
'disableAutoFocus', 'initiallyKeyboardFocused', 'listStyle', 'maxHeight', 'multiple', 'onItemClick', 'onEscKeyDown',
 'onMenuItemFocusChange', 'selectedMenuItemStyle', 'menuItemStyle', 'style', 'value', 'valueLink', 'width']);\n
var prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n
var mergedRootStyles = (0, _simpleAssign2.default)(styles.root, style);\n      var mergedListStyles = (0,
_simpleAssign2.default)(styles.list, listStyle);\n      var filteredChildren = this.getFilteredChildren(children);\n
var menuItemIndex = 0;\n\n      var newChildren = _react2.default.Children.map(filteredChildren, function (child,
index) {\n        var childIsDisabled = child.props.disabled;\n        var childName = child.type ? child.type.muiName :
'';\n        var newChild = child;\n\n        switch (childName) {\n          case 'MenuItem':\n            newChild =
_this4.cloneMenuItem(child, menuItemIndex, styles, index);\n            break;\n\n          case 'Divider':\n
newChild = _react2.default.cloneElement(child, {\n
              style: (0, _simpleAssign2.default)({}, styles.divider, child.props.style)\n            });\n            break;\n
}\n\n        if (childName === 'MenuItem' && !childIsDisabled) {\n          menuItemIndex++;\n        }\n\n        return
newChild;\n      });\n\n      return _react2.default.createElement(_ClickAwayListener2.default, {\n
onClickAway: this.handleClickAway\n      }, _react2.default.createElement('div', {\n        onKeyDown:
this.handleKeyDown,\n        onWheel: this.handleOnWheel,\n        style: prepareStyles(mergedRootStyles),\n
ref: 'scrollContainer',\n        role: 'presentation'\n      }, _react2.default.createElement(_List2.default, (0,
_extends3.default)({}, other, {\n        ref: 'list',\n        style: mergedListStyles,\n        role: 'menu'\n      }),
newChildren)));\n    }\n  }]);\n  return Menu;\n}(_react.Component);\n\nMenu.defaultProps = {\n  autoWidth:
true,\n  desktop: false,\n  disableAutoFocus: false,\n  initiallyKeyboardFocused:
 false,\n  maxHeight: null,\n  multiple: false,\n  onChange: function onChange() {},\n  onEscKeyDown: function
onEscKeyDown() {},\n  onItemClick: function onItemClick() {},\n  onKeyDown: function onKeyDown()
{}\n};\nMenu.contextTypes = {\n  muiTheme: _propTypes2.default.object.isRequired\n};\n\nvar _initialiseProps =
function _initialiseProps() {\n  var _this5 = this;\n\n  this.handleClickAway = function (event) {\n    if
(event.defaultPrevented) {\n      return;\n    }\n\n    var focusIndex = _this5.state.focusIndex;\n\n    if (focusIndex <
0) {\n      return;\n    }\n\n    var filteredChildren = _this5.getFilteredChildren(_this5.props.children);\n\n    var
focusedItem = filteredChildren[focusIndex];\n\n    if (!!focusedItem && focusedItem.props.menuItems &&
focusedItem.props.menuItems.length > 0) {\n      return;\n    }\n\n    _this5.setFocusIndex(event, -1, false);\n  };\n\n
```

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this.handleKeyDown = function (event) {\n    var filteredChildren =
_this5.getFilteredChildren(_this5.props.children);\n\n
    var key = (0, _keycode2.default)(event);\n\n    switch (key) {\n      case 'down':\n        event.preventDefault();\n\n
    _this5.incrementKeyboardFocusIndex(event, filteredChildren);\n\n        break;\n\n      case 'esc':\n
_this5.props.onEscKeyDown(event);\n\n        break;\n\n      case 'tab':\n        event.preventDefault();\n\n        if
(event.shiftKey) {\n          _this5.decrementKeyboardFocusIndex(event);\n        } else {\n
_this5.incrementKeyboardFocusIndex(event, filteredChildren);\n        }\n\n        break;\n\n      case 'up':\n
event.preventDefault();\n\n        _this5.decrementKeyboardFocusIndex(event);\n\n        break;\n\n      default:\n
if (key && key.length === 1) {\n          var hotKeys = _this5.hotKeyHolder.append(key);\n\n          if
(_this5.setFocusIndexStartsWith(event, hotKeys, filteredChildren)) {\n            event.preventDefault();\n          }\n
 }\n\n    }\n\n    _this5.props.onKeyDown(event);\n
  };\n\n  this.handleOnWheel = function (event) {\n    var scrollContainer = _this5.refs.scrollContainer; // Only scroll
lock if the the Menu is scrollable.\n\n    if (scrollContainer.scrollHeight <= scrollContainer.clientHeight) return;\n
var scrollTop = scrollContainer.scrollTop,\n        scrollHeight = scrollContainer.scrollHeight,\n        clientHeight =
scrollContainer.clientHeight;\n    var wheelDelta = event.deltaY;\n    var isDeltaPositive = wheelDelta > 0;\n\n    if
(isDeltaPositive && wheelDelta > scrollHeight - clientHeight - scrollTop) {\n      scrollContainer.scrollTop =
scrollHeight;\n      return _this5.cancelScrollEvent(event);\n    } else if (!isDeltaPositive && -wheelDelta >
scrollTop) {\n      scrollContainer.scrollTop = 0;\n      return _this5.cancelScrollEvent(event);\n    }\n
};\n};\n\nMenu.propTypes = process.env.NODE_ENV !== \"production\" ? {\n  /**\n   * If true, the width of the
menu will be set automatically\n   * according to the widths of its children,\n
   * using proper keyline increments (64px for desktop,\n   * 56px otherwise).\n   */\n  autoWidth:
_propTypes2.default.bool,\n\n  /**\n   * The content of the menu. This is usually used to pass `MenuItem`\n   *
elements.\n   */\n  children: _propTypes2.default.node,\n\n  /**\n   * If true, the menu item will render with compact
desktop styles.\n   */\n  desktop: _propTypes2.default.bool,\n\n  /**\n   * If true, the menu will not be auto-
focused.\n   */\n  disableAutoFocus: _propTypes2.default.bool,\n\n  /**\n   * If true, the menu will be keyboard-
focused initially.\n   */\n  initiallyKeyboardFocused: _propTypes2.default.bool,\n\n  /**\n   * Override the inline-
styles of the underlying `List` element.\n   */\n  listStyle: _propTypes2.default.object,\n\n  /**\n   * The maximum
height of the menu in pixels. If specified,\n   * the menu will be scrollable if it is taller than the provided\n   *
height.\n   */\n  maxHeight: _propTypes2.default.number,\n\n  /**\n   * Override the
 inline-styles of menu items.\n   */\n  menuItemStyle: _propTypes2.default.object,\n\n  /**\n   * If true, `value` must
be an array and the menu will support\n   * multiple selections.\n   */\n  multiple: _propTypes2.default.bool,\n\n
/**\n   * Callback function fired when a menu item with `value` not\n   * equal to the current `value` of the menu is
clicked.\n   *\n   * @param {object} event Click event targeting the menu item.\n   * @param {any}  value If
`multiple` is true, the menu's `value`\n   * array with either the menu item's `value` added (if\n   * it wasn't already
selected) or omitted (if it was already selected).\n   * Otherwise, the `value` of the menu item.\n   */\n  onChange:
_propTypes2.default.func,\n\n  /**\n   * Callback function fired when the menu is focused and the *Esc* key\n   * is
pressed.\n   *\n   * @param {object} event `keydown` event targeting the menu.\n   */\n  onEscKeyDown:
_propTypes2.default.func,\n\n  /**\n   * Callback function fired when a menu item
 is clicked.\n   *\n   * @param {object} event Click event targeting the menu item.\n   * @param {object} menuItem
The menu item.\n   * @param {number} index The index of the menu item.\n   */\n  onItemClick:
_propTypes2.default.func,\n\n  /** @ignore */\n  onKeyDown: _propTypes2.default.func,\n\n  /**\n   * Callback
function fired when the focus on a `MenuItem` is changed.\n   * There will be some \"duplicate\" changes reported if
two different\n   * focusing event happen, for example if a `MenuItem` is focused via\n   * the keyboard and then it
is clicked on.\n   *\n   * @param {object} event The event that triggered the focus change.\n   * The event can be
null since the focus can be changed for non-event\n   * reasons such as prop changes.\n   * @param {number}
newFocusIndex The index of the newly focused\n   * `MenuItem` or `-1` if focus was lost.\n   */\n
onMenuItemFocusChange: _propTypes2.default.func,\n\n  /**\n   * Override the inline-styles of selected menu
items.\n   */\n
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selectedMenuItemStyle: _propTypes2.default.object,\n\n /**\n   * Override the inline-styles of the root element.\n   */\n style: _propTypes2.default.object,\n\n /**\n   * If `multiple` is true, an array of the `value`s of the selected\n   * menu items. Otherwise, the `value` of the selected menu item.\n   * If provided, the menu will be a controlled component.\n   * This component also supports valueLink.\n   */\n value: _propTypes2.default.any,\n\n /**\n   * ValueLink for the menu's `value`.\n   */\n valueLink: _propTypes2.default.object,\n\n /**\n   * The width of the menu. If not specified, the menu's width\n   * will be set according to the widths of its children, using\n   * proper keyline increments (64px for desktop, 56px otherwise).\n   */\n width: _propTypes4.default.stringOrNumber\n} : {};\nexports.default = Menu;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\nexports.default = undefined;\n\nvar _MenuItem = require('./MenuItem');\n\nvar _MenuItem2 = _interopRequireDefault(_MenuItem);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nexports.default = _MenuItem2.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-dom');\n\nvar _reactDom2 = _interopRequireDefault(_reactDom);\n\nvar _shallowEqual = require('recompose/shallowEqual');\n\nvar _shallowEqual2 = _interopRequireDefault(_shallowEqual);\n\nvar _colorManipulator = require('../utils/colorManipulator');\n\nvar _transitions = require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nvar _EnhancedButton = require('../internal/EnhancedButton');\n\nvar _EnhancedButton2 = _interopRequireDefault(_EnhancedButton);\n\nvar _IconButton = require('../IconButton');\n\nvar _IconButton2 = _interopRequireDefault(_IconButton);\n\nvar _expandLess = require('../svg-icons/navigation/expand-less');\n\nvar _expandLess2 = _interopRequireDefault(_expandLess);\n\nvar _expandMore = require('../svg-icons/navigation/expand-more');\n\nvar _expandMore2 = _interopRequireDefault(_expandMore);\n\nvar _NestedList = require('./NestedList');\n\nvar _NestedList2 = _interopRequireDefault(_NestedList);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nfunction getStyles(props, context, state) {\n var autoGenerateNestedIndicator = props.autoGenerateNestedIndicator,\n   insetChildren = props.insetChildren,\n   leftAvatar = props.leftAvatar,\n   leftCheckbox = props.leftCheckbox,\n   leftIcon = props.leftIcon,\n   nestedItems = props.nestedItems,\n   nestedLevel = props.nestedLevel,\n   rightAvatar = props.rightAvatar,\n   rightIcon = props.rightIcon,\n   rightIconButton = props.rightIconButton,\n   rightToggle = props.rightToggle,\n   secondaryText = props.secondaryText,\n   secondaryTextLines = props.secondaryTextLines;\n var muiTheme = context.muiTheme;\n var listItem = muiTheme.listItem;\n var textColor = muiTheme.baseTheme.palette.textColor;\n var hoverColor = props.hoverColor || (0, _colorManipulator.fade)(textColor, 0.1);\n var singleAvatar = !secondaryText && (leftAvatar || rightAvatar);\n var singleNoAvatar = !secondaryText && !(leftAvatar || rightAvatar);\n var twoLine = secondaryText && secondaryTextLines === 1;\n var threeLine = secondaryText && secondaryTextLines > 1;\n var

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isKeyboardFocused = (props.isKeyboardFocused !== undefined ? props : state).isKeyboardFocused;\n  var styles =
{\n    root: {\n      backgroundColor: (isKeyboardFocused
 || state.hovered) && !state.rightIconButtonHovered && !state.rightIconButtonKeyboardFocused ? hoverColor :
null,\n      color: textColor,\n      display: 'block',\n      fontSize: 16,\n      lineHeight: '16px',\n      position: 'relative',\n
    transition: _transitions2.default.easeOut()\n    },\n    // This inner div is needed so that ripples will span the entire
container\n    innerDiv: {\n      marginLeft: nestedLevel * listItem.nestedLevelDepth,\n      paddingLeft: leftIcon ||
leftAvatar || leftCheckbox || insetChildren ? 72 : 16,\n      paddingRight: rightIcon || rightAvatar || rightIconButton ||
nestedItems.length && autoGenerateNestedIndicator ? 56 : rightToggle ? 72 : 16,\n      paddingBottom:
singleAvatar ? 20 : 16,\n      paddingTop: singleNoAvatar || threeLine ? 16 : 20,\n      position: 'relative'\n    },\n
icons: {\n      height: 24,\n      width: 24,\n      display: 'block',\n      position: 'absolute',\n      top: twoLine ? 12 :
singleAvatar ? 4 : 0,\n      margin:
 12\n    },\n    leftIcon: {\n      left: 4\n    },\n    rightIcon: {\n      right: 4\n    },\n    avatars: {\n      position:
'absolute',\n      top: singleAvatar ? 8 : 16\n    },\n    label: {\n      cursor: 'pointer'\n    },\n    leftAvatar: {\n      left:
16\n    },\n    rightAvatar: {\n      right: 16\n    },\n    leftCheckbox: {\n      position: 'absolute',\n      display: 'block',\n
    width: 24,\n      top: twoLine ? 24 : singleAvatar ? 16 : 12,\n      left: 16\n    },\n    primaryText: {},\n
rightIconButton: {\n      position: 'absolute',\n      display: 'block',\n      top: twoLine ? 12 : singleAvatar ? 4 : 0,\n
right: 4\n    },\n    rightToggle: {\n      position: 'absolute',\n      display: 'block',\n      width: 54,\n      top: twoLine ?
25 : singleAvatar ? 17 : 13,\n      right: 8\n    },\n    secondaryText: {\n      fontSize: 14,\n      lineHeight: threeLine ?
'18px' : '16px',\n      height: threeLine ? 36 : 16,\n      margin: 0,\n      marginTop: 4,\n      color:
 listItem.secondaryTextColor,\n      // needed for 2 and 3 line ellipsis\n      overflow: 'hidden',\n      textOverflow:
'ellipsis',\n      whiteSpace: threeLine ? null : 'nowrap',\n      display: threeLine ? '-webkit-box' : null,\n
WebkitLineClamp: threeLine ? 2 : null,\n      WebkitBoxOrient: threeLine ? 'vertical' : null\n    }\n  };\n  return
styles;\n}\n\nvar ListItem = function (_Component) {\n  (0, _inherits3.default)(ListItem, _Component);\n\n
function ListItem() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this,
ListItem);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n
args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = ListItem.__proto__ || (0,
_getPrototypeOf2.default)(ListItem)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      hovered:
false,\n      isKeyboardFocused: false,\n
      open: false,\n      rightIconButtonHovered: false,\n      rightIconButtonKeyboardFocused: false,\n      touch:
false\n    }, _this.handleKeyboardFocus = function (event, isKeyboardFocused) {\n      _this.setState({\n
isKeyboardFocused: isKeyboardFocused\n      });\n\n      _this.props.onKeyboardFocus(event,
isKeyboardFocused);\n    }, _this.handleMouseEnter = function (event) {\n      if (!_this.state.touch)
_this.setState({\n        hovered: true\n      });\n\n      _this.props.onMouseEnter(event);\n    },
_this.handleMouseLeave = function (event) {\n      _this.setState({\n        hovered: false\n      });\n\n
_this.props.onMouseLeave(event);\n    }, _this.handleClick = function (event) {\n      if (_this.props.onClick) {\n
_this.props.onClick(event);\n      }\n\n      if (_this.props.primaryTogglesNestedList) {\n
_this.handleNestedListToggle(event);\n      }\n    }, _this.handleNestedListToggle = function (event) {\n      if
(_this.props.leftCheckbox)
 {\n        event.preventDefault();\n      }\n\n      event.stopPropagation();\n\n      if (_this.props.open === null) {\n
_this.setState({\n          open: !_this.state.open\n        }, function () {\n
_this.props.onNestedListToggle(_this);\n        });\n      } else {\n        // Exposing `this` in the callback is quite a bad
API.\n        // I'm doing a one level deep clone to expose a fake state.open.\n        _this.props.onNestedListToggle((0,
_extends3.default)({}, _this, {\n          state: {\n            open: !_this.state.open\n          }\n        }));\n      }\n    },
_this.handleRightIconButtonKeyboardFocus = function (event, isKeyboardFocused) {\n      if (isKeyboardFocused)
{\n        _this.setState({\n          isKeyboardFocused: false,\n          rightIconButtonKeyboardFocused:
isKeyboardFocused\n        });\n      }\n\n      var iconButton = _this.props.rightIconButton;\n      if (iconButton &&
iconButton.props.onKeyboardFocus) iconButton.props.onKeyboardFocus(event,
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 isKeyboardFocused);\n    }, _this.handleRightIconButtonMouseLeave = function (event) {\n      var iconButton =
_this.props.rightIconButton;\n\n      _this.setState({\n        rightIconButtonHovered: false\n      });\n\n      if
(iconButton && iconButton.props.onMouseLeave) iconButton.props.onMouseLeave(event);\n    },
_this.handleRightIconButtonMouseEnter = function (event) {\n      var iconButton =
_this.props.rightIconButton;\n\n      _this.setState({\n        rightIconButtonHovered: true\n      });\n\n      if
(iconButton && iconButton.props.onMouseEnter) iconButton.props.onMouseEnter(event);\n    },
_this.handleRightIconButtonMouseUp = function (event) {\n      var iconButton = _this.props.rightIconButton;\n
event.stopPropagation();\n      if (iconButton && iconButton.props.onMouseUp)
iconButton.props.onMouseUp(event);\n    }, _this.handleRightIconButtonClick = function (event) {\n      var
iconButton = _this.props.rightIconButton; // Stop the event from bubbling
 up to the list-item\n\n      event.stopPropagation();\n      if (iconButton && iconButton.props.onClick)
iconButton.props.onClick(event);\n    }, _this.handleTouchStart = function (event) {\n      _this.setState({\n
touch: true\n      });\n\n      _this.props.onTouchStart(event);\n    }, _this.handleTouchEnd = function (event) {\n
_this.setState({\n        touch: true\n      });\n\n      _this.props.onTouchEnd(event);\n    }, _temp), (0,
_possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(ListItem, [{\n    key:
'componentWillMount',\n    value: function componentWillMount() {\n      this.setState({\n        open:
this.props.open === null ? this.props.initiallyOpen === true : this.props.open\n      });\n    }\n  }, {\n    key:
'componentWillReceiveProps',\n    value: function componentWillReceiveProps(nextProps) {\n      // update the
state when the component is controlled.\n      if (nextProps.open !== null) this.setState({\n        open:
 nextProps.open\n      });\n      if (nextProps.disabled && this.state.hovered) this.setState({\n        hovered: false\n
});\n    }\n  }, {\n    key: 'shouldComponentUpdate',\n    value: function shouldComponentUpdate(nextProps,
nextState, nextContext) {\n      return !(0, _shallowEqual2.default)(this.props, nextProps) || !(0,
_shallowEqual2.default)(this.state, nextState) || !(0, _shallowEqual2.default)(this.context, nextContext);\n    } // This
method is needed by the `MenuItem` component.\n\n  }, {\n    key: 'applyFocusState',\n    value: function
applyFocusState(focusState) {\n      if (this.button) {\n        var buttonEl =
_reactDom2.default.findDOMNode(this.button);\n\n        switch (focusState) {\n          case 'none':\n
buttonEl.blur();\n            break;\n\n          case 'focused':\n            buttonEl.focus();\n            break;\n\n          case
'keyboard-focused':\n            this.button.setKeyboardFocus();\n            buttonEl.focus();\n
      break;\n        }\n      }\n    }\n  }, {\n    key: 'createDisabledElement',\n    value: function
createDisabledElement(styles, contentChildren, additionalProps) {\n      var _props = this.props,\n
innerDivStyle = _props.innerDivStyle,\n          style = _props.style;\n      var mergedDivStyles = (0,
_simpleAssign2.default)({}, styles.root, styles.innerDiv, innerDivStyle, style);\n      return
_react2.default.createElement('div', (0, _extends3.default)({}, additionalProps, {\n        style:
this.context.muiTheme.prepareStyles(mergedDivStyles)\n      }), contentChildren);\n    }\n  }, {\n    key:
'createLabelElement',\n    value: function createLabelElement(styles, contentChildren, additionalProps) {\n      var
_props2 = this.props,\n          innerDivStyle = _props2.innerDivStyle,\n          style = _props2.style;\n      var
mergedLabelStyles = (0, _simpleAssign2.default)({}, styles.root, styles.innerDiv, innerDivStyle, styles.label,
style);\n      return _react2.default.createElement('label',
 (0, _extends3.default)({}, additionalProps, {\n        style:
this.context.muiTheme.prepareStyles(mergedLabelStyles)\n      }), contentChildren);\n    }\n  }, {\n    key:
'createTextElement',\n    value: function createTextElement(styles, data, key) {\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n\n      if (_react2.default.isValidElement(data)) {\n        var style = (0,
_simpleAssign2.default)({}, styles, data.props.style);\n\n        if (typeof data.type === 'string') {\n          // if element
is a native dom node\n          style = prepareStyles(style);\n        }\n\n        return _react2.default.cloneElement(data,
{\n          key: key,\n          style: style\n        });\n      }\n\n      return _react2.default.createElement('div', {\n        key:
key,\n        style: prepareStyles(styles)\n      }, data);\n    }\n  }, {\n    key: 'pushElement',\n    value: function
pushElement(children, element, baseStyles, additionalProps) {\n
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 if (element) {\n        var styles = (0, _simpleAssign2.default)({}, baseStyles, element.props.style);\n
children.push(_react2.default.cloneElement(element, (0, _extends3.default)({\n          key: children.length,\n
style: styles\n        }, additionalProps)));\n      }\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var
_this2 = this;\n\n      var _props3 = this.props,\n          autoGenerateNestedIndicator =
_props3.autoGenerateNestedIndicator,\n          children = _props3.children,\n          containerElement =
_props3.containerElement,\n          disabled = _props3.disabled,\n          disableKeyboardFocus =
_props3.disableKeyboardFocus,\n          hoverColor = _props3.hoverColor,\n          initiallyOpen =
_props3.initiallyOpen,\n          innerDivStyle = _props3.innerDivStyle,\n          insetChildren =
_props3.insetChildren,\n          leftAvatar = _props3.leftAvatar,\n          leftCheckbox = _props3.leftCheckbox,\n
 leftIcon
 = _props3.leftIcon,\n          nestedItems = _props3.nestedItems,\n          nestedLevel = _props3.nestedLevel,\n
nestedListStyle = _props3.nestedListStyle,\n          onKeyboardFocus = _props3.onKeyboardFocus,\n
isKeyboardFocused = _props3.isKeyboardFocused,\n          onMouseEnter = _props3.onMouseEnter,\n
onMouseLeave = _props3.onMouseLeave,\n          onNestedListToggle = _props3.onNestedListToggle,\n
onTouchStart = _props3.onTouchStart,\n          onClick = _props3.onClick,\n          rightAvatar =
_props3.rightAvatar,\n          rightIcon = _props3.rightIcon,\n          rightIconButton = _props3.rightIconButton,\n
   rightToggle = _props3.rightToggle,\n          primaryText = _props3.primaryText,\n
primaryTogglesNestedList = _props3.primaryTogglesNestedList,\n          secondaryText =
_props3.secondaryText,\n          secondaryTextLines = _props3.secondaryTextLines,\n          style = _props3.style,\n
       other = (0, _objectWithoutProperties3.default)(_props3,
 ['autoGenerateNestedIndicator', 'children', 'containerElement', 'disabled', 'disableKeyboardFocus', 'hoverColor',
'initiallyOpen', 'innerDivStyle', 'insetChildren', 'leftAvatar', 'leftCheckbox', 'leftIcon', 'nestedItems', 'nestedLevel',
'nestedListStyle', 'onKeyboardFocus', 'isKeyboardFocused', 'onMouseEnter', 'onMouseLeave', 'onNestedListToggle',
'onTouchStart', 'onClick', 'rightAvatar', 'rightIcon', 'rightIconButton', 'rightToggle', 'primaryText',
'primaryTogglesNestedList', 'secondaryText', 'secondaryTextLines', 'style']);\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context, this.state);\n      var
contentChildren = [children];\n\n      if (leftIcon) {\n        var additionalProps = {\n          color: leftIcon.props.color ||
this.context.muiTheme.listItem.leftIconColor\n        };\n        this.pushElement(contentChildren, leftIcon, (0,
_simpleAssign2.default)({}, styles.icons, styles.leftIcon),
 additionalProps);\n      }\n\n      if (rightIcon) {\n        var _additionalProps = {\n          color: rightIcon.props.color ||
this.context.muiTheme.listItem.rightIconColor\n        };\n        this.pushElement(contentChildren, rightIcon, (0,
_simpleAssign2.default)({}, styles.icons, styles.rightIcon), _additionalProps);\n      }\n\n      if (leftAvatar) {\n
this.pushElement(contentChildren, leftAvatar, (0, _simpleAssign2.default)({}, styles.avatars, styles.leftAvatar));\n
 }\n\n      if (rightAvatar) {\n        this.pushElement(contentChildren, rightAvatar, (0, _simpleAssign2.default)({},
styles.avatars, styles.rightAvatar));\n      }\n\n      if (leftCheckbox) {\n        this.pushElement(contentChildren,
leftCheckbox, (0, _simpleAssign2.default)({}, styles.leftCheckbox));\n      } // RightIconButtonElement\n\n\n      var
hasNestListItems = nestedItems.length;\n      var hasRightElement = rightAvatar || rightIcon || rightIconButton ||
rightToggle;\n
  var needsNestedIndicator = hasNestListItems && autoGenerateNestedIndicator && !hasRightElement;\n\n      if
(rightIconButton || needsNestedIndicator) {\n        var rightIconButtonElement = rightIconButton;\n        var
rightIconButtonHandlers = {\n          onKeyboardFocus: this.handleRightIconButtonKeyboardFocus,\n
onMouseEnter: this.handleRightIconButtonMouseEnter,\n          onMouseLeave:
this.handleRightIconButtonMouseLeave,\n          onClick: this.handleRightIconButtonClick,\n          onMouseDown:
this.handleRightIconButtonMouseUp,\n          onMouseUp: this.handleRightIconButtonMouseUp\n        }; // Create
a nested list indicator icon if we don't have an icon on the right\n\n        if (needsNestedIndicator) {\n
rightIconButtonElement = this.state.open ? _react2.default.createElement(_IconButton2.default, null,
_react2.default.createElement(_expandLess2.default, null)) : _react2.default.createElement(_IconButton2.default,
null, _react2.default.createElement(_expandMore2.default,
```

```
 null));\n          rightIconButtonHandlers.onClick = this.handleNestedListToggle;\n        }\n\n
this.pushElement(contentChildren, rightIconButtonElement, (0, _simpleAssign2.default)({},
styles.rightIconButton), rightIconButtonHandlers);\n      }\n\n      if (rightToggle) {\n
this.pushElement(contentChildren, rightToggle, (0, _simpleAssign2.default)({}, styles.rightToggle));\n      }\n\n
if (primaryText) {\n        var primaryTextElement = this.createTextElement(styles.primaryText, primaryText,
'primaryText');\n        contentChildren.push(primaryTextElement);\n      }\n\n      if (secondaryText) {\n        var
secondaryTextElement = this.createTextElement(styles.secondaryText, secondaryText, 'secondaryText');\n
contentChildren.push(secondaryTextElement);\n      }\n\n      var nestedList = nestedItems.length ?
_react2.default.createElement(_NestedList2.default, {\n        nestedLevel: nestedLevel,\n        open:
this.state.open,\n
  style: nestedListStyle\n      }, nestedItems) : undefined;\n      var simpleLabel = !primaryTogglesNestedList &&
(leftCheckbox || rightToggle);\n      return _react2.default.createElement('div', null, simpleLabel ?
this.createLabelElement(styles, contentChildren, other) : disabled ? this.createDisabledElement(styles,
contentChildren, other) : _react2.default.createElement(_EnhancedButton2.default, (0, _extends3.default)({\n
containerElement: containerElement\n      }, other, {\n        disableKeyboardFocus: disableKeyboardFocus ||
this.state.rightIconButtonKeyboardFocused,\n        onKeyboardFocus: this.handleKeyboardFocus,\n
onMouseLeave: this.handleMouseLeave,\n        onMouseEnter: this.handleMouseEnter,\n        onTouchStart:
this.handleTouchStart,\n        onTouchEnd: this.handleTouchEnd,\n        onClick: this.handleClick,\n        disabled:
disabled,\n        ref: function ref(node) {\n          return _this2.button = node;\n        },\n        style: (0,
_simpleAssign2.default)({},
 styles.root, style)\n      }), _react2.default.createElement('div', {\n        style: prepareStyles((0,
_simpleAssign2.default)(styles.innerDiv, innerDivStyle))\n      }, contentChildren)), nestedList);\n    }\n  }]);\n
return ListItem;\n}(_react.Component);\n\nListItem.muiName = 'ListItem';\nListItem.defaultProps = {\n
autoGenerateNestedIndicator: true,\n  containerElement: 'span',\n  disableKeyboardFocus: false,\n  disabled: false,\n
initiallyOpen: false,\n  insetChildren: false,\n  nestedItems: [],\n  nestedLevel: 0,\n  onKeyboardFocus: function
onKeyboardFocus() {},\n  onMouseEnter: function onMouseEnter() {},\n  onMouseLeave: function
onMouseLeave() {},\n  onNestedListToggle: function onNestedListToggle() {},\n  onTouchEnd: function
onTouchEnd() {},\n  onTouchStart: function onTouchStart() {},\n  open: null,\n  primaryTogglesNestedList: false,\n
secondaryTextLines: 1\n};\nListItem.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nListItem.propTypes
 = process.env.NODE_ENV !== \"production\" ? {\n  /**\n   * If true, generate a nested-list-indicator icon when
nested list\n   * items are detected. Note that an indicator will not be created\n   * if a `rightIcon` or
`rightIconButton` has been provided to\n   * the element.\n   */\n  autoGenerateNestedIndicator:
_propTypes2.default.bool,\n\n  /**\n   * Children passed into the `ListItem`.\n   */\n  children:
_propTypes2.default.node,\n\n  /**\n   * The element to use as the container for the ListItem. Either a string to\n   *
use a DOM element or a ReactElement. This is useful for wrapping the\n   * ListItem in a custom Link component.
If a ReactElement is given, ensure\n   * that it passes all of its given props through to the underlying DOM\n   *
element and renders its children prop for proper integration.\n   */\n  containerElement:
_propTypes2.default.oneOfType([_propTypes2.default.string, _propTypes2.default.element]),\n\n  /**\n   * If true,
the element will not
 be able to be focused by the keyboard.\n   */\n  disableKeyboardFocus: _propTypes2.default.bool,\n\n  /**\n   * If
true, the element will not be clickable\n   * and will not display hover effects.\n   * This is automatically disabled if
either `leftCheckbox`\n   * or `rightToggle` is set.\n   */\n  disabled: _propTypes2.default.bool,\n\n  /**\n  *
Override the hover background color.\n  */\n  hoverColor: _propTypes2.default.string,\n\n  /**\n   * If true, the
nested `ListItem`s are initially displayed.\n   */\n  initiallyOpen: _propTypes2.default.bool,\n\n  /**\n   * Override
the inline-styles of the inner div element.\n   */\n  innerDivStyle: _propTypes2.default.object,\n\n  /**\n   * If true,
the children will be indented by 72px.\n   * This is useful if there is no left avatar or left icon.\n   */\n  insetChildren:
_propTypes2.default.bool,\n\n  /**\n   * Use to control if the list item should render as keyboard focused.  If\n   *
```

```
undefined (default), this will be automatically managed.
  If provided,\n   * it will change the components style.  Note that this will not change the\n   * actual focus - and
should only be used when you want to simulate\n   * keyboard focus (eg. in a rich text input autocomplete).\n   */\n
isKeyboardFocused: _propTypes2.default.bool,\n\n  /**\n   * This is the `Avatar` element to be displayed on the left
side.\n   */\n  leftAvatar: _propTypes2.default.element,\n\n  /**\n   * This is the `Checkbox` element to be displayed
on the left side.\n   */\n  leftCheckbox: _propTypes2.default.element,\n\n  /**\n   * This is the `SvgIcon` or
`FontIcon` to be displayed on the left side.\n   */\n  leftIcon: _propTypes2.default.element,\n\n  /**\n   * An array of
`ListItem`s to nest underneath the current `ListItem`.\n   */\n  nestedItems:
_propTypes2.default.arrayOf(_propTypes2.default.element),\n\n  /**\n   * Controls how deep a `ListItem` appears.\n
 * This property is automatically managed, so modify at your own risk.\n   */\n  nestedLevel:
_propTypes2.default.number,\n\n
  /**\n   * Override the inline-styles of the nested items' `NestedList`.\n   */\n  nestedListStyle:
_propTypes2.default.object,\n\n  /**\n   * Callback function fired when the list item is clicked.\n   *\n   * @param
{object} event Click event targeting the list item.\n   */\n  onClick: _propTypes2.default.func,\n\n  /**\n   * Callback
function fired when the `ListItem` is focused or blurred by the keyboard.\n   *\n   * @param {object} event `focus`
or `blur` event targeting the `ListItem`.\n   * @param {boolean} isKeyboardFocused If true, the `ListItem` is
focused.\n   */\n  onKeyboardFocus: _propTypes2.default.func,\n\n  /** @ignore */\n  onMouseEnter:
_propTypes2.default.func,\n\n  /** @ignore */\n  onMouseLeave: _propTypes2.default.func,\n\n  /**\n   * Callback
function fired when the `ListItem` toggles its nested list.\n   *\n   * @param {object} listItem The `ListItem`.\n   */\n
onNestedListToggle: _propTypes2.default.func,\n\n  /** @ignore */\n  onTouchEnd:
 _propTypes2.default.func,\n\n  /** @ignore */\n  onTouchStart: _propTypes2.default.func,\n\n  /**\n   * Control
toggle state of nested list.\n   */\n  open: _propTypes2.default.bool,\n\n  /**\n   * This is the block element that
contains the primary text.\n   * If a string is passed in, a div tag will be rendered.\n   */\n  primaryText:
_propTypes2.default.node,\n\n  /**\n   * If true, clicking or tapping the primary text of the `ListItem`\n   * toggles
the nested list.\n   */\n  primaryTogglesNestedList: _propTypes2.default.bool,\n\n  /**\n   * This is the `Avatar`
element to be displayed on the right side.\n   */\n  rightAvatar: _propTypes2.default.element,\n\n  /**\n   * This is
the `SvgIcon` or `FontIcon` to be displayed on the right side.\n   */\n  rightIcon: _propTypes2.default.element,\n\n
/**\n   * This is the `IconButton` to be displayed on the right side.\n   * Hovering over this button will remove the
`ListItem` hover.\n   * Also, clicking on this button will not trigger
 a\n   * ripple on the `ListItem`; the event will be stopped and prevented\n   * from bubbling up to cause a `ListItem`
click.\n   */\n  rightIconButton: _propTypes2.default.element,\n\n  /**\n   * This is the `Toggle` element to display
on the right side.\n   */\n  rightToggle: _propTypes2.default.element,\n\n  /**\n   * This is the block element that
contains the secondary text.\n   * If a string is passed in, a div tag will be rendered.\n   */\n  secondaryText:
_propTypes2.default.node,\n\n  /**\n   * Can be 1 or 2. This is the number of secondary\n   * text lines before
ellipsis will show.\n   */\n  secondaryTextLines: _propTypes2.default.oneOf([1, 2]),\n\n  /**\n   * Override the
inline-styles of the root element.\n   */\n  style: _propTypes2.default.object\n} : {};\nexports.default =
ListItem;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default =
undefined;\n\nvar _Dialog = require('./Dialog');\n\nvar _Dialog2 = _interopRequireDefault(_Dialog);\n\nfunction
 _interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n
};\n}\n\nexports.default = _Dialog2.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n
value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
```

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_possibleConstructorReturn2
 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _Tooltip = require('../internal/Tooltip');\n\nvar
_Tooltip2 = _interopRequireDefault(_Tooltip);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var tableHeaderColumn
= context.muiTheme.tableHeaderColumn;\n  return {\n    root: {\n      fontWeight: 'normal',\n      fontSize: 12,\n
paddingLeft: tableHeaderColumn.spacing,\n
      paddingRight: tableHeaderColumn.spacing,\n      height: tableHeaderColumn.height,\n      textAlign: 'left',\n
whiteSpace: 'nowrap',\n      textOverflow: 'ellipsis',\n      color: tableHeaderColumn.textColor,\n      position:
'relative'\n    },\n    tooltip: {\n      boxSizing: 'border-box',\n      marginTop: tableHeaderColumn.height / 2\n    }\n
  };\n}\n\nvar TableHeaderColumn = function (_Component) {\n  (0, _inherits3.default)(TableHeaderColumn,
_Component);\n\n  function TableHeaderColumn() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0,
_classCallCheck3.default)(this, TableHeaderColumn);\n\n    for (var _len = arguments.length, args = Array(_len),
_key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = TableHeaderColumn.__proto__ || (0,
_getPrototypeOf2.default)(TableHeaderColumn)).call.apply(_ref, [this].concat(args))), _this),
 _this.state = {\n      hovered: false\n    }, _this.onMouseEnter = function () {\n      if (_this.props.tooltip !==
undefined) {\n        _this.setState({\n          hovered: true\n        });\n      }\n    }, _this.onMouseLeave = function ()
{\n      if (_this.props.tooltip !== undefined) {\n        _this.setState({\n          hovered: false\n        });\n      }\n    },
_this.onClick = function (event) {\n      if (_this.props.onClick) {\n        _this.props.onClick(event,
_this.props.columnNumber);\n      }\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0,
_createClass3.default)(TableHeaderColumn, [{\n    key: 'render',\n    value: function render() {\n      var _props =
this.props,\n          children = _props.children,\n          className = _props.className,\n          columnNumber =
_props.columnNumber,\n          hoverable = _props.hoverable,\n          onClick = _props.onClick,\n          onHover =
_props.onHover,\n          onHoverExit =
 _props.onHoverExit,\n          style = _props.style,\n          tooltip = _props.tooltip,\n          tooltipStyle =
_props.tooltipStyle,\n          other = (0, _objectWithoutProperties3.default)(_props, ['children', 'className',
'columnNumber', 'hoverable', 'onClick', 'onHover', 'onHoverExit', 'style', 'tooltip', 'tooltipStyle']);\n      var
prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n      var
handlers = {\n        onMouseEnter: this.onMouseEnter,\n        onMouseLeave: this.onMouseLeave,\n        onClick:
this.onClick\n      };\n      var tooltipNode = void 0;\n\n      if (tooltip !== undefined) {\n        tooltipNode =
_react2.default.createElement(_Tooltip2.default, {\n          label: tooltip,\n          show: this.state.hovered,\n
style: (0, _simpleAssign2.default)(styles.tooltip, tooltipStyle)\n        });\n      }\n\n      return
_react2.default.createElement('th', (0, _extends3.default)({\n        className:
 className,\n        style: prepareStyles((0, _simpleAssign2.default)(styles.root, style))\n      }, handlers, other),
tooltipNode, children);\n    }\n  }]);\n  return
TableHeaderColumn;\n}(_react.Component);\n\nTableHeaderColumn.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nTableHeaderColumn.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  children: _propTypes2.default.node,\n\n  /**\n   * The css class name of the root element.\n
*/\n  className: _propTypes2.default.string,\n\n  /**\n   * Number to identify the header row. This property\n   * is
automatically populated when used with TableHeader.\n   */\n  columnNumber: _propTypes2.default.number,\n\n
/**\n   * @ignore\n   * Not used here but we need to remove it from the root element.\n   */\n  hoverable:
_propTypes2.default.bool,\n\n  /** @ignore */\n  onClick: _propTypes2.default.func,\n\n  /**\n   * @ignore\n   *
Not used here but we need to remove it from the root element.\n   */\n
```

onHover: _propTypes2.default.func,\n\n /**\n   * @ignore\n   * Not used here but we need to remove it from the root element.\n   */\n onHoverExit: _propTypes2.default.func,\n\n /**\n   * Override the inline-styles of the root element.\n   */\n style: _propTypes2.default.object,\n\n /**\n   * The string to supply to the tooltip. If not\n   * string is supplied no tooltip will be shown.\n   */\n tooltip: _propTypes2.default.string,\n\n /**\n   * Additional styling that can be applied to the tooltip.\n   */\n tooltipStyle: _propTypes2.default.object\n} : {};\nexports.default = TableHeaderColumn;","module.exports = function (originalModule) {\n if (!originalModule.webpackPolyfill) {\n   var module = Object.create(originalModule); // module.parent = undefined by default\n\n   if (!module.children) module.children = [];\n   Object.defineProperty(module, \"loaded\", {\n   enumerable: true,\n   get: function get() {\n   return module.l;\n   }\n   });\n   Object.defineProperty(module,
\"id\", {\n   enumerable: true,\n   get: function get() {\n   return module.i;\n   }\n   });\n   Object.defineProperty(module, \"exports\", {\n   enumerable: true\n   });\n   module.webpackPolyfill = 1;\n }\n\n return module;\n};","/**\n * A specialized version of `_.map` for arrays without support for iteratee\n * shorthands.\n *\n * @private\n * @param {Array} [array] The array to iterate over.\n * @param {Function} iteratee The function invoked per iteration.\n * @returns {Array} Returns the new mapped array.\n */\nfunction arrayMap(array, iteratee) {\n var index = -1,\n   length = array == null ? 0 : array.length,\n   result = Array(length);\n\n while (++index < length) {\n   result[index] = iteratee(array[index], index, array);\n }\n\n return result;\n}\n\nexport default arrayMap;","/** Detect free variable `global` from Node.js. */\nvar freeGlobal = typeof global == 'object' && global && global.Object === Object && global;\nexport
default freeGlobal;","/**\n * Copies the values of `source` to `array`.\n *\n * @private\n * @param {Array} source The array to copy values from.\n * @param {Array} [array=[]] The array to copy values to.\n * @returns {Array} Returns `array`.\n */\nfunction copyArray(source, array) {\n var index = -1,\n   length = source.length;\n array || (array = Array(length));\n\n while (++index < length) {\n   array[index] = source[index];\n }\n\n return array;\n}\n\nexport default copyArray;","/**\n * Creates a unary function that invokes `func` with its argument transformed.\n *\n * @private\n * @param {Function} func The function to wrap.\n * @param {Function} transform The argument transform.\n * @returns {Function} Returns the new function.\n */\nfunction overArg(func, transform) {\n return function (arg) {\n   return func(transform(arg));\n };\n}\n\nexport default overArg;","var isEvent = function isEvent(candidate) {\n return !!(candidate && candidate.stopPropagation && candidate.preventDefault);\n};\n\nexport
default isEvent;","import MapCache from './_MapCache.js';\n/** Error message constants. */\n\nvar FUNC_ERROR_TEXT = 'Expected a function';\n/**\n * Creates a function that memoizes the result of `func`. If `resolver` is\n * provided, it determines the cache key for storing the result based on the\n * arguments provided to the memoized function. By default, the first argument\n * provided to the memoized function is used as the map cache key. The `func`\n * is invoked with the `this` binding of the memoized function.\n *\n * **Note:** The cache is exposed as the `cache` property on the memoized\n * function. Its creation may be customized by replacing the `_.memoize.Cache`\n * constructor with one whose instances implement the\n * [`Map`](http://ecma-international.org/ecma-262/7.0/#sec-properties-of-the-map-prototype-object)\n * method interface of `clear`, `delete`, `get`, `has`, and `set`.\n *\n * @static\n * @memberOf _\n * @since 0.1.0\n * @category
Function\n * @param {Function} func The function to have its output memoized.\n * @param {Function} [resolver] The function to resolve the cache key.\n * @returns {Function} Returns the new memoized function.\n * @example\n *\n * var object = { 'a': 1, 'b': 2 };\n * var other = { 'c': 3, 'd': 4 };\n *\n * var values = _.memoize(_.values);\n * values(object);\n * // => [1, 2]\n *\n * values(other);\n * // => [3, 4]\n *\n * object.a = 2;\n * values(object);\n * // => [1, 2]\n *\n * // Modify the result cache.\n * values.cache.set(object, ['a', 'b']);\n * values(object);\n * // => ['a', 'b']\n *\n * // Replace `_.memoize.Cache`.\n * _.memoize.Cache = WeakMap;\n */\n\nfunction memoize(func, resolver) {\n if (typeof func != 'function' || resolver != null && typeof resolver != 'function') {\n   throw new TypeError(FUNC_ERROR_TEXT);\n }\n\n var memoized = function memoized() {\n   var args = arguments,\n   key = resolver ? resolver.apply(this, args) : args[0],\n   cache =
memoized.cache;\n\n   if (cache.has(key)) {\n   return cache.get(key);\n   }\n\n   var result = func.apply(this, args);\n   memoized.cache = cache.set(key, result) || cache;\n   return result;\n };\n\n memoized.cache = new

(memoize.Cache || MapCache)();\n return memoized;\n} // Expose `MapCache`.\n\n\nmemoize.Cache = MapCache;\nexport default memoize;","import memoize from './memoize.js';\n/** Used as the maximum memoize cache size. */\n\nvar MAX_MEMOIZE_SIZE = 500;\n/**\n * A specialized version of `_.memoize` which clears the memoized function's\n * cache when it exceeds `MAX_MEMOIZE_SIZE`.\n *\n * @private\n * @param {Function} func The function to have its output memoized.\n * @returns {Function} Returns the new memoized function.\n */\n\nfunction memoizeCapped(func) {\n var result = memoize(func, function (key) {\n   if (cache.size === MAX_MEMOIZE_SIZE) {\n   cache.clear();\n   }\n\n   return key;\n });\n var cache = result.cache;\n return result;\n}\n\nexport

default memoizeCapped;","import memoizeCapped from './_memoizeCapped.js';\n/** Used to match property names within property paths. */\n\nvar rePropName = /[^.[\\]]+|\\[(?:(-?\\d+(?:\\.\\d+)?)|([\"'])((?:(?!\\2)[^\\\\]|\\\\.)*?)\\2)\\]|(?=(?:\\.|\\[\\])(?:\\.|\\[\\]|$))/g;\n/** Used to match backslashes in property paths. */\n\nvar reEscapeChar = /\\\\(\\\\)?/g;\n/**\n * Converts `string` to a property path array.\n *\n * @private\n * @param {string} string The string to convert.\n * @returns {Array} Returns the property path array.\n */\n\nvar stringToPath = memoizeCapped(function (string) {\n var result = [];\n\n if (string.charCodeAt(0) === 46\n /* . */\n) {\n   result.push('');\n }\n\n string.replace(rePropName, function (match, number, quote, subString) {\n   result.push(quote ? subString.replace(reEscapeChar, '$1') : number || match);\n });\n return result;\n});\nexport default stringToPath;","import Symbol from './_Symbol.js';\nimport arrayMap from './_arrayMap.js';\nimport

isArray from './isArray.js';\nimport isSymbol from './isSymbol.js';\n/** Used as references for various `Number` constants. */\n\nvar INFINITY = 1 / 0;\n/** Used to convert symbols to primitives and strings. */\n\nvar symbolProto = Symbol ? Symbol.prototype : undefined,\n   symbolToString = symbolProto ? symbolProto.toString : undefined;\n/**\n * The base implementation of `_.toString` which doesn't convert nullish\n * values to empty strings.\n *\n * @private\n * @param {*} value The value to process.\n * @returns {string} Returns the string.\n */\n\nfunction baseToString(value) {\n // Exit early for strings to avoid a performance hit in some environments.\n if (typeof value == 'string') {\n   return value;\n }\n\n if (isArray(value)) {\n   // Recursively convert values (susceptible to call stack limits).\n   return arrayMap(value, baseToString) + '';\n }\n\n if (isSymbol(value)) {\n   return symbolToString ? symbolToString.call(value) : '';\n }\n\n var result = value

+ '';\n return result == '0' && 1 / value == -INFINITY ? '-0' : result;\n}\n\nexport default baseToString;","import baseToString from './_baseToString.js';\n/**\n * Converts `value` to a string. An empty string is returned for `null`\n * and `undefined` values. The sign of `-0` is preserved.\n *\n * @static\n * @memberOf _\n * @since 4.0.0\n * @category Lang\n * @param {*} value The value to convert.\n * @returns {string} Returns the converted string.\n * @example\n *\n * _.toString(null);\n * // => ''\n *\n * _.toString(-0);\n * // => '-0'\n *\n * _.toString([1, 2, 3]);\n * // => '1,2,3'\n */\n\nfunction toString(value) {\n return value == null ? '' : baseToString(value);\n}\n\nexport default toString;","/**\n * Creates a base function for methods like `_.forIn` and `_.forOwn`.\n *\n * @private\n * @param {boolean} [fromRight] Specify iterating from right to left.\n * @returns {Function} Returns the new base function.\n */\nfunction createBaseFor(fromRight) {\n return function

(object, iteratee, keysFunc) {\n   var index = -1,\n   iterable = Object(object),\n   props = keysFunc(object),\n   length = props.length;\n\n   while (length--) {\n   var key = props[fromRight ? length : ++index];\n\n   if (iteratee(iterable[key], key, iterable) === false) {\n   break;\n   }\n   }\n\n   return object;\n };\n}\n\nexport default createBaseFor;","import createBaseFor from './_createBaseFor.js';\n/**\n * The base implementation of `baseForOwn` which iterates over `object`\n * properties returned by `keysFunc` and invokes `iteratee` for each property.\n * Iteratee functions may exit iteration early by explicitly returning `false`.\n *\n * @private\n * @param {Object} object The object to iterate over.\n * @param {Function} iteratee The function invoked per iteration.\n * @param {Function} keysFunc The function to get the keys of `object`.\n * @returns {Object} Returns `object`.\n */\n\nvar baseFor = createBaseFor();\nexport default baseFor;","/**\n

* The base implementation of `_.times` without support for iteratee shorthands\n * or max array length checks.\n *\n * @private\n * @param {number} n The number of times to invoke `iteratee`.\n * @param {Function} iteratee The function invoked per iteration.\n * @returns {Array} Returns the array of results.\n */\nfunction baseTimes(n,

iteratee) {\n var index = -1,\n   result = Array(n);\n\n while (++index < n) {\n   result[index] = iteratee(index);\n }\n\n return result;\n}\n\nexport default baseTimes;","import baseTimes from './_baseTimes.js';\nimport isArguments from './isArguments.js';\nimport isArray from './isArray.js';\nimport isBuffer from './isBuffer.js';\nimport isIndex from './_isIndex.js';\nimport isTypedArray from './isTypedArray.js';\n/** Used for built-in method references. */\n\nvar objectProto = Object.prototype;\n/** Used to check objects for own properties. */\n\nvar hasOwnProperty = objectProto.hasOwnProperty;\n/**\n * Creates an array of the enumerable
 property names of the array-like `value`.\n *\n * @private\n * @param {*} value The value to query.\n * @param {boolean} inherited Specify returning inherited property names.\n * @returns {Array} Returns the array of property names.\n */\n\nfunction arrayLikeKeys(value, inherited) {\n var isArr = isArray(value),\n   isArg = !isArr && isArguments(value),\n   isBuff = !isArr && !isArg && isBuffer(value),\n   isType = !isArr && !isArg && !isBuff && isTypedArray(value),\n   skipIndexes = isArr || isArg || isBuff || isType,\n   result = skipIndexes ? baseTimes(value.length, String) : [],\n   length = result.length;\n\n for (var key in value) {\n   if ((inherited || hasOwnProperty.call(value, key)) && !(skipIndexes && (// Safari 9 has enumerable `arguments.length` in strict mode.\n   key == 'length' || // Node.js 0.10 has enumerable non-index properties on buffers.\n   isBuff && (key == 'offset' || key == 'parent') || // PhantomJS 2 has enumerable non-index properties
 on typed arrays.\n   isType && (key == 'buffer' || key == 'byteLength' || key == 'byteOffset') || // Skip index properties.\n   isIndex(key, length)))) {\n   result.push(key);\n   }\n }\n\n return result;\n}\n\nexport default arrayLikeKeys;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _pure = require('recompose/pure');\n\nvar _pure2 = _interopRequireDefault(_pure);\n\nvar _SvgIcon = require('../../SvgIcon');\n\nvar _SvgIcon2 = _interopRequireDefault(_SvgIcon);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nvar ContentAdd = function ContentAdd(props) {\n return _react2.default.createElement(_SvgIcon2.default, props, _react2.default.createElement('path', {\n   d: 'M19 13h-6v6h-2v-6H5v-2h6V5h2v6h6v2z'\n }));\n};\n\nContentAdd = (0, _pure2.default)(ContentAdd);\nContentAdd.displayName
 = 'ContentAdd';\nContentAdd.muiName = 'SvgIcon';\nexports.default = ContentAdd;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _pure = require('recompose/pure');\n\nvar _pure2 = _interopRequireDefault(_pure);\n\nvar _SvgIcon = require('../../SvgIcon');\n\nvar _SvgIcon2 = _interopRequireDefault(_SvgIcon);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nvar ContentRemove = function ContentRemove(props) {\n return _react2.default.createElement(_SvgIcon2.default, props, _react2.default.createElement('path', {\n   d: 'M19 13H5v-2h14v2z'\n }));\n};\n\nContentRemove = (0, _pure2.default)(ContentRemove);\nContentRemove.displayName = 'ContentRemove';\nContentRemove.muiName = 'SvgIcon';\nexports.default = ContentRemove;","var isHotReloading = function isHotReloading() {\n return !!(typeof
 module !== 'undefined' && module.hot && typeof module.hot.status === 'function' && module.hot.status() === 'apply');\n};\n\nexport default isHotReloading;","// optional / simple context binding\nvar aFunction = require('./_a-function');\n\nmodule.exports = function (fn, that, length) {\n aFunction(fn);\n if (that === undefined) return fn;\n\n switch (length) {\n   case 1:\n   return function (a) {\n   return fn.call(that, a);\n   };\n\n   case 2:\n   return function (a, b) {\n   return fn.call(that, a, b);\n   };\n\n   case 3:\n   return function (a, b, c) {\n   return fn.call(that, a, b, c);\n   };\n }\n\n return function\n   /* ...args */\n () {\n   return fn.apply(that, arguments);\n };\n};","// 7.1.1 ToPrimitive(input [, PreferredType])\nvar isObject = require('./_is-object'); // instead of the ES6 spec version, we didn't implement @@toPrimitive case\n// and the second argument - flag - preferred type is a string\n\n\nmodule.exports = function
 (it, S) {\n if (!isObject(it)) return it;\n var fn, val;\n if (S && typeof (fn = it.toString) == 'function' && !isObject(val = fn.call(it))) return val;\n if (typeof (fn = it.valueOf) == 'function' && !isObject(val = fn.call(it))) return val;\n if (!S && typeof (fn = it.toString) == 'function' && !isObject(val = fn.call(it))) return val;\n throw TypeError(\"Can't convert object to primitive value\");\n};","var toString = {}.toString;\n\nmodule.exports =

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function (it) {\n  return toString.call(it).slice(8, -1);\n};","// 7.2.1
RequireObjectCoercible(argument)\nmodule.exports = function (it) {\n  if (it == undefined) throw
TypeError(\"Can't call method on  \" + it);\n  return it;\n};","// 7.1.4 ToInteger\nvar ceil = Math.ceil;\nvar floor =
Math.floor;\n\nmodule.exports = function (it) {\n  return isNaN(it = +it) ? 0 : (it > 0 ? floor : ceil)(it);\n};","var
shared = require('./_shared')('keys');\n\nvar uid = require('./_uid');\n\nmodule.exports = function (key) {\n  return
shared[key]
 || (shared[key] = uid(key));\n};","var core = require('./_core');\n\nvar global = require('./_global');\n\nvar SHARED
= '__core-js_shared__';\nvar store = global[SHARED] || (global[SHARED] = {});\n(module.exports = function (key,
value) {\n  return store[key] || (store[key] = value !== undefined ? value : {});\n})('versions', []).push({\n  version:
core.version,\n  mode: require('./_library') ? 'pure' : 'global',\n  copyright: '© 2020 Denis Pushkarev
(zloirock.ru)'\n});","// IE 8- don't enum bug keys\nmodule.exports =
'constructor,hasOwnProperty,isPrototypeOf,propertyIsEnumerable,toLocaleString,toString,valueOf'.split(',');","expo
rts.f = Object.getOwnPropertySymbols;","// 19.1.2.2 / 15.2.3.5 Object.create(O [, Properties])\nvar anObject =
require('./_an-object');\n\nvar dPs = require('./_object-dps');\n\nvar enumBugKeys = require('./_enum-bug-
keys');\n\nvar IE_PROTO = require('./_shared-key')('IE_PROTO');\n\nvar Empty = function Empty() {\n  /* empty
*/\n};\n\nvar PROTOTYPE =
 'prototype'; // Create object with fake `null` prototype: use iframe Object with cleared prototype\n\nvar _createDict
= function createDict() {\n  // Thrash, waste and sodomy: IE GC bug\n  var iframe = require('./_dom-
create')('iframe');\n\n  var i = enumBugKeys.length;\n  var lt = '<';\n  var gt = '>';\n  var iframeDocument;\n
iframe.style.display = 'none';\n\n  require('./_html').appendChild(iframe);\n\n  iframe.src = 'javascript:'; // eslint-
disable-line no-script-url\n  // createDict = iframe.contentWindow.Object;\n  // html.removeChild(iframe);\n\n
iframeDocument = iframe.contentWindow.document;\n  iframeDocument.open();\n  iframeDocument.write(lt +
'script' + gt + 'document.F=Object' + lt + '/script' + gt);\n  iframeDocument.close();\n  _createDict =
iframeDocument.F;\n\n  while (i--) {\n    delete _createDict[PROTOTYPE][enumBugKeys[i]];\n  }\n\n  return
_createDict();\n};\n\nmodule.exports = Object.create || function create(O, Properties) {\n  var result;\n\n  if (O !==
null)
 {\n    Empty[PROTOTYPE] = anObject(O);\n    result = new Empty();\n    Empty[PROTOTYPE] = null; // add
\"__proto__\" for Object.getPrototypeOf polyfill\n\n    result[IE_PROTO] = O;\n  } else result = _createDict();\n\n
return Properties === undefined ? result : dPs(result, Properties);\n};","var def = require('./_object-dp').f;\n\nvar has
= require('./_has');\n\nvar TAG = require('./_wks')('toStringTag');\n\nmodule.exports = function (it, tag, stat) {\n  if
(it && !has(it = stat ? it : it.prototype, TAG)) def(it, TAG, {\n    configurable: true,\n    value: tag\n
});\n};","require('./es6.array.iterator');\n\nvar global = require('./_global');\n\nvar hide = require('./_hide');\n\nvar
Iterators = require('./_iterators');\n\nvar TO_STRING_TAG = require('./_wks')('toStringTag');\n\nvar DOMIterables
= ('CSSRuleList,CSSStyleDeclaration,CSSValueList,ClientRectList,DOMRectList,DOMStringList,' +
'DOMTokenList,DataTransferItemList,FileList,HTMLAllCollection,HTMLCollection,HTMLFormElement,HTML
SelectElement,'
 +
'MediaList,MimeTypeArray,NamedNodeMap,NodeList,PaintRequestList,Plugin,PluginArray,SVGLengthList,SVG
NumberList,' +
'SVGPathSegList,SVGPointList,SVGStringList,SVGTransformList,SourceBufferList,StyleSheetList,TextTrackCue
List,' + 'TextTrackList,TouchList').split(',');\n\nfor (var i = 0; i < DOMIterables.length; i++) {\n  var NAME =
DOMIterables[i];\n  var Collection = global[NAME];\n  var proto = Collection && Collection.prototype;\n  if (proto
&& !proto[TO_STRING_TAG]) hide(proto, TO_STRING_TAG, NAME);\n  Iterators[NAME] =
Iterators.Array;\n}","exports.f = require('./_wks');","var global = require('./_global');\n\nvar core =
require('./_core');\n\nvar LIBRARY = require('./_library');\n\nvar wksExt = require('./_wks-ext');\n\nvar
defineProperty = require('./_object-dp').f;\n\nmodule.exports = function (name) {\n  var $Symbol = core.Symbol ||
(core.Symbol = LIBRARY ? {} : global.Symbol || {});\n  if (name.charAt(0) != '_' && !(name in $Symbol))
defineProperty($Symbol, name,
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 {\n    value: wksExt.f(name)\n  });\n};","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2
= _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar
 _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-dom');\n\nvar _reactDom2 =
_interopRequireDefault(_reactDom);\n\nvar _shallowEqual = require('recompose/shallowEqual');\n\nvar
_shallowEqual2 = _interopRequireDefault(_shallowEqual);\n\nvar _autoPrefix = require('../utils/autoPrefix');\n\nvar
_autoPrefix2 = _interopRequireDefault(_autoPrefix);\n\nvar _transitions = require('../styles/transitions');\n\nvar
_transitions2 = _interopRequireDefault(_transitions);\n\nvar _ScaleIn = require('./ScaleIn');\n\nvar _ScaleIn2 =
_interopRequireDefault(_ScaleIn);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nvar pulsateDuration = 750;\n\nvar FocusRipple = function (_Component) {\n  (0,
_inherits3.default)(FocusRipple, _Component);\n\n  function FocusRipple() {\n    var _ref;\n\n    var _temp, _this,
 _ret;\n\n    (0, _classCallCheck3.default)(this, FocusRipple);\n\n    for (var _len = arguments.length, args =
Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp
= (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = FocusRipple.__proto__ || (0,
_getPrototypeOf2.default)(FocusRipple)).call.apply(_ref, [this].concat(args))), _this), _this.pulsate = function () {\n
  var innerCircle = _reactDom2.default.findDOMNode(_this.refs.innerCircle);\n\n      if (!innerCircle) return;\n
var startScale = 'scale(1)';\n      var endScale = 'scale(0.85)';\n      var currentScale = innerCircle.style.transform ||
startScale;\n      var nextScale = currentScale === startScale ? endScale : startScale;\n\n
_autoPrefix2.default.set(innerCircle.style, 'transform', nextScale);\n\n      _this.timeout = setTimeout(_this.pulsate,
pulsateDuration);\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n
  }\n\n  (0, _createClass3.default)(FocusRipple, [{\n    key: 'componentDidMount',\n    value: function
componentDidMount() {\n      if (this.props.show) {\n        this.setRippleSize();\n        this.pulsate();\n      }\n    }\n
}, {\n    key: 'shouldComponentUpdate',\n    value: function shouldComponentUpdate(nextProps, nextState) {\n
return !(0, _shallowEqual2.default)(this.props, nextProps) || !(0, _shallowEqual2.default)(this.state, nextState);\n
}\n  }, {\n    key: 'componentDidUpdate',\n    value: function componentDidUpdate() {\n      if (this.props.show) {\n
    this.setRippleSize();\n        this.pulsate();\n      } else {\n        if (this.timeout) clearTimeout(this.timeout);\n      }\n
  }\n  }, {\n    key: 'componentWillUnmount',\n    value: function componentWillUnmount() {\n
clearTimeout(this.timeout);\n    }\n  }, {\n    key: 'getRippleElement',\n    value: function getRippleElement(props)
{\n      var color = props.color,\n          innerStyle = props.innerStyle,\n
         opacity = props.opacity;\n      var _context$muiTheme = this.context.muiTheme,\n          prepareStyles =
_context$muiTheme.prepareStyles,\n          ripple = _context$muiTheme.ripple;\n      var innerStyles = (0,
_simpleAssign2.default)({\n        position: 'absolute',\n        height: '100%',\n        width: '100%',\n
borderRadius: '50%',\n        opacity: opacity ? opacity : 0.16,\n        backgroundColor: color || ripple.color,\n
transition: _transitions2.default.easeOut(pulsateDuration + 'ms', 'transform', null,
_transitions2.default.easeInOutFunction)\n      }, innerStyle);\n      return _react2.default.createElement('div', {\n
ref: 'innerCircle',\n        style: prepareStyles((0, _simpleAssign2.default)({}, innerStyles))\n      });\n    }\n  }, {\n
key: 'setRippleSize',\n    value: function setRippleSize() {\n      var el =
_reactDom2.default.findDOMNode(this.refs.innerCircle);\n\n      var height = el.offsetHeight;\n      var width
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 = el.offsetWidth;\n      var size = Math.max(height, width);\n      var oldTop = 0; // For browsers that don't support
endsWith()\n\n      if (el.style.top.indexOf('px', el.style.top.length - 2) !== -1) {\n        oldTop =
parseInt(el.style.top);\n      }\n\n      el.style.height = size + 'px';\n      el.style.top = height / 2 - size / 2 + oldTop +
'px';\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var _props = this.props,\n          show =
_props.show,\n          style = _props.style;\n      var mergedRootStyles = (0, _simpleAssign2.default)({\n        height:
'100%',\n        width: '100%',\n        position: 'absolute',\n        top: 0,\n        left: 0\n      }, style);\n      var ripple =
show ? this.getRippleElement(this.props) : null;\n      return _react2.default.createElement(_ScaleIn2.default, {\n
maxScale: 0.85,\n        style: mergedRootStyles\n      }, ripple);\n    }\n  }]);\n  return
FocusRipple;\n}(_react.Component);\n\nFocusRipple.contextTypes
 = {\n  muiTheme: _propTypes2.default.object.isRequired\n};\nFocusRipple.propTypes = process.env.NODE_ENV
!== \"production\" ? {\n  color: _propTypes2.default.string,\n  innerStyle: _propTypes2.default.object,\n  opacity:
_propTypes2.default.number,\n  show: _propTypes2.default.bool,\n  style: _propTypes2.default.object\n} :
{};\nexports.default = FocusRipple;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\nexports.default = undefined;\n\nvar _AutoComplete = require('./AutoComplete');\n\nvar _AutoComplete2
= _interopRequireDefault(_AutoComplete);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.default = _AutoComplete2.default;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default = exports.MenuItem
= exports.Menu = undefined;\n\nvar _Menu2 = require('./Menu');\n\nvar _Menu3 =
_interopRequireDefault(_Menu2);\n\nvar
 _MenuItem2 = require('../MenuItem');\n\nvar _MenuItem3 = _interopRequireDefault(_MenuItem2);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.Menu
= _Menu3.default;\nexports.MenuItem = _MenuItem3.default;\nexports.default = _Menu3.default;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar
 _inherits2 = require('babel-runtime/helpers/inherits');\n\nvar _inherits3 =
_interopRequireDefault(_inherits2);\n\nvar _react = require('react');\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-
dom');\n\nvar _reactDom2 = _interopRequireDefault(_reactDom);\n\nvar _events = require('../utils/events');\n\nvar
_events2 = _interopRequireDefault(_events);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar isDescendant = function isDescendant(el, target) {\n  if
(target !== null) {\n    return el === target || isDescendant(el, target.parentNode);\n  }\n\n  return false;\n};\n\nvar
clickAwayEvents = ['mouseup', 'touchend'];\n\nvar bind = function bind(callback) {\n  return
clickAwayEvents.forEach(function (event) {\n    return _events2.default.on(document, event, callback);\n
});\n};\n\nvar unbind = function unbind(callback)
 {\n  return clickAwayEvents.forEach(function (event) {\n    return _events2.default.off(document, event,
callback);\n  });\n};\n\nvar ClickAwayListener = function (_Component) {\n  (0,
_inherits3.default)(ClickAwayListener, _Component);\n\n  function ClickAwayListener() {\n    var _ref;\n\n    var
_temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this, ClickAwayListener);\n\n    for (var _len =
arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n
}\n\n    return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref =
ClickAwayListener.__proto__ || (0, _getPrototypeOf2.default)(ClickAwayListener)).call.apply(_ref,
[this].concat(args))), _this), _this.handleClickAway = function (event) {\n      if (event.defaultPrevented) {\n
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return;\n      } // IE11 support, which trigger the handleClickAway even after the unbind\n\n\n      if
(_this.isCurrentlyMounted) {\n        var el = _reactDom2.default.findDOMNode(_this);\n\n
        if (document.documentElement.contains(event.target) && !isDescendant(el, event.target)) {\n
_this.props.onClickAway(event);\n        }\n      }\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this,
_ret);\n  }\n\n  (0, _createClass3.default)(ClickAwayListener, [{\n    key: 'componentDidMount',\n    value: function
componentDidMount() {\n      this.isCurrentlyMounted = true;\n\n      if (this.props.onClickAway) {\n
bind(this.handleClickAway);\n      }\n    }\n  }, {\n    key: 'componentDidUpdate',\n    value: function
componentDidUpdate(prevProps) {\n      if (prevProps.onClickAway !== this.props.onClickAway) {\n
unbind(this.handleClickAway);\n\n        if (this.props.onClickAway) {\n          bind(this.handleClickAway);\n
}\n      }\n    }\n  }, {\n    key: 'componentWillUnmount',\n    value: function componentWillUnmount() {\n
this.isCurrentlyMounted = false;\n      unbind(this.handleClickAway);\n    }\n
  }, {\n    key: 'render',\n    value: function render() {\n      return this.props.children;\n    }\n  }]);\n  return
ClickAwayListener;\n}(_react.Component);\n\nClickAwayListener.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  children: _propTypes2.default.element,\n  onClickAway: _propTypes2.default.func\n} :
{};\nexports.default = ClickAwayListener;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n
value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
 _interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _Subheader =
require('../Subheader');\n\nvar _Subheader2 = _interopRequireDefault(_Subheader);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar List
 = function (_Component) {\n  (0, _inherits3.default)(List, _Component);\n\n  function List() {\n    (0,
_classCallCheck3.default)(this, List);\n    return (0, _possibleConstructorReturn3.default)(this, (List.__proto__ || (0,
_getPrototypeOf2.default)(List)).apply(this, arguments));\n  }\n\n  (0, _createClass3.default)(List, [{\n    key:
'render',\n    value: function render() {\n      var _props = this.props,\n          children = _props.children,\n          style
= _props.style,\n          other = (0, _objectWithoutProperties3.default)(_props, ['children', 'style']);\n      var
prepareStyles = this.context.muiTheme.prepareStyles;\n      var hasSubheader = false;\n\n      var firstChild =
_react.Children.toArray(children)[0];\n\n      if ((0, _react.isValidElement)(firstChild) && firstChild.type ===
_Subheader2.default) {\n        hasSubheader = true;\n      }\n\n      var styles = {\n        root: {\n          padding:
(hasSubheader ? 0 : 8) + 'px 0px 8px 0px'\n        }\n      };\n
     return _react2.default.createElement('div', (0, _extends3.default)({}, other, {\n        style: prepareStyles((0,
_simpleAssign2.default)(styles.root, style))\n      }), children);\n    }\n  }]);\n  return
List;\n}(_react.Component);\n\nList.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nList.propTypes = process.env.NODE_ENV !== \"production\" ? {\n
/**\n   * These are usually `ListItem`s that are passed to\n   * be part of the list.\n   */\n  children:
_propTypes2.default.node,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object\n} : {};\nexports.default = List;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\nexports.default = undefined;\n\nvar _Subheader =
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require('./Subheader');\n\nvar _Subheader2 = _interopRequireDefault(_Subheader);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.default
 = _Subheader2.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar
_extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar
 _inherits2 = require('babel-runtime/helpers/inherits');\n\nvar _inherits3 =
_interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 =
_interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-dom');\n\nvar _reactDom2 =
_interopRequireDefault(_reactDom);\n\nvar _shallowEqual = require('recompose/shallowEqual');\n\nvar
_shallowEqual2 = _interopRequireDefault(_shallowEqual);\n\nvar _Popover = require('../Popover/Popover');\n\nvar
_Popover2 = _interopRequireDefault(_Popover);\n\nvar _check = require('../svg-icons/navigation/check');\n\nvar
_check2 = _interopRequireDefault(_check);\n\nvar _ListItem = require('../List/ListItem');\n\nvar _ListItem2 =
_interopRequireDefault(_ListItem);\n\nvar _Menu = require('../Menu/Menu');\n\nvar
 _Menu2 = _interopRequireDefault(_Menu);\n\nvar _propTypes3 = require('../utils/propTypes');\n\nvar
_propTypes4 = _interopRequireDefault(_propTypes3);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar nestedMenuStyle = {\n  position: 'relative'\n};\n\nfunction
getStyles(props, context) {\n  var disabledColor = context.muiTheme.baseTheme.palette.disabledColor;\n  var
textColor = context.muiTheme.baseTheme.palette.textColor;\n  var indent = props.desktop ? 64 : 72;\n  var
sidePadding = props.desktop ? 24 : 16;\n  var styles = {\n    root: {\n      color: props.disabled ? disabledColor :
textColor,\n      cursor: props.disabled ? 'default' : 'pointer',\n      minHeight: props.desktop ? '32px' : '48px',\n
lineHeight: props.desktop ? '32px' : '48px',\n      fontSize: props.desktop ? 15 : 16,\n      whiteSpace: 'nowrap'\n    },\n
  innerDivStyle: {\n      paddingLeft: props.leftIcon || props.insetChildren ||
 props.checked ? indent : sidePadding,\n      paddingRight: props.rightIcon ? indent : sidePadding,\n
paddingBottom: 0,\n      paddingTop: 0\n    },\n    secondaryText: {\n      float: 'right'\n    },\n    leftIconDesktop: {\n
  margin: 0,\n      left: 24,\n      top: 4\n    },\n    rightIconDesktop: {\n      margin: 0,\n      right: 24,\n      top: 4,\n
fill: context.muiTheme.menuItem.rightIconDesktopFill\n    }\n  };\n  return styles;\n}\n\nvar MenuItem = function
(_Component) {\n  (0, _inherits3.default)(MenuItem, _Component);\n\n  function MenuItem() {\n    var _ref;\n\n
var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this, MenuItem);\n\n    for (var _len = arguments.length,
args = Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret =
(_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = MenuItem.__proto__ || (0,
_getPrototypeOf2.default)(MenuItem)).call.apply(_ref, [this].concat(args))),
 _this), _this.state = {\n      open: false\n    }, _this.cloneMenuItem = function (item) {\n      return
_react2.default.cloneElement(item, {\n        onClick: function onClick(event) {\n          if (!item.props.menuItems)
{\n            _this.handleRequestClose();\n          }\n\n          if (item.props.onClick) {\n
item.props.onClick(event);\n          }\n        }\n      });\n    }, _this.handleClick = function (event) {\n
event.preventDefault();\n\n      _this.setState({\n        open: true,\n        anchorEl:
_reactDom2.default.findDOMNode(_this)\n      });\n\n      if (_this.props.onClick) {\n
_this.props.onClick(event);\n      }\n    }, _this.handleRequestClose = function () {\n      _this.setState({\n        open:
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false,\n        anchorEl: null\n      });\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0,
_createClass3.default)(MenuItem, [{\n    key: 'componentDidMount',\n    value: function componentDidMount()
 {\n      this.applyFocusState();\n    }\n  }, {\n    key: 'componentWillReceiveProps',\n    value: function
componentWillReceiveProps(nextProps) {\n      if (this.state.open && nextProps.focusState === 'none') {\n
this.handleRequestClose();\n      }\n    }\n  }, {\n    key: 'shouldComponentUpdate',\n    value: function
shouldComponentUpdate(nextProps, nextState, nextContext) {\n      return !(0, _shallowEqual2.default)(this.props,
nextProps) || !(0, _shallowEqual2.default)(this.state, nextState) || !(0, _shallowEqual2.default)(this.context,
nextContext);\n    }\n  }, {\n    key: 'componentDidUpdate',\n    value: function componentDidUpdate() {\n
this.applyFocusState();\n    }\n  }, {\n    key: 'componentWillUnmount',\n    value: function
componentWillUnmount() {\n      if (this.state.open) {\n        this.setState({\n          open: false\n        });\n      }\n
}\n  }, {\n    key: 'applyFocusState',\n    value: function applyFocusState() {\n
this.refs.listItem.applyFocusState(this.props.focusState);\n
    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var _props = this.props,\n          checked =
_props.checked,\n          children = _props.children,\n          desktop = _props.desktop,\n          disabled =
_props.disabled,\n          focusState = _props.focusState,\n          innerDivStyle = _props.innerDivStyle,\n
insetChildren = _props.insetChildren,\n          leftIcon = _props.leftIcon,\n          menuItems = _props.menuItems,\n
      rightIcon = _props.rightIcon,\n          secondaryText = _props.secondaryText,\n          style = _props.style,\n
animation = _props.animation,\n          anchorOrigin = _props.anchorOrigin,\n          targetOrigin =
_props.targetOrigin,\n          value = _props.value,\n          other = (0, _objectWithoutProperties3.default)(_props,
['checked', 'children', 'desktop', 'disabled', 'focusState', 'innerDivStyle', 'insetChildren', 'leftIcon', 'menuItems',
'rightIcon',
 'secondaryText', 'style', 'animation', 'anchorOrigin', 'targetOrigin', 'value']);\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n      var
mergedRootStyles = (0, _simpleAssign2.default)(styles.root, style);\n      var mergedInnerDivStyles = (0,
_simpleAssign2.default)(styles.innerDivStyle, innerDivStyle); // Left Icon\n\n      var leftIconElement = leftIcon ?
leftIcon : checked ? _react2.default.createElement(_check2.default, null) : null;\n\n      if (leftIconElement) {\n
var mergedLeftIconStyles = desktop ? (0, _simpleAssign2.default)(styles.leftIconDesktop,
leftIconElement.props.style) : leftIconElement.props.style;\n        leftIconElement =
_react2.default.cloneElement(leftIconElement, {\n          style: mergedLeftIconStyles\n        });\n      } // Right
Icon\n\n\n      var rightIconElement = void 0;\n\n      if (rightIcon) {\n        var mergedRightIconStyles = desktop ?
(0, _simpleAssign2.default)(styles.rightIconDesktop,
 rightIcon.props.style) : rightIcon.props.style;\n        rightIconElement = _react2.default.cloneElement(rightIcon, {\n
       style: mergedRightIconStyles\n        });\n      } // Secondary Text\n\n\n      var secondaryTextElement = void
0;\n\n      if (secondaryText) {\n        var secondaryTextIsAnElement =
_react2.default.isValidElement(secondaryText);\n\n        var mergedSecondaryTextStyles =
secondaryTextIsAnElement ? (0, _simpleAssign2.default)(styles.secondaryText, secondaryText.props.style) : null;\n
      secondaryTextElement = secondaryTextIsAnElement ? _react2.default.cloneElement(secondaryText, {\n
style: mergedSecondaryTextStyles\n        }) : _react2.default.createElement('div', {\n          style:
prepareStyles(styles.secondaryText)\n        }, secondaryText);\n      }\n\n      var childMenuPopover = void 0;\n\n
if (menuItems) {\n        childMenuPopover = _react2.default.createElement(_Popover2.default, {\n          animation:
 animation,\n          anchorOrigin: anchorOrigin,\n          anchorEl: this.state.anchorEl,\n          open: this.state.open,\n
        targetOrigin: targetOrigin,\n          useLayerForClickAway: false,\n          onRequestClose:
this.handleRequestClose\n        }, _react2.default.createElement(_Menu2.default, {\n          desktop: desktop,\n
disabled: disabled,\n          style: nestedMenuStyle\n        }, _react2.default.Children.map(menuItems,
this.cloneMenuItem)));\n        other.onClick = this.handleClick;\n      }\n\n      return
_react2.default.createElement(_ListItem2.default, (0, _extends3.default)({}, other, {\n        disabled: disabled,\n
hoverColor: this.context.muiTheme.menuItem.hoverColor,\n        innerDivStyle: mergedInnerDivStyles,\n
insetChildren: insetChildren,\n        leftIcon: leftIconElement,\n        ref: 'listItem',\n        rightIcon:
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rightIconElement,\n        role: 'menuitem',\n        style: mergedRootStyles\n      }), children,
 secondaryTextElement, childMenuPopover);\n    }\n  }]);\n  return
MenuItem;\n}(_react.Component);\n\nMenuItem.muiName = 'MenuItem';\nMenuItem.defaultProps = {\n
anchorOrigin: {\n    horizontal: 'right',\n    vertical: 'top'\n  },\n  checked: false,\n  desktop: false,\n  disabled: false,\n
focusState: 'none',\n  insetChildren: false,\n  targetOrigin: {\n    horizontal: 'left',\n    vertical: 'top'\n
}\n};\nMenuItem.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nMenuItem.propTypes = process.env.NODE_ENV !== \"production\" ?
{\n  /**\n   * Location of the anchor for the popover of nested `MenuItem`\n   * elements.\n   * Options:\n   *
horizontal: [left, middle, right]\n   * vertical: [top, center, bottom].\n   */\n  anchorOrigin:
_propTypes4.default.origin,\n\n  /**\n   * Override the default animation component used.\n   */\n  animation:
_propTypes2.default.func,\n\n  /**\n   * If true, a left check mark will be rendered.\n   */\n  checked:
_propTypes2.default.bool,\n\n
  /**\n   * Elements passed as children to the underlying `ListItem`.\n   */\n  children: _propTypes2.default.node,\n\n
/**\n   * @ignore\n   * If true, the menu item will render with compact desktop\n   * styles.\n   */\n  desktop:
_propTypes2.default.bool,\n\n  /**\n   * If true, the menu item will be disabled.\n   */\n  disabled:
_propTypes2.default.bool,\n\n  /**\n   * The focus state of the menu item. This prop is used to set the focus\n   *
state of the underlying `ListItem`.\n   */\n  focusState: _propTypes2.default.oneOf(['none', 'focused', 'keyboard-
focused']),\n\n  /**\n   * Override the inline-styles of the inner div.\n   */\n  innerDivStyle:
_propTypes2.default.object,\n\n  /**\n   * If true, the children will be indented.\n   * This is only needed when there
is no `leftIcon`.\n   */\n  insetChildren: _propTypes2.default.bool,\n\n  /**\n   * The `SvgIcon` or `FontIcon` to be
displayed on the left side.\n   */\n  leftIcon: _propTypes2.default.element,\n\n  /**\n
   * `MenuItem` elements to nest within the menu item.\n   */\n  menuItems: _propTypes2.default.node,\n\n  /**\n   *
Callback function fired when the menu item is clicked.\n   *\n   * @param {object} event Click event targeting the
menu item.\n   */\n  onClick: _propTypes2.default.func,\n\n  /**\n   * Can be used to render primary text within the
menu item.\n   */\n  primaryText: _propTypes2.default.node,\n\n  /**\n   * The `SvgIcon` or `FontIcon` to be
displayed on the right side.\n   */\n  rightIcon: _propTypes2.default.element,\n\n  /**\n   * Can be used to render
secondary text within the menu item.\n   */\n  secondaryText: _propTypes2.default.node,\n\n  /**\n   * Override the
inline-styles of the root element.\n   */\n  style: _propTypes2.default.object,\n\n  /**\n   * Location on the popover of
nested `MenuItem` elements that will attach\n   * to the anchor's origin.\n   * Options:\n   * horizontal: [left, middle,
right]\n   * vertical: [top, center, bottom].\n   */\n  targetOrigin:
 _propTypes4.default.origin,\n\n  /**\n   * The value of the menu item.\n   */\n  value: _propTypes2.default.any\n} :
{};\nexports.default = MenuItem;","var g; // This works in non-strict mode\n\ng = function () {\n  return
this;\n}();\n\ntry {\n  // This works if eval is allowed (see CSP)\n  g = g || new Function(\"return this\")();\n} catch
(e) {\n  // This works if the window reference is available\n  if (typeof window === \"object\") g = window;\n} // g
can still be undefined, but nothing to do about it...\n// We return undefined, instead of nothing here, so it's\n// easier
to handle this case. if(!global) { ...}\n\n\nmodule.exports = g;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\nexports.default = undefined;\n\nvar _Divider = require('./Divider');\n\nvar
_Divider2 = _interopRequireDefault(_Divider);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.default = _Divider2.default;","'use
 strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default = undefined;\n\nvar
_Avatar = require('./Avatar');\n\nvar _Avatar2 = _interopRequireDefault(_Avatar);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.default
= _Avatar2.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar
_extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar
_simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
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_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2
 = _interopRequireDefault(_propTypes);\n\nvar _EnhancedButton = require('../internal/EnhancedButton');\n\nvar
_EnhancedButton2 = _interopRequireDefault(_EnhancedButton);\n\nfunction _interopRequireDefault(obj) {\n
return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var
selected = props.selected;\n  var bottomNavigation = context.muiTheme.bottomNavigation;\n  var color = selected ?
bottomNavigation.selectedColor : bottomNavigation.unselectedColor;\n  var styles = {\n    root: {\n      transition:
'padding-top 0.3s',\n      paddingTop: selected ? 6 : 8,\n      paddingBottom: 10,\n      paddingLeft: 12,\n
paddingRight: 12,\n      minWidth: 80,\n      maxWidth: 168\n    },\n    label: {\n      fontSize: selected ?
bottomNavigation.selectedFontSize : bottomNavigation.unselectedFontSize,\n      transition: 'color 0.3s, font-size
0.3s',\n      color: color\n    },\n    icon: {\n      display: 'block',\n\n      /**\n
   * Used to ensure SVG icons are centered\n       */\n      width: '100%'\n    },\n    iconColor: color\n  };\n  return
styles;\n}\n\nvar BottomNavigationItem = function BottomNavigationItem(props, context) {\n  var label =
props.label,\n      icon = props.icon,\n      style = props.style,\n      other = (0,
_objectWithoutProperties3.default)(props, ['label', 'icon', 'style']);\n  var prepareStyles =
context.muiTheme.prepareStyles;\n  var styles = getStyles(props, context);\n  var styledIcon = (0,
_react.cloneElement)(icon, {\n    style: (0, _simpleAssign2.default)({}, styles.icon, icon.props.style),\n    color:
icon.props.color || styles.iconColor\n  });\n  return _react2.default.createElement(_EnhancedButton2.default, (0,
_extends3.default)({}, other, {\n    style: (0, _simpleAssign2.default)({}, styles.root, style)\n  }), styledIcon,
_react2.default.createElement('div', {\n    style: prepareStyles(styles.label)\n  },
label));\n};\n\nBottomNavigationItem.propTypes = process.env.NODE_ENV
 !== \"production\" ? {\n  /**\n   * Set the icon representing the view for this item.\n   */\n  icon:
_propTypes2.default.node,\n\n  /**\n   * Set the label describing the view for this item.\n   */\n  label:
_propTypes2.default.node,\n\n  /**\n   * @ignore\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object\n} : {};\nBottomNavigationItem.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nexports.default = BottomNavigationItem;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar
 _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _Avatar = require('../Avatar');\n\nvar
_Avatar2 = _interopRequireDefault(_Avatar);\n\nfunction
 _interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction
getStyles(props, context) {\n  var card = context.muiTheme.card;\n  return {\n    root: {\n      padding: 16,\n
fontWeight: card.fontWeight,\n      boxSizing: 'border-box',\n      position: 'relative',\n      whiteSpace: 'nowrap'\n
},\n    text: {\n      display: 'inline-block',\n      verticalAlign: 'top',\n      whiteSpace: 'normal',\n      paddingRight:
'90px'\n    },\n    avatar: {\n      marginRight: 16\n    },\n    title: {\n      color: props.titleColor || card.titleColor,\n
display: 'block',\n      fontSize: 15\n    },\n    subtitle: {\n      color: props.subtitleColor || card.subtitleColor,\n
display: 'block',\n      fontSize: 14\n    }\n  };\n}\n\nvar CardHeader = function (_Component) {\n  (0,
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_inherits3.default)(CardHeader, _Component);\n\n  function CardHeader() {\n    (0, _classCallCheck3.default)(this,
CardHeader);\n    return (0,
 _possibleConstructorReturn3.default)(this, (CardHeader.__proto__ || (0,
_getPrototypeOf2.default)(CardHeader)).apply(this, arguments));\n  }\n\n  (0, _createClass3.default)(CardHeader,
[{\n    key: 'render',\n    value: function render() {\n      var _props = this.props,\n          actAsExpander =
_props.actAsExpander,\n          avatarProp = _props.avatar,\n          children = _props.children,\n          closeIcon =
_props.closeIcon,\n          expandable = _props.expandable,\n          openIcon = _props.openIcon,\n
showExpandableButton = _props.showExpandableButton,\n          style = _props.style,\n          subtitle =
_props.subtitle,\n          subtitleColor = _props.subtitleColor,\n          subtitleStyle = _props.subtitleStyle,\n
textStyle = _props.textStyle,\n          title = _props.title,\n          titleColor = _props.titleColor,\n          titleStyle =
_props.titleStyle,\n          iconStyle = _props.iconStyle,\n          other = (0,
_objectWithoutProperties3.default)(_props,
 ['actAsExpander', 'avatar', 'children', 'closeIcon', 'expandable', 'openIcon', 'showExpandableButton', 'style', 'subtitle',
'subtitleColor', 'subtitleStyle', 'textStyle', 'title', 'titleColor', 'titleStyle', 'iconStyle']);\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n      var avatar =
avatarProp;\n\n      if ((0, _react.isValidElement)(avatarProp)) {\n        avatar = _react2.default.cloneElement(avatar,
{\n          style: (0, _simpleAssign2.default)(styles.avatar, avatar.props.style)\n        });\n      } else if (avatar !== null)
{\n        avatar = _react2.default.createElement(_Avatar2.default, {\n          src: avatarProp,\n          style:
styles.avatar\n        });\n      }\n\n      return _react2.default.createElement('div', (0, _extends3.default)({}, other, {\n
    style: prepareStyles((0, _simpleAssign2.default)(styles.root, style))\n      }), avatar,
_react2.default.createElement('div',
 {\n        style: prepareStyles((0, _simpleAssign2.default)(styles.text, textStyle))\n      },
_react2.default.createElement('span', {\n        style: prepareStyles((0, _simpleAssign2.default)(styles.title,
titleStyle))\n      }, title), _react2.default.createElement('span', {\n        style: prepareStyles((0,
_simpleAssign2.default)(styles.subtitle, subtitleStyle))\n      }, subtitle)), children);\n    }\n  }]);\n  return
CardHeader;\n}(_react.Component);\n\nCardHeader.muiName = 'CardHeader';\nCardHeader.defaultProps = {\n
avatar: null\n};\nCardHeader.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nCardHeader.propTypes = process.env.NODE_ENV !== \"production\"
? {\n  /**\n   * If true, a click on this card component expands the card.\n   */\n  actAsExpander:
_propTypes2.default.bool,\n\n  /**\n   * This is the [Avatar](/#/components/avatar) element to be displayed on the
Card Header.\n   * If `avatar` is an `Avatar` or other element, it will be
 rendered.\n   * If `avatar` is a string, it will be used as the image `src` for an `Avatar`.\n   */\n  avatar:
_propTypes2.default.node,\n\n  /**\n   * Can be used to render elements inside the Card Header.\n   */\n  children:
_propTypes2.default.node,\n\n  /**\n   * Can be used to pass a closeIcon if you don't like the default expandable
close Icon.\n   */\n  closeIcon: _propTypes2.default.node,\n\n  /**\n   * If true, this card component is expandable.\n
*/\n  expandable: _propTypes2.default.bool,\n\n  /**\n   * Override the iconStyle of the Icon Button.\n   */\n
iconStyle: _propTypes2.default.object,\n\n  /**\n   * Can be used to pass a openIcon if you don't like the default
expandable open Icon.\n   */\n  openIcon: _propTypes2.default.node,\n\n  /**\n   * If true, this card component will
include a button to expand the card.\n   */\n  showExpandableButton: _propTypes2.default.bool,\n\n  /**\n   *
Override the inline-styles of the root element.\n   */\n  style: _propTypes2.default.object,\n\n
  /**\n   * Can be used to render a subtitle in Card Header.\n   */\n  subtitle: _propTypes2.default.node,\n\n  /**\n   *
Override the subtitle color.\n   */\n  subtitleColor: _propTypes2.default.string,\n\n  /**\n   * Override the inline-
styles of the subtitle.\n   */\n  subtitleStyle: _propTypes2.default.object,\n\n  /**\n   * Override the inline-styles of
the text.\n   */\n  textStyle: _propTypes2.default.object,\n\n  /**\n   * Can be used to render a title in Card Header.\n
*/\n  title: _propTypes2.default.node,\n\n  /**\n   * Override the title color.\n   */\n  titleColor:
_propTypes2.default.string,\n\n  /**\n   * Override the inline-styles of the title.\n   */\n  titleStyle:
_propTypes2.default.object\n} : {};\nexports.default = CardHeader;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3
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= _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2
 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
 _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n
return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var card =
context.muiTheme.card;\n  return {\n    root: {\n      padding: 16,\n      position: 'relative'\n    },\n    title: {\n
fontSize: 24,\n      color: props.titleColor || card.titleColor,\n      display: 'block',\n      lineHeight: '36px'\n    },\n
subtitle: {\n      fontSize: 14,\n      color: props.subtitleColor || card.subtitleColor,\n      display: 'block'\n    }\n
};\n}\n\nvar CardTitle = function (_Component) {\n  (0, _inherits3.default)(CardTitle, _Component);\n\n  function
CardTitle() {\n    (0, _classCallCheck3.default)(this, CardTitle);\n    return (0,
_possibleConstructorReturn3.default)(this, (CardTitle.__proto__ || (0,
_getPrototypeOf2.default)(CardTitle)).apply(this,
 arguments));\n  }\n\n  (0, _createClass3.default)(CardTitle, [{\n    key: 'render',\n    value: function render() {\n
var _props = this.props,\n          actAsExpander = _props.actAsExpander,\n          children = _props.children,\n
closeIcon = _props.closeIcon,\n          expandable = _props.expandable,\n          showExpandableButton =
_props.showExpandableButton,\n          style = _props.style,\n          subtitle = _props.subtitle,\n          subtitleColor
= _props.subtitleColor,\n          subtitleStyle = _props.subtitleStyle,\n          title = _props.title,\n          titleColor =
_props.titleColor,\n          titleStyle = _props.titleStyle,\n          other = (0,
_objectWithoutProperties3.default)(_props, ['actAsExpander', 'children', 'closeIcon', 'expandable',
'showExpandableButton', 'style', 'subtitle', 'subtitleColor', 'subtitleStyle', 'title', 'titleColor', 'titleStyle']);\n      var
prepareStyles = this.context.muiTheme.prepareStyles;\n
      var styles = getStyles(this.props, this.context);\n      var rootStyle = (0, _simpleAssign2.default)({}, styles.root,
style);\n      var extendedTitleStyle = (0, _simpleAssign2.default)({}, styles.title, titleStyle);\n      var
extendedSubtitleStyle = (0, _simpleAssign2.default)({}, styles.subtitle, subtitleStyle);\n      return
_react2.default.createElement('div', (0, _extends3.default)({}, other, {\n        style: prepareStyles(rootStyle)\n      }),
_react2.default.createElement('span', {\n        style: prepareStyles(extendedTitleStyle)\n      }, title),
_react2.default.createElement('span', {\n        style: prepareStyles(extendedSubtitleStyle)\n      }, subtitle),
children);\n    }\n  }]);\n  return CardTitle;\n}(_react.Component);\n\nCardTitle.muiName =
'CardTitle';\nCardTitle.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nCardTitle.propTypes = process.env.NODE_ENV !== \"production\" ?
{\n  /**\n   * If true, a click on this card
 component expands the card.\n   */\n  actAsExpander: _propTypes2.default.bool,\n\n  /**\n   * Can be used to
render elements inside the Card Title.\n   */\n  children: _propTypes2.default.node,\n\n  /**\n   * Can be used to pass
a closeIcon if you don't like the default expandable close Icon.\n   */\n  closeIcon: _propTypes2.default.node,\n\n
/**\n   * If true, this card component is expandable.\n   */\n  expandable: _propTypes2.default.bool,\n\n  /**\n   * If
true, this card component will include a button to expand the card.\n   */\n  showExpandableButton:
_propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object,\n\n  /**\n   * Can be used to render a subtitle in the Card Title.\n   */\n  subtitle:
_propTypes2.default.node,\n\n  /**\n   * Override the subtitle color.\n   */\n  subtitleColor:
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_propTypes2.default.string,\n\n  /**\n   * Override the inline-styles of the subtitle.\n   */\n  subtitleStyle:
_propTypes2.default.object,\n\n
  /**\n   * Can be used to render a title in the Card Title.\n   */\n  title: _propTypes2.default.node,\n\n  /**\n   *
Override the title color.\n   */\n  titleColor: _propTypes2.default.string,\n\n  /**\n   * Override the inline-styles of the
title.\n   */\n  titleStyle: _propTypes2.default.object\n} : {};\nexports.default = CardTitle;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
 _createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var cardMedia =
context.muiTheme.cardMedia;\n  return {\n    root: {\n
    position: 'relative'\n    },\n    overlayContainer: {\n      position: 'absolute',\n      top: 0,\n      bottom: 0,\n      right:
0,\n      left: 0\n    },\n    overlay: {\n      height: '100%',\n      position: 'relative'\n    },\n    overlayContent: {\n
position: 'absolute',\n      bottom: 0,\n      right: 0,\n      left: 0,\n      paddingTop: 8,\n      background:
cardMedia.overlayContentBackground\n    },\n    media: {},\n    mediaChild: {\n      verticalAlign: 'top',\n
maxWidth: '100%',\n      minWidth: '100%',\n      width: '100%'\n    }\n  };\n}\n\nvar CardMedia = function
(_Component) {\n  (0, _inherits3.default)(CardMedia, _Component);\n\n  function CardMedia() {\n    (0,
_classCallCheck3.default)(this, CardMedia);\n    return (0, _possibleConstructorReturn3.default)(this,
(CardMedia.__proto__ || (0, _getPrototypeOf2.default)(CardMedia)).apply(this, arguments));\n  }\n\n  (0,
_createClass3.default)(CardMedia, [{\n    key: 'render',\n    value: function render() {\n
      var _props = this.props,\n          actAsExpander = _props.actAsExpander,\n          children = _props.children,\n
    expandable = _props.expandable,\n          mediaStyle = _props.mediaStyle,\n          overlay = _props.overlay,\n
  overlayContainerStyle = _props.overlayContainerStyle,\n          overlayContentStyle =
_props.overlayContentStyle,\n          overlayStyle = _props.overlayStyle,\n          style = _props.style,\n          other =
(0, _objectWithoutProperties3.default)(_props, ['actAsExpander', 'children', 'expandable', 'mediaStyle', 'overlay',
'overlayContainerStyle', 'overlayContentStyle', 'overlayStyle', 'style']);\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n      var rootStyle = (0,
_simpleAssign2.default)(styles.root, style);\n      var extendedMediaStyle = (0,
_simpleAssign2.default)(styles.media, mediaStyle);\n      var extendedOverlayContainerStyle = (0,
_simpleAssign2.default)(styles.overlayContainer,
 overlayContainerStyle);\n      var extendedOverlayContentStyle = (0,
_simpleAssign2.default)(styles.overlayContent, overlayContentStyle);\n      var extendedOverlayStyle = (0,
_simpleAssign2.default)(styles.overlay, overlayStyle);\n      var titleColor =
this.context.muiTheme.cardMedia.titleColor;\n      var subtitleColor =
this.context.muiTheme.cardMedia.subtitleColor;\n      var color = this.context.muiTheme.cardMedia.color;\n\n
var styledChildren = _react2.default.Children.map(children, function (child) {\n        if (!child) {\n          return
child;\n        }\n\n        return _react2.default.cloneElement(child, {\n          style: prepareStyles((0,
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_simpleAssign2.default)({}, styles.mediaChild, child.props.style))\n        });\n      });\n\n      var overlayChildren =
_react2.default.Children.map(overlay, function (child) {\n        var childMuiName = child && child.type ?
child.type.muiName : null;\n\n        if (childMuiName === 'CardHeader'
 || childMuiName === 'CardTitle') {\n          return _react2.default.cloneElement(child, {\n            titleColor:
titleColor,\n            subtitleColor: subtitleColor\n          });\n        } else if (childMuiName === 'CardText') {\n
return _react2.default.cloneElement(child, {\n            color: color\n          });\n        } else {\n          return child;\n
}\n      });\n\n      return _react2.default.createElement('div', (0, _extends3.default)({}, other, {\n        style:
prepareStyles(rootStyle)\n      }), _react2.default.createElement('div', {\n        style:
prepareStyles(extendedMediaStyle)\n      }, styledChildren), overlay ? _react2.default.createElement('div', {\n
style: prepareStyles(extendedOverlayContainerStyle)\n      }, _react2.default.createElement('div', {\n        style:
prepareStyles(extendedOverlayStyle)\n      }, _react2.default.createElement('div', {\n        style:
prepareStyles(extendedOverlayContentStyle)\n      }, overlayChildren)))
 : '');\n    }\n  }]);\n  return CardMedia;\n}(_react.Component);\n\nCardMedia.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nCardMedia.propTypes = process.env.NODE_ENV !== \"production\" ?
{\n  /**\n   * If true, a click on this card component expands the card.\n   */\n  actAsExpander:
_propTypes2.default.bool,\n\n  /**\n   * Can be used to render elements inside the Card Media.\n   */\n  children:
_propTypes2.default.node,\n\n  /**\n   * If true, this card component is expandable.\n   */\n  expandable:
_propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the Card Media.\n   */\n  mediaStyle:
_propTypes2.default.object,\n\n  /**\n   * Can be used to render overlay element in Card Media.\n   */\n  overlay:
_propTypes2.default.node,\n\n  /**\n   * Override the inline-styles of the overlay container.\n   */\n
overlayContainerStyle: _propTypes2.default.object,\n\n  /**\n   * Override the inline-styles of the overlay content.\n
 */\n  overlayContentStyle:
 _propTypes2.default.object,\n\n  /**\n   * Override the inline-styles of the overlay element.\n   */\n  overlayStyle:
_propTypes2.default.object,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object\n} : {};\nexports.default = CardMedia;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3
= _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2
 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var cardText =
context.muiTheme.cardText;\n  return {\n    root: {\n      padding: 16,\n      fontSize: 14,\n      color: props.color
 || cardText.textColor\n    }\n  };\n}\n\nvar CardText = function (_Component) {\n  (0, _inherits3.default)(CardText,
_Component);\n\n  function CardText() {\n    (0, _classCallCheck3.default)(this, CardText);\n    return (0,
_possibleConstructorReturn3.default)(this, (CardText.__proto__ || (0,
_getPrototypeOf2.default)(CardText)).apply(this, arguments));\n  }\n\n  (0, _createClass3.default)(CardText, [{\n
key: 'render',\n    value: function render() {\n      var _props = this.props,\n          actAsExpander =
_props.actAsExpander,\n          children = _props.children,\n          color = _props.color,\n          expandable =
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_props.expandable,\n        style = _props.style,\n        other = (0, _objectWithoutProperties3.default)(_props,
['actAsExpander', 'children', 'color', 'expandable', 'style']);\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n      var rootStyle = (0,
_simpleAssign2.default)(styles.root,
 style);\n      return _react2.default.createElement('div', (0, _extends3.default)({}, other, {\n        style:
prepareStyles(rootStyle)\n      }), children);\n    }\n  }]);\n  return
CardText;\n}(_react.Component);\n\nCardText.muiName = 'CardText';\nCardText.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nCardText.propTypes = process.env.NODE_ENV !== \"production\" ?
{\n  /**\n   * If true, a click on this card component expands the card.\n   */\n  actAsExpander:
_propTypes2.default.bool,\n\n  /**\n   * Can be used to render elements inside the Card Text.\n   */\n  children:
_propTypes2.default.node,\n\n  /**\n   * Override the CardText color.\n   */\n  color: _propTypes2.default.string,\n\n
/**\n   * If true, this card component is expandable.\n   */\n  expandable: _propTypes2.default.bool,\n\n  /**\n   *
Override the inline-styles of the root element.\n   */\n  style: _propTypes2.default.object\n} : {};\nexports.default =
CardText;","'use strict';\n\nObject.defineProperty(exports,
 \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3
= _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar
 _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar
_simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule
? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles() {\n  return {\n    root: {\n      padding: 8,\n      position:
'relative'\n    },\n    action: {\n      marginRight: 8\n    }\n  };\n}\n\nvar CardActions = function (_Component) {\n  (0,
_inherits3.default)(CardActions, _Component);\n\n  function CardActions() {\n    (0, _classCallCheck3.default)(this,
CardActions);\n    return (0, _possibleConstructorReturn3.default)(this, (CardActions.__proto__ || (0,
_getPrototypeOf2.default)(CardActions)).apply(this, arguments));\n
  }\n\n  (0, _createClass3.default)(CardActions, [{\n    key: 'render',\n    value: function render() {\n      var _props =
this.props,\n        actAsExpander = _props.actAsExpander,\n        children = _props.children,\n        expandable =
_props.expandable,\n        showExpandableButton = _props.showExpandableButton,\n        style = _props.style,\n
        other = (0, _objectWithoutProperties3.default)(_props, ['actAsExpander', 'children', 'expandable',
'showExpandableButton', 'style']);\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles =
getStyles(this.props, this.context);\n\n      var styledChildren = _react2.default.Children.map(children, function
(child) {\n        if (_react2.default.isValidElement(child)) {\n          return _react2.default.cloneElement(child, {\n
    style: (0, _simpleAssign2.default)({}, styles.action, child.props.style)\n          });\n        }\n      });\n\n      return
_react2.default.createElement('div',
 (0, _extends3.default)({}, other, {\n        style: prepareStyles((0, _simpleAssign2.default)(styles.root, style))\n
}), styledChildren);\n    }\n  }]);\n  return CardActions;\n}(_react.Component);\n\nCardActions.contextTypes = {\n
muiTheme: _propTypes2.default.object.isRequired\n};\nCardActions.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  /**\n   * If true, a click on this card component expands the card.\n   */\n  actAsExpander:
_propTypes2.default.bool,\n\n  /**\n   * Can be used to render elements inside the Card Action.\n   */\n  children:
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_propTypes2.default.node,\n\n  /**\n   * If true, this card component is expandable.\n   */\n  expandable:
_propTypes2.default.bool,\n\n  /**\n   * If true, this card component will include a button to expand the card.\n   */\n
showExpandableButton: _propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the root element.\n
*/\n  style: _propTypes2.default.object\n} : {};\nexports.default = CardActions;","'use
 strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2
 = require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _reactEventListener = require('react-
event-listener');\n\nvar _reactEventListener2 = _interopRequireDefault(_reactEventListener);\n\nvar _keycode =
require('keycode');\n\nvar _keycode2 = _interopRequireDefault(_keycode);\n\nvar _transitions =
require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nvar _FocusRipple =
require('./FocusRipple');\n\nvar _FocusRipple2 = _interopRequireDefault(_FocusRipple);\n\nvar _TouchRipple =
require('./TouchRipple');\n\nvar _TouchRipple2 = _interopRequireDefault(_TouchRipple);\n\nvar _Paper =
require('./../Paper');\n\nvar
 _Paper2 = _interopRequireDefault(_Paper);\n\nvar _warning = require('warning');\n\nvar _warning2 =
_interopRequireDefault(_warning);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var baseTheme =
context.muiTheme.baseTheme;\n  return {\n    root: {\n      cursor: props.disabled ? 'not-allowed' : 'pointer',\n
position: 'relative',\n      overflow: 'visible',\n      display: 'table',\n      height: 'auto',\n      width: '100%'\n    },\n
input: {\n      position: 'absolute',\n      cursor: 'inherit',\n      pointerEvents: 'all',\n      opacity: 0,\n      width:
'100%',\n      height: '100%',\n      zIndex: 2,\n      left: 0,\n      boxSizing: 'border-box',\n      padding: 0,\n      margin:
0\n    },\n    controls: {\n      display: 'flex',\n      width: '100%',\n      height: '100%'\n    },\n    label: {\n      float:
'left',\n      position: 'relative',\n
 display: 'block',\n      width: 'calc(100% - 60px)',\n      lineHeight: '24px',\n      color: baseTheme.palette.textColor,\n
    fontFamily: baseTheme.fontFamily\n    },\n    wrap: {\n      transition: _transitions2.default.easeOut(),\n      float:
'left',\n      position: 'relative',\n      display: 'block',\n      flexShrink: 0,\n      width: 60 -
baseTheme.spacing.desktopGutterLess,\n      marginRight: props.labelPosition === 'right' ?
baseTheme.spacing.desktopGutterLess : 0,\n      marginLeft: props.labelPosition === 'left' ?
baseTheme.spacing.desktopGutterLess : 0\n    },\n    ripple: {\n      color: props.rippleColor ||
baseTheme.palette.primary1Color,\n      height: '200%',\n      width: '200%',\n      top: -12,\n      left: -12\n    }\n
};\n}\n\nvar EnhancedSwitch = function (_Component) {\n  (0, _inherits3.default)(EnhancedSwitch,
_Component);\n\n  function EnhancedSwitch() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0,
_classCallCheck3.default)(this, EnhancedSwitch);\n\n
    for (var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] =
arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref =
EnhancedSwitch.__proto__ || (0, _getPrototypeOf2.default)(EnhancedSwitch)).call.apply(_ref, [this].concat(args))),
_this), _this.state = {\n      isKeyboardFocused: false\n    }, _this.handleChange = function (event) {\n
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_this.tabPressed = false;\n\n      _this.setState({\n        isKeyboardFocused: false\n      });\n\n      var isInputChecked
= _this.refs.checkbox.checked;\n\n      if (!_this.props.hasOwnProperty('checked') &&
_this.props.onParentShouldUpdate) {\n        _this.props.onParentShouldUpdate(isInputChecked);\n      }\n\n      if
(_this.props.onSwitch) {\n        _this.props.onSwitch(event, isInputChecked);\n      }\n    }, _this.handleKeyDown =
function (event) {\n      var code = (0, _keycode2.default)(event);\n\n      if (code === 'tab')
 {\n        _this.tabPressed = true;\n      }\n\n      if (_this.state.isKeyboardFocused && code === 'space') {\n
_this.handleChange(event);\n      }\n    }, _this.handleKeyUp = function (event) {\n      if
(_this.state.isKeyboardFocused && (0, _keycode2.default)(event) === 'space') {\n
_this.handleChange(event);\n      }\n    }, _this.handleMouseDown = function (event) {\n      // only listen to left
clicks\n      if (event.button === 0) {\n        _this.refs.touchRipple.start(event);\n      }\n    }, _this.handleMouseUp =
function () {\n      _this.refs.touchRipple.end();\n    }, _this.handleMouseLeave = function () {\n
_this.refs.touchRipple.end();\n    }, _this.handleTouchStart = function (event) {\n
_this.refs.touchRipple.start(event);\n    }, _this.handleTouchEnd = function () {\n      _this.refs.touchRipple.end();\n
}, _this.handleBlur = function (event) {\n      _this.setState({\n        isKeyboardFocused: false\n      });\n\n      if
(_this.props.onBlur)
 {\n        _this.props.onBlur(event);\n      }\n    }, _this.handleFocus = function (event) {\n      // setTimeout is needed
becuase the focus event fires first\n      // Wait so that we can capture if this was a keyboard focus\n      // or touch
focus\n      setTimeout(function () {\n        if (_this.tabPressed) {\n          _this.setState({\n
isKeyboardFocused: true\n          });\n        }\n      }, 150);\n\n      if (_this.props.onFocus) {\n
_this.props.onFocus(event);\n      }\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0,
_createClass3.default)(EnhancedSwitch, [{\n    key: 'componentWillMount',\n    value: function
componentWillMount() {\n      this.componentWillReceiveProps(this.props);\n    }\n  }, {\n    key:
'componentDidMount',\n    value: function componentDidMount() {\n      var inputNode = this.refs.checkbox;\n\n
if ((!this.props.switched || inputNode.checked !== this.props.switched) && this.props.onParentShouldUpdate)
 {\n        this.props.onParentShouldUpdate(inputNode.checked);\n      }\n    }\n  }, {\n    key:
'componentWillReceiveProps',\n    value: function componentWillReceiveProps(nextProps) {\n      var
hasCheckedProp = nextProps.hasOwnProperty('checked');\n      var hasNewDefaultProp =
nextProps.hasOwnProperty('defaultChecked') && nextProps.defaultChecked !== this.props.defaultChecked;\n\n
if (hasCheckedProp || hasNewDefaultProp) {\n        var switched = nextProps.checked || nextProps.defaultChecked ||
false;\n        this.setState({\n          switched: switched\n        });\n\n        if (this.props.onParentShouldUpdate &&
switched !== this.props.switched) {\n          this.props.onParentShouldUpdate(switched);\n        }\n      }\n    }\n  },
{\n    key: 'isSwitched',\n    value: function isSwitched() {\n      return this.refs.checkbox.checked;\n    } // no
callback here because there is no event\n\n  }, {\n    key: 'setSwitched',\n    value: function
setSwitched(newSwitchedValue)
 {\n      if (!this.props.hasOwnProperty('checked') || this.props.checked === false) {\n        if
(this.props.onParentShouldUpdate) {\n          this.props.onParentShouldUpdate(newSwitchedValue);\n        }\n\n
this.refs.checkbox.checked = newSwitchedValue;\n      } else {\n        process.env.NODE_ENV !== \"production\" ?
(0, _warning2.default)(false, 'Material-UI: Cannot call set method while checked is defined as a property.') : void
0;\n      }\n    }\n  }, {\n    key: 'getValue',\n    value: function getValue() {\n      return this.refs.checkbox.value;\n    }
// Checkbox inputs only use SPACE to change their state. Using ENTER will\n    // update the ui but not the
input.\n\n    /**\n     * Because both the ripples and the checkbox input cannot share pointer\n     * events, the
checkbox input takes control of pointer events and calls\n     * ripple animations manually.\n     */\n\n  }, {\n    key:
'render',\n    value: function render() {\n      var _props
 = this.props,\n          name = _props.name,\n          value = _props.value,\n          checked = _props.checked,\n
iconStyle = _props.iconStyle,\n          inputStyle = _props.inputStyle,\n          inputType = _props.inputType,\n
label = _props.label,\n          labelStyle = _props.labelStyle,\n          labelPosition = _props.labelPosition,\n
onSwitch = _props.onSwitch,\n          onBlur = _props.onBlur,\n          onFocus = _props.onFocus,\n
onMouseUp = _props.onMouseUp,\n          onMouseDown = _props.onMouseDown,\n          onMouseLeave =
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_props.onMouseLeave,\n onTouchStart = _props.onTouchStart,\n onTouchEnd = _props.onTouchEnd,\n
onParentShouldUpdate = _props.onParentShouldUpdate,\n disabled = _props.disabled,\n
disableTouchRipple = _props.disableTouchRipple,\n disableFocusRipple = _props.disableFocusRipple,\n
className = _props.className,\n rippleColor = _props.rippleColor,\n
rippleStyle = _props.rippleStyle,\n style = _props.style,\n switched = _props.switched,\n
switchElement = _props.switchElement,\n thumbStyle = _props.thumbStyle,\n trackStyle =
_props.trackStyle,\n other = (0, _objectWithoutProperties3.default)(_props, ['name', 'value', 'checked',
'iconStyle', 'inputStyle', 'inputType', 'label', 'labelStyle', 'labelPosition', 'onSwitch', 'onBlur', 'onFocus', 'onMouseUp',
'onMouseDown', 'onMouseLeave', 'onTouchStart', 'onTouchEnd', 'onParentShouldUpdate', 'disabled',
'disableTouchRipple', 'disableFocusRipple', 'className', 'rippleColor', 'rippleStyle', 'style', 'switched',
'switchElement', 'thumbStyle', 'trackStyle']);\n var prepareStyles = this.context.muiTheme.prepareStyles;\n var
styles = getStyles(this.props, this.context);\n var wrapStyles = (0, _simpleAssign2.default)(styles.wrap,
iconStyle);\n var mergedRippleStyle = (0, _simpleAssign2.default)(styles.ripple,
rippleStyle);\n\n if (thumbStyle) {\n wrapStyles.marginLeft /= 2;\n wrapStyles.marginRight /= 2;\n
}\n\n var labelElement = label && _react2.default.createElement('label', {\n style: prepareStyles((0,
_simpleAssign2.default)(styles.label, labelStyle))\n }, label);\n\n var showTouchRipple = !disabled &&
!disableTouchRipple;\n var showFocusRipple = !disabled && !disableFocusRipple;\n\n var touchRipple =
_react2.default.createElement(_TouchRipple2.default, {\n ref: 'touchRipple',\n key: 'touchRipple',\n
style: mergedRippleStyle,\n color: mergedRippleStyle.color,\n muiTheme: this.context.muiTheme,\n
centerRipple: true\n });\n\n var focusRipple = _react2.default.createElement(_FocusRipple2.default, {\n
key: 'focusRipple',\n innerStyle: mergedRippleStyle,\n color: mergedRippleStyle.color,\n muiTheme:
this.context.muiTheme,\n show: this.state.isKeyboardFocused\n
});\n\n var ripples = [showTouchRipple ? touchRipple : null, showFocusRipple ? focusRipple : null];\n var
touchHandlers = showTouchRipple ? {\n onMouseUp: this.handleMouseUp,\n onMouseDown:
this.handleMouseDown,\n onMouseLeave: this.handleMouseLeave,\n onTouchStart:
this.handleTouchStart,\n onTouchEnd: this.handleTouchEnd\n } : {};\n\n var inputElement =
_react2.default.createElement('input', (0, _extends3.default)({}, other, {\n ref: 'checkbox',\n type:
inputType,\n style: prepareStyles((0, _simpleAssign2.default)(styles.input, inputStyle)),\n name: name,\n
value: value,\n checked: this.state.switched,\n disabled: disabled,\n onBlur: this.handleBlur,\n
onFocus: this.handleFocus,\n onChange: this.handleChange\n }, touchHandlers)); // If toggle component
(indicated by whether the style includes thumb) manually lay out\n // elements in
order to nest ripple elements\n\n\n var switchOrThumbElement = !thumbStyle ?
_react2.default.createElement('div', {\n style: prepareStyles(wrapStyles)\n }, switchElement, ripples) :
_react2.default.createElement('div', {\n style: prepareStyles(wrapStyles)\n },
_react2.default.createElement('div', {\n style: prepareStyles((0, _simpleAssign2.default)({}, trackStyle))\n
}), _react2.default.createElement(_Paper2.default, {\n style: thumbStyle,\n zDepth: 1,\n circle: true\n
}, ' ', ripples, ' '));\n var elementsInOrder = labelPosition === 'right' ? _react2.default.createElement('div', {\n
style: styles.controls\n }, switchOrThumbElement, labelElement) : _react2.default.createElement('div', {\n
style: styles.controls\n }, labelElement, switchOrThumbElement);\n return _react2.default.createElement('div',
{\n ref: 'root',\n className: className,\n style: prepareStyles((0,
_simpleAssign2.default)(styles.root, style))\n }, _react2.default.createElement(_reactEventListener2.default, {\n
target: 'window',\n onKeyDown: this.handleKeyDown,\n onKeyUp: this.handleKeyUp\n }),
inputElement, elementsInOrder);\n }\n }]);\n return
EnhancedSwitch;\n}(_react.Component);\n\nEnhancedSwitch.contextTypes = {\n muiTheme:
_propTypes2.default.object.isRequired\n};\nEnhancedSwitch.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n checked: _propTypes2.default.bool,\n className: _propTypes2.default.string,\n
defaultChecked: _propTypes2.default.bool,\n disableFocusRipple: _propTypes2.default.bool,\n
disableTouchRipple: _propTypes2.default.bool,\n disabled: _propTypes2.default.bool,\n iconStyle:

_propTypes2.default.object,\n inputStyle: _propTypes2.default.object,\n inputType: _propTypes2.default.string.isRequired,\n label: _propTypes2.default.node,\n labelPosition: _propTypes2.default.oneOf(['left', 'right']),\n labelStyle: _propTypes2.default.object,\n name: _propTypes2.default.string,\n onBlur: _propTypes2.default.func,\n onFocus: _propTypes2.default.func,\n onMouseDown: _propTypes2.default.func,\n onMouseLeave: _propTypes2.default.func,\n onMouseUp: _propTypes2.default.func,\n onParentShouldUpdate: _propTypes2.default.func,\n onSwitch: _propTypes2.default.func,\n onTouchEnd: _propTypes2.default.func,\n onTouchStart: _propTypes2.default.func,\n rippleColor: _propTypes2.default.string,\n rippleStyle: _propTypes2.default.object,\n style: _propTypes2.default.object,\n switchElement: _propTypes2.default.element.isRequired,\n switched: _propTypes2.default.bool.isRequired,\n thumbStyle: _propTypes2.default.object,\n trackStyle: _propTypes2.default.object,\n value: _propTypes2.default.any\n} : {};\nexports.default = EnhancedSwitch;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\nexports.default = undefined;\n\nvar _DatePicker = require('./DatePicker');\n\nvar _DatePicker2 = _interopRequireDefault(_DatePicker);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nexports.default = _DatePicker2.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _TransitionGroup = require('react-transition-group/TransitionGroup');\n\nvar _TransitionGroup2 = _interopRequireDefault(_TransitionGroup);\n\nvar _SlideInChild = require('./SlideInChild');\n\nvar _SlideInChild2 = _interopRequireDefault(_SlideInChild);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nvar SlideIn = function (_Component) {\n (0, _inherits3.default)(SlideIn, _Component);\n\n function SlideIn() {\n   var _ref;\n\n   var _temp, _this, _ret;\n\n   (0, _classCallCheck3.default)(this, SlideIn);\n\n   for (var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n   args[_key] = arguments[_key];\n   }\n\n   return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = SlideIn.__proto__ || (0, _getPrototypeOf2.default)(SlideIn)).call.apply(_ref, [this].concat(args))), _this), _this.getLeaveDirection = function () {\n   return _this.props.direction;\n   }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n }\n\n (0, _createClass3.default)(SlideIn, [{\n   key: 'render',\n   value: function render() {\n   var _this2 = this;\n\n   var _props = this.props,\n   enterDelay = _props.enterDelay,\n   children = _props.children,\n   childStyle = _props.childStyle,\n   direction = _props.direction,\n   style = _props.style,\n   other = (0, _objectWithoutProperties3.default)(_props, ['enterDelay', 'children', 'childStyle', 'direction', 'style']);\n   var prepareStyles = this.context.muiTheme.prepareStyles;\n   var mergedRootStyles = (0, _simpleAssign2.default)({}, {\n   position: 'relative',\n   overflow: 'hidden',\n   height: '100%'\n   }, style);\n\n   var newChildren = _react2.default.Children.map(children, function (child) {\n   return

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_react2.default.createElement(_SlideInChild2.default, {\n          key: child.key,\n          direction: direction,\n
enterDelay: enterDelay,\n          getLeaveDirection: _this2.getLeaveDirection,\n          style: childStyle\n        },
child);\n      }, this);\n\n      return _react2.default.createElement(_TransitionGroup2.default, (0,
_extends3.default)({}, other, {\n        style: prepareStyles(mergedRootStyles),\n        component: 'div'\n      }),
newChildren);\n
    }\n  }]);\n  return SlideIn;\n}(_react.Component);\n\nSlideIn.defaultProps = {\n  enterDelay: 0,\n  direction:
'left'\n};\nSlideIn.contextTypes = {\n  muiTheme: _propTypes2.default.object.isRequired\n};\nSlideIn.propTypes =
process.env.NODE_ENV !== \"production\" ? {\n  childStyle: _propTypes2.default.object,\n  children:
_propTypes2.default.node,\n  direction: _propTypes2.default.oneOf(['left', 'right', 'up', 'down']),\n  enterDelay:
_propTypes2.default.number,\n  style: _propTypes2.default.object\n} : {};\nexports.default = SlideIn;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar
 _createClass3 = _interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _Paper = require('../Paper');\n\nvar _Paper2 =
_interopRequireDefault(_Paper);\n\nvar _transitions = require('../styles/transitions');\n\nvar _transitions2 =
_interopRequireDefault(_transitions);\n\nvar _propTypes3 = require('../utils/propTypes');\n\nvar _propTypes4 =
_interopRequireDefault(_propTypes3);\n\nfunction _interopRequireDefault(obj)
 {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context, state) {\n
var targetOrigin = props.targetOrigin;\n  var open = state.open;\n  var muiTheme = context.muiTheme;\n  var
horizontal = targetOrigin.horizontal.replace('middle', 'center');\n  return {\n    root: {\n      position: 'fixed',\n
zIndex: muiTheme.zIndex.popover,\n      opacity: open ? 1 : 0,\n      transform: open ? 'scaleY(1)' : 'scaleY(0)',\n
transformOrigin: horizontal + ' ' + targetOrigin.vertical,\n      transition: _transitions2.default.easeOut('450ms',
['transform', 'opacity']),\n      maxHeight: '100%'\n    }\n  };\n}\n\nvar PopoverAnimationVertical = function
(_Component) {\n  (0, _inherits3.default)(PopoverAnimationVertical, _Component);\n\n  function
PopoverAnimationVertical() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this,
PopoverAnimationVertical);\n\n    for (var _len = arguments.length, args
 = Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret =
(_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = PopoverAnimationVertical.__proto__ || (0,
_getPrototypeOf2.default)(PopoverAnimationVertical)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n
    open: false\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0,
_createClass3.default)(PopoverAnimationVertical, [{\n    key: 'componentDidMount',\n    value: function
componentDidMount() {\n      this.setState({\n        open: true\n      }); // eslint-disable-line react/no-did-mount-set-
state\n    }\n  }, {\n    key: 'componentWillReceiveProps',\n    value: function
componentWillReceiveProps(nextProps) {\n      this.setState({\n        open: nextProps.open\n      });\n    }\n  }, {\n
key: 'render',\n    value: function render() {\n      var _props = this.props,\n          className = _props.className,\n
          style = _props.style,\n          zDepth = _props.zDepth;\n      var styles = getStyles(this.props, this.context,
this.state);\n      return _react2.default.createElement(_Paper2.default, {\n        style: (0,
_simpleAssign2.default)(styles.root, style),\n        zDepth: zDepth,\n        className: className\n      },
this.props.children);\n    }\n  }]);\n  return
PopoverAnimationVertical;\n}(_react.Component);\n\nPopoverAnimationVertical.defaultProps = {\n  style: {},\n
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zDepth: 1\n};\nPopoverAnimationVertical.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nPopoverAnimationVertical.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  children: _propTypes2.default.node,\n  className: _propTypes2.default.string,\n  open:
_propTypes2.default.bool.isRequired,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object,\n  targetOrigin: _propTypes4.default.origin.isRequired,\n  zDepth:
_propTypes4.default.zDepth\n}
 : {};\nexports.default = PopoverAnimationVertical;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\nexports.default = exports.MenuItem = exports.DropDownMenu =
undefined;\n\nvar _DropDownMenu2 = require('./DropDownMenu');\n\nvar _DropDownMenu3 =
_interopRequireDefault(_DropDownMenu2);\n\nvar _MenuItem2 = require('../MenuItem/MenuItem');\n\nvar
_MenuItem3 = _interopRequireDefault(_MenuItem2);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.DropDownMenu =
_DropDownMenu3.default;\nexports.MenuItem = _MenuItem3.default;\nexports.default =
_DropDownMenu3.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3
 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_defineProperty2 = require('babel-runtime/helpers/defineProperty');\n\nvar _defineProperty3 =
_interopRequireDefault(_defineProperty2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar
 _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule
? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var _titleBar;\n\n  var
_context$muiTheme = context.muiTheme,\n      baseTheme = _context$muiTheme.baseTheme,\n      gridTile =
_context$muiTheme.gridTile;\n  var actionPos = props.actionIcon && props.actionPosition;\n  var styles = {\n
root: {\n      position: 'relative',\n      display: 'block',\n      height: '100%',\n      overflow: 'hidden'\n    },\n    titleBar:
(_titleBar = {\n      position: 'absolute',\n      left: 0,\n      right: 0\n    }, (0, _defineProperty3.default)(_titleBar,
props.titlePosition, 0), (0, _defineProperty3.default)(_titleBar, 'height', props.subtitle ? 68 : 48),
 (0, _defineProperty3.default)(_titleBar, 'background', props.titleBackground), (0,
_defineProperty3.default)(_titleBar, 'display', 'flex'), (0, _defineProperty3.default)(_titleBar, 'alignItems', 'center'),
_titleBar),\n    titleWrap: {\n      flexGrow: 1,\n      marginLeft: actionPos !== 'left' ?
baseTheme.spacing.desktopGutterLess : 0,\n      marginRight: actionPos === 'left' ?
baseTheme.spacing.desktopGutterLess : 0,\n      color: gridTile.textColor,\n      overflow: 'hidden'\n    },\n    title: {\n
    fontSize: '16px',\n      textOverflow: 'ellipsis',\n      overflow: 'hidden',\n      whiteSpace: 'nowrap'\n    },\n
subtitle: {\n      fontSize: '12px',\n      textOverflow: 'ellipsis',\n      overflow: 'hidden',\n      whiteSpace: 'nowrap'\n
},\n    actionIcon: {\n      order: actionPos === 'left' ? -1 : 1\n    },\n    childImg: {\n      height: '100%',\n
transform: 'translateX(-50%)',\n      position: 'relative',\n      left: '50%'\n    }\n  };\n  return styles;\n}\n\nvar
 GridTile = function (_Component) {\n  (0, _inherits3.default)(GridTile, _Component);\n\n  function GridTile() {\n
(0, _classCallCheck3.default)(this, GridTile);\n    return (0, _possibleConstructorReturn3.default)(this,
(GridTile.__proto__ || (0, _getPrototypeOf2.default)(GridTile)).apply(this, arguments));\n  }\n\n  (0,
```

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_createClass3.default)(GridTile, [{\n    key: 'componentDidMount',\n    value: function componentDidMount() {\n
 this.ensureImageCover();\n    }\n  }, {\n    key: 'componentDidUpdate',\n    value: function componentDidUpdate()
{\n      this.ensureImageCover();\n    }\n  }, {\n    key: 'ensureImageCover',\n    value: function ensureImageCover()
{\n      var _this2 = this;\n\n      var imgEl = this.refs.img;\n\n      if (imgEl) {\n        var fit = function fit() {\n          if
(imgEl.offsetWidth < imgEl.parentNode.offsetWidth) {\n            var isRtl = _this2.context.muiTheme.isRtl;\n
imgEl.style.height = 'auto';\n\n            if (isRtl) {\n
        imgEl.style.right = '0';\n            } else {\n              imgEl.style.left = '0';\n            }\n\n            imgEl.style.width
= '100%';\n            imgEl.style.top = '50%';\n            imgEl.style.transform = imgEl.style.WebkitTransform =
'translateY(-50%)';\n          }\n\n          imgEl.removeEventListener('load', fit);\n          imgEl = null; // prevent
closure memory leak\n        };\n\n        if (imgEl.complete) {\n          fit();\n        } else {\n
imgEl.addEventListener('load', fit);\n        }\n      }\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n
var _props = this.props,\n          title = _props.title,\n          subtitle = _props.subtitle,\n          titlePosition =
_props.titlePosition,\n          titleBackground = _props.titleBackground,\n          titleStyle = _props.titleStyle,\n
subtitleStyle = _props.subtitleStyle,\n          actionIcon = _props.actionIcon,\n          actionPosition =
_props.actionPosition,\n
          style = _props.style,\n          children = _props.children,\n          containerElement =
_props.containerElement,\n          other = (0, _objectWithoutProperties3.default)(_props, ['title', 'subtitle',
'titlePosition', 'titleBackground', 'titleStyle', 'subtitleStyle', 'actionIcon', 'actionPosition', 'style', 'children',
'containerElement']);\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles =
getStyles(this.props, this.context);\n      var mergedRootStyles = (0, _simpleAssign2.default)(styles.root, style);\n
var titleBar = null;\n\n      if (title) {\n        titleBar = _react2.default.createElement('div', {\n          key: 'titlebar',\n
   style: prepareStyles(styles.titleBar)\n        }, _react2.default.createElement('div', {\n          style:
prepareStyles(styles.titleWrap)\n        }, _react2.default.createElement('div', {\n          style: prepareStyles((0,
_simpleAssign2.default)(styles.title, titleStyle))\n        },
 title), subtitle ? _react2.default.createElement('div', {\n          style: prepareStyles((0,
_simpleAssign2.default)(styles.subtitle, subtitleStyle))\n        }, subtitle) : null), actionIcon ?
_react2.default.createElement('div', {\n          style: prepareStyles(styles.actionIcon)\n        }, actionIcon) : null);\n
}\n\n      var newChildren = children; // if there is a single image passed as children\n      // clone it and add our
styles\n\n      if (_react2.default.Children.count(children) === 1) {\n        newChildren =
_react2.default.Children.map(children, function (child) {\n          if (child.type === 'img') {\n            return
_react2.default.cloneElement(child, {\n              key: 'img',\n              ref: 'img',\n              style: prepareStyles((0,
_simpleAssign2.default)({}, styles.childImg, child.props.style))\n            });\n          } else {\n            return child;\n
      }\n        });\n      }\n\n      var containerProps = (0, _extends3.default)({\n
        style: prepareStyles(mergedRootStyles)\n      }, other);\n      return
_react2.default.isValidElement(containerElement) ? _react2.default.cloneElement(containerElement,
containerProps, [newChildren, titleBar]) : _react2.default.createElement(containerElement, containerProps,
[newChildren, titleBar]);\n    }\n  }]);\n  return GridTile;\n}(_react.Component);\n\nGridTile.defaultProps = {\n
titlePosition: 'bottom',\n  titleBackground: 'rgba(0, 0, 0, 0.4)',\n  actionPosition: 'right',\n  cols: 1,\n  rows: 1,\n
containerElement: 'div'\n};\nGridTile.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nGridTile.propTypes = process.env.NODE_ENV !== \"production\" ?
{\n  /**\n   * An IconButton element to be used as secondary action target\n   * (primary action target is the tile
itself).\n   */\n  actionIcon: _propTypes2.default.element,\n\n  /**\n   * Position of secondary action IconButton.\n
*/\n  actionPosition: _propTypes2.default.oneOf(['left', 'right']),\n\n
  /**\n   * Theoretically you can pass any node as children, but the main use case is to pass an img,\n   * in
whichcase GridTile takes care of making the image \"cover\" available space\n   * (similar to background-size: cover
or to object-fit:cover).\n   */\n  children: _propTypes2.default.node,\n\n  /**\n   * Width of the tile in number of grid
cells.\n   */\n  cols: _propTypes2.default.number,\n\n  /**\n   * Either a string used as tag name for the tile root
element, or a ReactElement.\n   * This is useful when you have, for example, a custom implementation of\n   * a
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navigation link (that knows about your routes) and you want to use it as the primary tile action.\n   * In case you
pass a ReactElement, please ensure that it passes all props,\n   * accepts styles overrides and render it's children.\n
*/\n  containerElement: _propTypes2.default.oneOfType([_propTypes2.default.string,
_propTypes2.default.element]),\n\n  /**\n   * Height of the tile in number of grid cells.\n
   */\n  rows: _propTypes2.default.number,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object,\n\n  /**\n   * String or element serving as subtitle (support text).\n   */\n  subtitle:
_propTypes2.default.node,\n\n  /**\n   * Override the inline-styles of the subtitle element.\n   */\n  subtitleStyle:
_propTypes2.default.object,\n\n  /**\n   * Title to be displayed on tile.\n   */\n  title: _propTypes2.default.node,\n\n
/**\n   * Style used for title bar background.\n   * Useful for setting custom gradients for example\n   */\n
titleBackground: _propTypes2.default.string,\n\n  /**\n   * Position of the title bar (container of title, subtitle and
action icon).\n   */\n  titlePosition: _propTypes2.default.oneOf(['top', 'bottom']),\n\n  /**\n   * Override the inline-
styles of the title element.\n   */\n  titleStyle: _propTypes2.default.object\n} : {};\nexports.default = GridTile;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\",
 {\n  value: true\n});\nexports.makeSelectable = undefined;\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar
 _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar
_simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _colorManipulator = require('../utils/colorManipulator');\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar
makeSelectable = function makeSelectable(MyComponent) {\n  var _class, _temp2;\n\n  return _temp2 = _class =
function (_Component) {\n    (0, _inherits3.default)(_class, _Component);\n\n    function _class() {\n      var
_ref;\n\n      var _temp, _this, _ret;\n\n      (0, _classCallCheck3.default)(this, _class);\n\n      for (var _len =
arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n        args[_key]
 = arguments[_key];\n      }\n\n      return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this,
(_ref = _class.__proto__ || (0, _getPrototypeOf2.default)(_class)).call.apply(_ref, [this].concat(args))), _this),
_this.hasSelectedDescendant = function (previousValue, child) {\n        if (_react2.default.isValidElement(child)
&& child.props.nestedItems && child.props.nestedItems.length > 0) {\n          return
child.props.nestedItems.reduce(_this.hasSelectedDescendant, previousValue);\n        }\n\n        return previousValue
|| _this.isChildSelected(child, _this.props);\n      }, _this.handleItemClick = function (event, item) {\n        var
itemValue = item.props.value;\n\n        if (itemValue !== _this.props.value) {\n          if (_this.props.onChange) {\n
       _this.props.onChange(event, itemValue);\n          }\n        }\n      }, _temp), (0,
_possibleConstructorReturn3.default)(_this, _ret);\n    }\n\n    (0, _createClass3.default)(_class, [{\n
  key: 'extendChild',\n      value: function extendChild(child, styles, selectedItemStyle) {\n        var _this2 = this;\n\n
    if (child && child.type && child.type.muiName === 'ListItem') {\n          var selected =
this.isChildSelected(child, this.props);\n          var selectedChildrenStyles = void 0;\n\n          if (selected) {\n
selectedChildrenStyles = (0, _simpleAssign2.default)({}, styles, selectedItemStyle);\n          }\n\n          var
mergedChildrenStyles = (0, _simpleAssign2.default)({}, child.props.style, selectedChildrenStyles);\n
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this.keyIndex += 1;\n          return _react2.default.cloneElement(child, {\n            onClick: function onClick(event)
{\n              _this2.handleItemClick(event, child);\n\n              if (child.props.onClick) {\n
child.props.onClick(event);\n              }\n            },\n            key: this.keyIndex,\n            style:
mergedChildrenStyles,\n            nestedItems: child.props.nestedItems.map(function
 (child) {\n              return _this2.extendChild(child, styles, selectedItemStyle);\n            }),\n            initiallyOpen:
this.isInitiallyOpen(child)\n          });\n        } else {\n          return child;\n        }\n      }\n    }, {\n      key:
'isInitiallyOpen',\n      value: function isInitiallyOpen(child) {\n        if (child.props.initiallyOpen) {\n          return
child.props.initiallyOpen;\n        }\n\n        return this.hasSelectedDescendant(false, child);\n      }\n    }, {\n      key:
'isChildSelected',\n      value: function isChildSelected(child, props) {\n        return props.value ===
child.props.value;\n      }\n    }, {\n      key: 'render',\n      value: function render() {\n        var _this3 = this;\n\n
var _props = this.props,\n            children = _props.children,\n            selectedItemStyle =
_props.selectedItemStyle,\n            other = (0, _objectWithoutProperties3.default)(_props, ['children',
'selectedItemStyle']);\n
      this.keyIndex = 0;\n        var styles = {};\n\n        if (!selectedItemStyle) {\n          var textColor =
this.context.muiTheme.baseTheme.palette.textColor;\n          styles.backgroundColor = (0,
_colorManipulator.fade)(textColor, 0.2);\n        }\n\n        return _react2.default.createElement(MyComponent, (0,
_extends3.default)({}, other, this.state), _react.Children.map(children, function (child) {\n          return
_this3.extendChild(child, styles, selectedItemStyle);\n        }));\n      }\n    }]);\n    return _class;\n
}(_react.Component), _class.propTypes = {\n    children: _propTypes2.default.node,\n    onChange:
_propTypes2.default.func,\n    selectedItemStyle: _propTypes2.default.object,\n    value: _propTypes2.default.any\n
}, _class.contextTypes = {\n    muiTheme: _propTypes2.default.object.isRequired\n  },
_temp2;\n};\n\nexports.makeSelectable = makeSelectable;\nexports.default = makeSelectable;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\",
 {\n  value: true\n});\nvar red50 = exports.red50 = '#ffebee';\nvar red100 = exports.red100 = '#ffcdd2';\nvar red200 =
exports.red200 = '#ef9a9a';\nvar red300 = exports.red300 = '#e57373';\nvar red400 = exports.red400 =
'#ef5350';\nvar red500 = exports.red500 = '#f44336';\nvar red600 = exports.red600 = '#e53935';\nvar red700 =
exports.red700 = '#d32f2f';\nvar red800 = exports.red800 = '#c62828';\nvar red900 = exports.red900 =
'#b71c1c';\nvar redA100 = exports.redA100 = '#ff8a80';\nvar redA200 = exports.redA200 = '#ff5252';\nvar redA400
= exports.redA400 = '#ff1744';\nvar redA700 = exports.redA700 = '#d50000';\nvar pink50 = exports.pink50 =
'#fce4ec';\nvar pink100 = exports.pink100 = '#f8bbd0';\nvar pink200 = exports.pink200 = '#f48fb1';\nvar pink300 =
exports.pink300 = '#f06292';\nvar pink400 = exports.pink400 = '#ec407a';\nvar pink500 = exports.pink500 =
'#e91e63';\nvar pink600 = exports.pink600 = '#d81b60';\nvar pink700 = exports.pink700 = '#c2185b';\nvar pink800
= exports.pink800 =
 '#ad1457';\nvar pink900 = exports.pink900 = '#880e4f';\nvar pinkA100 = exports.pinkA100 = '#ff80ab';\nvar
pinkA200 = exports.pinkA200 = '#ff4081';\nvar pinkA400 = exports.pinkA400 = '#f50057';\nvar pinkA700 =
exports.pinkA700 = '#c51162';\nvar purple50 = exports.purple50 = '#f3e5f5';\nvar purple100 = exports.purple100 =
'#e1bee7';\nvar purple200 = exports.purple200 = '#ce93d8';\nvar purple300 = exports.purple300 = '#ba68c8';\nvar
purple400 = exports.purple400 = '#ab47bc';\nvar purple500 = exports.purple500 = '#9c27b0';\nvar purple600 =
exports.purple600 = '#8e24aa';\nvar purple700 = exports.purple700 = '#7b1fa2';\nvar purple800 = exports.purple800
= '#6a1b9a';\nvar purple900 = exports.purple900 = '#4a148c';\nvar purpleA100 = exports.purpleA100 =
'#ea80fc';\nvar purpleA200 = exports.purpleA200 = '#e040fb';\nvar purpleA400 = exports.purpleA400 =
'#d500f9';\nvar purpleA700 = exports.purpleA700 = '#aa00ff';\nvar deepPurple50 = exports.deepPurple50 =
'#ede7f6';\nvar deepPurple100 = exports.deepPurple100
 = '#d1c4e9';\nvar deepPurple200 = exports.deepPurple200 = '#b39ddb';\nvar deepPurple300 =
exports.deepPurple300 = '#9575cd';\nvar deepPurple400 = exports.deepPurple400 = '#7e57c2';\nvar deepPurple500
= exports.deepPurple500 = '#673ab7';\nvar deepPurple600 = exports.deepPurple600 = '#5e35b1';\nvar
deepPurple700 = exports.deepPurple700 = '#512da8';\nvar deepPurple800 = exports.deepPurple800 =
'#4527a0';\nvar deepPurple900 = exports.deepPurple900 = '#311b92';\nvar deepPurpleA100 =
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exports.deepPurpleA100 = '#b388ff';\nvar deepPurpleA200 = exports.deepPurpleA200 = '#7c4dff';\nvar
deepPurpleA400 = exports.deepPurpleA400 = '#651fff';\nvar deepPurpleA700 = exports.deepPurpleA700 =
'#6200ea';\nvar indigo50 = exports.indigo50 = '#e8eaf6';\nvar indigo100 = exports.indigo100 = '#c5cae9';\nvar
indigo200 = exports.indigo200 = '#9fa8da';\nvar indigo300 = exports.indigo300 = '#7986cb';\nvar indigo400 =
exports.indigo400 = '#5c6bc0';\nvar indigo500 = exports.indigo500 = '#3f51b5';\nvar indigo600
 = exports.indigo600 = '#3949ab';\nvar indigo700 = exports.indigo700 = '#303f9f';\nvar indigo800 =
exports.indigo800 = '#283593';\nvar indigo900 = exports.indigo900 = '#1a237e';\nvar indigoA100 =
exports.indigoA100 = '#8c9eff';\nvar indigoA200 = exports.indigoA200 = '#536dfe';\nvar indigoA400 =
exports.indigoA400 = '#3d5afe';\nvar indigoA700 = exports.indigoA700 = '#304ffe';\nvar blue50 = exports.blue50 =
'#e3f2fd';\nvar blue100 = exports.blue100 = '#bbdefb';\nvar blue200 = exports.blue200 = '#90caf9';\nvar blue300 =
exports.blue300 = '#64b5f6';\nvar blue400 = exports.blue400 = '#42a5f5';\nvar blue500 = exports.blue500 =
'#2196f3';\nvar blue600 = exports.blue600 = '#1e88e5';\nvar blue700 = exports.blue700 = '#1976d2';\nvar blue800 =
exports.blue800 = '#1565c0';\nvar blue900 = exports.blue900 = '#0d47a1';\nvar blueA100 = exports.blueA100 =
'#82b1ff';\nvar blueA200 = exports.blueA200 = '#448aff';\nvar blueA400 = exports.blueA400 = '#2979ff';\nvar
blueA700 = exports.blueA700 = '#2962ff';\nvar
 lightBlue50 = exports.lightBlue50 = '#e1f5fe';\nvar lightBlue100 = exports.lightBlue100 = '#b3e5fc';\nvar
lightBlue200 = exports.lightBlue200 = '#81d4fa';\nvar lightBlue300 = exports.lightBlue300 = '#4fc3f7';\nvar
lightBlue400 = exports.lightBlue400 = '#29b6f6';\nvar lightBlue500 = exports.lightBlue500 = '#03a9f4';\nvar
lightBlue600 = exports.lightBlue600 = '#039be5';\nvar lightBlue700 = exports.lightBlue700 = '#0288d1';\nvar
lightBlue800 = exports.lightBlue800 = '#0277bd';\nvar lightBlue900 = exports.lightBlue900 = '#01579b';\nvar
lightBlueA100 = exports.lightBlueA100 = '#80d8ff';\nvar lightBlueA200 = exports.lightBlueA200 = '#40c4ff';\nvar
lightBlueA400 = exports.lightBlueA400 = '#00b0ff';\nvar lightBlueA700 = exports.lightBlueA700 = '#0091ea';\nvar
cyan50 = exports.cyan50 = '#e0f7fa';\nvar cyan100 = exports.cyan100 = '#b2ebf2';\nvar cyan200 = exports.cyan200
= '#80deea';\nvar cyan300 = exports.cyan300 = '#4dd0e1';\nvar cyan400 = exports.cyan400 = '#26c6da';\nvar
cyan500
 = exports.cyan500 = '#00bcd4';\nvar cyan600 = exports.cyan600 = '#00acc1';\nvar cyan700 = exports.cyan700 =
'#0097a7';\nvar cyan800 = exports.cyan800 = '#00838f';\nvar cyan900 = exports.cyan900 = '#006064';\nvar
cyanA100 = exports.cyanA100 = '#84ffff';\nvar cyanA200 = exports.cyanA200 = '#18ffff';\nvar cyanA400 =
exports.cyanA400 = '#00e5ff';\nvar cyanA700 = exports.cyanA700 = '#00b8d4';\nvar teal50 = exports.teal50 =
'#e0f2f1';\nvar teal100 = exports.teal100 = '#b2dfdb';\nvar teal200 = exports.teal200 = '#80cbc4';\nvar teal300 =
exports.teal300 = '#4db6ac';\nvar teal400 = exports.teal400 = '#26a69a';\nvar teal500 = exports.teal500 =
'#009688';\nvar teal600 = exports.teal600 = '#00897b';\nvar teal700 = exports.teal700 = '#00796b';\nvar teal800 =
exports.teal800 = '#00695c';\nvar teal900 = exports.teal900 = '#004d40';\nvar tealA100 = exports.tealA100 =
'#a7ffeb';\nvar tealA200 = exports.tealA200 = '#64ffda';\nvar tealA400 = exports.tealA400 = '#1de9b6';\nvar
tealA700 = exports.tealA700
 = '#00bfa5';\nvar green50 = exports.green50 = '#e8f5e9';\nvar green100 = exports.green100 = '#c8e6c9';\nvar
green200 = exports.green200 = '#a5d6a7';\nvar green300 = exports.green300 = '#81c784';\nvar green400 =
exports.green400 = '#66bb6a';\nvar green500 = exports.green500 = '#4caf50';\nvar green600 = exports.green600 =
'#43a047';\nvar green700 = exports.green700 = '#388e3c';\nvar green800 = exports.green800 = '#2e7d32';\nvar
green900 = exports.green900 = '#1b5e20';\nvar greenA100 = exports.greenA100 = '#b9f6ca';\nvar greenA200 =
exports.greenA200 = '#69f0ae';\nvar greenA400 = exports.greenA400 = '#00e676';\nvar greenA700 =
exports.greenA700 = '#00c853';\nvar lightGreen50 = exports.lightGreen50 = '#f1f8e9';\nvar lightGreen100 =
exports.lightGreen100 = '#dcedc8';\nvar lightGreen200 = exports.lightGreen200 = '#c5e1a5';\nvar lightGreen300 =
exports.lightGreen300 = '#aed581';\nvar lightGreen400 = exports.lightGreen400 = '#9ccc65';\nvar lightGreen500 =
exports.lightGreen500 = '#8bc34a';\nvar
 lightGreen600 = exports.lightGreen600 = '#7cb342';\nvar lightGreen700 = exports.lightGreen700 = '#689f38';\nvar
lightGreen800 = exports.lightGreen800 = '#558b2f';\nvar lightGreen900 = exports.lightGreen900 = '#33691e';\nvar
lightGreenA100 = exports.lightGreenA100 = '#ccff90';\nvar lightGreenA200 = exports.lightGreenA200 =
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'#b2ff59';\nvar lightGreenA400 = exports.lightGreenA400 = '#76ff03';\nvar lightGreenA700 =
exports.lightGreenA700 = '#64dd17';\nvar lime50 = exports.lime50 = '#f9fbe7';\nvar lime100 = exports.lime100 =
'#f0f4c3';\nvar lime200 = exports.lime200 = '#e6ee9c';\nvar lime300 = exports.lime300 = '#dce775';\nvar lime400 =
exports.lime400 = '#d4e157';\nvar lime500 = exports.lime500 = '#cddc39';\nvar lime600 = exports.lime600 =
'#c0ca33';\nvar lime700 = exports.lime700 = '#afb42b';\nvar lime800 = exports.lime800 = '#9e9d24';\nvar lime900 =
exports.lime900 = '#827717';\nvar limeA100 = exports.limeA100 = '#f4ff81';\nvar limeA200 = exports.limeA200 =
'#eeff41';\nvar limeA400 = exports.limeA400
 = '#c6ff00';\nvar limeA700 = exports.limeA700 = '#aeea00';\nvar yellow50 = exports.yellow50 = '#fffde7';\nvar
yellow100 = exports.yellow100 = '#fff9c4';\nvar yellow200 = exports.yellow200 = '#fff59d';\nvar yellow300 =
exports.yellow300 = '#fff176';\nvar yellow400 = exports.yellow400 = '#ffee58';\nvar yellow500 =
exports.yellow500 = '#ffeb3b';\nvar yellow600 = exports.yellow600 = '#fdd835';\nvar yellow700 =
exports.yellow700 = '#fbc02d';\nvar yellow800 = exports.yellow800 = '#f9a825';\nvar yellow900 =
exports.yellow900 = '#f57f17';\nvar yellowA100 = exports.yellowA100 = '#ffff8d';\nvar yellowA200 =
exports.yellowA200 = '#ffff00';\nvar yellowA400 = exports.yellowA400 = '#ffea00';\nvar yellowA700 =
exports.yellowA700 = '#ffd600';\nvar amber50 = exports.amber50 = '#fff8e1';\nvar amber100 = exports.amber100 =
'#ffecb3';\nvar amber200 = exports.amber200 = '#ffe082';\nvar amber300 = exports.amber300 = '#ffd54f';\nvar
amber400 = exports.amber400 = '#ffca28';\nvar amber500 = exports.amber500
 = '#ffc107';\nvar amber600 = exports.amber600 = '#ffb300';\nvar amber700 = exports.amber700 = '#ffa000';\nvar
amber800 = exports.amber800 = '#ff8f00';\nvar amber900 = exports.amber900 = '#ff6f00';\nvar amberA100 =
exports.amberA100 = '#ffe57f';\nvar amberA200 = exports.amberA200 = '#ffd740';\nvar amberA400 =
exports.amberA400 = '#ffc400';\nvar amberA700 = exports.amberA700 = '#ffab00';\nvar orange50 =
exports.orange50 = '#fff3e0';\nvar orange100 = exports.orange100 = '#ffe0b2';\nvar orange200 = exports.orange200
= '#ffcc80';\nvar orange300 = exports.orange300 = '#ffb74d';\nvar orange400 = exports.orange400 = '#ffa726';\nvar
orange500 = exports.orange500 = '#ff9800';\nvar orange600 = exports.orange600 = '#fb8c00';\nvar orange700 =
exports.orange700 = '#f57c00';\nvar orange800 = exports.orange800 = '#ef6c00';\nvar orange900 =
exports.orange900 = '#e65100';\nvar orangeA100 = exports.orangeA100 = '#ffd180';\nvar orangeA200 =
exports.orangeA200 = '#ffab40';\nvar orangeA400 = exports.orangeA400
 = '#ff9100';\nvar orangeA700 = exports.orangeA700 = '#ff6d00';\nvar deepOrange50 = exports.deepOrange50 =
'#fbe9e7';\nvar deepOrange100 = exports.deepOrange100 = '#ffccbc';\nvar deepOrange200 =
exports.deepOrange200 = '#ffab91';\nvar deepOrange300 = exports.deepOrange300 = '#ff8a65';\nvar
deepOrange400 = exports.deepOrange400 = '#ff7043';\nvar deepOrange500 = exports.deepOrange500 =
'#ff5722';\nvar deepOrange600 = exports.deepOrange600 = '#f4511e';\nvar deepOrange700 =
exports.deepOrange700 = '#e64a19';\nvar deepOrange800 = exports.deepOrange800 = '#d84315';\nvar
deepOrange900 = exports.deepOrange900 = '#bf360c';\nvar deepOrangeA100 = exports.deepOrangeA100 =
'#ff9e80';\nvar deepOrangeA200 = exports.deepOrangeA200 = '#ff6e40';\nvar deepOrangeA400 =
exports.deepOrangeA400 = '#ff3d00';\nvar deepOrangeA700 = exports.deepOrangeA700 = '#dd2c00';\nvar brown50
= exports.brown50 = '#efebe9';\nvar brown100 = exports.brown100 = '#d7ccc8';\nvar brown200 =
exports.brown200 = '#bcaaa4';\nvar
 brown300 = exports.brown300 = '#a1887f';\nvar brown400 = exports.brown400 = '#8d6e63';\nvar brown500 =
exports.brown500 = '#795548';\nvar brown600 = exports.brown600 = '#6d4c41';\nvar brown700 =
exports.brown700 = '#5d4037';\nvar brown800 = exports.brown800 = '#4e342e';\nvar brown900 =
exports.brown900 = '#3e2723';\nvar blueGrey50 = exports.blueGrey50 = '#eceff1';\nvar blueGrey100 =
exports.blueGrey100 = '#cfd8dc';\nvar blueGrey200 = exports.blueGrey200 = '#b0bec5';\nvar blueGrey300 =
exports.blueGrey300 = '#90a4ae';\nvar blueGrey400 = exports.blueGrey400 = '#78909c';\nvar blueGrey500 =
exports.blueGrey500 = '#607d8b';\nvar blueGrey600 = exports.blueGrey600 = '#546e7a';\nvar blueGrey700 =
exports.blueGrey700 = '#455a64';\nvar blueGrey800 = exports.blueGrey800 = '#37474f';\nvar blueGrey900 =
exports.blueGrey900 = '#263238';\nvar grey50 = exports.grey50 = '#fafafa';\nvar grey100 = exports.grey100 =
'#f5f5f5';\nvar grey200 = exports.grey200 = '#eeeeee';\nvar grey300 = exports.grey300
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 = '#e0e0e0';\nvar grey400 = exports.grey400 = '#bdbdbd';\nvar grey500 = exports.grey500 = '#9e9e9e';\nvar
grey600 = exports.grey600 = '#757575';\nvar grey700 = exports.grey700 = '#616161';\nvar grey800 =
exports.grey800 = '#424242';\nvar grey900 = exports.grey900 = '#212121';\nvar black = exports.black =
'#000000';\nvar white = exports.white = '#ffffff';\nvar transparent = exports.transparent = 'rgba(0, 0, 0, 0)';\nvar
fullBlack = exports.fullBlack = 'rgba(0, 0, 0, 1)';\nvar darkBlack = exports.darkBlack = 'rgba(0, 0, 0, 0.87)';\nvar
lightBlack = exports.lightBlack = 'rgba(0, 0, 0, 0.54)';\nvar minBlack = exports.minBlack = 'rgba(0, 0, 0, 0.26)';\nvar
faintBlack = exports.faintBlack = 'rgba(0, 0, 0, 0.12)';\nvar fullWhite = exports.fullWhite = 'rgba(255, 255, 255,
1)';\nvar darkWhite = exports.darkWhite = 'rgba(255, 255, 255, 0.87)';\nvar lightWhite = exports.lightWhite =
'rgba(255, 255, 255, 0.54)';","\"use strict\";\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
 true\n});\nexports.default = capitalizeString;\n\nfunction capitalizeString(str) {\n  return
str.charAt(0).toUpperCase() + str.slice(1);\n}\n\nmodule.exports = exports[\"default\"];","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default =
isPrefixedValue;\nvar regex = /-webkit-|-moz-|-ms-/;\n\nfunction isPrefixedValue(value) {\n  return typeof value
=== 'string' && regex.test(value);\n}\n\nmodule.exports = exports['default'];","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default =
exports.RadioButtonGroup = exports.RadioButton = undefined;\n\nvar _RadioButton2 =
require('./RadioButton');\n\nvar _RadioButton3 = _interopRequireDefault(_RadioButton2);\n\nvar
_RadioButtonGroup2 = require('./RadioButtonGroup');\n\nvar _RadioButtonGroup3 =
_interopRequireDefault(_RadioButtonGroup2);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.RadioButton
 = _RadioButton3.default;\nexports.RadioButtonGroup = _RadioButtonGroup3.default;\nexports.default =
_RadioButton3.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar
_extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
 _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _RadioButton =
require('./RadioButton');\n\nvar _RadioButton2 = _interopRequireDefault(_RadioButton);\n\nvar _warning =
require('warning');\n\nvar _warning2 = _interopRequireDefault(_warning);\n\nfunction _interopRequireDefault(obj)
{\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar RadioButtonGroup = function
(_Component) {\n  (0, _inherits3.default)(RadioButtonGroup, _Component);\n\n  function RadioButtonGroup()
 {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this, RadioButtonGroup);\n\n    for
(var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] =
arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref =
RadioButtonGroup.__proto__ || (0, _getPrototypeOf2.default)(RadioButtonGroup)).call.apply(_ref,
[this].concat(args))), _this), _this.state = {\n      numberCheckedRadioButtons: 0,\n      selected: ''\n    },
_this.handleChange = function (event, newSelection) {\n      _this.updateRadioButtons(newSelection); // Successful
update\n\n\n      if (_this.state.numberCheckedRadioButtons === 0) {\n        if (_this.props.onChange)
_this.props.onChange(event, newSelection);\n      }\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this,
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_ret);\n }\n\n (0, _createClass3.default)(RadioButtonGroup, [{\n key: 'componentWillMount',\n value: function componentWillMount() {\n var _this2 = this;\n\n var cnt = 0;\n var selected = '';\n var _props = this.props,\n valueSelected = _props.valueSelected,\n defaultSelected = _props.defaultSelected;\n\n if (valueSelected !== undefined) {\n selected = valueSelected;\n } else if (defaultSelected !== undefined) {\n selected = defaultSelected;\n }\n\n _react2.default.Children.forEach(this.props.children, function (option) {\n if (_this2.hasCheckAttribute(option)) cnt++;\n }, this);\n\n this.setState({\n numberCheckedRadioButtons: cnt,\n selected: selected\n });\n }\n }, {\n key: 'componentWillReceiveProps',\n value: function componentWillReceiveProps(nextProps) {\n if (nextProps.hasOwnProperty('valueSelected')) {\n this.setState({\n selected: nextProps.valueSelected\n });\n }\n }\n }, {\n key: 'hasCheckAttribute',\n value: function hasCheckAttribute(radioButton) {\n return radioButton.props.hasOwnProperty('checked') && radioButton.props.checked;\n }\n }, {\n key: 'updateRadioButtons',\n value: function updateRadioButtons(newSelection) {\n if (this.state.numberCheckedRadioButtons === 0) {\n this.setState({\n selected: newSelection\n });\n } else {\n process.env.NODE_ENV !== \"production\" ? (0, _warning2.default)(false, 'Material-UI: Cannot select a different radio button while another radio button\\n has the \\'checked\\' property set to true.') : void 0;\n }\n }\n }, {\n key: 'getSelectedValue',\n value: function getSelectedValue() {\n return this.state.selected;\n }\n }, {\n key: 'setSelectedValue',\n value: function setSelectedValue(newSelectionValue) {\n this.updateRadioButtons(newSelectionValue);\n }\n }, {\n key: 'clearValue',\n value: function clearValue() {\n this.setSelectedValue('');\n }\n }, {\n key: 'render',\n value: function render() {\n var _this3 = this;\n\n var prepareStyles = this.context.muiTheme.prepareStyles;\n\n var options = _react2.default.Children.map(this.props.children, function (option) {\n var _option$props = option.props,\n name = _option$props.name,\n value = _option$props.value,\n label = _option$props.label,\n onCheck = _option$props.onCheck,\n other = (0, _objectWithoutProperties3.default)(_option$props, ['name', 'value', 'label', 'onCheck']);\n return _react2.default.createElement(_RadioButton2.default, (0, _extends3.default)({}, other, {\n ref: option.props.value,\n name: _this3.props.name,\n key: option.props.value,\n value: option.props.value,\n label: option.props.label,\n labelPosition: _this3.props.labelPosition,\n onCheck: _this3.handleChange,\n checked: option.props.value === _this3.state.selected\n }));\n }, this);\n\n return _react2.default.createElement('div', {\n style: prepareStyles((0, _simpleAssign2.default)({}, this.props.style)),\n className: this.props.className\n }, options);\n }\n }]);\n return RadioButtonGroup;\n}(_react.Component);\n\nRadioButtonGroup.defaultProps = {\n style: {}\n};\nRadioButtonGroup.contextTypes = {\n muiTheme: _propTypes2.default.object.isRequired\n};\nRadioButtonGroup.propTypes = process.env.NODE_ENV !== \"production\" ? {\n /**\n * Should be used to pass `RadioButton` components.\n */\n children: _propTypes2.default.node,\n\n /**\n * The CSS class name of the root element.\n */\n className: _propTypes2.default.string,\n\n /**\n * The `value` property of the radio button that will be\n * selected by default. This takes precedence over the `checked` property\n * of the `RadioButton` elements.\n */\n defaultSelected: _propTypes2.default.any,\n\n /**\n * Where the label will be placed for all child radio buttons.\n * This takes precedence over the `labelPosition` property of the\n * `RadioButton` elements.\n */\n labelPosition: _propTypes2.default.oneOf(['left', 'right']),\n\n /**\n * The name that will be applied to all child radio buttons.\n */\n name: _propTypes2.default.string.isRequired,\n\n /**\n * Callback function that is fired when a radio button has\n * been checked.\n *\n * @param {object} event `change` event targeting the selected\n * radio button.\n * @param {*} value The `value` of the selected radio button.\n */\n onChange: _propTypes2.default.func,\n\n /**\n * Override the inline-styles of the root element.\n */\n style: _propTypes2.default.object,\n\n /**\n * The `value` of the currently selected radio button.\n */\n valueSelected: _propTypes2.default.any\n} : {};\nexports.default = RadioButtonGroup;","\"use strict\";\n\nexports.__esModule = true;\n\nvar _isIterable2 = require(\"../core-js/is-iterable\");\n\nvar

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 _isIterable3 = _interopRequireDefault(_isIterable2);\n\nvar _getIterator2 = require(\"../core-js/get-iterator\");\n\nvar
_getIterator3 = _interopRequireDefault(_getIterator2);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.default = function () {\n  function sliceIterator(arr, i)
{\n    var _arr = [];\n    var _n = true;\n    var _d = false;\n    var _e = undefined;\n\n    try {\n      for (var _i = (0,
_getIterator3.default)(arr), _s; !(_n = (_s = _i.next()).done); _n = true) {\n        _arr.push(_s.value);\n\n        if (i &&
_arr.length === i) break;\n      }\n    } catch (err) {\n      _d = true;\n      _e = err;\n    } finally {\n      try {\n        if
(!_n && _i[\"return\"]) _i[\"return\"]();\n      } finally {\n        if (_d) throw _e;\n      }\n    }\n\n    return _arr;\n  }\n\n
return function (arr, i) {\n    if (Array.isArray(arr)) {\n      return arr;\n    } else
 if ((0, _isIterable3.default)(Object(arr))) {\n      return sliceIterator(arr, i);\n    } else {\n      throw new
TypeError(\"Invalid attempt to destructure non-iterable instance\");\n    }\n  };\n}();","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default = undefined;\n\nvar
_SelectField = require('./SelectField');\n\nvar _SelectField2 = _interopRequireDefault(_SelectField);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.default
= _SelectField2.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\nexports.default = undefined;\n\nvar _Slider = require('./Slider');\n\nvar _Slider2 =
_interopRequireDefault(_Slider);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj
: {\n    default: obj\n  };\n}\n\nexports.default = _Slider2.default;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\",
 {\n  value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _typeof2 = require('babel-
runtime/helpers/typeof');\n\nvar _typeof3 = _interopRequireDefault(_typeof2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _checkCircle = require('../svg-icons/action/check-
circle');\n\nvar _checkCircle2 = _interopRequireDefault(_checkCircle);\n\nvar _SvgIcon =
require('../SvgIcon');\n\nvar _SvgIcon2 = _interopRequireDefault(_SvgIcon);\n\nfunction
_interopRequireDefault(obj) {\n  return
 obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar getStyles = function getStyles(_ref, _ref2) {\n  var
active = _ref.active,\n      completed = _ref.completed,\n      disabled = _ref.disabled;\n  var muiTheme =
_ref2.muiTheme,\n      stepper = _ref2.stepper;\n  var _muiTheme$stepper = muiTheme.stepper,\n      textColor =
_muiTheme$stepper.textColor,\n      disabledTextColor = _muiTheme$stepper.disabledTextColor,\n      iconColor =
_muiTheme$stepper.iconColor,\n      inactiveIconColor = _muiTheme$stepper.inactiveIconColor;\n  var baseTheme
= muiTheme.baseTheme;\n  var orientation = stepper.orientation;\n  var styles = {\n    root: {\n      height:
orientation === 'horizontal' ? 72 : 64,\n      color: textColor,\n      display: 'flex',\n      alignItems: 'center',\n
fontFamily: baseTheme.fontFamily,\n      fontSize: 14,\n      paddingLeft: 14,\n      paddingRight: 14\n    },\n    icon:
{\n      color: iconColor,\n      display: 'block',\n      fontSize: 24,\n
  width: 24,\n      height: 24\n    },\n    iconContainer: {\n      paddingRight: 8\n    }\n  };\n\n  if (active) {\n
styles.root.fontWeight = 500;\n  }\n\n  if (!completed && !active) {\n    styles.icon.color = inactiveIconColor;\n
}\n\n  if (disabled) {\n    styles.icon.color = inactiveIconColor;\n    styles.root.color = disabledTextColor;\n
styles.root.cursor = 'default';\n  }\n\n  return styles;\n};\n\nvar renderIcon = function renderIcon(completed, icon,
styles) {\n  var iconType = typeof icon === 'undefined' ? 'undefined' : (0, _typeof3.default)(icon);\n\n  if (iconType
=== 'number' || iconType === 'string') {\n    if (completed) {\n      return
_react2.default.createElement(_checkCircle2.default, {\n        color: styles.icon.color,\n        style: styles.icon\n
});\n    }\n\n    return _react2.default.createElement(_SvgIcon2.default, {\n      color: styles.icon.color,\n      style:
styles.icon\n    }, _react2.default.createElement('circle', {\n      cx: '12',\n
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 cy: '12',\n      r: '10'\n    }), _react2.default.createElement('text', {\n      x: '12',\n      y: '16',\n      textAnchor:
'middle',\n      fontSize: '12',\n      fill: '#fff'\n    }, icon));\n  }\n\n  return icon;\n};\n\nvar StepLabel = function
StepLabel(props, context) {\n  var active = props.active,\n      children = props.children,\n      completed =
props.completed,\n      userIcon = props.icon,\n      iconContainerStyle = props.iconContainerStyle,\n      last =
props.last,\n      style = props.style,\n      other = (0, _objectWithoutProperties3.default)(props, ['active', 'children',
'completed', 'icon', 'iconContainerStyle', 'last', 'style']);\n  var prepareStyles = context.muiTheme.prepareStyles;\n
var styles = getStyles(props, context);\n  var icon = renderIcon(completed, userIcon, styles);\n  return
_react2.default.createElement('span', (0, _extends3.default)({\n    style: prepareStyles((0,
_simpleAssign2.default)(styles.root, style))\n  }, other), icon && _react2.default.createElement('span',
 {\n    style: prepareStyles((0, _simpleAssign2.default)(styles.iconContainer, iconContainerStyle))\n  }, icon),
children);\n};\n\nStepLabel.muiName = 'StepLabel';\nStepLabel.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  /**\n   * Sets active styling. Overrides disabled coloring.\n   */\n  active:
_propTypes2.default.bool,\n\n  /**\n   * The label text node\n   */\n  children: _propTypes2.default.node,\n\n  /**\n
* Sets completed styling. Overrides disabled coloring.\n   */\n  completed: _propTypes2.default.bool,\n\n  /**\n   *
Sets disabled styling.\n   */\n  disabled: _propTypes2.default.bool,\n\n  /**\n   * The icon displayed by the step
label.\n   */\n  icon: _propTypes2.default.oneOfType([_propTypes2.default.element, _propTypes2.default.string,
_propTypes2.default.number]),\n\n  /**\n   * Override the inline-styles of the icon container element.\n   */\n
iconContainerStyle: _propTypes2.default.object,\n\n  /**\n   * @ignore\n   */\n  last: _propTypes2.default.bool,\n\n
  /**\n   * Override the inline-style of the root element.\n   */\n  style: _propTypes2.default.object\n} :
{};\nStepLabel.contextTypes = {\n  muiTheme: _propTypes2.default.object.isRequired,\n  stepper:
_propTypes2.default.object\n};\nexports.default = StepLabel;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3
= _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar
 _createClass3 = _interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _EnhancedButton =
require('../internal/EnhancedButton');\n\nvar _EnhancedButton2 =
_interopRequireDefault(_EnhancedButton);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var tabs =
context.muiTheme.tabs;\n
  return {\n    root: {\n      color: props.selected ? tabs.selectedTextColor : tabs.textColor,\n      fontWeight: 500,\n
fontSize: 14,\n      width: props.width,\n      textTransform: 'uppercase',\n      padding: 0\n    },\n    button: {\n
display: 'flex',\n      flexDirection: 'column',\n      alignItems: 'center',\n      justifyContent: 'center',\n      height:
props.label && props.icon ? 72 : 48\n    }\n  };\n}\n\nvar Tab = function (_Component) {\n  (0,
_inherits3.default)(Tab, _Component);\n\n  function Tab() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0,
_classCallCheck3.default)(this, Tab);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0; _key <
_len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = Tab.__proto__ || (0,
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_getPrototypeOf2.default)(Tab)).call.apply(_ref, [this].concat(args))), _this), _this.handleClick = function
 (event) {\n      if (_this.props.onClick) {\n        _this.props.onClick(_this.props.value, event, _this);\n      }\n    },
_temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(Tab, [{\n    key:
'render',\n    value: function render() {\n      var _props = this.props,\n          icon = _props.icon,\n          index =
_props.index,\n          onActive = _props.onActive,\n          onClick = _props.onClick,\n          selected =
_props.selected,\n          label = _props.label,\n          buttonStyle = _props.buttonStyle,\n          style =
_props.style,\n          value = _props.value,\n          width = _props.width,\n          other = (0,
_objectWithoutProperties3.default)(_props, ['icon', 'index', 'onActive', 'onClick', 'selected', 'label', 'buttonStyle',
'style', 'value', 'width']);\n      var styles = getStyles(this.props, this.context);\n      var iconElement = void 0;\n\n      if
(icon && _react2.default.isValidElement(icon))
 {\n        iconElement = _react2.default.cloneElement(icon, {\n          style: {\n            fontSize: 24,\n            color:
icon.props && icon.props.style && icon.props.style.color ? icon.props.style.color : styles.root.color,\n
marginBottom: label ? 5 : 0\n          }\n        });\n      }\n\n      var rippleOpacity = 0.3;\n      var rippleColor =
this.context.muiTheme.tabs.selectedTextColor;\n      return
_react2.default.createElement(_EnhancedButton2.default, (0, _extends3.default)({}, other, {\n        style: (0,
_simpleAssign2.default)(styles.root, style),\n        focusRippleColor: rippleColor,\n        touchRippleColor:
rippleColor,\n        focusRippleOpacity: rippleOpacity,\n        touchRippleOpacity: rippleOpacity,\n        onClick:
this.handleClick\n      }), _react2.default.createElement('div', {\n        style: (0,
_simpleAssign2.default)(styles.button, buttonStyle)\n      }, iconElement, label));\n    }\n  }]);\n  return
Tab;\n}(_react.Component);\n\nTab.muiName
 = 'Tab';\nTab.contextTypes = {\n  muiTheme: _propTypes2.default.object.isRequired\n};\nTab.propTypes =
process.env.NODE_ENV !== \"production\" ? {\n  /**\n   * Override the inline-styles of the button element.\n   */\n
buttonStyle: _propTypes2.default.object,\n\n  /**\n   * The css class name of the root element.\n   */\n  className:
_propTypes2.default.string,\n\n  /**\n   * Sets the icon of the tab, you can pass `FontIcon` or `SvgIcon` elements.\n
*/\n  icon: _propTypes2.default.node,\n\n  /**\n   * @ignore\n   */\n  index: _propTypes2.default.any,\n\n  /**\n   *
Sets the text value of the tab item to the string specified.\n   */\n  label: _propTypes2.default.node,\n\n  /**\n   *
Fired when the active tab changes by touch or tap.\n   * Use this event to specify any functionality when an active
tab changes.\n   * For example - we are using this to route to home when the third tab becomes active.\n   * This
function will always recieve the active tab as it\\'s first argument.\n
   */\n  onActive: _propTypes2.default.func,\n\n  /**\n   * @ignore\n   * This property is overriden by the Tabs
component.\n   */\n  onClick: _propTypes2.default.func,\n\n  /**\n   * @ignore\n   * Defines if the current tab is
selected or not.\n   * The Tabs component is responsible for setting this property.\n   */\n  selected:
_propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object,\n\n  /**\n   * If value prop passed to Tabs component, this value prop is also required.\n
 * It assigns a value to the tab so that it can be selected by the Tabs.\n   */\n  value: _propTypes2.default.any,\n\n
/**\n   * @ignore\n   * This property is overriden by the Tabs component.\n   */\n  width:
_propTypes2.default.string\n} : {};\nexports.default = Tab;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar
 _objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _toConsumableArray2 =
require('babel-runtime/helpers/toConsumableArray');\n\nvar _toConsumableArray3 =
_interopRequireDefault(_toConsumableArray2);\n\nvar _typeof2 = require('babel-runtime/helpers/typeof');\n\nvar
_typeof3 = _interopRequireDefault(_typeof2);\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar
_extends3 = _interopRequireDefault(_extends2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
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_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
 _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _Checkbox =
require('../Checkbox');\n\nvar _Checkbox2 = _interopRequireDefault(_Checkbox);\n\nvar _TableRowColumn =
require('./TableRowColumn');\n\nvar _TableRowColumn2 = _interopRequireDefault(_TableRowColumn);\n\nvar
_ClickAwayListener = require('../internal/ClickAwayListener');\n\nvar _ClickAwayListener2 =
_interopRequireDefault(_ClickAwayListener);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar TableBody = function
 (_Component) {\n  (0, _inherits3.default)(TableBody, _Component);\n\n  function TableBody() {\n    var _ref;\n\n
var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this, TableBody);\n\n    for (var _len = arguments.length,
args = Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret =
(_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = TableBody.__proto__ || (0,
_getPrototypeOf2.default)(TableBody)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n
selectedRows: []\n    }, _this.isControlled = false, _this.handleClickAway = function () {\n      if
(_this.props.deselectOnClickaway && _this.state.selectedRows.length > 0) {\n        var selectedRows = [];\n\n
_this.setState({\n          selectedRows: selectedRows\n        });\n\n        if (_this.props.onRowSelection) {\n
_this.props.onRowSelection(selectedRows);\n        }\n      }\n    }, _this.onRowClick =
 function (event, rowNumber) {\n      event.stopPropagation();\n\n      if (_this.props.selectable) {\n        // Prevent
text selection while selecting rows.\n        if (window.getSelection().rangeCount > 0 &&
window.getSelection().getRangeAt(0).getClientRects.length > 0) {\n
window.getSelection().removeAllRanges();\n        }\n\n        _this.processRowSelection(event, rowNumber);\n
}\n    }, _this.onCellClick = function (event, rowNumber, columnNumber) {\n      event.stopPropagation();\n\n      if
(_this.props.onCellClick) {\n        _this.props.onCellClick(rowNumber, _this.getColumnId(columnNumber),
event);\n      }\n    }, _this.onCellHover = function (event, rowNumber, columnNumber) {\n      if
(_this.props.onCellHover) {\n        _this.props.onCellHover(rowNumber, _this.getColumnId(columnNumber),
event);\n      }\n\n      _this.onRowHover(event, rowNumber);\n    }, _this.onCellHoverExit = function (event,
rowNumber, columnNumber) {\n      if (_this.props.onCellHoverExit)
 {\n        _this.props.onCellHoverExit(rowNumber, _this.getColumnId(columnNumber), event);\n      }\n\n
_this.onRowHoverExit(event, rowNumber);\n    }, _this.onRowHover = function (event, rowNumber) {\n      if
(_this.props.onRowHover) {\n        _this.props.onRowHover(rowNumber);\n      }\n    }, _this.onRowHoverExit =
function (event, rowNumber) {\n      if (_this.props.onRowHoverExit) {\n
_this.props.onRowHoverExit(rowNumber);\n      }\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this,
_ret);\n  }\n\n  (0, _createClass3.default)(TableBody, [{\n    key: 'componentWillMount',\n    value: function
componentWillMount() {\n      if (this.props.preScanRows) {\n        this.setState({\n          selectedRows:
this.getSelectedRows(this.props)\n        });\n      }\n    }\n  }, {\n    key: 'componentDidMount',\n    value: function
componentDidMount() {\n      if (!this.props.preScanRows) {\n        this.setState({\n          // eslint-disable-line
react/no-did-mount-set-state\n
          selectedRows: this.getSelectedRows(this.props)\n        });\n      }\n    }\n  }, {\n    key:
'componentWillReceiveProps',\n    value: function componentWillReceiveProps(nextProps) {\n      if
(this.props.allRowsSelected !== nextProps.allRowsSelected) {\n        if (!nextProps.allRowsSelected) {\n
this.setState({\n            selectedRows: []\n          });\n          return;\n        }\n      }\n\n      this.setState({\n
selectedRows: this.getSelectedRows(nextProps)\n      });\n    }\n  }, {\n    key: 'createRows',\n    value: function
createRows() {\n      var _this2 = this;\n\n      var numChildren =
_react2.default.Children.count(this.props.children);\n\n      var rowNumber = 0;\n      var handlers = {\n
onCellClick: this.onCellClick,\n        onCellHover: this.onCellHover,\n        onCellHoverExit:
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this.onCellHoverExit,\n        onRowHover: this.onRowHover,\n        onRowHoverExit: this.onRowHoverExit,\n
onRowClick: this.onRowClick\n
      };\n      return _react2.default.Children.map(this.props.children, function (child) {\n        if
(_react2.default.isValidElement(child)) {\n          var props = {\n            hoverable: _this2.props.showRowHover,\n
      selected: _this2.isRowSelected(rowNumber),\n            striped: _this2.props.stripedRows && rowNumber % 2
=== 0,\n            rowNumber: rowNumber++\n          };\n\n          if (rowNumber === numChildren) {\n
props.displayBorder = false;\n          }\n\n          var children = [_this2.createRowCheckboxColumn(props)];\n\n
_react2.default.Children.forEach(child.props.children, function (child) {\n            children.push(child);\n
});\n\n          return _react2.default.cloneElement(child, (0, _extends3.default)({}, props, handlers), children);\n
}\n      });\n    }\n  }, {\n    key: 'createRowCheckboxColumn',\n    value: function
createRowCheckboxColumn(rowProps) {\n      if (!this.props.displayRowCheckbox)
 {\n        return null;\n      }\n\n      var name = rowProps.rowNumber + '-cb';\n      var disabled =
!this.props.selectable;\n      return _react2.default.createElement(_TableRowColumn2.default, {\n        key: name,\n
    columnNumber: 0,\n        style: {\n          width: 24,\n          cursor: disabled ? 'default' : 'inherit'\n        }\n      },
_react2.default.createElement(_Checkbox2.default, {\n        name: name,\n        value: 'selected',\n        disabled:
disabled,\n        checked: rowProps.selected\n      }));\n    }\n  }, {\n    key: 'getSelectedRows',\n    value: function
getSelectedRows(props) {\n      var _this3 = this;\n\n      var selectedRows = [];\n\n      if (props.selectable) {\n
var index = 0;\n\n        _react2.default.Children.forEach(props.children, function (child) {\n          if
(_react2.default.isValidElement(child)) {\n            if (child.props.selected !== undefined) {\n
_this3.isControlled = true;\n            }\n\n
        if (child.props.selected && (selectedRows.length === 0 || props.multiSelectable)) {\n
selectedRows.push(index);\n            }\n\n            index++;\n          }\n        });\n      }\n\n      return selectedRows;\n
}\n  }, {\n    key: 'isRowSelected',\n    value: function isRowSelected(rowNumber) {\n      var _this4 = this;\n\n      if
(this.props.allRowsSelected) {\n        return true;\n      }\n\n      return this.state.selectedRows.some(function (row)
{\n        if ((typeof row === 'undefined' ? 'undefined' : (0, _typeof3.default)(row)) === 'object') {\n          if
(_this4.isValueInRange(rowNumber, row)) {\n            return true;\n          }\n        } else {\n          if (row ===
rowNumber) {\n            return true;\n          }\n        }\n\n        return false;\n      });\n    }\n  }, {\n    key:
'isValueInRange',\n    value: function isValueInRange(value, range) {\n      if (!range) return false;\n\n      if
(range.start <= value && value <= range.end
 || range.end <= value && value <= range.start) {\n        return true;\n      }\n\n      return false;\n    }\n  }, {\n    key:
'processRowSelection',\n    value: function processRowSelection(event, rowNumber) {\n      var selectedRows =
[].concat((0, _toConsumableArray3.default)(this.state.selectedRows));\n\n      if (event.shiftKey &&
this.props.multiSelectable && selectedRows.length > 0) {\n        var lastIndex = selectedRows.length - 1;\n        var
lastSelection = selectedRows[lastIndex];\n\n        if ((typeof lastSelection === 'undefined' ? 'undefined' : (0,
_typeof3.default)(lastSelection)) === 'object') {\n          lastSelection.end = rowNumber;\n        } else {\n
selectedRows.splice(lastIndex, 1, {\n            start: lastSelection,\n            end: rowNumber\n          });\n        }\n      }
else if ((event.ctrlKey && !event.metaKey || event.metaKey && !event.ctrlKey) && this.props.multiSelectable) {\n
     var idx = selectedRows.indexOf(rowNumber);\n\n
        if (idx < 0) {\n          var foundRange = false;\n\n          for (var i = 0; i < selectedRows.length; i++) {\n
var range = selectedRows[i];\n            if ((typeof range === 'undefined' ? 'undefined' : (0, _typeof3.default)(range))
!== 'object') continue;\n\n            if (this.isValueInRange(rowNumber, range)) {\n              var _selectedRows;\n\n
        foundRange = true;\n              var values = this.splitRange(range, rowNumber);\n\n              (_selectedRows =
selectedRows).splice.apply(_selectedRows, [i, 1].concat((0, _toConsumableArray3.default)(values)));\n            }\n
     }\n\n          if (!foundRange) selectedRows.push(rowNumber);\n        } else {\n          selectedRows.splice(idx,
1);\n        }\n      } else {\n        if (selectedRows.length === 1 && selectedRows[0] === rowNumber) {\n
selectedRows = [];\n        } else {\n          selectedRows = [rowNumber];\n        }\n      }\n\n      if (!this.isControlled)
{\n
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this.setState({\n selectedRows: selectedRows\n });\n }\n\n if (this.props.onRowSelection) {\n this.props.onRowSelection(this.flattenRanges(selectedRows));\n }\n }\n }, {\n key: 'splitRange',\n value: function splitRange(range, splitPoint) {\n var splitValues = [];\n var startOffset = range.start - splitPoint;\n var endOffset = range.end - splitPoint; // Process start half\n\n splitValues.push.apply(splitValues, (0, _toConsumableArray3.default)(this.genRangeOfValues(splitPoint, startOffset))); // Process end half\n\n splitValues.push.apply(splitValues, (0, _toConsumableArray3.default)(this.genRangeOfValues(splitPoint, endOffset)));\n return splitValues;\n }\n }, {\n key: 'genRangeOfValues',\n value: function genRangeOfValues(start, offset) {\n var values = [];\n var dir = offset > 0 ? -1 : 1; // This forces offset to approach 0 from either direction.\n\n while (offset !== 0) {\n values.push(start + offset);\n offset += dir;\n }\n\n return values;\n }\n }, {\n key: 'flattenRanges',\n value: function flattenRanges(selectedRows) {\n var _this5 = this;\n\n return selectedRows.reduce(function (rows, row) {\n if ((typeof row === 'undefined' ? 'undefined' : (0, _typeof3.default)(row)) === 'object') {\n var values = _this5.genRangeOfValues(row.end, row.start - row.end);\n\n rows.push.apply(rows, [row.end].concat((0, _toConsumableArray3.default)(values)));\n } else {\n rows.push(row);\n }\n\n return rows;\n }, []).sort();\n }\n }, {\n key: 'getColumnId',\n value: function getColumnId(columnNumber) {\n return columnNumber - 1;\n }\n }, {\n key: 'render',\n value: function render() {\n var _props = this.props,\n style = _props.style,\n allRowsSelected = _props.allRowsSelected,\n multiSelectable = _props.multiSelectable,\n onCellClick = _props.onCellClick,\n onCellHover = _props.onCellHover,\n onCellHoverExit = _props.onCellHoverExit,\n onRowHover = _props.onRowHover,\n onRowHoverExit = _props.onRowHoverExit,\n onRowSelection = _props.onRowSelection,\n selectable = _props.selectable,\n deselectOnClickaway = _props.deselectOnClickaway,\n showRowHover = _props.showRowHover,\n stripedRows = _props.stripedRows,\n displayRowCheckbox = _props.displayRowCheckbox,\n preScanRows = _props.preScanRows,\n other = (0, _objectWithoutProperties3.default)(_props, ['style', 'allRowsSelected', 'multiSelectable', 'onCellClick', 'onCellHover', 'onCellHoverExit', 'onRowHover', 'onRowHoverExit', 'onRowSelection', 'selectable', 'deselectOnClickaway', 'showRowHover', 'stripedRows', 'displayRowCheckbox', 'preScanRows']);\n var prepareStyles = this.context.muiTheme.prepareStyles;\n return _react2.default.createElement(_ClickAwayListener2.default, {\n onClickAway: this.handleClickAway\n }, _react2.default.createElement('tbody', (0, _extends3.default)({\n style: prepareStyles((0, _simpleAssign2.default)({}, style))\n }, other), this.createRows()));\n }\n }]);\n return TableBody;\n}(_react.Component);\n\nTableBody.muiName = 'TableBody';\nTableBody.defaultProps = {\n allRowsSelected: false,\n deselectOnClickaway: true,\n displayRowCheckbox: true,\n multiSelectable: false,\n preScanRows: true,\n selectable: true,\n style: {}\n};\nTableBody.contextTypes = {\n muiTheme: _propTypes2.default.object.isRequired\n};\nTableBody.propTypes = process.env.NODE_ENV !== \"production\" ? {\n /**\n * @ignore\n * Set to true to indicate that all rows should be selected.\n */\n allRowsSelected: _propTypes2.default.bool,\n\n /**\n * Children passed to table body.\n */\n children: _propTypes2.default.node,\n\n /**\n * The css class name of the root element.\n */\n className: _propTypes2.default.string,\n\n /**\n * Controls whether or not to deselect all selected\n * rows after clicking outside the table.\n */\n deselectOnClickaway: _propTypes2.default.bool,\n\n /**\n * Controls the display of the row checkbox. The default value is true.\n */\n displayRowCheckbox: _propTypes2.default.bool,\n\n /**\n * @ignore\n * If true, multiple table rows can be selected.\n * CTRL/CMD+Click and SHIFT+Click are valid actions.\n * The default value is false.\n */\n multiSelectable: _propTypes2.default.bool,\n\n /**\n * @ignore\n * Callback function for when a cell is clicked.\n */\n onCellClick: _propTypes2.default.func,\n\n /**\n * @ignore\n * Called when a table cell is hovered. rowNumber\n * is the row number of the hovered row and columnId\n * is the column number or the column key of the cell.\n */\n onCellHover: _propTypes2.default.func,\n\n /**\n * @ignore\n * Called when a table cell is no longer hovered.\n   * rowNumber is the row number of the row and columnId\n   * is the column number or the column key of the cell.\n   */\n onCellHoverExit: _propTypes2.default.func,\n\n /**\n   * @ignore\n   * Called when a table row is hovered.\n   * rowNumber is the row number of the hovered row.\n   */\n onRowHover: _propTypes2.default.func,\n\n /**\n   * @ignore\n   * Called when a table row is no longer\n   * hovered. rowNumber is the row number of the row\n   * that is no longer hovered.\n   */\n onRowHoverExit: _propTypes2.default.func,\n\n /**\n   * @ignore\n   * Called when a row is selected. selectedRows is an\n   * array of all row selections. If all rows have been selected,\n   * the string \"all\" will be returned instead to indicate that\n   * all rows have been selected.\n   */\n onRowSelection: _propTypes2.default.func,\n\n /**\n   * Controls whether or not the rows are pre-scanned to determine\n   * initial state. If your table has a large number of rows and\n   * you are experiencing a delay in rendering, turn off this property.\n   */\n preScanRows: _propTypes2.default.bool,\n\n /**\n   * @ignore\n   * If true, table rows can be selected. If multiple\n   * row selection is desired, enable multiSelectable.\n   * The default value is true.\n   */\n selectable: _propTypes2.default.bool,\n\n /**\n   * If true, table rows will be highlighted when\n   * the cursor is hovering over the row. The default\n   * value is false.\n   */\n showRowHover: _propTypes2.default.bool,\n\n /**\n   * If true, every other table row starting\n   * with the first row will be striped. The default value is false.\n   */\n stripedRows: _propTypes2.default.bool,\n\n /**\n   * Override the inline-styles of the root element.\n   */\n style: _propTypes2.default.object\n} : {};\nexports.default = TableBody;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar _toConsumableArray2 = require('babel-runtime/helpers/toConsumableArray');\n\nvar _toConsumableArray3 = _interopRequireDefault(_toConsumableArray2);\n\nvar _objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _TableRowColumn = require('./TableRowColumn');\n\nvar _TableRowColumn2 = _interopRequireDefault(_TableRowColumn);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nfunction getStyles(props, context) {\n var tableFooter = context.muiTheme.tableFooter;\n return {\n   cell: {\n   borderTop: '1px solid ' + tableFooter.borderColor,\n   verticalAlign: 'bottom',\n   padding: 20,\n   textAlign: 'left',\n   whiteSpace: 'nowrap'\n   }\n };\n}\n\nvar TableFooter = function (_Component) {\n (0, _inherits3.default)(TableFooter, _Component);\n\n function TableFooter() {\n   (0, _classCallCheck3.default)(this, TableFooter);\n   return (0, _possibleConstructorReturn3.default)(this, (TableFooter.__proto__ || (0, _getPrototypeOf2.default)(TableFooter)).apply(this, arguments));\n }\n\n (0, _createClass3.default)(TableFooter, [{\n   key: 'render',\n   value: function render() {\n   var _props = this.props,\n   adjustForCheckbox = _props.adjustForCheckbox,\n   children = _props.children,\n   className = _props.className,\n   style = _props.style,\n   other = (0, _objectWithoutProperties3.default)(_props, ['adjustForCheckbox', 'children', 'className', 'style']);\n   var prepareStyles = this.context.muiTheme.prepareStyles;\n   var styles = getStyles(this.props, this.context);\n\n   var footerRows = _react2.default.Children.map(children, function (child, rowNumber) {\n   var newChildProps = {\n   displayBorder: false,\n

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 key: 'f-' + rowNumber,\n          rowNumber: rowNumber,\n          style: (0, _simpleAssign2.default)({}, styles.cell,
child.props.style)\n        };\n        var newDescendants = void 0;\n\n        if (adjustForCheckbox) {\n
newDescendants = [_react2.default.createElement(_TableRowColumn2.default, {\n            key: 'fpcb' +
rowNumber,\n            style: {\n              width: 24\n            }\n          })].concat((0,
_toConsumableArray3.default)(_react2.default.Children.toArray(child.props.children)));\n        } else {\n
newDescendants = child.props.children;\n        }\n\n        return _react2.default.cloneElement(child, newChildProps,
newDescendants);\n      });\n\n      return _react2.default.createElement('tfoot', (0, _extends3.default)({\n
className: className,\n        style: prepareStyles((0, _simpleAssign2.default)({}, style))\n      }, other),
footerRows);\n    }\n  }]);\n  return TableFooter;\n}(_react.Component);\n\nTableFooter.muiName =
'TableFooter';\nTableFooter.defaultProps
 = {\n  adjustForCheckbox: true,\n  style: {}\n};\nTableFooter.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nTableFooter.propTypes = process.env.NODE_ENV !== \"production\"
? {\n  /**\n   * @ignore\n   * Controls whether or not header rows should be adjusted\n   * for a checkbox column. If
the select all checkbox is true,\n   * this property will not influence the number of columns.\n   * This is mainly
useful for \"super header\" rows so that\n   * the checkbox column does not create an offset that needs\n   * to be
accounted for manually.\n   */\n  adjustForCheckbox: _propTypes2.default.bool,\n\n  /**\n   * Children passed to
table footer.\n   */\n  children: _propTypes2.default.node,\n\n  /**\n   * The css class name of the root element.\n
*/\n  className: _propTypes2.default.string,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n
style: _propTypes2.default.object\n} : {};\nexports.default = TableFooter;","'use
 strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar
 _propTypes = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _Checkbox
= require('../Checkbox');\n\nvar _Checkbox2 = _interopRequireDefault(_Checkbox);\n\nvar _TableHeaderColumn =
require('./TableHeaderColumn');\n\nvar _TableHeaderColumn2 =
_interopRequireDefault(_TableHeaderColumn);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var tableHeader =
context.muiTheme.tableHeader;\n  return {\n    root: {\n      borderBottom: '1px solid ' + tableHeader.borderColor\n
}\n  };\n}\n\nvar TableHeader = function (_Component) {\n  (0, _inherits3.default)(TableHeader, _Component);\n\n
function TableHeader() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this,
TableHeader);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n
args[_key]
 = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref
= TableHeader.__proto__ || (0, _getPrototypeOf2.default)(TableHeader)).call.apply(_ref, [this].concat(args))),
_this), _this.handleCheckAll = function (event, checked) {\n      if (_this.props.onSelectAll) {\n
_this.props.onSelectAll(checked);\n      }\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n
}\n\n  (0, _createClass3.default)(TableHeader, [{\n    key: 'createSuperHeaderRows',\n    value: function
createSuperHeaderRows() {\n      var numChildren = _react2.default.Children.count(this.props.children);\n\n      if
(numChildren === 1) return undefined;\n      var superHeaders = [];\n\n      for (var index = 0; index < numChildren
- 1; index++) {\n        var child = this.props.children[index];\n        if (!_react2.default.isValidElement(child))
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continue;\n   var props = {\n   key: 'sh' + index,\n   rowNumber: index\n
        };\n   superHeaders.push(this.createSuperHeaderRow(child, props));\n   }\n\n   if (superHeaders.length)
return superHeaders;\n   }\n }, {\n   key: 'createSuperHeaderRow',\n   value: function
createSuperHeaderRow(child, props) {\n   var children = [];\n\n   if (this.props.adjustForCheckbox) {\n
children.push(this.getCheckboxPlaceholder(props));\n   }\n\n
_react2.default.Children.forEach(child.props.children, function (child) {\n   children.push(child);\n   });\n\n
return _react2.default.cloneElement(child, props, children);\n   }\n }, {\n   key: 'createBaseHeaderRow',\n   value:
function createBaseHeaderRow() {\n   var childrenArray =
_react2.default.Children.toArray(this.props.children);\n\n   var numChildren = childrenArray.length;\n\n   if
(numChildren < 1) {\n   return null;\n   }\n\n   var child = childrenArray[numChildren - 1];\n   var props =
{\n   key: 'h' + numChildren,\n   rowNumber:
numChildren\n   };\n   var children = [this.getSelectAllCheckboxColumn(props)];\n\n
_react2.default.Children.forEach(child.props.children, function (child) {\n   children.push(child);\n   });\n\n
return _react2.default.cloneElement(child, props, children);\n   }\n }, {\n   key: 'getCheckboxPlaceholder',\n
value: function getCheckboxPlaceholder(props) {\n   if (!this.props.adjustForCheckbox) return null;\n   var
disabled = !this.props.enableSelectAll;\n   var key = 'hpcb' + props.rowNumber;\n   return
_react2.default.createElement(_TableHeaderColumn2.default, {\n   key: key,\n   style: {\n   width: 24,\n
     cursor: disabled ? 'default' : 'inherit'\n   }\n   });\n   }\n }, {\n   key: 'getSelectAllCheckboxColumn',\n
value: function getSelectAllCheckboxColumn(props) {\n   if (!this.props.displaySelectAll) return
this.getCheckboxPlaceholder(props);\n   var disabled = !this.props.enableSelectAll;\n\n
  var checkbox = _react2.default.createElement(_Checkbox2.default, {\n   key: 'selectallcb',\n   name:
'selectallcb',\n   value: 'selected',\n   disabled: disabled,\n   checked: this.props.selectAllSelected,\n
onCheck: this.handleCheckAll\n   });\n\n   var key = 'hpcb' + props.rowNumber;\n   return
_react2.default.createElement(_TableHeaderColumn2.default, {\n   key: key,\n   style: {\n   width: 24,\n
     cursor: disabled ? 'not-allowed' : 'inherit'\n   }\n   }, checkbox);\n   }\n }, {\n   key: 'render',\n   value:
function render() {\n   var _props = this.props,\n   className = _props.className,\n   style =
_props.style;\n   var prepareStyles = this.context.muiTheme.prepareStyles;\n   var styles = getStyles(this.props,
this.context);\n   var superHeaderRows = this.createSuperHeaderRows();\n   var baseHeaderRow =
this.createBaseHeaderRow();\n   return _react2.default.createElement('thead',
 {\n   className: className,\n   style: prepareStyles((0, _simpleAssign2.default)(styles.root, style))\n   },
superHeaderRows, baseHeaderRow);\n   }\n }]);\n return
TableHeader;\n}(_react.Component);\n\nTableHeader.muiName = 'TableHeader';\nTableHeader.defaultProps = {\n
adjustForCheckbox: true,\n displaySelectAll: true,\n enableSelectAll: true,\n selectAllSelected:
false\n};\nTableHeader.contextTypes = {\n muiTheme:
_propTypes2.default.object.isRequired\n};\nTableHeader.propTypes = process.env.NODE_ENV !== \"production\"
? {\n /**\n   * Controls whether or not header rows should be\n   * adjusted for a checkbox column. If the select
all\n   * checkbox is true, this property will not influence\n   * the number of columns. This is mainly useful for\n   *
\"super header\" rows so that the checkbox column\n   * does not create an offset that needs to be accounted\n   * for
manually.\n   */\n adjustForCheckbox: _propTypes2.default.bool,\n\n /**\n   * Children
 passed to table header.\n   */\n children: _propTypes2.default.node,\n\n /**\n   * The css class name of the root
element.\n   */\n className: _propTypes2.default.string,\n\n /**\n   * Controls whether or not the select all
checkbox is displayed.\n   */\n displaySelectAll: _propTypes2.default.bool,\n\n /**\n   * If set to true, the select all
button will be interactable.\n   * If set to false, the button will not be interactable.\n   * To hide the checkbox, set
displaySelectAll to false.\n   */\n enableSelectAll: _propTypes2.default.bool,\n\n /**\n   * @ignore\n   * Callback
when select all has been checked.\n   */\n onSelectAll: _propTypes2.default.func,\n\n /**\n   * @ignore\n   * True
when select all has been checked.\n   */\n selectAllSelected: _propTypes2.default.bool,\n\n /**\n   * Override the
inline-styles of the root element.\n   */\n style: _propTypes2.default.object\n} : {};\nexports.default =
TableHeader;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\",

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{\n  value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar
 _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar
_simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule
? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context, state) {\n  var tableRow =
context.muiTheme.tableRow;\n  var cellBgColor = 'inherit';\n\n  if (props.hovered || state.hovered) {\n    cellBgColor
= tableRow.hoverColor;\n  } else if (props.selected) {\n    cellBgColor = tableRow.selectedColor;\n  } else if
(props.striped) {\n    cellBgColor = tableRow.stripeColor;\n  }\n\n  return {\n    root: {\n      borderBottom:
props.displayBorder && '1px solid ' + tableRow.borderColor,\n      color: tableRow.textColor,\n      height:
tableRow.height\n
  },\n    cell: {\n      backgroundColor: cellBgColor\n    }\n  };\n}\n\nvar TableRow = function (_Component) {\n  (0,
_inherits3.default)(TableRow, _Component);\n\n  function TableRow() {\n    var _ref;\n\n    var _temp, _this,
_ret;\n\n    (0, _classCallCheck3.default)(this, TableRow);\n\n    for (var _len = arguments.length, args =
Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp
= (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = TableRow.__proto__ || (0,
_getPrototypeOf2.default)(TableRow)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      hovered:
false\n    }, _this.onCellClick = function (event, columnIndex) {\n      if (_this.props.selectable &&
_this.props.onCellClick) {\n        _this.props.onCellClick(event, _this.props.rowNumber, columnIndex);\n      }\n\n
 event.ctrlKey = true;\n\n      _this.onRowClick(event);\n    }, _this.onCellHover = function (event, columnIndex)
 {\n      if (_this.props.hoverable) {\n        _this.setState({\n          hovered: true\n        });\n\n        if
(_this.props.onCellHover) _this.props.onCellHover(event, _this.props.rowNumber, columnIndex);\n\n
_this.onRowHover(event);\n      }\n    }, _this.onCellHoverExit = function (event, columnIndex) {\n      if
(_this.props.hoverable) {\n        _this.setState({\n          hovered: false\n        });\n\n        if
(_this.props.onCellHoverExit) _this.props.onCellHoverExit(event, _this.props.rowNumber, columnIndex);\n\n
_this.onRowHoverExit(event);\n      }\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n
(0, _createClass3.default)(TableRow, [{\n    key: 'onRowClick',\n    value: function onRowClick(event) {\n      if
(this.props.selectable && this.props.onRowClick) {\n        this.props.onRowClick(event, this.props.rowNumber);\n
  }\n    }\n  }, {\n    key: 'onRowHover',\n    value: function onRowHover(event) {\n      if (this.props.onRowHover)
 {\n        this.props.onRowHover(event, this.props.rowNumber);\n      }\n    }\n  }, {\n    key: 'onRowHoverExit',\n
value: function onRowHoverExit(event) {\n      if (this.props.onRowHoverExit) {\n
this.props.onRowHoverExit(event, this.props.rowNumber);\n      }\n    }\n  }, {\n    key: 'render',\n    value: function
render() {\n      var _this2 = this;\n\n      var _props = this.props,\n          className = _props.className,\n
displayBorder = _props.displayBorder,\n          hoverable = _props.hoverable,\n          hovered = _props.hovered,\n
     onCellClick = _props.onCellClick,\n          onCellHover = _props.onCellHover,\n          onCellHoverExit =
_props.onCellHoverExit,\n          onRowClick = _props.onRowClick,\n          onRowHover =
_props.onRowHover,\n          onRowHoverExit = _props.onRowHoverExit,\n          rowNumber =
_props.rowNumber,\n          selectable = _props.selectable,\n          selected = _props.selected,\n
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striped = _props.striped,\n style = _props.style,\n other = (0, _objectWithoutProperties3.default)(_props, ['className', 'displayBorder', 'hoverable', 'hovered', 'onCellClick', 'onCellHover', 'onCellHoverExit', 'onRowClick', 'onRowHover', 'onRowHoverExit', 'rowNumber', 'selectable', 'selected', 'striped', 'style']);\n var prepareStyles = this.context.muiTheme.prepareStyles;\n var styles = getStyles(this.props, this.context, this.state);\n\n var rowColumns = _react2.default.Children.map(this.props.children, function (child, columnNumber) {\n if (_react2.default.isValidElement(child)) {\n return _react2.default.cloneElement(child, {\n columnNumber: columnNumber,\n hoverable: _this2.props.hoverable,\n key: _this2.props.rowNumber + '-' + columnNumber,\n onClick: _this2.onCellClick,\n onHover: _this2.onCellHover,\n onHoverExit: _this2.onCellHoverExit,\n style: (0, _simpleAssign2.default)({}, styles.cell, child.props.style)\n });\n }\n });\n\n return _react2.default.createElement('tr', (0, _extends3.default)({\n className: className,\n style: prepareStyles((0, _simpleAssign2.default)(styles.root, style))\n }, other), rowColumns);\n }\n }]);\n return TableRow;\n}(_react.Component);\n\nTableRow.defaultProps = {\n displayBorder: true,\n hoverable: false,\n hovered: false,\n selectable: true,\n striped: false\n};\nTableRow.contextTypes = {\n muiTheme: _propTypes2.default.object.isRequired\n};\nTableRow.propTypes = process.env.NODE_ENV !== \"production\" ? {\n /**\n * Children passed to table row.\n */\n children: _propTypes2.default.node,\n\n /**\n * The css class name of the root element.\n */\n className: _propTypes2.default.string,\n\n /**\n * If true, row border will be displayed for the row.\n * If false, no border will be drawn.\n */\n displayBorder: _propTypes2.default.bool,\n\n /**\n * Controls whether or not the row responds to hover events.\n */\n hoverable: _propTypes2.default.bool,\n\n /**\n * Controls whether or not the row should be rendered as being\n * hovered. This property is evaluated in addition to this.state.hovered\n * and can be used to synchronize the hovered state with some other\n * external events.\n */\n hovered: _propTypes2.default.bool,\n\n /**\n * @ignore\n * Called when a row cell is clicked.\n * rowNumber is the row number and columnId is\n * the column number or the column key.\n */\n onCellClick: _propTypes2.default.func,\n\n /**\n * @ignore\n * Called when a table cell is hovered.\n * rowNumber is the row number of the hovered row\n * and columnId is the column number or the column key of the cell.\n */\n onCellHover: _propTypes2.default.func,\n\n /**\n * @ignore\n * Called when a table cell is no longer hovered.\n * rowNumber is the row number of the row and columnId\n * is the column number or the column key of the cell.\n */\n onCellHoverExit: _propTypes2.default.func,\n\n /**\n * @ignore\n * Called when row is clicked.\n */\n onRowClick: _propTypes2.default.func,\n\n /**\n * @ignore\n * Called when a table row is hovered.\n * rowNumber is the row number of the hovered row.\n */\n onRowHover: _propTypes2.default.func,\n\n /**\n * @ignore\n * Called when a table row is no longer hovered.\n * rowNumber is the row number of the row that is no longer hovered.\n */\n onRowHoverExit: _propTypes2.default.func,\n\n /**\n * Number to identify the row. This property is\n * automatically populated when used with the TableBody component.\n */\n rowNumber: _propTypes2.default.number,\n\n /**\n * If true, table rows can be selected. If multiple row\n * selection is desired, enable multiSelectable.\n * The default value is true.\n */\n selectable: _propTypes2.default.bool,\n\n /**\n * Indicates that a particular row is selected.\n * This property can be used to programmatically select rows.\n */\n selected: _propTypes2.default.bool,\n\n /**\n * Indicates whether or not the row is striped.\n */\n striped: _propTypes2.default.bool,\n\n /**\n * Override the inline-styles of the root element.\n */\n style: _propTypes2.default.object\n} : {};\nexports.default = TableRow;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\nexports.default = undefined;\n\nvar _TimePicker = require('./TimePicker');\n\nvar _TimePicker2 = _interopRequireDefault(_TimePicker);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n default: obj\n };\n}\n\nexports.default = _TimePicker2.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\nexports.default = undefined;\n\nvar _Toggle = require('./Toggle');\n\nvar _Toggle2 = _interopRequireDefault(_Toggle);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n default: obj\n };\n}\n\nexports.default = _Toggle2.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _extends2 = require('babel-

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runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar
 _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n
return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var
firstChild = props.firstChild,\n      lastChild = props.lastChild;\n  var _context$muiTheme = context.muiTheme,\n
baseTheme = _context$muiTheme.baseTheme,\n      button = _context$muiTheme.button,\n      toolbar =
_context$muiTheme.toolbar;\n  var marginHorizontal = baseTheme.spacing.desktopGutter;\n  var marginVertical
 = (toolbar.height - button.height) / 2;\n  var styles = {\n    root: {\n      position: 'relative',\n      marginLeft:
firstChild ? -marginHorizontal : undefined,\n      marginRight: lastChild ? -marginHorizontal : undefined,\n
display: 'flex',\n      justifyContent: 'space-between',\n      alignItems: 'center'\n    },\n    dropDownMenu: {\n      root:
{\n        color: toolbar.color,\n        // removes hover color change, we want to keep it\n        marginRight:
baseTheme.spacing.desktopGutter,\n        flex: 1,\n        whiteSpace: 'nowrap'\n      },\n      controlBg: {\n
backgroundColor: toolbar.menuHoverColor,\n        borderRadius: 0\n      },\n      underline: {\n        display: 'none'\n
   }\n    },\n    button: {\n      margin: marginVertical + 'px ' + marginHorizontal + 'px',\n      position: 'relative'\n
},\n    icon: {\n      root: {\n        cursor: 'pointer',\n        lineHeight: toolbar.height + 'px',\n        paddingLeft:
baseTheme.spacing.desktopGutter\n
      }\n    },\n    span: {\n      color: toolbar.iconColor,\n      lineHeight: toolbar.height + 'px'\n    }\n  };\n  return
styles;\n}\n\nvar ToolbarGroup = function (_Component) {\n  (0, _inherits3.default)(ToolbarGroup,
_Component);\n\n  function ToolbarGroup() {\n    (0, _classCallCheck3.default)(this, ToolbarGroup);\n    return (0,
_possibleConstructorReturn3.default)(this, (ToolbarGroup.__proto__ || (0,
_getPrototypeOf2.default)(ToolbarGroup)).apply(this, arguments));\n  }\n\n  (0,
_createClass3.default)(ToolbarGroup, [{\n    key: 'handleMouseLeaveFontIcon',\n    value: function
handleMouseLeaveFontIcon(style) {\n      return function (event) {\n        event.target.style.zIndex = 'auto';\n
event.target.style.color = style.root.color;\n      };\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n
var _this2 = this;\n\n      var _props = this.props,\n          children = _props.children,\n          className =
_props.className,\n          firstChild
 = _props.firstChild,\n          lastChild = _props.lastChild,\n          style = _props.style,\n          other = (0,
_objectWithoutProperties3.default)(_props, ['children', 'className', 'firstChild', 'lastChild', 'style']);\n      var
prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n\n
var newChildren = _react2.default.Children.map(children, function (currentChild) {\n        if (!currentChild) {\n
return null;\n        }\n\n        if (!currentChild.type) {\n          return currentChild;\n        }\n\n        switch
(currentChild.type.muiName) {\n          case 'DropDownMenu':\n            return
_react2.default.cloneElement(currentChild, {\n              style: (0, _simpleAssign2.default)({},
styles.dropDownMenu.root, currentChild.props.style),\n              underlineStyle: styles.dropDownMenu.underline\n
         });\n\n          case 'RaisedButton':\n          case 'FlatButton':\n            return
 _react2.default.cloneElement(currentChild, {\n              style: (0, _simpleAssign2.default)({}, styles.button,
currentChild.props.style)\n            });\n\n          case 'FontIcon':\n            return
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_react2.default.cloneElement(currentChild, {\n              style: (0, _simpleAssign2.default)({}, styles.icon.root,
currentChild.props.style),\n              color: currentChild.props.color || _this2.context.muiTheme.toolbar.iconColor,\n
          hoverColor: currentChild.props.hoverColor || _this2.context.muiTheme.toolbar.hoverColor\n            });\n\n
    case 'ToolbarSeparator':\n          case 'ToolbarTitle':\n            return _react2.default.cloneElement(currentChild,
{\n              style: (0, _simpleAssign2.default)({}, styles.span, currentChild.props.style)\n            });\n\n
default:\n            return currentChild;\n        }\n      }, this);\n\n      return _react2.default.createElement('div', (0,
_extends3.default)({}, other, {\n        className:
 className,\n        style: prepareStyles((0, _simpleAssign2.default)({}, styles.root, style))\n      }), newChildren);\n
}\n  }]);\n  return ToolbarGroup;\n}(_react.Component);\n\nToolbarGroup.defaultProps = {\n  firstChild: false,\n
lastChild: false\n};\nToolbarGroup.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nToolbarGroup.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  /**\n   * Can be any node or number of nodes.\n   */\n  children: _propTypes2.default.node,\n\n
/**\n   * The css class name of the root element.\n   */\n  className: _propTypes2.default.string,\n\n  /**\n   * Set
this to true for if the `ToolbarGroup` is the first child of `Toolbar`\n   * to prevent setting the left gap.\n   */\n
firstChild: _propTypes2.default.bool,\n\n  /**\n   * Set this to true for if the `ToolbarGroup` is the last child of
`Toolbar`\n   * to prevent setting the right gap.\n   */\n  lastChild: _propTypes2.default.bool,\n\n  /**\n   * Override
the inline-styles
of the root element.\n   */\n  style: _propTypes2.default.object\n} : {};\nexports.default = ToolbarGroup;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n
return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var
_context$muiTheme = context.muiTheme,\n      baseTheme = _context$muiTheme.baseTheme,\n      toolbar =
_context$muiTheme.toolbar;\n  return {\n    root: {\n      backgroundColor: toolbar.separatorColor,\n      display:
'block',\n      height: baseTheme.spacing.desktopGutterMore,\n      marginLeft: baseTheme.spacing.desktopGutter,\n
      width: 1\n    }\n  };\n}\n\nvar ToolbarSeparator = function (_Component) {\n  (0,
_inherits3.default)(ToolbarSeparator, _Component);\n\n  function ToolbarSeparator() {\n    (0,
_classCallCheck3.default)(this, ToolbarSeparator);\n    return (0, _possibleConstructorReturn3.default)(this,
(ToolbarSeparator.__proto__ || (0, _getPrototypeOf2.default)(ToolbarSeparator)).apply(this, arguments));\n  }\n\n
(0, _createClass3.default)(ToolbarSeparator, [{\n    key: 'render',\n    value: function render() {\n      var _props =
this.props,\n          className = _props.className,\n          style = _props.style,\n          other = (0,
_objectWithoutProperties3.default)(_props, ['className', 'style']);\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n      return
_react2.default.createElement('span', (0, _extends3.default)({}, other, {\n        className: className,\n        style:
prepareStyles((0, _simpleAssign2.default)({},
```

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 styles.root, style))\n      }));\n    }\n  }]);\n  return
ToolbarSeparator;\n}(_react.Component);\n\nToolbarSeparator.muiName =
'ToolbarSeparator';\nToolbarSeparator.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nToolbarSeparator.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  /**\n   * The css class name of the root element.\n   */\n  className:
_propTypes2.default.string,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object\n} : {};\nexports.default = ToolbarSeparator;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar
 _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nfunction
 _interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction
getStyles(props, context) {\n  var _context$muiTheme = context.muiTheme,\n      baseTheme =
_context$muiTheme.baseTheme,\n      toolbar = _context$muiTheme.toolbar;\n  return {\n    root: {\n
paddingRight: baseTheme.spacing.desktopGutterLess,\n      lineHeight: toolbar.height + 'px',\n      fontSize:
toolbar.titleFontSize,\n      fontFamily: baseTheme.fontFamily,\n      position: 'relative',\n      textOverflow:
'ellipsis',\n      whiteSpace: 'nowrap',\n      overflow: 'hidden'\n    }\n  };\n}\n\nvar ToolbarTitle = function
(_Component) {\n  (0, _inherits3.default)(ToolbarTitle, _Component);\n\n  function ToolbarTitle() {\n    (0,
_classCallCheck3.default)(this, ToolbarTitle);\n    return (0, _possibleConstructorReturn3.default)(this,
(ToolbarTitle.__proto__ || (0, _getPrototypeOf2.default)(ToolbarTitle)).apply(this, arguments));\n  }\n\n  (0,
_createClass3.default)(ToolbarTitle,
 [{\n    key: 'render',\n    value: function render() {\n      var _props = this.props,\n          style = _props.style,\n
text = _props.text,\n          other = (0, _objectWithoutProperties3.default)(_props, ['style', 'text']);\n      var
prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n
return _react2.default.createElement('span', (0, _extends3.default)({\n        style: prepareStyles((0,
_simpleAssign2.default)({}, styles.root, style))\n      }, other), text);\n    }\n  }]);\n  return
ToolbarTitle;\n}(_react.Component);\n\nToolbarTitle.muiName = 'ToolbarTitle';\nToolbarTitle.contextTypes = {\n
muiTheme: _propTypes2.default.object.isRequired\n};\nToolbarTitle.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  /**\n   * The css class name of the root element.\n   */\n  className:
_propTypes2.default.string,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
 _propTypes2.default.object,\n\n  /**\n   * The text to be displayed.\n   */\n  text: _propTypes2.default.node\n} :
{};\nexports.default = ToolbarTitle;","'use strict';\n\nif (process.env.NODE_ENV === 'production') {\n
module.exports = require('./cjs/react-is.production.min.js');\n} else {\n  module.exports = require('./cjs/react-
is.development.js');\n}","import freeGlobal from './_freeGlobal.js';\n\n/** Detect free variable `exports`. */\nvar
freeExports = typeof exports == 'object' && exports && !exports.nodeType && exports;\n\n/** Detect free variable
`module`. */\nvar freeModule = freeExports && typeof module == 'object' && module && !module.nodeType
&& module;\n\n/** Detect the popular CommonJS extension `module.exports`. */\nvar moduleExports =
```

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freeModule && freeModule.exports === freeExports;\n/** Detect free variable `process` from Node.js. */\n\nvar
freeProcess = moduleExports && freeGlobal.process;\n/** Used to access faster Node.js helpers. */\n\nvar nodeUtil
= function
 () {\n  try {\n    // Use `util.types` for Node.js 10+.\n    var types = freeModule && freeModule.require &&
freeModule.require('util').types;\n\n    if (types) {\n      return types;\n    } // Legacy `process.binding('util')` for
Node.js < 10.\n\n\n    return freeProcess && freeProcess.binding && freeProcess.binding('util');\n  } catch (e)
{}\n}();\n\nexport default nodeUtil;","'use strict';\n/**\n * Copyright 2015, Yahoo! Inc.\n * Copyrights licensed
under the New BSD License. See the accompanying LICENSE file for terms.\n */\n\nvar REACT_STATICS = {\n
childContextTypes: true,\n  contextTypes: true,\n  defaultProps: true,\n  displayName: true,\n  getDefaultProps:
true,\n  getDerivedStateFromProps: true,\n  mixins: true,\n  propTypes: true,\n  type: true\n};\nvar
KNOWN_STATICS = {\n  name: true,\n  length: true,\n  prototype: true,\n  caller: true,\n  callee: true,\n  arguments:
true,\n  arity: true\n};\nvar defineProperty = Object.defineProperty;\nvar getOwnPropertyNames =
Object.getOwnPropertyNames;\nvar
 getOwnPropertySymbols = Object.getOwnPropertySymbols;\nvar getOwnPropertyDescriptor =
Object.getOwnPropertyDescriptor;\nvar getPrototypeOf = Object.getPrototypeOf;\nvar objectPrototype =
getPrototypeOf && getPrototypeOf(Object);\n\nfunction hoistNonReactStatics(targetComponent,
sourceComponent, blacklist) {\n  if (typeof sourceComponent !== 'string') {\n    // don't hoist over string (html)
components\n    if (objectPrototype) {\n      var inheritedComponent = getPrototypeOf(sourceComponent);\n\n      if
(inheritedComponent && inheritedComponent !== objectPrototype) {\n
hoistNonReactStatics(targetComponent, inheritedComponent, blacklist);\n      }\n    }\n\n    var keys =
getOwnPropertyNames(sourceComponent);\n\n    if (getOwnPropertySymbols) {\n      keys =
keys.concat(getOwnPropertySymbols(sourceComponent));\n    }\n\n    for (var i = 0; i < keys.length; ++i) {\n      var
key = keys[i];\n\n      if (!REACT_STATICS[key] && !KNOWN_STATICS[key] && (!blacklist
 || !blacklist[key])) {\n        var descriptor = getOwnPropertyDescriptor(sourceComponent, key);\n\n        try {\n
// Avoid failures from read-only properties\n          defineProperty(targetComponent, key, descriptor);\n        } catch
(e) {}\n      }\n    }\n\n    return targetComponent;\n  }\n\n  return targetComponent;\n}\n\nmodule.exports =
hoistNonReactStatics;","!function (e, t) {\n  \"object\" == typeof exports && \"object\" == typeof module ?
module.exports = t(require(\"react\")) : \"function\" == typeof define && define.amd ? define([\"react\"], t) :
\"object\" == typeof exports ? exports.reactJsonView = t(require(\"react\")) : e.reactJsonView = t(e.React);\n}(this,
function (e) {\n  return function (e) {\n    var t = {};\n\n    function n(a) {\n      if (t[a]) return t[a].exports;\n      var r
= t[a] = {\n        i: a,\n        l: !1,\n        exports: {}\n      };\n      return e[a].call(r.exports, r, r.exports, n), r.l = !0,
r.exports;\n    }\n\n    return n.m
 = e, n.c = t, n.d = function (e, t, a) {\n      n.o(e, t) || Object.defineProperty(e, t, {\n        enumerable: !0,\n        get:
a\n      });\n    }, n.r = function (e) {\n      \"undefined\" != typeof Symbol && Symbol.toStringTag &&
Object.defineProperty(e, Symbol.toStringTag, {\n        value: \"Module\"\n      }), Object.defineProperty(e,
\"__esModule\", {\n        value: !0\n      });\n    }, n.t = function (e, t) {\n      if (1 & t && (e = n(e)), 8 & t) return e;\n
    if (4 & t && \"object\" == typeof e && e && e.__esModule) return e;\n      var a = Object.create(null);\n      if
(n.r(a), Object.defineProperty(a, \"default\", {\n        enumerable: !0,\n        value: e\n      }), 2 & t && \"string\" !=
typeof e) for (var r in e) {\n        n.d(a, r, function (t) {\n          return e[t];\n        }.bind(null, r));\n      }\n      return
a;\n    }, n.n = function (e) {\n      var t = e && e.__esModule ? function () {\n        return e.default;\n      } : function
() {\n
    return e;\n      };\n      return n.d(t, \"a\", t), t;\n    }, n.o = function (e, t) {\n      return
Object.prototype.hasOwnProperty.call(e, t);\n    }, n.p = \"\", n(n.s = 48);\n  }([function (t, n) {\n    t.exports = e;\n
}, function (e, t) {\n    var n = e.exports = {\n      version: \"2.6.12\"\n    };\n    \"number\" == typeof __e && (__e =
n);\n  }, function (e, t, n) {\n    var a = n(26)(\"wks\"),\n        r = n(17),\n        o = n(3).Symbol,\n        i = \"function\"
== typeof o;\n    (e.exports = function (e) {\n      return a[e] || (a[e] = i && o[e] || (i ? o : r)(\"Symbol.\" + e));\n
}).store = a;\n  }, function (e, t) {\n    var n = e.exports = \"undefined\" != typeof window && window.Math ==
Math ? window : \"undefined\" != typeof self && self.Math == Math ? self : Function(\"return this\")();\n
```

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\"number\" == typeof __g && (__g = n);\n  }, function (e, t, n) {\n    e.exports = !n(8)(function () {\n      return 7 !=
Object.defineProperty({}, \"a\", {\n        get:
 function get() {\n          return 7;\n        }\n      }).a;\n    });\n  }, function (e, t) {\n    var n = {}.hasOwnProperty;\n\n
 e.exports = function (e, t) {\n      return n.call(e, t);\n    };\n  }, function (e, t, n) {\n    var a = n(7),\n        r = n(16);\n
 e.exports = n(4) ? function (e, t, n) {\n      return a.f(e, t, r(1, n));\n    } : function (e, t, n) {\n      return e[t] = n, e;\n
};\n  }, function (e, t, n) {\n    var a = n(10),\n        r = n(35),\n        o = n(23),\n        i = Object.defineProperty;\n    t.f
= n(4) ? Object.defineProperty : function (e, t, n) {\n      if (a(e), t = o(t, !0), a(n), r) try {\n        return i(e, t, n);\n
} catch (e) {}\n      if (\"get\" in n || \"set\" in n) throw TypeError(\"Accessors not supported!\");\n      return \"value\"
in n && (e[t] = n.value), e;\n    };\n  }, function (e, t) {\n    e.exports = function (e) {\n      try {\n        return !!e();\n
  } catch (e) {\n        return !0;\n      }\n    };\n  }, function
 (e, t, n) {\n    var a = n(40),\n        r = n(22);\n\n    e.exports = function (e) {\n      return a(r(e));\n    };\n  }, function
(e, t, n) {\n    var a = n(11);\n\n    e.exports = function (e) {\n      if (!a(e)) throw TypeError(e + \" is not an
object!\");\n      return e;\n    };\n  }, function (e, t) {\n    e.exports = function (e) {\n      return \"object\" == typeof e
? null !== e : \"function\" == typeof e;\n    };\n  }, function (e, t) {\n    e.exports = {};\n  }, function (e, t, n) {\n    var
a = n(39),\n        r = n(27);\n\n    e.exports = Object.keys || function (e) {\n      return a(e, r);\n    };\n  }, function (e, t)
{\n    e.exports = !0;\n  }, function (e, t, n) {\n    var a = n(3),\n        r = n(1),\n        o = n(53),\n        i = n(6),\n        s
= n(5),\n        c = function c(e, t, n) {\n      var l,\n          u,\n          f,\n          p = e & c.F,\n          d = e & c.G,\n
b = e & c.S,\n          h = e & c.P,\n          v = e & c.B,\n
   m = e & c.W,\n          y = d ? r : r[t] || (r[t] = {}),\n          g = y.prototype,\n          E = d ? a : b ? a[t] : (a[t] ||
{}).prototype;\n\n      for (l in d && (n = t), n) {\n        (u = !p && E && void 0 !== E[l]) && s(y, l) || (f = u ? E[l] :
n[l], y[l] = d && \"function\" != typeof E[l] ? n[l] : v && u ? o(f, a) : m && E[l] == f ? function (e) {\n          var t =
function t(_t, n, a) {\n            if (this instanceof e) {\n              switch (arguments.length) {\n                case 0:\n
      return new e();\n\n                case 1:\n                  return new e(_t);\n\n                case 2:\n                  return new
e(_t, n);\n              }\n\n              return new e(_t, n, a);\n            }\n\n            return e.apply(this, arguments);\n
};\n\n          return t.prototype = e.prototype, t;\n        }(f) : h && \"function\" == typeof f ? o(Function.call, f) : f, h
&& ((y.virtual || (y.virtual = {}))[l] = f, e & c.R && g && !g[l]
 && i(g, l, f)));\n      }\n    };\n\n    c.F = 1, c.G = 2, c.S = 4, c.P = 8, c.B = 16, c.W = 32, c.U = 64, c.R = 128,
e.exports = c;\n  }, function (e, t) {\n    e.exports = function (e, t) {\n      return {\n        enumerable: !(1 & e),\n
configurable: !(2 & e),\n        writable: !(4 & e),\n        value: t\n      };\n    };\n  }, function (e, t) {\n    var n = 0,\n
a = Math.random();\n\n    e.exports = function (e) {\n      return \"Symbol(\".concat(void 0 === e ? \"\" : e, \")_\",
(++n + a).toString(36));\n    };\n  }, function (e, t, n) {\n    var a = n(22);\n\n    e.exports = function (e) {\n      return
Object(a(e));\n    };\n  }, function (e, t) {\n    t.f = {}.propertyIsEnumerable;\n  }, function (e, t, n) {\n    \"use
strict\";\n\n    var a = n(52)(!0);\n    n(34)(String, \"String\", function (e) {\n      this._t = String(e), this._i = 0;\n    },
function () {\n      var e,\n          t = this._t,\n          n = this._i;\n      return n >= t.length ? {\n
   value: void 0,\n        done: !0\n      } : (e = a(t, n), this._i += e.length, {\n        value: e,\n        done: !1\n      });\n
});\n  }, function (e, t) {\n    var n = Math.ceil,\n        a = Math.floor;\n\n    e.exports = function (e) {\n      return
isNaN(e = +e) ? 0 : (e > 0 ? a : n)(e);\n    };\n  }, function (e, t) {\n    e.exports = function (e) {\n      if (null == e)
throw TypeError(\"Can't call method on  \" + e);\n      return e;\n    };\n  }, function (e, t, n) {\n    var a = n(11);\n\n
e.exports = function (e, t) {\n      if (!a(e)) return e;\n      var n, r;\n      if (t && \"function\" == typeof (n = e.toString)
&& !a(r = n.call(e))) return r;\n      if (\"function\" == typeof (n = e.valueOf) && !a(r = n.call(e))) return r;\n      if (!t
&& \"function\" == typeof (n = e.toString) && !a(r = n.call(e))) return r;\n      throw TypeError(\"Can't convert
object to primitive value\");\n    };\n  }, function (e, t) {\n    var n = {}.toString;\n\n    e.exports = function
 (e) {\n      return n.call(e).slice(8, -1);\n    };\n  }, function (e, t, n) {\n    var a = n(26)(\"keys\"),\n        r = n(17);\n\n
 e.exports = function (e) {\n      return a[e] || (a[e] = r(e));\n    };\n  }, function (e, t, n) {\n    var a = n(1),\n        r =
n(3),\n        o = r[\"__core-js_shared__\"] || (r[\"__core-js_shared__\"] = {});\n    (e.exports = function (e, t) {\n
return o[e] || (o[e] = void 0 !== t ? t : {});\n    })(\"versions\", []).push({\n      version: a.version,\n      mode: n(14) ?
\"pure\" : \"global\",\n      copyright: \"© 2020 Denis Pushkarev (zloirock.ru)\"\n    });\n  }, function (e, t) {\n
e.exports =
```

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\"constructor,hasOwnProperty,isPrototypeOf,propertyIsEnumerable,toLocaleString,toString,valueOf\".split(\",\");\n
}, function (e, t, n) {\n    var a = n(7).f,\n        r = n(5),\n        o = n(2)(\"toStringTag\");\n\n    e.exports = function (e,
t, n) {\n      e && !r(e = n ? e : e.prototype, o) && a(e, o, {\n        configurable: !0,\n
    value: t\n      });\n    };\n  }, function (e, t, n) {\n    n(62);\n\n    for (var a = n(3), r = n(6), o = n(12), i =
n(2)(\"toStringTag\"), s =
\"CSSRuleList,CSSStyleDeclaration,CSSValueList,ClientRectList,DOMRectList,DOMStringList,DOMTokenList,
DataTransferItemList,FileList,HTMLAllCollection,HTMLCollection,HTMLFormElement,HTMLSelectElement,M
ediaList,MimeTypeArray,NamedNodeMap,NodeList,PaintRequestList,Plugin,PluginArray,SVGLengthList,SVGNu
mberList,SVGPathSegList,SVGPointList,SVGStringList,SVGTransformList,SourceBufferList,StyleSheetList,Text
TrackCueList,TextTrackList,TouchList\".split(\",\"), c = 0; c < s.length; c++) {\n      var l = s[c],\n          u = a[l],\n
    f = u && u.prototype;\n      f && !f[i] && r(f, i, l), o[l] = o.Array;\n    }\n  }, function (e, t, n) {\n    t.f = n(2);\n  },
function (e, t, n) {\n    var a = n(3),\n        r = n(1),\n        o = n(14),\n        i = n(30),\n        s = n(7).f;\n\n    e.exports
= function (e) {\n      var t = r.Symbol || (r.Symbol
 = o ? {} : a.Symbol || {});\n      \"_\" == e.charAt(0) || e in t || s(t, e, {\n        value: i.f(e)\n      });\n    };\n  }, function
(e, t) {\n    t.f = Object.getOwnPropertySymbols;\n  }, function (e, t) {\n    e.exports = function (e, t, n) {\n      return
Math.min(Math.max(e, t), n);\n    };\n  }, function (e, t, n) {\n    \"use strict\";\n\n    var a = n(14),\n        r = n(15),\n
    o = n(37),\n        i = n(6),\n        s = n(12),\n        c = n(55),\n        l = n(28),\n        u = n(61),\n        f =
n(2)(\"iterator\"),\n        p = !([].keys && \"next\" in [].keys()),\n        d = function d() {\n      return this;\n    };\n\n
e.exports = function (e, t, n, b, h, v, m) {\n      c(n, t, b);\n\n      var y,\n          g,\n          E,\n          j = function j(e) {\n
      if (!p && e in O) return O[e];\n\n        switch (e) {\n          case \"keys\":\n          case \"values\":\n            return
function () {\n              return new n(this, e);\n
 };\n        }\n\n        return function () {\n          return new n(this, e);\n        };\n      },\n          x = t + \" Iterator\",\n
   _ = \"values\" == h,\n          k = !1,\n          O = e.prototype,\n          C = O[f] || O[\"@@iterator\"] || h && O[h],\n
     S = C || j(h),\n          w = h ? _ ? j(\"entries\") : S : void 0,\n          A = \"Array\" == t && O.entries || C;\n\n      if
(A && (E = u(A.call(new e()))) !== Object.prototype && E.next && (l(E, x, !0), a || \"function\" == typeof E[f] ||
i(E, f, d)), _ && C && \"values\" !== C.name && (k = !0, S = function S() {\n        return C.call(this);\n      }), a
&& !m || !p && !k && O[f] || i(O, f, S), s[t] = S, s[x] = d, h) if (y = {\n        values: _ ? S : j(\"values\"),\n        keys:
v ? S : j(\"keys\"),\n        entries: w\n      }, m) for (g in y) {\n        g in O || o(O, g, y[g]);\n      } else r(r.P + r.F * (p ||
k), t, y);\n      return y;\n    };\n  }, function (e, t, n) {\n    e.exports = !n(4) && !n(8)(function
 () {\n      return 7 != Object.defineProperty(n(36)(\"div\"), \"a\", {\n        get: function get() {\n          return 7;\n
}\n      }).a;\n    });\n  }, function (e, t, n) {\n    var a = n(11),\n        r = n(3).document,\n        o = a(r) &&
a(r.createElement);\n\n    e.exports = function (e) {\n      return o ? r.createElement(e) : {};\n    };\n  }, function (e, t,
n) {\n    e.exports = n(6);\n  }, function (e, t, n) {\n    var a = n(10),\n        r = n(56),\n        o = n(27),\n        i =
n(25)(\"IE_PROTO\"),\n        s = function s() {},\n        _c = function c() {\n      var e,\n          t = n(36)(\"iframe\"),\n
        a = o.length;\n\n      for (t.style.display = \"none\", n(60).appendChild(t), t.src = \"javascript:\", (e =
t.contentWindow.document).open(), e.write(\"<script>document.F=Object<\\/script>\"), e.close(), _c = e.F; a--;) {\n
     delete _c.prototype[o[a]];\n      }\n\n      return _c();\n    };\n\n    e.exports = Object.create || function
 (e, t) {\n      var n;\n      return null !== e ? (s.prototype = a(e), n = new s(), s.prototype = null, n[i] = e) : n = _c(),
void 0 === t ? n : r(n, t);\n    };\n  }, function (e, t, n) {\n    var a = n(5),\n        r = n(9),\n        o = n(57)(!1),\n        i =
n(25)(\"IE_PROTO\");\n\n    e.exports = function (e, t) {\n      var n,\n          s = r(e),\n          c = 0,\n          l = [];\n\n
  for (n in s) {\n        n != i && a(s, n) && l.push(n);\n      }\n\n      for (; t.length > c;) {\n        a(s, n = t[c++]) &&
(~o(l, n) || l.push(n));\n      }\n\n      return l;\n    };\n  }, function (e, t, n) {\n    var a = n(24);\n    e.exports =
Object(\"z\").propertyIsEnumerable(0) ? Object : function (e) {\n      return \"String\" == a(e) ? e.split(\"\") :
Object(e);\n    };\n  }, function (e, t, n) {\n    var a = n(39),\n        r = n(27).concat(\"length\", \"prototype\");\n\n    t.f
= Object.getOwnPropertyNames || function (e) {\n      return a(e, r);\n    };\n  }, function (e, t,
 n) {\n    var a = n(24),\n        r = n(2)(\"toStringTag\"),\n        o = \"Arguments\" == a(function () {\n      return
arguments;\n    }());\n\n    e.exports = function (e) {\n      var t, n, i;\n      return void 0 === e ? \"Undefined\" : null
=== e ? \"Null\" : \"string\" == typeof (n = function (e, t) {\n        try {\n          return e[t];\n        } catch (e) {}\n
```

```
}(t = Object(e), r)) ? n : o ? a(t) : \"Object\" == (i = a(t)) && \"function\" == typeof t.callee ? \"Arguments\" : i;\n
};\n  }, function (e, t) {\n    var n;\n\n    n = function () {\n      return this;\n    }();\n\n    try {\n      n = n || new
Function(\"return this\")();\n    } catch (e) {\n      \"object\" == typeof window && (n = window);\n    }\n\n
e.exports = n;\n  }, function (e, t) {\n    var n = /-?\\d+(\\.\\d+)?%?/g;\n\n    e.exports = function (e) {\n      return
e.match(n);\n    };\n  }, function (e, t, n) {\n    \"use strict\";\n\n    Object.defineProperty(t, \"__esModule\", {\n
value:
 !0\n    }), t.getBase16Theme = t.createStyling = t.invertTheme = void 0;\n\n    var a = d(n(49)),\n        r = d(n(76)),\n
      o = d(n(81)),\n        i = d(n(89)),\n        s = d(n(93)),\n        c = function (e) {\n      if (e && e.__esModule) return
e;\n      var t = {};\n      if (null != e) for (var n in e) {\n        Object.prototype.hasOwnProperty.call(e, n) && (t[n] =
e[n]);\n      }\n      return t.default = e, t;\n    }(n(94)),\n        l = d(n(132)),\n        u = d(n(133)),\n        f = d(n(138)),\n
      p = n(139);\n\n    function d(e) {\n      return e && e.__esModule ? e : {\n        default: e\n      };\n    }\n\n    var b
= c.default,\n        h = (0, i.default)(b),\n        v = (0, f.default)(u.default, p.rgb2yuv, function (e) {\n      var t,\n
n = (0, o.default)(e, 3),\n          a = n[0],\n          r = n[1],\n          i = n[2];\n      return [(t = a, t < .25 ? 1 : t < .5 ? .9 - t
: 1.1 - t), r, i];\n    }, p.yuv2rgb, l.default),\n        m = function
 m(e) {\n      return function (t) {\n        return {\n          className: [t.className,
e.className].filter(Boolean).join(\" \"),\n          style: (0, r.default)({}, t.style || {}, e.style || {})\n        };\n      };\n
},\n        y = function y(e, t) {\n      var n = (0, i.default)(t);\n\n      for (var o in e) {\n        -1 === n.indexOf(o) &&
n.push(o);\n      }\n\n      return n.reduce(function (n, o) {\n        return n[o] = function (e, t) {\n          if (void 0 ===
e) return t;\n          if (void 0 === t) return e;\n          var n = void 0 === e ? \"undefined\" : (0, a.default)(e),\n
o = void 0 === t ? \"undefined\" : (0, a.default)(t);\n\n          switch (n) {\n            case \"string\":\n              switch
(o) {\n                case \"string\":\n                  return [t, e].filter(Boolean).join(\" \");\n\n                case \"object\":\n
          return m({\n                    className: e,\n                    style: t\n
       });\n\n                case \"function\":\n                  return function (n) {\n                    for (var a = arguments.length,
r = Array(a > 1 ? a - 1 : 0), o = 1; o < a; o++) {\n                      r[o - 1] = arguments[o];\n                    }\n\n
 return m({\n                      className: e\n                    })(t.apply(void 0, [n].concat(r)));\n                  };\n
}\n\n            case \"object\":\n              switch (o) {\n                case \"string\":\n                  return m({\n
className: t,\n                    style: e\n                  });\n\n                case \"object\":\n                  return (0, r.default)({},
t, e);\n\n                case \"function\":\n                  return function (n) {\n                    for (var a = arguments.length, r
= Array(a > 1 ? a - 1 : 0), o = 1; o < a; o++) {\n                      r[o - 1] = arguments[o];\n                    }\n\n
     return m({\n                      style: e\n                    })(t.apply(void 0, [n].concat(r)));\n                  };\n              }\n\n
        case \"function\":\n              switch (o) {\n                case \"string\":\n                  return function (n) {\n
   for (var a = arguments.length, r = Array(a > 1 ? a - 1 : 0), o = 1; o < a; o++) {\n                      r[o - 1] =
arguments[o];\n                    }\n\n                    return e.apply(void 0, [m(n)({\n                      className: t\n
  })].concat(r));\n                  };\n\n                case \"object\":\n                  return function (n) {\n                    for (var a
= arguments.length, r = Array(a > 1 ? a - 1 : 0), o = 1; o < a; o++) {\n                      r[o - 1] = arguments[o];\n
    }\n\n                    return e.apply(void 0, [m(n)({\n                      style: t\n                    })].concat(r));\n
};\n\n
              case \"function\":\n                  return function (n) {\n                    for (var a = arguments.length, r =
Array(a > 1 ? a - 1 : 0), o = 1; o < a; o++) {\n                      r[o - 1] = arguments[o];\n                    }\n\n
return e.apply(void 0, [t.apply(void 0, [n].concat(r))].concat(r));\n                  };\n              }\n          }\n        }(e[o],
t[o]), n;\n      }, {});\n    },\n        g = function g(e, t) {\n      for (var n = arguments.length, o = Array(n > 2 ? n - 2 :
0), s = 2; s < n; s++) {\n        o[s - 2] = arguments[s];\n      }\n\n      if (null === t) return e;\n      Array.isArray(t) || (t
= [t]);\n      var c = t.map(function (t) {\n        return e[t];\n      }).filter(Boolean),\n          l = c.reduce(function (e, t)
{\n        return \"string\" == typeof t ? e.className = [e.className, t].filter(Boolean).join(\" \") : \"object\" ===
(void 0 === t ? \"undefined\" : (0, a.default)(t)) ? e.style = (0, r.default)({},
 e.style, t) : \"function\" == typeof t && (e = (0, r.default)({}, e, t.apply(void 0, [e].concat(o)))), e;\n      }, {\n
className: \"\",\n        style: {}\n      });\n      return l.className || delete l.className, 0 === (0,
i.default)(l.style).length && delete l.style, l;\n    },\n        E = t.invertTheme = function (e) {\n      return (0,
```

```
i.default)(e).reduce(function (t, n) {\n        return t[n] = /^base/.test(n) ? v(e[n]) : \"scheme\" === n ? e[n] +
\":inverted\" : e[n], t;\n      }, {});\n    },\n        j = (t.createStyling = (0, s.default)(function (e) {\n      for (var t =
arguments.length, n = Array(t > 3 ? t - 3 : 0), a = 3; a < t; a++) {\n        n[a - 3] = arguments[a];\n      }\n\n      var o =
arguments.length > 1 && void 0 !== arguments[1] ? arguments[1] : {},\n          c = arguments.length > 2 && void 0
!== arguments[2] ? arguments[2] : {},\n          l = o.defaultBase16,\n          u = void 0 === l ? b : l,\n          f =
o.base16Themes,\n
   p = void 0 === f ? null : f,\n          d = j(c, p);\n      d && (c = (0, r.default)({}, d, c));\n      var v =
h.reduce(function (e, t) {\n        return e[t] = c[t] || u[t], e;\n      }, {}),\n          m = (0, i.default)(c).reduce(function (e,
t) {\n        return -1 === h.indexOf(t) ? (e[t] = c[t], e) : e;\n      }, {}),\n          E = e(v),\n          x = y(m, E);\n
return (0, s.default)(g, 2).apply(void 0, [x].concat(n));\n    }, 3), t.getBase16Theme = function (e, t) {\n      if (e &&
e.extend && (e = e.extend), \"string\" == typeof e) {\n        var n = e.split(\":\"),\n            a = (0, o.default)(n, 2),\n
      r = a[0],\n            i = a[1];\n        e = (t || {})[r] || c[r], \"inverted\" === i && (e = E(e));\n      }\n\n      return e &&
e.hasOwnProperty(\"base00\") ? e : void 0;\n    });\n  }, function (e, t, n) {\n    \"use strict\";\n\n    var a,\n        r =
\"object\" == typeof Reflect ? Reflect : null,\n        o = r && \"function\" == typeof r.apply ?
 r.apply : function (e, t, n) {\n      return Function.prototype.apply.call(e, t, n);\n    };\n    a = r && \"function\" ==
typeof r.ownKeys ? r.ownKeys : Object.getOwnPropertySymbols ? function (e) {\n      return
Object.getOwnPropertyNames(e).concat(Object.getOwnPropertySymbols(e));\n    } : function (e) {\n      return
Object.getOwnPropertyNames(e);\n    };\n\n    var i = Number.isNaN || function (e) {\n      return e != e;\n    };\n\n
function s() {\n      s.init.call(this);\n    }\n\n    e.exports = s, e.exports.once = function (e, t) {\n      return new
Promise(function (n, a) {\n        function r() {\n          void 0 !== o && e.removeListener(\"error\", o),
n([].slice.call(arguments));\n        }\n\n        var o;\n        \"error\" !== t && (o = function o(n) {\n
e.removeListener(t, r), a(n);\n        }, e.once(\"error\", o)), e.once(t, r);\n      });\n    }, s.EventEmitter = s,
s.prototype._events = void 0, s.prototype._eventsCount = 0, s.prototype._maxListeners =
 void 0;\n    var c = 10;\n\n    function l(e) {\n      if (\"function\" != typeof e) throw new TypeError('The \"listener\"
argument must be of type Function. Received type ' + typeof e);\n    }\n\n    function u(e) {\n      return void 0 ===
e._maxListeners ? s.defaultMaxListeners : e._maxListeners;\n    }\n\n    function f(e, t, n, a) {\n      var r, o, i, s;\n
if (l(n), void 0 === (o = e._events) ? (o = e._events = Object.create(null), e._eventsCount = 0) : (void 0 !==
o.newListener && (e.emit(\"newListener\", t, n.listener ? n.listener : n), o = e._events), i = o[t]), void 0 === i) i =
o[t] = n, ++e._eventsCount;else if (\"function\" == typeof i ? i = o[t] = a ? [n, i] : [i, n] : a ? i.unshift(n) : i.push(n), (r
= u(e)) > 0 && i.length > r && !i.warned) {\n        i.warned = !0;\n        var c = new Error(\"Possible EventEmitter
memory leak detected. \" + i.length + \" \" + String(t) + \" listeners added. Use emitter.setMaxListeners() to increase
limit\");\n        c.name = \"MaxListenersExceededWarning\",
 c.emitter = e, c.type = t, c.count = i.length, s = c, console && console.warn && console.warn(s);\n      }\n      return
e;\n    }\n\n    function p() {\n      if (!this.fired) return this.target.removeListener(this.type, this.wrapFn), this.fired =
!0, 0 === arguments.length ? this.listener.call(this.target) : this.listener.apply(this.target, arguments);\n    }\n\n
function d(e, t, n) {\n      var a = {\n        fired: !1,\n        wrapFn: void 0,\n        target: e,\n        type: t,\n        listener:
n\n      },\n          r = p.bind(a);\n      return r.listener = n, a.wrapFn = r, r;\n    }\n\n    function b(e, t, n) {\n      var a =
e._events;\n      if (void 0 === a) return [];\n      var r = a[t];\n      return void 0 === r ? [] : \"function\" == typeof r ?
n ? [r.listener || r] : [r] : n ? function (e) {\n        for (var t = new Array(e.length), n = 0; n < t.length; ++n) {\n
t[n] = e[n].listener || e[n];\n        }\n\n        return t;\n
      }(r) : v(r, r.length);\n    }\n\n    function h(e) {\n      var t = this._events;\n\n      if (void 0 !== t) {\n        var n =
t[e];\n        if (\"function\" == typeof n) return 1;\n        if (void 0 !== n) return n.length;\n      }\n\n      return 0;\n
}\n\n    function v(e, t) {\n      for (var n = new Array(t), a = 0; a < t; ++a) {\n        n[a] = e[a];\n      }\n\n      return
n;\n    }\n\n    Object.defineProperty(s, \"defaultMaxListeners\", {\n      enumerable: !0,\n      get: function get() {\n
   return c;\n      },\n      set: function set(e) {\n        if (\"number\" != typeof e || e < 0 || i(e)) throw new
RangeError('The value of \"defaultMaxListeners\" is out of range. It must be a non-negative number. Received ' + e
+ \".\");\n        c = e;\n      }\n    }), s.init = function () {\n      void 0 !== this._events && this._events !==
Object.getPrototypeOf(this)._events || (this._events = Object.create(null), this._eventsCount = 0), this._maxListeners
```

```
= this._maxListeners
 || void 0;\n    }, s.prototype.setMaxListeners = function (e) {\n      if (\"number\" != typeof e || e < 0 || i(e)) throw
new RangeError('The value of \"n\" is out of range. It must be a non-negative number. Received ' + e + \".\");\n
return this._maxListeners = e, this;\n    }, s.prototype.getMaxListeners = function () {\n      return u(this);\n    },
s.prototype.emit = function (e) {\n      for (var t = [], n = 1; n < arguments.length; n++) {\n
t.push(arguments[n]);\n      }\n\n      var a = \"error\" === e,\n          r = this._events;\n      if (void 0 !== r) a = a &&
void 0 === r.error;else if (!a) return !1;\n\n      if (a) {\n        var i;\n        if (t.length > 0 && (i = t[0]), i instanceof
Error) throw i;\n        var s = new Error(\"Unhandled error.\" + (i ? \" (\" + i.message + \")\" : \"\"));\n        throw
s.context = i, s;\n      }\n\n      var c = r[e];\n      if (void 0 === c) return !1;\n      if (\"function\" == typeof c) o(c, this,
t);else
 {\n        var l = c.length,\n            u = v(c, l);\n\n        for (n = 0; n < l; ++n) {\n          o(u[n], this, t);\n        }\n      }\n
    return !0;\n    }, s.prototype.addListener = function (e, t) {\n      return f(this, e, t, !1);\n    }, s.prototype.on =
s.prototype.addListener, s.prototype.prependListener = function (e, t) {\n      return f(this, e, t, !0);\n    },
s.prototype.once = function (e, t) {\n      return l(t), this.on(e, d(this, e, t)), this;\n    },
s.prototype.prependOnceListener = function (e, t) {\n      return l(t), this.prependListener(e, d(this, e, t)), this;\n    },
s.prototype.removeListener = function (e, t) {\n      var n, a, r, o, i;\n      if (l(t), void 0 === (a = this._events)) return
this;\n      if (void 0 === (n = a[e])) return this;\n      if (n === t || n.listener === t) 0 == --this._eventsCount ?
this._events = Object.create(null) : (delete a[e], a.removeListener && this.emit(\"removeListener\", e, n.listener ||
t));else if (\"function\"
 != typeof n) {\n        for (r = -1, o = n.length - 1; o >= 0; o--) {\n          if (n[o] === t || n[o].listener === t) {\n
i = n[o].listener, r = o;\n            break;\n          }\n        }\n\n        if (r < 0) return this;\n        0 === r ? n.shift() :
function (e, t) {\n          for (; t + 1 < e.length; t++) {\n            e[t] = e[t + 1];\n          }\n\n          e.pop();\n        }(n, r),
1 === n.length && (a[e] = n[0]), void 0 !== a.removeListener && this.emit(\"removeListener\", e, i || t);\n      }\n
return this;\n    }, s.prototype.off = s.prototype.removeListener, s.prototype.removeAllListeners = function (e) {\n
var t, n, a;\n      if (void 0 === (n = this._events)) return this;\n      if (void 0 === n.removeListener) return 0 ===
arguments.length ? (this._events = Object.create(null), this._eventsCount = 0) : void 0 !== n[e] && (0 == --
this._eventsCount ? this._events = Object.create(null) : delete n[e]), this;\n\n      if (0 === arguments.length)
 {\n        var r,\n            o = Object.keys(n);\n\n        for (a = 0; a < o.length; ++a) {\n          \"removeListener\" !== (r
= o[a]) && this.removeAllListeners(r);\n        }\n\n        return this.removeAllListeners(\"removeListener\"),
this._events = Object.create(null), this._eventsCount = 0, this;\n      }\n\n      if (\"function\" == typeof (t = n[e]))
this.removeListener(e, t);else if (void 0 !== t) for (a = t.length - 1; a >= 0; a--) {\n        this.removeListener(e, t[a]);\n
    }\n      return this;\n    }, s.prototype.listeners = function (e) {\n      return b(this, e, !0);\n    },
s.prototype.rawListeners = function (e) {\n      return b(this, e, !1);\n    }, s.listenerCount = function (e, t) {\n
return \"function\" == typeof e.listenerCount ? e.listenerCount(t) : h.call(e, t);\n    }, s.prototype.listenerCount = h,
s.prototype.eventNames = function () {\n      return this._eventsCount > 0 ? a(this._events) : [];\n    };\n  }, function
(e, t, n) {\n    e.exports.Dispatcher
 = n(140);\n  }, function (e, t, n) {\n    e.exports = n(142);\n  }, function (e, t, n) {\n    \"use strict\";\n\n
t.__esModule = !0;\n    var a = i(n(50)),\n        r = i(n(65)),\n        o = \"function\" == typeof r.default && \"symbol\"
== typeof a.default ? function (e) {\n      return typeof e;\n    } : function (e) {\n      return e && \"function\" ==
typeof r.default && e.constructor === r.default && e !== r.default.prototype ? \"symbol\" : typeof e;\n    };\n\n
function i(e) {\n      return e && e.__esModule ? e : {\n        default: e\n      };\n    }\n\n    t.default = \"function\" ==
typeof r.default && \"symbol\" === o(a.default) ? function (e) {\n      return void 0 === e ? \"undefined\" : o(e);\n
} : function (e) {\n      return e && \"function\" == typeof r.default && e.constructor === r.default && e !==
r.default.prototype ? \"symbol\" : void 0 === e ? \"undefined\" : o(e);\n    };\n  }, function (e, t, n) {\n    e.exports =
{\n      default: n(51),\n
      __esModule: !0\n    };\n  }, function (e, t, n) {\n    n(20), n(29), e.exports = n(30).f(\"iterator\");\n  }, function (e,
t, n) {\n    var a = n(21),\n        r = n(22);\n\n    e.exports = function (e) {\n      return function (t, n) {\n        var o,\n
       i,\n            s = String(r(t)),\n            c = a(n),\n            l = s.length;\n        return c < 0 || c >= l ? e ? \"\" : void 0 :
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(o = s.charCodeAt(c)) < 55296 || o > 56319 || c + 1 === l || (i = s.charCodeAt(c + 1)) < 56320 || i > 57343 ? e ?
s.charAt(c) : o : e ? s.slice(c, c + 2) : i - 56320 + (o - 55296 << 10) + 65536;\n      };\n    };\n  }, function (e, t, n) {\n
var a = n(54);\n\n    e.exports = function (e, t, n) {\n      if (a(e), void 0 === t) return e;\n\n      switch (n) {\n        case
1:\n          return function (n) {\n            return e.call(t, n);\n          };\n\n        case 2:\n          return function (n, a) {\n
         return e.call(t, n, a);\n          };\n\n        case 3:\n
          return function (n, a, r) {\n            return e.call(t, n, a, r);\n          };\n      }\n\n      return function () {\n
return e.apply(t, arguments);\n      };\n    };\n  }, function (e, t) {\n    e.exports = function (e) {\n      if (\"function\" !=
typeof e) throw TypeError(e + \" is not a function!\");\n      return e;\n    };\n  }, function (e, t, n) {\n    \"use
strict\";\n\n    var a = n(38),\n        r = n(16),\n        o = n(28),\n        i = {};\n    n(6)(i, n(2)(\"iterator\"), function ()
{\n      return this;\n    }), e.exports = function (e, t, n) {\n      e.prototype = a(i, {\n        next: r(1, n)\n      }), o(e, t +
\" Iterator\");\n    };\n  }, function (e, t, n) {\n    var a = n(7),\n        r = n(10),\n        o = n(13);\n    e.exports = n(4) ?
Object.defineProperties : function (e, t) {\n      r(e);\n\n      for (var n, i = o(t), s = i.length, c = 0; s > c;) {\n        a.f(e,
n = i[c++], t[n]);\n      }\n\n      return e;\n    };\n  }, function (e,
 t, n) {\n    var a = n(9),\n        r = n(58),\n        o = n(59);\n\n    e.exports = function (e) {\n      return function (t, n, i)
{\n        var s,\n            c = a(t),\n            l = r(c.length),\n            u = o(i, l);\n\n        if (e && n != n) {\n          for (; l
> u;) {\n            if ((s = c[u++]) != s) return !0;\n          }\n        } else for (; l > u; u++) {\n          if ((e || u in c) &&
c[u] === n) return e || u || 0;\n        }\n\n        return !e && -1;\n      };\n    };\n  }, function (e, t, n) {\n    var a =
n(21),\n        r = Math.min;\n\n    e.exports = function (e) {\n      return e > 0 ? r(a(e), 9007199254740991) : 0;\n
};\n  }, function (e, t, n) {\n    var a = n(21),\n        r = Math.max,\n        o = Math.min;\n\n    e.exports = function (e,
t) {\n      return (e = a(e)) < 0 ? r(e + t, 0) : o(e, t);\n    };\n  }, function (e, t, n) {\n    var a = n(3).document;\n
e.exports = a && a.documentElement;\n  }, function (e, t, n) {\n    var a
 = n(5),\n        r = n(18),\n        o = n(25)(\"IE_PROTO\"),\n        i = Object.prototype;\n\n    e.exports =
Object.getPrototypeOf || function (e) {\n      return e = r(e), a(e, o) ? e[o] : \"function\" == typeof e.constructor && e
instanceof e.constructor ? e.constructor.prototype : e instanceof Object ? i : null;\n    };\n  }, function (e, t, n) {\n
\"use strict\";\n\n    var a = n(63),\n        r = n(64),\n        o = n(12),\n        i = n(9);\n    e.exports = n(34)(Array,
\"Array\", function (e, t) {\n      this._t = i(e), this._i = 0, this._k = t;\n    }, function () {\n      var e = this._t,\n          t
= this._k,\n          n = this._i++;\n      return !e || n >= e.length ? (this._t = void 0, r(1)) : r(0, \"keys\" == t ? n :
\"values\" == t ? e[n] : [n, e[n]]);\n    }, \"values\"), o.Arguments = o.Array, a(\"keys\"), a(\"values\"),
a(\"entries\");\n  }, function (e, t) {\n    e.exports = function () {};\n  }, function (e, t) {\n    e.exports = function (e, t)
{\n      return
 {\n        value: t,\n        done: !!e\n      };\n    };\n  }, function (e, t, n) {\n    e.exports = {\n      default: n(66),\n
__esModule: !0\n    };\n  }, function (e, t, n) {\n    n(67), n(73), n(74), n(75), e.exports = n(1).Symbol;\n  }, function
(e, t, n) {\n    \"use strict\";\n\n    var a = n(3),\n        r = n(5),\n        o = n(4),\n        i = n(15),\n        s = n(37),\n
c = n(68).KEY,\n        l = n(8),\n        u = n(26),\n        f = n(28),\n        p = n(17),\n        d = n(2),\n        b = n(30),\n
    h = n(31),\n        v = n(69),\n        m = n(70),\n        y = n(10),\n        g = n(11),\n        E = n(18),\n        j = n(9),\n
   x = n(23),\n        _ = n(16),\n        k = n(38),\n        O = n(71),\n        C = n(72),\n        S = n(32),\n        w = n(7),\n
    A = n(13),\n        M = C.f,\n        P = w.f,\n        F = O.f,\n        _D = a.Symbol,\n        I = a.JSON,\n        R = I &&
I.stringify,\n        L = d(\"_hidden\"),\n
   B = d(\"toPrimitive\"),\n        N = {}.propertyIsEnumerable,\n        z = u(\"symbol-registry\"),\n        T =
u(\"symbols\"),\n        q = u(\"op-symbols\"),\n        V = Object.prototype,\n        K = \"function\" == typeof _D &&
!!S.f,\n        W = a.QObject,\n        H = !W || !W.prototype || !W.prototype.findChild,\n        U = o && l(function ()
{\n      return 7 != k(P({}, \"a\", {\n        get: function get() {\n          return P(this, \"a\", {\n            value: 7\n
}).a;\n        }\n      })).a;\n    }) ? function (e, t, n) {\n      var a = M(V, t);\n      a && delete V[t], P(e, t, n), a && e
!== V && P(V, t, a);\n    } : P,\n        G = function G(e) {\n      var t = T[e] = k(_D.prototype);\n      return t._k = e,
t;\n    },\n        J = K && \"symbol\" == typeof _D.iterator ? function (e) {\n      return \"symbol\" == typeof e;\n    } :
function (e) {\n      return e instanceof _D;\n    },\n        Y = function Y(e, t, n) {\n      return e === V && Y(q, t, n),
 y(e), t = x(t, !0), y(n), r(T, t) ? (n.enumerable ? (r(e, L) && e[L][t] && (e[L][t] = !1), n = k(n, {\n        enumerable:
_(0, !1)\n      })) : (r(e, L) || P(e, L, _(1, {})), e[L][t] = !0), U(e, t, n)) : P(e, t, n);\n    },\n        $ = function $(e, t) {\n
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 y(e);\n\n      for (var n, a = v(t = j(t)), r = 0, o = a.length; o > r;) {\n        Y(e, n = a[r++], t[n]);\n      }\n\n      return
e;\n    },\n        Q = function Q(e) {\n      var t = N.call(this, e = x(e, !0));\n      return !(this === V && r(T, e) &&
!r(q, e)) && (!(t || !r(this, e) || !r(T, e) || r(this, L) && this[L][e]) || t);\n    },\n        Z = function Z(e, t) {\n      if (e =
j(e), t = x(t, !0), e !== V || !r(T, t) || r(q, t)) {\n        var n = M(e, t);\n        return !n || !r(T, t) || r(e, L) && e[L][t] ||
(n.enumerable = !0), n;\n      }\n    },\n        X = function X(e) {\n      for (var t, n = F(j(e)), a = [], o = 0; n.length >
o;) {\n        r(T, t = n[o++]) || t == L || t == c || a.push(t);\n      }\n\n
     return a;\n    },\n        ee = function ee(e) {\n      for (var t, n = e === V, a = F(n ? q : j(e)), o = [], i = 0; a.length >
i;) {\n        !r(T, t = a[i++]) || n && !r(V, t) || o.push(T[t]);\n      }\n\n      return o;\n    };\n\n    K || (s((_D = function
D() {\n      if (this instanceof _D) throw TypeError(\"Symbol is not a constructor!\");\n\n      var e =
p(arguments.length > 0 ? arguments[0] : void 0),\n          t = function t(n) {\n        this === V && t.call(q, n), r(this,
L) && r(this[L], e) && (this[L][e] = !1), U(this, e, _(1, n));\n      };\n\n      return o && H && U(V, e, {\n
configurable: !0,\n        set: t\n      }), G(e);\n    }).prototype, \"toString\", function () {\n      return this._k;\n    }), C.f
= Z, w.f = Y, n(41).f = O.f = X, n(19).f = Q, S.f = ee, o && !n(14) && s(V, \"propertyIsEnumerable\", Q, !0), b.f =
function (e) {\n      return G(d(e));\n    }), i(i.G + i.W + i.F * !K, {\n      Symbol: _D\n    });\n\n    for (var te =
\"hasInstance,isConcatSpreadable,iterator,match,replace,search,species,split,toPrimitive,toStringTag,unscopables\".s
plit(\",\"),
 ne = 0; te.length > ne;) {\n      d(te[ne++]);\n    }\n\n    for (var ae = A(d.store), re = 0; ae.length > re;) {\n
h(ae[re++]);\n    }\n\n    i(i.S + i.F * !K, \"Symbol\", {\n      for: function _for(e) {\n        return r(z, e += \"\") ? z[e] :
z[e] = _D(e);\n      },\n      keyFor: function keyFor(e) {\n        if (!J(e)) throw TypeError(e + \" is not a
symbol!\");\n\n        for (var t in z) {\n          if (z[t] === e) return t;\n        }\n      },\n      useSetter: function
useSetter() {\n        H = !0;\n      },\n      useSimple: function useSimple() {\n        H = !1;\n      }\n    }), i(i.S + i.F *
!K, \"Object\", {\n      create: function create(e, t) {\n        return void 0 === t ? k(e) : $(k(e), t);\n      },\n
defineProperty: Y,\n      defineProperties: $,\n      getOwnPropertyDescriptor: Z,\n      getOwnPropertyNames: X,\n
 getOwnPropertySymbols:
 ee\n    });\n    var oe = l(function () {\n      S.f(1);\n    });\n    i(i.S + i.F * oe, \"Object\", {\n
getOwnPropertySymbols: function getOwnPropertySymbols(e) {\n        return S.f(E(e));\n      }\n    }), I && i(i.S +
i.F * (!K || l(function () {\n      var e = _D();\n\n      return \"[null]\" != R([e]) || \"{}\" != R({\n        a: e\n      }) ||
\"{}\" != R(Object(e));\n    })), \"JSON\", {\n      stringify: function stringify(e) {\n        for (var t, n, a = [e], r = 1;
arguments.length > r;) {\n          a.push(arguments[r++]);\n        }\n\n        if (n = t = a[1], (g(t) || void 0 !== e) &&
!J(e)) return m(t) || (t = function t(e, _t2) {\n          if (\"function\" == typeof n && (_t2 = n.call(this, e, _t2)), !J(_t2))
return _t2;\n        }), a[1] = t, R.apply(I, a);\n      }\n    }), _D.prototype[B] || n(6)(_D.prototype, B,
_D.prototype.valueOf), f(_D, \"Symbol\"), f(Math, \"Math\", !0), f(a.JSON, \"JSON\", !0);\n  }, function (e, t, n) {\n
 var a = n(17)(\"meta\"),\n
       r = n(11),\n        o = n(5),\n        i = n(7).f,\n        s = 0,\n        c = Object.isExtensible || function () {\n      return
!0;\n    },\n        l = !n(8)(function () {\n      return c(Object.preventExtensions({}));\n    }),\n        u = function u(e)
{\n      i(e, a, {\n        value: {\n          i: \"O\" + ++s,\n          w: {}\n        }\n      });\n    },\n        f = e.exports = {\n
KEY: a,\n      NEED: !1,\n      fastKey: function fastKey(e, t) {\n        if (!r(e)) return \"symbol\" == typeof e ? e :
(\"string\" == typeof e ? \"S\" : \"P\") + e;\n\n        if (!o(e, a)) {\n          if (!c(e)) return \"F\";\n          if (!t) return
\"E\";\n          u(e);\n        }\n\n        return e[a].i;\n      },\n      getWeak: function getWeak(e, t) {\n        if (!o(e, a))
{\n          if (!c(e)) return !0;\n          if (!t) return !1;\n          u(e);\n        }\n\n        return e[a].w;\n      },\n
onFreeze: function onFreeze(e) {\n        return l && f.NEED
 && c(e) && !o(e, a) && u(e), e;\n      }\n    };\n  }, function (e, t, n) {\n    var a = n(13),\n        r = n(32),\n        o =
n(19);\n\n    e.exports = function (e) {\n      var t = a(e),\n          n = r.f;\n      if (n) for (var i, s = n(e), c = o.f, l = 0;
s.length > l;) {\n        c.call(e, i = s[l++]) && t.push(i);\n      }\n      return t;\n    };\n  }, function (e, t, n) {\n    var a =
n(24);\n\n    e.exports = Array.isArray || function (e) {\n      return \"Array\" == a(e);\n    };\n  }, function (e, t, n) {\n
 var a = n(9),\n        r = n(41).f,\n        o = {}.toString,\n        i = \"object\" == typeof window && window &&
Object.getOwnPropertyNames ? Object.getOwnPropertyNames(window) : [];\n\n    e.exports.f = function (e) {\n
return i && \"[object Window]\" == o.call(e) ? function (e) {\n        try {\n          return r(e);\n        } catch (e) {\n
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  return i.slice();\n        }\n      }(e) : r(a(e));\n    };\n  }, function (e, t, n) {\n    var a = n(19),\n
        r = n(16),\n        o = n(9),\n        i = n(23),\n        s = n(5),\n        c = n(35),\n        l =
Object.getOwnPropertyDescriptor;\n    t.f = n(4) ? l : function (e, t) {\n      if (e = o(e), t = i(t, !0), c) try {\n
return l(e, t);\n      } catch (e) {}\n      if (s(e, t)) return r(!a.f.call(e, t), e[t]);\n    };\n  }, function (e, t) {}, function (e,
t, n) {\n    n(31)(\"asyncIterator\");\n  }, function (e, t, n) {\n    n(31)(\"observable\");\n  }, function (e, t, n) {\n
\"use strict\";\n\n    t.__esModule = !0;\n    var a,\n        r = n(77),\n        o = (a = r) && a.__esModule ? a : {\n
default: a\n    };\n\n    t.default = o.default || function (e) {\n      for (var t = 1; t < arguments.length; t++) {\n        var
n = arguments[t];\n\n        for (var a in n) {\n          Object.prototype.hasOwnProperty.call(n, a) && (e[a] = n[a]);\n
   }\n      }\n\n      return e;\n    };\n  }, function (e, t, n) {\n    e.exports = {\n      default: n(78),\n
      __esModule: !0\n    };\n  }, function (e, t, n) {\n    n(79), e.exports = n(1).Object.assign;\n  }, function (e, t, n) {\n
  var a = n(15);\n    a(a.S + a.F, \"Object\", {\n      assign: n(80)\n    });\n  }, function (e, t, n) {\n    \"use strict\";\n\n
var a = n(4),\n        r = n(13),\n        o = n(32),\n        i = n(19),\n        s = n(18),\n        c = n(40),\n        l =
Object.assign;\n    e.exports = !l || n(8)(function () {\n      var e = {},\n          t = {},\n          n = Symbol(),\n          a =
\"abcdefghijklmnopqrst\";\n      return e[n] = 7, a.split(\"\").forEach(function (e) {\n        t[e] = e;\n      }), 7 != l({},
e)[n] || Object.keys(l({}, t)).join(\"\") != a;\n    }) ? function (e, t) {\n      for (var n = s(e), l = arguments.length, u =
1, f = o.f, p = i.f; l > u;) {\n        for (var d, b = c(arguments[u++]), h = f ? r(b).concat(f(b)) : r(b), v = h.length, m =
0; v > m;) {\n          d = h[m++], a && !p.call(b, d) || (n[d] = b[d]);\n        }\n
  }\n\n      return n;\n    } : l;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0;\n    var a =
o(n(82)),\n        r = o(n(85));\n\n    function o(e) {\n      return e && e.__esModule ? e : {\n        default: e\n      };\n
}\n\n    t.default = function (e, t) {\n      if (Array.isArray(e)) return e;\n      if ((0, a.default)(Object(e))) return
function (e, t) {\n        var n = [],\n            a = !0,\n            o = !1,\n            i = void 0;\n\n        try {\n          for (var s,
c = (0, r.default)(e); !(a = (s = c.next()).done) && (n.push(s.value), !t || n.length !== t); a = !0) {\n            ;\n
}\n        } catch (e) {\n          o = !0, i = e;\n        } finally {\n          try {\n            !a && c.return && c.return();\n
 } finally {\n            if (o) throw i;\n          }\n        }\n\n        return n;\n      }(e, t);\n      throw new
TypeError(\"Invalid attempt to destructure non-iterable instance\");\n    };\n  }, function
 (e, t, n) {\n    e.exports = {\n      default: n(83),\n      __esModule: !0\n    };\n  }, function (e, t, n) {\n    n(29), n(20),
e.exports = n(84);\n  }, function (e, t, n) {\n    var a = n(42),\n        r = n(2)(\"iterator\"),\n        o = n(12);\n\n
e.exports = n(1).isIterable = function (e) {\n      var t = Object(e);\n      return void 0 !== t[r] || \"@@iterator\" in t ||
o.hasOwnProperty(a(t));\n    };\n  }, function (e, t, n) {\n    e.exports = {\n      default: n(86),\n      __esModule: !0\n
};\n  }, function (e, t, n) {\n    n(29), n(20), e.exports = n(87);\n  }, function (e, t, n) {\n    var a = n(10),\n        r =
n(88);\n\n    e.exports = n(1).getIterator = function (e) {\n      var t = r(e);\n      if (\"function\" != typeof t) throw
TypeError(e + \" is not iterable!\");\n      return a(t.call(e));\n    };\n  }, function (e, t, n) {\n    var a = n(42),\n        r =
n(2)(\"iterator\"),\n        o = n(12);\n\n    e.exports = n(1).getIteratorMethod = function (e) {\n
      if (null != e) return e[r] || e[\"@@iterator\"] || o[a(e)];\n    };\n  }, function (e, t, n) {\n    e.exports = {\n
default: n(90),\n      __esModule: !0\n    };\n  }, function (e, t, n) {\n    n(91), e.exports = n(1).Object.keys;\n  },
function (e, t, n) {\n    var a = n(18),\n        r = n(13);\n    n(92)(\"keys\", function () {\n      return function (e) {\n
return r(a(e));\n      };\n    });\n  }, function (e, t, n) {\n    var a = n(15),\n        r = n(1),\n        o = n(8);\n\n    e.exports
= function (e, t) {\n      var n = (r.Object || {})[e] || Object[e],\n          i = {};\n      i[e] = t(n), a(a.S + a.F * o(function
() {\n        n(1);\n      }), \"Object\", i);\n    };\n  }, function (e, t, n) {\n    (function (t) {\n      var n = [[\"ary\", 128],
[\"bind\", 1], [\"bindKey\", 2], [\"curry\", 8], [\"curryRight\", 16], [\"flip\", 512], [\"partial\", 32], [\"partialRight\",
64], [\"rearg\", 256]],\n          a = /^\\s+|\\s+$/g,\n          r = /\\{(?:\\n\\/\\*
 \\[wrapped with .+\\] \\*\\/)?\\n?/,\n          o = /\\{\\n\\/\\* \\[wrapped with (.+)\\] \\*/,\n          i = /,? & /,\n          s =
/^[-+]0x[0-9a-f]+$/i,\n          c = /^0b[01]+$/i,\n          l = /^\\[object .+?Constructor\\]$/,\n          u = /^0o[0-7]+$/i,\n
       f = /^(?:0|[1-9]\\d*)$/,\n          p = parseInt,\n          d = \"object\" == typeof t && t && t.Object === Object &&
t,\n          b = \"object\" == typeof self && self && self.Object === Object && self,\n          h = d || b ||
Function(\"return this\")();\n\n      function v(e, t, n) {\n        switch (n.length) {\n          case 0:\n            return
e.call(t);\n\n          case 1:\n            return e.call(t, n[0]);\n\n          case 2:\n            return e.call(t, n[0], n[1]);\n\n
case 3:\n            return e.call(t, n[0], n[1], n[2]);\n        }\n\n        return e.apply(t, n);\n      }\n\n      function m(e, t)
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{\n        return !!(e ? e.length : 0) && function (e, t, n) {\n          if (t !=
 t) return function (e, t, n, a) {\n            var r = e.length,\n              o = n + (a ? 1 : -1);\n\n            for (; a ? o-- : ++o
< r;) {\n              if (t(e[o], o, e)) return o;\n            }\n\n            return -1;\n          }(e, y, n);\n          var a = n - 1,\n
      r = e.length;\n\n          for (; ++a < r;) {\n            if (e[a] === t) return a;\n          }\n\n          return -1;\n        }(e,
t, 0) > -1;\n      }\n\n      function y(e) {\n        return e != e;\n      }\n\n      function g(e, t) {\n        for (var n =
e.length, a = 0; n--;) {\n          e[n] === t && a++;\n        }\n\n        return a;\n      }\n\n      function E(e, t) {\n        for
(var n = -1, a = e.length, r = 0, o = []; ++n < a;) {\n          var i = e[n];\n          i !== t && \"__lodash_placeholder__\"
!== i || (e[n] = \"__lodash_placeholder__\", o[r++] = n);\n        }\n\n        return o;\n      }\n\n      var j,\n          x,\n
  _,\n          k = Function.prototype,\n
        O = Object.prototype,\n          C = h[\"__core-js_shared__\"],\n          S = (j = /[^.]+$/.exec(C && C.keys &&
C.keys.IE_PROTO || \"\")) ? \"Symbol(src)_1.\" + j : \"\",\n          w = k.toString,\n          A = O.hasOwnProperty,\n
    M = O.toString,\n          P = RegExp(\"^\" + w.call(A).replace(/[\\\\^$.*+?()[\\]{}|]/g,
\"\\\\$&\").replace(/hasOwnProperty|(function).*?(?=\\\\\\()| for .+?(?=\\\\\\])/g, \"$1.*?\") + \"$\"),\n          F =
Object.create,\n          D = Math.max,\n          I = Math.min,\n          R = (x = H(Object, \"defineProperty\"), (_ =
H.name) && _.length > 2 ? x : void 0);\n\n      function L(e) {\n        return X(e) ? F(e) : {};\n      }\n\n      function
B(e) {\n        return !(!X(e) || function (e) {\n          return !!S && S in e;\n        }(e)) && (function (e) {\n          var t
= X(e) ? M.call(e) : \"\";\n          return \"[object Function]\" == t || \"[object GeneratorFunction]\" == t;\n        }(e) ||
function (e) {\n
     var t = !1;\n          if (null != e && \"function\" != typeof e.toString) try {\n            t = !!(e + \"\");\n          } catch
(e) {}\n          return t;\n        }(e) ? P : l).test(function (e) {\n          if (null != e) {\n            try {\n              return
w.call(e);\n            } catch (e) {}\n\n            try {\n              return e + \"\";\n            } catch (e) {}\n          }\n\n
return \"\";\n        }(e));\n      }\n\n      function N(e, t, n, a) {\n        for (var r = -1, o = e.length, i = n.length, s = -1, c
= t.length, l = D(o - i, 0), u = Array(c + l), f = !a; ++s < c;) {\n          u[s] = t[s];\n        }\n\n        for (; ++r < i;) {\n
    (f || r < o) && (u[n[r]] = e[r]);\n        }\n\n        for (; l--;) {\n          u[s++] = e[r++];\n        }\n\n        return u;\n
}\n\n      function z(e, t, n, a) {\n        for (var r = -1, o = e.length, i = -1, s = n.length, c = -1, l = t.length, u = D(o - s,
0), f = Array(u + l), p = !a;
 ++r < u;) {\n          f[r] = e[r];\n        }\n\n        for (var d = r; ++c < l;) {\n          f[d + c] = t[c];\n        }\n\n        for (;
++i < s;) {\n          (p || r < o) && (f[d + n[i]] = e[r++]);\n        }\n\n        return f;\n      }\n\n      function T(e) {\n
return function () {\n          var t = arguments;\n\n          switch (t.length) {\n            case 0:\n              return new
e();\n\n            case 1:\n              return new e(t[0]);\n\n            case 2:\n              return new e(t[0], t[1]);\n\n
case 3:\n              return new e(t[0], t[1], t[2]);\n\n            case 4:\n              return new e(t[0], t[1], t[2], t[3]);\n\n
  case 5:\n              return new e(t[0], t[1], t[2], t[3], t[4]);\n\n            case 6:\n              return new e(t[0], t[1], t[2],
t[3], t[4], t[5]);\n\n            case 7:\n              return new e(t[0], t[1], t[2], t[3], t[4], t[5], t[6]);\n          }\n\n          var n
= L(e.prototype),\n
              a = e.apply(n, t);\n          return X(a) ? a : n;\n        };\n      }\n\n      function q(e, t, n, a, r, o, i, s, c, l) {\n
var u = 128 & t,\n            f = 1 & t,\n            p = 2 & t,\n            d = 24 & t,\n            b = 512 & t,\n            v = p ?
void 0 : T(e);\n        return function m() {\n          for (var y = arguments.length, j = Array(y), x = y; x--;) {\n
j[x] = arguments[x];\n          }\n\n          if (d) var _ = W(m),\n              k = g(j, _);\n\n          if (a && (j = N(j, a, r,
d)), o && (j = z(j, o, i, d)), y -= k, d && y < l) {\n            var O = E(j, _);\n            return V(e, t, q, m.placeholder, n,
j, O, s, c, l - y);\n          }\n\n          var C = f ? n : this,\n              S = p ? C[e] : e;\n          return y = j.length, s ? j =
Y(j, s) : b && y > 1 && j.reverse(), u && c < y && (j.length = c), this && this !== h && this instanceof m && (S
= v || T(S)), S.apply(C, j);\n        };\n      }\n\n      function
 V(e, t, n, a, r, o, i, s, c, l) {\n        var u = 8 & t;\n        t |= u ? 32 : 64, 4 & (t &= ~(u ? 64 : 32)) || (t &= -4);\n
var f = n(e, t, r, u ? o : void 0, u ? i : void 0, u ? void 0 : o, u ? void 0 : i, s, c, l);\n        return f.placeholder = a, $(f, e,
t);\n      }\n\n      function K(e, t, n, a, r, o, i, s) {\n        var c = 2 & t;\n        if (!c && \"function\" != typeof e) throw
new TypeError(\"Expected a function\");\n        var l = a ? a.length : 0;\n\n        if (l || (t &= -97, a = r = void 0), i =
void 0 === i ? i : D(te(i), 0), s = void 0 === s ? s : te(s), l -= r ? r.length : 0, 64 & t) {\n          var u = a,\n              f =
r;\n          a = r = void 0;\n        }\n\n        var p = [e, t, n, a, r, u, f, o, i, s];\n        if (e = p[0], t = p[1], n = p[2], a =
```

```
p[3], r = p[4], !(s = p[9] = null == p[9] ? c ? 0 : e.length : D(p[9] - l, 0)) && 24 & t && (t &= -25), t && 1 != t) d =
8 == t || 16 == t ? function (e, t, n) {\n        var a = T(e);\n
      return function r() {\n          for (var o = arguments.length, i = Array(o), s = o, c = W(r); s--;) {\n            i[s] =
arguments[s];\n          }\n\n          var l = o < 3 && i[0] !== c && i[o - 1] !== c ? [] : E(i, c);\n          if ((o -=
l.length) < n) return V(e, t, q, r.placeholder, void 0, i, l, void 0, void 0, n - o);\n          var u = this && this !== h
&& this instanceof r ? a : e;\n          return v(u, this, i);\n        };\n      }(e, t, s) : 32 != t && 33 != t || r.length ?
q.apply(void 0, p) : function (e, t, n, a) {\n        var r = 1 & t,\n            o = T(e);\n        return function t() {\n
 for (var i = -1, s = arguments.length, c = -1, l = a.length, u = Array(l + s), f = this && this !== h && this instanceof
t ? o : e; ++c < l;) {\n            u[c] = a[c];\n          }\n\n          for (; s--;) {\n            u[c++] = arguments[++i];\n
    }\n\n          return v(f, r ? n : this, u);\n        };\n
     }(e, t, n, a);else var d = function (e, t, n) {\n        var a = 1 & t,\n            r = T(e);\n        return function t() {\n
        var o = this && this !== h && this instanceof t ? r : e;\n          return o.apply(a ? n : this, arguments);\n
};\n      }(e, t, n);\n      return $(d, e, t);\n    }\n\n    function W(e) {\n      return e.placeholder;\n    }\n\n
function H(e, t) {\n      var n = function (e, t) {\n        return null == e ? void 0 : e[t];\n      }(e, t);\n\n      return
B(n) ? n : void 0;\n    }\n\n    function U(e) {\n      var t = e.match(o);\n      return t ? t[1].split(i) : [];\n    }\n\n
  function G(e, t) {\n      var n = t.length,\n          a = n - 1;\n      return t[a] = (n > 1 ? \"& \" : \"\") + t[a], t =
t.join(n > 2 ? \", \" : \" \"), e.replace(r, \"{\\n/* [wrapped with \" + t + \"] */\\n\");\n    }\n\n    function J(e, t) {\n
return !!(t = null == t ? 9007199254740991 : t) && (\"number\"
 == typeof e || f.test(e)) && e > -1 && e % 1 == 0 && e < t;\n    }\n\n    function Y(e, t) {\n      for (var n =
e.length, a = I(t.length, n), r = function (e, t) {\n        var n = -1,\n            a = e.length;\n\n        for (t || (t =
Array(a)); ++n < a;) {\n          t[n] = e[n];\n        }\n\n        return t;\n      }(e); a--;) {\n        var o = t[a];\n
e[a] = J(o, n) ? r[o] : void 0;\n      }\n\n      return e;\n    }\n\n    var $ = R ? function (e, t, n) {\n      var a,\n
  r = t + \"\";\n      return R(e, \"toString\", {\n        configurable: !0,\n        enumerable: !1,\n        value: (a =
G(r, Q(U(r), n)), function () {\n          return a;\n        })\n      });\n    } : function (e) {\n      return e;\n    };\n\n
    function Q(e, t) {\n      return function (e, t) {\n        for (var n = -1, a = e ? e.length : 0; ++n < a && !1 !==
t(e[n], n, e);) {\n          ;\n        }\n
   }(n, function (n) {\n        var a = \"_.\" + n[0];\n        t & n[1] && !m(e, a) && e.push(a);\n      }), e.sort();\n
}\n\n    function Z(e, t, n) {\n      var a = K(e, 8, void 0, void 0, void 0, void 0, void 0, t = n ? void 0 : t);\n
return a.placeholder = Z.placeholder, a;\n    }\n\n    function X(e) {\n      var t = typeof e;\n      return !!e &&
(\"object\" == t || \"function\" == t);\n    }\n\n    function ee(e) {\n      return e ? (e = function (e) {\n        if
(\"number\" == typeof e) return e;\n        if (function (e) {\n          return \"symbol\" == typeof e || function (e) {\n
        return !!e && \"object\" == typeof e;\n          }(e) && \"[object Symbol]\" == M.call(e);\n        }(e)) return
NaN;\n\n        if (X(e)) {\n          var t = \"function\" == typeof e.valueOf ? e.valueOf() : e;\n          e = X(t) ? t +
\"\" : t;\n        }\n\n        if (\"string\" != typeof e) return 0 === e ? e : +e;\n
    e = e.replace(a, \"\");\n        var n = c.test(e);\n        return n || u.test(e) ? p(e.slice(2), n ? 2 : 8) : s.test(e) ? NaN :
+e;\n      }(e)) === 1 / 0 || e === -1 / 0 ? 17976931348623157e292 * (e < 0 ? -1 : 1) : e == e ? e : 0 : 0 === e ? e :
0;\n    }\n\n    function te(e) {\n      var t = ee(e),\n          n = t % 1;\n      return t == t ? n ? t - n : t : 0;\n
}\n\n    Z.placeholder = {}, e.exports = Z;\n  }).call(this, n(43));\n  }, function (e, t, n) {\n  \"use strict\";\n\n
function a(e) {\n    return e && e.__esModule ? e.default : e;\n  }\n\n  t.__esModule = !0;\n  var r = n(95);\n
t.threezerotwofour = a(r);\n  var o = n(96);\n  t.apathy = a(o);\n  var i = n(97);\n  t.ashes = a(i);\n  var s =
n(98);\n  t.atelierDune = a(s);\n  var c = n(99);\n  t.atelierForest = a(c);\n  var l = n(100);\n  t.atelierHeath =
a(l);\n  var u = n(101);\n  t.atelierLakeside = a(u);\n  var f = n(102);\n  t.atelierSeaside = a(f);\n
    var p = n(103);\n  t.bespin = a(p);\n  var d = n(104);\n  t.brewer = a(d);\n  var b = n(105);\n  t.bright =
a(b);\n  var h = n(106);\n  t.chalk = a(h);\n  var v = n(107);\n  t.codeschool = a(v);\n  var m = n(108);\n
t.colors = a(m);\n  var y = n(109);\n  t.default = a(y);\n  var g = n(110);\n  t.eighties = a(g);\n  var E =
n(111);\n  t.embers = a(E);\n  var j = n(112);\n  t.flat = a(j);\n  var x = n(113);\n  t.google = a(x);\n\n  var _ =
n(114);\n\n  t.grayscale = a(_);\n  var k = n(115);\n  t.greenscreen = a(k);\n  var O = n(116);\n  t.harmonic =
a(O);\n  var C = n(117);\n  t.hopscotch = a(C);\n  var S = n(118);\n  t.isotope = a(S);\n  var w = n(119);\n
```

```
t.marrakesh = a(w);\n    var A = n(120);\n    t.mocha = a(A);\n    var M = n(121);\n    t.monokai = a(M);\n    var P =
n(122);\n    t.ocean = a(P);\n    var F = n(123);\n    t.paraiso = a(F);\n    var D = n(124);\n    t.pop = a(D);\n    var I =
n(125);\n    t.railscasts
 = a(I);\n    var R = n(126);\n    t.shapeshifter = a(R);\n    var L = n(127);\n    t.solarized = a(L);\n    var B = n(128);\n
  t.summerfruit = a(B);\n    var N = n(129);\n    t.tomorrow = a(N);\n    var z = n(130);\n    t.tube = a(z);\n    var T =
n(131);\n    t.twilight = a(T);\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0, t.default = {\n
scheme: \"threezerotwofour\",\n      author: \"jan t. sott (http://github.com/idleberg)\",\n      base00: \"#090300\",\n
base01: \"#3a3432\",\n      base02: \"#4a4543\",\n      base03: \"#5c5855\",\n      base04: \"#807d7c\",\n      base05:
\"#a5a2a2\",\n      base06: \"#d6d5d4\",\n      base07: \"#f7f7f7\",\n      base08: \"#db2d20\",\n      base09:
\"#e8bbd0\",\n      base0A: \"#fded02\",\n      base0B: \"#01a252\",\n      base0C: \"#b5e4f4\",\n      base0D:
\"#01a0e4\",\n      base0E: \"#a16a94\",\n      base0F: \"#cdab53\"\n    }, e.exports = t.default;\n  }, function (e, t, n)
{\n    \"use strict\";\n\n
    t.__esModule = !0, t.default = {\n      scheme: \"apathy\",\n      author: \"jannik siebert
(https://github.com/janniks)\",\n      base00: \"#031A16\",\n      base01: \"#0B342D\",\n      base02: \"#184E45\",\n
base03: \"#2B685E\",\n      base04: \"#5F9C92\",\n      base05: \"#81B5AC\",\n      base06: \"#A7CEC8\",\n
base07: \"#D2E7E4\",\n      base08: \"#3E9688\",\n      base09: \"#3E7996\",\n      base0A: \"#3E4C96\",\n
base0B: \"#883E96\",\n      base0C: \"#963E4C\",\n      base0D: \"#96883E\",\n      base0E: \"#4C963E\",\n
base0F: \"#3E965B\"\n    }, e.exports = t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0,
t.default = {\n      scheme: \"ashes\",\n      author: \"jannik siebert (https://github.com/janniks)\",\n      base00:
\"#1C2023\",\n      base01: \"#393F45\",\n      base02: \"#565E65\",\n      base03: \"#747C84\",\n      base04:
\"#ADB3BA\",\n      base05: \"#C7CCD1\",\n      base06: \"#DFE2E5\",\n      base07:
 \"#F3F4F5\",\n      base08: \"#C7AE95\",\n      base09: \"#C7C795\",\n      base0A: \"#AEC795\",\n      base0B:
\"#95C7AE\",\n      base0C: \"#95AEC7\",\n      base0D: \"#AE95C7\",\n      base0E: \"#C795AE\",\n      base0F:
\"#C79595\"\n    }, e.exports = t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0, t.default
= {\n      scheme: \"atelier dune\",\n      author: \"bram de haan (http://atelierbram.github.io/syntax-
highlighting/atelier-schemes/dune)\",\n      base00: \"#20201d\",\n      base01: \"#292824\",\n      base02:
\"#6e6b5e\",\n      base03: \"#7d7a68\",\n      base04: \"#999580\",\n      base05: \"#a6a28c\",\n      base06:
\"#e8e4cf\",\n      base07: \"#fefbec\",\n      base08: \"#d73737\",\n      base09: \"#b65611\",\n      base0A:
\"#cfb017\",\n      base0B: \"#60ac39\",\n      base0C: \"#1fad83\",\n      base0D: \"#6684e1\",\n      base0E:
\"#b854d4\",\n      base0F: \"#d43552\"\n    }, e.exports = t.default;\n  }, function (e, t, n) {\n
    \"use strict\";\n\n    t.__esModule = !0, t.default = {\n      scheme: \"atelier forest\",\n      author: \"bram de haan
(http://atelierbram.github.io/syntax-highlighting/atelier-schemes/forest)\",\n      base00: \"#1b1918\",\n      base01:
\"#2c2421\",\n      base02: \"#68615e\",\n      base03: \"#766e6b\",\n      base04: \"#9c9491\",\n      base05:
\"#a8a19f\",\n      base06: \"#e6e2e0\",\n      base07: \"#f1efee\",\n      base08: \"#f22c40\",\n      base09:
\"#df5320\",\n      base0A: \"#d5911a\",\n      base0B: \"#5ab738\",\n      base0C: \"#00ad9c\",\n      base0D:
\"#407ee7\",\n      base0E: \"#6666ea\",\n      base0F: \"#c33ff3\"\n    }, e.exports = t.default;\n  }, function (e, t, n)
{\n    \"use strict\";\n\n    t.__esModule = !0, t.default = {\n      scheme: \"atelier heath\",\n      author: \"bram de haan
(http://atelierbram.github.io/syntax-highlighting/atelier-schemes/heath)\",\n      base00: \"#1b181b\",\n      base01:
\"#292329\",\n      base02: \"#695d69\",\n
  base03: \"#776977\",\n      base04: \"#9e8f9e\",\n      base05: \"#ab9bab\",\n      base06: \"#d8cad8\",\n      base07:
\"#f7f3f7\",\n      base08: \"#ca402b\",\n      base09: \"#a65926\",\n      base0A: \"#bb8a35\",\n      base0B:
\"#379a37\",\n      base0C: \"#159393\",\n      base0D: \"#516aec\",\n      base0E: \"#7b59c0\",\n      base0F:
\"#cc33cc\"\n    }, e.exports = t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0, t.default =
{\n      scheme: \"atelier lakeside\",\n      author: \"bram de haan (http://atelierbram.github.io/syntax-
highlighting/atelier-schemes/lakeside/)\",\n      base00: \"#161b1d\",\n      base01: \"#1f292e\",\n      base02:
\"#516d7b\",\n      base03: \"#5a7b8c\",\n      base04: \"#7195a8\",\n      base05: \"#7ea2b4\",\n      base06:
\"#c1e4f6\",\n      base07: \"#ebf8ff\",\n      base08: \"#d22d72\",\n      base09: \"#935c25\",\n      base0A:
\"#8a8a0f\",\n      base0B: \"#568c3b\",\n      base0C: \"#2d8f6f\",\n      base0D:
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\"#257fad\",\n   base0E: \"#5d5db1\",\n   base0F: \"#b72dd2\"\n   }, e.exports = t.default;\n }, function (e, t, n) {\n   \"use strict\";\n\n   t.__esModule = !0, t.default = {\n   scheme: \"atelier seaside\",\n   author: \"bram de haan (http://atelierbram.github.io/syntax-highlighting/atelier-schemes/seaside/)\",\n   base00: \"#131513\",\n   base01: \"#242924\",\n   base02: \"#5e6e5e\",\n   base03: \"#687d68\",\n   base04: \"#809980\",\n   base05: \"#8ca68c\",\n   base06: \"#cfe8cf\",\n   base07: \"#f0fff0\",\n   base08: \"#e6193c\",\n   base09: \"#87711d\",\n   base0A: \"#c3c322\",\n   base0B: \"#29a329\",\n   base0C: \"#1999b3\",\n   base0D: \"#3d62f5\",\n   base0E: \"#ad2bee\",\n   base0F: \"#e619c3\"\n   }, e.exports = t.default;\n }, function (e, t, n) {\n   \"use strict\";\n\n   t.__esModule = !0, t.default = {\n   scheme: \"bespin\",\n   author: \"jan t. sott\",\n   base00: \"#28211c\",\n   base01:
\"#36312e\",\n   base02: \"#5e5d5c\",\n   base03: \"#666666\",\n   base04: \"#797977\",\n   base05: \"#8a8986\",\n   base06: \"#9d9b97\",\n   base07: \"#baae9e\",\n   base08: \"#cf6a4c\",\n   base09: \"#cf7d34\",\n   base0A: \"#f9ee98\",\n   base0B: \"#54be0d\",\n   base0C: \"#afc4db\",\n   base0D: \"#5ea6ea\",\n   base0E: \"#9b859d\",\n   base0F: \"#937121\"\n   }, e.exports = t.default;\n }, function (e, t, n) {\n   \"use strict\";\n\n   t.__esModule = !0, t.default = {\n   scheme: \"brewer\",\n   author: \"timothée poisot (http://github.com/tpoisot)\",\n   base00: \"#0c0d0e\",\n   base01: \"#2e2f30\",\n   base02: \"#515253\",\n   base03: \"#737475\",\n   base04: \"#959697\",\n   base05: \"#b7b8b9\",\n   base06: \"#dadbdc\",\n   base07: \"#fcfdfe\",\n   base08: \"#e31a1c\",\n   base09: \"#e6550d\",\n   base0A: \"#dca060\",\n   base0B: \"#31a354\",\n   base0C: \"#80b1d3\",\n   base0D: \"#3182bd\",\n
      base0E: \"#756bb1\",\n   base0F: \"#b15928\"\n   }, e.exports = t.default;\n }, function (e, t, n) {\n   \"use strict\";\n\n   t.__esModule = !0, t.default = {\n   scheme: \"bright\",\n   author: \"chris kempson (http://chriskempson.com)\",\n   base00: \"#000000\",\n   base01: \"#303030\",\n   base02: \"#505050\",\n   base03: \"#b0b0b0\",\n   base04: \"#d0d0d0\",\n   base05: \"#e0e0e0\",\n   base06: \"#f5f5f5\",\n   base07: \"#ffffff\",\n   base08: \"#fb0120\",\n   base09: \"#fc6d24\",\n   base0A: \"#fda331\",\n   base0B: \"#a1c659\",\n   base0C: \"#76c7b7\",\n   base0D: \"#6fb3d2\",\n   base0E: \"#d381c3\",\n   base0F: \"#be643c\"\n   }, e.exports = t.default;\n }, function (e, t, n) {\n   \"use strict\";\n\n   t.__esModule = !0, t.default = {\n   scheme: \"chalk\",\n   author: \"chris kempson (http://chriskempson.com)\",\n   base00: \"#151515\",\n   base01: \"#202020\",\n   base02: \"#303030\",\n
      base03: \"#505050\",\n   base04: \"#b0b0b0\",\n   base05: \"#d0d0d0\",\n   base06: \"#e0e0e0\",\n   base07: \"#f5f5f5\",\n   base08: \"#fb9fb1\",\n   base09: \"#eda987\",\n   base0A: \"#ddb26f\",\n   base0B: \"#acc267\",\n   base0C: \"#12cfc0\",\n   base0D: \"#6fc2ef\",\n   base0E: \"#e1a3ee\",\n   base0F: \"#deaf8f\"\n   }, e.exports = t.default;\n }, function (e, t, n) {\n   \"use strict\";\n\n   t.__esModule = !0, t.default = {\n   scheme: \"codeschool\",\n   author: \"brettof86\",\n   base00: \"#232c31\",\n   base01: \"#1c3657\",\n   base02: \"#2a343a\",\n   base03: \"#3f4944\",\n   base04: \"#84898c\",\n   base05: \"#9ea7a6\",\n   base06: \"#a7cfa3\",\n   base07: \"#b5d8f6\",\n   base08: \"#2a5491\",\n   base09: \"#43820d\",\n   base0A: \"#a03b1e\",\n   base0B: \"#237986\",\n   base0C: \"#b02f30\",\n   base0D: \"#484d79\",\n   base0E: \"#c59820\",\n   base0F: \"#c98344\"\n
    }, e.exports = t.default;\n }, function (e, t, n) {\n   \"use strict\";\n\n   t.__esModule = !0, t.default = {\n   scheme: \"colors\",\n   author: \"mrmrs (http://clrs.cc)\",\n   base00: \"#111111\",\n   base01: \"#333333\",\n   base02: \"#555555\",\n   base03: \"#777777\",\n   base04: \"#999999\",\n   base05: \"#bbbbbb\",\n   base06: \"#dddddd\",\n   base07: \"#ffffff\",\n   base08: \"#ff4136\",\n   base09: \"#ff851b\",\n   base0A: \"#ffdc00\",\n   base0B: \"#2ecc40\",\n   base0C: \"#7fdbff\",\n   base0D: \"#0074d9\",\n   base0E: \"#b10dc9\",\n   base0F: \"#85144b\"\n   }, e.exports = t.default;\n }, function (e, t, n) {\n   \"use strict\";\n\n   t.__esModule = !0, t.default = {\n   scheme: \"default\",\n   author: \"chris kempson (http://chriskempson.com)\",\n   base00: \"#181818\",\n   base01: \"#282828\",\n   base02: \"#383838\",\n   base03: \"#585858\",\n   base04: \"#b8b8b8\",\n   base05: \"#d8d8d8\",\n
      base06: \"#e8e8e8\",\n   base07: \"#f8f8f8\",\n   base08: \"#ab4642\",\n   base09: \"#dc9656\",\n   base0A: \"#f7ca88\",\n   base0B: \"#a1b56c\",\n   base0C: \"#86c1b9\",\n   base0D: \"#7cafc2\",\n   base0E: \"#ba8baf\",\n   base0F: \"#a16946\"\n   }, e.exports = t.default;\n }, function (e, t, n) {\n   \"use strict\";\n\n

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t.__esModule = !0, t.default = {\n      scheme: \"eighties\",\n      author: \"chris kempson
(http://chriskempson.com)\",\n      base00: \"#2d2d2d\",\n      base01: \"#393939\",\n      base02: \"#515151\",\n
base03: \"#747369\",\n      base04: \"#a09f93\",\n      base05: \"#d3d0c8\",\n      base06: \"#e8e6df\",\n      base07:
\"#f2f0ec\",\n      base08: \"#f2777a\",\n      base09: \"#f99157\",\n      base0A: \"#ffcc66\",\n      base0B:
\"#99cc99\",\n      base0C: \"#66cccc\",\n      base0D: \"#6699cc\",\n      base0E: \"#cc99cc\",\n      base0F:
\"#d27b53\"\n    }, e.exports = t.default;\n  }, function (e, t, n) {\n
    \"use strict\";\n\n    t.__esModule = !0, t.default = {\n      scheme: \"embers\",\n      author: \"jannik siebert
(https://github.com/janniks)\",\n      base00: \"#16130F\",\n      base01: \"#2C2620\",\n      base02: \"#433B32\",\n
base03: \"#5A5047\",\n      base04: \"#8A8075\",\n      base05: \"#A39A90\",\n      base06: \"#BEB6AE\",\n
base07: \"#DBD6D1\",\n      base08: \"#826D57\",\n      base09: \"#828257\",\n      base0A: \"#6D8257\",\n
base0B: \"#57826D\",\n      base0C: \"#576D82\",\n      base0D: \"#6D5782\",\n      base0E: \"#82576D\",\n
base0F: \"#825757\"\n    }, e.exports = t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0,
t.default = {\n      scheme: \"flat\",\n      author: \"chris kempson (http://chriskempson.com)\",\n      base00:
\"#2C3E50\",\n      base01: \"#34495E\",\n      base02: \"#7F8C8D\",\n      base03: \"#95A5A6\",\n      base04:
\"#BDC3C7\",\n      base05: \"#e0e0e0\",\n      base06: \"#f5f5f5\",\n
     base07: \"#ECF0F1\",\n      base08: \"#E74C3C\",\n      base09: \"#E67E22\",\n      base0A: \"#F1C40F\",\n
base0B: \"#2ECC71\",\n      base0C: \"#1ABC9C\",\n      base0D: \"#3498DB\",\n      base0E: \"#9B59B6\",\n
base0F: \"#be643c\"\n    }, e.exports = t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0,
t.default = {\n      scheme: \"google\",\n      author: \"seth wright (http://sethawright.com)\",\n      base00:
\"#1d1f21\",\n      base01: \"#282a2e\",\n      base02: \"#373b41\",\n      base03: \"#969896\",\n      base04:
\"#b4b7b4\",\n      base05: \"#c5c8c6\",\n      base06: \"#e0e0e0\",\n      base07: \"#ffffff\",\n      base08:
\"#CC342B\",\n      base09: \"#F96A38\",\n      base0A: \"#FBA922\",\n      base0B: \"#198844\",\n      base0C:
\"#3971ED\",\n      base0D: \"#3971ED\",\n      base0E: \"#A36AC7\",\n      base0F: \"#3971ED\"\n    }, e.exports =
t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0,
 t.default = {\n      scheme: \"grayscale\",\n      author: \"alexandre gavioli (https://github.com/alexx2/)\",\n
base00: \"#101010\",\n      base01: \"#252525\",\n      base02: \"#464646\",\n      base03: \"#525252\",\n      base04:
\"#ababab\",\n      base05: \"#b9b9b9\",\n      base06: \"#e3e3e3\",\n      base07: \"#f7f7f7\",\n      base08:
\"#7c7c7c\",\n      base09: \"#999999\",\n      base0A: \"#a0a0a0\",\n      base0B: \"#8e8e8e\",\n      base0C:
\"#868686\",\n      base0D: \"#686868\",\n      base0E: \"#747474\",\n      base0F: \"#5e5e5e\"\n    }, e.exports =
t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0, t.default = {\n      scheme: \"green
screen\",\n      author: \"chris kempson (http://chriskempson.com)\",\n      base00: \"#001100\",\n      base01:
\"#003300\",\n      base02: \"#005500\",\n      base03: \"#007700\",\n      base04: \"#009900\",\n      base05:
\"#00bb00\",\n      base06: \"#00dd00\",\n      base07: \"#00ff00\",\n
     base08: \"#007700\",\n      base09: \"#009900\",\n      base0A: \"#007700\",\n      base0B: \"#00bb00\",\n
base0C: \"#005500\",\n      base0D: \"#009900\",\n      base0E: \"#00bb00\",\n      base0F: \"#005500\"\n    },
e.exports = t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0, t.default = {\n      scheme:
\"harmonic16\",\n      author: \"jannik siebert (https://github.com/janniks)\",\n      base00: \"#0b1c2c\",\n      base01:
\"#223b54\",\n      base02: \"#405c79\",\n      base03: \"#627e99\",\n      base04: \"#aabcce\",\n      base05:
\"#cbd6e2\",\n      base06: \"#e5ebf1\",\n      base07: \"#f7f9fb\",\n      base08: \"#bf8b56\",\n      base09:
\"#bfbf56\",\n      base0A: \"#8bbf56\",\n      base0B: \"#56bf8b\",\n      base0C: \"#568bbf\",\n      base0D:
\"#8b56bf\",\n      base0E: \"#bf568b\",\n      base0F: \"#bf5656\"\n    }, e.exports = t.default;\n  }, function (e, t, n)
{\n    \"use strict\";\n\n    t.__esModule = !0, t.default = {\n
      scheme: \"hopscotch\",\n      author: \"jan t. sott\",\n      base00: \"#322931\",\n      base01: \"#433b42\",\n
base02: \"#5c545b\",\n      base03: \"#797379\",\n      base04: \"#989498\",\n      base05: \"#b9b5b8\",\n      base06:
\"#d5d3d5\",\n      base07: \"#ffffff\",\n      base08: \"#dd464c\",\n      base09: \"#fd8b19\",\n      base0A:
\"#fdcc59\",\n      base0B: \"#8fc13e\",\n      base0C: \"#149b93\",\n      base0D: \"#1290bf\",\n      base0E:
\"#c85e7c\",\n      base0F: \"#b33508\"\n    }, e.exports = t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n
t.__esModule = !0, t.default = {\n      scheme: \"isotope\",\n      author: \"jan t. sott\",\n      base00: \"#000000\",\n
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base01: \"#404040\",\n      base02: \"#606060\",\n      base03: \"#808080\",\n      base04: \"#c0c0c0\",\n      base05:
\"#d0d0d0\",\n      base06: \"#e0e0e0\",\n      base07: \"#ffffff\",\n      base08: \"#ff0000\",\n      base09:
\"#ff9900\",\n      base0A: \"#ff0099\",\n
    base0B: \"#33ff00\",\n      base0C: \"#00ffff\",\n      base0D: \"#0066ff\",\n      base0E: \"#cc00ff\",\n      base0F:
\"#3300ff\"\n    }, e.exports = t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0, t.default =
{\n      scheme: \"marrakesh\",\n      author: \"alexandre gavioli (http://github.com/alexx2/)\",\n      base00:
\"#201602\",\n      base01: \"#302e00\",\n      base02: \"#5f5b17\",\n      base03: \"#6c6823\",\n      base04:
\"#86813b\",\n      base05: \"#948e48\",\n      base06: \"#ccc37a\",\n      base07: \"#faf0a5\",\n      base08:
\"#c35359\",\n      base09: \"#b36144\",\n      base0A: \"#a88339\",\n      base0B: \"#18974e\",\n      base0C:
\"#75a738\",\n      base0D: \"#477ca1\",\n      base0E: \"#8868b3\",\n      base0F: \"#b3588e\"\n    }, e.exports =
t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0, t.default = {\n      scheme: \"mocha\",\n
  author: \"chris kempson (http://chriskempson.com)\",\n
      base00: \"#3B3228\",\n      base01: \"#534636\",\n      base02: \"#645240\",\n      base03: \"#7e705a\",\n
base04: \"#b8afad\",\n      base05: \"#d0c8c6\",\n      base06: \"#e9e1dd\",\n      base07: \"#f5eeeb\",\n      base08:
\"#cb6077\",\n      base09: \"#d28b71\",\n      base0A: \"#f4bc87\",\n      base0B: \"#beb55b\",\n      base0C:
\"#7bbda4\",\n      base0D: \"#8ab3b5\",\n      base0E: \"#a89bb9\",\n      base0F: \"#bb9584\"\n    }, e.exports =
t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0, t.default = {\n      scheme:
\"monokai\",\n      author: \"wimer hazenberg (http://www.monokai.nl)\",\n      base00: \"#272822\",\n      base01:
\"#383830\",\n      base02: \"#49483e\",\n      base03: \"#75715e\",\n      base04: \"#a59f85\",\n      base05:
\"#f8f8f2\",\n      base06: \"#f5f4f1\",\n      base07: \"#f9f8f5\",\n      base08: \"#f92672\",\n      base09: \"#fd971f\",\n
    base0A: \"#f4bf75\",\n      base0B: \"#a6e22e\",\n      base0C:
 \"#a1efe4\",\n      base0D: \"#66d9ef\",\n      base0E: \"#ae81ff\",\n      base0F: \"#cc6633\"\n    }, e.exports =
t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0, t.default = {\n      scheme: \"ocean\",\n
 author: \"chris kempson (http://chriskempson.com)\",\n      base00: \"#2b303b\",\n      base01: \"#343d46\",\n
base02: \"#4f5b66\",\n      base03: \"#65737e\",\n      base04: \"#a7adba\",\n      base05: \"#c0c5ce\",\n      base06:
\"#dfe1e8\",\n      base07: \"#eff1f5\",\n      base08: \"#bf616a\",\n      base09: \"#d08770\",\n      base0A:
\"#ebcb8b\",\n      base0B: \"#a3be8c\",\n      base0C: \"#96b5b4\",\n      base0D: \"#8fa1b3\",\n      base0E:
\"#b48ead\",\n      base0F: \"#ab7967\"\n    }, e.exports = t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n
t.__esModule = !0, t.default = {\n      scheme: \"paraiso\",\n      author: \"jan t. sott\",\n      base00: \"#2f1e2e\",\n
base01: \"#41323f\",\n      base02:
 \"#4f424c\",\n      base03: \"#776e71\",\n      base04: \"#8d8687\",\n      base05: \"#a39e9b\",\n      base06:
\"#b9b6b0\",\n      base07: \"#e7e9db\",\n      base08: \"#ef6155\",\n      base09: \"#f99b15\",\n      base0A:
\"#fec418\",\n      base0B: \"#48b685\",\n      base0C: \"#5bc4bf\",\n      base0D: \"#06b6ef\",\n      base0E:
\"#815ba4\",\n      base0F: \"#e96ba8\"\n    }, e.exports = t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n
t.__esModule = !0, t.default = {\n      scheme: \"pop\",\n      author: \"chris kempson (http://chriskempson.com)\",\n
 base00: \"#000000\",\n      base01: \"#202020\",\n      base02: \"#303030\",\n      base03: \"#505050\",\n      base04:
\"#b0b0b0\",\n      base05: \"#d0d0d0\",\n      base06: \"#e0e0e0\",\n      base07: \"#ffffff\",\n      base08:
\"#eb008a\",\n      base09: \"#f29333\",\n      base0A: \"#f8ca12\",\n      base0B: \"#37b349\",\n      base0C:
\"#00aabb\",\n      base0D: \"#0e5a94\",\n      base0E: \"#b31e8d\",\n
      base0F: \"#7a2d00\"\n    }, e.exports = t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule =
!0, t.default = {\n      scheme: \"railscasts\",\n      author: \"ryan bates (http://railscasts.com)\",\n      base00:
\"#2b2b2b\",\n      base01: \"#272935\",\n      base02: \"#3a4055\",\n      base03: \"#5a647e\",\n      base04:
\"#d4cfc9\",\n      base05: \"#e6e1dc\",\n      base06: \"#f4f1ed\",\n      base07: \"#f9f7f3\",\n      base08:
\"#da4939\",\n      base09: \"#cc7833\",\n      base0A: \"#ffc66d\",\n      base0B: \"#a5c261\",\n      base0C:
\"#519f50\",\n      base0D: \"#6d9cbe\",\n      base0E: \"#b6b3eb\",\n      base0F: \"#bc9458\"\n    }, e.exports =
t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0, t.default = {\n      scheme:
\"shapeshifter\",\n      author: \"tyler benziger (http://tybenz.com)\",\n      base00: \"#000000\",\n      base01:
\"#040404\",\n      base02: \"#102015\",\n      base03: \"#343434\",\n
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    base04: \"#555555\",\n      base05: \"#ababab\",\n      base06: \"#e0e0e0\",\n      base07: \"#f9f9f9\",\n      base08:
\"#e92f2f\",\n      base09: \"#e09448\",\n      base0A: \"#dddd13\",\n      base0B: \"#0ed839\",\n      base0C:
\"#23edda\",\n      base0D: \"#3b48e3\",\n      base0E: \"#f996e2\",\n      base0F: \"#69542d\"\n    }, e.exports =
t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0, t.default = {\n      scheme:
\"solarized\",\n      author: \"ethan schoonover (http://ethanschoonover.com/solarized)\",\n      base00: \"#002b36\",\n
    base01: \"#073642\",\n      base02: \"#586e75\",\n      base03: \"#657b83\",\n      base04: \"#839496\",\n
base05: \"#93a1a1\",\n      base06: \"#eee8d5\",\n      base07: \"#fdf6e3\",\n      base08: \"#dc322f\",\n      base09:
\"#cb4b16\",\n      base0A: \"#b58900\",\n      base0B: \"#859900\",\n      base0C: \"#2aa198\",\n      base0D:
\"#268bd2\",\n      base0E: \"#6c71c4\",\n      base0F: \"#d33682\"\n
    }, e.exports = t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0, t.default = {\n
scheme: \"summerfruit\",\n      author: \"christopher corley (http://cscorley.github.io/)\",\n      base00: \"#151515\",\n
    base01: \"#202020\",\n      base02: \"#303030\",\n      base03: \"#505050\",\n      base04: \"#B0B0B0\",\n
base05: \"#D0D0D0\",\n      base06: \"#E0E0E0\",\n      base07: \"#FFFFFF\",\n      base08: \"#FF0086\",\n
base09: \"#FD8900\",\n      base0A: \"#ABA800\",\n      base0B: \"#00C918\",\n      base0C: \"#1faaaa\",\n
base0D: \"#3777E6\",\n      base0E: \"#AD00A1\",\n      base0F: \"#cc6633\"\n    }, e.exports = t.default;\n  },
function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0, t.default = {\n      scheme: \"tomorrow\",\n      author:
\"chris kempson (http://chriskempson.com)\",\n      base00: \"#1d1f21\",\n      base01: \"#282a2e\",\n      base02:
\"#373b41\",\n      base03: \"#969896\",\n
   base04: \"#b4b7b4\",\n      base05: \"#c5c8c6\",\n      base06: \"#e0e0e0\",\n      base07: \"#ffffff\",\n      base08:
\"#cc6666\",\n      base09: \"#de935f\",\n      base0A: \"#f0c674\",\n      base0B: \"#b5bd68\",\n      base0C:
\"#8abeb7\",\n      base0D: \"#81a2be\",\n      base0E: \"#b294bb\",\n      base0F: \"#a3685a\"\n    }, e.exports =
t.default;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0, t.default = {\n      scheme: \"london
tube\",\n      author: \"jan t. sott\",\n      base00: \"#231f20\",\n      base01: \"#1c3f95\",\n      base02: \"#5a5758\",\n
base03: \"#737171\",\n      base04: \"#959ca1\",\n      base05: \"#d9d8d8\",\n      base06: \"#e7e7e8\",\n      base07:
\"#ffffff\",\n      base08: \"#ee2e24\",\n      base09: \"#f386a1\",\n      base0A: \"#ffd204\",\n      base0B:
\"#00853e\",\n      base0C: \"#85cebc\",\n      base0D: \"#009ddc\",\n      base0E: \"#98005d\",\n      base0F:
\"#b06110\"\n    }, e.exports = t.default;\n  }, function
 (e, t, n) {\n    \"use strict\";\n\n    t.__esModule = !0, t.default = {\n      scheme: \"twilight\",\n      author: \"david hart
(http://hart-dev.com)\",\n      base00: \"#1e1e1e\",\n      base01: \"#323537\",\n      base02: \"#464b50\",\n      base03:
\"#5f5a60\",\n      base04: \"#838184\",\n      base05: \"#a7a7a7\",\n      base06: \"#c3c3c3\",\n      base07:
\"#ffffff\",\n      base08: \"#cf6a4c\",\n      base09: \"#cda869\",\n      base0A: \"#f9ee98\",\n      base0B:
\"#8f9d6a\",\n      base0C: \"#afc4db\",\n      base0D: \"#7587a6\",\n      base0E: \"#9b859d\",\n      base0F:
\"#9b703f\"\n    }, e.exports = t.default;\n  }, function (e, t, n) {\n    var a = n(33);\n\n    function r(e) {\n      var t =
Math.round(a(e, 0, 255)).toString(16);\n      return 1 == t.length ? \"0\" + t : t;\n    }\n\n    e.exports = function (e) {\n
    var t = 4 === e.length ? r(255 * e[3]) : \"\";\n      return \"#\" + r(e[0]) + r(e[1]) + r(e[2]) + t;\n    };\n  }, function
(e, t, n) {\n    var
 a = n(134),\n        r = n(135),\n        o = n(136),\n        i = n(137);\n    var s = {\n      \"#\": r,\n      hsl: function hsl(e)
{\n        var t = a(e),\n            n = i(t);\n        return 4 === t.length && n.push(t[3]), n;\n      },\n      rgb: o\n    };\n\n
function c(e) {\n      for (var t in s) {\n        if (0 === e.indexOf(t)) return s[t](e);\n      }\n    }\n\n    c.rgb = o, c.hsl =
a, c.hex = r, e.exports = c;\n  }, function (e, t, n) {\n    var a = n(44),\n        r = n(33);\n\n    function o(e, t) {\n
switch (e = parseFloat(e), t) {\n        case 0:\n          return r(e, 0, 360);\n\n        case 1:\n        case 2:\n          return
r(e, 0, 100);\n\n        case 3:\n          return r(e, 0, 1);\n      }\n    }\n\n    e.exports = function (e) {\n      return
a(e).map(o);\n    };\n  }, function (e, t) {\n    e.exports = function (e) {\n      4 !== e.length && 5 !== e.length || (e =
function (e) {\n        for (var t = \"#\", n = 1; n < e.length; n++) {\n
        var a = e.charAt(n);\n          t += a + a;\n        }\n\n        return t;\n      }(e));\n      var t = [parseInt(e.substring(1,
3), 16), parseInt(e.substring(3, 5), 16), parseInt(e.substring(5, 7), 16)];\n\n      if (9 === e.length) {\n        var n =
parseFloat((parseInt(e.substring(7, 9), 16) / 255).toFixed(2));\n        t.push(n);\n      }\n\n      return t;\n    };\n  },
function (e, t, n) {\n    var a = n(44),\n        r = n(33);\n\n    function o(e, t) {\n      return t < 3 ? -1 !=
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e.indexOf(\"%\") ? Math.round(255 * r(parseInt(e, 10), 0, 100) / 100) : r(parseInt(e, 10), 0, 255) : r(parseFloat(e), 0,
1);\n    }\n\n    e.exports = function (e) {\n      return a(e).map(o);\n    };\n  }, function (e, t) {\n    e.exports = function
(e) {\n      var t,\n          n,\n          a,\n          r,\n          o,\n          i = e[0] / 360,\n          s = e[1] / 100,\n          c = e[2] /
100;\n      if (0 == s) return [o = 255 * c, o, o];\n      t = 2 * c - (n = c < .5 ? c * (1 + s)
 : c + s - c * s), r = [0, 0, 0];\n\n      for (var l = 0; l < 3; l++) {\n        (a = i + 1 / 3 * -(l - 1)) < 0 && a++, a > 1 && a-
-, o = 6 * a < 1 ? t + 6 * (n - t) * a : 2 * a < 1 ? n : 3 * a < 2 ? t + (n - t) * (2 / 3 - a) * 6 : t, r[l] = 255 * o;\n      }\n\n
return r;\n    };\n  }, function (e, t, n) {\n    (function (t) {\n      var n = \"object\" == typeof t && t && t.Object ===
Object && t,\n          a = \"object\" == typeof self && self && self.Object === Object && self,\n          r = n || a ||
Function(\"return this\")();\n\n      function o(e, t, n) {\n        switch (n.length) {\n          case 0:\n            return
e.call(t);\n\n          case 1:\n            return e.call(t, n[0]);\n\n          case 2:\n            return e.call(t, n[0], n[1]);\n\n
case 3:\n            return e.call(t, n[0], n[1], n[2]);\n        }\n\n        return e.apply(t, n);\n      }\n\n      function i(e, t) {\n
      for (var n = -1, a = t.length, r = e.length; ++n < a;) {\n
        e[r + n] = t[n];\n        }\n\n        return e;\n      }\n\n      var s = Object.prototype,\n          c =
s.hasOwnProperty,\n          l = s.toString,\n          u = r.Symbol,\n          f = s.propertyIsEnumerable,\n          p = u ?
u.isConcatSpreadable : void 0,\n          d = Math.max;\n\n      function b(e) {\n        return h(e) || function (e) {\n
return function (e) {\n            return function (e) {\n              return !!e && \"object\" == typeof e;\n            }(e) &&
function (e) {\n              return null != e && function (e) {\n                return \"number\" == typeof e && e > -1 &&
e % 1 == 0 && e <= 9007199254740991;\n              }(e.length) && !function (e) {\n                var t = function (e)
{\n                  var t = typeof e;\n                  return !!e && (\"object\" == t || \"function\" == t);\n                }(e) ?
l.call(e) : \"\";\n                return \"[object Function]\" == t || \"[object GeneratorFunction]\" == t;\n
            }(e);\n            }(e);\n          }(e) && c.call(e, \"callee\") && (!f.call(e, \"callee\") || \"[object Arguments]\" ==
l.call(e));\n        }(e) || !!(p && e && e[p]);\n      }\n\n      var h = Array.isArray;\n      var v,\n          m,\n          y,\n
    g = (m = function m(e) {\n        var t = (e = function e(t, n, a, r, o) {\n          var s = -1,\n              c = t.length;\n\n
     for (a || (a = b), o || (o = []); ++s < c;) {\n            var l = t[s];\n            n > 0 && a(l) ? n > 1 ? e(l, n - 1, a, r, o) :
i(o, l) : r || (o[o.length] = l);\n          }\n\n          return o;\n        }(e, 1)).length,\n            n = t;\n\n        for (v &&
e.reverse(); n--;) {\n          if (\"function\" != typeof e[n]) throw new TypeError(\"Expected a function\");\n        }\n\n
      return function () {\n          for (var n = 0, a = t ? e[n].apply(this, arguments) : arguments[0]; ++n < t;) {\n
a = e[n].call(this, a);\n          }\n\n          return
 a;\n        };\n      }, y = d(void 0 === y ? m.length - 1 : y, 0), function () {\n        for (var e = arguments, t = -1, n =
d(e.length - y, 0), a = Array(n); ++t < n;) {\n          a[t] = e[y + t];\n        }\n\n        t = -1;\n\n        for (var r = Array(y
+ 1); ++t < y;) {\n          r[t] = e[t];\n        }\n\n        return r[y] = a, o(m, this, r);\n      });\n      e.exports = g;\n
}).call(this, n(43));\n  }, function (e, t, n) {\n    \"use strict\";\n\n    Object.defineProperty(t, \"__esModule\", {\n
value: !0\n    }), t.yuv2rgb = function (e) {\n      var t,\n          n,\n          a,\n          r = e[0],\n          o = e[1],\n          i
= e[2];\n      return t = 1 * r + 0 * o + 1.13983 * i, n = 1 * r + -.39465 * o + -.5806 * i, a = 1 * r + 2.02311 * o + 0 * i,
t = Math.min(Math.max(0, t), 1), n = Math.min(Math.max(0, n), 1), a = Math.min(Math.max(0, a), 1), [255 * t, 255
* n, 255 * a];\n    }, t.rgb2yuv = function (e) {\n      var t = e[0] / 255,\n          n = e[1]
 / 255,\n          a = e[2] / 255;\n      return [.299 * t + .587 * n + .114 * a, -.14713 * t + -.28886 * n + .436 * a, .615 * t
+ -.51499 * n + -.10001 * a];\n    };\n  }, function (e, t, n) {\n    \"use strict\";\n\n    function a(e, t, n) {\n      return t
in e ? Object.defineProperty(e, t, {\n        value: n,\n        enumerable: !0,\n        configurable: !0,\n        writable: !0\n
    }) : e[t] = n, e;\n    }\n\n    var r = n(141),\n        o = function () {\n      function e() {\n        a(this, \"_callbacks\",
void 0), a(this, \"_isDispatching\", void 0), a(this, \"_isHandled\", void 0), a(this, \"_isPending\", void 0), a(this,
\"_lastID\", void 0), a(this, \"_pendingPayload\", void 0), this._callbacks = {}, this._isDispatching = !1,
this._isHandled = {}, this._isPending = {}, this._lastID = 1;\n      }\n\n      var t = e.prototype;\n      return t.register =
function (e) {\n        var t = \"ID_\" + this._lastID++;\n        return this._callbacks[t] = e, t;\n      }, t.unregister
 = function (e) {\n        this._callbacks[e] || r(!1), delete this._callbacks[e];\n      }, t.waitFor = function (e) {\n
this._isDispatching || r(!1);\n\n        for (var t = 0; t < e.length; t++) {\n          var n = e[t];\n          this._isPending[n] ?
this._isHandled[n] || r(!1) : (this._callbacks[n] || r(!1), this._invokeCallback(n));\n        }\n      }, t.dispatch = function
(e) {\n        this._isDispatching && r(!1), this._startDispatching(e);\n\n        try {\n          for (var t in this._callbacks)
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{\n            this._isPending[t] || this._invokeCallback(t);\n          }\n        } finally {\n          this._stopDispatching();\n
    }\n      }, t.isDispatching = function () {\n        return this._isDispatching;\n      }, t._invokeCallback = function (e)
{\n        this._isPending[e] = !0, this._callbacks[e](this._pendingPayload), this._isHandled[e] = !0;\n      },
t._startDispatching = function (e) {\n        for (var t in this._callbacks) {\n
  this._isPending[t] = !1, this._isHandled[t] = !1;\n        }\n\n        this._pendingPayload = e, this._isDispatching =
!0;\n      }, t._stopDispatching = function () {\n        delete this._pendingPayload, this._isDispatching = !1;\n      },
e;\n    }();\n\n    e.exports = o;\n  }, function (e, t, n) {\n    \"use strict\";\n\n    var a = function a(e) {};\n\n
e.exports = function (e, t) {\n      for (var n = arguments.length, r = new Array(n > 2 ? n - 2 : 0), o = 2; o < n; o++)
{\n        r[o - 2] = arguments[o];\n      }\n\n      if (a(t), !e) {\n        var i;\n        if (void 0 === t) i = new
Error(\"Minified exception occurred; use the non-minified dev environment for the full error message and additional
helpful warnings.\");else {\n          var s = 0;\n          (i = new Error(t.replace(/%s/g, function () {\n            return
String(r[s++]);\n          }))).name = \"Invariant Violation\";\n        }\n        throw i.framesToPop = 1, i;\n      }\n    };\n
}, function (e,
 t, n) {\n    \"use strict\";\n\n    function a(e, t, n) {\n      return t in e ? Object.defineProperty(e, t, {\n        value: n,\n
    enumerable: !0,\n        configurable: !0,\n        writable: !0\n      }) : e[t] = n, e;\n    }\n\n    function r(e, t) {\n
var n = Object.keys(e);\n\n      if (Object.getOwnPropertySymbols) {\n        var a =
Object.getOwnPropertySymbols(e);\n        t && (a = a.filter(function (t) {\n          return
Object.getOwnPropertyDescriptor(e, t).enumerable;\n        })), n.push.apply(n, a);\n      }\n\n      return n;\n    }\n\n
function o(e) {\n      for (var t = 1; t < arguments.length; t++) {\n        var n = null != arguments[t] ? arguments[t] :
{};\n        t % 2 ? r(Object(n), !0).forEach(function (t) {\n          a(e, t, n[t]);\n        }) :
Object.getOwnPropertyDescriptors ? Object.defineProperties(e, Object.getOwnPropertyDescriptors(n)) :
r(Object(n)).forEach(function (t) {\n          Object.defineProperty(e, t, Object.getOwnPropertyDescriptor(n,
 t));\n        });\n      }\n\n      return e;\n    }\n\n    function i(e, t) {\n      if (!(e instanceof t)) throw new
TypeError(\"Cannot call a class as a function\");\n    }\n\n    function s(e, t) {\n      for (var n = 0; n < t.length; n++)
{\n        var a = t[n];\n        a.enumerable = a.enumerable || !1, a.configurable = !0, \"value\" in a && (a.writable =
!0), Object.defineProperty(e, a.key, a);\n      }\n    }\n\n    function c(e, t, n) {\n      return t && s(e.prototype, t), n
&& s(e, n), e;\n    }\n\n    function l(e, t) {\n      return (l = Object.setPrototypeOf || function (e, t) {\n        return
e.__proto__ = t, e;\n      })(e, t);\n    }\n\n    function u(e, t) {\n      if (\"function\" != typeof t && null !== t) throw
new TypeError(\"Super expression must either be null or a function\");\n      e.prototype = Object.create(t &&
t.prototype, {\n        constructor: {\n          value: e,\n          writable: !0,\n          configurable: !0\n        }\n      }),
 t && l(e, t);\n    }\n\n    function f(e) {\n      return (f = Object.setPrototypeOf ? Object.getPrototypeOf : function (e)
{\n        return e.__proto__ || Object.getPrototypeOf(e);\n      })(e);\n    }\n\n    function p(e) {\n      return (p =
\"function\" == typeof Symbol && \"symbol\" == typeof Symbol.iterator ? function (e) {\n        return typeof e;\n
} : function (e) {\n        return e && \"function\" == typeof Symbol && e.constructor === Symbol && e !==
Symbol.prototype ? \"symbol\" : typeof e;\n      })(e);\n    }\n\n    function d(e) {\n      if (void 0 === e) throw new
ReferenceError(\"this hasn't been initialised - super() hasn't been called\");\n      return e;\n    }\n\n    function b(e, t)
{\n      return !t || \"object\" !== p(t) && \"function\" != typeof t ? d(e) : t;\n    }\n\n    function h(e) {\n      var t =
function () {\n        if (\"undefined\" == typeof Reflect || !Reflect.construct) return !1;\n        if
(Reflect.construct.sham) return !1;\n        if
 (\"function\" == typeof Proxy) return !0;\n\n        try {\n          return
Date.prototype.toString.call(Reflect.construct(Date, [], function () {})), !0;\n        } catch (e) {\n          return !1;\n
 }\n      }();\n\n      return function () {\n        var n,\n            a = f(e);\n\n        if (t) {\n          var r =
f(this).constructor;\n          n = Reflect.construct(a, arguments, r);\n        } else n = a.apply(this, arguments);\n\n
return b(this, n);\n      };\n    }\n\n    n.r(t);\n    var v = n(0),\n        m = n.n(v);\n\n    function y() {\n      var e =
this.constructor.getDerivedStateFromProps(this.props, this.state);\n      null != e && this.setState(e);\n    }\n\n
function g(e) {\n      this.setState(function (t) {\n        var n = this.constructor.getDerivedStateFromProps(e, t);\n
return null != n ? n : null;\n      }.bind(this));\n    }\n\n    function E(e, t) {\n      try {\n        var n = this.props,\n
a = this.state;\n
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  this.props = e, this.state = t, this.__reactInternalSnapshotFlag = !0, this.__reactInternalSnapshot =
this.getSnapshotBeforeUpdate(n, a);\n      } finally {\n        this.props = n, this.state = a;\n      }\n    }\n\n    function
j(e) {\n      var t = e.prototype;\n      if (!t || !t.isReactComponent) throw new Error(\"Can only polyfill class
components\");\n      if (\"function\" != typeof e.getDerivedStateFromProps && \"function\" != typeof
t.getSnapshotBeforeUpdate) return e;\n      var n = null,\n          a = null,\n          r = null;\n\n      if (\"function\" ==
typeof t.componentWillMount ? n = \"componentWillMount\" : \"function\" == typeof
t.UNSAFE_componentWillMount && (n = \"UNSAFE_componentWillMount\"), \"function\" == typeof
t.componentWillReceiveProps ? a = \"componentWillReceiveProps\" : \"function\" == typeof
t.UNSAFE_componentWillReceiveProps && (a = \"UNSAFE_componentWillReceiveProps\"), \"function\" ==
typeof t.componentWillUpdate ? r = \"componentWillUpdate\" : \"function\"
 == typeof t.UNSAFE_componentWillUpdate && (r = \"UNSAFE_componentWillUpdate\"), null !== n || null !==
a || null !== r) {\n        var o = e.displayName || e.name,\n            i = \"function\" == typeof
e.getDerivedStateFromProps ? \"getDerivedStateFromProps()\" : \"getSnapshotBeforeUpdate()\";\n        throw
Error(\"Unsafe legacy lifecycles will not be called for components using new component APIs.\\n\\n\" + o + \" uses
\" + i + \" but also contains the following legacy lifecycles:\" + (null !== n ? \"\\n  \" + n : \"\") + (null !== a ? \"\\n
\" + a : \"\") + (null !== r ? \"\\n  \" + r : \"\") + \"\\n\\nThe above lifecycles should be removed. Learn more about
this warning here:\\nhttps://fb.me/react-async-component-lifecycle-hooks\");\n      }\n\n      if (\"function\" == typeof
e.getDerivedStateFromProps && (t.componentWillMount = y, t.componentWillReceiveProps = g), \"function\" ==
typeof t.getSnapshotBeforeUpdate) {\n        if (\"function\" != typeof t.componentDidUpdate)
 throw new Error(\"Cannot polyfill getSnapshotBeforeUpdate() for components that do not define
componentDidUpdate() on the prototype\");\n        t.componentWillUpdate = E;\n        var s =
t.componentDidUpdate;\n\n        t.componentDidUpdate = function (e, t, n) {\n          var a =
this.__reactInternalSnapshotFlag ? this.__reactInternalSnapshot : n;\n          s.call(this, e, t, a);\n        };\n      }\n\n
return e;\n    }\n\n    function x(e, t) {\n      if (null == e) return {};\n\n      var n,\n          a,\n          r = function (e, t)
{\n        if (null == e) return {};\n        var n,\n            a,\n            r = {},\n            o = Object.keys(e);\n\n        for (a =
0; a < o.length; a++) {\n          n = o[a], t.indexOf(n) >= 0 || (r[n] = e[n]);\n        }\n\n        return r;\n      }(e, t);\n\n
if (Object.getOwnPropertySymbols) {\n        var o = Object.getOwnPropertySymbols(e);\n\n        for (a = 0; a <
o.length; a++) {\n          n = o[a], t.indexOf(n)
 >= 0 || Object.prototype.propertyIsEnumerable.call(e, n) && (r[n] = e[n]);\n        }\n      }\n\n      return r;\n    }\n\n
function _(e) {\n      var t = function (e) {\n        return {}.toString.call(e).match(/\\s([a-zA-
Z]+)/)[1].toLowerCase();\n      }(e);\n\n      return \"number\" === t && (t = isNaN(e) ? \"nan\" : (0 | e) != e ?
\"float\" : \"integer\"), t;\n    }\n\n    y.__suppressDeprecationWarning = !0, g.__suppressDeprecationWarning = !0,
E.__suppressDeprecationWarning = !0;\n\n    var k = {\n      scheme: \"rjv-default\",\n      author: \"mac gainor\",\n
 base00: \"rgba(0, 0, 0, 0)\",\n      base01: \"rgb(245, 245, 245)\",\n      base02: \"rgb(235, 235, 235)\",\n      base03:
\"#93a1a1\",\n      base04: \"rgba(0, 0, 0, 0.3)\",\n      base05: \"#586e75\",\n      base06: \"#073642\",\n      base07:
\"#002b36\",\n      base08: \"#d33682\",\n      base09: \"#cb4b16\",\n      base0A: \"#dc322f\",\n      base0B:
\"#859900\",\n      base0C: \"#6c71c4\",\n      base0D:
 \"#586e75\",\n      base0E: \"#2aa198\",\n      base0F: \"#268bd2\"\n    },\n        O = {\n      scheme: \"rjv-grey\",\n
author: \"mac gainor\",\n      base00: \"rgba(1, 1, 1, 0)\",\n      base01: \"rgba(1, 1, 1, 0.1)\",\n      base02: \"rgba(0, 0,
0, 0.2)\",\n      base03: \"rgba(1, 1, 1, 0.3)\",\n      base04: \"rgba(0, 0, 0, 0.4)\",\n      base05: \"rgba(1, 1, 1, 0.5)\",\n
 base06: \"rgba(1, 1, 1, 0.6)\",\n      base07: \"rgba(1, 1, 1, 0.7)\",\n      base08: \"rgba(1, 1, 1, 0.8)\",\n      base09:
\"rgba(1, 1, 1, 0.8)\",\n      base0A: \"rgba(1, 1, 1, 0.8)\",\n      base0B: \"rgba(1, 1, 1, 0.8)\",\n      base0C: \"rgba(1, 1,
1, 0.8)\",\n      base0D: \"rgba(1, 1, 1, 0.8)\",\n      base0E: \"rgba(1, 1, 1, 0.8)\",\n      base0F: \"rgba(1, 1, 1, 0.8)\"\n
},\n        C = {\n      white: \"#fff\",\n      black: \"#000\",\n      transparent: \"rgba(1, 1, 1, 0)\",\n
globalFontFamily: \"monospace\",\n      globalCursor: \"default\",\n      indentBlockWidth: \"5px\",\n
     braceFontWeight: \"bold\",\n      braceCursor: \"pointer\",\n      ellipsisFontSize: \"18px\",\n
ellipsisLineHeight: \"10px\",\n      ellipsisCursor: \"pointer\",\n      keyMargin: \"0px 5px\",\n      keyLetterSpacing:
\"0.5px\",\n      keyFontStyle: \"none\",\n      keyBorderRadius: \"3px\",\n      keyColonWeight: \"bold\",\n
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keyVerticalAlign: \"top\",\n keyOpacity: \"0.85\",\n keyOpacityHover: \"1\",\n keyValPaddingTop: \"3px\",\n keyValPaddingBottom: \"3px\",\n keyValPaddingRight: \"5px\",\n keyValBorderLeft: \"1px solid\",\n keyValBorderHover: \"2px solid\",\n keyValPaddingHover: \"3px 5px 3px 4px\",\n pushedContentMarginLeft: \"6px\",\n variableValuePaddingRight: \"6px\",\n nullFontSize: \"11px\",\n nullFontWeight: \"bold\",\n nullPadding: \"1px 2px\",\n nullBorderRadius: \"3px\",\n nanFontSize: \"11px\",\n nanFontWeight: \"bold\",\n nanPadding: \"1px 2px\",\n nanBorderRadius: \"3px\",\n undefinedFontSize: \"11px\",\n undefinedFontWeight: \"bold\",\n undefinedPadding: \"1px 2px\",\n undefinedBorderRadius: \"3px\",\n dataTypeFontSize: \"11px\",\n dataTypeMarginRight: \"4px\",\n datatypeOpacity: \"0.8\",\n objectSizeBorderRadius: \"3px\",\n objectSizeFontStyle: \"italic\",\n objectSizeMargin: \"0px 6px 0px 0px\",\n clipboardCursor: \"pointer\",\n clipboardCheckMarginLeft: \"-12px\",\n metaDataPadding: \"0px 0px 0px 10px\",\n arrayGroupMetaPadding: \"0px 0px 0px 4px\",\n iconContainerWidth: \"17px\",\n tooltipPadding: \"4px\",\n editInputMinWidth: \"130px\",\n editInputBorderRadius: \"2px\",\n editInputPadding: \"5px\",\n editInputMarginRight: \"4px\",\n editInputFontFamily: \"monospace\",\n iconCursor: \"pointer\",\n iconFontSize: \"15px\",\n iconPaddingRight: \"1px\",\n dateValueMarginLeft: \"2px\",\n iconMarginRight: \"3px\",\n detectedRowPaddingTop: \"3px\",\n addKeyCoverBackground: \"rgba(255, 255, 255, 0.3)\",\n addKeyCoverPosition: \"absolute\",\n addKeyCoverPositionPx: \"0px\",\n addKeyModalWidth: \"200px\",\n addKeyModalMargin: \"auto\",\n addKeyModalPadding: \"10px\",\n addKeyModalRadius: \"3px\"\n },\n S = n(45),\n w = function w(e) {\n var t = function (e) {\n return {\n backgroundColor: e.base00,\n ellipsisColor: e.base09,\n braceColor: e.base07,\n expandedIcon: e.base0D,\n collapsedIcon: e.base0E,\n keyColor: e.base07,\n arrayKeyColor: e.base0C,\n objectSize: e.base04,\n copyToClipboard: e.base0F,\n copyToClipboardCheck: e.base0D,\n objectBorder: e.base02,\n dataTypes: {\n boolean: e.base0E,\n date: e.base0D,\n float: e.base0B,\n function: e.base0D,\n integer: e.base0F,\n string: e.base09,\n nan: e.base08,\n null: e.base0A,\n undefined: e.base05,\n regexp: e.base0A,\n background: e.base02\n },\n editVariable: {\n editIcon: e.base0E,\n cancelIcon: e.base09,\n removeIcon: e.base09,\n addIcon: e.base0E,\n checkIcon: e.base0E,\n background: e.base01,\n color: e.base0A,\n border: e.base07\n },\n addKeyModal: {\n background: e.base05,\n border: e.base04,\n color: e.base0A,\n labelColor: e.base01\n },\n validationFailure: {\n background: e.base09,\n iconColor: e.base01,\n fontColor: e.base01\n }\n };\n }(e);\n\n return {\n \"app-container\": {\n fontFamily: C.globalFontFamily,\n cursor: C.globalCursor,\n backgroundColor: t.backgroundColor,\n position: \"relative\"\n },\n ellipsis: {\n display: \"inline-block\",\n color: t.ellipsisColor,\n fontSize: C.ellipsisFontSize,\n lineHeight: C.ellipsisLineHeight,\n cursor: C.ellipsisCursor\n },\n \"brace-row\": {\n display: \"inline-block\",\n cursor: \"pointer\"\n },\n brace: {\n display: \"inline-block\",\n cursor: C.braceCursor,\n fontWeight: C.braceFontWeight,\n color: t.braceColor\n },\n \"expanded-icon\": {\n color: t.expandedIcon\n },\n \"collapsed-icon\": {\n color: t.collapsedIcon\n },\n colon: {\n display: \"inline-block\",\n margin: C.keyMargin,\n color: t.keyColor,\n verticalAlign: \"top\"\n },\n objectKeyVal: function objectKeyVal(e, n) {\n return {\n style: o({\n paddingTop: C.keyValPaddingTop,\n paddingRight: C.keyValPaddingRight,\n paddingBottom: C.keyValPaddingBottom,\n borderLeft: C.keyValBorderLeft + \" \" + t.objectBorder,\n \":hover\": {\n paddingLeft: n.paddingLeft - 1 + \"px\",\n borderLeft: C.keyValBorderHover + \" \" + t.objectBorder\n }\n }, n)\n };\n },\n \"object-key-val-no-border\": {\n padding: C.keyValPadding\n },\n \"pushed-content\": {\n marginLeft: C.pushedContentMarginLeft\n },\n variableValue: function variableValue(e, t) {\n return {\n style: o({\n display: \"inline-block\",\n paddingRight: C.variableValuePaddingRight,\n position: \"relative\"\n }, t)\n };\n },\n \"object-name\": {\n display: \"inline-block\",\n color: t.keyColor,\n letterSpacing: C.keyLetterSpacing,\n fontStyle: C.keyFontStyle,\n verticalAlign: C.keyVerticalAlign,\n opacity: C.keyOpacity,\n \":hover\": {\n opacity: C.keyOpacityHover\n }\n },\n \"array-key\": {\n display: \"inline-block\",\n color: t.arrayKeyColor,\n letterSpacing: C.keyLetterSpacing,\n fontStyle: C.keyFontStyle,\n verticalAlign: C.keyVerticalAlign,\n opacity: C.keyOpacity,\n \":hover\": {\n opacity: C.keyOpacityHover\n }\n },\n \"object-size\": {\n color: t.objectSize,\n borderRadius: C.objectSizeBorderRadius,\n fontStyle: C.objectSizeFontStyle,\n margin: C.objectSizeMargin,\n cursor: \"default\"\n },\n \"data-type-label\": {\n fontSize: C.dataTypeFontSize,\n marginRight: C.dataTypeMarginRight,\n opacity: C.datatypeOpacity\n

},\n boolean: {\n display: \"inline-block\",\n color: t.dataTypes.boolean\n },\n date: {\n display: \"inline-block\",\n color: t.dataTypes.date\n },\n \"date-value\": {\n marginLeft: C.dateValueMarginLeft\n },\n float: {\n display: \"inline-block\",\n color: t.dataTypes.float\n },\n function: {\n display: \"inline-block\",\n color: t.dataTypes.function,\n cursor: \"pointer\",\n whiteSpace: \"pre-line\"\n },\n \"function-value\": {\n fontStyle: \"italic\"\n },\n integer: {\n display: \"inline-block\",\n color: t.dataTypes.integer\n },\n string: {\n display: \"inline-block\",\n color: t.dataTypes.string\n },\n nan: {\n display: \"inline-block\",\n color: t.dataTypes.nan,\n fontSize: C.nanFontSize,\n

fontWeight: C.nanFontWeight,\n backgroundColor: t.dataTypes.background,\n padding: C.nanPadding,\n borderRadius: C.nanBorderRadius\n },\n null: {\n display: \"inline-block\",\n color: t.dataTypes.null,\n fontSize: C.nullFontSize,\n fontWeight: C.nullFontWeight,\n backgroundColor: t.dataTypes.background,\n padding: C.nullPadding,\n borderRadius: C.nullBorderRadius\n },\n undefined: {\n display: \"inline-block\",\n color: t.dataTypes.undefined,\n fontSize: C.undefinedFontSize,\n padding: C.undefinedPadding,\n borderRadius: C.undefinedBorderRadius,\n backgroundColor: t.dataTypes.background\n },\n regexp: {\n display: \"inline-block\",\n color: t.dataTypes.regexp\n },\n \"copy-to-clipboard\": {\n cursor: C.clipboardCursor\n },\n \"copy-icon\":

{\n color: t.copyToClipboard,\n fontSize: C.iconFontSize,\n marginRight: C.iconMarginRight,\n verticalAlign: \"top\"\n },\n \"copy-icon-copied\": {\n color: t.copyToClipboardCheck,\n marginLeft: C.clipboardCheckMarginLeft\n },\n \"array-group-meta-data\": {\n display: \"inline-block\",\n padding: C.arrayGroupMetaPadding\n },\n \"object-meta-data\": {\n display: \"inline-block\",\n padding: C.metaDataPadding\n },\n \"icon-container\": {\n display: \"inline-block\",\n width: C.iconContainerWidth\n },\n tooltip: {\n padding: C.tooltipPadding\n },\n removeVarIcon: {\n verticalAlign: \"top\",\n display: \"inline-block\",\n color: t.editVariable.removeIcon,\n cursor: C.iconCursor,\n fontSize: C.iconFontSize,\n marginRight: C.iconMarginRight\n

},\n addVarIcon: {\n verticalAlign: \"top\",\n display: \"inline-block\",\n color: t.editVariable.addIcon,\n cursor: C.iconCursor,\n fontSize: C.iconFontSize,\n marginRight: C.iconMarginRight\n },\n editVarIcon: {\n verticalAlign: \"top\",\n display: \"inline-block\",\n color: t.editVariable.editIcon,\n cursor: C.iconCursor,\n fontSize: C.iconFontSize,\n marginRight: C.iconMarginRight\n },\n \"edit-icon-container\": {\n display: \"inline-block\",\n verticalAlign: \"top\"\n },\n \"check-icon\": {\n display: \"inline-block\",\n cursor: C.iconCursor,\n color: t.editVariable.checkIcon,\n fontSize: C.iconFontSize,\n paddingRight: C.iconPaddingRight\n },\n \"cancel-icon\": {\n display: \"inline-block\",\n cursor: C.iconCursor,\n

color: t.editVariable.cancelIcon,\n fontSize: C.iconFontSize,\n paddingRight: C.iconPaddingRight\n },\n \"edit-input\": {\n display: \"inline-block\",\n minWidth: C.editInputMinWidth,\n borderRadius: C.editInputBorderRadius,\n backgroundColor: t.editVariable.background,\n color: t.editVariable.color,\n padding: C.editInputPadding,\n marginRight: C.editInputMarginRight,\n

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fontFamily: C.editInputFontFamily\n        },\n        \"detected-row\": {\n          paddingTop:
C.detectedRowPaddingTop\n        },\n        \"key-modal-request\": {\n          position: C.addKeyCoverPosition,\n
 top: C.addKeyCoverPositionPx,\n          left: C.addKeyCoverPositionPx,\n          right:
C.addKeyCoverPositionPx,\n          bottom: C.addKeyCoverPositionPx,\n          backgroundColor:
C.addKeyCoverBackground\n        },\n        \"key-modal\": {\n          width: C.addKeyModalWidth,\n
    backgroundColor: t.addKeyModal.background,\n          marginLeft: C.addKeyModalMargin,\n          marginRight:
C.addKeyModalMargin,\n          padding: C.addKeyModalPadding,\n          borderRadius: C.addKeyModalRadius,\n
       marginTop: \"15px\",\n          position: \"relative\"\n        },\n        \"key-modal-label\": {\n          color:
t.addKeyModal.labelColor,\n          marginLeft: \"2px\",\n          marginBottom: \"5px\",\n          fontSize: \"11px\"\n
     },\n        \"key-modal-input-container\": {\n          overflow: \"hidden\"\n        },\n        \"key-modal-input\": {\n
   width: \"100%\",\n          padding: \"3px 6px\",\n          fontFamily: \"monospace\",\n          color:
t.addKeyModal.color,\n          border: \"none\",\n          boxSizing: \"border-box\",\n          borderRadius: \"2px\"\n
   },\n        \"key-modal-cancel\": {\n          backgroundColor: t.editVariable.removeIcon,\n          position:
\"absolute\",\n          top: \"0px\",\n
          right: \"0px\",\n          borderRadius: \"0px 3px 0px 3px\",\n          cursor: \"pointer\"\n        },\n        \"key-
modal-cancel-icon\": {\n          color: t.addKeyModal.labelColor,\n          fontSize: C.iconFontSize,\n
transform: \"rotate(45deg)\"\n        },\n        \"key-modal-submit\": {\n          color: t.editVariable.addIcon,\n
fontSize: C.iconFontSize,\n          position: \"absolute\",\n          right: \"2px\",\n          top: \"3px\",\n          cursor:
\"pointer\"\n        },\n        \"function-ellipsis\": {\n          display: \"inline-block\",\n          color: t.ellipsisColor,\n
 fontSize: C.ellipsisFontSize,\n          lineHeight: C.ellipsisLineHeight,\n          cursor: C.ellipsisCursor\n        },\n
 \"validation-failure\": {\n          float: \"right\",\n          padding: \"3px 6px\",\n          borderRadius: \"2px\",\n
cursor: \"pointer\",\n          color: t.validationFailure.fontColor,\n          backgroundColor:
 t.validationFailure.background\n        },\n        \"validation-failure-label\": {\n          marginRight: \"6px\"\n        },\n
     \"validation-failure-clear\": {\n          position: \"relative\",\n          verticalAlign: \"top\",\n          cursor:
\"pointer\",\n          color: t.validationFailure.iconColor,\n          fontSize: C.iconFontSize,\n          transform:
\"rotate(45deg)\"\n        }\n      };\n    };\n\n    function A(e, t, n) {\n      return e || console.error(\"theme has not been
set\"), function (e) {\n        var t = k;\n        return !1 !== e && \"none\" !== e || (t = O), Object(S.createStyling)(w,
{\n          defaultBase16: t\n        })(e);\n      }(e)(t, n);\n    }\n\n    var M = function (e) {\n      u(n, e);\n      var t =
h(n);\n\n      function n() {\n        return i(this, n), t.apply(this, arguments);\n      }\n\n      return c(n, [{\n        key:
\"render\",\n        value: function value() {\n          var e = this.props,\n
   t = (e.rjvId, e.type_name),\n              n = e.displayDataTypes,\n              a = e.theme;\n          return n ?
m.a.createElement(\"span\", Object.assign({\n            className: \"data-type-label\"\n          }, A(a, \"data-type-
label\")), t) : null;\n        }\n      }]), n;\n    }(m.a.PureComponent),\n        P = function (e) {\n      u(n, e);\n      var t =
h(n);\n\n      function n() {\n        return i(this, n), t.apply(this, arguments);\n      }\n\n      return c(n, [{\n        key:
\"render\",\n        value: function value() {\n          var e = this.props;\n          return m.a.createElement(\"div\",
A(e.theme, \"boolean\"), m.a.createElement(M, Object.assign({\n            type_name: \"bool\"\n          }, e)), e.value ?
\"true\" : \"false\");\n        }\n      }]), n;\n    }(m.a.PureComponent),\n        F = function (e) {\n      u(n, e);\n      var t
= h(n);\n\n      function n() {\n        return i(this, n), t.apply(this, arguments);\n      }\n\n      return c(n, [{\n
       key: \"render\",\n        value: function value() {\n          var e = this.props;\n          return
m.a.createElement(\"div\", A(e.theme, \"date\"), m.a.createElement(M, Object.assign({\n            type_name:
\"date\"\n          }, e)), m.a.createElement(\"span\", Object.assign({\n            className: \"date-value\"\n          },
A(e.theme, \"date-value\")), e.value.toLocaleTimeString(\"en-us\", {\n            weekday: \"short\",\n            year:
\"numeric\",\n            month: \"short\",\n            day: \"numeric\",\n            hour: \"2-digit\",\n            minute: \"2-
digit\"\n          })));\n        }\n      }]), n;\n    }(m.a.PureComponent),\n        D = function (e) {\n      u(n, e);\n      var t
= h(n);\n\n      function n() {\n        return i(this, n), t.apply(this, arguments);\n      }\n\n      return c(n, [{\n        key:
\"render\",\n        value: function value() {\n          var e = this.props;\n          return m.a.createElement(\"div\",
A(e.theme,
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 \"float\"), m.a.createElement(M, Object.assign({\n            type_name: \"float\"\n          }, e)), this.props.value);\n
}\n      }]), n;\n    }(m.a.PureComponent);\n\n    function I(e, t) {\n      (null == t || t > e.length) && (t = e.length);\n\n
    for (var n = 0, a = new Array(t); n < t; n++) {\n        a[n] = e[n];\n      }\n\n      return a;\n    }\n\n    function R(e, t)
{\n      if (e) {\n        if (\"string\" == typeof e) return I(e, t);\n        var n = Object.prototype.toString.call(e).slice(8, -
1);\n        return \"Object\" === n && e.constructor && (n = e.constructor.name), \"Map\" === n || \"Set\" === n ?
Array.from(e) : \"Arguments\" === n || /^(?:Ui|I)nt(?:8|16|32)(?:Clamped)?Array$/.test(n) ? I(e, t) : void 0;\n      }\n
}\n\n    function L(e, t) {\n      var _n;\n\n      if (\"undefined\" == typeof Symbol || null == e[Symbol.iterator]) {\n
 if (Array.isArray(e) || (_n = R(e)) || t && e && \"number\" == typeof e.length) {\n          _n && (e = _n);\n\n
          var a = 0,\n              r = function r() {};\n\n          return {\n            s: r,\n            n: function n() {\n
return a >= e.length ? {\n                done: !0\n              } : {\n                done: !1,\n                value: e[a++]\n
};\n            },\n            e: function e(_e2) {\n              throw _e2;\n            },\n            f: r\n          };\n        }\n\n
throw new TypeError(\"Invalid attempt to iterate non-iterable instance.\\nIn order to be iterable, non-array objects
must have a [Symbol.iterator]() method.\");\n      }\n\n      var o,\n          i = !0,\n          s = !1;\n      return {\n        s:
function s() {\n          _n = e[Symbol.iterator]();\n        },\n        n: function n() {\n          var e = _n.next();\n\n
return i = e.done, e;\n        },\n        e: function e(_e3) {\n          s = !0, o = _e3;\n        },\n        f: function f() {\n
try {\n            i || null
 == _n.return || _n.return();\n          } finally {\n            if (s) throw o;\n          }\n        }\n      };\n    }\n\n    function
B(e) {\n      return function (e) {\n        if (Array.isArray(e)) return I(e);\n      }(e) || function (e) {\n        if
(\"undefined\" != typeof Symbol && Symbol.iterator in Object(e)) return Array.from(e);\n      }(e) || R(e) || function
() {\n        throw new TypeError(\"Invalid attempt to spread non-iterable instance.\\nIn order to be iterable, non-array
objects must have a [Symbol.iterator]() method.\");\n      }();\n    }\n\n    var N = n(46),\n        z = new
(n(47).Dispatcher)(),\n        T = new (function (e) {\n      u(n, e);\n      var t = h(n);\n\n      function n() {\n        var
e;\n        i(this, n);\n\n        for (var a = arguments.length, r = new Array(a), s = 0; s < a; s++) {\n          r[s] =
arguments[s];\n        }\n\n        return (e = t.call.apply(t, [this].concat(r))).objects = {}, e.set = function (t, n, a, r) {\n
       void 0 === e.objects[t] && (e.objects[t] = {}), void 0 === e.objects[t][n] && (e.objects[t][n] = {}),
e.objects[t][n][a] = r;\n        }, e.get = function (t, n, a, r) {\n          return void 0 === e.objects[t] || void 0 ===
e.objects[t][n] || null == e.objects[t][n][a] ? r : e.objects[t][n][a];\n        }, e.handleAction = function (t) {\n          var
n = t.rjvId,\n              a = t.data;\n\n          switch (t.name) {\n            case \"RESET\":\n              e.emit(\"reset-\" +
n);\n              break;\n\n            case \"VARIABLE_UPDATED\":\n              t.data.updated_src = e.updateSrc(n, a),
e.set(n, \"action\", \"variable-update\", o(o({}, a), {}, {\n                type: \"variable-edited\"\n              })),
e.emit(\"variable-update-\" + n);\n              break;\n\n            case \"VARIABLE_REMOVED\":\n
t.data.updated_src = e.updateSrc(n, a), e.set(n, \"action\", \"variable-update\", o(o({}, a), {}, {\n                type:
\"variable-removed\"\n
              })), e.emit(\"variable-update-\" + n);\n              break;\n\n            case \"VARIABLE_ADDED\":\n
t.data.updated_src = e.updateSrc(n, a), e.set(n, \"action\", \"variable-update\", o(o({}, a), {}, {\n                type:
\"variable-added\"\n              })), e.emit(\"variable-update-\" + n);\n              break;\n\n            case
\"ADD_VARIABLE_KEY_REQUEST\":\n              e.set(n, \"action\", \"new-key-request\", a), e.emit(\"add-key-
request-\" + n);\n          }\n        }, e.updateSrc = function (t, n) {\n          var a = n.name,\n              r =
n.namespace,\n              o = n.new_value,\n              i = (n.existing_value, n.variable_removed);\n          r.shift();\n
   var s,\n              c = e.get(t, \"global\", \"src\"),\n              l = e.deepCopy(c, B(r)),\n              u = l,\n              f =
L(r);\n\n          try {\n            for (f.s(); !(s = f.n()).done;) {\n              u = u[s.value];\n            }\n
   } catch (e) {\n            f.e(e);\n          } finally {\n            f.f();\n          }\n\n          return i ? \"array\" == _(u) ?
u.splice(a, 1) : delete u[a] : null !== a ? u[a] = o : l = o, e.set(t, \"global\", \"src\", l), l;\n        }, e.deepCopy =
function (t, n) {\n          var a,\n              r = _(t),\n              i = n.shift();\n\n          return \"array\" == r ? a = B(t) :
\"object\" == r && (a = o({}, t)), void 0 !== i && (a[i] = e.deepCopy(t[i], n)), a;\n        }, e;\n      }\n\n      return n;\n
  }(N.EventEmitter))();\n    z.register(T.handleAction.bind(T));\n\n    var q = T,\n        V = function (e) {\n      u(n,
e);\n      var t = h(n);\n\n      function n(e) {\n        var a;\n        return i(this, n), (a = t.call(this, e)).toggleCollapsed =
function () {\n          a.setState({\n            collapsed: !a.state.collapsed\n          }, function () {\n
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q.set(a.props.rjvId, a.props.namespace, \"collapsed\", a.state.collapsed);\n          });\n
        }, a.getFunctionDisplay = function (e) {\n          var t = d(a).props;\n          return e ?
m.a.createElement(\"span\", null, a.props.value.toString().slice(9, -1).replace(/\\{[\\s\\S]+/, \"\"),
m.a.createElement(\"span\", {\n            className: \"function-collapsed\",\n            style: {\n              fontWeight:
\"bold\"\n            }\n          }, m.a.createElement(\"span\", null, \"{\"), m.a.createElement(\"span\", A(t.theme,
\"ellipsis\"), \"...\"), m.a.createElement(\"span\", null, \"}\"))) : a.props.value.toString().slice(9, -1);\n        }, a.state =
{\n          collapsed: q.get(e.rjvId, e.namespace, \"collapsed\", !0)\n        }, a;\n      }\n\n      return c(n, [{\n        key:
\"render\",\n        value: function value() {\n          var e = this.props,\n              t = this.state.collapsed;\n          return
m.a.createElement(\"div\", A(e.theme, \"function\"), m.a.createElement(M, Object.assign({\n            type_name:
\"function\"\n          }, e)), m.a.createElement(\"span\",
 Object.assign({}, A(e.theme, \"function-value\"), {\n            className: \"rjv-function-container\",\n
onClick: this.toggleCollapsed\n          }), this.getFunctionDisplay(t)));\n        }\n      }]), n;\n
}(m.a.PureComponent),\n       K = function (e) {\n      u(n, e);\n      var t = h(n);\n\n      function n() {\n        return
i(this, n), t.apply(this, arguments);\n      }\n\n      return c(n, [{\n        key: \"render\",\n        value: function value()
{\n          return m.a.createElement(\"div\", A(this.props.theme, \"nan\"), \"NaN\");\n        }\n      }]), n;\n
}(m.a.PureComponent),\n       W = function (e) {\n      u(n, e);\n      var t = h(n);\n\n      function n() {\n        return
i(this, n), t.apply(this, arguments);\n      }\n\n      return c(n, [{\n        key: \"render\",\n        value: function value()
{\n          return m.a.createElement(\"div\", A(this.props.theme, \"null\"), \"NULL\");\n        }\n      }]), n;\n
  }(m.a.PureComponent),\n       H = function (e) {\n      u(n, e);\n      var t = h(n);\n\n      function n() {\n        return
i(this, n), t.apply(this, arguments);\n      }\n\n      return c(n, [{\n        key: \"render\",\n        value: function value()
{\n          var e = this.props;\n          return m.a.createElement(\"div\", A(e.theme, \"integer\"), m.a.createElement(M,
Object.assign({\n            type_name: \"int\"\n          }, e)), this.props.value);\n        }\n      }]), n;\n
}(m.a.PureComponent),\n       U = function (e) {\n      u(n, e);\n      var t = h(n);\n\n      function n() {\n        return
i(this, n), t.apply(this, arguments);\n      }\n\n      return c(n, [{\n        key: \"render\",\n        value: function value()
{\n          var e = this.props;\n          return m.a.createElement(\"div\", A(e.theme, \"regexp\"), m.a.createElement(M,
Object.assign({\n            type_name: \"regexp\"\n          }, e)), this.props.value.toString());\n        }\n      }]),
 n;\n    }(m.a.PureComponent),\n       G = function (e) {\n      u(n, e);\n      var t = h(n);\n\n      function n(e) {\n
var a;\n        return i(this, n), (a = t.call(this, e)).toggleCollapsed = function () {\n          a.setState({\n
collapsed: !a.state.collapsed\n          }, function () {\n            q.set(a.props.rjvId, a.props.namespace, \"collapsed\",
a.state.collapsed);\n          });\n        }, a.state = {\n          collapsed: q.get(e.rjvId, e.namespace, \"collapsed\", !0)\n
  }, a;\n      }\n\n      return c(n, [{\n        key: \"render\",\n        value: function value() {\n          this.state.collapsed;\n
       var e = this.props,\n              t = e.collapseStringsAfterLength,\n              n = e.theme,\n              a = e.value,\n
       r = {\n            style: {\n              cursor: \"default\"\n            }\n          };\n          return \"integer\" === _(t) &&
a.length > t && (r.style.cursor = \"pointer\", this.state.collapsed
 && (a = m.a.createElement(\"span\", null, a.substring(0, t), m.a.createElement(\"span\", A(n, \"ellipsis\"), \" ...\")))),
m.a.createElement(\"div\", A(n, \"string\"), m.a.createElement(M, Object.assign({\n            type_name: \"string\"\n
    }, e)), m.a.createElement(\"span\", Object.assign({\n            className: \"string-value\"\n          }, r, {\n
onClick: this.toggleCollapsed\n          }), '\"', a, '\"'));\n        }\n      }]), n;\n    }(m.a.PureComponent),\n       J =
function (e) {\n      u(n, e);\n      var t = h(n);\n\n      function n() {\n        return i(this, n), t.apply(this, arguments);\n
  }\n\n      return c(n, [{\n        key: \"render\",\n        value: function value() {\n          return
m.a.createElement(\"div\", A(this.props.theme, \"undefined\"), \"undefined\");\n        }\n      }]), n;\n
}(m.a.PureComponent);\n\n    function Y() {\n      return (Y = Object.assign || function (e) {\n        for (var t = 1; t <
arguments.length;
 t++) {\n          var n = arguments[t];\n\n          for (var a in n) {\n            Object.prototype.hasOwnProperty.call(n, a)
&& (e[a] = n[a]);\n          }\n        }\n\n        return e;\n      }).apply(this, arguments);\n    }\n\n    var $ =
v.useLayoutEffect,\n       Q = function Q(e) {\n      var t = Object(v.useRef)(e);\n      return $(function () {\n
t.current = e;\n      }), t;\n    },\n       Z = function Z(e, t) {\n      \"function\" != typeof e ? e.current = t : e(t);\n    },\n
    X = function X(e, t) {\n      var n = Object(v.useRef)();\n      return Object(v.useCallback)(function (a) {\n
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e.current = a, n.current && Z(n.current, null), n.current = t, t && Z(t, a);\n      }, [t]);\n    },\n        ee = {\n      \"min-
height\": \"0\",\n      \"max-height\": \"none\",\n      height: \"0\",\n      visibility: \"hidden\",\n      overflow:
\"hidden\",\n      position: \"absolute\",\n      \"z-index\": \"-1000\",\n      top: \"0\",\n      right: \"0\"\n
   },\n        te = function te(e) {\n      Object.keys(ee).forEach(function (t) {\n        e.style.setProperty(t, ee[t],
\"important\");\n      });\n    },\n        ne = null;\n\n    var ae = function ae() {},\n        re = [\"borderBottomWidth\",
\"borderLeftWidth\", \"borderRightWidth\", \"borderTopWidth\", \"boxSizing\", \"fontFamily\", \"fontSize\",
\"fontStyle\", \"fontWeight\", \"letterSpacing\", \"lineHeight\", \"paddingBottom\", \"paddingLeft\",
\"paddingRight\", \"paddingTop\", \"tabSize\", \"textIndent\", \"textRendering\", \"textTransform\", \"width\"],\n
oe = !!document.documentElement.currentStyle,\n        ie = function ie(e, t) {\n      var n = e.cacheMeasurements,\n
      a = e.maxRows,\n          r = e.minRows,\n          o = e.onChange,\n          i = void 0 === o ? ae : o,\n          s =
e.onHeightChange,\n          c = void 0 === s ? ae : s,\n          l = function (e, t) {\n        if (null == e) return {};\n
var n,\n            a,\n            r =
 {},\n            o = Object.keys(e);\n\n        for (a = 0; a < o.length; a++) {\n          n = o[a], t.indexOf(n) >= 0 || (r[n] =
e[n]);\n        }\n\n        return r;\n      }(e, [\"cacheMeasurements\", \"maxRows\", \"minRows\", \"onChange\",
\"onHeightChange\"]);\n\n      var u,\n          f = void 0 !== l.value,\n          p = Object(v.useRef)(null),\n          d =
X(p, t),\n          b = Object(v.useRef)(0),\n          h = Object(v.useRef)(),\n          m = function m() {\n        var e =
p.current,\n            t = n && h.current ? h.current : function (e) {\n          var t = window.getComputedStyle(e);\n
 if (null === t) return null;\n          var n,\n              a = (n = t, re.reduce(function (e, t) {\n            return e[t] = n[t],
e;\n          }, {})),\n              r = a.boxSizing;\n          return \"\" === r ? null : (oe && \"border-box\" === r &&
(a.width = parseFloat(a.width) + parseFloat(a.borderRightWidth) + parseFloat(a.borderLeftWidth) +
parseFloat(a.paddingRight)
 + parseFloat(a.paddingLeft) + \"px\"), {\n            sizingStyle: a,\n            paddingSize: parseFloat(a.paddingBottom)
+ parseFloat(a.paddingTop),\n            borderSize: parseFloat(a.borderBottomWidth) +
parseFloat(a.borderTopWidth)\n          });\n        }(e);\n\n        if (t) {\n          h.current = t;\n\n          var o = function
(e, t, n, a) {\n            void 0 === n && (n = 1), void 0 === a && (a = 1 / 0), ne || ((ne =
document.createElement(\"textarea\")).setAttribute(\"tab-index\", \"-1\"), ne.setAttribute(\"aria-hidden\", \"true\"),
te(ne)), null === ne.parentNode && document.body.appendChild(ne);\n            var r = e.paddingSize,\n                o
= e.borderSize,\n                i = e.sizingStyle,\n                s = i.boxSizing;\n            Object.keys(i).forEach(function (e)
{\n              var t = e;\n              ne.style[t] = i[t];\n            }), te(ne), ne.value = t;\n\n            var c = function (e, t) {\n
          var n = e.scrollHeight;\n
              return \"border-box\" === t.sizingStyle.boxSizing ? n + t.borderSize : n - t.paddingSize;\n            }(ne,
e);\n\n            ne.value = \"x\";\n            var l = ne.scrollHeight - r,\n                u = l * n;\n            \"border-box\" ===
s && (u = u + r + o), c = Math.max(u, c);\n            var f = l * a;\n            return \"border-box\" === s && (f = f + r +
o), [c = Math.min(f, c), l];\n          }(t, e.value || e.placeholder || \"x\", r, a),\n              i = o[0],\n              s = o[1];\n\n
       b.current !== i && (b.current = i, e.style.setProperty(\"height\", i + \"px\", \"important\"), c(i, {\n
rowHeight: s\n          }));\n        }\n      };\n\n      return Object(v.useLayoutEffect)(m), u = Q(m),
Object(v.useLayoutEffect)(function () {\n        var e = function e(_e4) {\n          u.current(_e4);\n        };\n\n
return window.addEventListener(\"resize\", e), function () {\n          window.removeEventListener(\"resize\",
 e);\n        };\n      }, []), Object(v.createElement)(\"textarea\", Y({}, l, {\n        onChange: function onChange(e) {\n
      f || m(), i(e);\n        },\n        ref: d\n      }));\n    },\n        se = Object(v.forwardRef)(ie);\n\n    function ce(e) {\n
e = e.trim();\n\n      try {\n        if (\"[\" === (e = JSON.stringify(JSON.parse(e)))[0]) return le(\"array\",
JSON.parse(e));\n        if (\"{\" === e[0]) return le(\"object\", JSON.parse(e));\n        if (e.match(/\\-?\\d+\\.\\d+/) &&
e.match(/\\-?\\d+\\.\\d+/)[0] === e) return le(\"float\", parseFloat(e));\n        if (e.match(/\\-?\\d+e-\\d+/) &&
e.match(/\\-?\\d+e-\\d+/)[0] === e) return le(\"float\", Number(e));\n        if (e.match(/\\-?\\d+/) && e.match(/\\-
?\\d+/)[0] === e) return le(\"integer\", parseInt(e));\n        if (e.match(/\\-?\\d+e\\+\\d+/) && e.match(/\\-
?\\d+e\\+\\d+/)[0] === e) return le(\"integer\", Number(e));\n      } catch (e) {}\n\n      switch (e = e.toLowerCase())
{\n        case \"undefined\":\n
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        return le(\"undefined\", void 0);\n\n        case \"nan\":\n          return le(\"nan\", NaN);\n\n        case \"null\":\n
      return le(\"null\", null);\n\n        case \"true\":\n          return le(\"boolean\", !0);\n\n        case \"false\":\n
return le(\"boolean\", !1);\n\n        default:\n          if (e = Date.parse(e)) return le(\"date\", new Date(e));\n      }\n\n
return le(!1, null);\n    }\n\n    function le(e, t) {\n      return {\n        type: e,\n        value: t\n      };\n    }\n\n    var ue
= function (e) {\n      u(n, e);\n      var t = h(n);\n\n      function n() {\n        return i(this, n), t.apply(this,
arguments);\n      }\n\n      return c(n, [{\n        key: \"render\",\n        value: function value() {\n          var e =
this.props,\n              t = e.style,\n              n = x(e, [\"style\"]);\n          return m.a.createElement(\"span\", n,
m.a.createElement(\"svg\", Object.assign({}, xe(t), {\n            viewBox:
 \"0 0 24 24\",\n            fill: \"currentColor\",\n            preserveAspectRatio: \"xMidYMid meet\"\n          }),
m.a.createElement(\"path\", {\n            d: \"M12,20C7.59,20 4,16.41 4,12C4,7.59 7.59,4 12,4C16.41,4 20,7.59
20,12C20,16.41 16.41,20 12,20M12,2A10,10 0 0,0 2,12A10,10 0 0,0 12,22A10,10 0 0,0 22,12A10,10 0 0,0
12,2M7,13H17V11H7\"\n          })));\n        }\n      }]), n;\n    }(m.a.PureComponent),\n        fe = function (e) {\n
u(n, e);\n      var t = h(n);\n\n      function n() {\n        return i(this, n), t.apply(this, arguments);\n      }\n\n      return
c(n, [{\n        key: \"render\",\n        value: function value() {\n          var e = this.props,\n              t = e.style,\n
 n = x(e, [\"style\"]);\n          return m.a.createElement(\"span\", n, m.a.createElement(\"svg\", Object.assign({},
xe(t), {\n            viewBox: \"0 0 24 24\",\n            fill: \"currentColor\",\n            preserveAspectRatio: \"xMidYMid
meet\"\n
  }), m.a.createElement(\"path\", {\n            d: \"M12,20C7.59,20 4,16.41 4,12C4,7.59 7.59,4 12,4C16.41,4 20,7.59
20,12C20,16.41 16.41,20 12,20M12,2A10,10 0 0,0 2,12A10,10 0 0,0 12,22A10,10 0 0,0 22,12A10,10 0 0,0
12,2M13,7H11V11H7V13H11V17H13V13H17V11H13V7Z\"\n          })));\n        }\n      }]), n;\n
}(m.a.PureComponent),\n        pe = function (e) {\n      u(n, e);\n      var t = h(n);\n\n      function n() {\n        return
i(this, n), t.apply(this, arguments);\n      }\n\n      return c(n, [{\n        key: \"render\",\n        value: function value()
{\n          var e = this.props,\n              t = e.style,\n              n = x(e, [\"style\"]),\n              a = xe(t).style;\n
return m.a.createElement(\"span\", n, m.a.createElement(\"svg\", {\n            fill: a.color,\n            width: a.height,\n
      height: a.width,\n            style: a,\n            viewBox: \"0 0 1792 1792\"\n          }, m.a.createElement(\"path\",
{\n            d: \"M1344 800v64q0
 14-9 23t-23 9h-832q-14 0-23-9t-9-23v-64q0-14 9-23t23-9h832q14 0 23 9t9 23zm128 448v-832q0-66-47-113t-113-
47h-832q-66 0-113 47t-47 113v832q0 66 47 113t113 47h832q66 0 113-47t47-113zm128-832v832q0 119-84.5
203.5t-203.5 84.5h-832q-119 0-203.5-84.5t-84.5-203.5v-832q0-119 84.5-203.5t203.5-84.5h832q119 0 203.5
84.5t84.5 203.5z\"\n          })));\n        }\n      }]), n;\n    }(m.a.PureComponent),\n        de = function (e) {\n      u(n,
e);\n      var t = h(n);\n\n      function n() {\n        return i(this, n), t.apply(this, arguments);\n      }\n\n      return c(n,
[{\n        key: \"render\",\n        value: function value() {\n          var e = this.props,\n              t = e.style,\n              n
= x(e, [\"style\"]),\n              a = xe(t).style;\n          return m.a.createElement(\"span\", n, m.a.createElement(\"svg\",
{\n            fill: a.color,\n            width: a.height,\n            height: a.width,\n            style: a,\n            viewBox: \"0 0
1792 1792\"\n
        }, m.a.createElement(\"path\", {\n            d: \"M1344 800v64q0 14-9 23t-23 9h-352v352q0 14-9 23t-23 9h-
64q-14 0-23-9t-9-23v-352h-352q-14 0-23-9t-9-23v-64q0-14 9-23t23-9h352v-352q0-14 9-23t23-9h64q14 0 23 9t9
23v352h352q14 0 23 9t9 23zm128 448v-832q0-66-47-113t-113-47h-832q-66 0-113 47t-47 113v832q0 66 47
113t113 47h832q66 0 113-47t47-113zm128-832v832q0 119-84.5 203.5t-203.5 84.5h-832q-119 0-203.5-84.5t-84.5-
203.5v-832q0-119 84.5-203.5t203.5-84.5h832q119 0 203.5 84.5t84.5 203.5z\"\n          })));\n        }\n      }]), n;\n
}(m.a.PureComponent),\n        be = function (e) {\n      u(n, e);\n      var t = h(n);\n\n      function n() {\n        return
i(this, n), t.apply(this, arguments);\n      }\n\n      return c(n, [{\n        key: \"render\",\n        value: function value()
{\n          var e = this.props,\n              t = e.style,\n              n = x(e, [\"style\"]);\n          return
m.a.createElement(\"span\", n, m.a.createElement(\"svg\", {\n            style: o(o({},
 xe(t).style), {}, {\n              paddingLeft: \"2px\",\n              verticalAlign: \"top\"\n            }),\n            viewBox: \"0
0 15 15\",\n            fill: \"currentColor\"\n          }, m.a.createElement(\"path\", {\n            d: \"M0 14l6-6-6-6z\"\n
   })));\n        }\n      }]), n;\n    }(m.a.PureComponent),\n        he = function (e) {\n      u(n, e);\n      var t = h(n);\n\n
 function n() {\n        return i(this, n), t.apply(this, arguments);\n      }\n\n      return c(n, [{\n        key: \"render\",\n
```

```
  value: function value() {\n          var e = this.props,\n              t = e.style,\n              n = x(e, [\"style\"]);\n
return m.a.createElement(\"span\", n, m.a.createElement(\"svg\", {\n            style: o(o({}, xe(t).style), {}, {\n
paddingLeft: \"2px\",\n              verticalAlign: \"top\"\n            }),\n            viewBox: \"0 0 15 15\",\n            fill:
\"currentColor\"\n          }, m.a.createElement(\"path\",
 {\n            d: \"M0 5l6 6 6-6z\"\n          })));\n        }\n      }]), n;\n    }(m.a.PureComponent),\n        ve = function (e)
{\n      u(n, e);\n      var t = h(n);\n\n      function n() {\n        return i(this, n), t.apply(this, arguments);\n      }\n\n
return c(n, [{\n        key: \"render\",\n        value: function value() {\n          var e = this.props,\n              t = e.style,\n
          n = x(e, [\"style\"]);\n          return m.a.createElement(\"span\", n, m.a.createElement(\"svg\",
Object.assign({}, xe(t), {\n            viewBox: \"0 0 40 40\",\n            fill: \"currentColor\",\n
preserveAspectRatio: \"xMidYMid meet\"\n          }), m.a.createElement(\"g\", null, m.a.createElement(\"path\", {\n
        d: \"m30 35h-25v-22.5h25v7.5h2.5v-12.5c0-1.4-1.1-2.5-2.5-2.5h-7.5c0-2.8-2.2-5-5-5s-5 2.2-5 5h-7.5c-1.4 0-
2.5 1.1-2.5 2.5v27.5c0 1.4 1.1 2.5 2.5 2.5h25c1.4 0 2.5-1.1 2.5-2.5v-5h-2.5v5z m-20-27.5h2.5s2.5-1.1 2.5-2.5 1.1-
2.5 2.5-2.5 2.5
 1.1 2.5 2.5 1.3 2.5 2.5 2.5h2.5s2.5 1.1 2.5 2.5h-20c0-1.5 1.1-2.5 2.5-2.5z m-2.5 20h5v-2.5h-5v2.5z m17.5-5v-5l-10
7.5 10 7.5v-5h12.5v-5h-12.5z m-17.5 10h7.5v-2.5h-7.5v2.5z m12.5-17.5h-12.5v2.5h12.5v-2.5z m-7.5 5h-5v2.5h5v-
2.5z\"\n          }))));\n        }\n      }]), n;\n    }(m.a.PureComponent),\n        me = function (e) {\n      u(n, e);\n      var
t = h(n);\n\n      function n() {\n        return i(this, n), t.apply(this, arguments);\n      }\n\n      return c(n, [{\n        key:
\"render\",\n        value: function value() {\n          var e = this.props,\n              t = e.style,\n              n = x(e,
[\"style\"]);\n          return m.a.createElement(\"span\", n, m.a.createElement(\"svg\", Object.assign({}, xe(t), {\n
   viewBox: \"0 0 40 40\",\n            fill: \"currentColor\",\n            preserveAspectRatio: \"xMidYMid meet\"\n
}), m.a.createElement(\"g\", null, m.a.createElement(\"path\", {\n            d: \"m28.6 25q0-0.5-0.4-1l-4-4 4-4q0.4-0.5
0.4-1
 0-0.6-0.4-1.1l-2-2q-0.4-0.4-1-0.4-0.6 0-1 0.4l-4.1 4.1-4-4.1q-0.4-0.4-1-0.4-0.6 0-1 0.4l-2 2q-0.5 0.5-0.5 1.1 0 0.5
0.5 1l4 4-4 4q-0.5 0.5-0.5 1 0 0.7 0.5 1.1l2 2q0.4 0.4 1 0.4 0.6 0 1-0.4l4-4.1 4.1 4.1q0.4 0.4 1 0.4 0.6 0 1-0.4l2-
2q0.4-0.4 0.4-1z m8.7-5q0 4.7-2.3 8.6t-6.3 6.2-8.6 2.3-8.6-2.3-6.2-6.2-2.3-8.6 2.3-8.6 6.2-6.2 8.6-2.3 8.6 2.3 6.3 6.2
2.3 8.6z\"\n          }))));\n        }\n      }]), n;\n    }(m.a.PureComponent),\n        ye = function (e) {\n      u(n, e);\n
var t = h(n);\n\n      function n() {\n        return i(this, n), t.apply(this, arguments);\n      }\n\n      return c(n, [{\n
key: \"render\",\n        value: function value() {\n          var e = this.props,\n              t = e.style,\n              n = x(e,
[\"style\"]);\n          return m.a.createElement(\"span\", n, m.a.createElement(\"svg\", Object.assign({}, xe(t), {\n
   viewBox: \"0 0 40 40\",\n            fill: \"currentColor\",\n            preserveAspectRatio: \"xMidYMid meet\"\n
         }), m.a.createElement(\"g\", null, m.a.createElement(\"path\", {\n            d: \"m30.1 21.4v-2.8q0-0.6-0.4-1t-1-
0.5h-5.7v-5.7q0-0.6-0.4-1t-1-0.4h-2.9q-0.6 0-1 0.4t-0.4 1v5.7h-5.7q-0.6 0-1 0.5t-0.5 1v2.8q0 0.6 0.5 1t1
0.5h5.7v5.7q0 0.5 0.4 1t1 0.4h2.9q0.6 0 1-0.4t0.4-1v-5.7h5.7q0.6 0 1-0.5t0.4-1z m7.2-1.4q0 4.7-2.3 8.6t-6.3 6.2-8.6
2.3-8.6-2.3-6.2-6.2-2.3-8.6 2.3-8.6 6.2-6.2 8.6-2.3 8.6 2.3 6.3 6.2 2.3 8.6z\"\n          }))));\n        }\n      }]), n;\n
}(m.a.PureComponent),\n        ge = function (e) {\n      u(n, e);\n      var t = h(n);\n\n      function n() {\n        return
i(this, n), t.apply(this, arguments);\n      }\n\n      return c(n, [{\n        key: \"render\",\n        value: function value()
{\n          var e = this.props,\n              t = e.style,\n              n = x(e, [\"style\"]);\n          return
m.a.createElement(\"span\", n, m.a.createElement(\"svg\", Object.assign({}, xe(t), {\n            viewBox: \"0 0 40
40\",\n            fill: \"currentColor\",\n
           preserveAspectRatio: \"xMidYMid meet\"\n          }), m.a.createElement(\"g\", null,
m.a.createElement(\"path\", {\n            d: \"m31.6 21.6h-10v10h-3.2v-10h-10v-3.2h10v-10h3.2v10h10v3.2z\"\n
}))));\n        }\n      }]), n;\n    }(m.a.PureComponent),\n        Ee = function (e) {\n      u(n, e);\n      var t = h(n);\n\n
function n() {\n        return i(this, n), t.apply(this, arguments);\n      }\n\n      return c(n, [{\n        key: \"render\",\n
 value: function value() {\n          var e = this.props,\n              t = e.style,\n              n = x(e, [\"style\"]);\n
return m.a.createElement(\"span\", n, m.a.createElement(\"svg\", Object.assign({}, xe(t), {\n            viewBox: \"0 0
40 40\",\n            fill: \"currentColor\",\n            preserveAspectRatio: \"xMidYMid meet\"\n          }),
m.a.createElement(\"g\", null, m.a.createElement(\"path\", {\n            d: \"m19.8 26.4l2.6-2.6-3.4-3.4-2.6
2.6v1.3h2.2v2.1h1.2z m9.8-16q-0.3-0.4-0.7
```

```
 0l-7.8 7.8q-0.4 0.4 0 0.7t0.7 0l7.8-7.8q0.4-0.4 0-0.7z m1.8 13.2v4.3q0 2.6-1.9 4.5t-4.5 1.9h-18.6q-2.6 0-4.5-1.9t-
1.9-4.5v-18.6q0-2.7 1.9-4.6t4.5-1.8h18.6q1.4 0 2.6 0.5 0.3 0.2 0.4 0.5 0.1 0.4-0.2 0.7l-1.1 1.1q-0.3 0.3-0.7 0.1-0.5-
0.1-1-0.1h-18.6q-1.4 0-2.5 1.1t-1 2.5v18.6q0 1.4 1 2.5t2.5 1h18.6q1.5 0 2.5-1t1.1-2.5v-2.9q0-0.2 0.2-0.4l1.4-
1.5q0.3-0.3 0.8-0.1t0.4 0.6z m-2.1-16.5l6.4 6.5-15 15h-6.4v-6.5z m9.9 3l-2.1 2-6.4-6.4 2.1-2q0.6-0.7 1.5-0.7t1.5
0.7l3.4 3.4q0.6 0.6 0.6 1.5t-0.6 1.5z\"\n          }))));\n        }\n      }]), n;\n    }(m.a.PureComponent),\n        je =
function (e) {\n      u(n, e);\n      var t = h(n);\n\n      function n() {\n        return i(this, n), t.apply(this, arguments);\n
  }\n\n      return c(n, [{\n        key: \"render\",\n        value: function value() {\n          var e = this.props,\n              t =
e.style,\n              n = x(e, [\"style\"]);\n          return m.a.createElement(\"span\", n, m.a.createElement(\"svg\",
Object.assign({},
 xe(t), {\n            viewBox: \"0 0 40 40\",\n            fill: \"currentColor\",\n            preserveAspectRatio: \"xMidYMid
meet\"\n          }), m.a.createElement(\"g\", null, m.a.createElement(\"path\", {\n            d: \"m31.7 16.4q0-0.6-0.4-
1l-2.1-2.1q-0.4-0.4-1-0.4t-1 0.4l-9.1 9.1-5-5q-0.5-0.4-1-0.4t-1 0.4l-2.1 2q-0.4 0.4-0.4 1 0 0.6 0.4 1l8.1 8.1q0.4 0.4 1
0.4 0.6 0 1-0.4l12.2-12.1q0.4-0.4 0.4-1z m5.6 3.6q0 4.7-2.3 8.6t-6.3 6.2-8.6 2.3-8.6-2.3-6.2-6.2-2.3-8.6 2.3-8.6 6.2-
6.2 8.6-2.3 8.6 2.3 6.3 6.2 2.3 8.6z\"\n          }))));\n        }\n      }]), n;\n    }(m.a.PureComponent);\n\n    function
xe(e) {\n      return e || (e = {}), {\n        style: o(o({\n          verticalAlign: \"middle\"\n        }, e), {}, {\n          color:
e.color ? e.color : \"#000000\",\n          height: \"1em\",\n          width: \"1em\"\n        })\n      };\n    }\n\n    var _e =
function (e) {\n      u(n, e);\n      var t = h(n);\n\n      function n(e) {\n        var a;\n        return
 i(this, n), (a = t.call(this, e)).copiedTimer = null, a.handleCopy = function () {\n          var e =
document.createElement(\"textarea\"),\n              t = a.props,\n              n = t.clickCallback,\n              r = t.src,\n
    o = t.namespace;\n          e.innerHTML = JSON.stringify(a.clipboardValue(r), null, \"  \"),
document.body.appendChild(e), e.select(), document.execCommand(\"copy\"), document.body.removeChild(e),
a.copiedTimer = setTimeout(function () {\n            a.setState({\n              copied: !1\n            });\n          }, 5500),
a.setState({\n            copied: !0\n          }, function () {\n            \"function\" == typeof n && n({\n              src: r,\n
        namespace: o,\n              name: o[o.length - 1]\n            });\n          });\n        }, a.getClippyIcon = function () {\n
        var e = a.props.theme;\n          return a.state.copied ? m.a.createElement(\"span\", null, m.a.createElement(ve,
Object.assign({\n
    className: \"copy-icon\"\n          }, A(e, \"copy-icon\"))), m.a.createElement(\"span\", A(e, \"copy-icon-copied\"),
\"\")) : m.a.createElement(ve, Object.assign({\n            className: \"copy-icon\"\n          }, A(e, \"copy-icon\")));\n
   }, a.clipboardValue = function (e) {\n          switch (_(e)) {\n            case \"function\":\n            case \"regexp\":\n
        return e.toString();\n\n            default:\n              return e;\n          }\n        }, a.state = {\n          copied: !1\n
}, a;\n      }\n\n      return c(n, [{\n        key: \"componentWillUnmount\",\n        value: function value() {\n
this.copiedTimer && (clearTimeout(this.copiedTimer), this.copiedTimer = null);\n        }\n      }, {\n        key:
\"render\",\n        value: function value() {\n          var e = this.props,\n              t = (e.src, e.theme),\n              n =
e.hidden,\n              a = e.rowHovered,\n              r = A(t, \"copy-to-clipboard\").style,\n
              i = \"inline\";\n          return n && (i = \"none\"), m.a.createElement(\"span\", {\n            className: \"copy-
to-clipboard-container\",\n            title: \"Copy to clipboard\",\n            style: {\n              verticalAlign: \"top\",\n
     display: a ? \"inline-block\" : \"none\"\n            }\n          }, m.a.createElement(\"span\", {\n            style: o(o({},
r), {}, {\n              display: i\n            }),\n            onClick: this.handleCopy\n          }, this.getClippyIcon()));\n
}\n      }]), n;\n    }(m.a.PureComponent),\n        ke = function (e) {\n      u(n, e);\n      var t = h(n);\n\n      function
n(e) {\n        var a;\n        return i(this, n), (a = t.call(this, e)).getEditIcon = function () {\n          var e = a.props,\n
      t = e.variable,\n              n = e.theme;\n          return m.a.createElement(\"div\", {\n            className: \"click-to-
edit\",\n            style: {\n              verticalAlign:
 \"top\",\n              display: a.state.hovered ? \"inline-block\" : \"none\"\n            }\n          }, m.a.createElement(Ee,
Object.assign({\n            className: \"click-to-edit-icon\"\n          }, A(n, \"editVarIcon\"), {\n            onClick:
function onClick() {\n              a.prepopInput(t);\n            }\n          })));\n        }, a.prepopInput = function (e) {\n
  if (!1 !== a.props.onEdit) {\n            var t = function (e) {\n              var t;\n\n              switch (_(e)) {\n
case \"undefined\":\n                  t = \"undefined\";\n                  break;\n\n                case \"nan\":\n                  t =
\"NaN\";\n                  break;\n\n                case \"string\":\n                  t = e;\n                  break;\n\n                case
```

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\"date\":\n          case \"function\":\n          case \"regexp\":\n            t = e.toString();\n
break;\n\n          default:\n
      try {\n            t = JSON.stringify(e, null, \"  \");\n          } catch (e) {\n            t = \"\";\n
  }\n\n        }\n\n        return t;\n      }(e.value),\n          n = ce(t);\n\n      a.setState({\n
editMode: !0,\n        editValue: t,\n        parsedInput: {\n          type: n.type,\n          value: n.value\n
    }\n      });\n    }\n    }, a.getRemoveIcon = function () {\n      var e = a.props,\n          t =
e.variable,\n          n = e.namespace,\n          r = e.theme,\n          o = e.rjvId;\n      return
m.a.createElement(\"div\", {\n        className: \"click-to-remove\",\n        style: {\n          verticalAlign:
\"top\",\n          display: a.state.hovered ? \"inline-block\" : \"none\"\n        }\n      }, m.a.createElement(me,
Object.assign({\n        className: \"click-to-remove-icon\"\n
     }, A(r, \"removeVarIcon\"), {\n        onClick: function onClick() {\n          z.dispatch({\n            name:
\"VARIABLE_REMOVED\",\n            rjvId: o,\n            data: {\n              name: t.name,\n
namespace: n,\n              existing_value: t.value,\n              variable_removed: !0\n            }\n          });\n
  }\n      })));\n    }, a.getValue = function (e, t) {\n      var n = !t && e.type,\n          r = d(a).props;\n\n
  switch (n) {\n        case !1:\n          return a.getEditInput();\n\n        case \"string\":\n          return
m.a.createElement(G, Object.assign({\n            value: e.value\n          }, r));\n\n        case \"integer\":\n
 return m.a.createElement(H, Object.assign({\n            value: e.value\n          }, r));\n\n        case \"float\":\n
    return m.a.createElement(D,
 Object.assign({\n            value: e.value\n          }, r));\n\n        case \"boolean\":\n          return
m.a.createElement(P, Object.assign({\n            value: e.value\n          }, r));\n\n        case \"function\":\n
  return m.a.createElement(V, Object.assign({\n            value: e.value\n          }, r));\n\n        case \"null\":\n
    return m.a.createElement(W, r);\n\n        case \"nan\":\n          return m.a.createElement(K, r);\n\n
case \"undefined\":\n          return m.a.createElement(J, r);\n\n        case \"date\":\n          return
m.a.createElement(F, Object.assign({\n            value: e.value\n          }, r));\n\n        case \"regexp\":\n
return m.a.createElement(U, Object.assign({\n            value: e.value\n          }, r));\n\n        default:\n
return m.a.createElement(\"div\", {\n            className:
 \"object-value\"\n          }, JSON.stringify(e.value));\n      }\n    }, a.getEditInput = function () {\n      var e
= a.props.theme,\n          t = a.state.editValue;\n      return m.a.createElement(\"div\", null,
m.a.createElement(se, Object.assign({\n        type: \"text\",\n        inputRef: function inputRef(e) {\n
return e && e.focus();\n        },\n        value: t,\n        className: \"variable-editor\",\n        onChange:
function onChange(e) {\n          var t = e.target.value,\n              n = ce(t);\n          a.setState({\n
editValue: t,\n            parsedInput: {\n              type: n.type,\n              value: n.value\n            }\n
});\n        },\n        onKeyDown: function onKeyDown(e) {\n          switch (e.key) {\n            case
\"Escape\":\n              a.setState({\n                editMode: !1,\n
   editValue: \"\"\n              });\n              break;\n\n            case \"Enter\":\n              (e.ctrlKey ||
e.metaKey) && a.submitEdit(!0);\n          }\n\n          e.stopPropagation();\n        },\n        placeholder:
\"update this value\",\n        minRows: 2\n      }, A(e, \"edit-input\"))), m.a.createElement(\"div\", A(e, \"edit-
icon-container\"), m.a.createElement(me, Object.assign({\n        className: \"edit-cancel\"\n      }, A(e,
\"cancel-icon\"), {\n        onClick: function onClick() {\n          a.setState({\n            editMode: !1,\n
editValue: \"\"\n          });\n        }\n      })), m.a.createElement(je, Object.assign({\n        className: \"edit-
check string-value\"\n      }, A(e, \"check-icon\"), {\n        onClick: function onClick() {\n
a.submitEdit();\n        }\n      })), m.a.createElement(\"div\", null, a.showDetected())));\n
    }, a.submitEdit = function (e) {\n      var t = a.props,\n          n = t.variable,\n          r = t.namespace,\n
   o = t.rjvId,\n          i = a.state,\n          s = i.editValue,\n          c = i.parsedInput,\n          l = s;\n      e
&& c.type && (l = c.value), a.setState({\n        editMode: !1\n      }), z.dispatch({\n        name:
\"VARIABLE_UPDATED\",\n        rjvId: o,\n        data: {\n          name: n.name,\n          namespace: r,\n
    existing_value: n.value,\n          new_value: l,\n          variable_removed: !1\n        }\n      });\n    },
a.showDetected = function () {\n      var e = a.props,\n          t = e.theme,\n          n = (e.variable,
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e.namespace, e.rjvId, a.state.parsedInput),\n            r = (n.type, n.value, a.getDetectedInput());\n          if (r) return
m.a.createElement(\"div\", null, m.a.createElement(\"div\", A(t, \"detected-row\"),
 r, m.a.createElement(je, {\n            className: \"edit-check detected\",\n            style: o({\n              verticalAlign:
\"top\",\n              paddingLeft: \"3px\"\n            }, A(t, \"check-icon\").style),\n            onClick: function onClick()
{\n              a.submitEdit(!0);\n            }\n          })));\n        }, a.getDetectedInput = function () {\n          var e =
a.state.parsedInput,\n            t = e.type,\n            n = e.value,\n            r = d(a).props,\n            i = r.theme;\n
if (!1 !== t) switch (t.toLowerCase()) {\n            case \"object\":\n              return m.a.createElement(\"span\", null,
m.a.createElement(\"span\", {\n                style: o(o({}, A(i, \"brace\").style), {}, {\n                  cursor: \"default\"\n
            })\n              }, \"{\"), m.a.createElement(\"span\", {\n                style: o(o({}, A(i, \"ellipsis\").style), {}, {\n
             cursor: \"default\"\n
  })\n              }, \"...\"), m.a.createElement(\"span\", {\n                style: o(o({}, A(i, \"brace\").style), {}, {\n
  cursor: \"default\"\n                })\n              }, \"}\"));\n\n            case \"array\":\n              return
m.a.createElement(\"span\", null, m.a.createElement(\"span\", {\n                style: o(o({}, A(i, \"brace\").style), {},
{\n                  cursor: \"default\"\n                })\n              }, \"[\"), m.a.createElement(\"span\", {\n                style:
o(o({}, A(i, \"ellipsis\").style), {}, {\n                  cursor: \"default\"\n                })\n              }, \"...\"),
m.a.createElement(\"span\", {\n                style: o(o({}, A(i, \"brace\").style), {}, {\n                  cursor: \"default\"\n
            })\n              }, \"]\"));\n\n            case \"string\":\n              return m.a.createElement(G, Object.assign({\n
        value: n\n              }, r));\n\n            case \"integer\":\n
             return m.a.createElement(H, Object.assign({\n                value: n\n              }, r));\n\n            case \"float\":\n
             return m.a.createElement(D, Object.assign({\n                value: n\n              }, r));\n\n            case
\"boolean\":\n              return m.a.createElement(P, Object.assign({\n                value: n\n              }, r));\n\n
case \"function\":\n              return m.a.createElement(V, Object.assign({\n                value: n\n              }, r));\n\n
   case \"null\":\n              return m.a.createElement(W, r);\n\n            case \"nan\":\n              return
m.a.createElement(K, r);\n\n            case \"undefined\":\n              return m.a.createElement(J, r);\n\n            case
\"date\":\n              return m.a.createElement(F, Object.assign({\n                value: new Date(n)\n              }, r));\n
 }\n        }, a.state = {\n          editMode: !1,\n          editValue:
 \"\",\n          hovered: !1,\n          renameKey: !1,\n          parsedInput: {\n            type: !1,\n            value: null\n
}\n        }, a;\n      }\n\n      return c(n, [{\n        key: \"render\",\n        value: function value() {\n          var e = this,\n
          t = this.props,\n            n = t.variable,\n            a = t.singleIndent,\n            r = t.type,\n            i =
t.theme,\n            s = t.namespace,\n            c = t.indentWidth,\n            l = t.enableClipboard,\n            u =
t.onEdit,\n            f = t.onDelete,\n            p = t.onSelect,\n            d = t.displayArrayKey,\n            b =
t.quotesOnKeys,\n            h = this.state.editMode;\n          return m.a.createElement(\"div\", Object.assign({}, A(i,
\"objectKeyVal\", {\n            paddingLeft: c * a\n          }), {\n            onMouseEnter: function onMouseEnter() {\n
        return e.setState(o(o({}, e.state), {}, {\n
      hovered: !0\n              }));\n            },\n            onMouseLeave: function onMouseLeave() {\n              return
e.setState(o(o({}, e.state), {}, {\n                hovered: !1\n              }));\n            },\n            className: \"variable-
row\",\n            key: n.name\n          }), \"array\" == r ? d ? m.a.createElement(\"span\", Object.assign({}, A(i,
\"array-key\"), {\n            key: n.name + \"_\" + s\n          }), n.name, m.a.createElement(\"div\", A(i, \"colon\"),
\":\")) : null : m.a.createElement(\"span\", null, m.a.createElement(\"span\", Object.assign({}, A(i, \"object-name\"),
{\n            className: \"object-key\",\n            key: n.name + \"_\" + s\n          }), !!b &&
m.a.createElement(\"span\", {\n            style: {\n              verticalAlign: \"top\"\n            }\n          }, '\"'),
m.a.createElement(\"span\", {\n            style: {\n              display: \"inline-block\"\n            }\n          }, n.name), !!b
&& m.a.createElement(\"span\",
 {\n            style: {\n              verticalAlign: \"top\"\n            }\n          }, '\"')), m.a.createElement(\"span\", A(i,
\"colon\"), \":\")), m.a.createElement(\"div\", Object.assign({\n            className: \"variable-value\",\n
onClick: !1 === p && !1 === u ? null : function (t) {\n              var a = B(s);\n              (t.ctrlKey || t.metaKey) &&
!1 !== u ? e.prepopInput(n) : !1 !== p && (a.shift(), p(o(o({}, n), {}, {\n                namespace: a\n              })));\n
    }\n          }, A(i, \"variableValue\", {\n            cursor: !1 === p ? \"default\" : \"pointer\"\n          })),
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this.getValue(n, h)), l ? m.a.createElement(_e, {\n            rowHovered: this.state.hovered,\n            hidden: h,\n
 src: n.value,\n            clickCallback: l,\n            theme: i,\n            namespace: [].concat(B(s), [n.name])\n          }) :
null, !1 !== u && 0 == h ? this.getEditIcon() : null, !1 !== f && 0 == h ? this.getRemoveIcon()
 : null);\n        }\n      }]), n;\n    }(m.a.PureComponent),\n        Oe = function (e) {\n      u(n, e);\n      var t = h(n);\n\n
   function n() {\n        var e;\n        i(this, n);\n\n        for (var a = arguments.length, r = new Array(a), s = 0; s < a;
s++) {\n          r[s] = arguments[s];\n        }\n\n        return (e = t.call.apply(t, [this].concat(r))).getObjectSize =
function () {\n          var t = e.props,\n              n = t.size,\n              a = t.theme;\n          if (t.displayObjectSize) return
m.a.createElement(\"span\", Object.assign({\n            className: \"object-size\"\n          }, A(a, \"object-size\")), n,
\" item\", 1 === n ? \"\" : \"s\");\n        }, e.getAddAttribute = function (t) {\n          var n = e.props,\n              a =
n.theme,\n              r = n.namespace,\n              i = n.name,\n              s = n.src,\n              c = n.rjvId,\n              l =
n.depth;\n          return m.a.createElement(\"span\", {\n
      className: \"click-to-add\",\n            style: {\n              verticalAlign: \"top\",\n              display: t ? \"inline-
block\" : \"none\"\n            }\n          }, m.a.createElement(ye, Object.assign({\n            className: \"click-to-add-
icon\"\n          }, A(a, \"addVarIcon\"), {\n            onClick: function onClick() {\n              var e = {\n                name:
l > 0 ? i : null,\n                namespace: r.splice(0, r.length - 1),\n                existing_value: s,\n
variable_removed: !1,\n                key_name: null\n              };\n              \"object\" === _(s) ? z.dispatch({\n
name: \"ADD_VARIABLE_KEY_REQUEST\",\n                rjvId: c,\n                data: e\n              }) : z.dispatch({\n
            name: \"VARIABLE_ADDED\",\n                rjvId: c,\n                data: o(o({}, e), {}, {\n
new_value: [].concat(B(s), [null])\n                })\n              });\n            }\n
          })));\n        }, e.getRemoveObject = function (t) {\n          var n = e.props,\n              a = n.theme,\n              r =
(n.hover, n.namespace),\n              o = n.name,\n              i = n.src,\n              s = n.rjvId;\n          if (1 !== r.length)
return m.a.createElement(\"span\", {\n            className: \"click-to-remove\",\n            style: {\n              display: t ?
\"inline-block\" : \"none\"\n            }\n          }, m.a.createElement(me, Object.assign({\n            className: \"click-
to-remove-icon\"\n          }, A(a, \"removeVarIcon\"), {\n            onClick: function onClick() {\n
z.dispatch({\n                name: \"VARIABLE_REMOVED\",\n                rjvId: s,\n                data: {\n
name: o,\n                  namespace: r.splice(0, r.length - 1),\n                  existing_value: i,\n
variable_removed: !0\n                }\n              });\n            }\n          })));\n
 }, e.render = function () {\n          var t = e.props,\n              n = t.theme,\n              a = t.onDelete,\n              r =
t.onAdd,\n              o = t.enableClipboard,\n              i = t.src,\n              s = t.namespace,\n              c =
t.rowHovered;\n          return m.a.createElement(\"div\", Object.assign({}, A(n, \"object-meta-data\"), {\n
className: \"object-meta-data\",\n            onClick: function onClick(e) {\n              e.stopPropagation();\n            }\n
        }), e.getObjectSize(), o ? m.a.createElement(_e, {\n            rowHovered: c,\n            clickCallback: o,\n
src: i,\n            theme: n,\n            namespace: s\n          }) : null, !1 !== r ? e.getAddAttribute(c) : null, !1 !== a ?
e.getRemoveObject(c) : null);\n        }, e;\n      }\n\n      return n;\n    }(m.a.PureComponent);\n\n    function Ce(e)
{\n      var t = e.parent_type,\n          n = e.namespace,\n          a = e.quotesOnKeys,\n          r = e.theme,\n
          o = e.jsvRoot,\n          i = e.name,\n          s = e.displayArrayKey,\n          c = e.name ? e.name : \"\";\n
return !o || !1 !== i && null !== i ? \"array\" == t ? s ? m.a.createElement(\"span\", Object.assign({}, A(r, \"array-
key\"), {\n        key: n\n      }), m.a.createElement(\"span\", {\n        className: \"array-key\"\n      }, c),
m.a.createElement(\"span\", A(r, \"colon\"), \":\")) : m.a.createElement(\"span\", null) : m.a.createElement(\"span\",
Object.assign({}, A(r, \"object-name\"), {\n        key: n\n      }), m.a.createElement(\"span\", {\n        className:
\"object-key\"\n      }, a && m.a.createElement(\"span\", {\n        style: {\n          verticalAlign: \"top\"\n        }\n
}, '\"'), m.a.createElement(\"span\", null, c), a && m.a.createElement(\"span\", {\n        style: {\n          verticalAlign:
\"top\"\n        }\n      }, '\"')), m.a.createElement(\"span\", A(r, \"colon\"), \":\")) : m.a.createElement(\"span\", null);\n
  }\n\n
    function Se(e) {\n      var t = e.theme;\n\n      switch (e.iconStyle) {\n        case \"triangle\":\n          return
m.a.createElement(he, Object.assign({}, A(t, \"expanded-icon\"), {\n            className: \"expanded-icon\"\n
}));\n\n        case \"square\":\n          return m.a.createElement(pe, Object.assign({}, A(t, \"expanded-icon\"), {\n
  className: \"expanded-icon\"\n          }));\n\n        default:\n          return m.a.createElement(ue, Object.assign({},
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A(t, \"expanded-icon\"), {\n          className: \"expanded-icon\"\n        }));\n      }\n    }\n\n    function we(e) {\n
 var t = e.theme;\n\n      switch (e.iconStyle) {\n        case \"triangle\":\n          return m.a.createElement(be,
Object.assign({}, A(t, \"collapsed-icon\"), {\n            className: \"collapsed-icon\"\n          }));\n\n        case
\"square\":\n          return m.a.createElement(de, Object.assign({}, A(t, \"collapsed-icon\"), {\n            className:
\"collapsed-icon\"\n
          }));\n\n        default:\n          return m.a.createElement(fe, Object.assign({}, A(t, \"collapsed-icon\"), {\n
className: \"collapsed-icon\"\n          }));\n      }\n    }\n\n    var Ae = function (e) {\n      u(n, e);\n      var t =
h(n);\n\n      function n(e) {\n        var a;\n        return i(this, n), (a = t.call(this, e)).toggleCollapsed = function (e) {\n
      var t = [];\n\n          for (var n in a.state.expanded) {\n            t.push(a.state.expanded[n]);\n          }\n\n          t[e]
= !t[e], a.setState({\n            expanded: t\n          });\n        }, a.state = {\n          expanded: []\n        }, a;\n      }\n\n
return c(n, [{\n        key: \"getExpandedIcon\",\n        value: function value(e) {\n          var t = this.props,\n              n
= t.theme,\n              a = t.iconStyle;\n          return this.state.expanded[e] ? m.a.createElement(Se, {\n            theme:
n,\n            iconStyle: a\n          }) : m.a.createElement(we,
 {\n            theme: n,\n            iconStyle: a\n          });\n        }\n      }, {\n        key: \"render\",\n        value: function
value() {\n          var e = this,\n              t = this.props,\n              n = t.src,\n              a = t.groupArraysAfterLength,\n
          r = (t.depth, t.name),\n              o = t.theme,\n              i = t.jsvRoot,\n              s = t.namespace,\n              c =
(t.parent_type, x(t, [\"src\", \"groupArraysAfterLength\", \"depth\", \"name\", \"theme\", \"jsvRoot\", \"namespace\",
\"parent_type\"])),\n              l = 0,\n              u = 5 * this.props.indentWidth;\n          i || (l = 5 *
this.props.indentWidth);\n          var f = a,\n              p = Math.ceil(n.length / f);\n          return
m.a.createElement(\"div\", Object.assign({\n            className: \"object-key-val\"\n          }, A(o, i ? \"jsv-root\" :
\"objectKeyVal\", {\n            paddingLeft: l\n          })), m.a.createElement(Ce, this.props),
 m.a.createElement(\"span\", null, m.a.createElement(Oe, Object.assign({\n            size: n.length\n          },
this.props))), B(Array(p)).map(function (t, a) {\n            return m.a.createElement(\"div\", Object.assign({\n
key: a,\n              className: \"object-key-val array-group\"\n            }, A(o, \"objectKeyVal\", {\n
marginLeft: 6,\n              paddingLeft: u\n            })), m.a.createElement(\"span\", A(o, \"brace-row\"),
m.a.createElement(\"div\", Object.assign({\n              className: \"icon-container\"\n            }, A(o, \"icon-
container\"), {\n              onClick: function onClick(t) {\n                e.toggleCollapsed(a);\n              }\n            }),
e.getExpandedIcon(a)), e.state.expanded[a] ? m.a.createElement(Fe, Object.assign({\n              key: r + a,\n
depth: 0,\n              name: !1,\n              collapsed: !1,\n              groupArraysAfterLength: f,\n              index_offset:
a * f,\n
              src: n.slice(a * f, a * f + f),\n              namespace: s,\n              type: \"array\",\n              parent_type:
\"array_group\",\n              theme: o\n            }, c)) : m.a.createElement(\"span\", Object.assign({}, A(o, \"brace\"),
{\n              onClick: function onClick(t) {\n                e.toggleCollapsed(a);\n              },\n              className:
\"array-group-brace\"\n            }), \"[\", m.a.createElement(\"div\", Object.assign({}, A(o, \"array-group-meta-
data\"), {\n              className: \"array-group-meta-data\"\n            }), m.a.createElement(\"span\", Object.assign({\n
            className: \"object-size\"\n            }, A(o, \"object-size\")), a * f, \" - \", a * f + f > n.length ? n.length : a * f
+ f)), \"]\")));\n          }));\n        }\n      }]), n;\n    }(m.a.PureComponent),\n        Me = function (e) {\n      u(n, e);\n
 var t = h(n);\n\n      function n(e) {\n        var a;\n        i(this, n), (a = t.call(this,
 e)).toggleCollapsed = function () {\n          a.setState({\n            expanded: !a.state.expanded\n          }, function ()
{\n            q.set(a.props.rjvId, a.props.namespace, \"expanded\", a.state.expanded);\n          });\n        },
a.getObjectContent = function (e, t, n) {\n          return m.a.createElement(\"div\", {\n            className: \"pushed-
content object-container\"\n          }, m.a.createElement(\"div\", Object.assign({\n            className: \"object-
content\"\n          }, A(a.props.theme, \"pushed-content\")), a.renderObjectContents(t, n)));\n        }, a.getEllipsis =
function () {\n          return 0 === a.state.size ? null : m.a.createElement(\"div\", Object.assign({}, A(a.props.theme,
\"ellipsis\"), {\n            className: \"node-ellipsis\",\n            onClick: a.toggleCollapsed\n          }), \"...\");\n        },
a.getObjectMetaData = function (e) {\n          var t = a.props,\n              n = (t.rjvId, t.theme, a.state),\n              r =
n.size,\n
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          o = n.hovered;\n          return m.a.createElement(Oe, Object.assign({\n            rowHovered: o,\n            size:
r\n          }, a.props));\n        }, a.renderObjectContents = function (e, t) {\n          var n,\n            r = a.props,\n
  o = r.depth,\n            i = r.parent_type,\n            s = r.index_offset,\n            c = r.groupArraysAfterLength,\n
     l = r.namespace,\n            u = a.state.object_type,\n            f = [],\n            p = Object.keys(e || {});\n
return a.props.sortKeys && \"array\" !== u && (p = p.sort()), p.forEach(function (r) {\n            if (n = new Pe(r,
e[r]), \"array_group\" === i && s && (n.name = parseInt(n.name) + s), e.hasOwnProperty(r)) if (\"object\" ===
n.type) f.push(m.a.createElement(Fe, Object.assign({\n              key: n.name,\n              depth: o + 1,\n
name: n.name,\n              src: n.value,\n              namespace: l.concat(n.name),\n
        parent_type: u\n            }, t)));else if (\"array\" === n.type) {\n              var p = Fe;\n              c &&
n.value.length > c && (p = Ae), f.push(m.a.createElement(p, Object.assign({\n                key: n.name,\n
depth: o + 1,\n                name: n.name,\n                src: n.value,\n                namespace: l.concat(n.name),\n
type: \"array\",\n                parent_type: u\n              }, t)));\n            } else f.push(m.a.createElement(ke,
Object.assign({\n              key: n.name + \"_\" + l,\n              variable: n,\n              singleIndent: 5,\n
namespace: l,\n              type: a.props.type\n            }, t)));\n          }), f;\n        };\n        var r = n.getState(e);\n
return a.state = o(o({}, r), {}, {\n          prevProps: {}\n        }), a;\n      }\n\n      return c(n, [{\n        key:
\"getBraceStart\",\n        value: function value(e, t) {\n          var n = this,\n
  a = this.props,\n            r = a.src,\n            o = a.theme,\n            i = a.iconStyle;\n          if (\"array_group\" ===
a.parent_type) return m.a.createElement(\"span\", null, m.a.createElement(\"span\", A(o, \"brace\"), \"array\" === e
? \"[\" : \"{\"), t ? this.getObjectMetaData(r) : null);\n          var s = t ? Se : we;\n          return
m.a.createElement(\"span\", null, m.a.createElement(\"span\", Object.assign({\n            onClick: function onClick(e)
{\n              n.toggleCollapsed();\n            }\n          }, A(o, \"brace-row\")), m.a.createElement(\"div\",
Object.assign({\n            className: \"icon-container\"\n          }, A(o, \"icon-container\")), m.a.createElement(s, {\n
          theme: o,\n            iconStyle: i\n          })), m.a.createElement(Ce, this.props), m.a.createElement(\"span\",
A(o, \"brace\"), \"array\" === e ? \"[\" : \"{\")), t ? this.getObjectMetaData(r) : null);\n        }\n      }, {\n        key:
\"render\",\n        value:
 function value() {\n          var e = this,\n            t = this.props,\n            n = t.depth,\n            a = t.src,\n            r
= (t.namespace, t.name, t.type, t.parent_type),\n            i = t.theme,\n            s = t.jsvRoot,\n            c =
t.iconStyle,\n            l = x(t, [\"depth\", \"src\", \"namespace\", \"name\", \"type\", \"parent_type\", \"theme\",
\"jsvRoot\", \"iconStyle\"]),\n            u = this.state,\n            f = u.object_type,\n            p = u.expanded,\n
d = {};\n          return s || \"array_group\" === r ? \"array_group\" === r && (d.borderLeft = 0, d.display = \"inline\")
: d.paddingLeft = 5 * this.props.indentWidth, m.a.createElement(\"div\", Object.assign({\n            className:
\"object-key-val\",\n            onMouseEnter: function onMouseEnter() {\n              return e.setState(o(o({}, e.state),
{}, {\n                hovered: !0\n              }));\n            },\n            onMouseLeave: function
 onMouseLeave() {\n              return e.setState(o(o({}, e.state), {}, {\n                hovered: !1\n              }));\n
}\n          }, A(i, s ? \"jsv-root\" : \"objectKeyVal\", d)), this.getBraceStart(f, p), p ? this.getObjectContent(n, a, o({\n
        theme: i,\n            iconStyle: c\n          }, l)) : this.getEllipsis(), m.a.createElement(\"span\", {\n
className: \"brace-row\"\n          }, m.a.createElement(\"span\", {\n            style: o(o({}, A(i, \"brace\").style), {},
{\n              paddingLeft: p ? \"3px\" : \"0px\"\n            })\n          }, \"array\" === f ? \"]\" : \"}\"), p ? null :
this.getObjectMetaData(a)));\n        }\n      }], [{\n        key: \"getDerivedStateFromProps\",\n        value: function
value(e, t) {\n          var a = t.prevProps;\n          return e.src !== a.src || e.collapsed !== a.collapsed || e.name !==
a.name || e.namespace !== a.namespace || e.rjvId !== a.rjvId ? o(o({}, n.getState(e)), {}, {\n
     prevProps: e\n          }) : null;\n        }\n      }]), n;\n    }(m.a.PureComponent);\n\n    Me.getState = function (e)
{\n      var t = Object.keys(e.src).length,\n          n = (!1 === e.collapsed || !0 !== e.collapsed && e.collapsed >
e.depth) && (!e.shouldCollapse || !1 === e.shouldCollapse({\n        name: e.name,\n        src: e.src,\n        type:
_(e.src),\n        namespace: e.namespace\n      })) && 0 !== t;\n      return {\n        expanded: q.get(e.rjvId,
e.namespace, \"expanded\", n),\n        object_type: \"array\" === e.type ? \"array\" : \"object\",\n        parent_type:
\"array\" === e.type ? \"array\" : \"object\",\n        size: t,\n        hovered: !1\n      };\n    };\n\n    var Pe = function e(t,
n) {\n      i(this, e), this.name = t, this.value = n, this.type = _(n);\n    };\n\n    j(Me);\n\n    var Fe = Me,\n        De =
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function (e) {\n    u(n, e);\n    var t = h(n);\n\n    function n() {\n      var e;\n      i(this, n);\n\n      for (var a =
 arguments.length, r = new Array(a), o = 0; o < a; o++) {\n        r[o] = arguments[o];\n      }\n\n      return (e =
t.call.apply(t, [this].concat(r))).render = function () {\n        var t = d(e).props,\n            n = [t.name],\n            a =
Fe;\n        return Array.isArray(t.src) && t.groupArraysAfterLength && t.src.length > t.groupArraysAfterLength
&& (a = Ae), m.a.createElement(\"div\", {\n          className: \"pretty-json-container object-container\"\n        },
m.a.createElement(\"div\", {\n          className: \"object-content\"\n        }, m.a.createElement(a,
Object.assign({\n          namespace: n,\n          depth: 0,\n          jsvRoot: !0\n        }, t))));\n      }, e;\n    }\n\n
  return n;\n  }(m.a.PureComponent),\n      Ie = function (e) {\n    u(n, e);\n    var t = h(n);\n\n    function n(e)
{\n      var a;\n      return i(this, n), (a = t.call(this, e)).closeModal = function () {\n        z.dispatch({\n
     rjvId: a.props.rjvId,\n          name: \"RESET\"\n        });\n      }, a.submit = function () {\n
a.props.submit(a.state.input);\n      }, a.state = {\n        input: e.input ? e.input : \"\"\n      }, a;\n    }\n\n    return
c(n, [{\n      key: \"render\",\n      value: function value() {\n        var e = this,\n            t = this.props,\n            n
= t.theme,\n            a = t.rjvId,\n            r = t.isValid,\n            o = this.state.input,\n            i = r(o);\n
return m.a.createElement(\"div\", Object.assign({\n          className: \"key-modal-request\"\n        }, A(n, \"key-
modal-request\"), {\n          onClick: this.closeModal\n        }), m.a.createElement(\"div\", Object.assign({}, A(n,
\"key-modal\"), {\n          onClick: function onClick(e) {\n            e.stopPropagation();\n          }\n        }),
m.a.createElement(\"div\", A(n, \"key-modal-label\"), \"Key Name:\"), m.a.createElement(\"div\",
 {\n          style: {\n            position: \"relative\"\n          }\n        }, m.a.createElement(\"input\",
Object.assign({}, A(n, \"key-modal-input\"), {\n          className: \"key-modal-input\",\n          ref: function ref(e)
{\n            return e && e.focus();\n          },\n          spellCheck: !1,\n          value: o,\n          placeholder:
\"...\",\n          onChange: function onChange(t) {\n            e.setState({\n              input: t.target.value\n
});\n          },\n          onKeyPress: function onKeyPress(t) {\n            i && \"Enter\" === t.key ? e.submit() :
\"Escape\" === t.key && e.closeModal();\n          }\n        })), i ? m.a.createElement(je, Object.assign({}, A(n,
\"key-modal-submit\"), {\n          className: \"key-modal-submit\",\n          onClick: function onClick(t) {\n
  return e.submit();\n          }\n        })) : null), m.a.createElement(\"span\", A(n, \"key-modal-cancel\"),
 m.a.createElement(ge, Object.assign({}, A(n, \"key-modal-cancel-icon\"), {\n          className: \"key-modal-
cancel\",\n          onClick: function onClick() {\n            z.dispatch({\n              rjvId: a,\n              name:
\"RESET\"\n            });\n          }\n        })))));\n      }\n    }]), n;\n  }(m.a.PureComponent),\n      Re =
function (e) {\n    u(n, e);\n    var t = h(n);\n\n    function n() {\n      var e;\n      i(this, n);\n\n      for (var a =
arguments.length, r = new Array(a), s = 0; s < a; s++) {\n        r[s] = arguments[s];\n      }\n\n      return (e =
t.call.apply(t, [this].concat(r))).isValid = function (t) {\n        var n = e.props.rjvId,\n            a = q.get(n, \"action\",
\"new-key-request\");\n        return \"\" != t && -1 === Object.keys(a.existing_value).indexOf(t);\n      }, e.submit
= function (t) {\n        var n = e.props.rjvId,\n            a = q.get(n, \"action\", \"new-key-request\");\n
      a.new_value = o({}, a.existing_value), a.new_value[t] = e.props.defaultValue, z.dispatch({\n          name:
\"VARIABLE_ADDED\",\n          rjvId: n,\n          data: a\n        });\n      }, e;\n    }\n\n    return c(n, [{\n
key: \"render\",\n      value: function value() {\n        var e = this.props,\n            t = e.active,\n            n =
e.theme,\n            a = e.rjvId;\n        return t ? m.a.createElement(Ie, {\n          rjvId: a,\n          theme: n,\n
isValid: this.isValid,\n          submit: this.submit\n        }) : null;\n      }\n    }]), n;\n  }(m.a.PureComponent),\n
    Le = function (e) {\n    u(n, e);\n    var t = h(n);\n\n    function n() {\n      return i(this, n), t.apply(this,
arguments);\n    }\n\n    return c(n, [{\n      key: \"render\",\n      value: function value() {\n        var e =
this.props,\n            t = e.message,\n            n = e.active,\n
            a = e.theme,\n            r = e.rjvId;\n        return n ? m.a.createElement(\"div\", Object.assign({\n
className: \"validation-failure\"\n        }, A(a, \"validation-failure\"), {\n          onClick: function onClick() {\n
      z.dispatch({\n              rjvId: r,\n              name: \"RESET\"\n            });\n          }\n        }),
m.a.createElement(\"span\", A(a, \"validation-failure-label\"), t), m.a.createElement(ge, A(a, \"validation-failure-
clear\"))) : null;\n      }\n    }]), n;\n  }(m.a.PureComponent),\n      Be = function (e) {\n    u(n, e);\n    var t =
h(n);\n\n    function n(e) {\n      var a;\n      return i(this, n), (a = t.call(this, e)).rjvId = Date.now().toString(),
a.getListeners = function () {\n        return {\n          reset: a.resetState,\n          \"variable-update\": a.updateSrc,\n
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        \"add-key-request\": a.addKeyRequest\n        };\n      }, a.updateSrc =
 function () {\n        var e,\n            t = q.get(a.rjvId, \"action\", \"variable-update\"),\n            n = t.name,\n
 r = t.namespace,\n            o = t.new_value,\n            i = t.existing_value,\n            s = (t.variable_removed,
t.updated_src),\n            c = t.type,\n            l = a.props,\n            u = l.onEdit,\n            f = l.onDelete,\n
p = l.onAdd,\n            d = {\n          existing_src: a.state.src,\n          new_value: o,\n          updated_src: s,\n
  name: n,\n          namespace: r,\n          existing_value: i\n        };\n\n        switch (c) {\n          case \"variable-
added\":\n            e = p(d);\n            break;\n\n          case \"variable-edited\":\n            e = u(d);\n
break;\n\n          case \"variable-removed\":\n            e = f(d);\n        }\n\n        !1 !== e ? (q.set(a.rjvId,
\"global\", \"src\", s), a.setState({\n
        src: s\n        })) : a.setState({\n          validationFailure: !0\n        });\n      }, a.addKeyRequest = function
() {\n        a.setState({\n          addKeyRequest: !0\n        });\n      }, a.resetState = function () {\n
a.setState({\n          validationFailure: !1,\n          addKeyRequest: !1\n        });\n      }, a.state = {\n
addKeyRequest: !1,\n        editKeyRequest: !1,\n        validationFailure: !1,\n        src: n.defaultProps.src,\n
name: n.defaultProps.name,\n        theme: n.defaultProps.theme,\n        validationMessage:
n.defaultProps.validationMessage,\n        prevSrc: n.defaultProps.src,\n        prevName: n.defaultProps.name,\n
  prevTheme: n.defaultProps.theme\n      }, a;\n    }\n\n    return c(n, [{\n      key: \"componentDidMount\",\n
  value: function value() {\n        q.set(this.rjvId, \"global\", \"src\", this.state.src);\n        var e =
this.getListeners();\n\n
        for (var t in e) {\n          q.on(t + \"-\" + this.rjvId, e[t]);\n        }\n\n        this.setState({\n
addKeyRequest: !1,\n          editKeyRequest: !1\n        });\n      }\n    }, {\n      key:
\"componentDidUpdate\",\n      value: function value(e, t) {\n        !1 !== t.addKeyRequest && this.setState({\n
     addKeyRequest: !1\n        }), !1 !== t.editKeyRequest && this.setState({\n          editKeyRequest: !1\n
}), e.src !== this.state.src && q.set(this.rjvId, \"global\", \"src\", this.state.src);\n      }\n    }, {\n      key:
\"componentWillUnmount\",\n      value: function value() {\n        var e = this.getListeners();\n\n        for (var t in
e) {\n          q.removeListener(t + \"-\" + this.rjvId, e[t]);\n        }\n      }\n    }, {\n      key: \"render\",\n
value: function value() {\n        var e = this.state,\n            t = e.validationFailure,\n            n =
e.validationMessage,\n
            a = e.addKeyRequest,\n            r = e.theme,\n            i = e.src,\n            s = e.name,\n            c =
this.props,\n            l = c.style,\n            u = c.defaultValue;\n        return m.a.createElement(\"div\", {\n
className: \"react-json-view\",\n          style: o(o({}, A(r, \"app-container\").style), l)\n        },
m.a.createElement(Le, {\n          message: n,\n          active: t,\n          theme: r,\n          rjvId: this.rjvId\n
}), m.a.createElement(De, Object.assign({}, this.props, {\n          src: i,\n          name: s,\n          theme: r,\n
type: _(i),\n          rjvId: this.rjvId\n        })), m.a.createElement(Re, {\n          active: a,\n          theme: r,\n
rjvId: this.rjvId,\n          defaultValue: u\n        }));\n      }\n    }], [{\n      key: \"getDerivedStateFromProps\",\n
     value: function value(e, t) {\n
  if (e.src !== t.prevSrc || e.name !== t.prevName || e.theme !== t.prevTheme) {\n          var a = {\n            src:
e.src,\n            name: e.name,\n            theme: e.theme,\n            validationMessage: e.validationMessage,\n
   prevSrc: e.src,\n            prevName: e.name,\n            prevTheme: e.theme\n          };\n          return
n.validateState(a);\n        }\n\n        return null;\n      }\n    }]), n;\n  }(m.a.PureComponent);\n\n
Be.defaultProps = {\n    src: {},\n    name: \"root\",\n    theme: \"rjv-default\",\n    collapsed: !1,\n
collapseStringsAfterLength: !1,\n    shouldCollapse: !1,\n    sortKeys: !1,\n    quotesOnKeys: !0,\n
groupArraysAfterLength: 100,\n    indentWidth: 4,\n    enableClipboard: !0,\n    displayObjectSize: !0,\n
displayDataTypes: !0,\n    onEdit: !1,\n    onDelete: !1,\n    onAdd: !1,\n    onSelect: !1,\n    iconStyle:
\"triangle\",\n    style: {},\n
    validationMessage: \"Validation Error\",\n    defaultValue: null,\n    displayArrayKey: !0\n  },
Be.validateState = function (e) {\n    var t = {};\n    return \"object\" !== _(e.theme) || function (e) {\n      var t =
[\"base00\", \"base01\", \"base02\", \"base03\", \"base04\", \"base05\", \"base06\", \"base07\", \"base08\", \"base09\",
\"base0A\", \"base0B\", \"base0C\", \"base0D\", \"base0E\", \"base0F\"];\n\n      if (\"object\" === _(e)) {\n
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for (var n = 0; n < t.length; n++) {\n            if (!(t[n] in e)) return !1;\n          }\n\n          return !0;\n        }\n\n
return !1;\n      }(e.theme) || (console.error(\"react-json-view error:\", \"theme prop must be a theme name or valid
base-16 theme object.\", 'defaulting to \"rjv-default\" theme'), t.theme = \"rjv-default\"), \"object\" !== _(e.src) &&
\"array\" !== _(e.src) && (console.error(\"react-json-view error:\", \"src property must be a valid json object\"),
t.name = \"ERROR\", t.src = {\n
        message: \"src property must be a valid json object\"\n      }), o(o({}, e), t);\n    }, j(Be);\n    t.default = Be;\n
}]);\n});","/*\nobject-assign\n(c) Sindre Sorhus\n@license MIT\n*/\n'use strict';\n/* eslint-disable no-unused-vars
*/\n\nvar getOwnPropertySymbols = Object.getOwnPropertySymbols;\nvar hasOwnProperty =
Object.prototype.hasOwnProperty;\nvar propIsEnumerable = Object.prototype.propertyIsEnumerable;\n\nfunction
toObject(val) {\n  if (val === null || val === undefined) {\n    throw new TypeError('Object.assign cannot be called
with null or undefined');\n  }\n\n  return Object(val);\n}\n\nfunction shouldUseNative() {\n  try {\n    if
(!Object.assign) {\n      return false;\n    } // Detect buggy property enumeration order in older V8 versions.\n    //
https://bugs.chromium.org/p/v8/issues/detail?id=4118\n\n\n    var test1 = new String('abc'); // eslint-disable-line no-
new-wrappers\n\n    test1[5] = 'de';\n\n    if (Object.getOwnPropertyNames(test1)[0] === '5') {\n
      return false;\n    } // https://bugs.chromium.org/p/v8/issues/detail?id=3056\n\n\n    var test2 = {};\n\n    for (var i
= 0; i < 10; i++) {\n      test2['_' + String.fromCharCode(i)] = i;\n    }\n\n    var order2 =
Object.getOwnPropertyNames(test2).map(function (n) {\n      return test2[n];\n    });\n\n    if (order2.join('') !==
'0123456789') {\n      return false;\n    } // https://bugs.chromium.org/p/v8/issues/detail?id=3056\n\n\n    var test3 =
{};\n    'abcdefghijklmnopqrst'.split('').forEach(function (letter) {\n      test3[letter] = letter;\n    });\n\n    if
(Object.keys(Object.assign({}, test3)).join('') !== 'abcdefghijklmnopqrst') {\n      return false;\n    }\n\n    return
true;\n  } catch (err) {\n    // We don't expect any of the above to throw, but better to be safe.\n    return false;\n
}\n}\n\nmodule.exports = shouldUseNative() ? Object.assign : function (target, source) {\n  var from;\n  var to =
toObject(target);\n  var symbols;\n\n  for (var s = 1; s < arguments.length;
 s++) {\n    from = Object(arguments[s]);\n\n    for (var key in from) {\n      if (hasOwnProperty.call(from, key)) {\n
   to[key] = from[key];\n      }\n    }\n\n    if (getOwnPropertySymbols) {\n      symbols =
getOwnPropertySymbols(from);\n\n      for (var i = 0; i < symbols.length; i++) {\n        if
(propIsEnumerable.call(from, symbols[i])) {\n          to[symbols[i]] = from[symbols[i]];\n        }\n      }\n    }\n  }\n\n
return to;\n};","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default
= undefined;\n\nvar _AppBar = require('./AppBar');\n\nvar _AppBar2 =
_interopRequireDefault(_AppBar);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nexports.default = _AppBar2.default;","module.exports = !require('./_descriptors')
&& !require('./_fails')(function () {\n  return Object.defineProperty(require('./_dom-create')('div'), 'a', {\n    get:
function get()
 {\n      return 7;\n    }\n  }).a != 7;\n});","var isObject = require('./_is-object');\n\nvar document =
require('./_global').document; // typeof document.createElement is 'object' in old IE\n\n\nvar is =
isObject(document) && isObject(document.createElement);\n\nmodule.exports = function (it) {\n  return is ?
document.createElement(it) : {};\n};","var has = require('./_has');\n\nvar toIObject = require('./_to-iobject');\n\nvar
arrayIndexOf = require('./_array-includes')(false);\n\nvar IE_PROTO = require('./_shared-
key')('IE_PROTO');\n\nmodule.exports = function (object, names) {\n  var O = toIObject(object);\n  var i = 0;\n  var
result = [];\n  var key;\n\n  for (key in O) {\n    if (key != IE_PROTO) has(O, key) && result.push(key);\n  } // Don't
enum bug & hidden keys\n\n\n  while (names.length > i) {\n    if (has(O, key = names[i++])) {\n
~arrayIndexOf(result, key) || result.push(key);\n    }\n  }\n\n  return result;\n};","// fallback for non-array-like ES3
and non-enumerable old
 V8 strings\nvar cof = require('./_cof'); // eslint-disable-next-line no-prototype-builtins\n\n\nmodule.exports =
Object('z').propertyIsEnumerable(0) ? Object : function (it) {\n  return cof(it) == 'String' ? it.split('') :
Object(it);\n};","// 7.1.15 ToLength\nvar toInteger = require('./_to-integer');\n\nvar min =
Math.min;\n\nmodule.exports = function (it) {\n  return it > 0 ? min(toInteger(it), 0x1fffffffffffff) : 0; // pow(2, 53) -
1 == 9007199254740991\n};","module.exports = {\n  \"default\": require(\"core-js/library/fn/object/keys\"),\n
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__esModule: true\n};","// most Object methods by ES6 should accept primitives\nvar $export = require('./_export');\n\nvar core = require('./_core');\n\nvar fails = require('./_fails');\n\nmodule.exports = function (KEY, exec) {\n var fn = (core.Object || {})[KEY] || Object[KEY];\n var exp = {};\n exp[KEY] = exec(fn);\n $export($export.S + $export.F * fails(function () {\n   fn(1);\n }), 'Object', exp);\n};","// 19.1.2.9 / 15.2.3.2 Object.getPrototypeOf(O)\nvar has = require('./_has');\n\nvar toObject = require('./_to-object');\n\nvar IE_PROTO = require('./_shared-key')('IE_PROTO');\n\nvar ObjectProto = Object.prototype;\n\nmodule.exports = Object.getPrototypeOf || function (O) {\n O = toObject(O);\n if (has(O, IE_PROTO)) return O[IE_PROTO];\n\n if (typeof O.constructor == 'function' && O instanceof O.constructor) {\n   return O.constructor.prototype;\n }\n\n return O instanceof Object ? ObjectProto : null;\n};","module.exports = {\n \"default\": require(\"core-js/library/fn/object/define-property\"),\n __esModule: true\n};","'use strict';\n\nvar LIBRARY = require('./_library');\n\nvar $export = require('./_export');\n\nvar redefine = require('./_redefine');\n\nvar hide = require('./_hide');\n\nvar Iterators = require('./_iterators');\n\nvar $iterCreate = require('./_iter-create');\n\nvar setToStringTag = require('./_set-to-string-tag');\n\nvar getPrototypeOf = require('./_object-gpo');\n\nvar ITERATOR = require('./_wks')('iterator');\n\nvar BUGGY = !([].keys && 'next' in [].keys()); // Safari has buggy iterators w/o `next`\n\nvar FF_ITERATOR = '@@iterator';\nvar KEYS = 'keys';\nvar VALUES = 'values';\n\nvar returnThis = function returnThis() {\n return this;\n};\n\nmodule.exports = function (Base, NAME, Constructor, next, DEFAULT, IS_SET, FORCED) {\n $iterCreate(Constructor, NAME, next);\n\n var getMethod = function getMethod(kind) {\n   if (!BUGGY && kind in proto) return proto[kind];\n\n   switch (kind) {\n   case KEYS:\n   return function keys() {\n   return new Constructor(this, kind);\n   };\n\n   case VALUES:\n   return function values() {\n   return new Constructor(this, kind);\n   };\n   }\n\n   return function entries() {\n   return new Constructor(this, kind);\n   };\n };\n\n var TAG = NAME + ' Iterator';\n var DEF_VALUES = DEFAULT == VALUES;\n var VALUES_BUG = false;\n var proto = Base.prototype;\n var $native = proto[ITERATOR] || proto[FF_ITERATOR] || DEFAULT && proto[DEFAULT];\n var $default = $native || getMethod(DEFAULT);\n var $entries = DEFAULT ? !DEF_VALUES ? $default : getMethod('entries') : undefined;\n var $anyNative = NAME == 'Array' ? proto.entries || $native : $native;\n var methods, key, IteratorPrototype; // Fix native\n\n if ($anyNative) {\n   IteratorPrototype = getPrototypeOf($anyNative.call(new Base()));\n\n   if (IteratorPrototype !== Object.prototype && IteratorPrototype.next) {\n   // Set @@toStringTag to native iterators\n   setToStringTag(IteratorPrototype, TAG, true); // fix for some old engines\n\n   if (!LIBRARY && typeof IteratorPrototype[ITERATOR] != 'function') hide(IteratorPrototype, ITERATOR, returnThis);\n   }\n } // fix Array#{values, @@iterator}.name in V8 / FF\n\n\n if (DEF_VALUES && $native && $native.name !== VALUES) {\n   VALUES_BUG = true;\n\n $default = function values() {\n   return $native.call(this);\n   };\n } // Define iterator\n\n\n if ((!LIBRARY || FORCED) && (BUGGY || VALUES_BUG || !proto[ITERATOR])) {\n   hide(proto, ITERATOR, $default);\n } // Plug for library\n\n\n Iterators[NAME] = $default;\n Iterators[TAG] = returnThis;\n\n if (DEFAULT) {\n   methods = {\n   values: DEF_VALUES ? $default : getMethod(VALUES),\n   keys: IS_SET ? $default : getMethod(KEYS),\n   entries: $entries\n   };\n   if (FORCED) for (key in methods) {\n   if (!(key in proto)) redefine(proto, key, methods[key]);\n   } else $export($export.P + $export.F * (BUGGY || VALUES_BUG), NAME, methods);\n }\n\n return methods;\n};","module.exports = require('./_hide');","// 19.1.2.7 / 15.2.3.4 Object.getOwnPropertyNames(O)\nvar $keys = require('./_object-keys-internal');\n\nvar hiddenKeys = require('./_enum-bug-keys').concat('length', 'prototype');\n\nexports.f = Object.getOwnPropertyNames || function getOwnPropertyNames(O) {\n return $keys(O, hiddenKeys);\n};","var pIE = require('./_object-pie');\n\nvar createDesc = require('./_property-desc');\n\nvar toIObject = require('./_to-iobject');\n\nvar toPrimitive = require('./_to-primitive');\n\nvar has = require('./_has');\n\nvar IE8_DOM_DEFINE = require('./_ie8-dom-define');\n\nvar gOPD = Object.getOwnPropertyDescriptor;\nexports.f = require('./_descriptors') ? gOPD : function getOwnPropertyDescriptor(O, P) {\n O = toIObject(O);\n P = toPrimitive(P, true);\n if (IE8_DOM_DEFINE) try {\n   return gOPD(O, P);\n } catch (e) {\n   /* empty */\n }\n if (has(O, P)) return createDesc(!pIE.f.call(O, P),

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O[P]);\n};","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar
_toConsumableArray2 = require('babel-runtime/helpers/toConsumableArray');\n\nvar _toConsumableArray3 =
_interopRequireDefault(_toConsumableArray2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar
 _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _toArray2 =
require('babel-runtime/helpers/toArray');\n\nvar _toArray3 = _interopRequireDefault(_toArray2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-
dom');\n\nvar _reactDom2 = _interopRequireDefault(_reactDom);\n\nvar
 _TransitionGroup = require('react-transition-group/TransitionGroup');\n\nvar _TransitionGroup2 =
_interopRequireDefault(_TransitionGroup);\n\nvar _dom = require('../utils/dom');\n\nvar _dom2 =
_interopRequireDefault(_dom);\n\nvar _CircleRipple = require('./CircleRipple');\n\nvar _CircleRipple2 =
_interopRequireDefault(_CircleRipple);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n} // Remove the first element of the array\n\n\nvar shift = function
shift(_ref) {\n  var _ref2 = (0, _toArray3.default)(_ref),\n      newArray = _ref2.slice(1);\n\n  return
newArray;\n};\n\nvar TouchRipple = function (_Component) {\n  (0, _inherits3.default)(TouchRipple,
_Component);\n\n  function TouchRipple(props, context) {\n    (0, _classCallCheck3.default)(this, TouchRipple); //
Touch start produces a mouse down event for compat reasons. To avoid\n    // showing ripples twice we skip
showing a ripple for the
 first mouse down\n    // after a touch start. Note we don't store ignoreNextMouseDown in this.state\n    // to avoid
re-rendering when we change it.\n\n    var _this = (0, _possibleConstructorReturn3.default)(this,
(TouchRipple.__proto__ || (0, _getPrototypeOf2.default)(TouchRipple)).call(this, props, context));\n\n
_this.handleMouseDown = function (event) {\n      // only listen to left clicks\n      if (event.button === 0) {\n
_this.start(event, false);\n      }\n    };\n\n    _this.handleMouseUp = function () {\n      _this.end();\n    };\n\n
_this.handleMouseLeave = function () {\n      _this.end();\n    };\n\n    _this.handleTouchStart = function (event) {\n
   event.stopPropagation(); // If the user is swiping (not just tapping), save the position so we can\n      // abort ripples
if the user appears to be scrolling.\n\n      if (_this.props.abortOnScroll && event.touches) {\n
_this.startListeningForScrollAbort(event);\n\n        _this.startTime = Date.now();\n
      }\n\n      _this.start(event, true);\n    };\n\n    _this.handleTouchEnd = function () {\n      _this.end();\n    };\n\n
_this.handleTouchMove = function (event) {\n      // Stop trying to abort if we're already 300ms into the animation\n
   var timeSinceStart = Math.abs(Date.now() - _this.startTime);\n\n      if (timeSinceStart > 300) {\n
_this.stopListeningForScrollAbort();\n\n        return;\n      } // If the user is scrolling...\n\n\n      var deltaY =
Math.abs(event.touches[0].clientY - _this.firstTouchY);\n      var deltaX = Math.abs(event.touches[0].clientX -
_this.firstTouchX); // Call it a scroll after an arbitrary 6px (feels reasonable in testing)\n\n      if (deltaY > 6 || deltaX
> 6) {\n        var currentRipples = _this.state.ripples;\n        var ripple = currentRipples[0]; // This clone will replace
the ripple in ReactTransitionGroup with a\n        // version that will disappear immediately when removed from the
DOM\n\n        var abortedRipple =
 _react2.default.cloneElement(ripple, {\n          aborted: true\n        }); // Remove the old ripple and replace it with
the new updated one\n\n\n        currentRipples = shift(currentRipples);\n        currentRipples = [].concat((0,
_toConsumableArray3.default)(currentRipples), [abortedRipple]);\n\n        _this.setState({\n          ripples:
currentRipples\n        }, function () {\n          // Call end after we've set the ripple to abort otherwise the setState\n
  // in end() merges with this and the ripple abort fails\n          _this.end();\n        });\n      }\n    };\n\n
```

```
_this.ignoreNextMouseDown = false;\n    _this.state = {\n      // This prop allows us to only render the
ReactTransitionGroup\n      // on the first click of the component, making the inital render faster.\n      hasRipples:
false,\n      nextKey: 0,\n      ripples: []\n    };\n    return _this;\n  }\n\n  (0, _createClass3.default)(TouchRipple, [{\n
key: 'start',\n    value: function start(event,
 isRippleTouchGenerated) {\n      var theme = this.context.muiTheme.ripple;\n\n      if (this.ignoreNextMouseDown
&& !isRippleTouchGenerated) {\n        this.ignoreNextMouseDown = false;\n        return;\n      }\n\n      var ripples
= this.state.ripples; // Add a ripple to the ripples array\n\n      ripples = [].concat((0,
_toConsumableArray3.default)(ripples), [_react2.default.createElement(_CircleRipple2.default, {\n        key:
this.state.nextKey,\n        style: !this.props.centerRipple ? this.getRippleStyle(event) : {},\n        color:
this.props.color || theme.color,\n        opacity: this.props.opacity,\n        touchGenerated: isRippleTouchGenerated\n
  })]);\n      this.ignoreNextMouseDown = isRippleTouchGenerated;\n      this.setState({\n        hasRipples: true,\n
 nextKey: this.state.nextKey + 1,\n        ripples: ripples\n      });\n    }\n  }, {\n    key: 'end',\n    value: function end()
{\n      var currentRipples = this.state.ripples;\n      this.setState({\n
        ripples: shift(currentRipples)\n      });\n\n      if (this.props.abortOnScroll) {\n
this.stopListeningForScrollAbort();\n      }\n    } // Check if the user seems to be scrolling and abort the animation if
so\n\n  }, {\n    key: 'startListeningForScrollAbort',\n    value: function startListeningForScrollAbort(event) {\n
this.firstTouchY = event.touches[0].clientY;\n      this.firstTouchX = event.touches[0].clientX; // Note that when
scolling Chrome throttles this event to every 200ms\n      // Also note we don't listen for scroll events directly as
there's no general\n      // way to cover cases like scrolling within containers on the page\n\n
document.body.addEventListener('touchmove', this.handleTouchMove);\n    }\n  }, {\n    key:
'stopListeningForScrollAbort',\n    value: function stopListeningForScrollAbort() {\n
document.body.removeEventListener('touchmove', this.handleTouchMove);\n    }\n  }, {\n    key: 'getRippleStyle',\n
  value: function getRippleStyle(event)
 {\n      var el = _reactDom2.default.findDOMNode(this);\n\n      var elHeight = el.offsetHeight;\n      var elWidth =
el.offsetWidth;\n\n      var offset = _dom2.default.offset(el);\n\n      var isTouchEvent = event.touches &&
event.touches.length;\n      var pageX = isTouchEvent ? event.touches[0].pageX : event.pageX;\n      var pageY =
isTouchEvent ? event.touches[0].pageY : event.pageY;\n      var pointerX = pageX - offset.left;\n      var pointerY =
pageY - offset.top;\n      var topLeftDiag = this.calcDiag(pointerX, pointerY);\n      var topRightDiag =
this.calcDiag(elWidth - pointerX, pointerY);\n      var botRightDiag = this.calcDiag(elWidth - pointerX, elHeight -
pointerY);\n      var botLeftDiag = this.calcDiag(pointerX, elHeight - pointerY);\n      var rippleRadius =
Math.max(topLeftDiag, topRightDiag, botRightDiag, botLeftDiag);\n      var rippleSize = rippleRadius * 2;\n      var
left = pointerX - rippleRadius;\n      var top = pointerY - rippleRadius;\n
     return {\n        directionInvariant: true,\n        height: rippleSize,\n        width: rippleSize,\n        top: top,\n
left: left\n      };\n    }\n  }, {\n    key: 'calcDiag',\n    value: function calcDiag(a, b) {\n      return Math.sqrt(a * a + b
* b);\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var _props = this.props,\n          children =
_props.children,\n          style = _props.style;\n      var _state = this.state,\n          hasRipples = _state.hasRipples,\n
    ripples = _state.ripples;\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n      var rippleGroup =
void 0;\n\n      if (hasRipples) {\n        var mergedStyles = (0, _simpleAssign2.default)({\n          height: '100%',\n
  width: '100%',\n          position: 'absolute',\n          top: 0,\n          left: 0,\n          overflow: 'hidden',\n
pointerEvents: 'none',\n          zIndex: 1 // This is also needed so that ripples do not bleed past
 a parent border radius.\n\n        }, style);\n        rippleGroup =
_react2.default.createElement(_TransitionGroup2.default, {\n          style: prepareStyles(mergedStyles)\n        },
ripples);\n      }\n\n      return _react2.default.createElement('div', {\n        onMouseUp: this.handleMouseUp,\n
onMouseDown: this.handleMouseDown,\n        onMouseLeave: this.handleMouseLeave,\n        onTouchStart:
this.handleTouchStart,\n        onTouchEnd: this.handleTouchEnd\n      }, rippleGroup, children);\n    }\n  }]);\n
return TouchRipple;\n}(_react.Component);\n\nTouchRipple.defaultProps = {\n  abortOnScroll:
true\n};\nTouchRipple.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nTouchRipple.propTypes = process.env.NODE_ENV !== \"production\"
```

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? {\n  abortOnScroll: _propTypes2.default.bool,\n  centerRipple: _propTypes2.default.bool,\n  children:
_propTypes2.default.node,\n  color: _propTypes2.default.string,\n  opacity: _propTypes2.default.number,\n  style:
 _propTypes2.default.object\n} : {};\nexports.default = TouchRipple;","module.exports = {\n  \"default\":
require(\"core-js/library/fn/array/from\"),\n  __esModule: true\n};","var classof = require('./_classof');\n\nvar
ITERATOR = require('./_wks')('iterator');\n\nvar Iterators = require('./_iterators');\n\nmodule.exports =
require('./_core').getIteratorMethod = function (it) {\n  if (it != undefined) return it[ITERATOR] || it['@@iterator'] ||
Iterators[classof(it)];\n};","// getting tag from 19.1.3.6 Object.prototype.toString()\nvar cof = require('./_cof');\n\nvar
TAG = require('./_wks')('toStringTag'); // ES3 wrong here\n\n\nvar ARG = cof(function () {\n  return
arguments;\n}()) == 'Arguments'; // fallback for IE11 Script Access Denied error\n\nvar tryGet = function tryGet(it,
key) {\n  try {\n    return it[key];\n  } catch (e) {\n    /* empty */\n  }\n};\n\nmodule.exports = function (it) {\n  var
O, T, B;\n  return it === undefined ? 'Undefined' : it === null ? 'Null' // @@toStringTag
 case\n  : typeof (T = tryGet(O = Object(it), TAG)) == 'string' ? T // builtinTag case\n  : ARG ? cof(O) // ES3
arguments fallback\n  : (B = cof(O)) == 'Object' && typeof O.callee == 'function' ? 'Arguments' : B;\n};","\"use
strict\";\n\nexports.__esModule = true;\n\nvar _from = require(\"../core-js/array/from\");\n\nvar _from2 =
_interopRequireDefault(_from);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj :
{\n    default: obj\n  };\n}\n\nexports.default = function (arr) {\n  return Array.isArray(arr) ? arr : (0,
_from2.default)(arr);\n};","\"use strict\";\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\nexports.default = {\n  isDescendant: function isDescendant(parent, child) {\n    var node =
child.parentNode;\n\n    while (node !== null) {\n      if (node === parent) return true;\n      node =
node.parentNode;\n    }\n\n    return false;\n  },\n  offset: function offset(el) {\n    var rect =
el.getBoundingClientRect();\n
 return {\n      top: rect.top + document.body.scrollTop,\n      left: rect.left + document.body.scrollLeft\n    };\n
}\n};","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 =
require('babel-runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar
 _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _transitions =
require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction
getStyles(props, context, state) {\n  var verticalPosition = props.verticalPosition;\n  var horizontalPosition =
props.horizontalPosition;\n  var touchMarginOffset = props.touch ? 10 : 0;\n  var touchOffsetTop = props.touch ? -
20
 : -10;\n  var offset = verticalPosition === 'bottom' ? 14 + touchMarginOffset : -14 - touchMarginOffset;\n  var
_context$muiTheme = context.muiTheme,\n      baseTheme = _context$muiTheme.baseTheme,\n      zIndex =
_context$muiTheme.zIndex,\n      tooltip = _context$muiTheme.tooltip,\n      borderRadius =
_context$muiTheme.borderRadius;\n  var styles = {\n    root: {\n      position: 'absolute',\n      fontFamily:
baseTheme.fontFamily,\n      fontSize: '10px',\n      lineHeight: '22px',\n      padding: '0 8px',\n      zIndex:
zIndex.tooltip,\n      color: tooltip.color,\n      overflow: 'hidden',\n      top: -10000,\n      borderRadius:
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borderRadius,\n      userSelect: 'none',\n      opacity: 0,\n      right: horizontalPosition === 'left' ? 12 : null,\n      left:
horizontalPosition === 'center' ? (state.offsetWidth - 48) / 2 * -1 : horizontalPosition === 'right' ? 12 : null,\n
transition: _transitions2.default.easeOut('0ms', 'top', '450ms') + ', ' + _transitions2.default.easeOut('450ms',
 'transform', '0ms') + ', ' + _transitions2.default.easeOut('450ms', 'opacity', '0ms')\n    },\n    label: {\n      position:
'relative',\n      whiteSpace: 'nowrap'\n    },\n    ripple: {\n      position: 'absolute',\n      left: horizontalPosition ===
'center' ? '50%' : horizontalPosition === 'left' ? '100%' : '0%',\n      top: verticalPosition === 'bottom' ? 0 : '100%',\n
 transform: 'translate(-50%, -50%)',\n      borderRadius: '50%',\n      backgroundColor: 'transparent',\n      transition:
_transitions2.default.easeOut('0ms', 'width', '450ms') + ', ' + _transitions2.default.easeOut('0ms', 'height', '450ms') + ',
' + _transitions2.default.easeOut('450ms', 'backgroundColor', '0ms')\n    },\n    rootWhenShown: {\n      top:
verticalPosition === 'top' ? touchOffsetTop : 36,\n      opacity: tooltip.opacity,\n      transform: 'translate(0px, ' +
offset + 'px)',\n      transition: _transitions2.default.easeOut('0ms', 'top', '0ms') + ', ' +
_transitions2.default.easeOut('450ms',
 'transform', '0ms') + ', ' + _transitions2.default.easeOut('450ms', 'opacity', '0ms')\n    },\n    rootWhenTouched: {\n
fontSize: '14px',\n      lineHeight: '32px',\n      padding: '0 16px'\n    },\n    rippleWhenShown: {\n
backgroundColor: tooltip.rippleBackgroundColor,\n      transition: _transitions2.default.easeOut('450ms', 'width',
'0ms') + ', ' + _transitions2.default.easeOut('450ms', 'height', '0ms') + ', ' + _transitions2.default.easeOut('450ms',
'backgroundColor', '0ms')\n    }\n  };\n  return styles;\n}\n\nvar Tooltip = function (_Component) {\n  (0,
_inherits3.default)(Tooltip, _Component);\n\n  function Tooltip() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n
(0, _classCallCheck3.default)(this, Tooltip);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0;
_key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = Tooltip.__proto__ ||
 (0, _getPrototypeOf2.default)(Tooltip)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n
offsetWidth: null\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0,
_createClass3.default)(Tooltip, [{\n    key: 'componentDidMount',\n    value: function componentDidMount() {\n
this.setRippleSize();\n      this.setTooltipPosition();\n    }\n  }, {\n    key: 'componentWillReceiveProps',\n    value:
function componentWillReceiveProps() {\n      this.setTooltipPosition();\n    }\n  }, {\n    key:
'componentDidUpdate',\n    value: function componentDidUpdate() {\n      this.setRippleSize();\n    }\n  }, {\n    key:
'setRippleSize',\n    value: function setRippleSize() {\n      var ripple = this.refs.ripple;\n      var tooltip =
this.refs.tooltip;\n      var tooltipWidth = parseInt(tooltip.offsetWidth, 10) / (this.props.horizontalPosition ===
'center' ? 2 : 1);\n      var tooltipHeight = parseInt(tooltip.offsetHeight, 10);\n      var rippleDiameter
 = Math.ceil(Math.sqrt(Math.pow(tooltipHeight, 2) + Math.pow(tooltipWidth, 2)) * 2);\n\n      if (this.props.show)
{\n        ripple.style.height = rippleDiameter + 'px';\n        ripple.style.width = rippleDiameter + 'px';\n      } else {\n
   ripple.style.width = '0px';\n        ripple.style.height = '0px';\n      }\n    }\n  }, {\n    key: 'setTooltipPosition',\n
value: function setTooltipPosition() {\n      this.setState({\n        offsetWidth: this.refs.tooltip.offsetWidth\n      });\n
}\n  }, {\n    key: 'render',\n    value: function render() {\n      var _props = this.props,\n          horizontalPosition =
_props.horizontalPosition,\n          label = _props.label,\n          show = _props.show,\n          touch = _props.touch,\n
        verticalPosition = _props.verticalPosition,\n          other = (0, _objectWithoutProperties3.default)(_props,
['horizontalPosition', 'label', 'show', 'touch', 'verticalPosition']);\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n
      var styles = getStyles(this.props, this.context, this.state);\n      return _react2.default.createElement('div', (0,
_extends3.default)({}, other, {\n        ref: 'tooltip',\n        style: prepareStyles((0, _simpleAssign2.default)(styles.root,
this.props.show && styles.rootWhenShown, this.props.touch && styles.rootWhenTouched, this.props.style))\n
}), _react2.default.createElement('div', {\n        ref: 'ripple',\n        style: prepareStyles((0,
_simpleAssign2.default)(styles.ripple, this.props.show && styles.rippleWhenShown))\n      }),
_react2.default.createElement('span', {\n        style: prepareStyles(styles.label)\n      }, label));\n    }\n  }]);\n  return
Tooltip;\n}(_react.Component);\n\nTooltip.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nTooltip.propTypes = process.env.NODE_ENV !== \"production\" ? {\n
/**\n   * The css class name of the root element.\n   */\n  className: _propTypes2.default.string,\n
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horizontalPosition:
 _propTypes2.default.oneOf(['left', 'right', 'center']),\n  label: _propTypes2.default.node.isRequired,\n  show:
_propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object,\n  touch: _propTypes2.default.bool,\n  verticalPosition:
_propTypes2.default.oneOf(['top', 'bottom'])\n} : {};\nexports.default = Tooltip;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.extendChildren =
extendChildren;\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction
extendChildren(children, extendedProps, extendedChildren) {\n  return _react2.default.Children.map(children,
function (child) {\n    if (!_react2.default.isValidElement(child)) {\n      return child;\n    }\n\n    var newProps =
typeof extendedProps === 'function' ? extendedProps(child)
 : extendedProps;\n    var newChildren = typeof extendedChildren === 'function' ? extendedChildren(child) :
extendedChildren ? extendedChildren : child.props.children;\n    return _react2.default.cloneElement(child,
newProps, newChildren);\n  });\n}","'use strict';\n\nexports.__esModule = true;\n\nvar _setStatic =
require('./setStatic');\n\nvar _setStatic2 = _interopRequireDefault(_setStatic);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar
setDisplayName = function setDisplayName(displayName) {\n  return (0, _setStatic2.default)('displayName',
displayName);\n};\n\nexports.default = setDisplayName;","'use strict';\n\nexports.__esModule = true;\n\nvar
_getDisplayName = require('./getDisplayName');\n\nvar _getDisplayName2 =
_interopRequireDefault(_getDisplayName);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar wrapDisplayName = function
 wrapDisplayName(BaseComponent, hocName) {\n  return hocName + '(' + (0,
_getDisplayName2.default)(BaseComponent) + ')';\n};\n\nexports.default = wrapDisplayName;","function
_typeof(obj) {\n  \"@babel/helpers - typeof\";\n\n  return (module.exports = _typeof = \"function\" == typeof
Symbol && \"symbol\" == typeof Symbol.iterator ? function (obj) {\n    return typeof obj;\n  } : function (obj) {\n
return obj && \"function\" == typeof Symbol && obj.constructor === Symbol && obj !== Symbol.prototype ?
\"symbol\" : typeof obj;\n  }, module.exports.__esModule = true, module.exports[\"default\"] = module.exports),
_typeof(obj);\n}\n\nmodule.exports = _typeof, module.exports.__esModule = true, module.exports[\"default\"] =
module.exports;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar
_getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2
 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _react =
require('react');\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-dom');\n\nvar _dom =
require('../utils/dom');\n\nvar _dom2 = _interopRequireDefault(_dom);\n\nfunction _interopRequireDefault(obj) {\n
return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n} // heavily inspired by
https://github.com/Khan/react-components/blob/master/js/layered-component-mixin.jsx\n\n\nvar
 RenderToLayer = function (_Component) {\n  (0, _inherits3.default)(RenderToLayer, _Component);\n\n  function
RenderToLayer() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this,
RenderToLayer);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n
args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = RenderToLayer.__proto__ || (0,
_getPrototypeOf2.default)(RenderToLayer)).call.apply(_ref, [this].concat(args))), _this), _this.onClickAway =
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function (event) {\n      if (event.defaultPrevented) {\n        return;\n      }\n\n      if
(!_this.props.componentClickAway) {\n        return;\n      }\n\n      if (!_this.props.open) {\n        return;\n      }\n\n
var el = _this.layer;\n\n      if (event.target !== el && event.target === window ||
document.documentElement.contains(event.target)
 && !_dom2.default.isDescendant(el, event.target)) {\n        _this.props.componentClickAway(event);\n      }\n    },
_temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(RenderToLayer,
[{\n    key: 'componentDidMount',\n    value: function componentDidMount() {\n      this.renderLayer();\n    }\n  },
{\n    key: 'componentDidUpdate',\n    value: function componentDidUpdate() {\n      this.renderLayer();\n    }\n  },
{\n    key: 'componentWillUnmount',\n    value: function componentWillUnmount() {\n      this.unrenderLayer();\n
}\n  }, {\n    key: 'getLayer',\n    value: function getLayer() {\n      return this.layer;\n    }\n  }, {\n    key:
'unrenderLayer',\n    value: function unrenderLayer() {\n      if (!this.layer) {\n        return;\n      }\n\n      if
(this.props.useLayerForClickAway) {\n        this.layer.style.position = 'relative';\n
this.layer.removeEventListener('click', this.onClickAway);\n      }
 else {\n        window.removeEventListener('click', this.onClickAway);\n      }\n\n      (0,
_reactDom.unmountComponentAtNode)(this.layer);\n      document.body.removeChild(this.layer);\n      this.layer =
null;\n    }\n    /**\n     * By calling this method in componentDidMount() and\n     * componentDidUpdate(), you're
effectively creating a \"wormhole\" that\n     * funnels React's hierarchical updates through to a DOM node on an\n
* entirely different part of the page.\n     */\n\n  }, {\n    key: 'renderLayer',\n    value: function renderLayer() {\n
var _this2 = this;\n\n      var _props = this.props,\n          open = _props.open,\n          render = _props.render;\n\n
if (open) {\n        if (!this.layer) {\n          this.layer = document.createElement('div');\n
document.body.appendChild(this.layer);\n\n          if (this.props.useLayerForClickAway) {\n
this.layer.addEventListener('click', this.onClickAway);\n            this.layer.style.position
 = 'fixed';\n            this.layer.style.top = 0;\n            this.layer.style.bottom = 0;\n            this.layer.style.left = 0;\n
    this.layer.style.right = 0;\n            this.layer.style.zIndex = this.context.muiTheme.zIndex.layer;\n          } else {\n
        setTimeout(function () {\n              window.addEventListener('click', _this2.onClickAway);\n            }, 0);\n
  }\n        }\n\n        var layerElement = render();\n        this.layerElement = (0,
_reactDom.unstable_renderSubtreeIntoContainer)(this, layerElement, this.layer);\n      } else {\n
this.unrenderLayer();\n      }\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n      return null;\n    }\n
}]);\n  return RenderToLayer;\n}(_react.Component);\n\nRenderToLayer.defaultProps = {\n
useLayerForClickAway: true\n};\nRenderToLayer.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nRenderToLayer.propTypes = process.env.NODE_ENV !==
\"production\"
 ? {\n  componentClickAway: _propTypes2.default.func,\n  open: _propTypes2.default.bool.isRequired,\n  render:
_propTypes2.default.func.isRequired,\n  useLayerForClickAway: _propTypes2.default.bool\n} :
{};\nexports.default = RenderToLayer;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\nexports.default = undefined;\n\nvar _Badge = require('./Badge');\n\nvar _Badge2 =
_interopRequireDefault(_Badge);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj
: {\n    default: obj\n  };\n}\n\nexports.default = _Badge2.default;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\nexports.default = exports.BottomNavigationItem = exports.BottomNavigation
= undefined;\n\nvar _BottomNavigation2 = require('./BottomNavigation');\n\nvar _BottomNavigation3 =
_interopRequireDefault(_BottomNavigation2);\n\nvar _BottomNavigationItem2 =
require('./BottomNavigationItem');\n\nvar _BottomNavigationItem3 =
 _interopRequireDefault(_BottomNavigationItem2);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.BottomNavigation =
_BottomNavigation3.default;\nexports.BottomNavigationItem = _BottomNavigationItem3.default;\nexports.default
= _BottomNavigation3.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\nexports.default = exports.CardExpandable = exports.CardActions = exports.CardText =
exports.CardMedia = exports.CardTitle = exports.CardHeader = exports.Card = undefined;\n\nvar _Card2 =
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require('./Card');\n\nvar _Card3 = _interopRequireDefault(_Card2);\n\nvar _CardHeader2 = require('./CardHeader');\n\nvar _CardHeader3 = _interopRequireDefault(_CardHeader2);\n\nvar _CardTitle2 = require('./CardTitle');\n\nvar _CardTitle3 = _interopRequireDefault(_CardTitle2);\n\nvar _CardMedia2 = require('./CardMedia');\n\nvar _CardMedia3 = _interopRequireDefault(_CardMedia2);\n\nvar _CardText2 = require('./CardText');\n\nvar _CardText3 = _interopRequireDefault(_CardText2);\n\nvar _CardActions2 = require('./CardActions');\n\nvar _CardActions3 = _interopRequireDefault(_CardActions2);\n\nvar _CardExpandable2 = require('./CardExpandable');\n\nvar _CardExpandable3 = _interopRequireDefault(_CardExpandable2);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nexports.Card = _Card3.default;\nexports.CardHeader = _CardHeader3.default;\nexports.CardTitle = _CardTitle3.default;\nexports.CardMedia = _CardMedia3.default;\nexports.CardText = _CardText3.default;\nexports.CardActions = _CardActions3.default;\nexports.CardExpandable = _CardExpandable3.default;\nexports.default = _Card3.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _keyboardArrowUp = require('../svg-icons/hardware/keyboard-arrow-up');\n\nvar _keyboardArrowUp2 = _interopRequireDefault(_keyboardArrowUp);\n\nvar _keyboardArrowDown = require('../svg-icons/hardware/keyboard-arrow-down');\n\nvar _keyboardArrowDown2 = _interopRequireDefault(_keyboardArrowDown);\n\nvar _IconButton = require('../IconButton');\n\nvar _IconButton2 = _interopRequireDefault(_IconButton);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nfunction getStyles() {\n return {\n   root: {\n   top: 0,\n   bottom: 0,\n   right: 4,\n   margin: 'auto',\n   position: 'absolute'\n   }\n };\n}\n\nvar CardExpandable = function (_Component) {\n (0, _inherits3.default)(CardExpandable, _Component);\n\n function CardExpandable() {\n   (0, _classCallCheck3.default)(this, CardExpandable);\n   return (0, _possibleConstructorReturn3.default)(this, (CardExpandable.__proto__ || (0, _getPrototypeOf2.default)(CardExpandable)).apply(this, arguments));\n }\n\n (0, _createClass3.default)(CardExpandable, [{\n   key: 'render',\n   value: function render() {\n   var styles = getStyles(this.props, this.context);\n   return _react2.default.createElement(_IconButton2.default, {\n   style: (0, _simpleAssign2.default)(styles.root, this.props.style),\n   onClick: this.props.onExpanding,\n   iconStyle: this.props.iconStyle\n   }, this.props.expanded ? this.props.openIcon : this.props.closeIcon);\n   }\n }]);\n return CardExpandable;\n}(_react.Component);\n\nCardExpandable.contextTypes = {\n muiTheme: _propTypes2.default.object.isRequired\n};\nCardExpandable.defaultProps = {\n closeIcon: _react2.default.createElement(_keyboardArrowDown2.default, null),\n openIcon: _react2.default.createElement(_keyboardArrowUp2.default, null)\n};\nCardExpandable.propTypes = process.env.NODE_ENV !== \"production\" ? {\n closeIcon: _propTypes2.default.node,\n expanded: _propTypes2.default.bool,\n iconStyle: _propTypes2.default.object,\n onExpanding: _propTypes2.default.func.isRequired,\n openIcon: _propTypes2.default.node,\n style: _propTypes2.default.object\n} : {};\nexports.default = CardExpandable;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\nexports.default = undefined;\n\nvar

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_Chip = require('./Chip');\n\nvar _Chip2 = _interopRequireDefault(_Chip);\n\nfunction _interopRequireDefault(obj)
{\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.default = _Chip2.default;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default = undefined;\n\nvar
_CircularProgress = require('./CircularProgress');\n\nvar _CircularProgress2 =
_interopRequireDefault(_CircularProgress);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.default = _CircularProgress2.default;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar
 _extends3 = _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar
 _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _transitions = require('../styles/transitions');\n\nvar _transitions2 =
_interopRequireDefault(_transitions);\n\nvar _AutoLockScrolling = require('./AutoLockScrolling');\n\nvar
_AutoLockScrolling2 = _interopRequireDefault(_AutoLockScrolling);\n\nfunction _interopRequireDefault(obj) {\n
return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var
overlay = context.muiTheme.overlay;\n  var style = {\n    root: {\n      position: 'fixed',\n      height: '100%',\n
width: '100%',\n      top: 0,\n      left: '-100%',\n      opacity: 0,\n      backgroundColor: overlay.backgroundColor,\n
WebkitTapHighlightColor: 'rgba(0, 0, 0, 0)',\n      // Remove mobile color flashing
 (deprecated)\n      // Two ways to promote overlay to its own render layer\n      willChange: 'opacity',\n
transform: 'translateZ(0)',\n      transition: props.transitionEnabled && _transitions2.default.easeOut('0ms', 'left',
'400ms') + ', ' + _transitions2.default.easeOut('400ms', 'opacity')\n    }\n  };\n\n  if (props.show) {\n    (0,
_simpleAssign2.default)(style.root, {\n      left: 0,\n      opacity: 1,\n      transition:
_transitions2.default.easeOut('0ms', 'left') + ', ' + _transitions2.default.easeOut('400ms', 'opacity')\n    });\n  }\n\n
return style;\n}\n\nvar Overlay = function (_Component) {\n  (0, _inherits3.default)(Overlay, _Component);\n\n
function Overlay() {\n    (0, _classCallCheck3.default)(this, Overlay);\n    return (0,
_possibleConstructorReturn3.default)(this, (Overlay.__proto__ || (0, _getPrototypeOf2.default)(Overlay)).apply(this,
arguments));\n  }\n\n  (0, _createClass3.default)(Overlay, [{\n    key: 'setOpacity',\n    value: function
setOpacity(opacity)
 {\n      this.refs.overlay.style.opacity = opacity;\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var
_props = this.props,\n          autoLockScrolling = _props.autoLockScrolling,\n          show = _props.show,\n
style = _props.style,\n          transitionEnabled = _props.transitionEnabled,\n          other = (0,
_objectWithoutProperties3.default)(_props, ['autoLockScrolling', 'show', 'style', 'transitionEnabled']);\n      var
prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n
return _react2.default.createElement('div', (0, _extends3.default)({}, other, {\n        ref: 'overlay',\n        style:
prepareStyles((0, _simpleAssign2.default)(styles.root, style))\n      }), autoLockScrolling &&
_react2.default.createElement(_AutoLockScrolling2.default, {\n        lock: show\n      }));\n    }\n  }]);\n  return
Overlay;\n}(_react.Component);\n\nOverlay.defaultProps = {\n  autoLockScrolling:
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true,\n style: {},\n transitionEnabled: true\n};\nOverlay.contextTypes = {\n muiTheme: _propTypes2.default.object.isRequired\n};\nOverlay.propTypes = process.env.NODE_ENV !== \"production\" ? {\n autoLockScrolling: _propTypes2.default.bool,\n show: _propTypes2.default.bool.isRequired,\n\n /**\n   * Override the inline-styles of the root element.\n   */\n style: _propTypes2.default.object,\n transitionEnabled: _propTypes2.default.bool\n} : {};\nexports.default = Overlay;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\nexports.default = undefined;\n\nvar _Drawer = require('./Drawer');\n\nvar _Drawer2 = _interopRequireDefault(_Drawer);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nexports.default = _Drawer2.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\nexports.default = undefined;\n\nvar _FloatingActionButton = require('./FloatingActionButton');\n\nvar _FloatingActionButton2 = _interopRequireDefault(_FloatingActionButton);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nexports.default = _FloatingActionButton2.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\nexports.default = exports.GridTile = exports.GridList = undefined;\n\nvar _GridList2 = require('./GridList');\n\nvar _GridList3 = _interopRequireDefault(_GridList2);\n\nvar _GridTile2 = require('./GridTile');\n\nvar _GridTile3 = _interopRequireDefault(_GridTile2);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nexports.GridList = _GridList3.default;\nexports.GridTile = _GridTile3.default;\nexports.default = _GridList3.default;","\"use strict\";\n\nexports.__esModule = true;\n\nvar _defineProperty = require(\"../core-js/object/define-property\");\n\nvar _defineProperty2 = _interopRequireDefault(_defineProperty);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nexports.default = function (obj, key, value) {\n if (key in obj) {\n   (0, _defineProperty2.default)(obj, key, {\n   value: value,\n   enumerable: true,\n   configurable: true,\n   writable: true\n   });\n } else {\n   obj[key] = value;\n }\n\n return obj;\n};","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\nexports.default = exports.MenuItem = exports.IconMenu = undefined;\n\nvar _IconMenu2 = require('./IconMenu');\n\nvar _IconMenu3 = _interopRequireDefault(_IconMenu2);\n\nvar _MenuItem2 = require('../MenuItem/MenuItem');\n\nvar _MenuItem3 = _interopRequireDefault(_MenuItem2);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nexports.IconMenu = _IconMenu3.default;\nexports.MenuItem = _MenuItem3.default;\nexports.default = _IconMenu3.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\nexports.default = undefined;\n\nvar _LinearProgress = require('./LinearProgress');\n\nvar _LinearProgress2 = _interopRequireDefault(_LinearProgress);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nexports.default = _LinearProgress2.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\nexports.default = exports.makeSelectable = exports.ListItem = exports.List = undefined;\n\nvar _List2 = require('./List');\n\nvar _List3 = _interopRequireDefault(_List2);\n\nvar _ListItem2 = require('./ListItem');\n\nvar _ListItem3 = _interopRequireDefault(_ListItem2);\n\nvar _makeSelectable2 = require('./makeSelectable');\n\nvar _makeSelectable3 = _interopRequireDefault(_makeSelectable2);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nexports.List = _List3.default;\nexports.ListItem = _ListItem3.default;\nexports.makeSelectable = _makeSelectable3.default;\nexports.default = _List3.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-

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runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
 _react = require('react');\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _getMuiTheme = require('./getMuiTheme');\n\nvar _getMuiTheme2 =
_interopRequireDefault(_getMuiTheme);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar MuiThemeProvider = function (_Component) {\n  (0,
_inherits3.default)(MuiThemeProvider, _Component);\n\n  function MuiThemeProvider() {\n    (0,
_classCallCheck3.default)(this, MuiThemeProvider);\n    return (0, _possibleConstructorReturn3.default)(this,
(MuiThemeProvider.__proto__ || (0, _getPrototypeOf2.default)(MuiThemeProvider)).apply(this, arguments));\n
}\n\n  (0, _createClass3.default)(MuiThemeProvider, [{\n    key: 'getChildContext',\n    value: function
getChildContext() {\n      return {\n        muiTheme: this.props.muiTheme || (0, _getMuiTheme2.default)()\n      };\n
}\n  }, {\n    key: 'render',\n    value: function
 render() {\n      return this.props.children;\n    }\n  }]);\n  return
MuiThemeProvider;\n}(_react.Component);\n\nMuiThemeProvider.childContextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nMuiThemeProvider.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  children: _propTypes2.default.element,\n  muiTheme: _propTypes2.default.object\n} :
{};\nexports.default = MuiThemeProvider;","\"use strict\";\n\nObject.defineProperty(exports, \"__esModule\", {\n
value: true\n});\nexports.default = prefixValue;\n\nfunction prefixValue(plugins, property, value, style, metaData)
{\n  for (var i = 0, len = plugins.length; i < len; ++i) {\n    var processedValue = plugins[i](property, value, style,
metaData); // we can stop processing if a value is returned\n    // as all plugin criteria are unique\n\n    if
(processedValue) {\n      return processedValue;\n    }\n  }\n}\n\nmodule.exports = exports[\"default\"];","\"use
strict\";\n\nObject.defineProperty(exports, \"__esModule\",
 {\n  value: true\n});\nexports.default = addNewValuesOnly;\n\nfunction addIfNew(list, value) {\n  if
(list.indexOf(value) === -1) {\n    list.push(value);\n  }\n}\n\nfunction addNewValuesOnly(list, values) {\n  if
(Array.isArray(values)) {\n    for (var i = 0, len = values.length; i < len; ++i) {\n      addIfNew(list, values[i]);\n    }\n
} else {\n    addIfNew(list, values);\n  }\n}\n\nmodule.exports = exports[\"default\"];","\"use
strict\";\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default =
isObject;\n\nfunction isObject(value) {\n  return value instanceof Object &&
!Array.isArray(value);\n}\n\nmodule.exports = exports[\"default\"];","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\nexports.default = hyphenateProperty;\n\nvar _hyphenateStyleName =
require('hyphenate-style-name');\n\nvar _hyphenateStyleName2 =
_interopRequireDefault(_hyphenateStyleName);\n\nfunction _interopRequireDefault(obj) {\n
  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction hyphenateProperty(property) {\n
return (0, _hyphenateStyleName2.default)(property);\n}\n\nmodule.exports = exports['default'];","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default =
exports.PopoverAnimationVertical = exports.Popover = undefined;\n\nvar _Popover2 = require('./Popover');\n\nvar
_Popover3 = _interopRequireDefault(_Popover2);\n\nvar _PopoverAnimationVertical2 =
require('./PopoverAnimationVertical');\n\nvar _PopoverAnimationVertical3 =
_interopRequireDefault(_PopoverAnimationVertical2);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.Popover =
_Popover3.default;\nexports.PopoverAnimationVertical = _PopoverAnimationVertical3.default;\nexports.default =
_Popover3.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar
_extends2
 = require('babel-runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
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_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
 _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _transitions =
require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nvar _EnhancedSwitch
= require('../internal/EnhancedSwitch');\n\nvar _EnhancedSwitch2 =
_interopRequireDefault(_EnhancedSwitch);\n\nvar _radioButtonUnchecked = require('../svg-icons/toggle/radio-
button-unchecked');\n\nvar _radioButtonUnchecked2 = _interopRequireDefault(_radioButtonUnchecked);\n\nvar
_radioButtonChecked = require('../svg-icons/toggle/radio-button-checked');\n\nvar _radioButtonChecked2 =
_interopRequireDefault(_radioButtonChecked);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props,
 context) {\n  var radioButton = context.muiTheme.radioButton;\n  return {\n    icon: {\n      height:
radioButton.size,\n      width: radioButton.size\n    },\n    target: {\n      transition: _transitions2.default.easeOut(),\n
 position: 'absolute',\n      opacity: 1,\n      transform: 'scale(1)',\n      fill: radioButton.borderColor\n    },\n    fill: {\n
 position: 'absolute',\n      opacity: 1,\n      transform: 'scale(0)',\n      transformOrigin: '50% 50%',\n      transition:
_transitions2.default.easeOut(),\n      fill: radioButton.checkedColor\n    },\n    targetWhenChecked: {\n      opacity:
0,\n      transform: 'scale(0)'\n    },\n    fillWhenChecked: {\n      opacity: 1,\n      transform: 'scale(1)'\n    },\n
targetWhenDisabled: {\n      fill: radioButton.disabledColor\n    },\n    fillWhenDisabled: {\n      fill:
radioButton.disabledColor\n    },\n    label: {\n      color: props.disabled ? radioButton.labelDisabledColor :
radioButton.labelColor\n
    },\n    ripple: {\n      color: props.checked ? radioButton.checkedColor : radioButton.borderColor\n    }\n
};\n}\n\nvar RadioButton = function (_Component) {\n  (0, _inherits3.default)(RadioButton, _Component);\n\n
function RadioButton() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this,
RadioButton);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n
args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = RadioButton.__proto__ || (0,
_getPrototypeOf2.default)(RadioButton)).call.apply(_ref, [this].concat(args))), _this), _this.handleSwitch = function
(event) {\n      if (_this.props.onCheck) {\n        _this.props.onCheck(event, _this.props.value);\n      }\n    }, _temp),
(0, _possibleConstructorReturn3.default)(_this, _ret);\n  } // Only called when selected, not when unselected.\n\n\n
(0, _createClass3.default)(RadioButton,
 [{\n    key: 'isChecked',\n    value: function isChecked() {\n      return this.refs.enhancedSwitch.isSwitched();\n    } //
Use RadioButtonGroup.setSelectedValue(newSelectionValue) to set a\n    // RadioButton's checked value.\n\n  },
{\n    key: 'setChecked',\n    value: function setChecked(newCheckedValue) {\n
this.refs.enhancedSwitch.setSwitched(newCheckedValue);\n    }\n  }, {\n    key: 'getValue',\n    value: function
getValue() {\n      return this.refs.enhancedSwitch.getValue();\n    }\n  }, {\n    key: 'render',\n    value: function
render() {\n      var _props = this.props,\n          checkedIcon = _props.checkedIcon,\n          checked =
_props.checked,\n          iconStyle = _props.iconStyle,\n          labelStyle = _props.labelStyle,\n          labelPosition =
_props.labelPosition,\n          onCheck = _props.onCheck,\n          uncheckedIcon = _props.uncheckedIcon,\n
disabled = _props.disabled,\n          other = (0, _objectWithoutProperties3.default)(_props,
 ['checkedIcon', 'checked', 'iconStyle', 'labelStyle', 'labelPosition', 'onCheck', 'uncheckedIcon', 'disabled']);\n      var
styles = getStyles(this.props, this.context);\n      var uncheckedStyles = (0, _simpleAssign2.default)(styles.target,
checked && styles.targetWhenChecked, iconStyle, disabled && styles.targetWhenDisabled);\n      var
```

```
checkedStyles = (0, _simpleAssign2.default)(styles.fill, checked && styles.fillWhenChecked, iconStyle, disabled
&& styles.fillWhenDisabled);\n      var uncheckedElement = _react2.default.isValidElement(uncheckedIcon) ?
_react2.default.cloneElement(uncheckedIcon, {\n        style: (0, _simpleAssign2.default)(uncheckedStyles,
uncheckedIcon.props.style)\n      }) : _react2.default.createElement(_radioButtonUnchecked2.default, {\n        style:
uncheckedStyles\n      });\n      var checkedElement = _react2.default.isValidElement(checkedIcon) ?
_react2.default.cloneElement(checkedIcon, {\n        style: (0, _simpleAssign2.default)(checkedStyles,
 checkedIcon.props.style)\n      }) : _react2.default.createElement(_radioButtonChecked2.default, {\n        style:
checkedStyles\n      });\n      var mergedIconStyle = (0, _simpleAssign2.default)(styles.icon, iconStyle);\n      var
mergedLabelStyle = (0, _simpleAssign2.default)(styles.label, labelStyle);\n      return
_react2.default.createElement(_EnhancedSwitch2.default, (0, _extends3.default)({}, other, {\n        ref:
'enhancedSwitch',\n        inputType: 'radio',\n        checked: checked,\n        switched: checked,\n        disabled:
disabled,\n        rippleColor: styles.ripple.color,\n        iconStyle: mergedIconStyle,\n        labelStyle:
mergedLabelStyle,\n        labelPosition: labelPosition,\n        onSwitch: this.handleSwitch,\n        switchElement:
_react2.default.createElement('div', null, uncheckedElement, checkedElement)\n      }));\n    }\n  }]);\n  return
RadioButton;\n}(_react.Component);\n\nRadioButton.defaultProps = {\n  checked: false,\n  disabled: false,\n
  labelPosition: 'right'\n};\nRadioButton.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nRadioButton.propTypes = process.env.NODE_ENV !== \"production\"
? {\n  /**\n   * @ignore\n   * checked if true\n   * Used internally by `RadioButtonGroup`.\n   */\n  checked:
_propTypes2.default.bool,\n\n  /**\n   * The icon element to show when the radio button is checked.\n   */\n
checkedIcon: _propTypes2.default.element,\n\n  /**\n   * If true, the radio button is disabled.\n   */\n  disabled:
_propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the icon element.\n   */\n  iconStyle:
_propTypes2.default.object,\n\n  /**\n   * Override the inline-styles of the input element.\n   */\n  inputStyle:
_propTypes2.default.object,\n\n  /**\n   * @ignore\n   * Used internally by `RadioButtonGroup`. Use the
`labelPosition` property of `RadioButtonGroup` instead.\n   * Where the label will be placed next to the radio
button.\n   */\n  labelPosition: _propTypes2.default.oneOf(['left',
 'right']),\n\n  /**\n   * Override the inline-styles of the label element.\n   */\n  labelStyle:
_propTypes2.default.object,\n\n  /**\n   * @ignore\n   * Callback function fired when the radio button is checked.
Note that this\n   * function will not be called if the radio button is part of a\n   * radio button group: in this case, use
the `onChange` property of\n   * `RadioButtonGroup`.\n   *\n   * @param {object} event `change` event targeting
the element.\n   * @param {string} value The element's `value`.\n   */\n  onCheck: _propTypes2.default.func,\n\n
/**\n   * Override the inline-styles of the root element.\n   */\n  style: _propTypes2.default.object,\n\n  /**\n   * The
icon element to show when the radio button is unchecked.\n   */\n  uncheckedIcon:
_propTypes2.default.element,\n\n  /**\n   * The value of the radio button.\n   */\n  value:
_propTypes2.default.any\n} : {};\nexports.default = RadioButton;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\",
 {\n  value: true\n});\nexports.default = undefined;\n\nvar _RaisedButton = require('./RaisedButton');\n\nvar
_RaisedButton2 = _interopRequireDefault(_RaisedButton);\n\nfunction _interopRequireDefault(obj) {\n  return obj
&& obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.default = _RaisedButton2.default;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default = undefined;\n\nvar
_RefreshIndicator = require('./RefreshIndicator');\n\nvar _RefreshIndicator2 =
_interopRequireDefault(_RefreshIndicator);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.default = _RefreshIndicator2.default;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
 _objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
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runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar
 _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule
? obj : {\n    default: obj\n  };\n}\n\nvar getStyles = function getStyles(_ref, _ref2) {\n  var index = _ref.index;\n  var
stepper = _ref2.stepper;\n  var orientation = stepper.orientation;\n  var styles = {\n    root: {\n      flex: '0 0 auto'\n
}\n  };\n\n  if (index > 0) {\n    if (orientation === 'horizontal') {\n      styles.root.marginLeft = -6;\n    } else if
(orientation === 'vertical') {\n      styles.root.marginTop = -14;\n    }\n  }\n\n  return styles;\n};\n\nvar Step =
function (_Component) {\n  (0, _inherits3.default)(Step, _Component);\n\n  function Step() {\n    var _ref3;\n\n
var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this, Step);\n\n    for (var _len = arguments.length, args =
Array(_len), _key = 0; _key < _len; _key++) {\n
      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref3 = Step.__proto__ || (0,
_getPrototypeOf2.default)(Step)).call.apply(_ref3, [this].concat(args))), _this), _this.renderChild = function (child)
{\n      var _this$props = _this.props,\n          active = _this$props.active,\n          completed =
_this$props.completed,\n          disabled = _this$props.disabled,\n          index = _this$props.index,\n          last =
_this$props.last;\n      var icon = index + 1;\n      return _react2.default.cloneElement(child, (0,
_simpleAssign2.default)({\n        active: active,\n        completed: completed,\n        disabled: disabled,\n        icon:
icon,\n        last: last\n      }, child.props));\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n
}\n\n  (0, _createClass3.default)(Step, [{\n    key: 'render',\n    value: function render() {\n      var _props =
this.props,\n          active
 = _props.active,\n          completed = _props.completed,\n          disabled = _props.disabled,\n          index =
_props.index,\n          last = _props.last,\n          children = _props.children,\n          style = _props.style,\n          other
= (0, _objectWithoutProperties3.default)(_props, ['active', 'completed', 'disabled', 'index', 'last', 'children', 'style']);\n
  var prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n
return _react2.default.createElement('div', (0, _extends3.default)({\n        style: prepareStyles((0,
_simpleAssign2.default)(styles.root, style))\n      }, other), _react2.default.Children.map(children,
this.renderChild));\n    }\n  }]);\n  return Step;\n}(_react.Component);\n\nStep.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired,\n  stepper: _propTypes2.default.object\n};\nStep.propTypes =
process.env.NODE_ENV !== \"production\" ? {\n  /**\n   * Sets the step as active.
 Is passed to child components.\n   */\n  active: _propTypes2.default.bool,\n\n  /**\n   * Should be `Step` sub-
components such as `StepLabel`.\n   */\n  children: _propTypes2.default.node,\n\n  /**\n   * Mark the step as
completed. Is passed to child components.\n   */\n  completed: _propTypes2.default.bool,\n\n  /**\n   * Mark the
step as disabled, will also disable the button if\n   * `StepButton` is a child of `Step`. Is passed to child
components.\n   */\n  disabled: _propTypes2.default.bool,\n\n  /**\n   * @ignore\n   * Used internally for
numbering.\n   */\n  index: _propTypes2.default.number,\n\n  /**\n   * @ignore\n   */\n  last:
_propTypes2.default.bool,\n\n  /**\n   * Override the inline-style of the root element.\n   */\n  style:
_propTypes2.default.object\n} : {};\nexports.default = Step;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3
= _interopRequireDefault(_extends2);\n\nvar
 _objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
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require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
 _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _transitions =
require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nvar _EnhancedButton
= require('../internal/EnhancedButton');\n\nvar _EnhancedButton2 =
_interopRequireDefault(_EnhancedButton);\n\nvar _StepLabel = require('./StepLabel');\n\nvar _StepLabel2 =
_interopRequireDefault(_StepLabel);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nvar isLabel = function isLabel(child) {\n  return child && child.type &&
child.type.muiName === 'StepLabel';\n};\n\nvar getStyles = function getStyles(props, context, state) {\n  var
hovered = state.hovered;\n  var _context$muiTheme$ste = context.muiTheme.stepper,\n      backgroundColor =
_context$muiTheme$ste.backgroundColor,\n
      hoverBackgroundColor = _context$muiTheme$ste.hoverBackgroundColor;\n  var styles = {\n    root: {\n
padding: 0,\n      backgroundColor: hovered ? hoverBackgroundColor : backgroundColor,\n      transition:
_transitions2.default.easeOut()\n    }\n  };\n\n  if (context.stepper.orientation === 'vertical') {\n    styles.root.width =
'100%';\n  }\n\n  return styles;\n};\n\nvar StepButton = function (_Component) {\n  (0,
_inherits3.default)(StepButton, _Component);\n\n  function StepButton() {\n    var _ref;\n\n    var _temp, _this,
_ret;\n\n    (0, _classCallCheck3.default)(this, StepButton);\n\n    for (var _len = arguments.length, args =
Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp
= (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = StepButton.__proto__ || (0,
_getPrototypeOf2.default)(StepButton)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      hovered:
false,\n
      touched: false\n    }, _this.handleMouseEnter = function (event) {\n      var onMouseEnter =
_this.props.onMouseEnter; // Cancel hover styles for touch devices\n\n      if (!_this.state.touched) {\n
_this.setState({\n          hovered: true\n        });\n      }\n\n      if (typeof onMouseEnter === 'function') {\n
onMouseEnter(event);\n      }\n    }, _this.handleMouseLeave = function (event) {\n      var onMouseLeave =
_this.props.onMouseLeave;\n\n      _this.setState({\n        hovered: false\n      });\n\n      if (typeof onMouseLeave
=== 'function') {\n        onMouseLeave(event);\n      }\n    }, _this.handleTouchStart = function (event) {\n      var
onTouchStart = _this.props.onTouchStart;\n\n      if (!_this.state.touched) {\n        _this.setState({\n          touched:
true\n        });\n      }\n\n      if (typeof onTouchStart === 'function') {\n        onTouchStart(event);\n      }\n    },
_temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n
  }\n\n  (0, _createClass3.default)(StepButton, [{\n    key: 'render',\n    value: function render() {\n      var _props =
this.props,\n          active = _props.active,\n          children = _props.children,\n          completed =
_props.completed,\n          disabled = _props.disabled,\n          icon = _props.icon,\n          iconContainerStyle =
_props.iconContainerStyle,\n          last = _props.last,\n          onMouseEnter = _props.onMouseEnter,\n
onMouseLeave = _props.onMouseLeave,\n          onTouchStart = _props.onTouchStart,\n          style =
_props.style,\n          other = (0, _objectWithoutProperties3.default)(_props, ['active', 'children', 'completed',
'disabled', 'icon', 'iconContainerStyle', 'last', 'onMouseEnter', 'onMouseLeave', 'onTouchStart', 'style']);\n      var
styles = getStyles(this.props, this.context, this.state);\n      var child = isLabel(children) ? children :
_react2.default.createElement(_StepLabel2.default, null, children);\n      return
_react2.default.createElement(_EnhancedButton2.default,
```

(0, _extends3.default)({\n disabled: disabled,\n style: (0, _simpleAssign2.default)(styles.root, style),\n onMouseEnter: this.handleMouseEnter,\n onMouseLeave: this.handleMouseLeave,\n onTouchStart: this.handleTouchStart\n }, other), _react2.default.cloneElement(child, {\n active: active,\n completed: completed,\n disabled: disabled,\n icon: icon,\n iconContainerStyle: iconContainerStyle\n }));\n }\n }]);\n return StepButton;\n}(_react.Component);\n\nStepButton.contextTypes = {\n muiTheme: _propTypes2.default.object.isRequired,\n stepper: _propTypes2.default.object\n};\nStepButton.propTypes = process.env.NODE_ENV !== \"production\" ? {\n /**\n * Passed from `Step` Is passed to StepLabel.\n */\n active: _propTypes2.default.bool,\n\n /**\n * Can be a `StepLabel` or a node to place inside `StepLabel` as children.\n */\n children: _propTypes2.default.node,\n\n /**\n * Sets completed styling. Is passed to StepLabel.\n */\n completed: _propTypes2.default.bool,\n\n /**\n * Disables the button and sets disabled styling. Is passed to StepLabel.\n */\n disabled: _propTypes2.default.bool,\n\n /**\n * The icon displayed by the step label.\n */\n icon: _propTypes2.default.oneOfType([_propTypes2.default.element, _propTypes2.default.string, _propTypes2.default.number]),\n\n /**\n * Override the inline-styles of the icon container element.\n */\n iconContainerStyle: _propTypes2.default.object,\n\n /** @ignore */\n last: _propTypes2.default.bool,\n\n /** @ignore */\n onMouseEnter: _propTypes2.default.func,\n\n /** @ignore */\n onMouseLeave: _propTypes2.default.func,\n\n /** @ignore */\n onTouchStart: _propTypes2.default.func,\n\n /**\n * Override the inline-style of the root element.\n */\n style: _propTypes2.default.object\n} : {};\nexports.default = StepButton;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _ExpandTransition = require('../internal/ExpandTransition');\n\nvar _ExpandTransition2 = _interopRequireDefault(_ExpandTransition);\n\nvar _warning = require('warning');\n\nvar _warning2 = _interopRequireDefault(_warning);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n default: obj\n };\n}\n\nfunction ExpandTransition(props) {\n return _react2.default.createElement(_ExpandTransition2.default, props);\n}\n\nvar getStyles = function getStyles(props, context) {\n var styles = {\n root: {\n marginTop: -14,\n marginLeft: 14 + 11,\n // padding + 1/2 icon\n paddingLeft: 24 - 11 + 8,\n paddingRight: 16,\n overflow: 'hidden'\n }\n };\n\n if (!props.last) {\n styles.root.borderLeft = '1px solid ' + context.muiTheme.stepper.connectorLineColor;\n }\n\n return styles;\n};\n\nvar StepContent = function (_Component) {\n (0, _inherits3.default)(StepContent, _Component);\n\n function StepContent() {\n (0, _classCallCheck3.default)(this, StepContent);\n return (0, _possibleConstructorReturn3.default)(this, (StepContent.__proto__ || (0, _getPrototypeOf2.default)(StepContent)).apply(this, arguments));\n }\n\n (0, _createClass3.default)(StepContent, [{\n key: 'render',\n value: function render() {\n var _props = this.props,\n active = _props.active,\n children = _props.children,\n completed = _props.completed,\n last = _props.last,\n style = _props.style,\n transition = _props.transition,\n transitionDuration = _props.transitionDuration,\n

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      other = (0, _objectWithoutProperties3.default)(_props, ['active', 'children', 'completed', 'last', 'style', 'transition',
'transitionDuration']);\n      var _context = this.context,\n          stepper = _context.stepper,\n          prepareStyles =
_context.muiTheme.prepareStyles;\n\n      if (stepper.orientation !== 'vertical') {\n        process.env.NODE_ENV
!== \"production\" ? (0, _warning2.default)(false, 'Material-UI: <StepContent /> is only designed for use with the
vertical stepper.') : void 0;\n        return null;\n      }\n\n      var styles = getStyles(this.props, this.context);\n      var
transitionProps = {\n        enterDelay: transitionDuration,\n        transitionDuration: transitionDuration,\n        open:
active\n      };\n      return _react2.default.createElement('div', (0, _extends3.default)({\n        style: prepareStyles((0,
_simpleAssign2.default)(styles.root, style))\n      }, other), _react2.default.createElement(transition, transitionProps,
_react2.default.createElement('div',
 {\n        style: {\n          overflow: 'hidden'\n        }\n      }, children)));\n    }\n  }]);\n  return
StepContent;\n}(_react.Component);\n\nStepContent.defaultProps = {\n  transition: ExpandTransition,\n
transitionDuration: 450\n};\nStepContent.contextTypes = {\n  muiTheme: _propTypes2.default.object.isRequired,\n
stepper: _propTypes2.default.object\n};\nStepContent.propTypes = process.env.NODE_ENV !== \"production\" ?
{\n  /**\n   * Expands the content\n   */\n  active: _propTypes2.default.bool,\n\n  /**\n   * Step content\n   */\n
children: _propTypes2.default.node,\n\n  /**\n   * @ignore\n   */\n  completed: _propTypes2.default.bool,\n\n  /**\n
 * @ignore\n   */\n  last: _propTypes2.default.bool,\n\n  /**\n   * Override the inline-style of the root element.\n
*/\n  style: _propTypes2.default.object,\n\n  /**\n   * ReactTransitionGroup component.\n   */\n  transition:
_propTypes2.default.func,\n\n  /**\n   * Adjust the duration of the content expand
 transition. Passed as a prop to the transition component.\n   */\n  transitionDuration:
_propTypes2.default.number\n} : {};\nexports.default = StepContent;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign
 = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _StepConnector = require('./StepConnector');\n\nvar
_StepConnector2 = _interopRequireDefault(_StepConnector);\n\nfunction _interopRequireDefault(obj) {\n  return
obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar getStyles = function getStyles(props) {\n  var
orientation = props.orientation;\n  return {\n    root: {\n      display: 'flex',\n      flexDirection: orientation ===
'horizontal' ? 'row' : 'column',\n      alignContent: 'center',\n      alignItems: orientation === 'horizontal' ? 'center' :
'stretch',\n      justifyContent: 'space-between'\n    }\n  };\n};\n\nvar Stepper = function (_Component) {\n  (0,
_inherits3.default)(Stepper, _Component);\n\n  function Stepper() {\n    (0, _classCallCheck3.default)(this,
 Stepper);\n    return (0, _possibleConstructorReturn3.default)(this, (Stepper.__proto__ || (0,
_getPrototypeOf2.default)(Stepper)).apply(this, arguments));\n  }\n\n  (0, _createClass3.default)(Stepper, [{\n    key:
'getChildContext',\n    value: function getChildContext() {\n      var orientation = this.props.orientation;\n      return
{\n        stepper: {\n          orientation: orientation\n        }\n      };\n    }\n  }, {\n    key: 'render',\n    value: function
render() {\n      var _props = this.props,\n          activeStep = _props.activeStep,\n          children = _props.children,\n
      connector = _props.connector,\n          linear = _props.linear,\n          style = _props.style;\n      var prepareStyles
= this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n      /**\n       * One
day, we may be able to use real CSS tools\n       * For now, we need to create our own \"pseudo\" elements\n       *
and nth
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 child selectors, etc\n       * That's what some of this garbage is for :)\n       */\n\n      var numChildren =
_react.Children.count(children);\n\n      var steps = _react.Children.map(children, function (step, index) {\n        if
(!_react2.default.isValidElement(step)) {\n          return null;\n        }\n\n        var controlProps = {\n          index:
index\n        };\n\n        if (activeStep === index) {\n          controlProps.active = true;\n        } else if (linear &&
activeStep > index) {\n          controlProps.completed = true;\n        } else if (linear && activeStep < index) {\n
controlProps.disabled = true;\n        }\n\n        if (index + 1 === numChildren) {\n          controlProps.last = true;\n
  }\n\n        return [index > 0 && connector, _react2.default.cloneElement(step, (0,
_simpleAssign2.default)(controlProps, step.props))];\n      });\n\n      return _react2.default.createElement('div', {\n
   style: prepareStyles((0, _simpleAssign2.default)(styles.root,
 style))\n      }, steps);\n    }\n  }]);\n  return Stepper;\n}(_react.Component);\n\nStepper.defaultProps = {\n
connector: _react2.default.createElement(_StepConnector2.default, null),\n  orientation: 'horizontal',\n  linear:
true\n};\nStepper.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nStepper.childContextTypes = {\n  stepper:
_propTypes2.default.object\n};\nStepper.propTypes = process.env.NODE_ENV !== \"production\" ? {\n  /**\n   *
Set the active step (zero based index). This will enable `Step` control helpers.\n   */\n  activeStep:
_propTypes2.default.number,\n\n  /**\n   * Should be two or more `<Step />` components.\n   */\n  children:
_propTypes2.default.node,\n\n  /**\n   * A component to be placed between each step.\n   */\n  connector:
_propTypes2.default.node,\n\n  /**\n   * If set to `true`, the `Stepper` will assist in controlling steps for linear flow\n
*/\n  linear: _propTypes2.default.bool,\n\n  /**\n   * The stepper
 orientation (layout flow direction)\n   */\n  orientation: _propTypes2.default.oneOf(['horizontal', 'vertical']),\n\n
/**\n   * Override the inline-style of the root element.\n   */\n  style: _propTypes2.default.object\n} :
{};\nexports.default = Stepper;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\nexports.default = undefined;\n\nvar _Snackbar = require('./Snackbar');\n\nvar _Snackbar2 =
_interopRequireDefault(_Snackbar);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nexports.default = _Snackbar2.default;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default = exports.Tabs =
exports.Tab = undefined;\n\nvar _Tab2 = require('./Tab');\n\nvar _Tab3 = _interopRequireDefault(_Tab2);\n\nvar
_Tabs2 = require('./Tabs');\n\nvar _Tabs3 = _interopRequireDefault(_Tabs2);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule
 ? obj : {\n    default: obj\n  };\n}\n\nexports.Tab = _Tab3.default;\nexports.Tabs = _Tabs3.default;\nexports.default
= _Tabs3.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\nexports.default = exports.TableRowColumn = exports.TableRow = exports.TableHeaderColumn =
exports.TableHeader = exports.TableFooter = exports.TableBody = exports.Table = undefined;\n\nvar _Table2 =
require('./Table');\n\nvar _Table3 = _interopRequireDefault(_Table2);\n\nvar _TableBody2 =
require('./TableBody');\n\nvar _TableBody3 = _interopRequireDefault(_TableBody2);\n\nvar _TableFooter2 =
require('./TableFooter');\n\nvar _TableFooter3 = _interopRequireDefault(_TableFooter2);\n\nvar _TableHeader2 =
require('./TableHeader');\n\nvar _TableHeader3 = _interopRequireDefault(_TableHeader2);\n\nvar
_TableHeaderColumn2 = require('./TableHeaderColumn');\n\nvar _TableHeaderColumn3 =
_interopRequireDefault(_TableHeaderColumn2);\n\nvar _TableRow2 = require('./TableRow');\n\nvar
 _TableRow3 = _interopRequireDefault(_TableRow2);\n\nvar _TableRowColumn2 =
require('./TableRowColumn');\n\nvar _TableRowColumn3 =
_interopRequireDefault(_TableRowColumn2);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.Table = _Table3.default;\nexports.TableBody =
_TableBody3.default;\nexports.TableFooter = _TableFooter3.default;\nexports.TableHeader =
_TableHeader3.default;\nexports.TableHeaderColumn = _TableHeaderColumn3.default;\nexports.TableRow =
_TableRow3.default;\nexports.TableRowColumn = _TableRowColumn3.default;\nexports.default =
_Table3.default;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar
_getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
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_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
 _createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _slicedToArray2 =
require('babel-runtime/helpers/slicedToArray');\n\nvar _slicedToArray3 =
_interopRequireDefault(_slicedToArray2);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _timeUtils = require('./timeUtils');\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction
getStyles(props, context) {\n  var styles =
 {\n    root: {\n      directionInvariant: true,\n      display: 'inline-block',\n      position: 'absolute',\n      width: 32,\n
height: 32,\n      borderRadius: '100%',\n      left: 'calc(50% - 16px)',\n      top: 10,\n      textAlign: 'center',\n
paddingTop: 5,\n      userSelect: 'none',\n\n      /* Chrome all / Safari all */\n      fontSize: '1.1em',\n
pointerEvents: 'none',\n      boxSizing: 'border-box'\n    }\n  };\n  var muiTheme = context.muiTheme;\n  var pos =
props.value;\n\n  if (props.type === 'hour') {\n    pos %= 12;\n  } else {\n    pos = pos / 5;\n  }\n\n  var positions =
[[0, 5], [54.5, 16.6], [94.4, 59.5], [109, 114], [94.4, 168.5], [54.5, 208.4], [0, 223], [-54.5, 208.4], [-94.4, 168.5], [-
109, 114], [-94.4, 59.5], [-54.5, 19.6]];\n  var innerPositions = [[0, 40], [36.9, 49.9], [64, 77], [74, 114], [64, 151],
[37, 178], [0, 188], [-37, 178], [-64, 151], [-74, 114], [-64, 77], [-37, 50]];\n\n  if (props.isSelected) {\n
styles.root.backgroundColor = muiTheme.timePicker.accentColor;\n
    styles.root.color = muiTheme.timePicker.selectTextColor;\n  }\n\n  var transformPos = positions[pos];\n\n  if ((0,
_timeUtils.isInner)(props)) {\n    styles.root.width = 28;\n    styles.root.height = 28;\n    styles.root.left = 'calc(50% -
14px)';\n    transformPos = innerPositions[pos];\n  }\n\n  var _transformPos = transformPos,\n      _transformPos2 =
(0, _slicedToArray3.default)(_transformPos, 2),\n      x = _transformPos2[0],\n      y = _transformPos2[1];\n\n
styles.root.transform = 'translate(' + x + 'px, ' + y + 'px)';\n  return styles;\n}\n\nvar ClockNumber = function
(_Component) {\n  (0, _inherits3.default)(ClockNumber, _Component);\n\n  function ClockNumber() {\n    (0,
_classCallCheck3.default)(this, ClockNumber);\n    return (0, _possibleConstructorReturn3.default)(this,
(ClockNumber.__proto__ || (0, _getPrototypeOf2.default)(ClockNumber)).apply(this, arguments));\n  }\n\n  (0,
_createClass3.default)(ClockNumber, [{\n    key: 'render',\n
    value: function render() {\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles =
getStyles(this.props, this.context);\n      var clockNumber = this.props.value === 0 ? '00' : this.props.value;\n
return _react2.default.createElement('span', {\n        style: prepareStyles(styles.root)\n      }, clockNumber);\n    }\n
}]);\n  return ClockNumber;\n}(_react.Component);\n\nClockNumber.defaultProps = {\n  value: 0,\n  type:
'minute',\n  isSelected: false\n};\nClockNumber.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nClockNumber.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  isSelected: _propTypes2.default.bool,\n  onSelected: _propTypes2.default.func,\n  type:
_propTypes2.default.oneOf(['hour', 'minute']),\n  value: _propTypes2.default.number\n} : {};\nexports.default =
ClockNumber;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar
_getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar
 _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _react =
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require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _timeUtils = require('./timeUtils');\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n
    default: obj\n  };\n}\n\nfunction calcAngle(value, base) {\n  value %= base;\n  var angle = 360 / base * value;\n
return angle;\n}\n\nfunction getStyles(props, context, state) {\n  var hasSelected = props.hasSelected,\n      type =
props.type,\n      value = props.value;\n  var inner = state.inner;\n  var timePicker = context.muiTheme.timePicker;\n
var angle = type === 'hour' ? calcAngle(value, 12) : calcAngle(value, 60);\n  var styles = {\n    root: {\n      height:
inner ? '30%' : '40%',\n      background: timePicker.accentColor,\n      width: 2,\n      left: 'calc(50% - 1px)',\n
position: 'absolute',\n      bottom: '50%',\n      transformOrigin: 'bottom',\n      pointerEvents: 'none',\n      transform:
'rotateZ(' + angle + 'deg)'\n    },\n    mark: {\n      boxSizing: 'content-box',\n      background:
timePicker.selectTextColor,\n      border: '4px solid ' + timePicker.accentColor,\n      display: hasSelected &&
'none',\n      width: 7,\n      height: 7,\n      position: 'absolute',\n
      top: -5,\n      left: -6,\n      borderRadius: '100%'\n    }\n  };\n  return styles;\n}\n\nvar ClockPointer = function
(_Component) {\n  (0, _inherits3.default)(ClockPointer, _Component);\n\n  function ClockPointer() {\n    var
_ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this, ClockPointer);\n\n    for (var _len =
arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n
}\n\n    return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref =
ClockPointer.__proto__ || (0, _getPrototypeOf2.default)(ClockPointer)).call.apply(_ref, [this].concat(args))), _this),
_this.state = {\n      inner: false\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0,
_createClass3.default)(ClockPointer, [{\n    key: 'componentWillMount',\n    value: function componentWillMount()
{\n      this.setState({\n        inner: (0, _timeUtils.isInner)(this.props)\n
      });\n    }\n  }, {\n    key: 'componentWillReceiveProps',\n    value: function
componentWillReceiveProps(nextProps) {\n      this.setState({\n        inner: (0, _timeUtils.isInner)(nextProps)\n
});\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n      if (this.props.value === null) {\n        return
_react2.default.createElement('span', null);\n      }\n\n      var styles = getStyles(this.props, this.context, this.state);\n
  var prepareStyles = this.context.muiTheme.prepareStyles;\n      return _react2.default.createElement('div', {\n
style: prepareStyles(styles.root)\n      }, _react2.default.createElement('div', {\n        style:
prepareStyles(styles.mark)\n      }));\n    }\n  }]);\n  return
ClockPointer;\n}(_react.Component);\n\nClockPointer.defaultProps = {\n  hasSelected: false,\n  value: null,\n  type:
'minute'\n};\nClockPointer.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nClockPointer.propTypes = process.env.NODE_ENV
 !== \"production\" ? {\n  hasSelected: _propTypes2.default.bool,\n  type: _propTypes2.default.oneOf(['hour',
'minute']),\n  value: _propTypes2.default.number\n} : {};\nexports.default = ClockPointer;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default =
exports.ToolbarTitle = exports.ToolbarSeparator = exports.ToolbarGroup = exports.Toolbar = undefined;\n\nvar
_Toolbar2 = require('./Toolbar');\n\nvar _Toolbar3 = _interopRequireDefault(_Toolbar2);\n\nvar _ToolbarGroup2 =
require('./ToolbarGroup');\n\nvar _ToolbarGroup3 = _interopRequireDefault(_ToolbarGroup2);\n\nvar
_ToolbarSeparator2 = require('./ToolbarSeparator');\n\nvar _ToolbarSeparator3 =
_interopRequireDefault(_ToolbarSeparator2);\n\nvar _ToolbarTitle2 = require('./ToolbarTitle');\n\nvar
_ToolbarTitle3 = _interopRequireDefault(_ToolbarTitle2);\n\nfunction _interopRequireDefault(obj) {\n  return obj
&& obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.Toolbar
 = _Toolbar3.default;\nexports.ToolbarGroup = _ToolbarGroup3.default;\nexports.ToolbarSeparator =
_ToolbarSeparator3.default;\nexports.ToolbarTitle = _ToolbarTitle3.default;\nexports.default =
_Toolbar3.default;","'use strict';\n\nvar reactIs = require('react-is');\n/**\n * Copyright 2015, Yahoo! Inc.\n *
Copyrights licensed under the New BSD License. See the accompanying LICENSE file for terms.\n */\n\n\nvar
REACT_STATICS = {\n  childContextTypes: true,\n  contextType: true,\n  contextTypes: true,\n  defaultProps:
true,\n  displayName: true,\n  getDefaultProps: true,\n  getDerivedStateFromError: true,\n
getDerivedStateFromProps: true,\n  mixins: true,\n  propTypes: true,\n  type: true\n};\nvar KNOWN_STATICS =
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{\n name: true,\n length: true,\n prototype: true,\n caller: true,\n callee: true,\n arguments: true,\n arity: true\n};\nvar FORWARD_REF_STATICS = {\n '$$typeof': true,\n render: true,\n defaultProps: true,\n displayName: true,\n propTypes: true\n};\nvar MEMO_STATICS
 = {\n '$$typeof': true,\n compare: true,\n defaultProps: true,\n displayName: true,\n propTypes: true,\n type: true\n};\nvar TYPE_STATICS = {};\nTYPE_STATICS[reactIs.ForwardRef] = FORWARD_REF_STATICS;\nTYPE_STATICS[reactIs.Memo] = MEMO_STATICS;\n\nfunction getStatics(component) {\n // React v16.11 and below\n if (reactIs.isMemo(component)) {\n   return MEMO_STATICS;\n } // React v16.12 and above\n\n\n return TYPE_STATICS[component['$$typeof']] || REACT_STATICS;\n}\n\nvar defineProperty = Object.defineProperty;\nvar getOwnPropertyNames = Object.getOwnPropertyNames;\nvar getOwnPropertySymbols = Object.getOwnPropertySymbols;\nvar getOwnPropertyDescriptor = Object.getOwnPropertyDescriptor;\nvar getPrototypeOf = Object.getPrototypeOf;\nvar objectPrototype = Object.prototype;\n\nfunction hoistNonReactStatics(targetComponent, sourceComponent, blacklist) {\n if (typeof sourceComponent !== 'string') {\n   // don't hoist over string (html) components\n   if (objectPrototype)
 {\n   var inheritedComponent = getPrototypeOf(sourceComponent);\n\n   if (inheritedComponent && inheritedComponent !== objectPrototype) {\n   hoistNonReactStatics(targetComponent, inheritedComponent, blacklist);\n   }\n   }\n\n   var keys = getOwnPropertyNames(sourceComponent);\n\n   if (getOwnPropertySymbols) {\n   keys = keys.concat(getOwnPropertySymbols(sourceComponent));\n   }\n\n   var targetStatics = getStatics(targetComponent);\n   var sourceStatics = getStatics(sourceComponent);\n\n   for (var i = 0; i < keys.length; ++i) {\n   var key = keys[i];\n\n   if (!KNOWN_STATICS[key] && !(blacklist && blacklist[key]) && !(sourceStatics && sourceStatics[key]) && !(targetStatics && targetStatics[key])) {\n   var descriptor = getOwnPropertyDescriptor(sourceComponent, key);\n\n   try {\n   // Avoid failures from read-only properties\n   defineProperty(targetComponent, key, descriptor);\n   } catch (e) {}\n   }\n   }\n }\n\n
  return targetComponent;\n}\n\nmodule.exports = hoistNonReactStatics;","/**\n * This method returns `false`.\n *\n * @static\n * @memberOf _\n * @since 4.13.0\n * @category Util\n * @returns {boolean} Returns `false`.\n * @example\n *\n * _.times(2, _.stubFalse);\n * // => [false, false]\n */\nfunction stubFalse() {\n return false;\n}\n\nexport default stubFalse;","import root from './_root.js';\n/** Detect free variable `exports`. */\n\nvar freeExports = typeof exports == 'object' && exports && !exports.nodeType && exports;\n/** Detect free variable `module`. */\n\nvar freeModule = freeExports && typeof module == 'object' && module && !module.nodeType && module;\n/** Detect the popular CommonJS extension `module.exports`. */\n\nvar moduleExports = freeModule && freeModule.exports === freeExports;\n/** Built-in value references. */\n\nvar Buffer = moduleExports ? root.Buffer : undefined,\n   allocUnsafe = Buffer ? Buffer.allocUnsafe : undefined;\n/**\n * Creates a clone of `buffer`.\n
 *\n * @private\n * @param {Buffer} buffer The buffer to clone.\n * @param {boolean} [isDeep] Specify a deep clone.\n * @returns {Buffer} Returns the cloned buffer.\n */\n\nfunction cloneBuffer(buffer, isDeep) {\n if (isDeep) {\n   return buffer.slice();\n }\n\n var length = buffer.length,\n   result = allocUnsafe ? allocUnsafe(length) : new buffer.constructor(length);\n buffer.copy(result);\n return result;\n}\n\nexport default cloneBuffer;","/** A function that accepts a potential \"extra argument\" value to be injected later,\r\n * and returns an instance of the thunk middleware that uses that value\r\n */\nfunction createThunkMiddleware(extraArgument) {\n // Standard Redux middleware definition pattern:\n // See: https://redux.js.org/tutorials/fundamentals/part-4-store#writing-custom-middleware\n var middleware = function middleware(_ref) {\n   var dispatch = _ref.dispatch,\n   getState = _ref.getState;\n   return function (next) {\n   return function (action)
 {\n   // The thunk middleware looks for any functions that were passed to `store.dispatch`.\n   // If this \"action\" is really a function, call it and return the result.\n   if (typeof action === 'function') {\n   // Inject the store's `dispatch` and `getState` methods, as well as any \"extra arg\"\n   return action(dispatch, getState, extraArgument);\n   } // Otherwise, pass the action down the middleware chain as usual\n\n\n   return next(action);\n   };\n   };\n };\n\n return middleware;\n}\n\nvar thunk = createThunkMiddleware(); // Attach the factory function so users can create a customized version\n// with whatever \"extra arg\" they want to inject into

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their thunks\n\nthunk.withExtraArgument = createThunkMiddleware;\nexport default thunk;","export default
function _defineProperty(obj, key, value) {\n  if (key in obj) {\n    Object.defineProperty(obj, key, {\n      value:
value,\n      enumerable: true,\n      configurable: true,\n
      writable: true\n    });\n  } else {\n    obj[key] = value;\n  }\n\n  return obj;\n}","import defineProperty from
\"./defineProperty\";\nexport default function _objectSpread(target) {\n  for (var i = 1; i < arguments.length; i++) {\n
  var source = arguments[i] != null ? arguments[i] : {};\n    var ownKeys = Object.keys(source);\n\n    if (typeof
Object.getOwnPropertySymbols === 'function') {\n      ownKeys =
ownKeys.concat(Object.getOwnPropertySymbols(source).filter(function (sym) {\n        return
Object.getOwnPropertyDescriptor(source, sym).enumerable;\n      }));\n    }\n\n    ownKeys.forEach(function (key)
{\n      defineProperty(target, key, source[key]);\n    });\n  }\n\n  return target;\n}","/** @license React v16.14.0\n *
react.production.min.js\n *\n * Copyright (c) Facebook, Inc. and its affiliates.\n *\n * This source code is licensed
under the MIT license found in the\n * LICENSE file in the root directory of this source tree.\n */\n'use
strict';\n\nvar l = require(\"object-assign\"),\n
    n = \"function\" === typeof Symbol && Symbol.for,\n    p = n ? Symbol.for(\"react.element\") : 60103,\n    q = n
? Symbol.for(\"react.portal\") : 60106,\n    r = n ? Symbol.for(\"react.fragment\") : 60107,\n    t = n ?
Symbol.for(\"react.strict_mode\") : 60108,\n    u = n ? Symbol.for(\"react.profiler\") : 60114,\n    v = n ?
Symbol.for(\"react.provider\") : 60109,\n    w = n ? Symbol.for(\"react.context\") : 60110,\n    x = n ?
Symbol.for(\"react.forward_ref\") : 60112,\n    y = n ? Symbol.for(\"react.suspense\") : 60113,\n    z = n ?
Symbol.for(\"react.memo\") : 60115,\n    A = n ? Symbol.for(\"react.lazy\") : 60116,\n    B = \"function\" === typeof
Symbol && Symbol.iterator;\n\nfunction C(a) {\n  for (var b = \"https://reactjs.org/docs/error-
decoder.html?invariant=\" + a, c = 1; c < arguments.length; c++) {\n    b += \"&args[]=\" +
encodeURIComponent(arguments[c]);\n  }\n\n  return \"Minified React error #\" + a + \"; visit \" + b + \" for the full
message
 or use the non-minified dev environment for full errors and additional helpful warnings.\";\n}\n\nvar D = {\n
isMounted: function isMounted() {\n    return !1;\n  },\n  enqueueForceUpdate: function enqueueForceUpdate()
{},\n  enqueueReplaceState: function enqueueReplaceState() {},\n  enqueueSetState: function enqueueSetState()
{}\n},\n    E = {};\n\nfunction F(a, b, c) {\n  this.props = a;\n  this.context = b;\n  this.refs = E;\n  this.updater = c ||
D;\n}\n\nF.prototype.isReactComponent = {};\n\nF.prototype.setState = function (a, b) {\n  if (\"object\" !== typeof
a && \"function\" !== typeof a && null != a) throw Error(C(85));\n  this.updater.enqueueSetState(this, a, b,
\"setState\");\n};\n\nF.prototype.forceUpdate = function (a) {\n  this.updater.enqueueForceUpdate(this, a,
\"forceUpdate\");\n};\n\nfunction G() {}\n\nG.prototype = F.prototype;\n\nfunction H(a, b, c) {\n  this.props = a;\n
this.context = b;\n  this.refs = E;\n  this.updater = c || D;\n}\n\nvar I = H.prototype = new
 G();\nI.constructor = H;\nl(I, F.prototype);\nI.isPureReactComponent = !0;\nvar J = {\n  current: null\n},\n    K =
Object.prototype.hasOwnProperty,\n    L = {\n  key: !0,\n  ref: !0,\n  __self: !0,\n  __source: !0\n};\n\nfunction M(a,
b, c) {\n  var e,\n      d = {},\n      g = null,\n      k = null;\n  if (null != b) for (e in void 0 !== b.ref && (k = b.ref),
void 0 !== b.key && (g = \"\" + b.key), b) {\n    K.call(b, e) && !L.hasOwnProperty(e) && (d[e] = b[e]);\n  }\n  var
f = arguments.length - 2;\n  if (1 === f) d.children = c;else if (1 < f) {\n    for (var h = Array(f), m = 0; m < f; m++)
{\n      h[m] = arguments[m + 2];\n    }\n\n    d.children = h;\n  }\n  if (a && a.defaultProps) for (e in f =
a.defaultProps, f) {\n    void 0 === d[e] && (d[e] = f[e]);\n  }\n  return {\n    $$typeof: p,\n    type: a,\n    key: g,\n
ref: k,\n    props: d,\n    _owner: J.current\n  };\n}\n\nfunction N(a, b) {\n  return {\n    $$typeof: p,\n    type:
a.type,\n    key: b,\n    ref: a.ref,\n
    props: a.props,\n    _owner: a._owner\n  };\n}\n\nfunction O(a) {\n  return \"object\" === typeof a && null !== a
&& a.$$typeof === p;\n}\n\nfunction escape(a) {\n  var b = {\n    \"=\": \"=0\",\n    \":\": \"=2\"\n  };\n  return \"$\" +
(\"\" + a).replace(/[=:]/g, function (a) {\n    return b[a];\n  });\n}\n\nvar P = /\/+/g,\n    Q = [];\n\nfunction R(a, b, c,
e) {\n  if (Q.length) {\n    var d = Q.pop();\n    d.result = a;\n    d.keyPrefix = b;\n    d.func = c;\n    d.context = e;\n
d.count = 0;\n    return d;\n  }\n\n  return {\n    result: a,\n    keyPrefix: b,\n    func: c,\n    context: e,\n    count: 0\n
};\n}\n\nfunction S(a) {\n  a.result = null;\n  a.keyPrefix = null;\n  a.func = null;\n  a.context = null;\n  a.count = 0;\n
10 > Q.length && Q.push(a);\n}\n\nfunction T(a, b, c, e) {\n  var d = typeof a;\n  if (\"undefined\" === d ||
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\"boolean\" === d) a = null;\n  var g = !1;\n  if (null === a) g = !0;else switch (d) {\n    case \"string\":\n    case
\"number\":\n
    g = !0;\n      break;\n\n    case \"object\":\n      switch (a.$$typeof) {\n        case p:\n        case q:\n          g = !0;\n
}\n\n  }\n  if (g) return c(e, a, \"\" === b ? \".\" + U(a, 0) : b), 1;\n  g = 0;\n  b = \"\" === b ? \".\" : b + \":\";\n  if
(Array.isArray(a)) for (var k = 0; k < a.length; k++) {\n    d = a[k];\n    var f = b + U(d, k);\n    g += T(d, f, c, e);\n  }
else if (null === a || \"object\" !== typeof a ? f = null : (f = B && a[B] || a[\"@@iterator\"], f = \"function\" ===
typeof f ? f : null), \"function\" === typeof f) for (a = f.call(a), k = 0; !(d = a.next()).done;) {\n    d = d.value, f = b +
U(d, k++), g += T(d, f, c, e);\n  } else if (\"object\" === d) throw c = \"\" + a, Error(C(31, \"[object Object]\" === c ?
\"object with keys {\" + Object.keys(a).join(\", \") + \"}\" : c, \"\"));\n  return g;\n}\n\nfunction V(a, b, c) {\n  return
null == a ? 0 : T(a, \"\", b, c);\n}\n\nfunction U(a, b) {\n  return \"object\" === typeof a && null !== a && null !=
 a.key ? escape(a.key) : b.toString(36);\n}\n\nfunction W(a, b) {\n  a.func.call(a.context, b,
a.count++);\n}\n\nfunction aa(a, b, c) {\n  var e = a.result,\n      d = a.keyPrefix;\n  a = a.func.call(a.context, b,
a.count++);\n  Array.isArray(a) ? X(a, e, c, function (a) {\n    return a;\n  }) : null != a && (O(a) && (a = N(a, d +
(!a.key || b && b.key === a.key ? \"\" : (\"\" + a.key).replace(P, \"$&/\") + \"/\") + c)), e.push(a));\n}\n\nfunction
X(a, b, c, e, d) {\n  var g = \"\";\n  null != c && (g = (\"\" + c).replace(P, \"$&/\") + \"/\");\n  b = R(b, g, e, d);\n  V(a,
aa, b);\n  S(b);\n}\n\nvar Y = {\n  current: null\n};\n\nfunction Z() {\n  var a = Y.current;\n  if (null === a) throw
Error(C(321));\n  return a;\n}\n\nvar ba = {\n  ReactCurrentDispatcher: Y,\n  ReactCurrentBatchConfig: {\n
suspense: null\n  },\n  ReactCurrentOwner: J,\n  IsSomeRendererActing: {\n    current: !1\n  },\n  assign:
l\n};\nexports.Children = {\n  map: function map(a, b, c) {\n    if (null == a) return
 a;\n    var e = [];\n    X(a, e, null, b, c);\n    return e;\n  },\n  forEach: function forEach(a, b, c) {\n    if (null == a)
return a;\n    b = R(null, null, b, c);\n    V(a, W, b);\n    S(b);\n  },\n  count: function count(a) {\n    return V(a,
function () {\n      return null;\n    }, null);\n  },\n  toArray: function toArray(a) {\n    var b = [];\n    X(a, b, null,
function (a) {\n      return a;\n    });\n    return b;\n  },\n  only: function only(a) {\n    if (!O(a)) throw
Error(C(143));\n    return a;\n  }\n};\nexports.Component = F;\nexports.Fragment = r;\nexports.Profiler =
u;\nexports.PureComponent = H;\nexports.StrictMode = t;\nexports.Suspense =
y;\nexports.__SECRET_INTERNALS_DO_NOT_USE_OR_YOU_WILL_BE_FIRED =
ba;\n\nexports.cloneElement = function (a, b, c) {\n  if (null === a || void 0 === a) throw Error(C(267, a));\n  var e =
l({}, a.props),\n      d = a.key,\n      g = a.ref,\n      k = a._owner;\n\n  if (null != b) {\n    void 0 !== b.ref && (g =
b.ref, k = J.current);\n
    void 0 !== b.key && (d = \"\" + b.key);\n    if (a.type && a.type.defaultProps) var f = a.type.defaultProps;\n\n
for (h in b) {\n      K.call(b, h) && !L.hasOwnProperty(h) && (e[h] = void 0 === b[h] && void 0 !== f ? f[h] :
b[h]);\n    }\n  }\n\n  var h = arguments.length - 2;\n  if (1 === h) e.children = c;else if (1 < h) {\n    f = Array(h);\n\n
  for (var m = 0; m < h; m++) {\n      f[m] = arguments[m + 2];\n    }\n\n    e.children = f;\n  }\n  return {\n
$$typeof: p,\n    type: a.type,\n    key: d,\n    ref: g,\n    props: e,\n    _owner: k\n  };\n};\n\nexports.createContext =
function (a, b) {\n  void 0 === b && (b = null);\n  a = {\n    $$typeof: w,\n    _calculateChangedBits: b,\n
_currentValue: a,\n    _currentValue2: a,\n    _threadCount: 0,\n    Provider: null,\n    Consumer: null\n  };\n
a.Provider = {\n    $$typeof: v,\n    _context: a\n  };\n  return a.Consumer = a;\n};\n\nexports.createElement =
M;\n\nexports.createFactory = function (a) {\n  var b =
 M.bind(null, a);\n  b.type = a;\n  return b;\n};\n\nexports.createRef = function () {\n  return {\n    current: null\n
};\n};\n\nexports.forwardRef = function (a) {\n  return {\n    $$typeof: x,\n    render: a\n
};\n};\n\nexports.isValidElement = O;\n\nexports.lazy = function (a) {\n  return {\n    $$typeof: A,\n    _ctor: a,\n
_status: -1,\n    _result: null\n  };\n};\n\nexports.memo = function (a, b) {\n  return {\n    $$typeof: z,\n    type: a,\n
compare: void 0 === b ? null : b\n  };\n};\n\nexports.useCallback = function (a, b) {\n  return Z().useCallback(a,
b);\n};\n\nexports.useContext = function (a, b) {\n  return Z().useContext(a, b);\n};\n\nexports.useDebugValue =
function () {};\n\nexports.useEffect = function (a, b) {\n  return Z().useEffect(a,
b);\n};\n\nexports.useImperativeHandle = function (a, b, c) {\n  return Z().useImperativeHandle(a, b,
c);\n};\n\nexports.useLayoutEffect = function (a, b) {\n  return Z().useLayoutEffect(a, b);\n};\n\nexports.useMemo
= function
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 (a, b) {\n  return Z().useMemo(a, b);\n};\n\nexports.useReducer = function (a, b, c) {\n  return Z().useReducer(a, b,
c);\n};\n\nexports.useRef = function (a) {\n  return Z().useRef(a);\n};\n\nexports.useState = function (a) {\n  return
Z().useState(a);\n};\n\nexports.version = \"16.14.0\";","/** @license React v16.14.0\n * react-
dom.production.min.js\n *\n * Copyright (c) Facebook, Inc. and its affiliates.\n *\n * This source code is licensed
under the MIT license found in the\n * LICENSE file in the root directory of this source tree.\n */\n\n/*\n Modernizr
3.0.0pre (Custom Build) | MIT\n*/\n'use strict';\n\nvar aa = require(\"react\"),\n    n = require(\"object-assign\"),\n
r = require(\"scheduler\");\n\nfunction u(a) {\n  for (var b = \"https://reactjs.org/docs/error-decoder.html?invariant=\"
+ a, c = 1; c < arguments.length; c++) {\n    b += \"&args[]=\" + encodeURIComponent(arguments[c]);\n  }\n\n
return \"Minified React error #\" + a + \"; visit \" + b + \" for the full message
 or use the non-minified dev environment for full errors and additional helpful warnings.\";\n}\n\nif (!aa) throw
Error(u(227));\n\nfunction ba(a, b, c, d, e, f, g, h, k) {\n  var l = Array.prototype.slice.call(arguments, 3);\n\n  try {\n
 b.apply(c, l);\n  } catch (m) {\n    this.onError(m);\n  }\n}\n\nvar da = !1,\n    ea = null,\n    fa = !1,\n    ha = null,\n
ia = {\n  onError: function onError(a) {\n    da = !0;\n    ea = a;\n  }\n};\n\nfunction ja(a, b, c, d, e, f, g, h, k) {\n  da
= !1;\n  ea = null;\n  ba.apply(ia, arguments);\n}\n\nfunction ka(a, b, c, d, e, f, g, h, k) {\n  ja.apply(this,
arguments);\n\n  if (da) {\n    if (da) {\n      var l = ea;\n      da = !1;\n      ea = null;\n    } else throw
Error(u(198));\n\n    fa || (fa = !0, ha = l);\n  }\n}\n\nvar la = null,\n    ma = null,\n    na = null;\n\nfunction oa(a, b, c)
{\n  var d = a.type || \"unknown-event\";\n  a.currentTarget = na(c);\n  ka(d, b, void 0, a);\n  a.currentTarget =
null;\n}\n\nvar pa = null,\n
    qa = {};\n\nfunction ra() {\n  if (pa) for (var a in qa) {\n    var b = qa[a],\n        c = pa.indexOf(a);\n    if (!(-1 < c))
throw Error(u(96, a));\n\n    if (!sa[c]) {\n      if (!b.extractEvents) throw Error(u(97, a));\n      sa[c] = b;\n      c =
b.eventTypes;\n\n      for (var d in c) {\n        var e = void 0;\n        var f = c[d],\n            g = b,\n            h = d;\n
if (ta.hasOwnProperty(h)) throw Error(u(99, h));\n        ta[h] = f;\n        var k = f.phasedRegistrationNames;\n\n
if (k) {\n          for (e in k) {\n            k.hasOwnProperty(e) && ua(k[e], g, h);\n          }\n\n          e = !0;\n        } else
f.registrationName ? (ua(f.registrationName, g, h), e = !0) : e = !1;\n\n        if (!e) throw Error(u(98, d, a));\n      }\n
}\n  }\n}\n\nfunction ua(a, b, c) {\n  if (va[a]) throw Error(u(100, a));\n  va[a] = b;\n  wa[a] =
b.eventTypes[c].dependencies;\n}\n\nvar sa = [],\n    ta = {},\n    va = {},\n    wa = {};\n\nfunction xa(a) {\n  var
 b = !1,\n      c;\n\n  for (c in a) {\n    if (a.hasOwnProperty(c)) {\n      var d = a[c];\n\n      if (!qa.hasOwnProperty(c)
|| qa[c] !== d) {\n        if (qa[c]) throw Error(u(102, c));\n        qa[c] = d;\n        b = !0;\n      }\n    }\n  }\n\n  b &&
ra();\n}\n\nvar ya = !(\"undefined\" === typeof window || \"undefined\" === typeof window.document ||
\"undefined\" === typeof window.document.createElement),\n    za = null,\n    Aa = null,\n    Ba = null;\n\nfunction
Ca(a) {\n  if (a = ma(a)) {\n    if (\"function\" !== typeof za) throw Error(u(280));\n    var b = a.stateNode;\n    b &&
(b = la(b), za(a.stateNode, a.type, b));\n  }\n}\n\nfunction Da(a) {\n  Aa ? Ba ? Ba.push(a) : Ba = [a] : Aa =
a;\n}\n\nfunction Ea() {\n  if (Aa) {\n    var a = Aa,\n        b = Ba;\n    Ba = Aa = null;\n    Ca(a);\n    if (b) for (a = 0;
a < b.length; a++) {\n      Ca(b[a]);\n    }\n  }\n}\n\nfunction Fa(a, b) {\n  return a(b);\n}\n\nfunction Ga(a, b, c, d, e)
{\n  return a(b, c, d, e);\n}\n\nfunction
 Ha() {}\n\nvar Ia = Fa,\n    Ja = !1,\n    Ka = !1;\n\nfunction La() {\n  if (null !== Aa || null !== Ba) Ha(),
Ea();\n}\n\nfunction Ma(a, b, c) {\n  if (Ka) return a(b, c);\n  Ka = !0;\n\n  try {\n    return Ia(a, b, c);\n  } finally {\n
 Ka = !1, La();\n  }\n}\n\nvar Na = /^[:A-Z_a-z\\u00C0-\\u00D6\\u00D8-\\u00F6\\u00F8-\\u02FF\\u0370-
\\u037D\\u037F-\\u1FFF\\u200C-\\u200D\\u2070-\\u218F\\u2C00-\\u2FEF\\u3001-\\uD7FF\\uF900-
\\uFDCF\\uFDF0-\\uFFFD][:A-Z_a-z\\u00C0-\\u00D6\\u00D8-\\u00F6\\u00F8-\\u02FF\\u0370-\\u037D\\u037F-
\\u1FFF\\u200C-\\u200D\\u2070-\\u218F\\u2C00-\\u2FEF\\u3001-\\uD7FF\\uF900-\\uFDCF\\uFDF0-\\uFFFD\\-.0-
9\\u00B7\\u0300-\\u036F\\u203F-\\u2040]*$/,\n    Oa = Object.prototype.hasOwnProperty,\n    Pa = {},\n    Qa =
{};\n\nfunction Ra(a) {\n  if (Oa.call(Qa, a)) return !0;\n  if (Oa.call(Pa, a)) return !1;\n  if (Na.test(a)) return Qa[a] =
!0;\n  Pa[a] = !0;\n  return !1;\n}\n\nfunction Sa(a, b, c, d) {\n  if (null !== c && 0 === c.type) return !1;\n\n  switch
 (typeof b) {\n    case \"function\":\n    case \"symbol\":\n      return !0;\n\n    case \"boolean\":\n      if (d) return !1;\n
   if (null !== c) return !c.acceptsBooleans;\n      a = a.toLowerCase().slice(0, 5);\n      return \"data-\" !== a &&
\"aria-\" !== a;\n\n    default:\n      return !1;\n  }\n}\n\nfunction Ta(a, b, c, d) {\n  if (null === b || \"undefined\" ===
typeof b || Sa(a, b, c, d)) return !0;\n  if (d) return !1;\n  if (null !== c) switch (c.type) {\n    case 3:\n      return !b;\n\n
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  case 4:\n      return !1 === b;\n\n    case 5:\n      return isNaN(b);\n\n    case 6:\n      return isNaN(b) || 1 > b;\n  }\n
return !1;\n}\n\nfunction v(a, b, c, d, e, f) {\n  this.acceptsBooleans = 2 === b || 3 === b || 4 === b;\n
this.attributeName = d;\n  this.attributeNamespace = e;\n  this.mustUseProperty = c;\n  this.propertyName = a;\n
this.type = b;\n  this.sanitizeURL = f;\n}\n\nvar C = {};\n\"children dangerouslySetInnerHTML defaultValue
defaultChecked innerHTML suppressContentEditableWarning
 suppressHydrationWarning style\".split(\" \").forEach(function (a) {\n  C[a] = new v(a, 0, !1, a, null,
!1);\n});\n[[\"acceptCharset\", \"accept-charset\"], [\"className\", \"class\"], [\"htmlFor\", \"for\"], [\"httpEquiv\",
\"http-equiv\"]].forEach(function (a) {\n  var b = a[0];\n  C[b] = new v(b, 1, !1, a[1], null,
!1);\n});\n[\"contentEditable\", \"draggable\", \"spellCheck\", \"value\"].forEach(function (a) {\n  C[a] = new v(a, 2,
!1, a.toLowerCase(), null, !1);\n});\n[\"autoReverse\", \"externalResourcesRequired\", \"focusable\",
\"preserveAlpha\"].forEach(function (a) {\n  C[a] = new v(a, 2, !1, a, null, !1);\n});\n\"allowFullScreen async
autoFocus autoPlay controls default defer disabled disablePictureInPicture formNoValidate hidden loop noModule
noValidate open playsInline readOnly required reversed scoped seamless itemScope\".split(\" \").forEach(function
(a) {\n  C[a] = new v(a, 3, !1, a.toLowerCase(), null, !1);\n});\n[\"checked\", \"multiple\", \"muted\",
 \"selected\"].forEach(function (a) {\n  C[a] = new v(a, 3, !0, a, null, !1);\n});\n[\"capture\",
\"download\"].forEach(function (a) {\n  C[a] = new v(a, 4, !1, a, null, !1);\n});\n[\"cols\", \"rows\", \"size\",
\"span\"].forEach(function (a) {\n  C[a] = new v(a, 6, !1, a, null, !1);\n});\n[\"rowSpan\", \"start\"].forEach(function
(a) {\n  C[a] = new v(a, 5, !1, a.toLowerCase(), null, !1);\n});\nvar Ua = /[\\-:]([a-z])/g;\n\nfunction Va(a) {\n  return
a[1].toUpperCase();\n}\n\n\"accent-height alignment-baseline arabic-form baseline-shift cap-height clip-path clip-
rule color-interpolation color-interpolation-filters color-profile color-rendering dominant-baseline enable-
background fill-opacity fill-rule flood-color flood-opacity font-family font-size font-size-adjust font-stretch font-
style font-variant font-weight glyph-name glyph-orientation-horizontal glyph-orientation-vertical horiz-adv-x horiz-
origin-x image-rendering letter-spacing lighting-color marker-end marker-mid marker-start
 overline-position overline-thickness paint-order panose-1 pointer-events rendering-intent shape-rendering stop-
color stop-opacity strikethrough-position strikethrough-thickness stroke-dasharray stroke-dashoffset stroke-linecap
stroke-linejoin stroke-miterlimit stroke-opacity stroke-width text-anchor text-decoration text-rendering underline-
position underline-thickness unicode-bidi unicode-range units-per-em v-alphabetic v-hanging v-ideographic v-
mathematical vector-effect vert-adv-y vert-origin-x vert-origin-y word-spacing writing-mode xmlns:xlink x-
height\".split(\" \").forEach(function (a) {\n  var b = a.replace(Ua, Va);\n  C[b] = new v(b, 1, !1, a, null,
!1);\n});\n\"xlink:actuate xlink:arcrole xlink:role xlink:show xlink:title xlink:type\".split(\" \").forEach(function (a)
{\n  var b = a.replace(Ua, Va);\n  C[b] = new v(b, 1, !1, a, \"http://www.w3.org/1999/xlink\",
!1);\n});\n[\"xml:base\", \"xml:lang\", \"xml:space\"].forEach(function (a) {\n  var b = a.replace(Ua, Va);\n
  C[b] = new v(b, 1, !1, a, \"http://www.w3.org/XML/1998/namespace\", !1);\n});\n[\"tabIndex\",
\"crossOrigin\"].forEach(function (a) {\n  C[a] = new v(a, 1, !1, a.toLowerCase(), null, !1);\n});\nC.xlinkHref = new
v(\"xlinkHref\", 1, !1, \"xlink:href\", \"http://www.w3.org/1999/xlink\", !0);\n[\"src\", \"href\", \"action\",
\"formAction\"].forEach(function (a) {\n  C[a] = new v(a, 1, !1, a.toLowerCase(), null, !0);\n});\nvar Wa =
aa.__SECRET_INTERNALS_DO_NOT_USE_OR_YOU_WILL_BE_FIRED;\nWa.hasOwnProperty(\"ReactCurre
ntDispatcher\") || (Wa.ReactCurrentDispatcher = {\n  current:
null\n});\nWa.hasOwnProperty(\"ReactCurrentBatchConfig\") || (Wa.ReactCurrentBatchConfig = {\n  suspense:
null\n});\n\nfunction Xa(a, b, c, d) {\n  var e = C.hasOwnProperty(b) ? C[b] : null;\n  var f = null !== e ? 0 ===
e.type : d ? !1 : !(2 < b.length) || \"o\" !== b[0] && \"O\" !== b[0] || \"n\" !== b[1] && \"N\" !== b[1] ? !1 : !0;\n  f ||
(Ta(b, c, e, d) && (c = null), d || null === e ? Ra(b) && (null === c ?
 a.removeAttribute(b) : a.setAttribute(b, \"\" + c)) : e.mustUseProperty ? a[e.propertyName] = null === c ? 3 ===
e.type ? !1 : \"\" : c : (b = e.attributeName, d = e.attributeNamespace, null === c ? a.removeAttribute(b) : (e = e.type,
c = 3 === e || 4 === e && !0 === c ? \"\" : \"\" + c, d ? a.setAttributeNS(d, b, c) : a.setAttribute(b, c))));\n}\n\nvar
Ya = /^(.*)[\\\\\\/]/,\n    E = \"function\" === typeof Symbol && Symbol.for,\n    Za = E ?
Symbol.for(\"react.element\") : 60103,\n    $a = E ? Symbol.for(\"react.portal\") : 60106,\n    ab = E ?
Symbol.for(\"react.fragment\") : 60107,\n    bb = E ? Symbol.for(\"react.strict_mode\") : 60108,\n    cb = E ?
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Symbol.for(\"react.profiler\") : 60114,\n    db = E ? Symbol.for(\"react.provider\") : 60109,\n    eb = E ?
Symbol.for(\"react.context\") : 60110,\n    fb = E ? Symbol.for(\"react.concurrent_mode\") : 60111,\n    gb = E ?
Symbol.for(\"react.forward_ref\") : 60112,\n    hb = E ? Symbol.for(\"react.suspense\") : 60113,\n    ib = E ?
Symbol.for(\"react.suspense_list\")
 : 60120,\n    jb = E ? Symbol.for(\"react.memo\") : 60115,\n    kb = E ? Symbol.for(\"react.lazy\") : 60116,\n    lb =
E ? Symbol.for(\"react.block\") : 60121,\n    mb = \"function\" === typeof Symbol && Symbol.iterator;\n\nfunction
nb(a) {\n  if (null === a || \"object\" !== typeof a) return null;\n  a = mb && a[mb] || a[\"@@iterator\"];\n  return
\"function\" === typeof a ? a : null;\n}\n\nfunction ob(a) {\n  if (-1 === a._status) {\n    a._status = 0;\n    var b =
a._ctor;\n    b = b();\n    a._result = b;\n    b.then(function (b) {\n      0 === a._status && (b = b.default, a._status = 1,
a._result = b);\n    }, function (b) {\n      0 === a._status && (a._status = 2, a._result = b);\n    });\n  }\n}\n\nfunction
pb(a) {\n  if (null == a) return null;\n  if (\"function\" === typeof a) return a.displayName || a.name || null;\n  if
(\"string\" === typeof a) return a;\n\n  switch (a) {\n    case ab:\n      return \"Fragment\";\n\n    case $a:\n      return
 \"Portal\";\n\n    case cb:\n      return \"Profiler\";\n\n    case bb:\n      return \"StrictMode\";\n\n    case hb:\n
return \"Suspense\";\n\n    case ib:\n      return \"SuspenseList\";\n  }\n\n  if (\"object\" === typeof a) switch
(a.$$typeof) {\n    case eb:\n      return \"Context.Consumer\";\n\n    case db:\n      return \"Context.Provider\";\n\n
case gb:\n      var b = a.render;\n      b = b.displayName || b.name || \"\";\n      return a.displayName || (\"\" !== b ?
\"ForwardRef(\" + b + \")\" : \"ForwardRef\");\n\n    case jb:\n      return pb(a.type);\n\n    case lb:\n      return
pb(a.render);\n\n    case kb:\n      if (a = 1 === a._status ? a._result : null) return pb(a);\n  }\n  return
null;\n}\n\nfunction qb(a) {\n  var b = \"\";\n\n  do {\n    a: switch (a.tag) {\n      case 3:\n      case 4:\n      case 6:\n
case 7:\n      case 10:\n      case 9:\n        var c = \"\";\n        break a;\n\n      default:\n        var d = a._debugOwner,\n
        e = a._debugSource,\n
            f = pb(a.type);\n        c = null;\n        d && (c = pb(d.type));\n        d = f;\n        f = \"\";\n        e ? f = \" (at \"
+ e.fileName.replace(Ya, \"\") + \":\" + e.lineNumber + \")\" : c && (f = \" (created by \" + c + \")\");\n        c = \"\\n
 in \" + (d || \"Unknown\") + f;\n    }\n\n    b += c;\n    a = a.return;\n  } while (a);\n\n  return b;\n}\n\nfunction rb(a)
{\n  switch (typeof a) {\n    case \"boolean\":\n    case \"number\":\n    case \"object\":\n    case \"string\":\n    case
\"undefined\":\n      return a;\n\n    default:\n      return \"\";\n  }\n}\n\nfunction sb(a) {\n  var b = a.type;\n  return (a
= a.nodeName) && \"input\" === a.toLowerCase() && (\"checkbox\" === b || \"radio\" === b);\n}\n\nfunction tb(a)
{\n  var b = sb(a) ? \"checked\" : \"value\",\n      c = Object.getOwnPropertyDescriptor(a.constructor.prototype, b),\n
   d = \"\" + a[b];\n\n  if (!a.hasOwnProperty(b) && \"undefined\" !== typeof c && \"function\" === typeof
 c.get && \"function\" === typeof c.set) {\n    var e = c.get,\n        f = c.set;\n    Object.defineProperty(a, b, {\n
configurable: !0,\n      get: function get() {\n        return e.call(this);\n      },\n      set: function set(a) {\n        d = \"\"
+ a;\n        f.call(this, a);\n      }\n    });\n    Object.defineProperty(a, b, {\n      enumerable: c.enumerable\n    });\n
return {\n      getValue: function getValue() {\n        return d;\n      },\n      setValue: function setValue(a) {\n        d =
\"\" + a;\n      },\n      stopTracking: function stopTracking() {\n        a._valueTracker = null;\n        delete a[b];\n
}\n    };\n  }\n}\n\nfunction xb(a) {\n  a._valueTracker || (a._valueTracker = tb(a));\n}\n\nfunction yb(a) {\n  if (!a)
return !1;\n  var b = a._valueTracker;\n  if (!b) return !0;\n  var c = b.getValue();\n  var d = \"\";\n  a && (d = sb(a) ?
a.checked ? \"true\" : \"false\" : a.value);\n  a = d;\n  return a !== c ? (b.setValue(a), !0) : !1;\n}\n\nfunction
 zb(a, b) {\n  var c = b.checked;\n  return n({}, b, {\n    defaultChecked: void 0,\n    defaultValue: void 0,\n    value:
void 0,\n    checked: null != c ? c : a._wrapperState.initialChecked\n  });\n}\n\nfunction Ab(a, b) {\n  var c = null ==
b.defaultValue ? \"\" : b.defaultValue,\n      d = null != b.checked ? b.checked : b.defaultChecked;\n  c = rb(null !=
b.value ? b.value : c);\n  a._wrapperState = {\n    initialChecked: d,\n    initialValue: c,\n    controlled: \"checkbox\"
=== b.type || \"radio\" === b.type ? null != b.checked : null != b.value\n  };\n}\n\nfunction Bb(a, b) {\n  b =
b.checked;\n  null != b && Xa(a, \"checked\", b, !1);\n}\n\nfunction Cb(a, b) {\n  Bb(a, b);\n  var c = rb(b.value),\n
  d = b.type;\n  if (null != c) {\n    if (\"number\" === d) {\n      if (0 === c && \"\" === a.value || a.value != c)
a.value = \"\" + c;\n    } else a.value !== \"\" + c && (a.value = \"\" + c);\n  } else if (\"submit\" === d || \"reset\" ===
d) {\n    a.removeAttribute(\"value\");\n
    return;\n  }\n  b.hasOwnProperty(\"value\") ? Db(a, b.type, c) : b.hasOwnProperty(\"defaultValue\") && Db(a,
b.type, rb(b.defaultValue));\n  null == b.checked && null != b.defaultChecked && (a.defaultChecked =
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!!b.defaultChecked);\n}\n\nfunction Eb(a, b, c) {\n  if (b.hasOwnProperty(\"value\") ||
b.hasOwnProperty(\"defaultValue\")) {\n    var d = b.type;\n    if (!(\"submit\" !== d && \"reset\" !== d || void 0 !==
b.value && null !== b.value)) return;\n    b = \"\" + a._wrapperState.initialValue;\n    c || b === a.value || (a.value =
b);\n    a.defaultValue = b;\n  }\n\n  c = a.name;\n  \"\" !== c && (a.name = \"\");\n  a.defaultChecked =
!!a._wrapperState.initialChecked;\n  \"\" !== c && (a.name = c);\n}\n\nfunction Db(a, b, c) {\n  if (\"number\" !== b
|| a.ownerDocument.activeElement !== a) null == c ? a.defaultValue = \"\" + a._wrapperState.initialValue :
a.defaultValue !== \"\" + c && (a.defaultValue = \"\" + c);\n}\n\nfunction Fb(a) {\n  var b = \"\";\n
aa.Children.forEach(a,
 function (a) {\n    null != a && (b += a);\n  });\n  return b;\n}\n\nfunction Gb(a, b) {\n  a = n({\n    children: void
0\n  }, b);\n  if (b = Fb(b.children)) a.children = b;\n  return a;\n}\n\nfunction Hb(a, b, c, d) {\n  a = a.options;\n\n  if
(b) {\n    b = {};\n\n    for (var e = 0; e < c.length; e++) {\n      b[\"$\" + c[e]] = !0;\n    }\n\n    for (c = 0; c <
a.length; c++) {\n      e = b.hasOwnProperty(\"$\" + a[c].value), a[c].selected !== e && (a[c].selected = e), e && d
&& (a[c].defaultSelected = !0);\n    }\n  } else {\n    c = \"\" + rb(c);\n    b = null;\n\n    for (e = 0; e < a.length; e++)
{\n      if (a[e].value === c) {\n        a[e].selected = !0;\n        d && (a[e].defaultSelected = !0);\n        return;\n
}\n\n      null !== b || a[e].disabled || (b = a[e]);\n    }\n\n    null !== b && (b.selected = !0);\n  }\n}\n\nfunction Ib(a,
b) {\n  if (null != b.dangerouslySetInnerHTML) throw Error(u(91));\n  return n({}, b, {\n    value: void 0,\n
 defaultValue: void 0,\n    children: \"\" + a._wrapperState.initialValue\n  });\n}\n\nfunction Jb(a, b) {\n  var c =
b.value;\n\n  if (null == c) {\n    c = b.children;\n    b = b.defaultValue;\n\n    if (null != c) {\n      if (null != b) throw
Error(u(92));\n\n      if (Array.isArray(c)) {\n        if (!(1 >= c.length)) throw Error(u(93));\n        c = c[0];\n      }\n\n
   b = c;\n    }\n\n    null == b && (b = \"\");\n    c = b;\n  }\n\n  a._wrapperState = {\n    initialValue: rb(c)\n
};\n}\n\nfunction Kb(a, b) {\n  var c = rb(b.value),\n      d = rb(b.defaultValue);\n  null != c && (c = \"\" + c, c !==
a.value && (a.value = c), null == b.defaultValue && a.defaultValue !== c && (a.defaultValue = c));\n  null != d
&& (a.defaultValue = \"\" + d);\n}\n\nfunction Lb(a) {\n  var b = a.textContent;\n  b ===
a._wrapperState.initialValue && \"\" !== b && null !== b && (a.value = b);\n}\n\nvar Mb = {\n  html:
\"http://www.w3.org/1999/xhtml\",\n  mathml: \"http://www.w3.org/1998/Math/MathML\",\n
  svg: \"http://www.w3.org/2000/svg\"\n};\n\nfunction Nb(a) {\n  switch (a) {\n    case \"svg\":\n      return
\"http://www.w3.org/2000/svg\";\n\n    case \"math\":\n      return \"http://www.w3.org/1998/Math/MathML\";\n\n
default:\n      return \"http://www.w3.org/1999/xhtml\";\n  }\n}\n\nfunction Ob(a, b) {\n  return null == a ||
\"http://www.w3.org/1999/xhtml\" === a ? Nb(b) : \"http://www.w3.org/2000/svg\" === a && \"foreignObject\"
=== b ? \"http://www.w3.org/1999/xhtml\" : a;\n}\n\nvar Pb,\n    Qb = function (a) {\n  return \"undefined\" !==
typeof MSApp && MSApp.execUnsafeLocalFunction ? function (b, c, d, e) {\n
MSApp.execUnsafeLocalFunction(function () {\n      return a(b, c, d, e);\n    });\n  } : a;\n}(function (a, b) {\n  if
(a.namespaceURI !== Mb.svg || \"innerHTML\" in a) a.innerHTML = b;else {\n    Pb = Pb ||
document.createElement(\"div\");\n    Pb.innerHTML = \"<svg>\" + b.valueOf().toString() + \"</svg>\";\n\n    for (b
= Pb.firstChild; a.firstChild;) {\n
      a.removeChild(a.firstChild);\n    }\n\n    for (; b.firstChild;) {\n      a.appendChild(b.firstChild);\n    }\n
}\n});\n\nfunction Rb(a, b) {\n  if (b) {\n    var c = a.firstChild;\n\n    if (c && c === a.lastChild && 3 ===
c.nodeType) {\n      c.nodeValue = b;\n      return;\n    }\n  }\n\n  a.textContent = b;\n}\n\nfunction Sb(a, b) {\n  var c
= {};\n  c[a.toLowerCase()] = b.toLowerCase();\n  c[\"Webkit\" + a] = \"webkit\" + b;\n  c[\"Moz\" + a] = \"moz\" +
b;\n  return c;\n}\n\nvar Tb = {\n  animationend: Sb(\"Animation\", \"AnimationEnd\"),\n  animationiteration:
Sb(\"Animation\", \"AnimationIteration\"),\n  animationstart: Sb(\"Animation\", \"AnimationStart\"),\n
transitionend: Sb(\"Transition\", \"TransitionEnd\")\n},\n    Ub = {},\n    Vb = {};\nya && (Vb =
document.createElement(\"div\").style, \"AnimationEvent\" in window || (delete Tb.animationend.animation, delete
Tb.animationiteration.animation, delete Tb.animationstart.animation), \"TransitionEvent\" in window || delete
 Tb.transitionend.transition);\n\nfunction Wb(a) {\n  if (Ub[a]) return Ub[a];\n  if (!Tb[a]) return a;\n  var b =
Tb[a],\n      c;\n\n  for (c in b) {\n    if (b.hasOwnProperty(c) && c in Vb) return Ub[a] = b[c];\n  }\n\n  return
a;\n}\n\nvar Xb = Wb(\"animationend\"),\n    Yb = Wb(\"animationiteration\"),\n    Zb = Wb(\"animationstart\"),\n
$b = Wb(\"transitionend\"),\n    ac = \"abort canplay canplaythrough durationchange emptied encrypted ended error
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loadeddata loadedmetadata loadstart pause play playing progress ratechange seeked seeking stalled suspend
timeupdate volumechange waiting\".split(\" \"),\n    bc = new (\"function\" === typeof WeakMap ? WeakMap :
Map)();\n\nfunction cc(a) {\n  var b = bc.get(a);\n  void 0 === b && (b = new Map(), bc.set(a, b));\n  return
b;\n}\n\nfunction dc(a) {\n  var b = a,\n      c = a;\n  if (a.alternate) for (; b.return;) {\n    b = b.return;\n  } else {\n    a
= b;\n\n    do {\n      b = a, 0 !== (b.effectTag & 1026) && (c = b.return), a
 = b.return;\n    } while (a);\n  }\n  return 3 === b.tag ? c : null;\n}\n\nfunction ec(a) {\n  if (13 === a.tag) {\n    var b
= a.memoizedState;\n    null === b && (a = a.alternate, null !== a && (b = a.memoizedState));\n    if (null !== b)
return b.dehydrated;\n  }\n\n  return null;\n}\n\nfunction fc(a) {\n  if (dc(a) !== a) throw
Error(u(188));\n}\n\nfunction gc(a) {\n  var b = a.alternate;\n\n  if (!b) {\n    b = dc(a);\n    if (null === b) throw
Error(u(188));\n    return b !== a ? null : a;\n  }\n\n  for (var c = a, d = b;;) {\n    var e = c.return;\n    if (null === e)
break;\n    var f = e.alternate;\n\n    if (null === f) {\n      d = e.return;\n\n      if (null !== d) {\n        c = d;\n
continue;\n      }\n\n      break;\n    }\n\n    if (e.child === f.child) {\n      for (f = e.child; f;) {\n        if (f === c)
return fc(e), a;\n        if (f === d) return fc(e), b;\n        f = f.sibling;\n      }\n\n      throw Error(u(188));\n    }\n\n    if
(c.return !== d.return)
 c = e, d = f;else {\n      for (var g = !1, h = e.child; h;) {\n        if (h === c) {\n          g = !0;\n          c = e;\n          d =
f;\n          break;\n        }\n\n        if (h === d) {\n          g = !0;\n          d = e;\n          c = f;\n          break;\n        }\n\n
        h = h.sibling;\n      }\n\n      if (!g) {\n        for (h = f.child; h;) {\n          if (h === c) {\n            g = !0;\n            c =
f;\n            d = e;\n            break;\n          }\n\n          if (h === d) {\n            g = !0;\n            d = f;\n            c = e;\n
            break;\n          }\n\n          h = h.sibling;\n        }\n\n        if (!g) throw Error(u(189));\n      }\n    }\n\n    if (c.alternate
!== d) throw Error(u(190));\n  }\n\n  if (3 !== c.tag) throw Error(u(188));\n  return c.stateNode.current === c ? a :
b;\n}\n\nfunction hc(a) {\n  a = gc(a);\n  if (!a) return null;\n\n  for (var b = a;;) {\n    if (5 === b.tag || 6 === b.tag)
return b;\n    if (b.child)
 b.child.return = b, b = b.child;else {\n      if (b === a) break;\n\n      for (; !b.sibling;) {\n        if (!b.return || b.return
=== a) return null;\n        b = b.return;\n      }\n\n      b.sibling.return = b.return;\n      b = b.sibling;\n    }\n  }\n\n
return null;\n}\n\nfunction ic(a, b) {\n  if (null == b) throw Error(u(30));\n  if (null == a) return b;\n\n  if
(Array.isArray(a)) {\n    if (Array.isArray(b)) return a.push.apply(a, b), a;\n    a.push(b);\n    return a;\n  }\n\n  return
Array.isArray(b) ? [a].concat(b) : [a, b];\n}\n\nfunction jc(a, b, c) {\n  Array.isArray(a) ? a.forEach(b, c) : a &&
b.call(c, a);\n}\n\nvar kc = null;\n\nfunction lc(a) {\n  if (a) {\n    var b = a._dispatchListeners,\n        c =
a._dispatchInstances;\n    if (Array.isArray(b)) for (var d = 0; d < b.length && !a.isPropagationStopped(); d++) {\n
 oa(a, b[d], c[d]);\n    } else b && oa(a, b, c);\n    a._dispatchListeners = null;\n    a._dispatchInstances = null;\n
a.isPersistent() || a.constructor.release(a);\n
  }\n}\n\nfunction mc(a) {\n  null !== a && (kc = ic(kc, a));\n  a = kc;\n  kc = null;\n\n  if (a) {\n    jc(a, lc);\n    if
(kc) throw Error(u(95));\n    if (fa) throw a = ha, fa = !1, ha = null, a;\n  }\n}\n\nfunction nc(a) {\n  a = a.target ||
a.srcElement || window;\n  a.correspondingUseElement && (a = a.correspondingUseElement);\n  return 3 ===
a.nodeType ? a.parentNode : a;\n}\n\nfunction oc(a) {\n  if (!ya) return !1;\n  a = \"on\" + a;\n  var b = (a in
document);\n  b || (b = document.createElement(\"div\"), b.setAttribute(a, \"return;\"), b = \"function\" === typeof
b[a]);\n  return b;\n}\n\nvar pc = [];\n\nfunction qc(a) {\n  a.topLevelType = null;\n  a.nativeEvent = null;\n
a.targetInst = null;\n  a.ancestors.length = 0;\n  10 > pc.length && pc.push(a);\n}\n\nfunction rc(a, b, c, d) {\n  if
(pc.length) {\n    var e = pc.pop();\n    e.topLevelType = a;\n    e.eventSystemFlags = d;\n    e.nativeEvent = b;\n
e.targetInst = c;\n    return e;\n  }\n\n
  return {\n    topLevelType: a,\n    eventSystemFlags: d,\n    nativeEvent: b,\n    targetInst: c,\n    ancestors: []\n
};\n}\n\nfunction sc(a) {\n  var b = a.targetInst,\n      c = b;\n\n  do {\n    if (!c) {\n      a.ancestors.push(c);\n
break;\n    }\n\n    var d = c;\n    if (3 === d.tag) d = d.stateNode.containerInfo;else {\n      for (; d.return;) {\n        d
= d.return;\n      }\n\n      d = 3 !== d.tag ? null : d.stateNode.containerInfo;\n    }\n    if (!d) break;\n    b = c.tag;\n
5 !== b && 6 !== b || a.ancestors.push(c);\n    c = tc(d);\n  } while (c);\n\n  for (c = 0; c < a.ancestors.length; c++)
{\n    b = a.ancestors[c];\n    var e = nc(a.nativeEvent);\n    d = a.topLevelType;\n    var f = a.nativeEvent,\n        g =
a.eventSystemFlags;\n    0 === c && (g |= 64);\n\n    for (var h = null, k = 0; k < sa.length; k++) {\n      var l =
sa[k];\n      l && (l = l.extractEvents(d, b, f, e, g)) && (h = ic(h, l));\n    }\n\n    mc(h);\n  }\n}\n\nfunction uc(a, b, c)
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{\n
  if (!c.has(a)) {\n    switch (a) {\n      case \"scroll\":\n        vc(b, \"scroll\", !0);\n        break;\n\n      case \"focus\":\n
    case \"blur\":\n        vc(b, \"focus\", !0);\n        vc(b, \"blur\", !0);\n        c.set(\"blur\", null);\n        c.set(\"focus\",
null);\n        break;\n\n      case \"cancel\":\n      case \"close\":\n        oc(a) && vc(b, a, !0);\n        break;\n\n      case
\"invalid\":\n      case \"submit\":\n      case \"reset\":\n        break;\n\n      default:\n        -1 === ac.indexOf(a) &&
F(a, b);\n    }\n\n    c.set(a, null);\n  }\n}\n\nvar wc,\n    xc,\n    yc,\n    zc = !1,\n    Ac = [],\n    Bc = null,\n    Cc =
null,\n    Dc = null,\n    Ec = new Map(),\n    Fc = new Map(),\n    Gc = [],\n    Hc = \"mousedown mouseup
touchcancel touchend touchstart auxclick dblclick pointercancel pointerdown pointerup dragend dragstart drop
compositionend compositionstart keydown keypress keyup input textInput close cancel copy cut paste click change
contextmenu
 reset submit\".split(\" \"),\n    Ic = \"focus blur dragenter dragleave mouseover mouseout pointerover pointerout
gotpointercapture lostpointercapture\".split(\" \");\n\nfunction Jc(a, b) {\n  var c = cc(b);\n  Hc.forEach(function (a)
{\n    uc(a, b, c);\n  });\n  Ic.forEach(function (a) {\n    uc(a, b, c);\n  });\n}\n\nfunction Kc(a, b, c, d, e) {\n  return
{\n    blockedOn: a,\n    topLevelType: b,\n    eventSystemFlags: c | 32,\n    nativeEvent: e,\n    container: d\n
};\n}\n\nfunction Lc(a, b) {\n  switch (a) {\n    case \"focus\":\n    case \"blur\":\n      Bc = null;\n      break;\n\n
case \"dragenter\":\n    case \"dragleave\":\n      Cc = null;\n      break;\n\n    case \"mouseover\":\n    case
\"mouseout\":\n      Dc = null;\n      break;\n\n    case \"pointerover\":\n    case \"pointerout\":\n
Ec.delete(b.pointerId);\n      break;\n\n    case \"gotpointercapture\":\n    case \"lostpointercapture\":\n
Fc.delete(b.pointerId);\n  }\n}\n\nfunction Mc(a, b, c,
 d, e, f) {\n  if (null === a || a.nativeEvent !== f) return a = Kc(b, c, d, e, f), null !== b && (b = Nc(b), null !== b
&& xc(b)), a;\n  a.eventSystemFlags |= d;\n  return a;\n}\n\nfunction Oc(a, b, c, d, e) {\n  switch (b) {\n    case
\"focus\":\n      return Bc = Mc(Bc, a, b, c, d, e), !0;\n\n    case \"dragenter\":\n      return Cc = Mc(Cc, a, b, c, d, e),
!0;\n\n    case \"mouseover\":\n      return Dc = Mc(Dc, a, b, c, d, e), !0;\n\n    case \"pointerover\":\n      var f =
e.pointerId;\n      Ec.set(f, Mc(Ec.get(f) || null, a, b, c, d, e));\n      return !0;\n\n    case \"gotpointercapture\":\n
return f = e.pointerId, Fc.set(f, Mc(Fc.get(f) || null, a, b, c, d, e)), !0;\n  }\n\n  return !1;\n}\n\nfunction Pc(a) {\n  var
b = tc(a.target);\n\n  if (null !== b) {\n    var c = dc(b);\n    if (null !== c) if (b = c.tag, 13 === b) {\n      if (b = ec(c),
null !== b) {\n        a.blockedOn = b;\n        r.unstable_runWithPriority(a.priority, function () {\n          yc(c);\n
 });\n        return;\n      }\n    } else if (3 === b && c.stateNode.hydrate) {\n      a.blockedOn = 3 === c.tag ?
c.stateNode.containerInfo : null;\n      return;\n    }\n  }\n\n  a.blockedOn = null;\n}\n\nfunction Qc(a) {\n  if (null
!== a.blockedOn) return !1;\n  var b = Rc(a.topLevelType, a.eventSystemFlags, a.container, a.nativeEvent);\n\n  if
(null !== b) {\n    var c = Nc(b);\n    null !== c && xc(c);\n    a.blockedOn = b;\n    return !1;\n  }\n\n  return
!0;\n}\n\nfunction Sc(a, b, c) {\n  Qc(a) && c.delete(b);\n}\n\nfunction Tc() {\n  for (zc = !1; 0 < Ac.length;) {\n
var a = Ac[0];\n\n    if (null !== a.blockedOn) {\n      a = Nc(a.blockedOn);\n      null !== a && wc(a);\n      break;\n
 }\n\n    var b = Rc(a.topLevelType, a.eventSystemFlags, a.container, a.nativeEvent);\n    null !== b ? a.blockedOn =
b : Ac.shift();\n  }\n\n  null !== Bc && Qc(Bc) && (Bc = null);\n  null !== Cc && Qc(Cc) && (Cc = null);\n  null
!== Dc && Qc(Dc) && (Dc = null);\n  Ec.forEach(Sc);\n  Fc.forEach(Sc);\n}\n\nfunction
 Uc(a, b) {\n  a.blockedOn === b && (a.blockedOn = null, zc || (zc = !0,
r.unstable_scheduleCallback(r.unstable_NormalPriority, Tc)));\n}\n\nfunction Vc(a) {\n  function b(b) {\n    return
Uc(b, a);\n  }\n\n  if (0 < Ac.length) {\n    Uc(Ac[0], a);\n\n    for (var c = 1; c < Ac.length; c++) {\n      var d =
Ac[c];\n      d.blockedOn === a && (d.blockedOn = null);\n    }\n  }\n\n  null !== Bc && Uc(Bc, a);\n  null !== Cc
&& Uc(Cc, a);\n  null !== Dc && Uc(Dc, a);\n  Ec.forEach(b);\n  Fc.forEach(b);\n\n  for (c = 0; c < Gc.length; c++)
{\n    d = Gc[c], d.blockedOn === a && (d.blockedOn = null);\n  }\n\n  for (; 0 < Gc.length && (c = Gc[0], null
=== c.blockedOn);) {\n    Pc(c), null === c.blockedOn && Gc.shift();\n  }\n}\n\nvar Wc = {},\n    Yc = new
Map(),\n    Zc = new Map(),\n    $c = [\"abort\", \"abort\", Xb, \"animationEnd\", Yb, \"animationIteration\", Zb,
\"animationStart\", \"canplay\", \"canPlay\", \"canplaythrough\", \"canPlayThrough\", \"durationchange\",
 \"durationChange\", \"emptied\", \"emptied\", \"encrypted\", \"encrypted\", \"ended\", \"ended\", \"error\", \"error\",
\"gotpointercapture\", \"gotPointerCapture\", \"load\", \"load\", \"loadeddata\", \"loadedData\", \"loadedmetadata\",
\"loadedMetadata\", \"loadstart\", \"loadStart\", \"lostpointercapture\", \"lostPointerCapture\", \"playing\",
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\"playing\", \"progress\", \"progress\", \"seeking\", \"seeking\", \"stalled\", \"stalled\", \"suspend\", \"suspend\",
\"timeupdate\", \"timeUpdate\", $b, \"transitionEnd\", \"waiting\", \"waiting\"];\n\nfunction ad(a, b) {\n  for (var c =
0; c < a.length; c += 2) {\n    var d = a[c],\n        e = a[c + 1],\n        f = \"on\" + (e[0].toUpperCase() + e.slice(1));\n
f = {\n      phasedRegistrationNames: {\n        bubbled: f,\n        captured: f + \"Capture\"\n      },\n      dependencies:
[d],\n      eventPriority: b\n    };\n    Zc.set(d, b);\n    Yc.set(d, f);\n    Wc[e] = f;\n  }\n}\n\nad(\"blur blur cancel
cancel click click close
 close contextmenu contextMenu copy copy cut cut auxclick auxClick dblclick doubleClick dragend dragEnd
dragstart dragStart drop drop focus focus input input invalid invalid keydown keyDown keypress keyPress keyup
keyUp mousedown mouseDown mouseup mouseUp paste paste pause pause play play pointercancel pointerCancel
pointerdown pointerDown pointerup pointerUp ratechange rateChange reset reset seeked seeked submit submit
touchcancel touchCancel touchend touchEnd touchstart touchStart volumechange volumeChange\".split(\" \"),
0);\nad(\"drag drag dragenter dragEnter dragexit dragExit dragleave dragLeave dragover dragOver mousemove
mouseMove mouseout mouseOut mouseover mouseOver pointermove pointerMove pointerout pointerOut
pointerover pointerOver scroll scroll toggle toggle touchmove touchMove wheel wheel\".split(\" \"), 1);\nad($c,
2);\n\nfor (var bd = \"change selectionchange textInput compositionstart compositionend
compositionupdate\".split(\" \"), cd = 0; cd < bd.length; cd++) {\n
  Zc.set(bd[cd], 0);\n}\n\nvar dd = r.unstable_UserBlockingPriority,\n    ed = r.unstable_runWithPriority,\n    fd =
!0;\n\nfunction F(a, b) {\n  vc(b, a, !1);\n}\n\nfunction vc(a, b, c) {\n  var d = Zc.get(b);\n\n  switch (void 0 === d ?
2 : d) {\n    case 0:\n      d = gd.bind(null, b, 1, a);\n      break;\n\n    case 1:\n      d = hd.bind(null, b, 1, a);\n
break;\n\n    default:\n      d = id.bind(null, b, 1, a);\n  }\n\n  c ? a.addEventListener(b, d, !0) : a.addEventListener(b,
d, !1);\n}\n\nfunction gd(a, b, c, d) {\n  Ja || Ha();\n  var e = id,\n      f = Ja;\n  Ja = !0;\n\n  try {\n    Ga(e, a, b, c,
d);\n  } finally {\n    (Ja = f) || La();\n  }\n}\n\nfunction hd(a, b, c, d) {\n  ed(dd, id.bind(null, a, b, c,
d));\n}\n\nfunction id(a, b, c, d) {\n  if (fd) if (0 < Ac.length && -1 < Hc.indexOf(a)) a = Kc(null, a, b, c, d),
Ac.push(a);else {\n    var e = Rc(a, b, c, d);\n    if (null === e) Lc(a, d);else if (-1 < Hc.indexOf(a)) a = Kc(e, a, b, c,
d), Ac.push(a);else if (!Oc(e,
 a, b, c, d)) {\n      Lc(a, d);\n      a = rc(a, d, null, b);\n\n      try {\n        Ma(sc, a);\n      } finally {\n        qc(a);\n
}\n    }\n  }\n}\n\nfunction Rc(a, b, c, d) {\n  c = nc(d);\n  c = tc(c);\n\n  if (null !== c) {\n    var e = dc(c);\n    if
(null === e) c = null;else {\n      var f = e.tag;\n\n      if (13 === f) {\n        c = ec(e);\n        if (null !== c) return c;\n
    c = null;\n      } else if (3 === f) {\n        if (e.stateNode.hydrate) return 3 === e.tag ? e.stateNode.containerInfo :
null;\n        c = null;\n      } else e !== c && (c = null);\n    }\n  }\n\n  a = rc(a, d, c, b);\n\n  try {\n    Ma(sc, a);\n  }
finally {\n    qc(a);\n  }\n\n  return null;\n}\n\nvar jd = {\n  animationIterationCount: !0,\n  borderImageOutset: !0,\n
borderImageSlice: !0,\n  borderImageWidth: !0,\n  boxFlex: !0,\n  boxFlexGroup: !0,\n  boxOrdinalGroup: !0,\n
columnCount: !0,\n  columns: !0,\n  flex: !0,\n  flexGrow: !0,\n  flexPositive: !0,\n  flexShrink: !0,\n  flexNegative:
 !0,\n  flexOrder: !0,\n  gridArea: !0,\n  gridRow: !0,\n  gridRowEnd: !0,\n  gridRowSpan: !0,\n  gridRowStart: !0,\n
gridColumn: !0,\n  gridColumnEnd: !0,\n  gridColumnSpan: !0,\n  gridColumnStart: !0,\n  fontWeight: !0,\n
lineClamp: !0,\n  lineHeight: !0,\n  opacity: !0,\n  order: !0,\n  orphans: !0,\n  tabSize: !0,\n  widows: !0,\n  zIndex:
!0,\n  zoom: !0,\n  fillOpacity: !0,\n  floodOpacity: !0,\n  stopOpacity: !0,\n  strokeDasharray: !0,\n
strokeDashoffset: !0,\n  strokeMiterlimit: !0,\n  strokeOpacity: !0,\n  strokeWidth: !0\n},\n    kd = [\"Webkit\",
\"ms\", \"Moz\", \"O\"];\nObject.keys(jd).forEach(function (a) {\n  kd.forEach(function (b) {\n    b = b +
a.charAt(0).toUpperCase() + a.substring(1);\n    jd[b] = jd[a];\n  });\n});\n\nfunction ld(a, b, c) {\n  return null == b ||
\"boolean\" === typeof b || \"\" === b ? \"\" : c || \"number\" !== typeof b || 0 === b || jd.hasOwnProperty(a) &&
jd[a] ? (\"\" + b).trim() : b + \"px\";\n}\n\nfunction md(a, b) {\n  a =
 a.style;\n\n  for (var c in b) {\n    if (b.hasOwnProperty(c)) {\n      var d = 0 === c.indexOf(\"--\"),\n          e = ld(c,
b[c], d);\n      \"float\" === c && (c = \"cssFloat\");\n      d ? a.setProperty(c, e) : a[c] = e;\n    }\n  }\n}\n\nvar nd =
n({\n  menuitem: !0\n}, {\n  area: !0,\n  base: !0,\n  br: !0,\n  col: !0,\n  embed: !0,\n  hr: !0,\n  img: !0,\n  input: !0,\n
keygen: !0,\n  link: !0,\n  meta: !0,\n  param: !0,\n  source: !0,\n  track: !0,\n  wbr: !0\n});\n\nfunction od(a, b) {\n  if
(b) {\n    if (nd[a] && (null != b.children || null != b.dangerouslySetInnerHTML)) throw Error(u(137, a, \"\"));\n\n
if (null != b.dangerouslySetInnerHTML) {\n      if (null != b.children) throw Error(u(60));\n      if (!(\"object\" ===
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typeof b.dangerouslySetInnerHTML && \"__html\" in b.dangerouslySetInnerHTML)) throw Error(u(61));\n    }\n\n
  if (null != b.style && \"object\" !== typeof b.style) throw Error(u(62, \"\"));\n  }\n}\n\nfunction pd(a, b) {\n  if (-1
=== a.indexOf(\"-\"))
 return \"string\" === typeof b.is;\n\n  switch (a) {\n    case \"annotation-xml\":\n    case \"color-profile\":\n    case
\"font-face\":\n    case \"font-face-src\":\n    case \"font-face-uri\":\n    case \"font-face-format\":\n    case \"font-face-
name\":\n    case \"missing-glyph\":\n      return !1;\n\n    default:\n      return !0;\n  }\n}\n\nvar qd =
Mb.html;\n\nfunction rd(a, b) {\n  a = 9 === a.nodeType || 11 === a.nodeType ? a : a.ownerDocument;\n  var c =
cc(a);\n  b = wa[b];\n\n  for (var d = 0; d < b.length; d++) {\n    uc(b[d], a, c);\n  }\n}\n\nfunction sd() {}\n\nfunction
td(a) {\n  a = a || (\"undefined\" !== typeof document ? document : void 0);\n  if (\"undefined\" === typeof a) return
null;\n\n  try {\n    return a.activeElement || a.body;\n  } catch (b) {\n    return a.body;\n  }\n}\n\nfunction ud(a) {\n
for (; a && a.firstChild;) {\n    a = a.firstChild;\n  }\n\n  return a;\n}\n\nfunction vd(a, b) {\n  var c = ud(a);\n  a =
0;\n\n  for (var d; c;) {\n    if (3 ===
 c.nodeType) {\n      d = a + c.textContent.length;\n      if (a <= b && d >= b) return {\n        node: c,\n        offset: b -
a\n      };\n      a = d;\n    }\n\n    a: {\n      for (; c;) {\n        if (c.nextSibling) {\n          c = c.nextSibling;\n
break a;\n        }\n\n        c = c.parentNode;\n      }\n\n      c = void 0;\n    }\n\n    c = ud(c);\n  }\n}\n\nfunction wd(a,
b) {\n  return a && b ? a === b ? !0 : a && 3 === a.nodeType ? !1 : b && 3 === b.nodeType ? wd(a, b.parentNode)
: \"contains\" in a ? a.contains(b) : a.compareDocumentPosition ? !!(a.compareDocumentPosition(b) & 16) : !1 :
!1;\n}\n\nfunction xd() {\n  for (var a = window, b = td(); b instanceof a.HTMLIFrameElement;) {\n    try {\n      var
c = \"string\" === typeof b.contentWindow.location.href;\n    } catch (d) {\n      c = !1;\n    }\n\n    if (c) a =
b.contentWindow;else break;\n    b = td(a.document);\n  }\n\n  return b;\n}\n\nfunction yd(a) {\n  var b = a &&
a.nodeName && a.nodeName.toLowerCase();\n
  return b && (\"input\" === b && (\"text\" === a.type || \"search\" === a.type || \"tel\" === a.type || \"url\" ===
a.type || \"password\" === a.type) || \"textarea\" === b || \"true\" === a.contentEditable);\n}\n\nvar zd = \"$\",\n    Ad
= \"/$\",\n    Bd = \"$?\",\n    Cd = \"$!\",\n    Dd = null,\n    Ed = null;\n\nfunction Fd(a, b) {\n  switch (a) {\n    case
\"button\":\n    case \"input\":\n    case \"select\":\n    case \"textarea\":\n      return !!b.autoFocus;\n  }\n\n  return
!1;\n}\n\nfunction Gd(a, b) {\n  return \"textarea\" === a || \"option\" === a || \"noscript\" === a || \"string\" ===
typeof b.children || \"number\" === typeof b.children || \"object\" === typeof b.dangerouslySetInnerHTML && null
!== b.dangerouslySetInnerHTML && null != b.dangerouslySetInnerHTML.__html;\n}\n\nvar Hd = \"function\"
=== typeof setTimeout ? setTimeout : void 0,\n    Id = \"function\" === typeof clearTimeout ? clearTimeout : void
0;\n\nfunction Jd(a) {\n  for (; null != a; a = a.nextSibling)
 {\n    var b = a.nodeType;\n    if (1 === b || 3 === b) break;\n  }\n\n  return a;\n}\n\nfunction Kd(a) {\n  a =
a.previousSibling;\n\n  for (var b = 0; a;) {\n    if (8 === a.nodeType) {\n      var c = a.data;\n\n      if (c === zd || c
=== Cd || c === Bd) {\n        if (0 === b) return a;\n        b--;\n      } else c === Ad && b++;\n    }\n\n    a =
a.previousSibling;\n  }\n\n  return null;\n}\n\nvar Ld = Math.random().toString(36).slice(2),\n    Md =
\"__reactInternalInstance$\" + Ld,\n    Nd = \"__reactEventHandlers$\" + Ld,\n    Od = \"__reactContainere$\" +
Ld;\n\nfunction tc(a) {\n  var b = a[Md];\n  if (b) return b;\n\n  for (var c = a.parentNode; c;) {\n    if (b = c[Od] ||
c[Md]) {\n      c = b.alternate;\n      if (null !== b.child || null !== c && null !== c.child) for (a = Kd(a); null !== a;)
{\n        if (c = a[Md]) return c;\n        a = Kd(a);\n      }\n      return b;\n    }\n\n    a = c;\n    c = a.parentNode;\n
}\n\n  return null;\n}\n\nfunction Nc(a) {\n
  a = a[Md] || a[Od];\n  return !a || 5 !== a.tag && 6 !== a.tag && 13 !== a.tag && 3 !== a.tag ? null :
a;\n}\n\nfunction Pd(a) {\n  if (5 === a.tag || 6 === a.tag) return a.stateNode;\n  throw Error(u(33));\n}\n\nfunction
Qd(a) {\n  return a[Nd] || null;\n}\n\nfunction Rd(a) {\n  do {\n    a = a.return;\n  } while (a && 5 !== a.tag);\n\n
return a ? a : null;\n}\n\nfunction Sd(a, b) {\n  var c = a.stateNode;\n  if (!c) return null;\n  var d = la(c);\n  if (!d)
return null;\n  c = d[b];\n\n  a: switch (b) {\n    case \"onClick\":\n    case \"onClickCapture\":\n    case
\"onDoubleClick\":\n    case \"onDoubleClickCapture\":\n    case \"onMouseDown\":\n    case
\"onMouseDownCapture\":\n    case \"onMouseMove\":\n    case \"onMouseMoveCapture\":\n    case
\"onMouseUp\":\n    case \"onMouseUpCapture\":\n    case \"onMouseEnter\":\n      (d = !d.disabled) || (a = a.type, d
= !(\"button\" === a || \"input\" === a || \"select\" === a || \"textarea\" === a));\n      a = !d;\n      break a;\n\n
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  default:\n      a = !1;\n  }\n\n  if (a) return null;\n  if (c && \"function\" !== typeof c) throw Error(u(231, b, typeof
c));\n  return c;\n}\n\nfunction Td(a, b, c) {\n  if (b = Sd(a, c.dispatchConfig.phasedRegistrationNames[b]))
c._dispatchListeners = ic(c._dispatchListeners, b), c._dispatchInstances = ic(c._dispatchInstances, a);\n}\n\nfunction
Ud(a) {\n  if (a && a.dispatchConfig.phasedRegistrationNames) {\n    for (var b = a._targetInst, c = []; b;) {\n
c.push(b), b = Rd(b);\n    }\n\n    for (b = c.length; 0 < b--;) {\n      Td(c[b], \"captured\", a);\n    }\n\n    for (b = 0; b
< c.length; b++) {\n      Td(c[b], \"bubbled\", a);\n    }\n  }\n}\n\nfunction Vd(a, b, c) {\n  a && c &&
c.dispatchConfig.registrationName && (b = Sd(a, c.dispatchConfig.registrationName)) && (c._dispatchListeners =
ic(c._dispatchListeners, b), c._dispatchInstances = ic(c._dispatchInstances, a));\n}\n\nfunction Wd(a) {\n  a &&
a.dispatchConfig.registrationName && Vd(a._targetInst, null, a);\n}\n\nfunction
 Xd(a) {\n  jc(a, Ud);\n}\n\nvar Yd = null,\n    Zd = null,\n    $d = null;\n\nfunction ae() {\n  if ($d) return $d;\n  var
a,\n      b = Zd,\n      c = b.length,\n      d,\n      e = \"value\" in Yd ? Yd.value : Yd.textContent,\n      f = e.length;\n\n
for (a = 0; a < c && b[a] === e[a]; a++) {\n    ;\n  }\n\n  var g = c - a;\n\n  for (d = 1; d <= g && b[c - d] === e[f -
d]; d++) {\n    ;\n  }\n\n  return $d = e.slice(a, 1 < d ? 1 - d : void 0);\n}\n\nfunction be() {\n  return
!0;\n}\n\nfunction ce() {\n  return !1;\n}\n\nfunction G(a, b, c, d) {\n  this.dispatchConfig = a;\n  this._targetInst =
b;\n  this.nativeEvent = c;\n  a = this.constructor.Interface;\n\n  for (var e in a) {\n    a.hasOwnProperty(e) && ((b =
a[e]) ? this[e] = b(c) : \"target\" === e ? this.target = d : this[e] = c[e]);\n  }\n\n  this.isDefaultPrevented = (null !=
c.defaultPrevented ? c.defaultPrevented : !1 === c.returnValue) ? be : ce;\n  this.isPropagationStopped = ce;\n
return this;\n}\n\nn(G.prototype,
 {\n  preventDefault: function preventDefault() {\n    this.defaultPrevented = !0;\n    var a = this.nativeEvent;\n    a
&& (a.preventDefault ? a.preventDefault() : \"unknown\" !== typeof a.returnValue && (a.returnValue = !1),
this.isDefaultPrevented = be);\n  },\n  stopPropagation: function stopPropagation() {\n    var a = this.nativeEvent;\n
a && (a.stopPropagation ? a.stopPropagation() : \"unknown\" !== typeof a.cancelBubble && (a.cancelBubble = !0),
this.isPropagationStopped = be);\n  },\n  persist: function persist() {\n    this.isPersistent = be;\n  },\n  isPersistent:
ce,\n  destructor: function destructor() {\n    var a = this.constructor.Interface,\n        b;\n\n    for (b in a) {\n
this[b] = null;\n    }\n\n    this.nativeEvent = this._targetInst = this.dispatchConfig = null;\n
this.isPropagationStopped = this.isDefaultPrevented = ce;\n    this._dispatchInstances = this._dispatchListeners =
null;\n  }\n});\nG.Interface = {\n  type: null,\n  target: null,\n
  currentTarget: function currentTarget() {\n    return null;\n  },\n  eventPhase: null,\n  bubbles: null,\n  cancelable:
null,\n  timeStamp: function timeStamp(a) {\n    return a.timeStamp || Date.now();\n  },\n  defaultPrevented: null,\n
isTrusted: null\n};\n\nG.extend = function (a) {\n  function b() {}\n\n  function c() {\n    return d.apply(this,
arguments);\n  }\n\n  var d = this;\n  b.prototype = d.prototype;\n  var e = new b();\n  n(e, c.prototype);\n
c.prototype = e;\n  c.prototype.constructor = c;\n  c.Interface = n({}, d.Interface, a);\n  c.extend = d.extend;\n
de(c);\n  return c;\n};\n\nde(G);\n\nfunction ee(a, b, c, d) {\n  if (this.eventPool.length) {\n    var e =
this.eventPool.pop();\n    this.call(e, a, b, c, d);\n    return e;\n  }\n\n  return new this(a, b, c, d);\n}\n\nfunction fe(a)
{\n  if (!(a instanceof this)) throw Error(u(279));\n  a.destructor();\n  10 > this.eventPool.length &&
this.eventPool.push(a);\n}\n\nfunction de(a) {\n  a.eventPool = [];\n  a.getPooled
 = ee;\n  a.release = fe;\n}\n\nvar ge = G.extend({\n  data: null\n}),\n    he = G.extend({\n  data: null\n}),\n    ie = [9,
13, 27, 32],\n    je = ya && \"CompositionEvent\" in window,\n    ke = null;\nya && \"documentMode\" in
document && (ke = document.documentMode);\nvar le = ya && \"TextEvent\" in window && !ke,\n    me = ya
&& (!je || ke && 8 < ke && 11 >= ke),\n    ne = String.fromCharCode(32),\n    oe = {\n  beforeInput: {\n
phasedRegistrationNames: {\n      bubbled: \"onBeforeInput\",\n      captured: \"onBeforeInputCapture\"\n    },\n
dependencies: [\"compositionend\", \"keypress\", \"textInput\", \"paste\"]\n  },\n  compositionEnd: {\n
phasedRegistrationNames: {\n      bubbled: \"onCompositionEnd\",\n      captured: \"onCompositionEndCapture\"\n
},\n    dependencies: \"blur compositionend keydown keypress keyup mousedown\".split(\" \")\n  },\n
compositionStart: {\n    phasedRegistrationNames: {\n      bubbled: \"onCompositionStart\",\n      captured:
\"onCompositionStartCapture\"\n
    },\n    dependencies: \"blur compositionstart keydown keypress keyup mousedown\".split(\" \")\n  },\n
compositionUpdate: {\n    phasedRegistrationNames: {\n      bubbled: \"onCompositionUpdate\",\n      captured:
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\"onCompositionUpdateCapture\"\n    },\n    dependencies: \"blur compositionupdate keydown keypress keyup
mousedown\".split(\" \")\n  }\n},\n    pe = !1;\n\nfunction qe(a, b) {\n  switch (a) {\n    case \"keyup\":\n      return -1
!== ie.indexOf(b.keyCode);\n\n    case \"keydown\":\n      return 229 !== b.keyCode;\n\n    case \"keypress\":\n
case \"mousedown\":\n    case \"blur\":\n      return !0;\n\n    default:\n      return !1;\n  }\n}\n\nfunction re(a) {\n  a =
a.detail;\n  return \"object\" === typeof a && \"data\" in a ? a.data : null;\n}\n\nvar se = !1;\n\nfunction te(a, b) {\n
switch (a) {\n    case \"compositionend\":\n      return re(b);\n\n    case \"keypress\":\n      if (32 !== b.which) return
null;\n      pe = !0;\n      return
 ne;\n\n    case \"textInput\":\n      return a = b.data, a === ne && pe ? null : a;\n\n    default:\n      return null;\n
}\n}\n\nfunction ue(a, b) {\n  if (se) return \"compositionend\" === a || !je && qe(a, b) ? (a = ae(), $d = Zd = Yd =
null, se = !1, a) : null;\n\n  switch (a) {\n    case \"paste\":\n      return null;\n\n    case \"keypress\":\n      if
(!(b.ctrlKey || b.altKey || b.metaKey) || b.ctrlKey && b.altKey) {\n        if (b.char && 1 < b.char.length) return
b.char;\n        if (b.which) return String.fromCharCode(b.which);\n      }\n\n      return null;\n\n    case
\"compositionend\":\n      return me && \"ko\" !== b.locale ? null : b.data;\n\n    default:\n      return null;\n
}\n}\n\nvar ve = {\n  eventTypes: oe,\n  extractEvents: function extractEvents(a, b, c, d) {\n    var e;\n    if (je) b: {\n
    switch (a) {\n        case \"compositionstart\":\n          var f = oe.compositionStart;\n          break b;\n\n        case
\"compositionend\":\n          f = oe.compositionEnd;\n
          break b;\n\n        case \"compositionupdate\":\n          f = oe.compositionUpdate;\n          break b;\n      }\n\n
f = void 0;\n    } else se ? qe(a, c) && (f = oe.compositionEnd) : \"keydown\" === a && 229 === c.keyCode && (f
= oe.compositionStart);\n    f ? (me && \"ko\" !== c.locale && (se || f !== oe.compositionStart ? f ===
oe.compositionEnd && se && (e = ae()) : (Yd = d, Zd = \"value\" in Yd ? Yd.value : Yd.textContent, se = !0)), f =
ge.getPooled(f, b, c, d), e ? f.data = e : (e = re(c), null !== e && (f.data = e)), Xd(f), e = f) : e = null;\n    (a = le ?
te(a, c) : ue(a, c)) ? (b = he.getPooled(oe.beforeInput, b, c, d), b.data = a, Xd(b)) : b = null;\n    return null === e ? b :
null === b ? e : [e, b];\n  }\n},\n    we = {\n  color: !0,\n  date: !0,\n  datetime: !0,\n  \"datetime-local\": !0,\n  email:
!0,\n  month: !0,\n  number: !0,\n  password: !0,\n  range: !0,\n  search: !0,\n  tel: !0,\n  text: !0,\n  time: !0,\n  url:
!0,\n  week: !0\n};\n\nfunction
 xe(a) {\n  var b = a && a.nodeName && a.nodeName.toLowerCase();\n  return \"input\" === b ? !!we[a.type] :
\"textarea\" === b ? !0 : !1;\n}\n\nvar ye = {\n  change: {\n    phasedRegistrationNames: {\n      bubbled:
\"onChange\",\n      captured: \"onChangeCapture\"\n    },\n    dependencies: \"blur change click focus input
keydown keyup selectionchange\".split(\" \")\n  }\n};\n\nfunction ze(a, b, c) {\n  a = G.getPooled(ye.change, a, b,
c);\n  a.type = \"change\";\n  Da(c);\n  Xd(a);\n  return a;\n}\n\nvar Ae = null,\n    Be = null;\n\nfunction Ce(a) {\n
mc(a);\n}\n\nfunction De(a) {\n  var b = Pd(a);\n  if (yb(b)) return a;\n}\n\nfunction Ee(a, b) {\n  if (\"change\" ===
a) return b;\n}\n\nvar Fe = !1;\nya && (Fe = oc(\"input\") && (!document.documentMode || 9 <
document.documentMode));\n\nfunction Ge() {\n  Ae && (Ae.detachEvent(\"onpropertychange\", He), Be = Ae =
null);\n}\n\nfunction He(a) {\n  if (\"value\" === a.propertyName && De(Be)) if (a = ze(Be, a, nc(a)), Ja)
 mc(a);else {\n    Ja = !0;\n\n    try {\n      Fa(Ce, a);\n    } finally {\n      Ja = !1, La();\n    }\n  }\n}\n\nfunction Ie(a,
b, c) {\n  \"focus\" === a ? (Ge(), Ae = b, Be = c, Ae.attachEvent(\"onpropertychange\", He)) : \"blur\" === a &&
Ge();\n}\n\nfunction Je(a) {\n  if (\"selectionchange\" === a || \"keyup\" === a || \"keydown\" === a) return
De(Be);\n}\n\nfunction Ke(a, b) {\n  if (\"click\" === a) return De(b);\n}\n\nfunction Le(a, b) {\n  if (\"input\" === a
|| \"change\" === a) return De(b);\n}\n\nvar Me = {\n  eventTypes: ye,\n  _isInputEventSupported: Fe,\n
extractEvents: function extractEvents(a, b, c, d) {\n    var e = b ? Pd(b) : window,\n        f = e.nodeName &&
e.nodeName.toLowerCase();\n    if (\"select\" === f || \"input\" === f && \"file\" === e.type) var g = Ee;else if
(xe(e)) {\n      if (Fe) g = Le;else {\n        g = Je;\n        var h = Ie;\n      }\n    } else (f = e.nodeName) && \"input\"
=== f.toLowerCase() && (\"checkbox\" === e.type || \"radio\" ===
 e.type) && (g = Ke);\n    if (g && (g = g(a, b))) return ze(g, c, d);\n    h && h(a, e, b);\n    \"blur\" === a && (a =
e._wrapperState) && a.controlled && \"number\" === e.type && Db(e, \"number\", e.value);\n  }\n},\n    Ne =
G.extend({\n  view: null,\n  detail: null\n}),\n    Oe = {\n  Alt: \"altKey\",\n  Control: \"ctrlKey\",\n  Meta:
\"metaKey\",\n  Shift: \"shiftKey\"\n};\n\nfunction Pe(a) {\n  var b = this.nativeEvent;\n  return b.getModifierState ?
b.getModifierState(a) : (a = Oe[a]) ? !!b[a] : !1;\n}\n\nfunction Qe() {\n  return Pe;\n}\n\nvar Re = 0,\n    Se = 0,\n
```

```
Te = !1,\n    Ue = !1,\n    Ve = Ne.extend({\n  screenX: null,\n  screenY: null,\n  clientX: null,\n  clientY: null,\n
pageX: null,\n  pageY: null,\n  ctrlKey: null,\n  shiftKey: null,\n  altKey: null,\n  metaKey: null,\n  getModifierState:
Qe,\n  button: null,\n  buttons: null,\n  relatedTarget: function relatedTarget(a) {\n    return a.relatedTarget ||
(a.fromElement === a.srcElement ? a.toElement : a.fromElement);\n
  },\n  movementX: function movementX(a) {\n    if (\"movementX\" in a) return a.movementX;\n    var b = Re;\n
Re = a.screenX;\n    return Te ? \"mousemove\" === a.type ? a.screenX - b : 0 : (Te = !0, 0);\n  },\n  movementY:
function movementY(a) {\n    if (\"movementY\" in a) return a.movementY;\n    var b = Se;\n    Se = a.screenY;\n
return Ue ? \"mousemove\" === a.type ? a.screenY - b : 0 : (Ue = !0, 0);\n  }\n}),\n    We = Ve.extend({\n
pointerId: null,\n  width: null,\n  height: null,\n  pressure: null,\n  tangentialPressure: null,\n  tiltX: null,\n  tiltY:
null,\n  twist: null,\n  pointerType: null,\n  isPrimary: null\n}),\n    Xe = {\n  mouseEnter: {\n    registrationName:
\"onMouseEnter\",\n    dependencies: [\"mouseout\", \"mouseover\"]\n  },\n  mouseLeave: {\n    registrationName:
\"onMouseLeave\",\n    dependencies: [\"mouseout\", \"mouseover\"]\n  },\n  pointerEnter: {\n    registrationName:
\"onPointerEnter\",\n    dependencies: [\"pointerout\", \"pointerover\"]\n
  },\n  pointerLeave: {\n    registrationName: \"onPointerLeave\",\n    dependencies: [\"pointerout\",
\"pointerover\"]\n  }\n},\n    Ye = {\n  eventTypes: Xe,\n  extractEvents: function extractEvents(a, b, c, d, e) {\n
var f = \"mouseover\" === a || \"pointerover\" === a,\n        g = \"mouseout\" === a || \"pointerout\" === a;\n    if (f
&& 0 === (e & 32) && (c.relatedTarget || c.fromElement) || !g && !f) return null;\n    f = d.window === d ? d : (f =
d.ownerDocument) ? f.defaultView || f.parentWindow : window;\n\n    if (g) {\n      if (g = b, b = (b = c.relatedTarget
|| c.toElement) ? tc(b) : null, null !== b) {\n        var h = dc(b);\n        if (b !== h || 5 !== b.tag && 6 !== b.tag) b =
null;\n      }\n    } else g = null;\n\n    if (g === b) return null;\n\n    if (\"mouseout\" === a || \"mouseover\" === a)
{\n      var k = Ve;\n      var l = Xe.mouseLeave;\n      var m = Xe.mouseEnter;\n      var p = \"mouse\";\n    } else if
(\"pointerout\" === a || \"pointerover\"
 === a) k = We, l = Xe.pointerLeave, m = Xe.pointerEnter, p = \"pointer\";\n\n    a = null == g ? f : Pd(g);\n    f =
null == b ? f : Pd(b);\n    l = k.getPooled(l, g, c, d);\n    l.type = p + \"leave\";\n    l.target = a;\n    l.relatedTarget =
f;\n    c = k.getPooled(m, b, c, d);\n    c.type = p + \"enter\";\n    c.target = f;\n    c.relatedTarget = a;\n    d = g;\n    p
= b;\n    if (d && p) a: {\n      k = d;\n      m = p;\n      g = 0;\n\n      for (a = k; a; a = Rd(a)) {\n        g++;\n      }\n\n
 a = 0;\n\n      for (b = m; b; b = Rd(b)) {\n        a++;\n      }\n\n      for (; 0 < g - a;) {\n        k = Rd(k), g--;\n      }\n\n
   for (; 0 < a - g;) {\n        m = Rd(m), a--;\n      }\n\n      for (; g--;) {\n        if (k === m || k === m.alternate) break
a;\n        k = Rd(k);\n        m = Rd(m);\n      }\n\n      k = null;\n    } else k = null;\n    m = k;\n\n    for (k = []; d && d
!== m;) {\n      g = d.alternate;\n      if (null !== g && g === m) break;\n      k.push(d);\n
      d = Rd(d);\n    }\n\n    for (d = []; p && p !== m;) {\n      g = p.alternate;\n      if (null !== g && g === m)
break;\n      d.push(p);\n      p = Rd(p);\n    }\n\n    for (p = 0; p < k.length; p++) {\n      Vd(k[p], \"bubbled\", l);\n
}\n\n    for (p = d.length; 0 < p--;) {\n      Vd(d[p], \"captured\", c);\n    }\n\n    return 0 === (e & 64) ? [l] : [l, c];\n
}\n};\n\nfunction Ze(a, b) {\n  return a === b && (0 !== a || 1 / a === 1 / b) || a !== a && b !== b;\n}\n\nvar $e =
\"function\" === typeof Object.is ? Object.is : Ze,\n    af = Object.prototype.hasOwnProperty;\n\nfunction bf(a, b)
{\n  if ($e(a, b)) return !0;\n  if (\"object\" !== typeof a || null === a || \"object\" !== typeof b || null === b) return
!1;\n  var c = Object.keys(a),\n      d = Object.keys(b);\n  if (c.length !== d.length) return !1;\n\n  for (d = 0; d <
c.length; d++) {\n    if (!af.call(b, c[d]) || !$e(a[c[d]], b[c[d]])) return !1;\n  }\n\n  return !0;\n}\n\nvar cf = ya &&
\"documentMode\"
 in document && 11 >= document.documentMode,\n    df = {\n  select: {\n    phasedRegistrationNames: {\n
bubbled: \"onSelect\",\n      captured: \"onSelectCapture\"\n    },\n    dependencies: \"blur contextmenu dragend
focus keydown keyup mousedown mouseup selectionchange\".split(\" \")\n  }\n},\n    ef = null,\n    ff = null,\n    gf =
null,\n    hf = !1;\n\nfunction jf(a, b) {\n  var c = b.window === b ? b.document : 9 === b.nodeType ? b :
b.ownerDocument;\n  if (hf || null == ef || ef !== td(c)) return null;\n  c = ef;\n  \"selectionStart\" in c && yd(c) ? c =
{\n    start: c.selectionStart,\n    end: c.selectionEnd\n  } : (c = (c.ownerDocument &&
c.ownerDocument.defaultView || window).getSelection(), c = {\n    anchorNode: c.anchorNode,\n    anchorOffset:
c.anchorOffset,\n    focusNode: c.focusNode,\n    focusOffset: c.focusOffset\n  });\n  return gf && bf(gf, c) ? null :
(gf = c, a = G.getPooled(df.select, ff, a, b), a.type = \"select\", a.target = ef, Xd(a), a);\n}\n\nvar kf
```

```
 = {\n  eventTypes: df,\n  extractEvents: function extractEvents(a, b, c, d, e, f) {\n    e = f || (d.window === d ?
d.document : 9 === d.nodeType ? d : d.ownerDocument);\n\n    if (!(f = !e)) {\n      a: {\n        e = cc(e);\n        f =
wa.onSelect;\n\n        for (var g = 0; g < f.length; g++) {\n          if (!e.has(f[g])) {\n            e = !1;\n            break a;\n
        }\n        }\n\n        e = !0;\n      }\n\n      f = !e;\n    }\n\n    if (f) return null;\n    e = b ? Pd(b) : window;\n\n
switch (a) {\n      case \"focus\":\n        if (xe(e) || \"true\" === e.contentEditable) ef = e, ff = b, gf = null;\n
break;\n\n      case \"blur\":\n        gf = ff = ef = null;\n        break;\n\n      case \"mousedown\":\n        hf = !0;\n
break;\n\n      case \"contextmenu\":\n      case \"mouseup\":\n      case \"dragend\":\n        return hf = !1, jf(c, d);\n\n
  case \"selectionchange\":\n        if (cf) break;\n\n      case \"keydown\":\n      case \"keyup\":\n
        return jf(c, d);\n    }\n\n    return null;\n  }\n},\n    lf = G.extend({\n  animationName: null,\n  elapsedTime:
null,\n  pseudoElement: null\n}),\n    mf = G.extend({\n  clipboardData: function clipboardData(a) {\n    return
\"clipboardData\" in a ? a.clipboardData : window.clipboardData;\n  }\n}),\n    nf = Ne.extend({\n  relatedTarget:
null\n});\n\nfunction of(a) {\n  var b = a.keyCode;\n  \"charCode\" in a ? (a = a.charCode, 0 === a && 13 === b
&& (a = 13)) : a = b;\n  10 === a && (a = 13);\n  return 32 <= a || 13 === a ? a : 0;\n}\n\nvar pf = {\n  Esc:
\"Escape\",\n  Spacebar: \" \",\n  Left: \"ArrowLeft\",\n  Up: \"ArrowUp\",\n  Right: \"ArrowRight\",\n  Down:
\"ArrowDown\",\n  Del: \"Delete\",\n  Win: \"OS\",\n  Menu: \"ContextMenu\",\n  Apps: \"ContextMenu\",\n
Scroll: \"ScrollLock\",\n  MozPrintableKey: \"Unidentified\"\n},\n    qf = {\n  8: \"Backspace\",\n  9: \"Tab\",\n  12:
\"Clear\",\n  13: \"Enter\",\n  16: \"Shift\",\n  17: \"Control\",\n  18: \"Alt\",\n
  19: \"Pause\",\n  20: \"CapsLock\",\n  27: \"Escape\",\n  32: \" \",\n  33: \"PageUp\",\n  34: \"PageDown\",\n  35:
\"End\",\n  36: \"Home\",\n  37: \"ArrowLeft\",\n  38: \"ArrowUp\",\n  39: \"ArrowRight\",\n  40: \"ArrowDown\",\n
45: \"Insert\",\n  46: \"Delete\",\n  112: \"F1\",\n  113: \"F2\",\n  114: \"F3\",\n  115: \"F4\",\n  116: \"F5\",\n  117:
\"F6\",\n  118: \"F7\",\n  119: \"F8\",\n  120: \"F9\",\n  121: \"F10\",\n  122: \"F11\",\n  123: \"F12\",\n  144:
\"NumLock\",\n  145: \"ScrollLock\",\n  224: \"Meta\"\n},\n    rf = Ne.extend({\n  key: function key(a) {\n    if
(a.key) {\n      var b = pf[a.key] || a.key;\n      if (\"Unidentified\" !== b) return b;\n    }\n\n    return \"keypress\" ===
a.type ? (a = of(a), 13 === a ? \"Enter\" : String.fromCharCode(a)) : \"keydown\" === a.type || \"keyup\" === a.type
? qf[a.keyCode] || \"Unidentified\" : \"\";\n  },\n  location: null,\n  ctrlKey: null,\n  shiftKey: null,\n  altKey: null,\n
metaKey: null,\n  repeat: null,\n  locale: null,\n
  getModifierState: Qe,\n  charCode: function charCode(a) {\n    return \"keypress\" === a.type ? of(a) : 0;\n  },\n
keyCode: function keyCode(a) {\n    return \"keydown\" === a.type || \"keyup\" === a.type ? a.keyCode : 0;\n  },\n
which: function which(a) {\n    return \"keypress\" === a.type ? of(a) : \"keydown\" === a.type || \"keyup\" ===
a.type ? a.keyCode : 0;\n  }\n}),\n    sf = Ve.extend({\n  dataTransfer: null\n}),\n    tf = Ne.extend({\n  touches:
null,\n  targetTouches: null,\n  changedTouches: null,\n  altKey: null,\n  metaKey: null,\n  ctrlKey: null,\n  shiftKey:
null,\n  getModifierState: Qe\n}),\n    uf = G.extend({\n  propertyName: null,\n  elapsedTime: null,\n
pseudoElement: null\n}),\n    vf = Ve.extend({\n  deltaX: function deltaX(a) {\n    return \"deltaX\" in a ? a.deltaX :
\"wheelDeltaX\" in a ? -a.wheelDeltaX : 0;\n  },\n  deltaY: function deltaY(a) {\n    return \"deltaY\" in a ? a.deltaY :
\"wheelDeltaY\" in a ? -a.wheelDeltaY : \"wheelDelta\" in a ? -a.wheelDelta
 : 0;\n  },\n  deltaZ: null,\n  deltaMode: null\n}),\n    wf = {\n  eventTypes: Wc,\n  extractEvents: function
extractEvents(a, b, c, d) {\n    var e = Yc.get(a);\n    if (!e) return null;\n\n    switch (a) {\n      case \"keypress\":\n
 if (0 === of(c)) return null;\n\n      case \"keydown\":\n      case \"keyup\":\n        a = rf;\n        break;\n\n      case
\"blur\":\n      case \"focus\":\n        a = nf;\n        break;\n\n      case \"click\":\n        if (2 === c.button) return
null;\n\n      case \"auxclick\":\n      case \"dblclick\":\n      case \"mousedown\":\n      case \"mousemove\":\n      case
\"mouseup\":\n      case \"mouseout\":\n      case \"mouseover\":\n      case \"contextmenu\":\n        a = Ve;\n
break;\n\n      case \"drag\":\n      case \"dragend\":\n      case \"dragenter\":\n      case \"dragexit\":\n      case
\"dragleave\":\n      case \"dragover\":\n      case \"dragstart\":\n      case \"drop\":\n        a = sf;\n        break;\n\n
      case \"touchcancel\":\n      case \"touchend\":\n      case \"touchmove\":\n      case \"touchstart\":\n        a = tf;\n
  break;\n\n      case Xb:\n      case Yb:\n      case Zb:\n        a = lf;\n        break;\n\n      case $b:\n        a = uf;\n
break;\n\n      case \"scroll\":\n        a = Ne;\n        break;\n\n      case \"wheel\":\n        a = vf;\n        break;\n\n
case \"copy\":\n      case \"cut\":\n      case \"paste\":\n        a = mf;\n        break;\n\n      case \"gotpointercapture\":\n
  case \"lostpointercapture\":\n      case \"pointercancel\":\n      case \"pointerdown\":\n      case \"pointermove\":\n
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case \"pointerout\":\n      case \"pointerover\":\n      case \"pointerup\":\n        a = We;\n        break;\n\n      default:\n
    a = G;\n    }\n\n    b = a.getPooled(e, b, c, d);\n    Xd(b);\n    return b;\n  }\n};\nif (pa) throw Error(u(101));\npa =
Array.prototype.slice.call(\"ResponderEventPlugin SimpleEventPlugin EnterLeaveEventPlugin
 ChangeEventPlugin SelectEventPlugin BeforeInputEventPlugin\".split(\" \"));\nra();\nvar xf = Nc;\nla = Qd;\nma =
xf;\nna = Pd;\nxa({\n  SimpleEventPlugin: wf,\n  EnterLeaveEventPlugin: Ye,\n  ChangeEventPlugin: Me,\n
SelectEventPlugin: kf,\n  BeforeInputEventPlugin: ve\n});\nvar yf = [],\n    zf = -1;\n\nfunction H(a) {\n  0 > zf ||
(a.current = yf[zf], yf[zf] = null, zf--);\n}\n\nfunction I(a, b) {\n  zf++;\n  yf[zf] = a.current;\n  a.current =
b;\n}\n\nvar Af = {},\n    J = {\n  current: Af\n},\n    K = {\n  current: !1\n},\n    Bf = Af;\n\nfunction Cf(a, b) {\n
var c = a.type.contextTypes;\n  if (!c) return Af;\n  var d = a.stateNode;\n  if (d &&
d.__reactInternalMemoizedUnmaskedChildContext === b) return
d.__reactInternalMemoizedMaskedChildContext;\n  var e = {},\n      f;\n\n  for (f in c) {\n    e[f] = b[f];\n  }\n\n  d
&& (a = a.stateNode, a.__reactInternalMemoizedUnmaskedChildContext = b,
a.__reactInternalMemoizedMaskedChildContext = e);\n  return e;\n}\n\nfunction
 L(a) {\n  a = a.childContextTypes;\n  return null !== a && void 0 !== a;\n}\n\nfunction Df() {\n  H(K);\n
H(J);\n}\n\nfunction Ef(a, b, c) {\n  if (J.current !== Af) throw Error(u(168));\n  I(J, b);\n  I(K, c);\n}\n\nfunction
Ff(a, b, c) {\n  var d = a.stateNode;\n  a = b.childContextTypes;\n  if (\"function\" !== typeof d.getChildContext)
return c;\n  d = d.getChildContext();\n\n  for (var e in d) {\n    if (!(e in a)) throw Error(u(108, pb(b) || \"Unknown\",
e));\n  }\n\n  return n({}, c, {}, d);\n}\n\nfunction Gf(a) {\n  a = (a = a.stateNode) &&
a.__reactInternalMemoizedMergedChildContext || Af;\n  Bf = J.current;\n  I(J, a);\n  I(K, K.current);\n  return
!0;\n}\n\nfunction Hf(a, b, c) {\n  var d = a.stateNode;\n  if (!d) throw Error(u(169));\n  c ? (a = Ff(a, b, Bf),
d.__reactInternalMemoizedMergedChildContext = a, H(K), H(J), I(J, a)) : H(K);\n  I(K, c);\n}\n\nvar If =
r.unstable_runWithPriority,\n    Jf = r.unstable_scheduleCallback,\n    Kf = r.unstable_cancelCallback,\n
    Lf = r.unstable_requestPaint,\n    Mf = r.unstable_now,\n    Nf = r.unstable_getCurrentPriorityLevel,\n    Of =
r.unstable_ImmediatePriority,\n    Pf = r.unstable_UserBlockingPriority,\n    Qf = r.unstable_NormalPriority,\n    Rf
= r.unstable_LowPriority,\n    Sf = r.unstable_IdlePriority,\n    Tf = {},\n    Uf = r.unstable_shouldYield,\n    Vf =
void 0 !== Lf ? Lf : function () {},\n    Wf = null,\n    Xf = null,\n    Yf = !1,\n    Zf = Mf(),\n    $f = 1E4 > Zf ? Mf :
function () {\n  return Mf() - Zf;\n};\n\nfunction ag() {\n  switch (Nf()) {\n    case Of:\n      return 99;\n\n    case
Pf:\n      return 98;\n\n    case Qf:\n      return 97;\n\n    case Rf:\n      return 96;\n\n    case Sf:\n      return 95;\n\n
default:\n      throw Error(u(332));\n  }\n}\n\nfunction bg(a) {\n  switch (a) {\n    case 99:\n      return Of;\n\n    case
98:\n      return Pf;\n\n    case 97:\n      return Qf;\n\n    case 96:\n      return Rf;\n\n    case 95:\n      return Sf;\n\n
default:\n
  throw Error(u(332));\n  }\n}\n\nfunction cg(a, b) {\n  a = bg(a);\n  return If(a, b);\n}\n\nfunction dg(a, b, c) {\n  a =
bg(a);\n  return Jf(a, b, c);\n}\n\nfunction eg(a) {\n  null === Wf ? (Wf = [a], Xf = Jf(Of, fg)) : Wf.push(a);\n  return
Tf;\n}\n\nfunction gg() {\n  if (null !== Xf) {\n    var a = Xf;\n    Xf = null;\n    Kf(a);\n  }\n\n  fg();\n}\n\nfunction
fg() {\n  if (!Yf && null !== Wf) {\n    Yf = !0;\n    var a = 0;\n\n    try {\n      var b = Wf;\n      cg(99, function () {\n
      for (; a < b.length; a++) {\n          var c = b[a];\n\n          do {\n            c = c(!0);\n          } while (null !== c);\n
 }\n      });\n      Wf = null;\n    } catch (c) {\n      throw null !== Wf && (Wf = Wf.slice(a + 1)), Jf(Of, gg), c;\n    }
finally {\n      Yf = !1;\n    }\n  }\n}\n\nfunction hg(a, b, c) {\n  c /= 10;\n  return 1073741821 - (((1073741821 - a +
b / 10) / c | 0) + 1) * c;\n}\n\nfunction ig(a, b) {\n  if (a && a.defaultProps) {\n    b = n({}, b);\n    a =
a.defaultProps;\n\n
    for (var c in a) {\n      void 0 === b[c] && (b[c] = a[c]);\n    }\n  }\n\n  return b;\n}\n\nvar jg = {\n  current:
null\n},\n    kg = null,\n    lg = null,\n    mg = null;\n\nfunction ng() {\n  mg = lg = kg = null;\n}\n\nfunction og(a)
{\n  var b = jg.current;\n  H(jg);\n  a.type._context._currentValue = b;\n}\n\nfunction pg(a, b) {\n  for (; null !== a;)
{\n    var c = a.alternate;\n    if (a.childExpirationTime < b) a.childExpirationTime = b, null !== c &&
c.childExpirationTime < b && (c.childExpirationTime = b);else if (null !== c && c.childExpirationTime < b)
c.childExpirationTime = b;else break;\n    a = a.return;\n  }\n}\n\nfunction qg(a, b) {\n  kg = a;\n  mg = lg = null;\n
a = a.dependencies;\n  null !== a && null !== a.firstContext && (a.expirationTime >= b && (rg = !0),
a.firstContext = null);\n}\n\nfunction sg(a, b) {\n  if (mg !== a && !1 !== b && 0 !== b) {\n    if (\"number\" !==
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typeof b || 1073741823 === b) mg = a, b = 1073741823;\n    b = {\n
   context: a,\n      observedBits: b,\n      next: null\n    };\n\n    if (null === lg) {\n      if (null === kg) throw
Error(u(308));\n      lg = b;\n      kg.dependencies = {\n        expirationTime: 0,\n        firstContext: b,\n
responders: null\n      };\n    } else lg = lg.next = b;\n  }\n\n  return a._currentValue;\n}\n\nvar tg = !1;\n\nfunction
ug(a) {\n  a.updateQueue = {\n    baseState: a.memoizedState,\n    baseQueue: null,\n    shared: {\n      pending:
null\n    },\n    effects: null\n  };\n}\n\nfunction vg(a, b) {\n  a = a.updateQueue;\n  b.updateQueue === a &&
(b.updateQueue = {\n    baseState: a.baseState,\n    baseQueue: a.baseQueue,\n    shared: a.shared,\n    effects:
a.effects\n  });\n}\n\nfunction wg(a, b) {\n  a = {\n    expirationTime: a,\n    suspenseConfig: b,\n    tag: 0,\n
payload: null,\n    callback: null,\n    next: null\n  };\n  return a.next = a;\n}\n\nfunction xg(a, b) {\n  a =
a.updateQueue;\n\n  if (null !== a) {\n    a = a.shared;\n    var
 c = a.pending;\n    null === c ? b.next = b : (b.next = c.next, c.next = b);\n    a.pending = b;\n  }\n}\n\nfunction yg(a,
b) {\n  var c = a.alternate;\n  null !== c && vg(c, a);\n  a = a.updateQueue;\n  c = a.baseQueue;\n  null === c ?
(a.baseQueue = b.next = b, b.next = b) : (b.next = c.next, c.next = b);\n}\n\nfunction zg(a, b, c, d) {\n  var e =
a.updateQueue;\n  tg = !1;\n  var f = e.baseQueue,\n      g = e.shared.pending;\n\n  if (null !== g) {\n    if (null !== f)
{\n      var h = f.next;\n      f.next = g.next;\n      g.next = h;\n    }\n\n    f = g;\n    e.shared.pending = null;\n    h =
a.alternate;\n    null !== h && (h = h.updateQueue, null !== h && (h.baseQueue = g));\n  }\n\n  if (null !== f) {\n
h = f.next;\n    var k = e.baseState,\n        l = 0,\n        m = null,\n        p = null,\n        x = null;\n\n    if (null !== h)
{\n      var z = h;\n\n      do {\n        g = z.expirationTime;\n\n        if (g < d) {\n          var ca = {\n
expirationTime: z.expirationTime,\n
            suspenseConfig: z.suspenseConfig,\n            tag: z.tag,\n            payload: z.payload,\n            callback:
z.callback,\n            next: null\n          };\n          null === x ? (p = x = ca, m = k) : x = x.next = ca;\n          g > l && (l
= g);\n        } else {\n          null !== x && (x = x.next = {\n            expirationTime: 1073741823,\n
suspenseConfig: z.suspenseConfig,\n            tag: z.tag,\n            payload: z.payload,\n            callback: z.callback,\n
        next: null\n          });\n          Ag(g, z.suspenseConfig);\n\n          a: {\n            var D = a,\n                t = z;\n
  g = b;\n            ca = c;\n\n            switch (t.tag) {\n              case 1:\n                D = t.payload;\n\n                if
(\"function\" === typeof D) {\n                  k = D.call(ca, k, g);\n                  break a;\n                }\n\n                k =
D;\n                break a;\n\n
    case 3:\n                D.effectTag = D.effectTag & -4097 | 64;\n\n              case 0:\n                D = t.payload;\n
   g = \"function\" === typeof D ? D.call(ca, k, g) : D;\n                if (null === g || void 0 === g) break a;\n
k = n({}, k, g);\n                break a;\n\n              case 2:\n                tg = !0;\n            }\n          }\n\n          null !==
z.callback && (a.effectTag |= 32, g = e.effects, null === g ? e.effects = [z] : g.push(z));\n        }\n\n        z = z.next;\n
      if (null === z || z === h) if (g = e.shared.pending, null === g) break;else z = f.next = g.next, g.next = h,
e.baseQueue = f = g, e.shared.pending = null;\n      } while (1);\n    }\n\n    null === x ? m = k : x.next = p;\n
e.baseState = m;\n    e.baseQueue = x;\n    Bg(l);\n    a.expirationTime = l;\n    a.memoizedState = k;\n
}\n}\n\nfunction Cg(a, b, c) {\n  a = b.effects;\n  b.effects = null;\n  if (null !== a) for (b = 0; b < a.length; b++)
 {\n    var d = a[b],\n        e = d.callback;\n\n    if (null !== e) {\n      d.callback = null;\n      d = e;\n      e = c;\n      if
(\"function\" !== typeof d) throw Error(u(191, d));\n      d.call(e);\n    }\n  }\n}\n\nvar Dg =
Wa.ReactCurrentBatchConfig,\n    Eg = new aa.Component().refs;\n\nfunction Fg(a, b, c, d) {\n  b =
a.memoizedState;\n  c = c(d, b);\n  c = null === c || void 0 === c ? b : n({}, b, c);\n  a.memoizedState = c;\n  0 ===
a.expirationTime && (a.updateQueue.baseState = c);\n}\n\nvar Jg = {\n  isMounted: function isMounted(a) {\n
return (a = a._reactInternalFiber) ? dc(a) === a : !1;\n  },\n  enqueueSetState: function enqueueSetState(a, b, c) {\n
a = a._reactInternalFiber;\n    var d = Gg(),\n        e = Dg.suspense;\n    d = Hg(d, a, e);\n    e = wg(d, e);\n
e.payload = b;\n    void 0 !== c && null !== c && (e.callback = c);\n    xg(a, e);\n    Ig(a, d);\n  },\n
enqueueReplaceState: function enqueueReplaceState(a, b, c) {\n    a = a._reactInternalFiber;\n
    var d = Gg(),\n        e = Dg.suspense;\n    d = Hg(d, a, e);\n    e = wg(d, e);\n    e.tag = 1;\n    e.payload = b;\n
void 0 !== c && null !== c && (e.callback = c);\n    xg(a, e);\n    Ig(a, d);\n  },\n  enqueueForceUpdate: function
enqueueForceUpdate(a, b) {\n    a = a._reactInternalFiber;\n    var c = Gg(),\n        d = Dg.suspense;\n    c = Hg(c, a,
d);\n    d = wg(c, d);\n    d.tag = 2;\n    void 0 !== b && null !== b && (d.callback = b);\n    xg(a, d);\n    Ig(a, c);\n
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}\n};\n\nfunction Kg(a, b, c, d, e, f, g) {\n  a = a.stateNode;\n  return \"function\" === typeof
a.shouldComponentUpdate ? a.shouldComponentUpdate(d, f, g) : b.prototype &&
b.prototype.isPureReactComponent ? !bf(c, d) || !bf(e, f) : !0;\n}\n\nfunction Lg(a, b, c) {\n  var d = !1,\n      e =
Af;\n  var f = b.contextType;\n  \"object\" === typeof f && null !== f ? f = sg(f) : (e = L(b) ? Bf : J.current, d =
b.contextTypes, f = (d = null !== d && void 0 !== d) ? Cf(a, e) : Af);\n  b = new b(c, f);\n  a.memoizedState
 = null !== b.state && void 0 !== b.state ? b.state : null;\n  b.updater = Jg;\n  a.stateNode = b;\n
b._reactInternalFiber = a;\n  d && (a = a.stateNode, a.__reactInternalMemoizedUnmaskedChildContext = e,
a.__reactInternalMemoizedMaskedChildContext = f);\n  return b;\n}\n\nfunction Mg(a, b, c, d) {\n  a = b.state;\n
\"function\" === typeof b.componentWillReceiveProps && b.componentWillReceiveProps(c, d);\n  \"function\"
=== typeof b.UNSAFE_componentWillReceiveProps && b.UNSAFE_componentWillReceiveProps(c, d);\n  b.state
!== a && Jg.enqueueReplaceState(b, b.state, null);\n}\n\nfunction Ng(a, b, c, d) {\n  var e = a.stateNode;\n  e.props
= c;\n  e.state = a.memoizedState;\n  e.refs = Eg;\n  ug(a);\n  var f = b.contextType;\n  \"object\" === typeof f &&
null !== f ? e.context = sg(f) : (f = L(b) ? Bf : J.current, e.context = Cf(a, f));\n  zg(a, c, e, d);\n  e.state =
a.memoizedState;\n  f = b.getDerivedStateFromProps;\n  \"function\" === typeof f && (Fg(a, b, f, c), e.state
 = a.memoizedState);\n  \"function\" === typeof b.getDerivedStateFromProps || \"function\" === typeof
e.getSnapshotBeforeUpdate || \"function\" !== typeof e.UNSAFE_componentWillMount && \"function\" !==
typeof e.componentWillMount || (b = e.state, \"function\" === typeof e.componentWillMount &&
e.componentWillMount(), \"function\" === typeof e.UNSAFE_componentWillMount &&
e.UNSAFE_componentWillMount(), b !== e.state && Jg.enqueueReplaceState(e, e.state, null), zg(a, c, e, d), e.state
= a.memoizedState);\n  \"function\" === typeof e.componentDidMount && (a.effectTag |= 4);\n}\n\nvar Og =
Array.isArray;\n\nfunction Pg(a, b, c) {\n  a = c.ref;\n\n  if (null !== a && \"function\" !== typeof a && \"object\"
!== typeof a) {\n    if (c._owner) {\n      c = c._owner;\n\n      if (c) {\n        if (1 !== c.tag) throw Error(u(309));\n
var d = c.stateNode;\n      }\n\n      if (!d) throw Error(u(147, a));\n      var e = \"\" + a;\n      if (null !== b && null
!== b.ref && \"function\" ===
 typeof b.ref && b.ref._stringRef === e) return b.ref;\n\n      b = function b(a) {\n        var b = d.refs;\n        b ===
Eg && (b = d.refs = {});\n        null === a ? delete b[e] : b[e] = a;\n      };\n\n      b._stringRef = e;\n      return b;\n
}\n\n    if (\"string\" !== typeof a) throw Error(u(284));\n    if (!c._owner) throw Error(u(290, a));\n  }\n\n  return
a;\n}\n\nfunction Qg(a, b) {\n  if (\"textarea\" !== a.type) throw Error(u(31, \"[object Object]\" ===
Object.prototype.toString.call(b) ? \"object with keys {\" + Object.keys(b).join(\", \") + \"}\" : b,
\"\"));\n}\n\nfunction Rg(a) {\n  function b(b, c) {\n    if (a) {\n      var d = b.lastEffect;\n      null !== d ?
(d.nextEffect = c, b.lastEffect = c) : b.firstEffect = b.lastEffect = c;\n      c.nextEffect = null;\n      c.effectTag = 8;\n
}\n  }\n\n  function c(c, d) {\n    if (!a) return null;\n\n    for (; null !== d;) {\n      b(c, d), d = d.sibling;\n    }\n\n
return null;\n  }\n\n  function d(a, b) {\n
    for (a = new Map(); null !== b;) {\n      null !== b.key ? a.set(b.key, b) : a.set(b.index, b), b = b.sibling;\n    }\n\n
return a;\n  }\n\n  function e(a, b) {\n    a = Sg(a, b);\n    a.index = 0;\n    a.sibling = null;\n    return a;\n  }\n\n
function f(b, c, d) {\n    b.index = d;\n    if (!a) return c;\n    d = b.alternate;\n    if (null !== d) return d = d.index, d <
c ? (b.effectTag = 2, c) : d;\n    b.effectTag = 2;\n    return c;\n  }\n\n  function g(b) {\n    a && null === b.alternate
&& (b.effectTag = 2);\n    return b;\n  }\n\n  function h(a, b, c, d) {\n    if (null === b || 6 !== b.tag) return b = Tg(c,
a.mode, d), b.return = a, b;\n    b = e(b, c);\n    b.return = a;\n    return b;\n  }\n\n  function k(a, b, c, d) {\n    if (null
!== b && b.elementType === c.type) return d = e(b, c.props), d.ref = Pg(a, b, c), d.return = a, d;\n    d = Ug(c.type,
c.key, c.props, null, a.mode, d);\n    d.ref = Pg(a, b, c);\n    d.return = a;\n    return d;\n  }\n\n  function l(a, b,
 c, d) {\n    if (null === b || 4 !== b.tag || b.stateNode.containerInfo !== c.containerInfo ||
b.stateNode.implementation !== c.implementation) return b = Vg(c, a.mode, d), b.return = a, b;\n    b = e(b,
c.children || []);\n    b.return = a;\n    return b;\n  }\n\n  function m(a, b, c, d, f) {\n    if (null === b || 7 !== b.tag)
return b = Wg(c, a.mode, d, f), b.return = a, b;\n    b = e(b, c);\n    b.return = a;\n    return b;\n  }\n\n  function p(a, b,
c) {\n    if (\"string\" === typeof b || \"number\" === typeof b) return b = Tg(\"\" + b, a.mode, c), b.return = a, b;\n\n
if (\"object\" === typeof b && null !== b) {\n      switch (b.$$typeof) {\n        case Za:\n          return c = Ug(b.type,
b.key, b.props, null, a.mode, c), c.ref = Pg(a, null, b), c.return = a, c;\n\n        case $a:\n          return b = Vg(b,
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a.mode, c), b.return = a, b;\n      }\n\n      if (Og(b) || nb(b)) return b = Wg(b, a.mode, c, null), b.return = a, b;\n
Qg(a, b);\n    }\n\n    return null;\n
 }\n\n  function x(a, b, c, d) {\n    var e = null !== b ? b.key : null;\n    if (\"string\" === typeof c || \"number\" ===
typeof c) return null !== e ? null : h(a, b, \"\" + c, d);\n\n    if (\"object\" === typeof c && null !== c) {\n      switch
(c.$$typeof) {\n        case Za:\n          return c.key === e ? c.type === ab ? m(a, b, c.props.children, d, e) : k(a, b, c,
d) : null;\n\n        case $a:\n          return c.key === e ? l(a, b, c, d) : null;\n      }\n\n      if (Og(c) || nb(c)) return null
!== e ? null : m(a, b, c, d, null);\n      Qg(a, c);\n    }\n\n    return null;\n  }\n\n  function z(a, b, c, d, e) {\n    if
(\"string\" === typeof d || \"number\" === typeof d) return a = a.get(c) || null, h(b, a, \"\" + d, e);\n\n    if (\"object\"
=== typeof d && null !== d) {\n      switch (d.$$typeof) {\n        case Za:\n          return a = a.get(null === d.key ? c
: d.key) || null, d.type === ab ? m(b, a, d.props.children, e, d.key) : k(b, a, d, e);\n\n        case $a:\n
    return a = a.get(null === d.key ? c : d.key) || null, l(b, a, d, e);\n      }\n\n      if (Og(d) || nb(d)) return a = a.get(c) ||
null, m(b, a, d, e, null);\n      Qg(b, d);\n    }\n\n    return null;\n  }\n\n  function ca(e, g, h, k) {\n    for (var l = null, t
= null, m = g, y = g = 0, A = null; null !== m && y < h.length; y++) {\n      m.index > y ? (A = m, m = null) : A =
m.sibling;\n      var q = x(e, m, h[y], k);\n\n      if (null === q) {\n        null === m && (m = A);\n        break;\n
}\n\n      a && m && null === q.alternate && b(e, m);\n      g = f(q, g, y);\n      null === t ? l = q : t.sibling = q;\n
t = q;\n      m = A;\n    }\n\n    if (y === h.length) return c(e, m), l;\n\n    if (null === m) {\n      for (; y < h.length;
y++) {\n        m = p(e, h[y], k), null !== m && (g = f(m, g, y), null === t ? l = m : t.sibling = m, t = m);\n      }\n\n
return l;\n    }\n\n    for (m = d(e, m); y < h.length; y++) {\n      A = z(m, e, y, h[y], k), null !== A && (a
 && null !== A.alternate && m.delete(null === A.key ? y : A.key), g = f(A, g, y), null === t ? l = A : t.sibling = A,
t = A);\n    }\n\n    a && m.forEach(function (a) {\n      return b(e, a);\n    });\n    return l;\n  }\n\n  function D(e, g, h,
l) {\n    var k = nb(h);\n    if (\"function\" !== typeof k) throw Error(u(150));\n    h = k.call(h);\n    if (null == h)
throw Error(u(151));\n\n    for (var m = k = null, t = g, y = g = 0, A = null, q = h.next(); null !== t && !q.done; y++,
q = h.next()) {\n      t.index > y ? (A = t, t = null) : A = t.sibling;\n      var D = x(e, t, q.value, l);\n\n      if (null ===
D) {\n        null === t && (t = A);\n        break;\n      }\n\n      a && t && null === D.alternate && b(e, t);\n      g =
f(D, g, y);\n      null === m ? k = D : m.sibling = D;\n      m = D;\n      t = A;\n    }\n\n    if (q.done) return c(e, t),
k;\n\n    if (null === t) {\n      for (; !q.done; y++, q = h.next()) {\n        q = p(e, q.value, l), null !== q && (g = f(q, g,
 y), null === m ? k = q : m.sibling = q, m = q);\n      }\n\n      return k;\n    }\n\n    for (t = d(e, t); !q.done; y++, q =
h.next()) {\n      q = z(t, e, y, q.value, l), null !== q && (a && null !== q.alternate && t.delete(null === q.key ? y :
q.key), g = f(q, g, y), null === m ? k = q : m.sibling = q, m = q);\n    }\n\n    a && t.forEach(function (a) {\n
return b(e, a);\n    });\n    return k;\n  }\n\n  return function (a, d, f, h) {\n    var k = \"object\" === typeof f && null
!== f && f.type === ab && null === f.key;\n    k && (f = f.props.children);\n    var l = \"object\" === typeof f &&
null !== f;\n    if (l) switch (f.$$typeof) {\n      case Za:\n        a: {\n          l = f.key;\n\n          for (k = d; null !== k;)
{\n            if (k.key === l) {\n              switch (k.tag) {\n                case 7:\n                  if (f.type === ab) {\n
   c(a, k.sibling);\n                    d = e(k, f.props.children);\n                    d.return = a;\n
                    a = d;\n                    break a;\n                  }\n\n                  break;\n\n                default:\n                  if
(k.elementType === f.type) {\n                    c(a, k.sibling);\n                    d = e(k, f.props);\n                    d.ref = Pg(a,
k, f);\n                    d.return = a;\n                    a = d;\n                    break a;\n                  }\n\n              }\n\n
c(a, k);\n              break;\n            } else b(a, k);\n\n            k = k.sibling;\n          }\n\n          f.type === ab ? (d =
Wg(f.props.children, a.mode, h, f.key), d.return = a, a = d) : (h = Ug(f.type, f.key, f.props, null, a.mode, h), h.ref =
Pg(a, d, f), h.return = a, a = h);\n        }\n\n        return g(a);\n\n      case $a:\n        a: {\n          for (k = f.key; null !==
d;) {\n            if (d.key === k) {\n              if (4 === d.tag && d.stateNode.containerInfo === f.containerInfo &&
d.stateNode.implementation ===
 f.implementation) {\n                c(a, d.sibling);\n                d = e(d, f.children || []);\n                d.return = a;\n
 a = d;\n                break a;\n              } else {\n                c(a, d);\n                break;\n              }\n            } else b(a,
d);\n            d = d.sibling;\n          }\n\n          d = Vg(f, a.mode, h);\n          d.return = a;\n          a = d;\n        }\n\n
return g(a);\n    }\n    if (\"string\" === typeof f || \"number\" === typeof f) return f = \"\" + f, null !== d && 6 ===
d.tag ? (c(a, d.sibling), d = e(d, f), d.return = a, a = d) : (c(a, d), d = Tg(f, a.mode, h), d.return = a, a = d), g(a);\n    if
(Og(f)) return ca(a, d, f, h);\n    if (nb(f)) return D(a, d, f, h);\n    l && Qg(a, f);\n    if (\"undefined\" === typeof f
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&& !k) switch (a.tag) {\n      case 1:\n      case 0:\n        throw a = a.type, Error(u(152, a.displayName || a.name ||
\"Component\"));\n    }\n    return c(a, d);\n  };\n}\n\nvar
 Xg = Rg(!0),\n    Yg = Rg(!1),\n    Zg = {},\n    $g = {\n  current: Zg\n},\n    ah = {\n  current: Zg\n},\n    bh = {\n
current: Zg\n};\n\nfunction ch(a) {\n  if (a === Zg) throw Error(u(174));\n  return a;\n}\n\nfunction dh(a, b) {\n
I(bh, b);\n  I(ah, a);\n  I($g, Zg);\n  a = b.nodeType;\n\n  switch (a) {\n    case 9:\n    case 11:\n      b = (b =
b.documentElement) ? b.namespaceURI : Ob(null, \"\");\n      break;\n\n    default:\n      a = 8 === a ? b.parentNode :
b, b = a.namespaceURI || null, a = a.tagName, b = Ob(b, a);\n  }\n\n  H($g);\n  I($g, b);\n}\n\nfunction eh() {\n
H($g);\n  H(ah);\n  H(bh);\n}\n\nfunction fh(a) {\n  ch(bh.current);\n  var b = ch($g.current);\n  var c = Ob(b,
a.type);\n  b !== c && (I(ah, a), I($g, c));\n}\n\nfunction gh(a) {\n  ah.current === a && (H($g), H(ah));\n}\n\nvar
M = {\n  current: 0\n};\n\nfunction hh(a) {\n  for (var b = a; null !== b;) {\n    if (13 === b.tag) {\n      var c =
b.memoizedState;\n      if (null !== c && (c = c.dehydrated,
 null === c || c.data === Bd || c.data === Cd)) return b;\n    } else if (19 === b.tag && void 0 !==
b.memoizedProps.revealOrder) {\n      if (0 !== (b.effectTag & 64)) return b;\n    } else if (null !== b.child) {\n
b.child.return = b;\n      b = b.child;\n      continue;\n    }\n\n    if (b === a) break;\n\n    for (; null === b.sibling;) {\n
   if (null === b.return || b.return === a) return null;\n      b = b.return;\n    }\n\n    b.sibling.return = b.return;\n    b =
b.sibling;\n  }\n\n  return null;\n}\n\nfunction ih(a, b) {\n  return {\n    responder: a,\n    props: b\n  };\n}\n\nvar jh =
Wa.ReactCurrentDispatcher,\n    kh = Wa.ReactCurrentBatchConfig,\n    lh = 0,\n    N = null,\n    O = null,\n    P =
null,\n    mh = !1;\n\nfunction Q() {\n  throw Error(u(321));\n}\n\nfunction nh(a, b) {\n  if (null === b) return !1;\n\n
for (var c = 0; c < b.length && c < a.length; c++) {\n    if (!$e(a[c], b[c])) return !1;\n  }\n\n  return
!0;\n}\n\nfunction oh(a, b, c, d, e, f) {\n
  lh = f;\n  N = b;\n  b.memoizedState = null;\n  b.updateQueue = null;\n  b.expirationTime = 0;\n  jh.current = null
=== a || null === a.memoizedState ? ph : qh;\n  a = c(d, e);\n\n  if (b.expirationTime === lh) {\n    f = 0;\n\n    do {\n
    b.expirationTime = 0;\n      if (!(25 > f)) throw Error(u(301));\n      f += 1;\n      P = O = null;\n      b.updateQueue
= null;\n      jh.current = rh;\n      a = c(d, e);\n    } while (b.expirationTime === lh);\n  }\n\n  jh.current = sh;\n  b =
null !== O && null !== O.next;\n  lh = 0;\n  P = O = N = null;\n  mh = !1;\n  if (b) throw Error(u(300));\n  return
a;\n}\n\nfunction th() {\n  var a = {\n    memoizedState: null,\n    baseState: null,\n    baseQueue: null,\n    queue:
null,\n    next: null\n  };\n  null === P ? N.memoizedState = P = a : P = P.next = a;\n  return P;\n}\n\nfunction uh()
{\n  if (null === O) {\n    var a = N.alternate;\n    a = null !== a ? a.memoizedState : null;\n  } else a = O.next;\n\n
var b = null === P ? N.memoizedState
 : P.next;\n  if (null !== b) P = b, O = a;else {\n    if (null === a) throw Error(u(310));\n    O = a;\n    a = {\n
memoizedState: O.memoizedState,\n      baseState: O.baseState,\n      baseQueue: O.baseQueue,\n      queue:
O.queue,\n      next: null\n    };\n    null === P ? N.memoizedState = P = a : P = P.next = a;\n  }\n  return
P;\n}\n\nfunction vh(a, b) {\n  return \"function\" === typeof b ? b(a) : b;\n}\n\nfunction wh(a) {\n  var b = uh(),\n
 c = b.queue;\n  if (null === c) throw Error(u(311));\n  c.lastRenderedReducer = a;\n  var d = O,\n      e =
d.baseQueue,\n      f = c.pending;\n\n  if (null !== f) {\n    if (null !== e) {\n      var g = e.next;\n      e.next = f.next;\n
    f.next = g;\n    }\n\n    d.baseQueue = e = f;\n    c.pending = null;\n  }\n\n  if (null !== e) {\n    e = e.next;\n    d =
d.baseState;\n    var h = g = f = null,\n        k = e;\n\n    do {\n      var l = k.expirationTime;\n\n      if (l < lh) {\n
var m = {\n          expirationTime:
 k.expirationTime,\n          suspenseConfig: k.suspenseConfig,\n          action: k.action,\n          eagerReducer:
k.eagerReducer,\n          eagerState: k.eagerState,\n          next: null\n        };\n        null === h ? (g = h = m, f = d) : h
= h.next = m;\n        l > N.expirationTime && (N.expirationTime = l, Bg(l));\n      } else null !== h && (h = h.next
= {\n        expirationTime: 1073741823,\n        suspenseConfig: k.suspenseConfig,\n        action: k.action,\n
eagerReducer: k.eagerReducer,\n        eagerState: k.eagerState,\n        next: null\n      }), Ag(l, k.suspenseConfig), d
= k.eagerReducer === a ? k.eagerState : a(d, k.action);\n\n      k = k.next;\n    } while (null !== k && k !== e);\n\n
null === h ? f = d : h.next = g;\n    $e(d, b.memoizedState) || (rg = !0);\n    b.memoizedState = d;\n    b.baseState =
f;\n    b.baseQueue = h;\n    c.lastRenderedState = d;\n  }\n\n  return [b.memoizedState, c.dispatch];\n}\n\nfunction
xh(a) {\n  var b = uh(),\n
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c = b.queue;\n if (null === c) throw Error(u(311));\n c.lastRenderedReducer = a;\n var d = c.dispatch,\n   e = c.pending,\n   f = b.memoizedState;\n\n if (null !== e) {\n   c.pending = null;\n   var g = e = e.next;\n\n   do {\n   f = a(f, g.action), g = g.next;\n   } while (g !== e);\n\n $e(f, b.memoizedState) || (rg = !0);\n   b.memoizedState = f;\n   null === b.baseQueue && (b.baseState = f);\n   c.lastRenderedState = f;\n }\n\n return [f, d];\n}\n\nfunction yh(a) {\n var b = th();\n \"function\" === typeof a && (a = a());\n b.memoizedState = b.baseState = a;\n a = b.queue = {\n   pending: null,\n   dispatch: null,\n   lastRenderedReducer: vh,\n   lastRenderedState: a\n };\n a = a.dispatch = zh.bind(null, N, a);\n return [b.memoizedState, a];\n}\n\nfunction Ah(a, b, c, d) {\n a = {\n   tag: a,\n   create: b,\n   destroy: c,\n   deps: d,\n   next: null\n };\n b = N.updateQueue;\n null === b ? (b = {\n   lastEffect: null\n }, N.updateQueue

= b, b.lastEffect = a.next = a) : (c = b.lastEffect, null === c ? b.lastEffect = a.next = a : (d = c.next, c.next = a, a.next = d, b.lastEffect = a));\n return a;\n}\n\nfunction Bh() {\n return uh().memoizedState;\n}\n\nfunction Ch(a, b, c, d) {\n var e = th();\n N.effectTag |= a;\n e.memoizedState = Ah(1 | b, c, void 0, void 0 === d ? null : d);\n}\n\nfunction Dh(a, b, c, d) {\n var e = uh();\n d = void 0 === d ? null : d;\n var f = void 0;\n\n if (null !== O) {\n   var g = O.memoizedState;\n   f = g.destroy;\n\n   if (null !== d && nh(d, g.deps)) {\n   Ah(b, c, f, d);\n   return;\n   }\n }\n\n N.effectTag |= a;\n e.memoizedState = Ah(1 | b, c, f, d);\n}\n\nfunction Eh(a, b) {\n return Ch(516, 4, a, b);\n}\n\nfunction Fh(a, b) {\n return Dh(516, 4, a, b);\n}\n\nfunction Gh(a, b) {\n return Dh(4, 2, a, b);\n}\n\nfunction Hh(a, b) {\n if (\"function\" === typeof b) return a = a(), b(a), function () {\n   b(null);\n };\n if (null !== b && void 0 !==

b) return a = a(), b.current = a, function () {\n   b.current = null;\n };\n}\n\nfunction Ih(a, b, c) {\n c = null !== c && void 0 !== c ? c.concat([a]) : null;\n return Dh(4, 2, Hh.bind(null, b, a), c);\n}\n\nfunction Jh() {}\n\nfunction Kh(a, b) {\n th().memoizedState = [a, void 0 === b ? null : b];\n return a;\n}\n\nfunction Lh(a, b) {\n var c = uh();\n b = void 0 === b ? null : b;\n var d = c.memoizedState;\n if (null !== d && null !== b && nh(b, d[1])) return d[0];\n c.memoizedState = [a, b];\n return a;\n}\n\nfunction Mh(a, b) {\n var c = uh();\n b = void 0 === b ? null : b;\n var d = c.memoizedState;\n if (null !== d && null !== b && nh(b, d[1])) return d[0];\n a = a();\n c.memoizedState = [a, b];\n return a;\n}\n\nfunction Nh(a, b, c) {\n var d = ag();\n cg(98 > d ? 98 : d, function () {\n   a(!0);\n });\n cg(97 < d ? 97 : d, function () {\n   var d = kh.suspense;\n   kh.suspense = void 0 === b ? null : b;\n\n   try {\n   a(!1), c();\n   } finally

{\n   kh.suspense = d;\n   }\n });\n}\n\nfunction zh(a, b, c) {\n var d = Gg(),\n   e = Dg.suspense;\n d = Hg(d, a, e);\n e = {\n   expirationTime: d,\n   suspenseConfig: e,\n   action: c,\n   eagerReducer: null,\n   eagerState: null,\n   next: null\n };\n var f = b.pending;\n null === f ? e.next = e : (e.next = f.next, f.next = e);\n b.pending = e;\n f = a.alternate;\n if (a === N || null !== f && f === N) mh = !0, e.expirationTime = lh, N.expirationTime = lh;else {\n   if (0 === a.expirationTime && (null === f || 0 === f.expirationTime) && (f = b.lastRenderedReducer, null !== f)) try {\n   var g = b.lastRenderedState,\n   h = f(g, c);\n   e.eagerReducer = f;\n   e.eagerState = h;\n   if ($e(h, g)) return;\n   } catch (k) {} finally {}\n   Ig(a, d);\n }\n}\n\nvar sh = {\n readContext: sg,\n useCallback: Q,\n useContext: Q,\n useEffect: Q,\n useImperativeHandle: Q,\n useLayoutEffect: Q,\n useMemo: Q,\n useReducer: Q,\n useRef: Q,\n

useState: Q,\n useDebugValue: Q,\n useResponder: Q,\n useDeferredValue: Q,\n useTransition: Q\n},\n   ph = {\n readContext: sg,\n useCallback: Kh,\n useContext: sg,\n useEffect: Eh,\n useImperativeHandle: function useImperativeHandle(a, b, c) {\n   c = null !== c && void 0 !== c ? c.concat([a]) : null;\n   return Ch(4, 2, Hh.bind(null, b, a), c);\n },\n useLayoutEffect: function useLayoutEffect(a, b) {\n   return Ch(4, 2, a, b);\n },\n useMemo: function useMemo(a, b) {\n   var c = th();\n   b = void 0 === b ? null : b;\n   a = a();\n   c.memoizedState = [a, b];\n   return a;\n },\n useReducer: function useReducer(a, b, c) {\n   var d = th();\n   b = void 0 !== c ? c(b) : b;\n   d.memoizedState = d.baseState = b;\n   a = d.queue = {\n   pending: null,\n   dispatch: null,\n   lastRenderedReducer: a,\n   lastRenderedState: b\n   };\n   a = a.dispatch = zh.bind(null, N, a);\n   return [d.memoizedState, a];\n },\n useRef: function useRef(a)

{\n   var b = th();\n   a = {\n   current: a\n   };\n   return b.memoizedState = a;\n },\n useState: yh,\n useDebugValue: Jh,\n useResponder: ih,\n useDeferredValue: function useDeferredValue(a, b) {\n   var c = yh(a),\n   d = c[0],\n   e = c[1];\n   Eh(function () {\n   var c = kh.suspense;\n   kh.suspense = void 0 === b

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? null : b;\n\n      try {\n        e(a);\n      } finally {\n        kh.suspense = c;\n      }\n    }, [a, b]);\n    return d;\n  },\n
useTransition: function useTransition(a) {\n    var b = yh(!1),\n        c = b[0];\n    b = b[1];\n    return
[Kh(Nh.bind(null, b, a), [b, a]), c];\n  }\n},\n    qh = {\n  readContext: sg,\n  useCallback: Lh,\n  useContext: sg,\n
useEffect: Fh,\n  useImperativeHandle: Ih,\n  useLayoutEffect: Gh,\n  useMemo: Mh,\n  useReducer: wh,\n  useRef:
Bh,\n  useState: function useState() {\n    return wh(vh);\n  },\n  useDebugValue: Jh,\n  useResponder: ih,\n
useDeferredValue: function useDeferredValue(a, b) {\n
    var c = wh(vh),\n        d = c[0],\n        e = c[1];\n    Fh(function () {\n      var c = kh.suspense;\n      kh.suspense =
void 0 === b ? null : b;\n\n      try {\n        e(a);\n      } finally {\n        kh.suspense = c;\n      }\n    }, [a, b]);\n
return d;\n  },\n  useTransition: function useTransition(a) {\n    var b = wh(vh),\n        c = b[0];\n    b = b[1];\n
return [Lh(Nh.bind(null, b, a), [b, a]), c];\n  }\n},\n    rh = {\n  readContext: sg,\n  useCallback: Lh,\n  useContext:
sg,\n  useEffect: Fh,\n  useImperativeHandle: Ih,\n  useLayoutEffect: Gh,\n  useMemo: Mh,\n  useReducer: xh,\n
useRef: Bh,\n  useState: function useState() {\n    return xh(vh);\n  },\n  useDebugValue: Jh,\n  useResponder: ih,\n
useDeferredValue: function useDeferredValue(a, b) {\n    var c = xh(vh),\n        d = c[0],\n        e = c[1];\n
Fh(function () {\n      var c = kh.suspense;\n      kh.suspense = void 0 === b ? null : b;\n\n      try {\n        e(a);\n      }
finally {\n        kh.suspense
 = c;\n      }\n    }, [a, b]);\n    return d;\n  },\n  useTransition: function useTransition(a) {\n    var b = xh(vh),\n        c
= b[0];\n    b = b[1];\n    return [Lh(Nh.bind(null, b, a), [b, a]), c];\n  }\n},\n    Oh = null,\n    Ph = null,\n    Qh =
!1;\n\nfunction Rh(a, b) {\n  var c = Sh(5, null, null, 0);\n  c.elementType = \"DELETED\";\n  c.type =
\"DELETED\";\n  c.stateNode = b;\n  c.return = a;\n  c.effectTag = 8;\n  null !== a.lastEffect ?
(a.lastEffect.nextEffect = c, a.lastEffect = c) : a.firstEffect = a.lastEffect = c;\n}\n\nfunction Th(a, b) {\n  switch
(a.tag) {\n    case 5:\n      var c = a.type;\n      b = 1 !== b.nodeType || c.toLowerCase() !==
b.nodeName.toLowerCase() ? null : b;\n      return null !== b ? (a.stateNode = b, !0) : !1;\n\n    case 6:\n      return b
= \"\" === a.pendingProps || 3 !== b.nodeType ? null : b, null !== b ? (a.stateNode = b, !0) : !1;\n\n    case 13:\n
return !1;\n\n    default:\n      return !1;\n  }\n}\n\nfunction Uh(a) {\n
  if (Qh) {\n    var b = Ph;\n\n    if (b) {\n      var c = b;\n\n      if (!Th(a, b)) {\n        b = Jd(c.nextSibling);\n\n        if
(!b || !Th(a, b)) {\n          a.effectTag = a.effectTag & -1025 | 2;\n          Qh = !1;\n          Oh = a;\n          return;\n
}\n\n        Rh(Oh, c);\n      }\n\n      Oh = a;\n      Ph = Jd(b.firstChild);\n    } else a.effectTag = a.effectTag & -1025 |
2, Qh = !1, Oh = a;\n  }\n}\n\nfunction Vh(a) {\n  for (a = a.return; null !== a && 5 !== a.tag && 3 !== a.tag &&
13 !== a.tag;) {\n    a = a.return;\n  }\n\n  Oh = a;\n}\n\nfunction Wh(a) {\n  if (a !== Oh) return !1;\n  if (!Qh) return
Vh(a), Qh = !0, !1;\n  var b = a.type;\n  if (5 !== a.tag || \"head\" !== b && \"body\" !== b && !Gd(b,
a.memoizedProps)) for (b = Ph; b;) {\n    Rh(a, b), b = Jd(b.nextSibling);\n  }\n  Vh(a);\n\n  if (13 === a.tag) {\n    a
= a.memoizedState;\n    a = null !== a ? a.dehydrated : null;\n    if (!a) throw Error(u(317));\n\n    a: {\n      a =
a.nextSibling;\n\n
      for (b = 0; a;) {\n        if (8 === a.nodeType) {\n          var c = a.data;\n\n          if (c === Ad) {\n            if (0 ===
b) {\n              Ph = Jd(a.nextSibling);\n              break a;\n            }\n\n            b--;\n          } else c !== zd && c !==
Cd && c !== Bd || b++;\n        }\n\n        a = a.nextSibling;\n      }\n\n      Ph = null;\n    }\n  } else Ph = Oh ?
Jd(a.stateNode.nextSibling) : null;\n\n  return !0;\n}\n\nfunction Xh() {\n  Ph = Oh = null;\n  Qh = !1;\n}\n\nvar Yh
= Wa.ReactCurrentOwner,\n    rg = !1;\n\nfunction R(a, b, c, d) {\n  b.child = null === a ? Yg(b, null, c, d) : Xg(b,
a.child, c, d);\n}\n\nfunction Zh(a, b, c, d, e) {\n  c = c.render;\n  var f = b.ref;\n  qg(b, e);\n  d = oh(a, b, c, d, f, e);\n
if (null !== a && !rg) return b.updateQueue = a.updateQueue, b.effectTag &= -517, a.expirationTime <= e &&
(a.expirationTime = 0), $h(a, b, e);\n  b.effectTag |= 1;\n  R(a, b, d, e);\n  return b.child;\n}\n\nfunction ai(a, b, c, d,
e, f)
 {\n  if (null === a) {\n    var g = c.type;\n    if (\"function\" === typeof g && !bi(g) && void 0 === g.defaultProps
&& null === c.compare && void 0 === c.defaultProps) return b.tag = 15, b.type = g, ci(a, b, g, d, e, f);\n    a =
Ug(c.type, null, d, null, b.mode, f);\n    a.ref = b.ref;\n    a.return = b;\n    return b.child = a;\n  }\n\n  g = a.child;\n  if
(e < f && (e = g.memoizedProps, c = c.compare, c = null !== c ? c : bf, c(e, d) && a.ref === b.ref)) return $h(a, b,
f);\n  b.effectTag |= 1;\n  a = Sg(g, d);\n  a.ref = b.ref;\n  a.return = b;\n  return b.child = a;\n}\n\nfunction ci(a, b, c,
d, e, f) {\n  return null !== a && bf(a.memoizedProps, d) && a.ref === b.ref && (rg = !1, e < f) ?
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(b.expirationTime = a.expirationTime, $h(a, b, f)) : di(a, b, c, d, f);\n}\n\nfunction ei(a, b) {\n  var c = b.ref;\n  if
(null === a && null !== c || null !== a && a.ref !== c) b.effectTag |= 128;\n}\n\nfunction di(a, b, c, d, e) {\n  var f =
L(c) ? Bf : J.current;\n  f = Cf(b, f);\n  qg(b,
 e);\n  c = oh(a, b, c, d, f, e);\n  if (null !== a && !rg) return b.updateQueue = a.updateQueue, b.effectTag &= -517,
a.expirationTime <= e && (a.expirationTime = 0), $h(a, b, e);\n  b.effectTag |= 1;\n  R(a, b, c, e);\n  return
b.child;\n}\n\nfunction fi(a, b, c, d, e) {\n  if (L(c)) {\n    var f = !0;\n    Gf(b);\n  } else f = !1;\n\n  qg(b, e);\n  if
(null === b.stateNode) null !== a && (a.alternate = null, b.alternate = null, b.effectTag |= 2), Lg(b, c, d), Ng(b, c, d,
e), d = !0;else if (null === a) {\n    var g = b.stateNode,\n        h = b.memoizedProps;\n    g.props = h;\n    var k =
g.context,\n        l = c.contextType;\n    \"object\" === typeof l && null !== l ? l = sg(l) : (l = L(c) ? Bf : J.current, l
= Cf(b, l));\n    var m = c.getDerivedStateFromProps,\n        p = \"function\" === typeof m || \"function\" === typeof
g.getSnapshotBeforeUpdate;\n    p || \"function\" !== typeof g.UNSAFE_componentWillReceiveProps &&
\"function\" !== typeof g.componentWillReceiveProps ||
 (h !== d || k !== l) && Mg(b, g, d, l);\n    tg = !1;\n    var x = b.memoizedState;\n    g.state = x;\n    zg(b, d, g, e);\n
k = b.memoizedState;\n    h !== d || x !== k || K.current || tg ? (\"function\" === typeof m && (Fg(b, c, m, d), k =
b.memoizedState), (h = tg || Kg(b, c, h, d, x, k, l)) ? (p || \"function\" !== typeof g.UNSAFE_componentWillMount
&& \"function\" !== typeof g.componentWillMount || (\"function\" === typeof g.componentWillMount &&
g.componentWillMount(), \"function\" === typeof g.UNSAFE_componentWillMount &&
g.UNSAFE_componentWillMount()), \"function\" === typeof g.componentDidMount && (b.effectTag |= 4)) :
(\"function\" === typeof g.componentDidMount && (b.effectTag |= 4), b.memoizedProps = d, b.memoizedState =
k), g.props = d, g.state = k, g.context = l, d = h) : (\"function\" === typeof g.componentDidMount && (b.effectTag
|= 4), d = !1);\n  } else g = b.stateNode, vg(a, b), h = b.memoizedProps, g.props = b.type === b.elementType ? h :
ig(b.type, h), k = g.context,
 l = c.contextType, \"object\" === typeof l && null !== l ? l = sg(l) : (l = L(c) ? Bf : J.current, l = Cf(b, l)), m =
c.getDerivedStateFromProps, (p = \"function\" === typeof m || \"function\" === typeof g.getSnapshotBeforeUpdate)
|| \"function\" !== typeof g.UNSAFE_componentWillReceiveProps && \"function\" !== typeof
g.componentWillReceiveProps || (h !== d || k !== l) && Mg(b, g, d, l), tg = !1, k = b.memoizedState, g.state = k,
zg(b, d, g, e), x = b.memoizedState, h !== d || k !== x || K.current || tg ? (\"function\" === typeof m && (Fg(b, c, m,
d), x = b.memoizedState), (m = tg || Kg(b, c, h, d, k, x, l)) ? (p || \"function\" !== typeof
g.UNSAFE_componentWillUpdate && \"function\" !== typeof g.componentWillUpdate || (\"function\" === typeof
g.componentWillUpdate && g.componentWillUpdate(d, x, l), \"function\" === typeof
g.UNSAFE_componentWillUpdate && g.UNSAFE_componentWillUpdate(d, x, l)), \"function\" === typeof
g.componentDidUpdate && (b.effectTag |= 4), \"function\" === typeof
 g.getSnapshotBeforeUpdate && (b.effectTag |= 256)) : (\"function\" !== typeof g.componentDidUpdate || h ===
a.memoizedProps && k === a.memoizedState || (b.effectTag |= 4), \"function\" !== typeof
g.getSnapshotBeforeUpdate || h === a.memoizedProps && k === a.memoizedState || (b.effectTag |= 256),
b.memoizedProps = d, b.memoizedState = x), g.props = d, g.state = x, g.context = l, d = m) : (\"function\" !== typeof
g.componentDidUpdate || h === a.memoizedProps && k === a.memoizedState || (b.effectTag |= 4), \"function\" !==
typeof g.getSnapshotBeforeUpdate || h === a.memoizedProps && k === a.memoizedState || (b.effectTag |= 256), d
= !1);\n  return gi(a, b, c, d, f, e);\n}\n\nfunction gi(a, b, c, d, e, f) {\n  ei(a, b);\n  var g = 0 !== (b.effectTag & 64);\n
if (!d && !g) return e && Hf(b, c, !1), $h(a, b, f);\n  d = b.stateNode;\n  Yh.current = b;\n  var h = g && \"function\"
!== typeof c.getDerivedStateFromError ? null : d.render();\n  b.effectTag |= 1;\n  null !== a && g ? (b.child
 = Xg(b, a.child, null, f), b.child = Xg(b, null, h, f)) : R(a, b, h, f);\n  b.memoizedState = d.state;\n  e && Hf(b, c,
!0);\n  return b.child;\n}\n\nfunction hi(a) {\n  var b = a.stateNode;\n  b.pendingContext ? Ef(a, b.pendingContext,
b.pendingContext !== b.context) : b.context && Ef(a, b.context, !1);\n  dh(a, b.containerInfo);\n}\n\nvar ii = {\n
dehydrated: null,\n  retryTime: 0\n};\n\nfunction ji(a, b, c) {\n  var d = b.mode,\n      e = b.pendingProps,\n      f =
M.current,\n      g = !1,\n      h;\n  (h = 0 !== (b.effectTag & 64)) || (h = 0 !== (f & 2) && (null === a || null !==
a.memoizedState));\n  h ? (g = !0, b.effectTag &= -65) : null !== a && null === a.memoizedState || void 0 ===
e.fallback || !0 === e.unstable_avoidThisFallback || (f |= 1);\n  I(M, f & 1);\n\n  if (null === a) {\n    void 0 !==
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e.fallback && Uh(b);\n\n    if (g) {\n      g = e.fallback;\n      e = Wg(null, d, 0, null);\n      e.return = b;\n      if (0
=== (b.mode & 2)) for (a = null !== b.memoizedState
 ? b.child.child : b.child, e.child = a; null !== a;) {\n        a.return = e, a = a.sibling;\n      }\n      c = Wg(g, d, c,
null);\n      c.return = b;\n      e.sibling = c;\n      b.memoizedState = ii;\n      b.child = e;\n      return c;\n    }\n\n    d =
e.children;\n    b.memoizedState = null;\n    return b.child = Yg(b, null, d, c);\n  }\n\n  if (null !== a.memoizedState)
{\n    a = a.child;\n    d = a.sibling;\n\n    if (g) {\n      e = e.fallback;\n      c = Sg(a, a.pendingProps);\n      c.return =
b;\n      if (0 === (b.mode & 2) && (g = null !== b.memoizedState ? b.child.child : b.child, g !== a.child)) for
(c.child = g; null !== g;) {\n        g.return = c, g = g.sibling;\n      }\n      d = Sg(d, e);\n      d.return = b;\n      c.sibling
= d;\n      c.childExpirationTime = 0;\n      b.memoizedState = ii;\n      b.child = c;\n      return d;\n    }\n\n    c =
Xg(b, a.child, e.children, c);\n    b.memoizedState = null;\n    return b.child = c;\n  }\n\n  a = a.child;\n\n  if
 (g) {\n    g = e.fallback;\n    e = Wg(null, d, 0, null);\n    e.return = b;\n    e.child = a;\n    null !== a && (a.return =
e);\n    if (0 === (b.mode & 2)) for (a = null !== b.memoizedState ? b.child.child : b.child, e.child = a; null !== a;)
{\n      a.return = e, a = a.sibling;\n    }\n    c = Wg(g, d, c, null);\n    c.return = b;\n    e.sibling = c;\n    c.effectTag |=
2;\n    e.childExpirationTime = 0;\n    b.memoizedState = ii;\n    b.child = e;\n    return c;\n  }\n\n  b.memoizedState
= null;\n  return b.child = Xg(b, a, e.children, c);\n}\n\nfunction ki(a, b) {\n  a.expirationTime < b &&
(a.expirationTime = b);\n  var c = a.alternate;\n  null !== c && c.expirationTime < b && (c.expirationTime = b);\n
pg(a.return, b);\n}\n\nfunction li(a, b, c, d, e, f) {\n  var g = a.memoizedState;\n  null === g ? a.memoizedState = {\n
  isBackwards: b,\n    rendering: null,\n    renderingStartTime: 0,\n    last: d,\n    tail: c,\n    tailExpiration: 0,\n
tailMode: e,\n    lastEffect: f\n
  } : (g.isBackwards = b, g.rendering = null, g.renderingStartTime = 0, g.last = d, g.tail = c, g.tailExpiration = 0,
g.tailMode = e, g.lastEffect = f);\n}\n\nfunction mi(a, b, c) {\n  var d = b.pendingProps,\n      e = d.revealOrder,\n
f = d.tail;\n  R(a, b, d.children, c);\n  d = M.current;\n  if (0 !== (d & 2)) d = d & 1 | 2, b.effectTag |= 64;else {\n    if
(null !== a && 0 !== (a.effectTag & 64)) a: for (a = b.child; null !== a;) {\n      if (13 === a.tag) null !==
a.memoizedState && ki(a, c);else if (19 === a.tag) ki(a, c);else if (null !== a.child) {\n        a.child.return = a;\n
a = a.child;\n        continue;\n      }\n      if (a === b) break a;\n\n      for (; null === a.sibling;) {\n        if (null ===
a.return || a.return === b) break a;\n        a = a.return;\n      }\n\n      a.sibling.return = a.return;\n      a = a.sibling;\n
}\n    d &= 1;\n  }\n  I(M, d);\n  if (0 === (b.mode & 2)) b.memoizedState = null;else switch (e) {\n    case
\"forwards\":\n
      c = b.child;\n\n      for (e = null; null !== c;) {\n        a = c.alternate, null !== a && null === hh(a) && (e = c), c
= c.sibling;\n      }\n\n      c = e;\n      null === c ? (e = b.child, b.child = null) : (e = c.sibling, c.sibling = null);\n
li(b, !1, e, c, f, b.lastEffect);\n      break;\n\n    case \"backwards\":\n      c = null;\n      e = b.child;\n\n      for (b.child
= null; null !== e;) {\n        a = e.alternate;\n\n        if (null !== a && null === hh(a)) {\n          b.child = e;\n
break;\n        }\n\n        a = e.sibling;\n        e.sibling = c;\n        c = e;\n        e = a;\n      }\n\n      li(b, !0, c, null, f,
b.lastEffect);\n      break;\n\n    case \"together\":\n      li(b, !1, null, null, void 0, b.lastEffect);\n      break;\n\n
default:\n      b.memoizedState = null;\n  }\n  return b.child;\n}\n\nfunction $h(a, b, c) {\n  null !== a &&
(b.dependencies = a.dependencies);\n  var d = b.expirationTime;\n  0 !== d && Bg(d);\n  if (b.childExpirationTime
 < c) return null;\n  if (null !== a && b.child !== a.child) throw Error(u(153));\n\n  if (null !== b.child) {\n    a =
b.child;\n    c = Sg(a, a.pendingProps);\n    b.child = c;\n\n    for (c.return = b; null !== a.sibling;) {\n      a =
a.sibling, c = c.sibling = Sg(a, a.pendingProps), c.return = b;\n    }\n\n    c.sibling = null;\n  }\n\n  return
b.child;\n}\n\nvar ni, oi, pi, qi;\n\nni = function ni(a, b) {\n  for (var c = b.child; null !== c;) {\n    if (5 === c.tag || 6
=== c.tag) a.appendChild(c.stateNode);else if (4 !== c.tag && null !== c.child) {\n      c.child.return = c;\n      c =
c.child;\n      continue;\n    }\n    if (c === b) break;\n\n    for (; null === c.sibling;) {\n      if (null === c.return ||
c.return === b) return;\n      c = c.return;\n    }\n\n    c.sibling.return = c.return;\n    c = c.sibling;\n  }\n};\n\noi =
function oi() {};\n\npi = function pi(a, b, c, d, e) {\n  var f = a.memoizedProps;\n\n  if (f !== d) {\n    var g =
b.stateNode;\n
  ch($g.current);\n    a = null;\n\n    switch (c) {\n      case \"input\":\n        f = zb(g, f);\n        d = zb(g, d);\n        a =
[];\n        break;\n\n      case \"option\":\n        f = Gb(g, f);\n        d = Gb(g, d);\n        a = [];\n        break;\n\n      case
\"select\":\n        f = n({}, f, {\n          value: void 0\n        });\n        d = n({}, d, {\n          value: void 0\n        });\n
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 a = [];\n        break;\n\n      case \"textarea\":\n        f = Ib(g, f);\n        d = Ib(g, d);\n        a = [];\n        break;\n\n
default:\n        \"function\" !== typeof f.onClick && \"function\" === typeof d.onClick && (g.onclick = sd);\n
}\n\n    od(c, d);\n    var h, k;\n    c = null;\n\n    for (h in f) {\n      if (!d.hasOwnProperty(h) &&
f.hasOwnProperty(h) && null != f[h]) if (\"style\" === h) for (k in g = f[h], g) {\n        g.hasOwnProperty(k) && (c
|| (c = {}), c[k] = \"\");\n      } else \"dangerouslySetInnerHTML\" !== h && \"children\" !== h &&
\"suppressContentEditableWarning\"
 !== h && \"suppressHydrationWarning\" !== h && \"autoFocus\" !== h && (va.hasOwnProperty(h) ? a || (a = []) :
(a = a || []).push(h, null));\n    }\n\n    for (h in d) {\n      var l = d[h];\n      g = null != f ? f[h] : void 0;\n      if
(d.hasOwnProperty(h) && l !== g && (null != l || null != g)) if (\"style\" === h) {\n        if (g) {\n          for (k in g)
{\n            !g.hasOwnProperty(k) || l && l.hasOwnProperty(k) || (c || (c = {}), c[k] = \"\");\n          }\n\n          for (k
in l) {\n            l.hasOwnProperty(k) && g[k] !== l[k] && (c || (c = {}), c[k] = l[k]);\n          }\n        } else c || (a || (a
= []), a.push(h, c)), c = l;\n      } else \"dangerouslySetInnerHTML\" === h ? (l = l ? l.__html : void 0, g = g ?
g.__html : void 0, null != l && g !== l && (a = a || []).push(h, l)) : \"children\" === h ? g === l || \"string\" !==
typeof l && \"number\" !== typeof l || (a = a || []).push(h, \"\" + l) : \"suppressContentEditableWarning\"
 !== h && \"suppressHydrationWarning\" !== h && (va.hasOwnProperty(h) ? (null != l && rd(e, h), a || g === l ||
(a = [])) : (a = a || []).push(h, l));\n    }\n\n    c && (a = a || []).push(\"style\", c);\n    e = a;\n    if (b.updateQueue = e)
b.effectTag |= 4;\n  }\n};\n\nqi = function qi(a, b, c, d) {\n  c !== d && (b.effectTag |= 4);\n};\n\nfunction ri(a, b)
{\n  switch (a.tailMode) {\n    case \"hidden\":\n      b = a.tail;\n\n      for (var c = null; null !== b;) {\n        null !==
b.alternate && (c = b), b = b.sibling;\n      }\n\n      null === c ? a.tail = null : c.sibling = null;\n      break;\n\n    case
\"collapsed\":\n      c = a.tail;\n\n      for (var d = null; null !== c;) {\n        null !== c.alternate && (d = c), c =
c.sibling;\n      }\n\n      null === d ? b || null === a.tail ? a.tail = null : a.tail.sibling = null : d.sibling = null;\n
}\n}\n\nfunction si(a, b, c) {\n  var d = b.pendingProps;\n\n  switch (b.tag) {\n    case 2:\n    case 16:\n    case 15:\n
case
 0:\n    case 11:\n    case 7:\n    case 8:\n    case 12:\n    case 9:\n    case 14:\n      return null;\n\n    case 1:\n      return
L(b.type) && Df(), null;\n\n    case 3:\n      return eh(), H(K), H(J), c = b.stateNode, c.pendingContext &&
(c.context = c.pendingContext, c.pendingContext = null), null !== a && null !== a.child || !Wh(b) || (b.effectTag |=
4), oi(b), null;\n\n    case 5:\n      gh(b);\n      c = ch(bh.current);\n      var e = b.type;\n      if (null !== a && null !=
b.stateNode) pi(a, b, e, d, c), a.ref !== b.ref && (b.effectTag |= 128);else {\n        if (!d) {\n          if (null ===
b.stateNode) throw Error(u(166));\n          return null;\n        }\n\n        a = ch($g.current);\n\n        if (Wh(b)) {\n
 d = b.stateNode;\n          e = b.type;\n          var f = b.memoizedProps;\n          d[Md] = b;\n          d[Nd] = f;\n\n
switch (e) {\n            case \"iframe\":\n            case \"object\":\n            case \"embed\":\n              F(\"load\",
 d);\n              break;\n\n            case \"video\":\n            case \"audio\":\n              for (a = 0; a < ac.length; a++) {\n
          F(ac[a], d);\n              }\n\n              break;\n\n            case \"source\":\n              F(\"error\", d);\n
break;\n\n            case \"img\":\n            case \"image\":\n            case \"link\":\n              F(\"error\", d);\n
F(\"load\", d);\n              break;\n\n            case \"form\":\n              F(\"reset\", d);\n              F(\"submit\", d);\n
  break;\n\n            case \"details\":\n              F(\"toggle\", d);\n              break;\n\n            case \"input\":\n
Ab(d, f);\n              F(\"invalid\", d);\n              rd(c, \"onChange\");\n              break;\n\n            case \"select\":\n
    d._wrapperState = {\n                wasMultiple: !!f.multiple\n              };\n              F(\"invalid\", d);\n
   rd(c, \"onChange\");\n              break;\n\n            case \"textarea\":\n              Jb(d, f), F(\"invalid\", d), rd(c,
\"onChange\");\n          }\n\n          od(e, f);\n          a = null;\n\n          for (var g in f) {\n            if
(f.hasOwnProperty(g)) {\n              var h = f[g];\n              \"children\" === g ? \"string\" === typeof h ?
d.textContent !== h && (a = [\"children\", h]) : \"number\" === typeof h && d.textContent !== \"\" + h && (a =
[\"children\", \"\" + h]) : va.hasOwnProperty(g) && null != h && rd(c, g);\n            }\n          }\n\n          switch (e)
{\n            case \"input\":\n              xb(d);\n              Eb(d, f, !0);\n              break;\n\n            case \"textarea\":\n
    xb(d);\n              Lb(d);\n              break;\n\n            case \"select\":\n            case \"option\":\n              break;\n\n
     default:\n              \"function\" === typeof f.onClick && (d.onclick = sd);\n          }\n\n
          c = a;\n          b.updateQueue = c;\n          null !== c && (b.effectTag |= 4);\n        } else {\n          g = 9 ===
c.nodeType ? c : c.ownerDocument;\n          a === qd && (a = Nb(e));\n          a === qd ? \"script\" === e ? (a =
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g.createElement(\"div\"), a.innerHTML = \"<script>\\x3c/script>\", a = a.removeChild(a.firstChild)) : \"string\" ===
typeof d.is ? a = g.createElement(e, {\n            is: d.is\n          }) : (a = g.createElement(e), \"select\" === e && (g =
a, d.multiple ? g.multiple = !0 : d.size && (g.size = d.size))) : a = g.createElementNS(a, e);\n          a[Md] = b;\n
 a[Nd] = d;\n          ni(a, b, !1, !1);\n          b.stateNode = a;\n          g = pd(e, d);\n\n          switch (e) {\n            case
\"iframe\":\n            case \"object\":\n            case \"embed\":\n              F(\"load\", a);\n              h = d;\n
break;\n\n            case \"video\":\n            case \"audio\":\n              for (h = 0; h < ac.length;
 h++) {\n                F(ac[h], a);\n              }\n\n              h = d;\n              break;\n\n            case \"source\":\n
F(\"error\", a);\n              h = d;\n              break;\n\n            case \"img\":\n            case \"image\":\n            case
\"link\":\n              F(\"error\", a);\n              F(\"load\", a);\n              h = d;\n              break;\n\n            case
\"form\":\n              F(\"reset\", a);\n              F(\"submit\", a);\n              h = d;\n              break;\n\n            case
\"details\":\n              F(\"toggle\", a);\n              h = d;\n              break;\n\n            case \"input\":\n              Ab(a,
d);\n              h = zb(a, d);\n              F(\"invalid\", a);\n              rd(c, \"onChange\");\n              break;\n\n            case
\"option\":\n              h = Gb(a, d);\n              break;\n\n            case \"select\":\n              a._wrapperState = {\n
   wasMultiple:
 !!d.multiple\n              };\n              h = n({}, d, {\n                value: void 0\n              });\n              F(\"invalid\", a);\n
           rd(c, \"onChange\");\n              break;\n\n            case \"textarea\":\n              Jb(a, d);\n              h = Ib(a, d);\n
           F(\"invalid\", a);\n              rd(c, \"onChange\");\n              break;\n\n            default:\n              h = d;\n
}\n\n          od(e, h);\n          var k = h;\n\n          for (f in k) {\n            if (k.hasOwnProperty(f)) {\n              var l =
k[f];\n              \"style\" === f ? md(a, l) : \"dangerouslySetInnerHTML\" === f ? (l = l ? l.__html : void 0, null != l
&& Qb(a, l)) : \"children\" === f ? \"string\" === typeof l ? (\"textarea\" !== e || \"\" !== l) && Rb(a, l) : \"number\"
=== typeof l && Rb(a, \"\" + l) : \"suppressContentEditableWarning\" !== f && \"suppressHydrationWarning\" !==
f && \"autoFocus\" !== f && (va.hasOwnProperty(f) ? null
 != l && rd(c, f) : null != l && Xa(a, f, l, g));\n            }\n          }\n\n          switch (e) {\n            case \"input\":\n
      xb(a);\n              Eb(a, d, !1);\n              break;\n\n            case \"textarea\":\n              xb(a);\n              Lb(a);\n
       break;\n\n            case \"option\":\n              null != d.value && a.setAttribute(\"value\", \"\" + rb(d.value));\n
      break;\n\n            case \"select\":\n              a.multiple = !!d.multiple;\n              c = d.value;\n              null != c ?
Hb(a, !!d.multiple, c, !1) : null != d.defaultValue && Hb(a, !!d.multiple, d.defaultValue, !0);\n              break;\n\n
     default:\n              \"function\" === typeof h.onClick && (a.onclick = sd);\n          }\n\n          Fd(e, d) &&
(b.effectTag |= 4);\n        }\n\n        null !== b.ref && (b.effectTag |= 128);\n      }\n      return null;\n\n    case 6:\n
if (a && null != b.stateNode) qi(a, b, a.memoizedProps,
 d);else {\n        if (\"string\" !== typeof d && null === b.stateNode) throw Error(u(166));\n        c =
ch(bh.current);\n        ch($g.current);\n        Wh(b) ? (c = b.stateNode, d = b.memoizedProps, c[Md] = b,
c.nodeValue !== d && (b.effectTag |= 4)) : (c = (9 === c.nodeType ? c : c.ownerDocument).createTextNode(d),
c[Md] = b, b.stateNode = c);\n      }\n      return null;\n\n    case 13:\n      H(M);\n      d = b.memoizedState;\n      if (0
!== (b.effectTag & 64)) return b.expirationTime = c, b;\n      c = null !== d;\n      d = !1;\n      null === a ? void 0
!== b.memoizedProps.fallback && Wh(b) : (e = a.memoizedState, d = null !== e, c || null === e || (e =
a.child.sibling, null !== e && (f = b.firstEffect, null !== f ? (b.firstEffect = e, e.nextEffect = f) : (b.firstEffect =
b.lastEffect = e, e.nextEffect = null), e.effectTag = 8)));\n      if (c && !d && 0 !== (b.mode & 2)) if (null === a &&
!0 !== b.memoizedProps.unstable_avoidThisFallback || 0 !== (M.current & 1))
 S === ti && (S = ui);else {\n        if (S === ti || S === ui) S = vi;\n        0 !== wi && null !== T && (xi(T, U), yi(T,
wi));\n      }\n      if (c || d) b.effectTag |= 4;\n      return null;\n\n    case 4:\n      return eh(), oi(b), null;\n\n    case
10:\n      return og(b), null;\n\n    case 17:\n      return L(b.type) && Df(), null;\n\n    case 19:\n      H(M);\n      d =
b.memoizedState;\n      if (null === d) return null;\n      e = 0 !== (b.effectTag & 64);\n      f = d.rendering;\n      if
(null === f) {\n        if (e) ri(d, !1);else {\n          if (S !== ti || null !== a && 0 !== (a.effectTag & 64)) for (f =
b.child; null !== f;) {\n            a = hh(f);\n\n            if (null !== a) {\n              b.effectTag |= 64;\n              ri(d, !1);\n
           e = a.updateQueue;\n              null !== e && (b.updateQueue = e, b.effectTag |= 4);\n              null ===
d.lastEffect && (b.firstEffect = null);\n              b.lastEffect = d.lastEffect;\n\n              for
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 (d = b.child; null !== d;) {\n                e = d, f = c, e.effectTag &= 2, e.nextEffect = null, e.firstEffect = null,
e.lastEffect = null, a = e.alternate, null === a ? (e.childExpirationTime = 0, e.expirationTime = f, e.child = null,
e.memoizedProps = null, e.memoizedState = null, e.updateQueue = null, e.dependencies = null) :
(e.childExpirationTime = a.childExpirationTime, e.expirationTime = a.expirationTime, e.child = a.child,
e.memoizedProps = a.memoizedProps, e.memoizedState = a.memoizedState, e.updateQueue = a.updateQueue, f =
a.dependencies, e.dependencies = null === f ? null : {\n                  expirationTime: f.expirationTime,\n
firstContext: f.firstContext,\n                  responders: f.responders\n               }), d = d.sibling;\n             }\n\n
I(M, M.current & 1 | 2);\n             return b.child;\n           }\n\n           f = f.sibling;\n         }\n       }\n     } else {\n
     if (!e) if (a = hh(f), null !== a)
 {\n          if (b.effectTag |= 64, e = !0, c = a.updateQueue, null !== c && (b.updateQueue = c, b.effectTag |= 4), ri(d,
!0), null === d.tail && \"hidden\" === d.tailMode && !f.alternate) return b = b.lastEffect = d.lastEffect, null !== b
&& (b.nextEffect = null), null;\n        } else 2 * $f() - d.renderingStartTime > d.tailExpiration && 1 < c &&
(b.effectTag |= 64, e = !0, ri(d, !1), b.expirationTime = b.childExpirationTime = c - 1);\n        d.isBackwards ?
(f.sibling = b.child, b.child = f) : (c = d.last, null !== c ? c.sibling = f : b.child = f, d.last = f);\n      }\n      return null
!== d.tail ? (0 === d.tailExpiration && (d.tailExpiration = $f() + 500), c = d.tail, d.rendering = c, d.tail = c.sibling,
d.lastEffect = b.lastEffect, d.renderingStartTime = $f(), c.sibling = null, b = M.current, I(M, e ? b & 1 | 2 : b & 1), c)
: null;\n  }\n\n  throw Error(u(156, b.tag));\n}\n\nfunction zi(a) {\n  switch (a.tag) {\n    case 1:\n      L(a.type) &&
Df();\n      var b = a.effectTag;\n
      return b & 4096 ? (a.effectTag = b & -4097 | 64, a) : null;\n\n    case 3:\n      eh();\n      H(K);\n      H(J);\n      b =
a.effectTag;\n      if (0 !== (b & 64)) throw Error(u(285));\n      a.effectTag = b & -4097 | 64;\n      return a;\n\n
case 5:\n      return gh(a), null;\n\n    case 13:\n      return H(M), b = a.effectTag, b & 4096 ? (a.effectTag = b & -
4097 | 64, a) : null;\n\n    case 19:\n      return H(M), null;\n\n    case 4:\n      return eh(), null;\n\n    case 10:\n
return og(a), null;\n\n    default:\n      return null;\n  }\n}\n\nfunction Ai(a, b) {\n  return {\n    value: a,\n    source:
b,\n    stack: qb(b)\n  };\n}\n\nvar Bi = \"function\" === typeof WeakSet ? WeakSet : Set;\n\nfunction Ci(a, b) {\n
var c = b.source,\n      d = b.stack;\n  null === d && null !== c && (d = qb(c));\n  null !== c && pb(c.type);\n  b =
b.value;\n  null !== a && 1 === a.tag && pb(a.type);\n\n  try {\n    console.error(b);\n  } catch (e) {\n
setTimeout(function () {\n
      throw e;\n    });\n  }\n}\n\nfunction Di(a, b) {\n  try {\n    b.props = a.memoizedProps, b.state =
a.memoizedState, b.componentWillUnmount();\n  } catch (c) {\n    Ei(a, c);\n  }\n}\n\nfunction Fi(a) {\n  var b =
a.ref;\n  if (null !== b) if (\"function\" === typeof b) try {\n    b(null);\n  } catch (c) {\n    Ei(a, c);\n  } else b.current
= null;\n}\n\nfunction Gi(a, b) {\n  switch (b.tag) {\n    case 0:\n    case 11:\n    case 15:\n    case 22:\n      return;\n\n
 case 1:\n      if (b.effectTag & 256 && null !== a) {\n        var c = a.memoizedProps,\n            d =
a.memoizedState;\n        a = b.stateNode;\n        b = a.getSnapshotBeforeUpdate(b.elementType === b.type ? c :
ig(b.type, c), d);\n        a.__reactInternalSnapshotBeforeUpdate = b;\n      }\n\n      return;\n\n    case 3:\n    case 5:\n
case 6:\n    case 4:\n    case 17:\n      return;\n  }\n\n  throw Error(u(163));\n}\n\nfunction Hi(a, b) {\n  b =
b.updateQueue;\n  b = null !== b ? b.lastEffect : null;\n\n
  if (null !== b) {\n    var c = b = b.next;\n\n    do {\n      if ((c.tag & a) === a) {\n        var d = c.destroy;\n
c.destroy = void 0;\n        void 0 !== d && d();\n      }\n\n      c = c.next;\n    } while (c !== b);\n  }\n}\n\nfunction
Ii(a, b) {\n  b = b.updateQueue;\n  b = null !== b ? b.lastEffect : null;\n\n  if (null !== b) {\n    var c = b = b.next;\n\n
  do {\n      if ((c.tag & a) === a) {\n        var d = c.create;\n        c.destroy = d();\n      }\n\n      c = c.next;\n    } while
(c !== b);\n  }\n}\n\nfunction Ji(a, b, c) {\n  switch (c.tag) {\n    case 0:\n    case 11:\n    case 15:\n    case 22:\n
Ii(3, c);\n      return;\n\n    case 1:\n      a = c.stateNode;\n      if (c.effectTag & 4) if (null === b)
a.componentDidMount();else {\n        var d = c.elementType === c.type ? b.memoizedProps : ig(c.type,
b.memoizedProps);\n        a.componentDidUpdate(d, b.memoizedState, a.__reactInternalSnapshotBeforeUpdate);\n
  }\n      b = c.updateQueue;\n      null
 !== b && Cg(c, b, a);\n      return;\n\n    case 3:\n      b = c.updateQueue;\n\n      if (null !== b) {\n        a = null;\n
  if (null !== c.child) switch (c.child.tag) {\n          case 5:\n            a = c.child.stateNode;\n            break;\n\n
case 1:\n            a = c.child.stateNode;\n        }\n        Cg(c, b, a);\n      }\n\n      return;\n\n    case 5:\n      a =
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c.stateNode;\n      null === b && c.effectTag & 4 && Fd(c.type, c.memoizedProps) && a.focus();\n      return;\n\n
case 6:\n      return;\n\n    case 4:\n      return;\n\n    case 12:\n      return;\n\n    case 13:\n      null ===
c.memoizedState && (c = c.alternate, null !== c && (c = c.memoizedState, null !== c && (c = c.dehydrated, null
!== c && Vc(c))));\n      return;\n\n    case 19:\n    case 17:\n    case 20:\n    case 21:\n      return;\n  }\n\n  throw
Error(u(163));\n}\n\nfunction Ki(a, b, c) {\n  \"function\" === typeof Li && Li(b);\n\n  switch (b.tag) {\n    case 0:\n
  case 11:\n
    case 14:\n    case 15:\n    case 22:\n      a = b.updateQueue;\n\n      if (null !== a && (a = a.lastEffect, null !== a))
{\n        var d = a.next;\n        cg(97 < c ? 97 : c, function () {\n          var a = d;\n\n          do {\n            var c =
a.destroy;\n\n            if (void 0 !== c) {\n              var g = b;\n\n              try {\n                c();\n              } catch (h)
{\n                Ei(g, h);\n              }\n            }\n\n            a = a.next;\n          } while (a !== d);\n        });\n      }\n\n
break;\n\n    case 1:\n      Fi(b);\n      c = b.stateNode;\n      \"function\" === typeof c.componentWillUnmount &&
Di(b, c);\n      break;\n\n    case 5:\n      Fi(b);\n      break;\n\n    case 4:\n      Mi(a, b, c);\n  }\n}\n\nfunction Ni(a) {\n
var b = a.alternate;\n  a.return = null;\n  a.child = null;\n  a.memoizedState = null;\n  a.updateQueue = null;\n
a.dependencies = null;\n  a.alternate = null;\n  a.firstEffect = null;\n  a.lastEffect
 = null;\n  a.pendingProps = null;\n  a.memoizedProps = null;\n  a.stateNode = null;\n  null !== b &&
Ni(b);\n}\n\nfunction Oi(a) {\n  return 5 === a.tag || 3 === a.tag || 4 === a.tag;\n}\n\nfunction Pi(a) {\n  a: {\n    for
(var b = a.return; null !== b;) {\n      if (Oi(b)) {\n        var c = b;\n        break a;\n      }\n\n      b = b.return;\n    }\n\n
throw Error(u(160));\n  }\n\n  b = c.stateNode;\n\n  switch (c.tag) {\n    case 5:\n      var d = !1;\n      break;\n\n
case 3:\n      b = b.containerInfo;\n      d = !0;\n      break;\n\n    case 4:\n      b = b.containerInfo;\n      d = !0;\n
break;\n\n    default:\n      throw Error(u(161));\n  }\n\n  c.effectTag & 16 && (Rb(b, \"\"), c.effectTag &= -17);\n\n
a: b: for (c = a;;) {\n    for (; null === c.sibling;) {\n      if (null === c.return || Oi(c.return)) {\n        c = null;\n
break a;\n      }\n\n      c = c.return;\n    }\n\n    c.sibling.return = c.return;\n\n    for (c = c.sibling; 5 !== c.tag && 6
!==
 c.tag && 18 !== c.tag;) {\n      if (c.effectTag & 2) continue b;\n      if (null === c.child || 4 === c.tag) continue
b;else c.child.return = c, c = c.child;\n    }\n\n    if (!(c.effectTag & 2)) {\n      c = c.stateNode;\n      break a;\n    }\n
}\n\n  d ? Qi(a, c, b) : Ri(a, c, b);\n}\n\nfunction Qi(a, b, c) {\n  var d = a.tag,\n      e = 5 === d || 6 === d;\n  if (e) a
= e ? a.stateNode : a.stateNode.instance, b ? 8 === c.nodeType ? c.parentNode.insertBefore(a, b) : c.insertBefore(a,
b) : (8 === c.nodeType ? (b = c.parentNode, b.insertBefore(a, c)) : (b = c, b.appendChild(a)), c =
c._reactRootContainer, null !== c && void 0 !== c || null !== b.onclick || (b.onclick = sd));else if (4 !== d && (a =
a.child, null !== a)) for (Qi(a, b, c), a = a.sibling; null !== a;) {\n    Qi(a, b, c), a = a.sibling;\n  }\n}\n\nfunction Ri(a,
b, c) {\n  var d = a.tag,\n      e = 5 === d || 6 === d;\n  if (e) a = e ? a.stateNode : a.stateNode.instance, b ?
c.insertBefore(a, b) : c.appendChild(a);else
 if (4 !== d && (a = a.child, null !== a)) for (Ri(a, b, c), a = a.sibling; null !== a;) {\n    Ri(a, b, c), a = a.sibling;\n
}\n}\n\nfunction Mi(a, b, c) {\n  for (var d = b, e = !1, f, g;;) {\n    if (!e) {\n      e = d.return;\n\n      a: for (;;) {\n
if (null === e) throw Error(u(160));\n        f = e.stateNode;\n\n        switch (e.tag) {\n          case 5:\n            g = !1;\n
        break a;\n\n          case 3:\n            f = f.containerInfo;\n            g = !0;\n            break a;\n\n          case 4:\n
  f = f.containerInfo;\n            g = !0;\n            break a;\n        }\n\n        e = e.return;\n      }\n\n      e = !0;\n    }\n\n
if (5 === d.tag || 6 === d.tag) {\n      a: for (var h = a, k = d, l = c, m = k;;) {\n        if (Ki(h, m, l), null !== m.child
&& 4 !== m.tag) m.child.return = m, m = m.child;else {\n          if (m === k) break a;\n\n          for (; null ===
m.sibling;) {\n            if (null === m.return || m.return ===
 k) break a;\n            m = m.return;\n          }\n\n          m.sibling.return = m.return;\n          m = m.sibling;\n        }\n
 }\n\n      g ? (h = f, k = d.stateNode, 8 === h.nodeType ? h.parentNode.removeChild(k) : h.removeChild(k)) :
f.removeChild(d.stateNode);\n    } else if (4 === d.tag) {\n      if (null !== d.child) {\n        f =
d.stateNode.containerInfo;\n        g = !0;\n        d.child.return = d;\n        d = d.child;\n        continue;\n      }\n    }
else if (Ki(a, d, c), null !== d.child) {\n      d.child.return = d;\n      d = d.child;\n      continue;\n    }\n\n    if (d === b)
break;\n\n    for (; null === d.sibling;) {\n      if (null === d.return || d.return === b) return;\n      d = d.return;\n      4
=== d.tag && (e = !1);\n    }\n\n    d.sibling.return = d.return;\n    d = d.sibling;\n  }\n}\n\nfunction Si(a, b) {\n
switch (b.tag) {\n    case 0:\n    case 11:\n    case 14:\n    case 15:\n    case 22:\n      Hi(3, b);\n      return;\n\n    case
```

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1:\n
    return;\n\n    case 5:\n      var c = b.stateNode;\n\n      if (null != c) {\n        var d = b.memoizedProps,\n            e =
null !== a ? a.memoizedProps : d;\n        a = b.type;\n        var f = b.updateQueue;\n        b.updateQueue = null;\n\n
   if (null !== f) {\n          c[Nd] = d;\n          \"input\" === a && \"radio\" === d.type && null != d.name && Bb(c,
d);\n          pd(a, e);\n          b = pd(a, d);\n\n          for (e = 0; e < f.length; e += 2) {\n            var g = f[e],\n
h = f[e + 1];\n            \"style\" === g ? md(c, h) : \"dangerouslySetInnerHTML\" === g ? Qb(c, h) : \"children\" ===
g ? Rb(c, h) : Xa(c, g, h, b);\n          }\n\n          switch (a) {\n            case \"input\":\n              Cb(c, d);\n
break;\n\n            case \"textarea\":\n              Kb(c, d);\n              break;\n\n            case \"select\":\n              b =
c._wrapperState.wasMultiple, c._wrapperState.wasMultiple = !!d.multiple, a = d.value,
 null != a ? Hb(c, !!d.multiple, a, !1) : b !== !!d.multiple && (null != d.defaultValue ? Hb(c, !!d.multiple,
d.defaultValue, !0) : Hb(c, !!d.multiple, d.multiple ? [] : \"\", !1));\n          }\n        }\n      }\n\n      return;\n\n    case
6:\n      if (null === b.stateNode) throw Error(u(162));\n      b.stateNode.nodeValue = b.memoizedProps;\n
return;\n\n    case 3:\n      b = b.stateNode;\n      b.hydrate && (b.hydrate = !1, Vc(b.containerInfo));\n      return;\n\n
 case 12:\n      return;\n\n    case 13:\n      c = b;\n      null === b.memoizedState ? d = !1 : (d = !0, c = b.child, Ti =
$f());\n      if (null !== c) a: for (a = c;;) {\n        if (5 === a.tag) f = a.stateNode, d ? (f = f.style, \"function\" ===
typeof f.setProperty ? f.setProperty(\"display\", \"none\", \"important\") : f.display = \"none\") : (f = a.stateNode, e =
a.memoizedProps.style, e = void 0 !== e && null !== e && e.hasOwnProperty(\"display\") ? e.display : null,
f.style.display = ld(\"display\",
 e));else if (6 === a.tag) a.stateNode.nodeValue = d ? \"\" : a.memoizedProps;else if (13 === a.tag && null !==
a.memoizedState && null === a.memoizedState.dehydrated) {\n          f = a.child.sibling;\n          f.return = a;\n
a = f;\n          continue;\n        } else if (null !== a.child) {\n          a.child.return = a;\n          a = a.child;\n
continue;\n        }\n        if (a === c) break;\n\n        for (; null === a.sibling;) {\n          if (null === a.return || a.return
=== c) break a;\n          a = a.return;\n        }\n\n        a.sibling.return = a.return;\n        a = a.sibling;\n      }\n
Ui(b);\n      return;\n\n    case 19:\n      Ui(b);\n      return;\n\n    case 17:\n      return;\n  }\n\n  throw
Error(u(163));\n}\n\nfunction Ui(a) {\n  var b = a.updateQueue;\n\n  if (null !== b) {\n    a.updateQueue = null;\n
var c = a.stateNode;\n    null === c && (c = a.stateNode = new Bi());\n    b.forEach(function (b) {\n      var d =
Vi.bind(null,
 a, b);\n      c.has(b) || (c.add(b), b.then(d, d));\n    });\n  }\n}\n\nvar Wi = \"function\" === typeof WeakMap ?
WeakMap : Map;\n\nfunction Xi(a, b, c) {\n  c = wg(c, null);\n  c.tag = 3;\n  c.payload = {\n    element: null\n  };\n
var d = b.value;\n\n  c.callback = function () {\n    Yi || (Yi = !0, Zi = d);\n    Ci(a, b);\n  };\n\n  return
c;\n}\n\nfunction $i(a, b, c) {\n  c = wg(c, null);\n  c.tag = 3;\n  var d = a.type.getDerivedStateFromError;\n\n  if
(\"function\" === typeof d) {\n    var e = b.value;\n\n    c.payload = function () {\n      Ci(a, b);\n      return d(e);\n
};\n  }\n\n  var f = a.stateNode;\n  null !== f && \"function\" === typeof f.componentDidCatch && (c.callback =
function () {\n    \"function\" !== typeof d && (null === aj ? aj = new Set([this]) : aj.add(this), Ci(a, b));\n    var c =
b.stack;\n    this.componentDidCatch(b.value, {\n      componentStack: null !== c ? c : \"\"\n    });\n  });\n  return
c;\n}\n\nvar bj = Math.ceil,\n    cj = Wa.ReactCurrentDispatcher,\n
    dj = Wa.ReactCurrentOwner,\n    V = 0,\n    ej = 8,\n    fj = 16,\n    gj = 32,\n    ti = 0,\n    hj = 1,\n    ij = 2,\n    ui
= 3,\n    vi = 4,\n    jj = 5,\n    W = V,\n    T = null,\n    X = null,\n    U = 0,\n    S = ti,\n    kj = null,\n    lj =
1073741823,\n    mj = 1073741823,\n    nj = null,\n    wi = 0,\n    oj = !1,\n    Ti = 0,\n    pj = 500,\n    Y = null,\n
Yi = !1,\n    Zi = null,\n    aj = null,\n    qj = !1,\n    rj = null,\n    sj = 90,\n    tj = null,\n    uj = 0,\n    vj = null,\n    wj
= 0;\n\nfunction Gg() {\n  return (W & (fj | gj)) !== V ? 1073741821 - ($f() / 10 | 0) : 0 !== wj ? wj : wj =
1073741821 - ($f() / 10 | 0);\n}\n\nfunction Hg(a, b, c) {\n  b = b.mode;\n  if (0 === (b & 2)) return 1073741823;\n
var d = ag();\n  if (0 === (b & 4)) return 99 === d ? 1073741823 : 1073741822;\n  if ((W & fj) !== V) return U;\n  if
(null !== c) a = hg(a, c.timeoutMs | 0 || 5E3, 250);else switch (d) {\n    case 99:\n      a = 1073741823;\n
break;\n\n
    case 98:\n      a = hg(a, 150, 100);\n      break;\n\n    case 97:\n    case 96:\n      a = hg(a, 5E3, 250);\n      break;\n\n
  case 95:\n      a = 2;\n      break;\n\n    default:\n      throw Error(u(326));\n  }\n  null !== T && a === U && --a;\n
return a;\n}\n\nfunction Ig(a, b) {\n  if (50 < uj) throw uj = 0, vj = null, Error(u(185));\n  a = xj(a, b);\n\n  if (null
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!== a) {\n    var c = ag();\n    1073741823 === b ? (W & ej) !== V && (W & (fj | gj)) === V ? yj(a) : (Z(a), W ===
V && gg()) : Z(a);\n    (W & 4) === V || 98 !== c && 99 !== c || (null === tj ? tj = new Map([[a, b]]) : (c = tj.get(a),
(void 0 === c || c > b) && tj.set(a, b)));\n  }\n}\n\nfunction xj(a, b) {\n  a.expirationTime < b && (a.expirationTime
= b);\n  var c = a.alternate;\n  null !== c && c.expirationTime < b && (c.expirationTime = b);\n  var d = a.return,\n
  e = null;\n  if (null === d && 3 === a.tag) e = a.stateNode;else for (; null !== d;) {\n    c = d.alternate;\n
d.childExpirationTime <
 b && (d.childExpirationTime = b);\n    null !== c && c.childExpirationTime < b && (c.childExpirationTime =
b);\n\n    if (null === d.return && 3 === d.tag) {\n      e = d.stateNode;\n      break;\n    }\n\n    d = d.return;\n  }\n
null !== e && (T === e && (Bg(b), S === vi && xi(e, U)), yi(e, b));\n  return e;\n}\n\nfunction zj(a) {\n  var b =
a.lastExpiredTime;\n  if (0 !== b) return b;\n  b = a.firstPendingTime;\n  if (!Aj(a, b)) return b;\n  var c =
a.lastPingedTime;\n  a = a.nextKnownPendingLevel;\n  a = c > a ? c : a;\n  return 2 >= a && b !== a ? 0 :
a;\n}\n\nfunction Z(a) {\n  if (0 !== a.lastExpiredTime) a.callbackExpirationTime = 1073741823, a.callbackPriority
= 99, a.callbackNode = eg(yj.bind(null, a));else {\n    var b = zj(a),\n        c = a.callbackNode;\n    if (0 === b) null
!== c && (a.callbackNode = null, a.callbackExpirationTime = 0, a.callbackPriority = 90);else {\n      var d = Gg();\n
    1073741823 === b ? d = 99 : 1 === b || 2 === b ? d = 95 : (d = 10 * (1073741821
 - b) - 10 * (1073741821 - d), d = 0 >= d ? 99 : 250 >= d ? 98 : 5250 >= d ? 97 : 95);\n\n      if (null !== c) {\n
var e = a.callbackPriority;\n        if (a.callbackExpirationTime === b && e >= d) return;\n        c !== Tf && Kf(c);\n
    }\n\n      a.callbackExpirationTime = b;\n      a.callbackPriority = d;\n      b = 1073741823 === b ? eg(yj.bind(null,
a)) : dg(d, Bj.bind(null, a), {\n        timeout: 10 * (1073741821 - b) - $f()\n      });\n      a.callbackNode = b;\n    }\n
}\n}\n\nfunction Bj(a, b) {\n  wj = 0;\n  if (b) return b = Gg(), Cj(a, b), Z(a), null;\n  var c = zj(a);\n\n  if (0 !== c)
{\n    b = a.callbackNode;\n    if ((W & (fj | gj)) !== V) throw Error(u(327));\n    Dj();\n    a === T && c === U ||
Ej(a, c);\n\n    if (null !== X) {\n      var d = W;\n      W |= fj;\n      var e = Fj();\n\n      do {\n        try {\n          Gj();\n
        break;\n        } catch (h) {\n          Hj(a, h);\n        }\n      } while (1);\n\n      ng();\n      W = d;\n
      cj.current = e;\n      if (S === hj) throw b = kj, Ej(a, c), xi(a, c), Z(a), b;\n      if (null === X) switch (e =
a.finishedWork = a.current.alternate, a.finishedExpirationTime = c, d = S, T = null, d) {\n        case ti:\n        case
hj:\n          throw Error(u(345));\n\n        case ij:\n          Cj(a, 2 < c ? 2 : c);\n          break;\n\n        case ui:\n
xi(a, c);\n          d = a.lastSuspendedTime;\n          c === d && (a.nextKnownPendingLevel = Ij(e));\n\n          if
(1073741823 === lj && (e = Ti + pj - $f(), 10 < e)) {\n            if (oj) {\n              var f = a.lastPingedTime;\n\n
  if (0 === f || f >= c) {\n                a.lastPingedTime = c;\n                Ej(a, c);\n                break;\n              }\n
}\n\n            f = zj(a);\n            if (0 !== f && f !== c) break;\n\n            if (0 !== d && d !== c) {\n
a.lastPingedTime = d;\n              break;\n            }\n\n            a.timeoutHandle =
 Hd(Jj.bind(null, a), e);\n            break;\n          }\n\n          Jj(a);\n          break;\n\n        case vi:\n          xi(a, c);\n
 d = a.lastSuspendedTime;\n          c === d && (a.nextKnownPendingLevel = Ij(e));\n\n          if (oj && (e =
a.lastPingedTime, 0 === e || e >= c)) {\n            a.lastPingedTime = c;\n            Ej(a, c);\n            break;\n          }\n\n
      e = zj(a);\n          if (0 !== e && e !== c) break;\n\n          if (0 !== d && d !== c) {\n            a.lastPingedTime =
d;\n            break;\n          }\n\n          1073741823 !== mj ? d = 10 * (1073741821 - mj) - $f() : 1073741823 === lj ?
d = 0 : (d = 10 * (1073741821 - lj) - 5E3, e = $f(), c = 10 * (1073741821 - c) - e, d = e - d, 0 > d && (d = 0), d =
(120 > d ? 120 : 480 > d ? 480 : 1080 > d ? 1080 : 1920 > d ? 1920 : 3E3 > d ? 3E3 : 4320 > d ? 4320 : 1960 * bj(d /
1960)) - d, c < d && (d = c));\n\n          if (10 < d) {\n            a.timeoutHandle = Hd(Jj.bind(null, a), d);\n
          break;\n          }\n\n          Jj(a);\n          break;\n\n        case jj:\n          if (1073741823 !== lj && null !== nj)
{\n            f = lj;\n            var g = nj;\n            d = g.busyMinDurationMs | 0;\n            0 >= d ? d = 0 : (e =
g.busyDelayMs | 0, f = $f() - (10 * (1073741821 - f) - (g.timeoutMs | 0 || 5E3)), d = f <= e ? 0 : e + d - f);\n\n
if (10 < d) {\n              xi(a, c);\n              a.timeoutHandle = Hd(Jj.bind(null, a), d);\n              break;\n            }\n
 }\n\n          Jj(a);\n          break;\n\n        default:\n          throw Error(u(329));\n      }\n      Z(a);\n      if
(a.callbackNode === b) return Bj.bind(null, a);\n    }\n  }\n\n  return null;\n}\n\nfunction yj(a) {\n  var b =
a.lastExpiredTime;\n  b = 0 !== b ? b : 1073741823;\n  if ((W & (fj | gj)) !== V) throw Error(u(327));\n  Dj();\n  a
=== T && b === U || Ej(a, b);\n\n  if (null !== X) {\n    var c = W;\n    W |= fj;\n    var d = Fj();\n\n    do
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 {\n      try {\n        Kj();\n        break;\n      } catch (e) {\n        Hj(a, e);\n      }\n    } while (1);\n\n    ng();\n    W =
c;\n    cj.current = d;\n    if (S === hj) throw c = kj, Ej(a, b), xi(a, b), Z(a), c;\n    if (null !== X) throw
Error(u(261));\n    a.finishedWork = a.current.alternate;\n    a.finishedExpirationTime = b;\n    T = null;\n    Jj(a);\n
Z(a);\n  }\n\n  return null;\n}\n\nfunction Lj() {\n  if (null !== tj) {\n    var a = tj;\n    tj = null;\n    a.forEach(function
(a, c) {\n      Cj(c, a);\n      Z(c);\n    });\n    gg();\n  }\n}\n\nfunction Mj(a, b) {\n  var c = W;\n  W |= 1;\n\n  try {\n
return a(b);\n  } finally {\n    W = c, W === V && gg();\n  }\n}\n\nfunction Nj(a, b) {\n  var c = W;\n  W &= -2;\n
W |= ej;\n\n  try {\n    return a(b);\n  } finally {\n    W = c, W === V && gg();\n  }\n}\n\nfunction Ej(a, b) {\n
a.finishedWork = null;\n  a.finishedExpirationTime = 0;\n  var c = a.timeoutHandle;\n  -1 !== c &&
(a.timeoutHandle = -1, Id(c));\n
  if (null !== X) for (c = X.return; null !== c;) {\n    var d = c;\n\n    switch (d.tag) {\n      case 1:\n        d =
d.type.childContextTypes;\n        null !== d && void 0 !== d && Df();\n        break;\n\n      case 3:\n        eh();\n
H(K);\n        H(J);\n        break;\n\n      case 5:\n        gh(d);\n        break;\n\n      case 4:\n        eh();\n        break;\n\n
  case 13:\n        H(M);\n        break;\n\n      case 19:\n        H(M);\n        break;\n\n      case 10:\n        og(d);\n    }\n\n
  c = c.return;\n  }\n  T = a;\n  X = Sg(a.current, null);\n  U = b;\n  S = ti;\n  kj = null;\n  mj = lj = 1073741823;\n  nj
= null;\n  wi = 0;\n  oj = !1;\n}\n\nfunction Hj(a, b) {\n  do {\n    try {\n      ng();\n      jh.current = sh;\n      if (mh)
for (var c = N.memoizedState; null !== c;) {\n        var d = c.queue;\n        null !== d && (d.pending = null);\n        c
= c.next;\n      }\n      lh = 0;\n      P = O = N = null;\n      mh = !1;\n      if (null === X
 || null === X.return) return S = hj, kj = b, X = null;\n\n      a: {\n        var e = a,\n            f = X.return,\n            g =
X,\n            h = b;\n        b = U;\n        g.effectTag |= 2048;\n        g.firstEffect = g.lastEffect = null;\n\n        if (null
!== h && \"object\" === typeof h && \"function\" === typeof h.then) {\n          var k = h;\n\n          if (0 ===
(g.mode & 2)) {\n            var l = g.alternate;\n            l ? (g.updateQueue = l.updateQueue, g.memoizedState =
l.memoizedState, g.expirationTime = l.expirationTime) : (g.updateQueue = null, g.memoizedState = null);\n
}\n\n          var m = 0 !== (M.current & 1),\n              p = f;\n\n          do {\n            var x;\n\n            if (x = 13 ===
p.tag) {\n              var z = p.memoizedState;\n              if (null !== z) x = null !== z.dehydrated ? !0 : !1;else {\n
     var ca = p.memoizedProps;\n                x = void 0 === ca.fallback ? !1 : !0 !== ca.unstable_avoidThisFallback
 ? !0 : m ? !1 : !0;\n              }\n            }\n\n            if (x) {\n              var D = p.updateQueue;\n\n              if (null
=== D) {\n                var t = new Set();\n                t.add(k);\n                p.updateQueue = t;\n              } else
D.add(k);\n\n              if (0 === (p.mode & 2)) {\n                p.effectTag |= 64;\n                g.effectTag &= -2981;\n
          if (1 === g.tag) if (null === g.alternate) g.tag = 17;else {\n                  var y = wg(1073741823, null);\n
    y.tag = 2;\n                  xg(g, y);\n                }\n                g.expirationTime = 1073741823;\n                break a;\n
        }\n\n              h = void 0;\n              g = b;\n              var A = e.pingCache;\n              null === A ? (A =
e.pingCache = new Wi(), h = new Set(), A.set(k, h)) : (h = A.get(k), void 0 === h && (h = new Set(), A.set(k,
h)));\n\n              if (!h.has(g)) {\n                h.add(g);\n
              var q = Oj.bind(null, e, k, g);\n                k.then(q, q);\n              }\n\n              p.effectTag |= 4096;\n
p.expirationTime = b;\n              break a;\n            }\n\n            p = p.return;\n          } while (null !== p);\n\n          h
= Error((pb(g.type) || \"A React component\") + \" suspended while rendering, but no fallback UI was
specified.\\n\\nAdd a <Suspense fallback=...> component higher in the tree to provide a loading indicator or
placeholder to display.\" + qb(g));\n        }\n\n        S !== jj && (S = ij);\n        h = Ai(h, g);\n        p = f;\n\n        do
{\n          switch (p.tag) {\n            case 3:\n              k = h;\n              p.effectTag |= 4096;\n              p.expirationTime
= b;\n              var B = Xi(p, k, b);\n              yg(p, B);\n              break a;\n\n            case 1:\n              k = h;\n
var w = p.type,\n                  ub = p.stateNode;\n\n              if (0 === (p.effectTag
 & 64) && (\"function\" === typeof w.getDerivedStateFromError || null !== ub && \"function\" === typeof
ub.componentDidCatch && (null === aj || !aj.has(ub)))) {\n                p.effectTag |= 4096;\n
p.expirationTime = b;\n                var vb = $i(p, k, b);\n                yg(p, vb);\n                break a;\n              }\n\n
}\n\n          p = p.return;\n        } while (null !== p);\n      }\n\n      X = Pj(X);\n    } catch (Xc) {\n      b = Xc;\n
continue;\n    }\n\n    break;\n  } while (1);\n}\n\nfunction Fj() {\n  var a = cj.current;\n  cj.current = sh;\n  return null
=== a ? sh : a;\n}\n\nfunction Ag(a, b) {\n  a < lj && 2 < a && (lj = a);\n  null !== b && a < mj && 2 < a && (mj
= a, nj = b);\n}\n\nfunction Bg(a) {\n  a > wi && (wi = a);\n}\n\nfunction Kj() {\n  for (; null !== X;) {\n    X =
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Qj(X);\n  }\n}\n\nfunction Gj() {\n  for (; null !== X && !Uf();) {\n    X = Qj(X);\n  }\n}\n\nfunction Qj(a) {\n  var
b = Rj(a.alternate, a,
 U);\n  a.memoizedProps = a.pendingProps;\n  null === b && (b = Pj(a));\n  dj.current = null;\n  return
b;\n}\n\nfunction Pj(a) {\n  X = a;\n\n  do {\n    var b = X.alternate;\n    a = X.return;\n\n    if (0 === (X.effectTag &
2048)) {\n      b = si(b, X, U);\n\n      if (1 === U || 1 !== X.childExpirationTime) {\n        for (var c = 0, d = X.child;
null !== d;) {\n          var e = d.expirationTime,\n              f = d.childExpirationTime;\n          e > c && (c = e);\n
 f > c && (c = f);\n          d = d.sibling;\n        }\n\n        X.childExpirationTime = c;\n      }\n\n      if (null !== b)
return b;\n      null !== a && 0 === (a.effectTag & 2048) && (null === a.firstEffect && (a.firstEffect =
X.firstEffect), null !== X.lastEffect && (null !== a.lastEffect && (a.lastEffect.nextEffect = X.firstEffect),
a.lastEffect = X.lastEffect), 1 < X.effectTag && (null !== a.lastEffect ? a.lastEffect.nextEffect = X : a.firstEffect =
X, a.lastEffect = X));\n    } else {\n      b = zi(X);\n
      if (null !== b) return b.effectTag &= 2047, b;\n      null !== a && (a.firstEffect = a.lastEffect = null, a.effectTag
|= 2048);\n    }\n\n    b = X.sibling;\n    if (null !== b) return b;\n    X = a;\n  } while (null !== X);\n\n  S === ti &&
(S = jj);\n  return null;\n}\n\nfunction Ij(a) {\n  var b = a.expirationTime;\n  a = a.childExpirationTime;\n  return b >
a ? b : a;\n}\n\nfunction Jj(a) {\n  var b = ag();\n  cg(99, Sj.bind(null, a, b));\n  return null;\n}\n\nfunction Sj(a, b)
{\n  do {\n    Dj();\n  } while (null !== rj);\n\n  if ((W & (fj | gj)) !== V) throw Error(u(327));\n  var c =
a.finishedWork,\n      d = a.finishedExpirationTime;\n  if (null === c) return null;\n  a.finishedWork = null;\n
a.finishedExpirationTime = 0;\n  if (c === a.current) throw Error(u(177));\n  a.callbackNode = null;\n
a.callbackExpirationTime = 0;\n  a.callbackPriority = 90;\n  a.nextKnownPendingLevel = 0;\n  var e = Ij(c);\n
a.firstPendingTime = e;\n  d <= a.lastSuspendedTime ? a.firstSuspendedTime
 = a.lastSuspendedTime = a.nextKnownPendingLevel = 0 : d <= a.firstSuspendedTime && (a.firstSuspendedTime =
d - 1);\n  d <= a.lastPingedTime && (a.lastPingedTime = 0);\n  d <= a.lastExpiredTime && (a.lastExpiredTime =
0);\n  a === T && (X = T = null, U = 0);\n  1 < c.effectTag ? null !== c.lastEffect ? (c.lastEffect.nextEffect = c, e =
c.firstEffect) : e = c : e = c.firstEffect;\n\n  if (null !== e) {\n    var f = W;\n    W |= gj;\n    dj.current = null;\n    Dd =
fd;\n    var g = xd();\n\n    if (yd(g)) {\n      if (\"selectionStart\" in g) var h = {\n        start: g.selectionStart,\n
end: g.selectionEnd\n      };else a: {\n        h = (h = g.ownerDocument) && h.defaultView || window;\n        var k =
h.getSelection && h.getSelection();\n\n        if (k && 0 !== k.rangeCount) {\n          h = k.anchorNode;\n          var l
= k.anchorOffset,\n              m = k.focusNode;\n          k = k.focusOffset;\n\n          try {\n            h.nodeType,
m.nodeType;\n
    } catch (wb) {\n            h = null;\n            break a;\n          }\n\n          var p = 0,\n              x = -1,\n              z = -
1,\n              ca = 0,\n              D = 0,\n              t = g,\n              y = null;\n\n          b: for (;;) {\n            for (var A;;)
{\n              t !== h || 0 !== l && 3 !== t.nodeType || (x = p + l);\n              t !== m || 0 !== k && 3 !== t.nodeType ||
(z = p + k);\n              3 === t.nodeType && (p += t.nodeValue.length);\n              if (null === (A = t.firstChild))
break;\n              y = t;\n              t = A;\n            }\n\n            for (;;) {\n              if (t === g) break b;\n              y ===
h && ++ca === l && (x = p);\n              y === m && ++D === k && (z = p);\n              if (null !== (A =
t.nextSibling)) break;\n              t = y;\n              y = t.parentNode;\n            }\n\n            t = A;\n          }\n\n          h =
-1 === x || -1 === z ? null : {\n            start:
 x,\n            end: z\n          };\n        } else h = null;\n      }\n      h = h || {\n        start: 0,\n        end: 0\n      };\n    } else
h = null;\n\n    Ed = {\n      activeElementDetached: null,\n      focusedElem: g,\n      selectionRange: h\n    };\n    fd
= !1;\n    Y = e;\n\n    do {\n      try {\n        Tj();\n      } catch (wb) {\n        if (null === Y) throw Error(u(330));\n
 Ei(Y, wb);\n        Y = Y.nextEffect;\n      }\n    } while (null !== Y);\n\n    Y = e;\n\n    do {\n      try {\n        for (g =
a, h = b; null !== Y;) {\n          var q = Y.effectTag;\n          q & 16 && Rb(Y.stateNode, \"\");\n\n          if (q & 128)
{\n            var B = Y.alternate;\n\n            if (null !== B) {\n              var w = B.ref;\n              null !== w &&
(\"function\" === typeof w ? w(null) : w.current = null);\n            }\n          }\n\n          switch (q & 1038) {\n
case 2:\n              Pi(Y);\n              Y.effectTag &= -3;\n
    break;\n\n            case 6:\n              Pi(Y);\n              Y.effectTag &= -3;\n              Si(Y.alternate, Y);\n
break;\n\n            case 1024:\n              Y.effectTag &= -1025;\n              break;\n\n            case 1028:\n
Y.effectTag &= -1025;\n              Si(Y.alternate, Y);\n              break;\n\n            case 4:\n              Si(Y.alternate,
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Y);\n            break;\n\n          case 8:\n            l = Y, Mi(g, l, h), Ni(l);\n        }\n\n        Y = Y.nextEffect;\n
}\n      } catch (wb) {\n        if (null === Y) throw Error(u(330));\n        Ei(Y, wb);\n        Y = Y.nextEffect;\n      }\n
 } while (null !== Y);\n\n    w = Ed;\n    B = xd();\n    q = w.focusedElem;\n    h = w.selectionRange;\n\n    if (B !==
q && q && q.ownerDocument && wd(q.ownerDocument.documentElement, q)) {\n      null !== h && yd(q) &&
(B = h.start, w = h.end, void 0 === w && (w = B), \"selectionStart\" in q ? (q.selectionStart = B,
 q.selectionEnd = Math.min(w, q.value.length)) : (w = (B = q.ownerDocument || document) && B.defaultView ||
window, w.getSelection && (w = w.getSelection(), l = q.textContent.length, g = Math.min(h.start, l), h = void 0
=== h.end ? g : Math.min(h.end, l), !w.extend && g > h && (l = h, h = g, g = l), l = vd(q, g), m = vd(q, h), l && m
&& (1 !== w.rangeCount || w.anchorNode !== l.node || w.anchorOffset !== l.offset || w.focusNode !== m.node ||
w.focusOffset !== m.offset) && (B = B.createRange(), B.setStart(l.node, l.offset), w.removeAllRanges(), g > h ?
(w.addRange(B), w.extend(m.node, m.offset)) : (B.setEnd(m.node, m.offset), w.addRange(B))))));\n      B = [];\n\n
 for (w = q; w = w.parentNode;) {\n        1 === w.nodeType && B.push({\n          element: w,\n          left:
w.scrollLeft,\n          top: w.scrollTop\n        });\n      }\n\n      \"function\" === typeof q.focus && q.focus();\n\n
for (q = 0; q < B.length; q++) {\n        w = B[q], w.element.scrollLeft = w.left, w.element.scrollTop
 = w.top;\n      }\n    }\n\n    fd = !!Dd;\n    Ed = Dd = null;\n    a.current = c;\n    Y = e;\n\n    do {\n      try {\n
for (q = a; null !== Y;) {\n          var ub = Y.effectTag;\n          ub & 36 && Ji(q, Y.alternate, Y);\n\n          if (ub &
128) {\n            B = void 0;\n            var vb = Y.ref;\n\n            if (null !== vb) {\n              var Xc = Y.stateNode;\n\n
          switch (Y.tag) {\n                case 5:\n                  B = Xc;\n                  break;\n\n                default:\n
B = Xc;\n              }\n\n              \"function\" === typeof vb ? vb(B) : vb.current = B;\n            }\n          }\n\n          Y
= Y.nextEffect;\n        }\n      } catch (wb) {\n        if (null === Y) throw Error(u(330));\n        Ei(Y, wb);\n        Y =
Y.nextEffect;\n      }\n    } while (null !== Y);\n\n    Y = null;\n    Vf();\n    W = f;\n  } else a.current = c;\n\n  if (qj)
qj = !1, rj = a, sj = b;else for (Y = e;
 null !== Y;) {\n    b = Y.nextEffect, Y.nextEffect = null, Y = b;\n  }\n  b = a.firstPendingTime;\n  0 === b && (aj =
null);\n  1073741823 === b ? a === vj ? uj++ : (uj = 0, vj = a) : uj = 0;\n  \"function\" === typeof Uj &&
Uj(c.stateNode, d);\n  Z(a);\n  if (Yi) throw Yi = !1, a = Zi, Zi = null, a;\n  if ((W & ej) !== V) return null;\n  gg();\n
return null;\n}\n\nfunction Tj() {\n  for (; null !== Y;) {\n    var a = Y.effectTag;\n    0 !== (a & 256) &&
Gi(Y.alternate, Y);\n    0 === (a & 512) || qj || (qj = !0, dg(97, function () {\n      Dj();\n      return null;\n    }));\n    Y
= Y.nextEffect;\n  }\n}\n\nfunction Dj() {\n  if (90 !== sj) {\n    var a = 97 < sj ? 97 : sj;\n    sj = 90;\n    return cg(a,
Vj);\n  }\n}\n\nfunction Vj() {\n  if (null === rj) return !1;\n  var a = rj;\n  rj = null;\n  if ((W & (fj | gj)) !== V)
throw Error(u(331));\n  var b = W;\n  W |= gj;\n\n  for (a = a.current.firstEffect; null !== a;) {\n    try {\n      var c =
a;\n      if (0 !== (c.effectTag &
 512)) switch (c.tag) {\n        case 0:\n        case 11:\n        case 15:\n        case 22:\n          Hi(5, c), Ii(5, c);\n      }\n
} catch (d) {\n      if (null === a) throw Error(u(330));\n      Ei(a, d);\n    }\n\n    c = a.nextEffect;\n    a.nextEffect =
null;\n    a = c;\n  }\n\n  W = b;\n  gg();\n  return !0;\n}\n\nfunction Wj(a, b, c) {\n  b = Ai(c, b);\n  b = Xi(a, b,
1073741823);\n  xg(a, b);\n  a = xj(a, 1073741823);\n  null !== a && Z(a);\n}\n\nfunction Ei(a, b) {\n  if (3 ===
a.tag) Wj(a, a, b);else for (var c = a.return; null !== c;) {\n    if (3 === c.tag) {\n      Wj(c, a, b);\n      break;\n    }
else if (1 === c.tag) {\n      var d = c.stateNode;\n\n      if (\"function\" === typeof c.type.getDerivedStateFromError
|| \"function\" === typeof d.componentDidCatch && (null === aj || !aj.has(d))) {\n        a = Ai(b, a);\n        a = $i(c,
a, 1073741823);\n        xg(c, a);\n        c = xj(c, 1073741823);\n        null !== c && Z(c);\n        break;\n      }\n
}\n\n
    c = c.return;\n  }\n}\n\nfunction Oj(a, b, c) {\n  var d = a.pingCache;\n  null !== d && d.delete(b);\n  T === a &&
U === c ? S === vi || S === ui && 1073741823 === lj && $f() - Ti < pj ? Ej(a, U) : oj = !0 : Aj(a, c) && (b =
a.lastPingedTime, 0 !== b && b < c || (a.lastPingedTime = c, Z(a)));\n}\n\nfunction Vi(a, b) {\n  var c =
a.stateNode;\n  null !== c && c.delete(b);\n  b = 0;\n  0 === b && (b = Gg(), b = Hg(b, a, null));\n  a = xj(a, b);\n
null !== a && Z(a);\n}\n\nvar Rj;\n\nRj = function Rj(a, b, c) {\n  var d = b.expirationTime;\n\n  if (null !== a) {\n
var e = b.pendingProps;\n    if (a.memoizedProps !== e || K.current) rg = !0;else {\n      if (d < c) {\n        rg = !1;\n\n
     switch (b.tag) {\n          case 3:\n            hi(b);\n            Xh();\n            break;\n\n          case 5:\n            fh(b);\n
     if (b.mode & 4 && 1 !== c && e.hidden) return b.expirationTime = b.childExpirationTime = 1, null;\n
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break;\n\n      case 1:\n
        L(b.type) && Gf(b);\n        break;\n\n      case 4:\n        dh(b, b.stateNode.containerInfo);\n
break;\n\n      case 10:\n        d = b.memoizedProps.value;\n        e = b.type._context;\n        I(jg,
e._currentValue);\n        e._currentValue = d;\n        break;\n\n      case 13:\n        if (null !==
b.memoizedState) {\n          d = b.child.childExpirationTime;\n          if (0 !== d && d >= c) return ji(a, b, c);\n
        I(M, M.current & 1);\n          b = $h(a, b, c);\n          return null !== b ? b.sibling : null;\n        }\n\n
    I(M, M.current & 1);\n        break;\n\n      case 19:\n        d = b.childExpirationTime >= c;\n\n        if (0
!== (a.effectTag & 64)) {\n          if (d) return mi(a, b, c);\n          b.effectTag |= 64;\n        }\n\n        e =
b.memoizedState;\n        null !== e && (e.rendering = null, e.tail = null);\n
        I(M, M.current);\n        if (!d) return null;\n    }\n\n    return $h(a, b, c);\n  }\n\n  rg = !1;\n  }\n
} else rg = !1;\n\n  b.expirationTime = 0;\n\n  switch (b.tag) {\n    case 2:\n      d = b.type;\n      null !== a &&
(a.alternate = null, b.alternate = null, b.effectTag |= 2);\n      a = b.pendingProps;\n      e = Cf(b, J.current);\n      qg(b,
c);\n      e = oh(null, b, d, a, e, c);\n      b.effectTag |= 1;\n\n      if (\"object\" === typeof e && null !== e &&
\"function\" === typeof e.render && void 0 === e.$$typeof) {\n        b.tag = 1;\n        b.memoizedState = null;\n
b.updateQueue = null;\n\n        if (L(d)) {\n          var f = !0;\n          Gf(b);\n        } else f = !1;\n\n
b.memoizedState = null !== e.state && void 0 !== e.state ? e.state : null;\n        ug(b);\n        var g =
d.getDerivedStateFromProps;\n        \"function\" === typeof g && Fg(b, d, g, a);\n        e.updater = Jg;\n
b.stateNode = e;\n
   e._reactInternalFiber = b;\n        Ng(b, d, a, c);\n        b = gi(null, b, d, !0, f, c);\n      } else b.tag = 0, R(null, b, e,
c), b = b.child;\n\n      return b;\n\n    case 16:\n      a: {\n        e = b.elementType;\n        null !== a && (a.alternate =
null, b.alternate = null, b.effectTag |= 2);\n        a = b.pendingProps;\n        ob(e);\n        if (1 !== e._status) throw
e._result;\n        e = e._result;\n        b.type = e;\n        f = b.tag = Xj(e);\n        a = ig(e, a);\n\n        switch (f) {\n
case 0:\n            b = di(null, b, e, a, c);\n            break a;\n\n          case 1:\n            b = fi(null, b, e, a, c);\n
break a;\n\n          case 11:\n            b = Zh(null, b, e, a, c);\n            break a;\n\n          case 14:\n            b = ai(null, b,
e, ig(e.type, a), d, c);\n            break a;\n        }\n\n        throw Error(u(306, e, \"\"));\n      }\n\n      return b;\n\n    case
0:\n      return d = b.type, e = b.pendingProps,
 e = b.elementType === d ? e : ig(d, e), di(a, b, d, e, c);\n\n    case 1:\n      return d = b.type, e = b.pendingProps, e =
b.elementType === d ? e : ig(d, e), fi(a, b, d, e, c);\n\n    case 3:\n      hi(b);\n      d = b.updateQueue;\n      if (null
=== a || null === d) throw Error(u(282));\n      d = b.pendingProps;\n      e = b.memoizedState;\n      e = null !== e ?
e.element : null;\n      vg(a, b);\n      zg(b, d, null, c);\n      d = b.memoizedState.element;\n      if (d === e) Xh(), b =
$h(a, b, c);else {\n        if (e = b.stateNode.hydrate) Ph = Jd(b.stateNode.containerInfo.firstChild), Oh = b, e = Qh =
!0;\n        if (e) for (c = Yg(b, null, d, c), b.child = c; c;) {\n          c.effectTag = c.effectTag & -3 | 1024, c =
c.sibling;\n        } else R(a, b, d, c), Xh();\n        b = b.child;\n      }\n      return b;\n\n    case 5:\n      return fh(b), null
=== a && Uh(b), d = b.type, e = b.pendingProps, f = null !== a ? a.memoizedProps : null, g = e.children, Gd(d, e) ?
g =
 null : null !== f && Gd(d, f) && (b.effectTag |= 16), ei(a, b), b.mode & 4 && 1 !== c && e.hidden ?
(b.expirationTime = b.childExpirationTime = 1, b = null) : (R(a, b, g, c), b = b.child), b;\n\n    case 6:\n      return
null === a && Uh(b), null;\n\n    case 13:\n      return ji(a, b, c);\n\n    case 4:\n      return dh(b,
b.stateNode.containerInfo), d = b.pendingProps, null === a ? b.child = Xg(b, null, d, c) : R(a, b, d, c), b.child;\n\n
case 11:\n      return d = b.type, e = b.pendingProps, e = b.elementType === d ? e : ig(d, e), Zh(a, b, d, e, c);\n\n
case 7:\n      return R(a, b, b.pendingProps, c), b.child;\n\n    case 8:\n      return R(a, b, b.pendingProps.children, c),
b.child;\n\n    case 12:\n      return R(a, b, b.pendingProps.children, c), b.child;\n\n    case 10:\n      a: {\n        d =
b.type._context;\n        e = b.pendingProps;\n        g = b.memoizedProps;\n        f = e.value;\n        var h =
b.type._context;\n        I(jg, h._currentValue);\n        h._currentValue
 = f;\n        if (null !== g) if (h = g.value, f = $e(h, f) ? 0 : (\"function\" === typeof d._calculateChangedBits ?
d._calculateChangedBits(h, f) : 1073741823) | 0, 0 === f) {\n          if (g.children === e.children && !K.current) {\n
        b = $h(a, b, c);\n            break a;\n          }\n        } else for (h = b.child, null !== h && (h.return = b); null !==
h;) {\n          var k = h.dependencies;\n\n          if (null !== k) {\n            g = h.child;\n\n            for (var l =
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k.firstContext; null !== l;) {\n              if (l.context === d && 0 !== (l.observedBits & f)) {\n                1 === h.tag
&& (l = wg(c, null), l.tag = 2, xg(h, l));\n                h.expirationTime < c && (h.expirationTime = c);\n                l =
h.alternate;\n                null !== l && l.expirationTime < c && (l.expirationTime = c);\n                pg(h.return, c);\n
            k.expirationTime < c && (k.expirationTime = c);\n                break;\n              }\n\n
              l = l.next;\n            }\n          } else g = 10 === h.tag ? h.type === b.type ? null : h.child : h.child;\n\n          if
(null !== g) g.return = h;else for (g = h; null !== g;) {\n            if (g === b) {\n              g = null;\n              break;\n
        }\n\n            h = g.sibling;\n\n            if (null !== h) {\n              h.return = g.return;\n              g = h;\n
break;\n            }\n\n            g = g.return;\n          }\n          h = g;\n        }\n      R(a, b, e.children, c);\n      b =
b.child;\n      }\n\n      return b;\n\n    case 9:\n      return e = b.type, f = b.pendingProps, d = f.children, qg(b, c), e =
sg(e, f.unstable_observedBits), d = d(e), b.effectTag |= 1, R(a, b, d, c), b.child;\n\n    case 14:\n      return e = b.type,
f = ig(e, b.pendingProps), f = ig(e.type, f), ai(a, b, e, f, d, c);\n\n    case 15:\n      return ci(a, b, b.type,
b.pendingProps, d, c);\n\n    case 17:\n      return d = b.type, e
 = b.pendingProps, e = b.elementType === d ? e : ig(d, e), null !== a && (a.alternate = null, b.alternate = null,
b.effectTag |= 2), b.tag = 1, L(d) ? (a = !0, Gf(b)) : a = !1, qg(b, c), Lg(b, d, e), Ng(b, d, e, c), gi(null, b, d, !0, a,
c);\n\n    case 19:\n      return mi(a, b, c);\n  }\n\n  throw Error(u(156, b.tag));\n};\n\nvar Uj = null,\n    Li =
null;\n\nfunction Yj(a) {\n  if (\"undefined\" === typeof __REACT_DEVTOOLS_GLOBAL_HOOK__) return !1;\n
var b = __REACT_DEVTOOLS_GLOBAL_HOOK__;\n  if (b.isDisabled || !b.supportsFiber) return !0;\n\n  try {\n
 var c = b.inject(a);\n\n    Uj = function Uj(a) {\n      try {\n        b.onCommitFiberRoot(c, a, void 0, 64 ===
(a.current.effectTag & 64));\n      } catch (e) {}\n    };\n\n    Li = function Li(a) {\n      try {\n
b.onCommitFiberUnmount(c, a);\n      } catch (e) {}\n    };\n  } catch (d) {}\n\n  return !0;\n}\n\nfunction Zj(a, b, c,
d) {\n  this.tag = a;\n  this.key = c;\n  this.sibling = this.child = this.return = this.stateNode
 = this.type = this.elementType = null;\n  this.index = 0;\n  this.ref = null;\n  this.pendingProps = b;\n
this.dependencies = this.memoizedState = this.updateQueue = this.memoizedProps = null;\n  this.mode = d;\n
this.effectTag = 0;\n  this.lastEffect = this.firstEffect = this.nextEffect = null;\n  this.childExpirationTime =
this.expirationTime = 0;\n  this.alternate = null;\n}\n\nfunction Sh(a, b, c, d) {\n  return new Zj(a, b, c,
d);\n}\n\nfunction bi(a) {\n  a = a.prototype;\n  return !(!a || !a.isReactComponent);\n}\n\nfunction Xj(a) {\n  if
(\"function\" === typeof a) return bi(a) ? 1 : 0;\n\n  if (void 0 !== a && null !== a) {\n    a = a.$$typeof;\n    if (a
=== gb) return 11;\n    if (a === jb) return 14;\n  }\n\n  return 2;\n}\n\nfunction Sg(a, b) {\n  var c = a.alternate;\n
null === c ? (c = Sh(a.tag, b, a.key, a.mode), c.elementType = a.elementType, c.type = a.type, c.stateNode =
a.stateNode, c.alternate = a, a.alternate = c) : (c.pendingProps = b, c.effectTag = 0,
 c.nextEffect = null, c.firstEffect = null, c.lastEffect = null);\n  c.childExpirationTime = a.childExpirationTime;\n
c.expirationTime = a.expirationTime;\n  c.child = a.child;\n  c.memoizedProps = a.memoizedProps;\n
c.memoizedState = a.memoizedState;\n  c.updateQueue = a.updateQueue;\n  b = a.dependencies;\n  c.dependencies
= null === b ? null : {\n    expirationTime: b.expirationTime,\n    firstContext: b.firstContext,\n    responders:
b.responders\n  };\n  c.sibling = a.sibling;\n  c.index = a.index;\n  c.ref = a.ref;\n  return c;\n}\n\nfunction Ug(a, b, c,
d, e, f) {\n  var g = 2;\n  d = a;\n  if (\"function\" === typeof a) bi(a) && (g = 1);else if (\"string\" === typeof a) g =
5;else a: switch (a) {\n    case ab:\n      return Wg(c.children, e, f, b);\n\n    case fb:\n      g = 8;\n      e |= 7;\n
break;\n\n    case bb:\n      g = 8;\n      e |= 1;\n      break;\n\n    case cb:\n      return a = Sh(12, c, b, e | 8),
a.elementType = cb, a.type = cb, a.expirationTime = f, a;\n\n
    case hb:\n      return a = Sh(13, c, b, e), a.type = hb, a.elementType = hb, a.expirationTime = f, a;\n\n    case ib:\n
  return a = Sh(19, c, b, e), a.elementType = ib, a.expirationTime = f, a;\n\n    default:\n      if (\"object\" === typeof
a && null !== a) switch (a.$$typeof) {\n        case db:\n          g = 10;\n          break a;\n\n        case eb:\n          g =
9;\n          break a;\n\n        case gb:\n          g = 11;\n          break a;\n\n        case jb:\n          g = 14;\n          break
a;\n\n        case kb:\n          g = 16;\n          d = null;\n          break a;\n\n        case lb:\n          g = 22;\n          break a;\n
    }\n      throw Error(u(130, null == a ? a : typeof a, \"\"));\n  }\n  b = Sh(g, c, b, e);\n  b.elementType = a;\n  b.type
= d;\n  b.expirationTime = f;\n  return b;\n}\n\nfunction Wg(a, b, c, d) {\n  a = Sh(7, a, d, b);\n  a.expirationTime =
c;\n  return a;\n}\n\nfunction Tg(a, b, c) {\n  a = Sh(6, a, null, b);\n  a.expirationTime
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 = c;\n  return a;\n}\n\nfunction Vg(a, b, c) {\n  b = Sh(4, null !== a.children ? a.children : [], a.key, b);\n
b.expirationTime = c;\n  b.stateNode = {\n    containerInfo: a.containerInfo,\n    pendingChildren: null,\n
implementation: a.implementation\n  };\n  return b;\n}\n\nfunction ak(a, b, c) {\n  this.tag = b;\n  this.current =
null;\n  this.containerInfo = a;\n  this.pingCache = this.pendingChildren = null;\n  this.finishedExpirationTime = 0;\n
this.finishedWork = null;\n  this.timeoutHandle = -1;\n  this.pendingContext = this.context = null;\n  this.hydrate =
c;\n  this.callbackNode = null;\n  this.callbackPriority = 90;\n  this.lastExpiredTime = this.lastPingedTime =
this.nextKnownPendingLevel = this.lastSuspendedTime = this.firstSuspendedTime = this.firstPendingTime =
0;\n}\n\nfunction Aj(a, b) {\n  var c = a.firstSuspendedTime;\n  a = a.lastSuspendedTime;\n  return 0 !== c && c >=
b && a <= b;\n}\n\nfunction xi(a, b) {\n  var c = a.firstSuspendedTime,\n      d = a.lastSuspendedTime;\n
  c < b && (a.firstSuspendedTime = b);\n  if (d > b || 0 === c) a.lastSuspendedTime = b;\n  b <= a.lastPingedTime
&& (a.lastPingedTime = 0);\n  b <= a.lastExpiredTime && (a.lastExpiredTime = 0);\n}\n\nfunction yi(a, b) {\n  b >
a.firstPendingTime && (a.firstPendingTime = b);\n  var c = a.firstSuspendedTime;\n  0 !== c && (b >= c ?
a.firstSuspendedTime = a.lastSuspendedTime = a.nextKnownPendingLevel = 0 : b >= a.lastSuspendedTime &&
(a.lastSuspendedTime = b + 1), b > a.nextKnownPendingLevel && (a.nextKnownPendingLevel =
b));\n}\n\nfunction Cj(a, b) {\n  var c = a.lastExpiredTime;\n  if (0 === c || c > b) a.lastExpiredTime =
b;\n}\n\nfunction bk(a, b, c, d) {\n  var e = b.current,\n      f = Gg(),\n      g = Dg.suspense;\n  f = Hg(f, e, g);\n\n  a:
if (c) {\n    c = c._reactInternalFiber;\n\n    b: {\n      if (dc(c) !== c || 1 !== c.tag) throw Error(u(170));\n      var h =
c;\n\n      do {\n        switch (h.tag) {\n          case 3:\n            h = h.stateNode.context;\n
            break b;\n\n          case 1:\n            if (L(h.type)) {\n              h =
h.stateNode.__reactInternalMemoizedMergedChildContext;\n              break b;\n            }\n\n        }\n\n        h =
h.return;\n      } while (null !== h);\n\n      throw Error(u(171));\n    }\n\n    if (1 === c.tag) {\n      var k = c.type;\n\n
   if (L(k)) {\n        c = Ff(c, k, h);\n        break a;\n      }\n    }\n\n    c = h;\n  } else c = Af;\n\n  null === b.context ?
b.context = c : b.pendingContext = c;\n  b = wg(f, g);\n  b.payload = {\n    element: a\n  };\n  d = void 0 === d ? null
: d;\n  null !== d && (b.callback = d);\n  xg(e, b);\n  Ig(e, f);\n  return f;\n}\n\nfunction ck(a) {\n  a = a.current;\n  if
(!a.child) return null;\n\n  switch (a.child.tag) {\n    case 5:\n      return a.child.stateNode;\n\n    default:\n      return
a.child.stateNode;\n  }\n}\n\nfunction dk(a, b) {\n  a = a.memoizedState;\n  null !== a && null !== a.dehydrated
&& a.retryTime < b && (a.retryTime
 = b);\n}\n\nfunction ek(a, b) {\n  dk(a, b);\n  (a = a.alternate) && dk(a, b);\n}\n\nfunction fk(a, b, c) {\n  c = null !=
c && !0 === c.hydrate;\n  var d = new ak(a, b, c),\n      e = Sh(3, null, null, 2 === b ? 7 : 1 === b ? 3 : 0);\n
d.current = e;\n  e.stateNode = d;\n  ug(e);\n  a[Od] = d.current;\n  c && 0 !== b && Jc(a, 9 === a.nodeType ? a :
a.ownerDocument);\n  this._internalRoot = d;\n}\n\nfk.prototype.render = function (a) {\n  bk(a, this._internalRoot,
null, null);\n};\n\nfk.prototype.unmount = function () {\n  var a = this._internalRoot,\n      b = a.containerInfo;\n
bk(null, a, null, function () {\n    b[Od] = null;\n  });\n};\n\nfunction gk(a) {\n  return !(!a || 1 !== a.nodeType && 9
!== a.nodeType && 11 !== a.nodeType && (8 !== a.nodeType || \" react-mount-point-unstable \" !==
a.nodeValue));\n}\n\nfunction hk(a, b) {\n  b || (b = a ? 9 === a.nodeType ? a.documentElement : a.firstChild : null,
b = !(!b || 1 !== b.nodeType || !b.hasAttribute(\"data-reactroot\")));\n
  if (!b) for (var c; c = a.lastChild;) {\n    a.removeChild(c);\n  }\n  return new fk(a, 0, b ? {\n    hydrate: !0\n  } : void
0);\n}\n\nfunction ik(a, b, c, d, e) {\n  var f = c._reactRootContainer;\n\n  if (f) {\n    var g = f._internalRoot;\n\n    if
(\"function\" === typeof e) {\n      var h = e;\n\n      e = function e() {\n        var a = ck(g);\n        h.call(a);\n      };\n
}\n\n    bk(b, g, a, e);\n  } else {\n    f = c._reactRootContainer = hk(c, d);\n    g = f._internalRoot;\n\n    if
(\"function\" === typeof e) {\n      var k = e;\n\n      e = function e() {\n        var a = ck(g);\n        k.call(a);\n      };\n
}\n\n    Nj(function () {\n      bk(b, g, a, e);\n    });\n  }\n\n  return ck(g);\n}\n\nfunction jk(a, b, c) {\n  var d = 3 <
arguments.length && void 0 !== arguments[3] ? arguments[3] : null;\n  return {\n    $$typeof: $a,\n    key: null == d
? null : \"\" + d,\n    children: a,\n    containerInfo: b,\n    implementation: c\n  };\n}\n\nwc = function wc(a)
 {\n  if (13 === a.tag) {\n    var b = hg(Gg(), 150, 100);\n    Ig(a, b);\n    ek(a, b);\n  }\n};\n\nxc = function xc(a) {\n
13 === a.tag && (Ig(a, 3), ek(a, 3));\n};\n\nyc = function yc(a) {\n  if (13 === a.tag) {\n    var b = Gg();\n    b =
Hg(b, a, null);\n    Ig(a, b);\n    ek(a, b);\n  }\n};\n\nza = function za(a, b, c) {\n  switch (b) {\n    case \"input\":\n
Cb(a, c);\n      b = c.name;\n\n      if (\"radio\" === c.type && null != b) {\n        for (c = a; c.parentNode;) {\n          c
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= c.parentNode;\n        }\n\n        c = c.querySelectorAll(\"input[name=\" + JSON.stringify(\"\" + b) +
'][type=\"radio\"]');\n\n        for (b = 0; b < c.length; b++) {\n          var d = c[b];\n\n          if (d !== a && d.form ===
a.form) {\n            var e = Qd(d);\n            if (!e) throw Error(u(90));\n            yb(d);\n            Cb(d, e);\n          }\n
 }\n      }\n\n      break;\n\n    case \"textarea\":\n      Kb(a, c);\n      break;\n\n    case \"select\":\n
    b = c.value, null != b && Hb(a, !!c.multiple, b, !1);\n  }\n};\n\nFa = Mj;\n\nGa = function Ga(a, b, c, d, e) {\n  var
f = W;\n  W |= 4;\n\n  try {\n    return cg(98, a.bind(null, b, c, d, e));\n  } finally {\n    W = f, W === V && gg();\n
}\n};\n\nHa = function Ha() {\n  (W & (1 | fj | gj)) === V && (Lj(), Dj());\n};\n\nIa = function Ia(a, b) {\n  var c =
W;\n  W |= 2;\n\n  try {\n    return a(b);\n  } finally {\n    W = c, W === V && gg();\n  }\n};\n\nfunction kk(a, b) {\n
var c = 2 < arguments.length && void 0 !== arguments[2] ? arguments[2] : null;\n  if (!gk(b)) throw
Error(u(200));\n  return jk(a, b, null, c);\n}\n\nvar lk = {\n  Events: [Nc, Pd, Qd, xa, ta, Xd, function (a) {\n    jc(a,
Wd);\n  }, Da, Ea, id, mc, Dj, {\n    current: !1\n  }]\n};\n\n(function (a) {\n  var b = a.findFiberByHostInstance;\n
return Yj(n({}, a, {\n    overrideHookState: null,\n    overrideProps: null,\n    setSuspenseHandler: null,\n
scheduleUpdate: null,\n    currentDispatcherRef: Wa.ReactCurrentDispatcher,\n
    findHostInstanceByFiber: function findHostInstanceByFiber(a) {\n      a = hc(a);\n      return null === a ? null :
a.stateNode;\n    },\n    findFiberByHostInstance: function findFiberByHostInstance(a) {\n      return b ? b(a) : null;\n
  },\n    findHostInstancesForRefresh: null,\n    scheduleRefresh: null,\n    scheduleRoot: null,\n
setRefreshHandler: null,\n    getCurrentFiber: null\n  }));\n})({\n  findFiberByHostInstance: tc,\n  bundleType: 0,\n
version: \"16.14.0\",\n  rendererPackageName: \"react-
dom\"\n});\n\nexports.__SECRET_INTERNALS_DO_NOT_USE_OR_YOU_WILL_BE_FIRED =
lk;\nexports.createPortal = kk;\n\nexports.findDOMNode = function (a) {\n  if (null == a) return null;\n  if (1 ===
a.nodeType) return a;\n  var b = a._reactInternalFiber;\n\n  if (void 0 === b) {\n    if (\"function\" === typeof
a.render) throw Error(u(188));\n    throw Error(u(268, Object.keys(a)));\n  }\n\n  a = hc(b);\n  a = null === a ? null :
a.stateNode;\n  return a;\n};\n\nexports.flushSync
 = function (a, b) {\n  if ((W & (fj | gj)) !== V) throw Error(u(187));\n  var c = W;\n  W |= 1;\n\n  try {\n    return
cg(99, a.bind(null, b));\n  } finally {\n    W = c, gg();\n  }\n};\n\nexports.hydrate = function (a, b, c) {\n  if (!gk(b))
throw Error(u(200));\n  return ik(null, a, b, !0, c);\n};\n\nexports.render = function (a, b, c) {\n  if (!gk(b)) throw
Error(u(200));\n  return ik(null, a, b, !1, c);\n};\n\nexports.unmountComponentAtNode = function (a) {\n  if (!gk(a))
throw Error(u(40));\n  return a._reactRootContainer ? (Nj(function () {\n    ik(null, null, a, !1, function () {\n
a._reactRootContainer = null;\n      a[Od] = null;\n    });\n  }), !0) : !1;\n};\n\nexports.unstable_batchedUpdates =
Mj;\n\nexports.unstable_createPortal = function (a, b) {\n  return kk(a, b, 2 < arguments.length && void 0 !==
arguments[2] ? arguments[2] : null);\n};\n\nexports.unstable_renderSubtreeIntoContainer = function (a, b, c, d) {\n
if (!gk(c)) throw Error(u(200));\n  if (null
 == a || void 0 === a._reactInternalFiber) throw Error(u(38));\n  return ik(a, b, c, !1, d);\n};\n\nexports.version =
\"16.14.0\";","'use strict';\n\nif (process.env.NODE_ENV === 'production') {\n  module.exports =
require('./cjs/scheduler.production.min.js');\n} else {\n  module.exports =
require('./cjs/scheduler.development.js');\n}","/** @license React v0.19.1\n * scheduler.production.min.js\n *\n *
Copyright (c) Facebook, Inc. and its affiliates.\n *\n * This source code is licensed under the MIT license found in
the\n * LICENSE file in the root directory of this source tree.\n */\n'use strict';\n\nvar _f, g, h, k, l;\n\nif
(\"undefined\" === typeof window || \"function\" !== typeof MessageChannel) {\n  var p = null,\n      q = null,\n      t
= function t() {\n    if (null !== p) try {\n      var a = exports.unstable_now();\n      p(!0, a);\n      p = null;\n    } catch
(b) {\n      throw setTimeout(t, 0), b;\n    }\n  },\n      u = Date.now();\n\n  exports.unstable_now = function
 () {\n    return Date.now() - u;\n  };\n\n  _f = function f(a) {\n    null !== p ? setTimeout(_f, 0, a) : (p = a,
setTimeout(t, 0));\n  };\n\n  g = function g(a, b) {\n    q = setTimeout(a, b);\n  };\n\n  h = function h() {\n
clearTimeout(q);\n  };\n\n  k = function k() {\n    return !1;\n  };\n\n  l = exports.unstable_forceFrameRate = function
() {};\n} else {\n  var w = window.performance,\n      x = window.Date,\n      y = window.setTimeout,\n      z =
window.clearTimeout;\n\n  if (\"undefined\" !== typeof console) {\n    var A = window.cancelAnimationFrame;\n
\"function\" !== typeof window.requestAnimationFrame && console.error(\"This browser doesn't support
requestAnimationFrame. Make sure that you load a polyfill in older browsers. https://fb.me/react-polyfills\");\n
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\"function\" !== typeof A && console.error(\"This browser doesn't support cancelAnimationFrame. Make sure that
you load a polyfill in older browsers. https://fb.me/react-polyfills\");\n  }\n\n  if (\"object\"
 === typeof w && \"function\" === typeof w.now) exports.unstable_now = function () {\n    return w.now();\n
};else {\n    var B = x.now();\n\n    exports.unstable_now = function () {\n      return x.now() - B;\n    };\n  }\n  var C
= !1,\n      D = null,\n      E = -1,\n      F = 5,\n      G = 0;\n\n  k = function k() {\n    return exports.unstable_now() >=
G;\n  };\n\n  l = function l() {};\n\n  exports.unstable_forceFrameRate = function (a) {\n    0 > a || 125 < a ?
console.error(\"forceFrameRate takes a positive int between 0 and 125, forcing framerates higher than 125 fps is not
unsupported\") : F = 0 < a ? Math.floor(1E3 / a) : 5;\n  };\n\n  var H = new MessageChannel(),\n      I = H.port2;\n\n
H.port1.onmessage = function () {\n    if (null !== D) {\n      var a = exports.unstable_now();\n      G = a + F;\n\n
try {\n        D(!0, a) ? I.postMessage(null) : (C = !1, D = null);\n      } catch (b) {\n        throw I.postMessage(null),
b;\n      }\n    } else C = !1;\n  };\n\n
  _f = function _f(a) {\n    D = a;\n    C || (C = !0, I.postMessage(null));\n  };\n\n  g = function g(a, b) {\n    E =
y(function () {\n      a(exports.unstable_now());\n    }, b);\n  };\n\n  h = function h() {\n    z(E);\n    E = -1;\n
};\n}\n\nfunction J(a, b) {\n  var c = a.length;\n  a.push(b);\n\n  a: for (;;) {\n    var d = c - 1 >>> 1,\n        e = a[d];\n
 if (void 0 !== e && 0 < K(e, b)) a[d] = b, a[c] = e, c = d;else break a;\n  }\n}\n\nfunction L(a) {\n  a = a[0];\n
return void 0 === a ? null : a;\n}\n\nfunction M(a) {\n  var b = a[0];\n\n  if (void 0 !== b) {\n    var c = a.pop();\n\n
if (c !== b) {\n      a[0] = c;\n\n      a: for (var d = 0, e = a.length; d < e;) {\n        var m = 2 * (d + 1) - 1,\n            n =
a[m],\n            v = m + 1,\n            r = a[v];\n        if (void 0 !== n && 0 > K(n, c)) void 0 !== r && 0 > K(r, n) ?
(a[d] = r, a[v] = c, d = v) : (a[d] = n, a[m] = c, d = m);else if (void 0 !== r && 0 > K(r, c)) a[d] = r, a[v] = c, d =
v;else
 break a;\n      }\n    }\n\n    return b;\n  }\n\n  return null;\n}\n\nfunction K(a, b) {\n  var c = a.sortIndex -
b.sortIndex;\n  return 0 !== c ? c : a.id - b.id;\n}\n\nvar N = [],\n    O = [],\n    P = 1,\n    Q = null,\n    R = 3,\n    S =
!1,\n    T = !1,\n    U = !1;\n\nfunction V(a) {\n  for (var b = L(O); null !== b;) {\n    if (null === b.callback)
M(O);else if (b.startTime <= a) M(O), b.sortIndex = b.expirationTime, J(N, b);else break;\n    b = L(O);\n
}\n}\n\nfunction W(a) {\n  U = !1;\n  V(a);\n  if (!T) if (null !== L(N)) T = !0, _f(X);else {\n    var b = L(O);\n    null
!== b && g(W, b.startTime - a);\n  }\n}\n\nfunction X(a, b) {\n  T = !1;\n  U && (U = !1, h());\n  S = !0;\n  var c =
R;\n\n  try {\n    V(b);\n\n    for (Q = L(N); null !== Q && (!(Q.expirationTime > b) || a && !k());) {\n      var d =
Q.callback;\n\n      if (null !== d) {\n        Q.callback = null;\n        R = Q.priorityLevel;\n        var e =
d(Q.expirationTime <= b);\n        b = exports.unstable_now();\n
        \"function\" === typeof e ? Q.callback = e : Q === L(N) && M(N);\n        V(b);\n      } else M(N);\n\n      Q =
L(N);\n    }\n\n    if (null !== Q) var m = !0;else {\n      var n = L(O);\n      null !== n && g(W, n.startTime - b);\n
m = !1;\n    }\n    return m;\n  } finally {\n    Q = null, R = c, S = !1;\n  }\n}\n\nfunction Y(a) {\n  switch (a) {\n
case 1:\n      return -1;\n\n    case 2:\n      return 250;\n\n    case 5:\n      return 1073741823;\n\n    case 4:\n      return
1E4;\n\n    default:\n      return 5E3;\n  }\n}\n\nvar Z = l;\nexports.unstable_IdlePriority =
5;\nexports.unstable_ImmediatePriority = 1;\nexports.unstable_LowPriority = 4;\nexports.unstable_NormalPriority
= 3;\nexports.unstable_Profiling = null;\nexports.unstable_UserBlockingPriority =
2;\n\nexports.unstable_cancelCallback = function (a) {\n  a.callback =
null;\n};\n\nexports.unstable_continueExecution = function () {\n  T || S || (T = !0,
_f(X));\n};\n\nexports.unstable_getCurrentPriorityLevel
 = function () {\n  return R;\n};\n\nexports.unstable_getFirstCallbackNode = function () {\n  return
L(N);\n};\n\nexports.unstable_next = function (a) {\n  switch (R) {\n    case 1:\n    case 2:\n    case 3:\n      var b =
3;\n      break;\n\n    default:\n      b = R;\n  }\n\n  var c = R;\n  R = b;\n\n  try {\n    return a();\n  } finally {\n    R =
c;\n  }\n};\n\nexports.unstable_pauseExecution = function () {};\n\nexports.unstable_requestPaint =
Z;\n\nexports.unstable_runWithPriority = function (a, b) {\n  switch (a) {\n    case 1:\n    case 2:\n    case 3:\n    case
4:\n    case 5:\n      break;\n\n    default:\n      a = 3;\n  }\n\n  var c = R;\n  R = a;\n\n  try {\n    return b();\n  } finally
{\n    R = c;\n  }\n};\n\nexports.unstable_scheduleCallback = function (a, b, c) {\n  var d =
exports.unstable_now();\n\n  if (\"object\" === typeof c && null !== c) {\n    var e = c.delay;\n    e = \"number\"
=== typeof e && 0 < e ? d + e : d;\n    c = \"number\" === typeof c.timeout
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 ? c.timeout : Y(a);\n  } else c = Y(a), e = d;\n\n  c = e + c;\n  a = {\n    id: P++,\n    callback: b,\n    priorityLevel:
a,\n    startTime: e,\n    expirationTime: c,\n    sortIndex: -1\n  };\n  e > d ? (a.sortIndex = e, J(O, a), null === L(N)
&& a === L(O) && (U ? h() : U = !0, g(W, e - d))) : (a.sortIndex = c, J(N, a), T || S || (T = !0, _f(X)));\n  return
a;\n};\n\nexports.unstable_shouldYield = function () {\n  var a = exports.unstable_now();\n  V(a);\n  var b = L(N);\n
return b !== Q && null !== Q && null !== b && null !== b.callback && b.startTime <= a && b.expirationTime <
Q.expirationTime || k();\n};\n\nexports.unstable_wrapCallback = function (a) {\n  var b = R;\n  return function () {\n
  var c = R;\n    R = b;\n\n    try {\n      return a.apply(this, arguments);\n    } finally {\n      R = c;\n    }\n
};\n};","/**\n * Copyright (c) 2013-present, Facebook, Inc.\n *\n * This source code is licensed under the MIT
license found in the\n * LICENSE file in the root directory
 of this source tree.\n */\n'use strict';\n\nvar ReactPropTypesSecret =
require('./lib/ReactPropTypesSecret');\n\nfunction emptyFunction() {}\n\nfunction emptyFunctionWithReset()
{}\n\nemptyFunctionWithReset.resetWarningCache = emptyFunction;\n\nmodule.exports = function () {\n  function
shim(props, propName, componentName, location, propFullName, secret) {\n    if (secret ===
ReactPropTypesSecret) {\n      // It is still safe when called from React.\n      return;\n    }\n\n    var err = new
Error('Calling PropTypes validators directly is not supported by the `prop-types` package. ' + 'Use
PropTypes.checkPropTypes() to call them. ' + 'Read more at http://fb.me/use-check-prop-types');\n    err.name =
'Invariant Violation';\n    throw err;\n  }\n\n  ;\n  shim.isRequired = shim;\n\n  function getShim() {\n    return
shim;\n  }\n\n  ; // Important!\n  // Keep this list in sync with production version in
`./factoryWithTypeCheckers.js`.\n\n  var ReactPropTypes = {\n    array: shim,\n
    bigint: shim,\n    bool: shim,\n    func: shim,\n    number: shim,\n    object: shim,\n    string: shim,\n    symbol:
shim,\n    any: shim,\n    arrayOf: getShim,\n    element: shim,\n    elementType: shim,\n    instanceOf: getShim,\n
node: shim,\n    objectOf: getShim,\n    oneOf: getShim,\n    oneOfType: getShim,\n    shape: getShim,\n    exact:
getShim,\n    checkPropTypes: emptyFunctionWithReset,\n    resetWarningCache: emptyFunction\n  };\n
ReactPropTypes.PropTypes = ReactPropTypes;\n  return ReactPropTypes;\n};","/**\n * Copyright (c) 2013-present,
Facebook, Inc.\n *\n * This source code is licensed under the MIT license found in the\n * LICENSE file in the root
directory of this source tree.\n */\n'use strict';\n\nvar ReactPropTypesSecret =
'SECRET_DO_NOT_PASS_THIS_OR_YOU_WILL_BE_FIRED';\nmodule.exports =
ReactPropTypesSecret;","/** @license React v16.13.1\n * react-is.production.min.js\n *\n * Copyright (c)
Facebook, Inc. and its affiliates.\n *\n * This source code is
 licensed under the MIT license found in the\n * LICENSE file in the root directory of this source tree.\n */\n'use
strict';\n\nvar b = \"function\" === typeof Symbol && Symbol.for,\n    c = b ? Symbol.for(\"react.element\") :
60103,\n    d = b ? Symbol.for(\"react.portal\") : 60106,\n    e = b ? Symbol.for(\"react.fragment\") : 60107,\n    f = b
? Symbol.for(\"react.strict_mode\") : 60108,\n    g = b ? Symbol.for(\"react.profiler\") : 60114,\n    h = b ?
Symbol.for(\"react.provider\") : 60109,\n    k = b ? Symbol.for(\"react.context\") : 60110,\n    l = b ?
Symbol.for(\"react.async_mode\") : 60111,\n    m = b ? Symbol.for(\"react.concurrent_mode\") : 60111,\n    n = b ?
Symbol.for(\"react.forward_ref\") : 60112,\n    p = b ? Symbol.for(\"react.suspense\") : 60113,\n    q = b ?
Symbol.for(\"react.suspense_list\") : 60120,\n    r = b ? Symbol.for(\"react.memo\") : 60115,\n    t = b ?
Symbol.for(\"react.lazy\") : 60116,\n    v = b ? Symbol.for(\"react.block\") : 60121,\n    w = b ?
Symbol.for(\"react.fundamental\")
 : 60117,\n    x = b ? Symbol.for(\"react.responder\") : 60118,\n    y = b ? Symbol.for(\"react.scope\") :
60119;\n\nfunction z(a) {\n  if (\"object\" === typeof a && null !== a) {\n    var u = a.$$typeof;\n\n    switch (u) {\n
   case c:\n        switch (a = a.type, a) {\n          case l:\n          case m:\n          case e:\n          case g:\n          case f:\n
      case p:\n            return a;\n\n          default:\n            switch (a = a && a.$$typeof, a) {\n              case k:\n
case n:\n              case t:\n              case r:\n              case h:\n                return a;\n\n              default:\n
return u;\n            }\n\n        }\n\n      case d:\n        return u;\n    }\n  }\n}\n\nfunction A(a) {\n  return z(a) ===
m;\n}\n\nexports.AsyncMode = l;\nexports.ConcurrentMode = m;\nexports.ContextConsumer =
k;\nexports.ContextProvider = h;\nexports.Element = c;\nexports.ForwardRef = n;\nexports.Fragment
```

```
 = e;\nexports.Lazy = t;\nexports.Memo = r;\nexports.Portal = d;\nexports.Profiler = g;\nexports.StrictMode =
f;\nexports.Suspense = p;\n\nexports.isAsyncMode = function (a) {\n  return A(a) || z(a) ===
l;\n};\n\nexports.isConcurrentMode = A;\n\nexports.isContextConsumer = function (a) {\n  return z(a) ===
k;\n};\n\nexports.isContextProvider = function (a) {\n  return z(a) === h;\n};\n\nexports.isElement = function (a)
{\n  return \"object\" === typeof a && null !== a && a.$$typeof === c;\n};\n\nexports.isForwardRef = function (a)
{\n  return z(a) === n;\n};\n\nexports.isFragment = function (a) {\n  return z(a) === e;\n};\n\nexports.isLazy =
function (a) {\n  return z(a) === t;\n};\n\nexports.isMemo = function (a) {\n  return z(a) ===
r;\n};\n\nexports.isPortal = function (a) {\n  return z(a) === d;\n};\n\nexports.isProfiler = function (a) {\n  return
z(a) === g;\n};\n\nexports.isStrictMode = function (a) {\n  return z(a) === f;\n};\n\nexports.isSuspense = function
(a) {\n  return
 z(a) === p;\n};\n\nexports.isValidElementType = function (a) {\n  return \"string\" === typeof a || \"function\" ===
typeof a || a === e || a === m || a === g || a === f || a === p || a === q || \"object\" === typeof a && null !== a &&
(a.$$typeof === t || a.$$typeof === r || a.$$typeof === h || a.$$typeof === k || a.$$typeof === n || a.$$typeof === w
|| a.$$typeof === x || a.$$typeof === y || a.$$typeof === v);\n};\n\nexports.typeOf = z;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar _keys = require('babel-
runtime/core-js/object/keys');\n\nvar _keys2 = _interopRequireDefault(_keys);\n\nvar _objectWithoutProperties2 =
require('babel-runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar
 _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nexports.getStyles =
getStyles;\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 =
_interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar
 _IconButton = require('../IconButton');\n\nvar _IconButton2 = _interopRequireDefault(_IconButton);\n\nvar _menu
= require('../svg-icons/navigation/menu');\n\nvar _menu2 = _interopRequireDefault(_menu);\n\nvar _Paper =
require('../Paper');\n\nvar _Paper2 = _interopRequireDefault(_Paper);\n\nvar _propTypes3 =
require('../utils/propTypes');\n\nvar _propTypes4 = _interopRequireDefault(_propTypes3);\n\nvar _warning =
require('warning');\n\nvar _warning2 = _interopRequireDefault(_warning);\n\nfunction _interopRequireDefault(obj)
{\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var
_context$muiTheme = context.muiTheme,\n      appBar = _context$muiTheme.appBar,\n      iconButtonSize =
_context$muiTheme.button.iconButtonSize,\n      zIndex = _context$muiTheme.zIndex;\n  var flatButtonSize =
36;\n  var styles = {\n    root: {\n      position: 'relative',\n      zIndex: zIndex.appBar,\n      width: '100%',\n
display: 'flex',\n
      backgroundColor: appBar.color,\n      paddingLeft: appBar.padding,\n      paddingRight: appBar.padding\n    },\n
  title: {\n      whiteSpace: 'nowrap',\n      overflow: 'hidden',\n      textOverflow: 'ellipsis',\n      margin: 0,\n
paddingTop: 0,\n      letterSpacing: 0,\n      fontSize: 24,\n      fontWeight: appBar.titleFontWeight,\n      color:
appBar.textColor,\n      height: appBar.height,\n      lineHeight: appBar.height + 'px'\n    },\n    mainElement: {\n
boxFlex: 1,\n      flex: '1'\n    },\n    iconButtonStyle: {\n      marginTop: (appBar.height - iconButtonSize) / 2,\n
marginRight: 8,\n      marginLeft: -16\n    },\n    iconButtonIconStyle: {\n      fill: appBar.textColor,\n      color:
appBar.textColor\n    },\n    flatButton: {\n      color: appBar.textColor,\n      marginTop: (iconButtonSize -
```

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flatButtonSize) / 2 + 1\n    }\n  };\n  return styles;\n}\n\nvar AppBar = function (_Component) {\n  (0,
_inherits3.default)(AppBar, _Component);\n\n  function
 AppBar() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this, AppBar);\n\n    for
(var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] =
arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref =
AppBar.__proto__ || (0, _getPrototypeOf2.default)(AppBar)).call.apply(_ref, [this].concat(args))), _this),
_this.handleClickLeftIconButton = function (event) {\n      if (_this.props.onLeftIconButtonClick) {\n
_this.props.onLeftIconButtonClick(event);\n      }\n    }, _this.handleClickRightIconButton = function (event) {\n
if (_this.props.onRightIconButtonClick) {\n        _this.props.onRightIconButtonClick(event);\n      }\n    },
_this.handleTitleClick = function (event) {\n      if (_this.props.onTitleClick) {\n
_this.props.onTitleClick(event);\n      }\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n
  (0, _createClass3.default)(AppBar, [{\n    key: 'componentDidMount',\n    value: function componentDidMount()
{\n      process.env.NODE_ENV !== \"production\" ? (0, _warning2.default)(!this.props.iconElementLeft ||
!this.props.iconClassNameLeft, 'Material-UI: Properties iconElementLeft\\n      and iconClassNameLeft cannot be
simultaneously defined. Please use one or the other.') : void 0;\n      process.env.NODE_ENV !== \"production\" ?
(0, _warning2.default)(!this.props.iconElementRight || !this.props.iconClassNameRight, 'Material-UI: Properties
iconElementRight\\n      and iconClassNameRight cannot be simultaneously defined. Please use one or the other.') :
void 0;\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var _props = this.props,\n          title =
_props.title,\n          titleStyle = _props.titleStyle,\n          iconStyleLeft = _props.iconStyleLeft,\n
iconStyleRight = _props.iconStyleRight,\n          onTitleClick = _props.onTitleClick,\n
         showMenuIconButton = _props.showMenuIconButton,\n          iconElementLeft = _props.iconElementLeft,\n
      iconElementRight = _props.iconElementRight,\n          iconClassNameLeft = _props.iconClassNameLeft,\n
 iconClassNameRight = _props.iconClassNameRight,\n          onLeftIconButtonClick =
_props.onLeftIconButtonClick,\n          onRightIconButtonClick = _props.onRightIconButtonClick,\n
className = _props.className,\n          style = _props.style,\n          zDepth = _props.zDepth,\n          children =
_props.children,\n          other = (0, _objectWithoutProperties3.default)(_props, ['title', 'titleStyle', 'iconStyleLeft',
'iconStyleRight', 'onTitleClick', 'showMenuIconButton', 'iconElementLeft', 'iconElementRight',
'iconClassNameLeft', 'iconClassNameRight', 'onLeftIconButtonClick', 'onRightIconButtonClick', 'className', 'style',
'zDepth', 'children']);\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles =
getStyles(this.props,
 this.context);\n      var menuElementLeft = void 0;\n      var menuElementRight = void 0; // If the title is a string,
wrap in an h1 tag.\n      // If not, wrap in a div tag.\n\n      var titleComponent = typeof title === 'string' || title
instanceof String ? 'h1' : 'div';\n\n      var titleElement = _react2.default.createElement(titleComponent, {\n
onClick: this.handleTitleClick,\n        style: prepareStyles((0, _simpleAssign2.default)(styles.title,
styles.mainElement, titleStyle))\n      }, title);\n\n      var iconLeftStyle = (0, _simpleAssign2.default)({},
styles.iconButtonStyle, iconStyleLeft);\n\n      if (showMenuIconButton) {\n        if (iconElementLeft) {\n          var
iconElementLeftProps = {};\n\n          if (iconElementLeft.type.muiName === 'IconButton') {\n            var
iconElemLeftChildren = iconElementLeft.props.children;\n            var iconButtonIconStyle =
!(iconElemLeftChildren && iconElemLeftChildren.props && iconElemLeftChildren.props.color)
 ? styles.iconButtonIconStyle : null;\n            iconElementLeftProps.iconStyle = (0, _simpleAssign2.default)({},
iconButtonIconStyle, iconElementLeft.props.iconStyle);\n          }\n\n          if (!iconElementLeft.props.onClick &&
this.props.onLeftIconButtonClick) {\n            iconElementLeftProps.onClick = this.handleClickLeftIconButton;\n
    }\n\n          menuElementLeft = _react2.default.createElement('div', {\n            style:
prepareStyles(iconLeftStyle)\n          }, (0, _keys2.default)(iconElementLeftProps).length > 0 ? (0,
_react.cloneElement)(iconElementLeft, iconElementLeftProps) : iconElementLeft);\n        } else {\n
menuElementLeft = _react2.default.createElement(_IconButton2.default, {\n            style: iconLeftStyle,\n
iconStyle: styles.iconButtonIconStyle,\n            iconClassName: iconClassNameLeft,\n            onClick:
this.handleClickLeftIconButton\n          }, iconClassNameLeft ? '' : _react2.default.createElement(_menu2.default,
```

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 {\n          style: (0, _simpleAssign2.default)({}, styles.iconButtonIconStyle)\n        }));\n      }\n    }\n\n    var
iconRightStyle = (0, _simpleAssign2.default)({}, styles.iconButtonStyle, {\n      marginRight: -16,\n
marginLeft: 'auto'\n    }, iconStyleRight);\n\n    if (iconElementRight) {\n      var iconElementRightProps =
{};\n\n      switch (iconElementRight.type.muiName) {\n        case 'IconMenu':\n        case 'IconButton':\n
var iconElemRightChildren = iconElementRight.props.children;\n\n          var _iconButtonIconStyle =
!(iconElemRightChildren && iconElemRightChildren.props && iconElemRightChildren.props.color) ?
styles.iconButtonIconStyle : null;\n\n          iconElementRightProps.iconStyle = (0, _simpleAssign2.default)({},
_iconButtonIconStyle, iconElementRight.props.iconStyle);\n          break;\n\n        case 'FlatButton':\n
iconElementRightProps.style = (0, _simpleAssign2.default)({}, styles.flatButton,
 iconElementRight.props.style);\n          break;\n\n        default:\n      }\n\n      if
(!iconElementRight.props.onClick && this.props.onRightIconButtonClick) {\n
iconElementRightProps.onClick = this.handleClickRightIconButton;\n      }\n\n      menuElementRight =
_react2.default.createElement('div', {\n        style: prepareStyles(iconRightStyle)\n      }, (0,
_keys2.default)(iconElementRightProps).length > 0 ? (0, _react.cloneElement)(iconElementRight,
iconElementRightProps) : iconElementRight);\n    } else if (iconClassNameRight) {\n      menuElementRight =
_react2.default.createElement(_IconButton2.default, {\n        style: iconRightStyle,\n        iconStyle:
styles.iconButtonIconStyle,\n        iconClassName: iconClassNameRight,\n        onClick:
this.handleClickRightIconButton\n      });\n    }\n\n    return _react2.default.createElement(_Paper2.default, (0,
_extends3.default)({}, other, {\n      rounded: false,\n
 className: className,\n      style: (0, _simpleAssign2.default)({}, styles.root, style),\n      zDepth: zDepth\n
}), menuElementLeft, titleElement, menuElementRight, children);\n  }\n  }]);\n  return
AppBar;\n}(_react.Component);\n\nAppBar.muiName = 'AppBar';\nAppBar.defaultProps = {\n
showMenuIconButton: true,\n  title: '',\n  zDepth: 1\n};\nAppBar.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nAppBar.propTypes = process.env.NODE_ENV !== \"production\" ? {\n
/**\n   * Can be used to render a tab inside an app bar for instance.\n   */\n  children: _propTypes2.default.node,\n\n
/**\n   * Applied to the app bar's root element.\n   */\n  className: _propTypes2.default.string,\n\n  /**\n   * The
classname of the icon on the left of the app bar.\n   * If you are using a stylesheet for your icons, enter the class
name for the icon to be used here.\n   */\n  iconClassNameLeft: _propTypes2.default.string,\n\n  /**\n   * Similiar to
the iconClassNameLeft
 prop except that\n   * it applies to the icon displayed on the right of the app bar.\n   */\n  iconClassNameRight:
_propTypes2.default.string,\n\n  /**\n   * The custom element to be displayed on the left side of the\n   * app bar
such as an SvgIcon.\n   */\n  iconElementLeft: _propTypes2.default.element,\n\n  /**\n   * Similiar to the
iconElementLeft prop except that this element is displayed on the right of the app bar.\n   */\n  iconElementRight:
_propTypes2.default.element,\n\n  /**\n   * Override the inline-styles of the element displayed on the left side of the
app bar.\n   */\n  iconStyleLeft: _propTypes2.default.object,\n\n  /**\n   * Override the inline-styles of the element
displayed on the right side of the app bar.\n   */\n  iconStyleRight: _propTypes2.default.object,\n\n  /**\n   *
Callback function for when the left icon is selected via a click.\n   *\n   * @param {object} event Click event
targeting the left `IconButton`.\n   */\n  onLeftIconButtonClick: _propTypes2.default.func,\n\n
  /**\n   * Callback function for when the right icon is selected via a click.\n   *\n   * @param {object} event Click
event targeting the right `IconButton`.\n   */\n  onRightIconButtonClick: _propTypes2.default.func,\n\n  /**\n   *
Callback function for when the title text is selected via a click.\n   *\n   * @param {object} event Click event
targeting the `title` node.\n   */\n  onTitleClick: _propTypes2.default.func,\n\n  /**\n   * Determines whether or not
to display the Menu icon next to the title.\n   * Setting this prop to false will hide the icon.\n   */\n
showMenuIconButton: _propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the root element.\n
*/\n  style: _propTypes2.default.object,\n\n  /**\n   * The title to display on the app bar.\n   */\n  title:
_propTypes2.default.node,\n\n  /**\n   * Override the inline-styles of the app bar's title element.\n   */\n  titleStyle:
_propTypes2.default.object,\n\n  /**\n   * The zDepth of the component.\n
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   * The shadow of the app bar is also dependent on this property.\n   */\n  zDepth: _propTypes4.default.zDepth\n} :
{};\nexports.default = AppBar;","module.exports = {\n  \"default\": require(\"core-js/library/fn/object/assign\"),\n
__esModule: true\n};","require('../../modules/es6.object.assign');\n\nmodule.exports =
require('../../modules/_core').Object.assign;","// 19.1.3.1 Object.assign(target, source)\nvar $export =
require('./_export');\n\n$export($export.S + $export.F, 'Object', {\n  assign: require('./_object-
assign')\n});","module.exports = function (it) {\n  if (typeof it != 'function') throw TypeError(it + ' is not a
function!');\n  return it;\n};","'use strict'; // 19.1.2.1 Object.assign(target, source, ...)\n\nvar DESCRIPTORS =
require('./_descriptors');\n\nvar getKeys = require('./_object-keys');\n\nvar gOPS = require('./_object-gops');\n\nvar
pIE = require('./_object-pie');\n\nvar toObject = require('./_to-object');\n\nvar IObject = require('./_iobject');\n\nvar
$assign
 = Object.assign; // should work with symbols and should have deterministic property order (V8
bug)\n\nmodule.exports = !$assign || require('./_fails')(function () {\n  var A = {};\n  var B = {}; // eslint-disable-
next-line no-undef\n\n  var S = Symbol();\n  var K = 'abcdefghijklmnopqrst';\n  A[S] = 7;\n
K.split('').forEach(function (k) {\n    B[k] = k;\n  });\n  return $assign({}, A)[S] != 7 || Object.keys($assign({},
B)).join('') != K;\n}) ? function assign(target, source) {\n  // eslint-disable-line no-unused-vars\n  var T =
toObject(target);\n  var aLen = arguments.length;\n  var index = 1;\n  var getSymbols = gOPS.f;\n  var isEnum =
pIE.f;\n\n  while (aLen > index) {\n    var S = IObject(arguments[index++]);\n    var keys = getSymbols ?
getKeys(S).concat(getSymbols(S)) : getKeys(S);\n    var length = keys.length;\n    var j = 0;\n    var key;\n\n    while
(length > j) {\n      key = keys[j++];\n      if (!DESCRIPTORS || isEnum.call(S, key)) T[key] = S[key];\n    }\n  }\n\n
 return T;\n} : $assign;","// false -> Array#indexOf\n// true  -> Array#includes\nvar toIObject = require('./_to-
iobject');\n\nvar toLength = require('./_to-length');\n\nvar toAbsoluteIndex = require('./_to-absolute-
index');\n\nmodule.exports = function (IS_INCLUDES) {\n  return function ($this, el, fromIndex) {\n    var O =
toIObject($this);\n    var length = toLength(O.length);\n    var index = toAbsoluteIndex(fromIndex, length);\n    var
value; // Array#includes uses SameValueZero equality algorithm\n    // eslint-disable-next-line no-self-compare\n\n
if (IS_INCLUDES && el != el) while (length > index) {\n      value = O[index++]; // eslint-disable-next-line no-
self-compare\n\n      if (value != value) return true; // Array#indexOf ignores holes, Array#includes - not\n    } else
for (; length > index; index++) {\n      if (IS_INCLUDES || index in O) {\n        if (O[index] === el) return
IS_INCLUDES || index || 0;\n      }\n    }\n    return !IS_INCLUDES && -1;\n  };\n};","var toInteger
 = require('./_to-integer');\n\nvar max = Math.max;\nvar min = Math.min;\n\nmodule.exports = function (index,
length) {\n  index = toInteger(index);\n  return index < 0 ? max(index + length, 0) : min(index,
length);\n};","require('../../modules/es6.object.keys');\n\nmodule.exports =
require('../../modules/_core').Object.keys;","// 19.1.2.14 Object.keys(O)\nvar toObject = require('./_to-
object');\n\nvar $keys = require('./_object-keys');\n\nrequire('./_object-sap')('keys', function () {\n  return function
keys(it) {\n    return $keys(toObject(it));\n  };\n});","require('../../modules/es6.object.get-prototype-
of');\n\nmodule.exports = require('../../modules/_core').Object.getPrototypeOf;","// 19.1.2.9
Object.getPrototypeOf(O)\nvar toObject = require('./_to-object');\n\nvar $getPrototypeOf = require('./_object-
gpo');\n\nrequire('./_object-sap')('getPrototypeOf', function () {\n  return function getPrototypeOf(it) {\n    return
$getPrototypeOf(toObject(it));\n  };\n});","require('../../modules/es6.object.define-property');\n\nvar
 $Object = require('../../modules/_core').Object;\n\nmodule.exports = function defineProperty(it, key, desc) {\n
return $Object.defineProperty(it, key, desc);\n};","var $export = require('./_export'); // 19.1.2.4 / 15.2.3.6
Object.defineProperty(O, P, Attributes)\n\n\n$export($export.S + $export.F * !require('./_descriptors'), 'Object', {\n
defineProperty: require('./_object-dp').f\n});","module.exports = {\n  \"default\": require(\"core-
js/library/fn/symbol/iterator\"),\n  __esModule:
true\n};","require('../../modules/es6.string.iterator');\n\nrequire('../../modules/web.dom.iterable');\n\nmodule.exports
= require('../../modules/_wks-ext').f('iterator');","var toInteger = require('./_to-integer');\n\nvar defined =
require('./_defined'); // true  -> String#at\n// false -> String#codePointAt\n\n\nmodule.exports = function
(TO_STRING) {\n  return function (that, pos) {\n    var s = String(defined(that));\n    var i = toInteger(pos);\n    var
```

l = s.length;\n   var a, b;\n   if (i < 0 || i >= l) return TO_STRING ? '' : undefined;\n   a = s.charCodeAt(i);\n
return a < 0xd800 || a > 0xdbff || i + 1 === l || (b = s.charCodeAt(i + 1)) < 0xdc00 || b > 0xdfff ? TO_STRING ?
s.charAt(i) : a : TO_STRING ? s.slice(i, i + 2) : (a - 0xd800 << 10) + (b - 0xdc00) + 0x10000;\n };\n};","'use
strict';\n\nvar create = require('./_object-create');\n\nvar descriptor = require('./_property-desc');\n\nvar
setToStringTag = require('./_set-to-string-tag');\n\nvar IteratorPrototype = {}; // 25.1.2.1.1
%IteratorPrototype%[@@iterator]()\n\nrequire('./_hide')(IteratorPrototype, require('./_wks')('iterator'), function ()
{\n return this;\n});\n\nmodule.exports = function (Constructor, NAME, next) {\n Constructor.prototype =
create(IteratorPrototype, {\n   next: descriptor(1, next)\n });\n setToStringTag(Constructor, NAME + '
Iterator');\n};","var dP = require('./_object-dp');\n\nvar anObject = require('./_an-object');\n\nvar getKeys =
require('./_object-keys');\n\nmodule.exports
 = require('./_descriptors') ? Object.defineProperties : function defineProperties(O, Properties) {\n anObject(O);\n
var keys = getKeys(Properties);\n var length = keys.length;\n var i = 0;\n var P;\n\n while (length > i) {\n
dP.f(O, P = keys[i++], Properties[P]);\n }\n\n return O;\n};","var document =
require('./_global').document;\n\nmodule.exports = document && document.documentElement;","'use strict';\n\nvar
addToUnscopables = require('./_add-to-unscopables');\n\nvar step = require('./_iter-step');\n\nvar Iterators =
require('./_iterators');\n\nvar toIObject = require('./_to-iobject'); // 22.1.3.4 Array.prototype.entries()\n// 22.1.3.13
Array.prototype.keys()\n// 22.1.3.29 Array.prototype.values()\n// 22.1.3.30
Array.prototype[@@iterator]()\n\n\nmodule.exports = require('./_iter-define')(Array, 'Array', function (iterated,
kind) {\n this._t = toIObject(iterated); // target\n\n this._i = 0; // next index\n\n this._k = kind; // kind\n
  // 22.1.5.2.1 %ArrayIteratorPrototype%.next()\n}, function () {\n var O = this._t;\n var kind = this._k;\n var index
= this._i++;\n\n if (!O || index >= O.length) {\n   this._t = undefined;\n   return step(1);\n }\n\n if (kind == 'keys')
return step(0, index);\n if (kind == 'values') return step(0, O[index]);\n return step(0, [index, O[index]]);\n},
'values'); // argumentsList[@@iterator] is %ArrayProto_values% (9.4.4.6, 9.4.4.7)\n\nIterators.Arguments =
Iterators.Array;\naddToUnscopables('keys');\naddToUnscopables('values');\naddToUnscopables('entries');","module
.exports = function () {\n /* empty */\n};","module.exports = function (done, value) {\n return {\n   value: value,\n
  done: !!done\n };\n};","module.exports = {\n \"default\": require(\"core-js/library/fn/symbol\"),\n __esModule:
true\n};","require('../../modules/es6.symbol');\n\nrequire('../../modules/es6.object.to-
string');\n\nrequire('../../modules/es7.symbol.async-
iterator');\n\nrequire('../../modules/es7.symbol.observable');\n\nmodule.exports
 = require('../../modules/_core').Symbol;","'use strict'; // ECMAScript 6 symbols shim\n\nvar global =
require('./_global');\n\nvar has = require('./_has');\n\nvar DESCRIPTORS = require('./_descriptors');\n\nvar $export
= require('./_export');\n\nvar redefine = require('./_redefine');\n\nvar META = require('./_meta').KEY;\n\nvar $fails
= require('./_fails');\n\nvar shared = require('./_shared');\n\nvar setToStringTag = require('./_set-to-string-
tag');\n\nvar uid = require('./_uid');\n\nvar wks = require('./_wks');\n\nvar wksExt = require('./_wks-ext');\n\nvar
wksDefine = require('./_wks-define');\n\nvar enumKeys = require('./_enum-keys');\n\nvar isArray = require('./_is-
array');\n\nvar anObject = require('./_an-object');\n\nvar isObject = require('./_is-object');\n\nvar toObject =
require('./_to-object');\n\nvar toIObject = require('./_to-iobject');\n\nvar toPrimitive = require('./_to-
primitive');\n\nvar createDesc = require('./_property-desc');\n\nvar
 _create = require('./_object-create');\n\nvar gOPNExt = require('./_object-gopn-ext');\n\nvar $GOPD =
require('./_object-gopd');\n\nvar $GOPS = require('./_object-gops');\n\nvar $DP = require('./_object-dp');\n\nvar
$keys = require('./_object-keys');\n\nvar gOPD = $GOPD.f;\nvar dP = $DP.f;\nvar gOPN = gOPNExt.f;\nvar
$Symbol = global.Symbol;\nvar $JSON = global.JSON;\n\nvar _stringify = $JSON && $JSON.stringify;\n\nvar
PROTOTYPE = 'prototype';\nvar HIDDEN = wks('_hidden');\nvar TO_PRIMITIVE = wks('toPrimitive');\nvar
isEnum = {}.propertyIsEnumerable;\nvar SymbolRegistry = shared('symbol-registry');\nvar AllSymbols =
shared('symbols');\nvar OPSymbols = shared('op-symbols');\nvar ObjectProto = Object[PROTOTYPE];\nvar
USE_NATIVE = typeof $Symbol == 'function' && !!$GOPS.f;\nvar QObject = global.QObject; // Don't use setters
in Qt Script, https://github.com/zloirock/core-js/issues/173\n\nvar setter = !QObject || !QObject[PROTOTYPE] ||
!QObject[PROTOTYPE].findChild; // fallback

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 for old Android, https://code.google.com/p/v8/issues/detail?id=687\n\nvar setSymbolDesc = DESCRIPTORS &&
$fails(function () {\n  return _create(dP({}, 'a', {\n    get: function get() {\n      return dP(this, 'a', {\n        value: 7\n
 }).a;\n    }\n  })).a != 7;\n}) ? function (it, key, D) {\n  var protoDesc = gOPD(ObjectProto, key);\n  if (protoDesc)
delete ObjectProto[key];\n  dP(it, key, D);\n  if (protoDesc && it !== ObjectProto) dP(ObjectProto, key,
protoDesc);\n} : dP;\n\nvar wrap = function wrap(tag) {\n  var sym = AllSymbols[tag] =
_create($Symbol[PROTOTYPE]);\n\n  sym._k = tag;\n  return sym;\n};\n\nvar isSymbol = USE_NATIVE &&
typeof $Symbol.iterator == 'symbol' ? function (it) {\n  return typeof it == 'symbol';\n} : function (it) {\n  return it
instanceof $Symbol;\n};\n\nvar $defineProperty = function defineProperty(it, key, D) {\n  if (it === ObjectProto)
$defineProperty(OPSymbols, key, D);\n  anObject(it);\n  key = toPrimitive(key, true);\n  anObject(D);\n\n  if
(has(AllSymbols,
 key)) {\n    if (!D.enumerable) {\n      if (!has(it, HIDDEN)) dP(it, HIDDEN, createDesc(1, {}));\n
it[HIDDEN][key] = true;\n    } else {\n      if (has(it, HIDDEN) && it[HIDDEN][key]) it[HIDDEN][key] = false;\n
  D = _create(D, {\n        enumerable: createDesc(0, false)\n      });\n    }\n\n    return setSymbolDesc(it, key, D);\n
}\n\n  return dP(it, key, D);\n};\n\nvar $defineProperties = function defineProperties(it, P) {\n  anObject(it);\n  var
keys = enumKeys(P = toIObject(P));\n  var i = 0;\n  var l = keys.length;\n  var key;\n\n  while (l > i) {\n
$defineProperty(it, key = keys[i++], P[key]);\n  }\n\n  return it;\n};\n\nvar $create = function create(it, P) {\n  return
P === undefined ? _create(it) : $defineProperties(_create(it), P);\n};\n\nvar $propertyIsEnumerable = function
propertyIsEnumerable(key) {\n  var E = isEnum.call(this, key = toPrimitive(key, true));\n  if (this === ObjectProto
&& has(AllSymbols, key) && !has(OPSymbols, key)) return false;\n
  return E || !has(this, key) || !has(AllSymbols, key) || has(this, HIDDEN) && this[HIDDEN][key] ? E :
true;\n};\n\nvar $getOwnPropertyDescriptor = function getOwnPropertyDescriptor(it, key) {\n  it = toIObject(it);\n
key = toPrimitive(key, true);\n  if (it === ObjectProto && has(AllSymbols, key) && !has(OPSymbols, key))
return;\n  var D = gOPD(it, key);\n  if (D && has(AllSymbols, key) && !(has(it, HIDDEN) && it[HIDDEN][key]))
D.enumerable = true;\n  return D;\n};\n\nvar $getOwnPropertyNames = function getOwnPropertyNames(it) {\n  var
names = gOPN(toIObject(it));\n  var result = [];\n  var i = 0;\n  var key;\n\n  while (names.length > i) {\n    if
(!has(AllSymbols, key = names[i++]) && key != HIDDEN && key != META) result.push(key);\n  }\n\n  return
result;\n};\n\nvar $getOwnPropertySymbols = function getOwnPropertySymbols(it) {\n  var IS_OP = it ===
ObjectProto;\n  var names = gOPN(IS_OP ? OPSymbols : toIObject(it));\n  var result = [];\n  var i = 0;\n  var
key;\n\n  while (names.length
 > i) {\n    if (has(AllSymbols, key = names[i++]) && (IS_OP ? has(ObjectProto, key) : true))
result.push(AllSymbols[key]);\n  }\n\n  return result;\n}; // 19.4.1.1 Symbol([description])\n\n\nif (!USE_NATIVE)
{\n  $Symbol = function Symbol() {\n    if (this instanceof $Symbol) throw TypeError('Symbol is not a
constructor!');\n    var tag = uid(arguments.length > 0 ? arguments[0] : undefined);\n\n    var $set = function
$set(value) {\n      if (this === ObjectProto) $set.call(OPSymbols, value);\n      if (has(this, HIDDEN) &&
has(this[HIDDEN], tag)) this[HIDDEN][tag] = false;\n      setSymbolDesc(this, tag, createDesc(1, value));\n    };\n\n
  if (DESCRIPTORS && setter) setSymbolDesc(ObjectProto, tag, {\n      configurable: true,\n      set: $set\n    });\n
return wrap(tag);\n  };\n\n  redefine($Symbol[PROTOTYPE], 'toString', function toString() {\n    return this._k;\n
});\n  $GOPD.f = $getOwnPropertyDescriptor;\n  $DP.f = $defineProperty;\n  require('./_object-gopn').f =
gOPNExt.f
 = $getOwnPropertyNames;\n  require('./_object-pie').f = $propertyIsEnumerable;\n  $GOPS.f =
$getOwnPropertySymbols;\n\n  if (DESCRIPTORS && !require('./_library')) {\n    redefine(ObjectProto,
'propertyIsEnumerable', $propertyIsEnumerable, true);\n  }\n\n  wksExt.f = function (name) {\n    return
wrap(wks(name));\n  };\n}\n\n$export($export.G + $export.W + $export.F * !USE_NATIVE, {\n  Symbol:
$Symbol\n});\n\nfor (var es6Symbols = // 19.4.2.2, 19.4.2.3, 19.4.2.4, 19.4.2.6, 19.4.2.8, 19.4.2.9, 19.4.2.10,
19.4.2.11, 19.4.2.12, 19.4.2.13,
19.4.2.14\n'hasInstance,isConcatSpreadable,iterator,match,replace,search,species,split,toPrimitive,toStringTag,unsc
opables'.split(','), j = 0; es6Symbols.length > j;) {\n  wks(es6Symbols[j++]);\n}\n\nfor (var wellKnownSymbols =
$keys(wks.store), k = 0; wellKnownSymbols.length > k;) {\n
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wksDefine(wellKnownSymbols[k++]);\n}\n\n$export($export.S + $export.F * !USE_NATIVE, 'Symbol', {\n  //
19.4.2.1 Symbol.for(key)\n  'for': function _for(key) {\n
  return has(SymbolRegistry, key += ") ? SymbolRegistry[key] : SymbolRegistry[key] = $Symbol(key);\n  },\n  //
19.4.2.5 Symbol.keyFor(sym)\n  keyFor: function keyFor(sym) {\n    if (!isSymbol(sym)) throw TypeError(sym + '
is not a symbol!');\n\n    for (var key in SymbolRegistry) {\n      if (SymbolRegistry[key] === sym) return key;\n
}\n  },\n  useSetter: function useSetter() {\n    setter = true;\n  },\n  useSimple: function useSimple() {\n    setter =
false;\n  }\n});\n$export($export.S + $export.F * !USE_NATIVE, 'Object', {\n  // 19.1.2.2 Object.create(O [,
Properties])\n  create: $create,\n  // 19.1.2.4 Object.defineProperty(O, P, Attributes)\n  defineProperty:
$defineProperty,\n  // 19.1.2.3 Object.defineProperties(O, Properties)\n  defineProperties: $defineProperties,\n  //
19.1.2.6 Object.getOwnPropertyDescriptor(O, P)\n  getOwnPropertyDescriptor: $getOwnPropertyDescriptor,\n  //
19.1.2.7 Object.getOwnPropertyNames(O)\n  getOwnPropertyNames: $getOwnPropertyNames,\n  // 19.1.2.8
 Object.getOwnPropertySymbols(O)\n  getOwnPropertySymbols: $getOwnPropertySymbols\n}); // Chrome 38 and
39 `Object.getOwnPropertySymbols` fails on primitives\n//
https://bugs.chromium.org/p/v8/issues/detail?id=3443\n\nvar FAILS_ON_PRIMITIVES = $fails(function () {\n
$GOPS.f(1);\n});\n$export($export.S + $export.F * FAILS_ON_PRIMITIVES, 'Object', {\n
getOwnPropertySymbols: function getOwnPropertySymbols(it) {\n    return $GOPS.f(toObject(it));\n  }\n}); //
24.3.2 JSON.stringify(value [, replacer [, space]])\n\n$JSON && $export($export.S + $export.F * (!USE_NATIVE
|| $fails(function () {\n  var S = $Symbol(); // MS Edge converts symbol values to JSON as {}\n  // WebKit converts
symbol values to JSON as null\n  // V8 throws on boxed symbols\n\n  return _stringify([S]) != '[null]' ||
_stringify({\n    a: S\n  }) != '{}' || _stringify(Object(S)) != '{}';\n})), 'JSON', {\n  stringify: function stringify(it) {\n
var args = [it];\n    var i = 1;\n    var replacer, $replacer;\n\n    while
 (arguments.length > i) {\n      args.push(arguments[i++]);\n    }\n\n    $replacer = replacer = args[1];\n    if
(!isObject(replacer) && it === undefined || isSymbol(it)) return; // IE8 returns string on undefined\n\n    if
(!isArray(replacer)) replacer = function replacer(key, value) {\n      if (typeof $replacer == 'function') value =
$replacer.call(this, key, value);\n      if (!isSymbol(value)) return value;\n    };\n    args[1] = replacer;\n    return
_stringify.apply($JSON, args);\n  }\n}); // 19.4.3.4
Symbol.prototype[@@toPrimitive](hint)\n\n$Symbol[PROTOTYPE][TO_PRIMITIVE] ||
require('./_hide')($Symbol[PROTOTYPE], TO_PRIMITIVE, $Symbol[PROTOTYPE].valueOf); // 19.4.3.5
Symbol.prototype[@@toStringTag]\n\nsetToStringTag($Symbol, 'Symbol'); // 20.2.1.9
Math[@@toStringTag]\n\nsetToStringTag(Math, 'Math', true); // 24.3.3
JSON[@@toStringTag]\n\nsetToStringTag(global.JSON, 'JSON', true);","var META =
require('./_uid')('meta');\n\nvar isObject = require('./_is-object');\n\nvar has =
 require('./_has');\n\nvar setDesc = require('./_object-dp').f;\n\nvar id = 0;\n\nvar isExtensible = Object.isExtensible ||
function () {\n  return true;\n};\n\nvar FREEZE = !require('./_fails')(function () {\n  return
isExtensible(Object.preventExtensions({}));\n});\n\nvar setMeta = function setMeta(it) {\n  setDesc(it, META, {\n
value: {\n      i: 'O' + ++id,\n      // object ID\n      w: {} // weak collections IDs\n\n    }\n  });\n};\n\nvar fastKey =
function fastKey(it, create) {\n  // return primitive with prefix\n  if (!isObject(it)) return typeof it == 'symbol' ? it :
(typeof it == 'string' ? 'S' : 'P') + it;\n\n  if (!has(it, META)) {\n    // can't set metadata to uncaught frozen object\n    if
(!isExtensible(it)) return 'F'; // not necessary to add metadata\n\n    if (!create) return 'E'; // add missing metadata\n\n
 setMeta(it); // return object ID\n  }\n\n  return it[META].i;\n};\n\nvar getWeak = function getWeak(it, create) {\n  if
(!has(it, META)) {\n    // can't set
 metadata to uncaught frozen object\n    if (!isExtensible(it)) return true; // not necessary to add metadata\n\n    if
(!create) return false; // add missing metadata\n\n    setMeta(it); // return hash weak collections IDs\n  }\n\n  return
it[META].w;\n}; // add metadata on freeze-family methods calling\n\n\nvar onFreeze = function onFreeze(it) {\n  if
(FREEZE && meta.NEED && isExtensible(it) && !has(it, META)) setMeta(it);\n  return it;\n};\n\nvar meta =
module.exports = {\n  KEY: META,\n  NEED: false,\n  fastKey: fastKey,\n  getWeak: getWeak,\n  onFreeze:
onFreeze\n};","// all enumerable object keys, includes symbols\nvar getKeys = require('./_object-keys');\n\nvar
gOPS = require('./_object-gops');\n\nvar pIE = require('./_object-pie');\n\nmodule.exports = function (it) {\n  var
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result = getKeys(it);\n var getSymbols = gOPS.f;\n\n if (getSymbols) {\n   var symbols = getSymbols(it);\n   var isEnum = pIE.f;\n   var i = 0;\n   var key;\n\n   while (symbols.length > i) {\n   if (isEnum.call(it, key = symbols[i++])) result.push(key);\n   }\n }\n\n return result;\n};","// 7.2.2 IsArray(argument)\nvar cof = require('./_cof');\n\nmodule.exports = Array.isArray || function isArray(arg) {\n return cof(arg) == 'Array';\n};","// fallback for IE11 buggy Object.getOwnPropertyNames with iframe and window\nvar toIObject = require('./_to-iobject');\n\nvar gOPN = require('./_object-gopn').f;\n\nvar toString = {}.toString;\nvar windowNames = typeof window == 'object' && window && Object.getOwnPropertyNames ? Object.getOwnPropertyNames(window) : [];\n\nvar getWindowNames = function getWindowNames(it) {\n try {\n   return gOPN(it);\n } catch (e) {\n   return windowNames.slice();\n }\n};\n\nmodule.exports.f = function getOwnPropertyNames(it) {\n return windowNames && toString.call(it) == '[object Window]' ? getWindowNames(it) : gOPN(toIObject(it));\n};","require('./_wks-define')('asyncIterator');","require('./_wks-define')('observable');","module.exports = {\n \"default\": require(\"core-js/library/fn/object/set-prototype-of\"),\n __esModule: true\n};","require('../../modules/es6.object.set-prototype-of');\n\nmodule.exports = require('../../modules/_core').Object.setPrototypeOf;","// 19.1.3.19 Object.setPrototypeOf(O, proto)\nvar $export = require('./_export');\n\n$export($export.S, 'Object', {\n setPrototypeOf: require('./_set-proto').set\n});","// Works with __proto__ only. Old v8 can't work with null proto objects.\n\n/* eslint-disable no-proto */\nvar isObject = require('./_is-object');\n\nvar anObject = require('./_an-object');\n\nvar check = function check(O, proto) {\n anObject(O);\n if (!isObject(proto) && proto !== null) throw TypeError(proto + \": can't set as prototype!\");\n};\n\nmodule.exports = {\n set: Object.setPrototypeOf || ('__proto__' in {} ? // eslint-disable-line\n function (test, buggy, set) {\n   try {\n   set = require('./_ctx')(Function.call, require('./_object-gopd').f(Object.prototype, '__proto__').set, 2);\n   set(test, []);\n   buggy = !(test instanceof Array);\n   } catch (e) {\n   buggy = true;\n   }\n\n   return function setPrototypeOf(O, proto) {\n   check(O, proto);\n   if (buggy) O.__proto__ = proto;else set(O, proto);\n   return O;\n   };\n }({}, false) : undefined),\n check: check\n};","module.exports = {\n \"default\": require(\"core-js/library/fn/object/create\"),\n __esModule: true\n};","require('../../modules/es6.object.create');\n\nvar $Object = require('../../modules/_core').Object;\n\nmodule.exports = function create(P, D) {\n return $Object.create(P, D);\n};","var $export = require('./_export'); // 19.1.2.2 / 15.2.3.5 Object.create(O [, Properties])\n\n\n$export($export.S, 'Object', {\n create: require('./_object-create')\n});","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _transitions = require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nvar _propTypes3 = require('../utils/propTypes');\n\nvar _propTypes4 = _interopRequireDefault(_propTypes3);\n\nvar _EnhancedButton = require('../internal/EnhancedButton');\n\nvar _EnhancedButton2 = _interopRequireDefault(_EnhancedButton);\n\nvar _FontIcon = require('../FontIcon');\n\nvar _FontIcon2 = _interopRequireDefault(_FontIcon);\n\nvar _Tooltip = require('../internal/Tooltip');\n\nvar _Tooltip2 =

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_interopRequireDefault(_Tooltip);\n\nvar _childUtils = require('../utils/childUtils');\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction
getStyles(props, context) {\n  var baseTheme = context.muiTheme.baseTheme;\n
 return {\n    root: {\n      boxSizing: 'border-box',\n      overflow: 'visible',\n      transition:
_transitions2.default.easeOut(),\n      padding: baseTheme.spacing.iconSize / 2,\n      width:
baseTheme.spacing.iconSize * 2,\n      height: baseTheme.spacing.iconSize * 2,\n      fontSize: 0\n    },\n    tooltip:
{\n      boxSizing: 'border-box'\n    },\n    disabled: {\n      color: baseTheme.palette.disabledColor,\n      fill:
baseTheme.palette.disabledColor,\n      cursor: 'default'\n    }\n  };\n}\n\nvar IconButton = function (_Component)
{\n  (0, _inherits3.default)(IconButton, _Component);\n\n  function IconButton() {\n    var _ref;\n\n    var _temp,
_this, _ret;\n\n    (0, _classCallCheck3.default)(this, IconButton);\n\n    for (var _len = arguments.length, args =
Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp
= (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = IconButton.__proto__ || (0,
_getPrototypeOf2.default)(IconButton)).call.apply(_ref,
 [this].concat(args))), _this), _this.state = {\n      hovered: false,\n      isKeyboardFocused: false,\n      // Not to be
confonded with the touch property.\n      // This state is to determined if it's a mobile device.\n      touch: false,\n
tooltipShown: false\n    }, _this.handleBlur = function (event) {\n      _this.hideTooltip();\n\n      if
(_this.props.onBlur) {\n        _this.props.onBlur(event);\n      }\n    }, _this.handleFocus = function (event) {\n
_this.showTooltip();\n\n      if (_this.props.onFocus) {\n        _this.props.onFocus(event);\n      }\n    },
_this.handleMouseLeave = function (event) {\n      if (!_this.button.isKeyboardFocused()) {\n
_this.hideTooltip();\n      }\n\n      _this.setState({\n        hovered: false\n      });\n\n      if
(_this.props.onMouseLeave) {\n        _this.props.onMouseLeave(event);\n      }\n    }, _this.handleMouseOut =
function (event) {\n      if (_this.props.disabled)
 _this.hideTooltip();\n      if (_this.props.onMouseOut) _this.props.onMouseOut(event);\n    },
_this.handleMouseEnter = function (event) {\n      _this.showTooltip(); // Cancel hover styles for touch devices\n\n\n
    if (!_this.state.touch) {\n        _this.setState({\n          hovered: true\n        });\n      }\n\n      if
(_this.props.onMouseEnter) {\n        _this.props.onMouseEnter(event);\n      }\n    }, _this.handleTouchStart =
function (event) {\n      _this.setState({\n        touch: true\n      });\n\n      if (_this.props.onTouchStart) {\n
_this.props.onTouchStart(event);\n      }\n    }, _this.handleKeyboardFocus = function (event, isKeyboardFocused)
{\n      var _this$props = _this.props,\n          disabled = _this$props.disabled,\n          onFocus =
_this$props.onFocus,\n          onBlur = _this$props.onBlur,\n          onKeyboardFocus =
_this$props.onKeyboardFocus;\n\n      if (isKeyboardFocused && !disabled) {\n        _this.showTooltip();\n\n
 if (onFocus) {\n          onFocus(event);\n        }\n      } else {\n        _this.hideTooltip();\n\n        if (onBlur) {\n
onBlur(event);\n        }\n      }\n\n      _this.setState({\n        isKeyboardFocused: isKeyboardFocused\n      });\n\n
if (onKeyboardFocus) {\n        onKeyboardFocus(event, isKeyboardFocused);\n      }\n    }, _temp), (0,
_possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(IconButton, [{\n    key:
'componentWillReceiveProps',\n    value: function componentWillReceiveProps(nextProps) {\n      if
(nextProps.disabled) {\n        this.setState({\n          hovered: false\n        });\n      }\n    }\n  }, {\n    key:
'setKeyboardFocus',\n    value: function setKeyboardFocus() {\n      this.button.setKeyboardFocus();\n    }\n  }, {\n
key: 'showTooltip',\n    value: function showTooltip() {\n      if (this.props.tooltip) {\n        this.setState({\n
tooltipShown: true\n        });\n      }\n    }\n  },
 {\n    key: 'hideTooltip',\n    value: function hideTooltip() {\n      if (this.props.tooltip) this.setState({\n
tooltipShown: false\n      });\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var _this2 = this;\n\n
var _props = this.props,\n          disabled = _props.disabled,\n          hoveredStyle = _props.hoveredStyle,\n
disableTouchRipple = _props.disableTouchRipple,\n          children = _props.children,\n          iconClassName =
_props.iconClassName,\n          style = _props.style,\n          tooltip = _props.tooltip,\n          tooltipPositionProp =
_props.tooltipPosition,\n          tooltipStyles = _props.tooltipStyles,\n          touch = _props.touch,\n          iconStyle =
_props.iconStyle,\n          other = (0, _objectWithoutProperties3.default)(_props, ['disabled', 'hoveredStyle',
'disableTouchRipple', 'children', 'iconClassName', 'style', 'tooltip', 'tooltipPosition', 'tooltipStyles', 'touch',
```

'iconStyle']);\n   var fonticon
 = void 0;\n   var styles = getStyles(this.props, this.context);\n   var tooltipPosition = tooltipPositionProp.split('-
');\n   var hovered = (this.state.hovered || this.state.isKeyboardFocused) && !disabled;\n   var mergedRootStyles
= (0, _simpleAssign2.default)(styles.root, style, hovered ? hoveredStyle : {});\n   var tooltipElement = tooltip ?
_react2.default.createElement(_Tooltip2.default, {\n   label: tooltip,\n   show: this.state.tooltipShown,\n
touch: touch,\n   style: (0, _simpleAssign2.default)(styles.tooltip, tooltipStyles),\n   verticalPosition:
tooltipPosition[0],\n   horizontalPosition: tooltipPosition[1]\n   }) : null;\n\n   if (iconClassName) {\n   var
iconHoverColor = iconStyle.iconHoverColor,\n   iconStyleFontIcon = (0,
_objectWithoutProperties3.default)(iconStyle, ['iconHoverColor']);\n   fonticon =
_react2.default.createElement(_FontIcon2.default, {\n   className: iconClassName,\n
        hoverColor: disabled ? null : iconHoverColor,\n   style: (0, _simpleAssign2.default)({}, disabled &&
styles.disabled, iconStyleFontIcon),\n   color: this.context.muiTheme.baseTheme.palette.textColor\n   },
children);\n   }\n\n   var childrenStyle = disabled ? (0, _simpleAssign2.default)({}, iconStyle, styles.disabled) :
iconStyle;\n   return _react2.default.createElement(_EnhancedButton2.default, (0, _extends3.default)({\n   ref:
function ref(_ref2) {\n   return _this2.button = _ref2;\n   }\n   }, other, {\n   centerRipple: true,\n
disabled: disabled,\n   onTouchStart: this.handleTouchStart,\n   style: mergedRootStyles,\n
disableTouchRipple: disableTouchRipple,\n   onBlur: this.handleBlur,\n   onFocus: this.handleFocus,\n
onMouseLeave: this.handleMouseLeave,\n   onMouseEnter: this.handleMouseEnter,\n   onMouseOut:
this.handleMouseOut,\n   onKeyboardFocus: this.handleKeyboardFocus\n
      }), tooltipElement, fonticon, (0, _childUtils.extendChildren)(children, {\n   style: childrenStyle\n   }));\n
}\n }]);\n return IconButton;\n}(_react.Component);\n\nIconButton.muiName =
'IconButton';\nIconButton.defaultProps = {\n disabled: false,\n disableTouchRipple: false,\n iconStyle: {},\n
tooltipPosition: 'bottom-center',\n touch: false\n};\nIconButton.contextTypes = {\n muiTheme:
_propTypes2.default.object.isRequired\n};\nIconButton.propTypes = process.env.NODE_ENV !== \"production\" ?
{\n /**\n   * Can be used to pass a `FontIcon` element as the icon for the button.\n   */\n children:
_propTypes2.default.node,\n\n /**\n   * The CSS class name of the root element.\n   */\n className:
_propTypes2.default.string,\n\n /**\n   * If true, the element's ripple effect will be disabled.\n   */\n
disableTouchRipple: _propTypes2.default.bool,\n\n /**\n   * If true, the element will be disabled.\n   */\n disabled:
_propTypes2.default.bool,\n\n /**\n
   * Override the inline-styles of the root element when the component is hovered.\n   */\n hoveredStyle:
_propTypes2.default.object,\n\n /**\n   * The URL to link to when the button is clicked.\n   */\n href:
_propTypes2.default.string,\n\n /**\n   * The CSS class name of the icon. Used for setting the icon with a
stylesheet.\n   */\n iconClassName: _propTypes2.default.string,\n\n /**\n   * Override the inline-styles of the icon
element.\n   * Note: you can specify iconHoverColor as a String inside this object.\n   */\n iconStyle:
_propTypes2.default.object,\n\n /** @ignore */\n onBlur: _propTypes2.default.func,\n\n /**\n   * Callback
function fired when the button is clicked.\n   *\n   * @param {object} event Click event targeting the button.\n   */\n
onClick: _propTypes2.default.func,\n\n /** @ignore */\n onFocus: _propTypes2.default.func,\n\n /**\n   *
Callback function fired when the element is focused or blurred by the keyboard.\n   *\n   * @param {object} event
 `focus` or `blur` event targeting the element.\n   * @param {boolean} keyboardFocused Indicates whether the
element is focused.\n   */\n onKeyboardFocus: _propTypes2.default.func,\n\n /** @ignore */\n onMouseEnter:
_propTypes2.default.func,\n\n /** @ignore */\n onMouseLeave: _propTypes2.default.func,\n\n /** @ignore */\n
onMouseOut: _propTypes2.default.func,\n\n /** @ignore */\n onTouchStart: _propTypes2.default.func,\n\n /**\n
* Override the inline-styles of the root element.\n   */\n style: _propTypes2.default.object,\n\n /**\n   * The text to
supply to the element's tooltip.\n   */\n tooltip: _propTypes2.default.node,\n\n /**\n   * The vertical and horizontal
positions, respectively, of the element's tooltip.\n   * Possible values are: \"bottom-center\", \"top-center\", \"bottom-
right\", \"top-right\",\n   * \"bottom-left\", and \"top-left\".\n   */\n tooltipPosition:
_propTypes4.default.cornersAndCenter,\n\n /**\n   * Override the inline-styles of the tooltip element.\n

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   */\n  tooltipStyles: _propTypes2.default.object,\n\n  /**\n   * If true, increase the tooltip element's size. Useful for
increasing tooltip\n   * readability on mobile devices.\n   */\n  touch: _propTypes2.default.bool\n} :
{};\nexports.default = IconButton;","/**\n * Copyright (c) 2013-present, Facebook, Inc.\n *\n * This source code is
licensed under the MIT license found in the\n * LICENSE file in the root directory of this source tree.\n *\n *
@typechecks\n * \n */\n\n/*eslint-disable no-self-compare */\n'use strict';\n\nvar hasOwnProperty =
Object.prototype.hasOwnProperty;\n/**\n * inlined Object.is polyfill to avoid requiring consumers ship their own\n
* https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Object/is\n */\n\nfunction
is(x, y) {\n  // SameValue algorithm\n  if (x === y) {\n    // Steps 1-5, 7-10\n    // Steps 6.b-6.e: +0 != -0\n    // Added
the nonzero y check to make Flow happy, but it is redundant\n    return x !== 0 || y !==
 0 || 1 / x === 1 / y;\n  } else {\n    // Step 6.a: NaN == NaN\n    return x !== x && y !== y;\n  }\n}\n/**\n *
Performs equality by iterating through keys on an object and returning false\n * when any key has values which are
not strictly equal between the arguments.\n * Returns true when the values of all keys are strictly equal.\n
*/\n\n\nfunction shallowEqual(objA, objB) {\n  if (is(objA, objB)) {\n    return true;\n  }\n\n  if (typeof objA !==
'object' || objA === null || typeof objB !== 'object' || objB === null) {\n    return false;\n  }\n\n  var keysA =
Object.keys(objA);\n  var keysB = Object.keys(objB);\n\n  if (keysA.length !== keysB.length) {\n    return false;\n
} // Test for A's keys different from B.\n\n\n  for (var i = 0; i < keysA.length; i++) {\n    if
(!hasOwnProperty.call(objB, keysA[i]) || !is(objA[keysA[i]], objB[keysA[i]])) {\n      return false;\n    }\n  }\n\n
return true;\n}\n\nmodule.exports = shallowEqual;","'use strict';\n\nObject.defineProperty(exports,
 \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3
= _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar
 _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar
_simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _TransitionGroup = require('react-transition-
group/TransitionGroup');\n\nvar _TransitionGroup2 = _interopRequireDefault(_TransitionGroup);\n\nvar
_ScaleInChild = require('./ScaleInChild');\n\nvar _ScaleInChild2 =
_interopRequireDefault(_ScaleInChild);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar ScaleIn = function (_Component) {\n  (0,
_inherits3.default)(ScaleIn, _Component);\n\n  function ScaleIn() {\n    (0, _classCallCheck3.default)(this,
ScaleIn);\n    return (0, _possibleConstructorReturn3.default)(this, (ScaleIn.__proto__ || (0,
_getPrototypeOf2.default)(ScaleIn)).apply(this,
 arguments));\n  }\n\n  (0, _createClass3.default)(ScaleIn, [{\n    key: 'render',\n    value: function render() {\n      var
_props = this.props,\n          children = _props.children,\n          childStyle = _props.childStyle,\n          enterDelay =
_props.enterDelay,\n          maxScale = _props.maxScale,\n          minScale = _props.minScale,\n          style =
_props.style,\n          other = (0, _objectWithoutProperties3.default)(_props, ['children', 'childStyle', 'enterDelay',
'maxScale', 'minScale', 'style']);\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n      var
mergedRootStyles = (0, _simpleAssign2.default)({}, {\n        position: 'relative',\n        height: '100%'\n      },
style);\n\n      var newChildren = _react2.default.Children.map(children, function (child) {\n        return
_react2.default.createElement(_ScaleInChild2.default, {\n          key: child.key,\n          enterDelay: enterDelay,\n
```

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   maxScale: maxScale,\n
         minScale: minScale,\n          style: childStyle\n        }, child);\n      });\n\n      return
_react2.default.createElement(_TransitionGroup2.default, (0, _extends3.default)({}, other, {\n        style:
prepareStyles(mergedRootStyles),\n        component: 'div'\n      }), newChildren);\n    }\n  }]);\n  return
ScaleIn;\n}(_react.Component);\n\nScaleIn.defaultProps = {\n  enterDelay: 0\n};\nScaleIn.contextTypes = {\n
muiTheme: _propTypes2.default.object.isRequired\n};\nScaleIn.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  childStyle: _propTypes2.default.object,\n  children: _propTypes2.default.node,\n  enterDelay:
_propTypes2.default.number,\n  maxScale: _propTypes2.default.number,\n  minScale:
_propTypes2.default.number,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object\n} : {};\nexports.default = ScaleIn;","module.exports = function chain() {\n  var len =
arguments.length;\n  var args = [];\n\n  for
 (var i = 0; i < len; i++) {\n    args[i] = arguments[i];\n  }\n\n  args = args.filter(function (fn) {\n    return fn != null;\n
});\n  if (args.length === 0) return undefined;\n  if (args.length === 1) return args[0];\n  return args.reduce(function
(current, next) {\n    return function chainedFunction() {\n      current.apply(this, arguments);\n      next.apply(this,
arguments);\n    };\n  });\n};","'use strict';\n\nexports.__esModule = true;\nexports.getChildMapping =
getChildMapping;\nexports.mergeChildMappings = mergeChildMappings;\n\nvar _react = require('react');\n/**\n *
Given `this.props.children`, return an object mapping key to child.\n *\n * @param {*} children
`this.props.children`\n * @return {object} Mapping of key to child\n */\n\n\nfunction getChildMapping(children)
{\n  if (!children) {\n    return children;\n  }\n\n  var result = {};\n\n  _react.Children.map(children, function (child)
{\n    return child;\n  }).forEach(function (child) {\n    result[child.key] = child;\n
  });\n\n  return result;\n}\n/**\n * When you're adding or removing children some may be added or removed in
the\n * same render pass. We want to show *both* since we want to simultaneously\n * animate elements in and
out. This function takes a previous set of keys\n * and a new set of keys and merges them with its best guess of the
correct\n * ordering. In the future we may expose some of the utilities in\n * ReactMultiChild to make this easy, but
for now React itself does not\n * directly have this concept of the union of prevChildren and nextChildren\n * so we
implement it here.\n *\n * @param {object} prev prev children as returned from\n *
`ReactTransitionChildMapping.getChildMapping()`.\n * @param {object} next next children as returned from\n *
`ReactTransitionChildMapping.getChildMapping()`.\n * @return {object} a key set that contains all keys in `prev`
and all keys\n * in `next` in a reasonable order.\n */\n\n\nfunction mergeChildMappings(prev, next) {\n  prev = prev
||
 {};\n  next = next || {};\n\n  function getValueForKey(key) {\n    if (next.hasOwnProperty(key)) {\n      return
next[key];\n    }\n\n    return prev[key];\n  } // For each key of `next`, the list of keys to insert before that key in\n  //
the combined list\n\n\n  var nextKeysPending = {};\n  var pendingKeys = [];\n\n  for (var prevKey in prev) {\n    if
(next.hasOwnProperty(prevKey)) {\n      if (pendingKeys.length) {\n        nextKeysPending[prevKey] =
pendingKeys;\n        pendingKeys = [];\n      }\n    } else {\n      pendingKeys.push(prevKey);\n    }\n  }\n\n  var i =
void 0;\n  var childMapping = {};\n\n  for (var nextKey in next) {\n    if
(nextKeysPending.hasOwnProperty(nextKey)) {\n      for (i = 0; i < nextKeysPending[nextKey].length; i++) {\n
var pendingNextKey = nextKeysPending[nextKey][i];\n        childMapping[nextKeysPending[nextKey][i]] =
getValueForKey(pendingNextKey);\n      }\n    }\n\n    childMapping[nextKey] = getValueForKey(nextKey);\n  } //
Finally, add
 the keys which didn't appear before any key in `next`\n\n\n  for (i = 0; i < pendingKeys.length; i++) {\n
childMapping[pendingKeys[i]] = getValueForKey(pendingKeys[i]);\n  }\n\n  return childMapping;\n}","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
```

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runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar
 _possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-
dom');\n\nvar _reactDom2 = _interopRequireDefault(_reactDom);\n\nvar _autoPrefix =
require('../utils/autoPrefix');\n\nvar _autoPrefix2 = _interopRequireDefault(_autoPrefix);\n\nvar _transitions =
require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule
 ? obj : {\n    default: obj\n  };\n}\n\nvar ScaleInChild = function (_Component) {\n  (0,
_inherits3.default)(ScaleInChild, _Component);\n\n  function ScaleInChild() {\n    (0,
_classCallCheck3.default)(this, ScaleInChild);\n    return (0, _possibleConstructorReturn3.default)(this,
(ScaleInChild.__proto__ || (0, _getPrototypeOf2.default)(ScaleInChild)).apply(this, arguments));\n  }\n\n  (0,
_createClass3.default)(ScaleInChild, [{\n    key: 'componentWillUnmount',\n    value: function
componentWillUnmount() {\n      clearTimeout(this.enterTimer);\n      clearTimeout(this.leaveTimer);\n    }\n  }, {\n
  key: 'componentWillAppear',\n    value: function componentWillAppear(callback) {\n
this.initializeAnimation(callback);\n    }\n  }, {\n    key: 'componentWillEnter',\n    value: function
componentWillEnter(callback) {\n      this.initializeAnimation(callback);\n    }\n  }, {\n    key:
'componentDidAppear',\n    value: function componentDidAppear() {\n      this.animate();\n
    }\n  }, {\n    key: 'componentDidEnter',\n    value: function componentDidEnter() {\n      this.animate();\n    }\n  },
{\n    key: 'componentWillLeave',\n    value: function componentWillLeave(callback) {\n      var style =
_reactDom2.default.findDOMNode(this).style;\n\n      style.opacity = '0';\n\n      _autoPrefix2.default.set(style,
'transform', 'scale(' + this.props.minScale + ')');\n\n      this.leaveTimer = setTimeout(callback, 450);\n    }\n  }, {\n
key: 'animate',\n    value: function animate() {\n      var style = _reactDom2.default.findDOMNode(this).style;\n\n
style.opacity = '1';\n\n      _autoPrefix2.default.set(style, 'transform', 'scale(' + this.props.maxScale + ')');\n    }\n  },
{\n    key: 'initializeAnimation',\n    value: function initializeAnimation(callback) {\n      var style =
_reactDom2.default.findDOMNode(this).style;\n\n      style.opacity = '0';\n\n      _autoPrefix2.default.set(style,
'transform', 'scale(0)');\n\n      this.enterTimer = setTimeout(callback,
 this.props.enterDelay);\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var _props = this.props,\n
     children = _props.children,\n          enterDelay = _props.enterDelay,\n          maxScale = _props.maxScale,\n
minScale = _props.minScale,\n          style = _props.style,\n          other = (0,
_objectWithoutProperties3.default)(_props, ['children', 'enterDelay', 'maxScale', 'minScale', 'style']);\n      var
prepareStyles = this.context.muiTheme.prepareStyles;\n      var mergedRootStyles = (0, _simpleAssign2.default)({},
{\n        position: 'absolute',\n        height: '100%',\n        width: '100%',\n        top: 0,\n        left: 0,\n        transition:
_transitions2.default.easeOut(null, ['transform', 'opacity'])\n      }, style);\n      return
_react2.default.createElement('div', (0, _extends3.default)({}, other, {\n        style:
prepareStyles(mergedRootStyles)\n      }), children);\n    }\n  }]);\n  return
ScaleInChild;\n}(_react.Component);\n\nScaleInChild.defaultProps
 = {\n  enterDelay: 0,\n  maxScale: 1,\n  minScale: 0\n};\nScaleInChild.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nScaleInChild.propTypes = process.env.NODE_ENV !== \"production\"
? {\n  children: _propTypes2.default.node,\n  enterDelay: _propTypes2.default.number,\n  maxScale:
_propTypes2.default.number,\n  minScale: _propTypes2.default.number,\n  style: _propTypes2.default.object\n} :
{};\nexports.default =
ScaleInChild;","require('../../modules/es6.string.iterator');\n\nrequire('../../modules/es6.array.from');\n\nmodule.expor
```

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ts = require('../../modules/_core').Array.from;","'use strict';\n\nvar ctx = require('./_ctx');\n\nvar $export =
require('./_export');\n\nvar toObject = require('./_to-object');\n\nvar call = require('./_iter-call');\n\nvar isArrayIter =
require('./_is-array-iter');\n\nvar toLength = require('./_to-length');\n\nvar createProperty = require('./_create-
property');\n\nvar getIterFn = require('./core.get-iterator-method');\n\n$export($export.S
 + $export.F * !require('./_iter-detect')(function (iter) {\n  Array.from(iter);\n}), 'Array', {\n  // 22.1.2.1
Array.from(arrayLike, mapfn = undefined, thisArg = undefined)\n  from: function from(arrayLike\n  /* , mapfn =
undefined, thisArg = undefined */\n  ) {\n    var O = toObject(arrayLike);\n    var C = typeof this == 'function' ? this
: Array;\n    var aLen = arguments.length;\n    var mapfn = aLen > 1 ? arguments[1] : undefined;\n    var mapping =
mapfn !== undefined;\n    var index = 0;\n    var iterFn = getIterFn(O);\n    var length, result, step, iterator;\n    if
(mapping) mapfn = ctx(mapfn, aLen > 2 ? arguments[2] : undefined, 2); // if object isn't iterable or it's array with
default iterator - use simple case\n\n    if (iterFn != undefined && !(C == Array && isArrayIter(iterFn))) {\n      for
(iterator = iterFn.call(O), result = new C(); !(step = iterator.next()).done; index++) {\n        createProperty(result,
index,
 mapping ? call(iterator, mapfn, [step.value, index], true) : step.value);\n      }\n    } else {\n      length =
toLength(O.length);\n\n      for (result = new C(length); length > index; index++) {\n        createProperty(result,
index, mapping ? mapfn(O[index], index) : O[index]);\n      }\n    }\n\n    result.length = index;\n    return result;\n
}\n});","// call something on iterator step with safe closing on error\nvar anObject = require('./_an-
object');\n\nmodule.exports = function (iterator, fn, value, entries) {\n  try {\n    return entries ?
fn(anObject(value)[0], value[1]) : fn(value); // 7.4.6 IteratorClose(iterator, completion)\n  } catch (e) {\n    var ret =
iterator['return'];\n    if (ret !== undefined) anObject(ret.call(iterator));\n    throw e;\n  }\n};","// check on default
Array iterator\nvar Iterators = require('./_iterators');\n\nvar ITERATOR = require('./_wks')('iterator');\n\nvar
ArrayProto = Array.prototype;\n\nmodule.exports = function (it) {\n  return it
 !== undefined && (Iterators.Array === it || ArrayProto[ITERATOR] === it);\n};","'use strict';\n\nvar
$defineProperty = require('./_object-dp');\n\nvar createDesc = require('./_property-desc');\n\nmodule.exports =
function (object, index, value) {\n  if (index in object) $defineProperty.f(object, index, createDesc(0, value));else
object[index] = value;\n};","var ITERATOR = require('./_wks')('iterator');\n\nvar SAFE_CLOSING = false;\n\ntry
{\n  var riter = [7][ITERATOR]();\n\n  riter['return'] = function () {\n    SAFE_CLOSING = true;\n  }; // eslint-
disable-next-line no-throw-literal\n\n\n  Array.from(riter, function () {\n    throw 2;\n  });\n} catch (e) {\n  /* empty
*/\n}\n\nmodule.exports = function (exec, skipClosing) {\n  if (!skipClosing && !SAFE_CLOSING) return false;\n
var safe = false;\n\n  try {\n    var arr = [7];\n    var iter = arr[ITERATOR]();\n\n    iter.next = function () {\n
return {\n        done: safe = true\n      };\n    };\n\n    arr[ITERATOR] = function ()
 {\n      return iter;\n    };\n\n    exec(arr);\n  } catch (e) {\n    /* empty */\n  }\n\n  return safe;\n};","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar
 _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-
dom');\n\nvar _reactDom2 = _interopRequireDefault(_reactDom);\n\nvar _shallowEqual =
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require('recompose/shallowEqual');\n\nvar _shallowEqual2 = _interopRequireDefault(_shallowEqual);\n\nvar
_autoPrefix = require('../utils/autoPrefix');\n\nvar _autoPrefix2 = _interopRequireDefault(_autoPrefix);\n\nvar
_transitions = require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nfunction
_interopRequireDefault(obj)
 {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar CircleRipple = function (_Component)
{\n  (0, _inherits3.default)(CircleRipple, _Component);\n\n  function CircleRipple() {\n    (0,
_classCallCheck3.default)(this, CircleRipple);\n    return (0, _possibleConstructorReturn3.default)(this,
(CircleRipple.__proto__ || (0, _getPrototypeOf2.default)(CircleRipple)).apply(this, arguments));\n  }\n\n  (0,
_createClass3.default)(CircleRipple, [{\n    key: 'shouldComponentUpdate',\n    value: function
shouldComponentUpdate(nextProps) {\n      return !(0, _shallowEqual2.default)(this.props, nextProps);\n    }\n  },
{\n    key: 'componentWillUnmount',\n    value: function componentWillUnmount() {\n
clearTimeout(this.enterTimer);\n      clearTimeout(this.leaveTimer);\n    }\n  }, {\n    key: 'componentWillAppear',\n
 value: function componentWillAppear(callback) {\n      this.initializeAnimation(callback);\n    }\n  }, {\n    key:
'componentWillEnter',\n    value:
 function componentWillEnter(callback) {\n      this.initializeAnimation(callback);\n    }\n  }, {\n    key:
'componentDidAppear',\n    value: function componentDidAppear() {\n      this.animate();\n    }\n  }, {\n    key:
'componentDidEnter',\n    value: function componentDidEnter() {\n      this.animate();\n    }\n  }, {\n    key:
'componentWillLeave',\n    value: function componentWillLeave(callback) {\n      var style =
_reactDom2.default.findDOMNode(this).style;\n\n      style.opacity = 0; // If the animation is aborted, remove from
the DOM immediately\n\n      var removeAfter = this.props.aborted ? 0 : 2000;\n      this.enterTimer =
setTimeout(callback, removeAfter);\n    }\n  }, {\n    key: 'animate',\n    value: function animate() {\n      var style =
_reactDom2.default.findDOMNode(this).style;\n\n      var transitionValue = _transitions2.default.easeOut('2s',
'opacity') + ', ' + _transitions2.default.easeOut('1s', 'transform');\n\n      _autoPrefix2.default.set(style, 'transition',
 transitionValue);\n\n      _autoPrefix2.default.set(style, 'transform', 'scale(1)');\n    }\n  }, {\n    key:
'initializeAnimation',\n    value: function initializeAnimation(callback) {\n      var style =
_reactDom2.default.findDOMNode(this).style;\n\n      style.opacity = this.props.opacity;\n\n
_autoPrefix2.default.set(style, 'transform', 'scale(0)');\n\n      this.leaveTimer = setTimeout(callback, 0);\n    }\n  },
{\n    key: 'render',\n    value: function render() {\n      var _props = this.props,\n          aborted = _props.aborted,\n
   color = _props.color,\n          opacity = _props.opacity,\n          style = _props.style,\n          touchGenerated =
_props.touchGenerated,\n          other = (0, _objectWithoutProperties3.default)(_props, ['aborted', 'color', 'opacity',
'style', 'touchGenerated']);\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n      var mergedStyles =
(0, _simpleAssign2.default)({\n        position: 'absolute',\n        top:
 0,\n        left: 0,\n        height: '100%',\n        width: '100%',\n        borderRadius: '50%',\n        backgroundColor:
color\n      }, style);\n      return _react2.default.createElement('div', (0, _extends3.default)({}, other, {\n        style:
prepareStyles(mergedStyles)\n      }));\n    }\n  }]);\n  return
CircleRipple;\n}(_react.Component);\n\nCircleRipple.defaultProps = {\n  opacity: 0.1,\n  aborted:
false\n};\nCircleRipple.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nCircleRipple.propTypes = process.env.NODE_ENV !== \"production\"
? {\n  aborted: _propTypes2.default.bool,\n  color: _propTypes2.default.string,\n  opacity:
_propTypes2.default.number,\n  style: _propTypes2.default.object,\n  touchGenerated: _propTypes2.default.bool\n}
: {};\nexports.default = CircleRipple;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar
 _objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
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_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2
 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _transitions = require('../styles/transitions');\n\nvar _transitions2 =
_interopRequireDefault(_transitions);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule
? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context, state) {\n  var color = props.color,\n
hoverColor = props.hoverColor;\n  var baseTheme = context.muiTheme.baseTheme;\n  var offColor = color ||
baseTheme.palette.textColor;\n  var onColor = hoverColor || offColor;\n  return {\n    root: {\n      color:
state.hovered ? onColor : offColor,\n      position: 'relative',\n      fontSize: baseTheme.spacing.iconSize,\n
display: 'inline-block',\n      userSelect: 'none',\n      transition: _transitions2.default.easeOut()\n    }\n  };\n}\n\nvar
FontIcon
 = function (_Component) {\n  (0, _inherits3.default)(FontIcon, _Component);\n\n  function FontIcon() {\n    var
_ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this, FontIcon);\n\n    for (var _len =
arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n
}\n\n    return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = FontIcon.__proto__ ||
(0, _getPrototypeOf2.default)(FontIcon)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      hovered:
false\n    }, _this.handleMouseLeave = function (event) {\n      // hover is needed only when a hoverColor is
defined\n      if (_this.props.hoverColor !== undefined) {\n        _this.setState({\n          hovered: false\n        });\n
}\n\n      if (_this.props.onMouseLeave) {\n        _this.props.onMouseLeave(event);\n      }\n    },
_this.handleMouseEnter = function (event) {\n      // hover is needed only
 when a hoverColor is defined\n      if (_this.props.hoverColor !== undefined) {\n        _this.setState({\n
hovered: true\n        });\n      }\n\n      if (_this.props.onMouseEnter) {\n        _this.props.onMouseEnter(event);\n
}\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(FontIcon,
[{\n    key: 'render',\n    value: function render() {\n      var _props = this.props,\n          hoverColor =
_props.hoverColor,\n          onMouseLeave = _props.onMouseLeave,\n          onMouseEnter =
_props.onMouseEnter,\n          style = _props.style,\n          other = (0, _objectWithoutProperties3.default)(_props,
['hoverColor', 'onMouseLeave', 'onMouseEnter', 'style']);\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context, this.state);\n      return
_react2.default.createElement('span', (0, _extends3.default)({}, other, {\n        onMouseLeave:
this.handleMouseLeave,\n
        onMouseEnter: this.handleMouseEnter,\n        style: prepareStyles((0, _simpleAssign2.default)(styles.root,
style))\n      }));\n    }\n  }]);\n  return FontIcon;\n}(_react.Component);\n\nFontIcon.muiName =
'FontIcon';\nFontIcon.defaultProps = {\n  onMouseEnter: function onMouseEnter() {},\n  onMouseLeave: function
onMouseLeave() {}\n};\nFontIcon.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nFontIcon.propTypes = process.env.NODE_ENV !== \"production\" ?
{\n  /**\n   * This is the font color of the font icon. If not specified,\n   * this component will default to
muiTheme.palette.textColor.\n   */\n  color: _propTypes2.default.string,\n\n  /**\n   * This is the icon color when the
mouse hovers over the icon.\n   */\n  hoverColor: _propTypes2.default.string,\n\n  /** @ignore */\n  onMouseEnter:
_propTypes2.default.func,\n\n  /** @ignore */\n  onMouseLeave: _propTypes2.default.func,\n\n  /**\n   * Override
the inline-styles of the root element.\n
   */\n  style: _propTypes2.default.object\n} : {};\nexports.default = FontIcon;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _pure = require('recompose/pure');\n\nvar
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_pure2 = _interopRequireDefault(_pure);\n\nvar _SvgIcon = require('../../SvgIcon');\n\nvar _SvgIcon2 =
_interopRequireDefault(_SvgIcon);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nvar NavigationMenu = function NavigationMenu(props) {\n  return
_react2.default.createElement(_SvgIcon2.default, props, _react2.default.createElement('path', {\n    d: 'M3 18h18v-
2H3v2zm0-5h18v-2H3v2zm0-7v2h18V6H3z'\n  }));\n};\n\nNavigationMenu = (0,
_pure2.default)(NavigationMenu);\nNavigationMenu.displayName =
'NavigationMenu';\nNavigationMenu.muiName = 'SvgIcon';\nexports.default = NavigationMenu;","'use
strict';\n\nexports.__esModule
 = true;\n\nvar _react = require('react');\n\nvar _setDisplayName = require('./setDisplayName');\n\nvar
_setDisplayName2 = _interopRequireDefault(_setDisplayName);\n\nvar _wrapDisplayName =
require('./wrapDisplayName');\n\nvar _wrapDisplayName2 =
_interopRequireDefault(_wrapDisplayName);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction _classCallCheck(instance, Constructor) {\n  if
(!(instance instanceof Constructor)) {\n    throw new TypeError(\"Cannot call a class as a function\");\n
}\n}\n\nfunction _possibleConstructorReturn(self, call) {\n  if (!self) {\n    throw new ReferenceError(\"this hasn't
been initialised - super() hasn't been called\");\n  }\n\n  return call && (typeof call === \"object\" || typeof call ===
\"function\") ? call : self;\n}\n\nfunction _inherits(subClass, superClass) {\n  if (typeof superClass !== \"function\"
&& superClass !== null) {\n    throw new TypeError(\"Super expression must
 either be null or a function, not \" + typeof superClass);\n  }\n\n  subClass.prototype = Object.create(superClass &&
superClass.prototype, {\n    constructor: {\n      value: subClass,\n      enumerable: false,\n      writable: true,\n
configurable: true\n    }\n  });\n  if (superClass) Object.setPrototypeOf ? Object.setPrototypeOf(subClass,
superClass) : subClass.__proto__ = superClass;\n}\n\nvar shouldUpdate = function shouldUpdate(test) {\n  return
function (BaseComponent) {\n    var factory = (0, _react.createFactory)(BaseComponent);\n\n    var ShouldUpdate =
function (_Component) {\n      _inherits(ShouldUpdate, _Component);\n\n      function ShouldUpdate() {\n
_classCallCheck(this, ShouldUpdate);\n\n        return _possibleConstructorReturn(this, _Component.apply(this,
arguments));\n      }\n\n      ShouldUpdate.prototype.shouldComponentUpdate = function
shouldComponentUpdate(nextProps) {\n        return test(this.props, nextProps);\n      };\n\n
ShouldUpdate.prototype.render
 = function render() {\n        return factory(this.props);\n      };\n\n      return ShouldUpdate;\n
}(_react.Component);\n\n    if (process.env.NODE_ENV !== 'production') {\n      return (0,
_setDisplayName2.default)((0, _wrapDisplayName2.default)(BaseComponent, 'shouldUpdate'))(ShouldUpdate);\n
}\n\n    return ShouldUpdate;\n  };\n};\n\nexports.default = shouldUpdate;","\"use strict\";\n\nexports.__esModule =
true;\n\nvar setStatic = function setStatic(key, value) {\n  return function (BaseComponent) {\n    /* eslint-disable
no-param-reassign */\n    BaseComponent[key] = value;\n    /* eslint-enable no-param-reassign */\n\n    return
BaseComponent;\n  };\n};\n\nexports.default = setStatic;","'use strict';\n\nexports.__esModule = true;\n\nvar
getDisplayName = function getDisplayName(Component) {\n  if (typeof Component === 'string') {\n    return
Component;\n  }\n\n  if (!Component) {\n    return undefined;\n  }\n\n  return Component.displayName ||
Component.name
 || 'Component';\n};\n\nexports.default = getDisplayName;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3
= _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
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_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar
 _inherits2 = require('babel-runtime/helpers/inherits');\n\nvar _inherits3 =
_interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 =
_interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _transitions = require('../styles/transitions');\n\nvar _transitions2 =
_interopRequireDefault(_transitions);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule
? obj : {\n    default: obj\n  };\n}\n\nvar SvgIcon = function (_Component) {\n  (0, _inherits3.default)(SvgIcon,
_Component);\n\n  function SvgIcon() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0,
_classCallCheck3.default)(this, SvgIcon);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0; _key
< _len; _key++)
 {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = SvgIcon.__proto__ || (0,
_getPrototypeOf2.default)(SvgIcon)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      hovered:
false\n    }, _this.handleMouseLeave = function (event) {\n      _this.setState({\n        hovered: false\n      });\n\n
_this.props.onMouseLeave(event);\n    }, _this.handleMouseEnter = function (event) {\n      _this.setState({\n
hovered: true\n      });\n\n      _this.props.onMouseEnter(event);\n    }, _temp), (0,
_possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(SvgIcon, [{\n    key: 'render',\n
  value: function render() {\n      var _props = this.props,\n          children = _props.children,\n          color =
_props.color,\n          hoverColor = _props.hoverColor,\n          onMouseEnter = _props.onMouseEnter,\n
onMouseLeave = _props.onMouseLeave,\n
         style = _props.style,\n          viewBox = _props.viewBox,\n          other = (0,
_objectWithoutProperties3.default)(_props, ['children', 'color', 'hoverColor', 'onMouseEnter', 'onMouseLeave', 'style',
'viewBox']);\n      var _context$muiTheme = this.context.muiTheme,\n          svgIcon =
_context$muiTheme.svgIcon,\n          prepareStyles = _context$muiTheme.prepareStyles;\n      var offColor = color
? color : 'currentColor';\n      var onColor = hoverColor ? hoverColor : offColor;\n      var mergedStyles = (0,
_simpleAssign2.default)({\n        display: 'inline-block',\n        color: svgIcon.color,\n        fill: this.state.hovered ?
onColor : offColor,\n        height: 24,\n        width: 24,\n        userSelect: 'none',\n        transition:
_transitions2.default.easeOut()\n      }, style);\n      return _react2.default.createElement('svg', (0,
_extends3.default)({}, other, {\n        onMouseEnter: this.handleMouseEnter,\n        onMouseLeave:
this.handleMouseLeave,\n
        style: prepareStyles(mergedStyles),\n        viewBox: viewBox\n      }), children);\n    }\n  }]);\n  return
SvgIcon;\n}(_react.Component);\n\nSvgIcon.muiName = 'SvgIcon';\nSvgIcon.defaultProps = {\n  onMouseEnter:
function onMouseEnter() {},\n  onMouseLeave: function onMouseLeave() {},\n  viewBox: '0 0 24
24'\n};\nSvgIcon.contextTypes = {\n  muiTheme: _propTypes2.default.object.isRequired\n};\nSvgIcon.propTypes =
process.env.NODE_ENV !== \"production\" ? {\n  /**\n   * Elements passed into the SVG Icon.\n   */\n  children:
_propTypes2.default.node,\n\n  /**\n   * This is the fill color of the svg icon.\n   * If not specified, this component
will default\n   * to muiTheme.palette.textColor.\n   */\n  color: _propTypes2.default.string,\n\n  /**\n   * This is the
icon color when the mouse hovers over the icon.\n   */\n  hoverColor: _propTypes2.default.string,\n\n  /** @ignore
*/\n  onMouseEnter: _propTypes2.default.func,\n\n  /** @ignore */\n  onMouseLeave:
_propTypes2.default.func,\n\n
  /**\n   * Override the inline-styles of the root element.\n   */\n  style: _propTypes2.default.object,\n\n  /**\n   *
Allows you to redefine what the coordinates\n   * without units mean inside an svg element. For example,\n   * if the
SVG element is 500 (width) by 200 (height), and you\n   * pass viewBox=\"0 0 50 20\", this means that the
coordinates inside\n   * the svg will go from the top left corner (0,0) to bottom right (50,20)\n   * and each unit will
be worth 10px.\n   */\n  viewBox: _propTypes2.default.string\n} : {};\nexports.default = SvgIcon;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
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_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar
 _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _propTypes3 =
 require('../utils/propTypes');\n\nvar _propTypes4 = _interopRequireDefault(_propTypes3);\n\nvar _transitions =
require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction
getStyles(props, context) {\n  var rounded = props.rounded,\n      circle = props.circle,\n      transitionEnabled =
props.transitionEnabled,\n      zDepth = props.zDepth;\n  var _context$muiTheme = context.muiTheme,\n
baseTheme = _context$muiTheme.baseTheme,\n      paper = _context$muiTheme.paper,\n      borderRadius =
_context$muiTheme.borderRadius;\n  return {\n    root: {\n      color: paper.color,\n      backgroundColor:
paper.backgroundColor,\n      transition: transitionEnabled && _transitions2.default.easeOut(),\n      boxSizing:
'border-box',\n      fontFamily: baseTheme.fontFamily,\n      WebkitTapHighlightColor: 'rgba(0,0,0,0)',\n      //
Remove
 mobile color flashing (deprecated)\n      boxShadow: paper.zDepthShadows[zDepth - 1],\n      // No shadow for 0
depth papers\n      borderRadius: circle ? '50%' : rounded ? borderRadius : '0px'\n    }\n  };\n}\n\nvar Paper =
function (_Component) {\n  (0, _inherits3.default)(Paper, _Component);\n\n  function Paper() {\n    (0,
_classCallCheck3.default)(this, Paper);\n    return (0, _possibleConstructorReturn3.default)(this, (Paper.__proto__ ||
(0, _getPrototypeOf2.default)(Paper)).apply(this, arguments));\n  }\n\n  (0, _createClass3.default)(Paper, [{\n    key:
'render',\n    value: function render() {\n      var _props = this.props,\n          children = _props.children,\n          circle
= _props.circle,\n          rounded = _props.rounded,\n          style = _props.style,\n          transitionEnabled =
_props.transitionEnabled,\n          zDepth = _props.zDepth,\n          other = (0,
_objectWithoutProperties3.default)(_props, ['children', 'circle', 'rounded', 'style', 'transitionEnabled',
 'zDepth']);\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props,
this.context);\n      return _react2.default.createElement('div', (0, _extends3.default)({}, other, {\n        style:
prepareStyles((0, _simpleAssign2.default)(styles.root, style))\n      }), children);\n    }\n  }]);\n  return
Paper;\n}(_react.Component);\n\nPaper.defaultProps = {\n  circle: false,\n  rounded: true,\n  transitionEnabled:
true,\n  zDepth: 1\n};\nPaper.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nPaper.propTypes = process.env.NODE_ENV !== \"production\" ? {\n
/**\n   * Children passed into the paper element.\n   */\n  children: _propTypes2.default.node,\n\n  /**\n   * Set to
true to generate a circular paper container.\n   */\n  circle: _propTypes2.default.bool,\n\n  /**\n   * By default, the
paper container will have a border radius.\n   * Set this to false to generate a container with sharp corners.\n   */\n
rounded:
 _propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object,\n\n  /**\n   * Set to false to disable CSS transitions for the paper element.\n   */\n
transitionEnabled: _propTypes2.default.bool,\n\n  /**\n   * This number represents the zDepth of the paper
shadow.\n   */\n  zDepth: _propTypes4.default.zDepth\n} : {};\nexports.default = Paper;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar _typeof2 = require('babel-
```

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runtime/helpers/typeof');\n\nvar _typeof3 = _interopRequireDefault(_typeof2);\n\nvar _objectWithoutProperties2 =
require('babel-runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar
 _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-dom');\n\nvar _reactDom2
= _interopRequireDefault(_reactDom);\n\nvar
 _keycode = require('keycode');\n\nvar _keycode2 = _interopRequireDefault(_keycode);\n\nvar _TextField =
require('../TextField');\n\nvar _TextField2 = _interopRequireDefault(_TextField);\n\nvar _Menu =
require('../Menu');\n\nvar _Menu2 = _interopRequireDefault(_Menu);\n\nvar _MenuItem =
require('../MenuItem');\n\nvar _MenuItem2 = _interopRequireDefault(_MenuItem);\n\nvar _Divider =
require('../Divider');\n\nvar _Divider2 = _interopRequireDefault(_Divider);\n\nvar _Popover =
require('../Popover/Popover');\n\nvar _Popover2 = _interopRequireDefault(_Popover);\n\nvar _propTypes3 =
require('../utils/propTypes');\n\nvar _propTypes4 = _interopRequireDefault(_propTypes3);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction
getStyles(props, context, state) {\n  var anchorEl = state.anchorEl;\n  var fullWidth = props.fullWidth;\n  var styles
= {\n    root: {\n      display: 'inline-block',\n
      position: 'relative',\n      width: fullWidth ? '100%' : 256\n    },\n    menu: {\n      width: '100%'\n    },\n    list: {\n
   display: 'block',\n      width: fullWidth ? '100%' : 256\n    },\n    innerDiv: {\n      overflow: 'hidden'\n    }\n  };\n\n
if (anchorEl && fullWidth) {\n    styles.popover = {\n      width: anchorEl.clientWidth\n    };\n  }\n\n  return
styles;\n}\n\nvar AutoComplete = function (_Component) {\n  (0, _inherits3.default)(AutoComplete,
_Component);\n\n  function AutoComplete() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0,
_classCallCheck3.default)(this, AutoComplete);\n\n    for (var _len = arguments.length, args = Array(_len), _key =
0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = AutoComplete.__proto__ || (0,
_getPrototypeOf2.default)(AutoComplete)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n
  anchorEl: null,\n      focusTextField: true,\n      open: false,\n      searchText: undefined\n    },
_this.handleRequestClose = function () {\n      // Only take into account the Popover clickAway when we are\n      //
not focusing the TextField.\n      if (!_this.state.focusTextField) {\n        _this.close();\n      }\n    },
_this.handleMouseDown = function (event) {\n      // Keep the TextField focused\n      event.preventDefault();\n    },
_this.handleItemClick = function (event, child) {\n      var dataSource = _this.props.dataSource;\n      var index =
parseInt(child.key, 10);\n      var chosenRequest = dataSource[index];\n\n      var searchText =
_this.chosenRequestText(chosenRequest);\n\n      var updateInput = function updateInput() {\n        return
_this.props.onUpdateInput(searchText, _this.props.dataSource, {\n          source: 'click'\n        });\n      };\n\n
_this.timerClickCloseId = function () {\n        return setTimeout(function () {\n          _this.timerClickCloseId
 = null;\n\n          _this.close();\n\n          _this.props.onNewRequest(chosenRequest, index);\n        },
_this.props.menuCloseDelay);\n      };\n\n      if (typeof _this.props.searchText !== 'undefined') {\n
updateInput();\n\n        _this.timerClickCloseId();\n      } else {\n        _this.setState({\n          searchText:
searchText\n        }, function () {\n          updateInput();\n\n          _this.timerClickCloseId();\n        });\n      }\n    },
_this.chosenRequestText = function (chosenRequest) {\n      if (typeof chosenRequest === 'string') {\n        return
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chosenRequest;\n      } else {\n        return chosenRequest[_this.props.dataSourceConfig.text];\n      }\n    },
_this.handleEscKeyDown = function () {\n      _this.close();\n    }, _this.handleKeyDown = function (event) {\n      if
(_this.props.onKeyDown) _this.props.onKeyDown(event);\n\n      switch ((0, _keycode2.default)(event)) {\n
case 'enter':\n          _this.close();\n\n          var
 searchText = _this.state.searchText;\n\n          if (searchText !== '') {\n
_this.props.onNewRequest(searchText, -1);\n          }\n\n          break;\n\n        case 'esc':\n          _this.close();\n\n
  break;\n\n        case 'down':\n          event.preventDefault();\n\n          _this.setState({\n            open: true,\n
focusTextField: false,\n            anchorEl: _reactDom2.default.findDOMNode(_this.refs.searchTextField)\n
});\n\n          break;\n\n        default:\n          break;\n      }\n    }, _this.handleChange = function (event) {\n      var
searchText = event.target.value; // Make sure that we have a new searchText.\n      // Fix an issue with a Cordova
Webview\n\n      if (searchText === _this.state.searchText) {\n        return;\n      }\n\n      var state = {\n        open:
true,\n        anchorEl: _reactDom2.default.findDOMNode(_this.refs.searchTextField)\n      };\n\n      if
(_this.props.searchText === undefined) {\n
      state.searchText = searchText;\n      }\n\n      _this.setState(state);\n\n      _this.props.onUpdateInput(searchText,
_this.props.dataSource, {\n        source: 'change'\n      });\n    }, _this.handleBlur = function (event) {\n      if
(_this.state.focusTextField && _this.timerClickCloseId === null) {\n        _this.timerBlurClose =
setTimeout(function () {\n          _this.close();\n        }, 0);\n      }\n\n      if (_this.props.onBlur) {\n
_this.props.onBlur(event);\n      }\n    }, _this.handleFocus = function (event) {\n      if (!_this.state.open &&
_this.props.openOnFocus) {\n        _this.setState({\n          open: true,\n          anchorEl:
_reactDom2.default.findDOMNode(_this.refs.searchTextField)\n        });\n      }\n\n      _this.setState({\n
focusTextField: true\n      });\n\n      if (_this.props.onFocus) {\n        _this.props.onFocus(event);\n      }\n    },
_temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(AutoComplete,
 [{\n    key: 'componentWillMount',\n    value: function componentWillMount() {\n      this.requestsList = [];\n
this.setState({\n        open: this.props.open,\n        searchText: this.props.searchText || ''\n      });\n
this.timerClickCloseId = null;\n    }\n  }, {\n    key: 'componentWillReceiveProps',\n    value: function
componentWillReceiveProps(nextProps) {\n      if (this.props.searchText !== nextProps.searchText) {\n
this.setState({\n          searchText: nextProps.searchText\n        });\n      }\n\n      if (this.props.open !==
nextProps.open) {\n        this.setState({\n          open: nextProps.open,\n          anchorEl:
_reactDom2.default.findDOMNode(this.refs.searchTextField)\n        });\n      }\n    }\n  }, {\n    key:
'componentWillUnmount',\n    value: function componentWillUnmount() {\n
clearTimeout(this.timerClickCloseId);\n      clearTimeout(this.timerBlurClose);\n    }\n  }, {\n    key: 'close',\n
value: function
 close() {\n      this.setState({\n        open: false,\n        anchorEl: null\n      });\n\n      if (this.props.onClose) {\n
this.props.onClose();\n      }\n    }\n  }, {\n    key: 'blur',\n    value: function blur() {\n
this.refs.searchTextField.blur();\n    }\n  }, {\n    key: 'focus',\n    value: function focus() {\n
this.refs.searchTextField.focus();\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var _this2 =
this;\n\n      var _props = this.props,\n          anchorOrigin = _props.anchorOrigin,\n          animated =
_props.animated,\n          animation = _props.animation,\n          dataSource = _props.dataSource,\n
dataSourceConfig = _props.dataSourceConfig,\n          disableFocusRipple = _props.disableFocusRipple,\n
errorStyle = _props.errorStyle,\n          floatingLabelText = _props.floatingLabelText,\n          filter = _props.filter,\n
       fullWidth = _props.fullWidth,\n          style = _props.style,\n
          hintText = _props.hintText,\n          maxSearchResults = _props.maxSearchResults,\n          menuCloseDelay
= _props.menuCloseDelay,\n          textFieldStyle = _props.textFieldStyle,\n          menuStyle = _props.menuStyle,\n
        menuProps = _props.menuProps,\n          listStyle = _props.listStyle,\n          targetOrigin =
_props.targetOrigin,\n          onBlur = _props.onBlur,\n          onClose = _props.onClose,\n          onFocus =
_props.onFocus,\n          onKeyDown = _props.onKeyDown,\n          onNewRequest = _props.onNewRequest,\n
 onUpdateInput = _props.onUpdateInput,\n          openOnFocus = _props.openOnFocus,\n          popoverProps =
_props.popoverProps,\n          searchTextProp = _props.searchText,\n          other = (0,
```

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_objectWithoutProperties3.default)(_props, ['anchorOrigin', 'animated', 'animation', 'dataSource', 'dataSourceConfig',
'disableFocusRipple', 'errorStyle', 'floatingLabelText', 'filter', 'fullWidth', 'style', 'hintText', 'maxSearchResults',
 'menuCloseDelay', 'textFieldStyle', 'menuStyle', 'menuProps', 'listStyle', 'targetOrigin', 'onBlur', 'onClose', 'onFocus',
'onKeyDown', 'onNewRequest', 'onUpdateInput', 'openOnFocus', 'popoverProps', 'searchText']);\n\n      var _ref2 =
popoverProps || {},\n          popoverStyle = _ref2.style,\n          popoverOther = (0,
_objectWithoutProperties3.default)(_ref2, ['style']);\n\n      var _state = this.state,\n          open = _state.open,\n
anchorEl = _state.anchorEl,\n          searchText = _state.searchText,\n          focusTextField =
_state.focusTextField;\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles =
getStyles(this.props, this.context, this.state);\n      var requestsList = [];\n      dataSource.every(function (item, index)
{\n        switch (typeof item === 'undefined' ? 'undefined' : (0, _typeof3.default)(item)) {\n          case 'string':\n
 if (filter(searchText, item, item)) {\n              requestsList.push({\n
              text: item,\n                value: _react2.default.createElement(_MenuItem2.default, {\n
innerDivStyle: styles.innerDiv,\n                  value: item,\n                  primaryText: item,\n
disableFocusRipple: disableFocusRipple,\n                  key: index\n                })\n              });\n            }\n\n
break;\n\n          case 'object':\n            if (item && typeof item[_this2.props.dataSourceConfig.text] === 'string') {\n
          var itemText = item[_this2.props.dataSourceConfig.text];\n              if (!_this2.props.filter(searchText,
itemText, item)) break;\n              var itemValue = item[_this2.props.dataSourceConfig.value];\n\n              if
(itemValue && itemValue.type && (itemValue.type.muiName === _MenuItem2.default.muiName ||
itemValue.type.muiName === _Divider2.default.muiName)) {\n                requestsList.push({\n                  text:
itemText,\n                  value:
 _react2.default.cloneElement(itemValue, {\n                    key: index,\n                    disableFocusRipple:
disableFocusRipple\n                  })\n                });\n              } else {\n                requestsList.push({\n                  text:
itemText,\n                  value: _react2.default.createElement(_MenuItem2.default, {\n                    innerDivStyle:
styles.innerDiv,\n                    primaryText: itemText,\n                    disableFocusRipple: disableFocusRipple,\n
         key: index\n                  })\n                });\n              }\n            }\n\n            break;\n\n          default: // Do
nothing\n\n        }\n\n        return !(maxSearchResults && maxSearchResults > 0 && requestsList.length ===
maxSearchResults);\n      });\n      this.requestsList = requestsList;\n\n      var menu = open && requestsList.length >
0 && _react2.default.createElement(_Menu2.default, (0, _extends3.default)({\n        ref: 'menu',\n
     autoWidth: false,\n        disableAutoFocus: focusTextField,\n        onEscKeyDown: this.handleEscKeyDown,\n
   initiallyKeyboardFocused: true,\n        onItemClick: this.handleItemClick,\n        onMouseDown:
this.handleMouseDown,\n        style: (0, _simpleAssign2.default)(styles.menu, menuStyle),\n        listStyle: (0,
_simpleAssign2.default)(styles.list, listStyle)\n      }, menuProps), requestsList.map(function (i) {\n        return
i.value;\n      }));\n\n      return _react2.default.createElement('div', {\n        style: prepareStyles((0,
_simpleAssign2.default)(styles.root, style))\n      }, _react2.default.createElement(_TextField2.default, (0,
_extends3.default)({\n        ref: 'searchTextField',\n        autoComplete: 'off',\n        onBlur: this.handleBlur,\n
onFocus: this.handleFocus,\n        onKeyDown: this.handleKeyDown,\n        floatingLabelText:
floatingLabelText,\n        hintText: hintText,\n        fullWidth: fullWidth,\n        multiLine: false,\n
       errorStyle: errorStyle,\n        style: textFieldStyle\n      }, other, {\n        // value and onChange are idiomatic
properties often leaked.\n        // We prevent their overrides in order to reduce potential bugs.\n        value:
searchText,\n        onChange: this.handleChange\n      })), _react2.default.createElement(_Popover2.default, (0,
_extends3.default)({\n        style: (0, _simpleAssign2.default)({}, styles.popover, popoverStyle),\n
canAutoPosition: false,\n        anchorOrigin: anchorOrigin,\n        targetOrigin: targetOrigin,\n        open: open,\n
anchorEl: anchorEl,\n        useLayerForClickAway: false,\n        onRequestClose: this.handleRequestClose,\n
animated: animated,\n        animation: animation\n      }, popoverOther), menu));\n    }\n  }]);\n  return
AutoComplete;\n}(_react.Component);\n\nAutoComplete.defaultProps = {\n  anchorOrigin: {\n    vertical:
'bottom',\n    horizontal: 'left'\n  },\n  animated: true,\n  dataSourceConfig:
 {\n    text: 'text',\n    value: 'value'\n  },\n  disableFocusRipple: true,\n  filter: function filter(searchText, key) {\n
return searchText !== '' && key.indexOf(searchText) !== -1;\n  },\n  fullWidth: false,\n  open: false,\n
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openOnFocus: false,\n  onUpdateInput: function onUpdateInput() {},\n  onNewRequest: function onNewRequest()
{},\n  menuCloseDelay: 300,\n  targetOrigin: {\n    vertical: 'top',\n    horizontal: 'left'\n
}\n};\nAutoComplete.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nAutoComplete.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  /**\n   * Location of the anchor for the auto complete.\n   */\n  anchorOrigin:
_propTypes4.default.origin,\n\n  /**\n   * If true, the auto complete is animated as it is toggled.\n   */\n  animated:
_propTypes2.default.bool,\n\n  /**\n   * Override the default animation component used.\n   */\n  animation:
_propTypes2.default.func,\n\n  /**\n   * Array of strings or nodes used to populate the
 list.\n   */\n  dataSource: _propTypes2.default.array.isRequired,\n\n  /**\n   * Config for objects list dataSource.\n
*\n   * @typedef {Object} dataSourceConfig\n   *\n   * @property {string} text `dataSource` element key used to
find a string to be matched for search\n   * and shown as a `TextField` input value after choosing the result.\n   *
@property {string} value `dataSource` element key used to find a string to be shown in search results.\n   */\n
dataSourceConfig: _propTypes2.default.object,\n\n  /**\n   * Disables focus ripple when true.\n   */\n
disableFocusRipple: _propTypes2.default.bool,\n\n  /**\n   * Override style prop for error.\n   */\n  errorStyle:
_propTypes2.default.object,\n\n  /**\n   * The error content to display.\n   */\n  errorText:
_propTypes2.default.node,\n\n  /**\n   * Callback function used to filter the auto complete.\n   *\n   * @param
{string} searchText The text to search for within `dataSource`.\n   * @param {string} key `dataSource` element,
 or `text` property on that element if it's not a string.\n   * @returns {boolean} `true` indicates the auto complete list
will include `key` when the input is `searchText`.\n   */\n  filter: _propTypes2.default.func,\n\n  /**\n   * The content
to use for adding floating label element.\n   */\n  floatingLabelText: _propTypes2.default.node,\n\n  /**\n   * If true,
the field receives the property `width: 100%`.\n   */\n  fullWidth: _propTypes2.default.bool,\n\n  /**\n   * The hint
content to display.\n   */\n  hintText: _propTypes2.default.node,\n\n  /**\n   * Override style for list.\n   */\n
listStyle: _propTypes2.default.object,\n\n  /**\n   * The max number of search results to be shown.\n   * By default
it shows all the items which matches filter.\n   */\n  maxSearchResults: _propTypes2.default.number,\n\n  /**\n   *
Delay for closing time of the menu.\n   */\n  menuCloseDelay: _propTypes2.default.number,\n\n  /**\n   * Props to
be passed to menu.\n   */\n  menuProps: _propTypes2.default.object,\n\n
  /**\n   * Override style for menu.\n   */\n  menuStyle: _propTypes2.default.object,\n\n  /** @ignore */\n  onBlur:
_propTypes2.default.func,\n\n  /**\n   * Callback function fired when the menu is closed.\n   */\n  onClose:
_propTypes2.default.func,\n\n  /** @ignore */\n  onFocus: _propTypes2.default.func,\n\n  /** @ignore */\n
onKeyDown: _propTypes2.default.func,\n\n  /**\n   * Callback function that is fired when a list item is selected, or
enter is pressed in the `TextField`.\n   *\n   * @param {string} chosenRequest Either the `TextField` input value, if
enter is pressed in the `TextField`,\n   * or the dataSource object corresponding to the list item that was selected.\n
* @param {number} index The index in `dataSource` of the list item selected, or `-1` if enter is pressed in the\n   *
`TextField`.\n   */\n  onNewRequest: _propTypes2.default.func,\n\n  /**\n   * Callback function that is fired when
the user updates the `TextField`.\n   *\n   * @param {string}
 searchText The auto-complete's `searchText` value.\n   * @param {array} dataSource The auto-complete's
`dataSource` array.\n   * @param {object} params Additional information linked the update.\n   */\n
onUpdateInput: _propTypes2.default.func,\n\n  /**\n   * Auto complete menu is open if true.\n   */\n  open:
_propTypes2.default.bool,\n\n  /**\n   * If true, the list item is showed when a focus event triggers.\n   */\n
openOnFocus: _propTypes2.default.bool,\n\n  /**\n   * Props to be passed to popover.\n   */\n  popoverProps:
_propTypes2.default.object,\n\n  /**\n   * Text being input to auto complete.\n   */\n  searchText:
_propTypes2.default.string,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object,\n\n  /**\n   * Origin for location of target.\n   */\n  targetOrigin:
_propTypes4.default.origin,\n\n  /**\n   * Override the inline-styles of AutoComplete's TextField element.\n   */\n
textFieldStyle: _propTypes2.default.object\n}
 : {};\n\nAutoComplete.levenshteinDistance = function (searchText, key) {\n  var current = [];\n  var prev = void
0;\n  var value = void 0;\n\n  for (var i = 0; i <= key.length; i++) {\n    for (var j = 0; j <= searchText.length; j++) {\n
    if (i && j) {\n        if (searchText.charAt(j - 1) === key.charAt(i - 1)) value = prev;else value =
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Math.min(current[j], current[j - 1], prev) + 1;\n      } else {\n        value = i + j;\n      }\n\n      prev = current[j];\n
current[j] = value;\n    }\n  }\n\n  return current.pop();\n};\n\nAutoComplete.noFilter = function () {\n  return
true;\n};\n\nAutoComplete.defaultFilter = AutoComplete.caseSensitiveFilter = function (searchText, key) {\n
return searchText !== '' && key.indexOf(searchText) !== -1;\n};\n\nAutoComplete.caseInsensitiveFilter = function
(searchText, key) {\n  return key.toLowerCase().indexOf(searchText.toLowerCase()) !== -
1;\n};\n\nAutoComplete.levenshteinDistanceFilter = function (distanceLessThan) {\n  if (distanceLessThan
 === undefined) {\n    return AutoComplete.levenshteinDistance;\n  } else if (typeof distanceLessThan !==
'number') {\n    throw 'Error: AutoComplete.levenshteinDistanceFilter is a filter generator, not a filter!';\n  }\n\n
return function (s, k) {\n    return AutoComplete.levenshteinDistance(s, k) < distanceLessThan;\n
};\n};\n\nAutoComplete.fuzzyFilter = function (searchText, key) {\n  var compareString = key.toLowerCase();\n
searchText = searchText.toLowerCase();\n  var searchTextIndex = 0;\n\n  for (var index = 0; index < key.length;
index++) {\n    if (compareString[index] === searchText[searchTextIndex]) {\n      searchTextIndex += 1;\n    }\n
}\n\n  return searchTextIndex === searchText.length;\n};\n\nAutoComplete.Item =
_MenuItem2.default;\nAutoComplete.Divider = _Divider2.default;\nexports.default = AutoComplete;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar
 _extends3 = _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar
 _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-dom');\n\nvar _reactDom2 =
_interopRequireDefault(_reactDom);\n\nvar _shallowEqual = require('recompose/shallowEqual');\n\nvar
_shallowEqual2 = _interopRequireDefault(_shallowEqual);\n\nvar _transitions =
require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nvar
_EnhancedTextarea = require('./EnhancedTextarea');\n\nvar _EnhancedTextarea2 =
_interopRequireDefault(_EnhancedTextarea);\n\nvar _TextFieldHint = require('./TextFieldHint');\n\nvar
_TextFieldHint2 = _interopRequireDefault(_TextFieldHint);\n\nvar _TextFieldLabel =
require('./TextFieldLabel');\n\nvar _TextFieldLabel2 = _interopRequireDefault(_TextFieldLabel);\n\nvar
_TextFieldUnderline = require('./TextFieldUnderline');\n\nvar
 _TextFieldUnderline2 = _interopRequireDefault(_TextFieldUnderline);\n\nvar _warning =
require('warning');\n\nvar _warning2 = _interopRequireDefault(_warning);\n\nfunction _interopRequireDefault(obj)
{\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar getStyles = function getStyles(props,
context, state) {\n  var _context$muiTheme = context.muiTheme,\n      baseTheme =
_context$muiTheme.baseTheme,\n      _context$muiTheme$tex = _context$muiTheme.textField,\n
floatingLabelColor = _context$muiTheme$tex.floatingLabelColor,\n      focusColor =
_context$muiTheme$tex.focusColor,\n      textColor = _context$muiTheme$tex.textColor,\n      disabledTextColor
= _context$muiTheme$tex.disabledTextColor,\n      backgroundColor =
_context$muiTheme$tex.backgroundColor,\n      errorColor = _context$muiTheme$tex.errorColor;\n  var styles =
{\n    root: {\n      fontSize: 16,\n      lineHeight: '24px',\n      width: props.fullWidth ? '100%' : 256,\n
```

```
    height: (props.rows - 1) * 24 + (props.floatingLabelText ? 72 : 48),\n      display: 'inline-block',\n      position:
'relative',\n      backgroundColor: backgroundColor,\n      fontFamily: baseTheme.fontFamily,\n      transition:
_transitions2.default.easeOut('200ms', 'height'),\n      cursor: props.disabled ? 'not-allowed' : 'auto'\n    },\n    error:
{\n      position: 'relative',\n      bottom: 2,\n      fontSize: 12,\n      lineHeight: '12px',\n      color: errorColor,\n
transition: _transitions2.default.easeOut()\n    },\n    floatingLabel: {\n      color: props.disabled ? disabledTextColor
: floatingLabelColor,\n      pointerEvents: 'none'\n    },\n    input: {\n      padding: 0,\n      position: 'relative',\n
width: '100%',\n      border: 'none',\n      outline: 'none',\n      backgroundColor: 'rgba(0,0,0,0)',\n      color:
props.disabled ? disabledTextColor : textColor,\n      cursor: 'inherit',\n      font: 'inherit',\n      WebkitOpacity: 1,\n
WebkitTapHighlightColor:
 'rgba(0,0,0,0)' // Remove mobile color flashing (deprecated style).\n\n    },\n    inputNative: {\n      appearance:
'textfield' // Improve type search style.\n\n    }\n  };\n  styles.textarea = (0, _simpleAssign2.default)({}, styles.input,
{\n    marginTop: props.floatingLabelText ? 36 : 12,\n    marginBottom: props.floatingLabelText ? -36 : -12,\n
boxSizing: 'border-box',\n    font: 'inherit'\n  }); // Do not assign a height to the textarea as he handles it on his
own.\n\n  styles.input.height = '100%';\n\n  if (state.isFocused) {\n    styles.floatingLabel.color = focusColor;\n
}\n\n  if (props.floatingLabelText) {\n    styles.input.boxSizing = 'border-box';\n\n    if (!props.multiLine) {\n
styles.input.marginTop = 14;\n    }\n\n    if (state.errorText) {\n      styles.error.bottom = !props.multiLine ?
styles.error.fontSize + 3 : 3;\n    }\n  }\n\n  if (state.errorText) {\n    if (state.isFocused) {\n
styles.floatingLabel.color = styles.error.color;\n    }\n
  }\n\n  return styles;\n};\n/**\n * Check if a value is valid to be displayed inside an input.\n *\n * @param The
value to check.\n * @returns True if the string provided is valid, false otherwise.\n */\n\n\nfunction isValid(value)
{\n  return value !== '' && value !== undefined && value !== null && !(Array.isArray(value) && value.length
=== 0);\n}\n\nvar TextField = function (_Component) {\n  (0, _inherits3.default)(TextField, _Component);\n\n
function TextField() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this,
TextField);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n
args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = TextField.__proto__ || (0,
_getPrototypeOf2.default)(TextField)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      isFocused:
false,\n      errorText: undefined,\n      hasValue:
 false\n    }, _this.handleInputBlur = function (event) {\n      _this.setState({\n        isFocused: false\n      });\n\n      if
(_this.props.onBlur) {\n        _this.props.onBlur(event);\n      }\n    }, _this.handleInputChange = function (event) {\n
    if (!_this.props.hasOwnProperty('value')) {\n        _this.setState({\n          hasValue: isValid(event.target.value)\n
    });\n      }\n\n      if (_this.props.onChange) {\n        _this.props.onChange(event, event.target.value);\n      }\n    },
_this.handleInputFocus = function (event) {\n      if (_this.props.disabled) {\n        return;\n      }\n\n
_this.setState({\n        isFocused: true\n      });\n\n      if (_this.props.onFocus) {\n        _this.props.onFocus(event);\n
    }\n    }, _this.handleHeightChange = function (event, height) {\n      var newHeight = height + 24;\n\n      if
(_this.props.floatingLabelText) {\n        newHeight += 24;\n      }\n\n
_reactDom2.default.findDOMNode(_this).style.height
 = newHeight + 'px';\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0,
_createClass3.default)(TextField, [{\n    key: 'componentWillMount',\n    value: function componentWillMount()
{\n      var _props = this.props,\n          children = _props.children,\n          name = _props.name,\n          hintText =
_props.hintText,\n          floatingLabelText = _props.floatingLabelText,\n          id = _props.id;\n      var propsLeaf =
children ? children.props : this.props;\n      this.setState({\n        errorText: this.props.errorText,\n        hasValue:
isValid(propsLeaf.value) || isValid(propsLeaf.defaultValue)\n      });\n      process.env.NODE_ENV !==
\"production\" ? (0, _warning2.default)(name || hintText || floatingLabelText || id, 'Material-UI: We don\\'t have
enough information\\n      to build a robust unique id for the TextField component. Please provide an id or a name.') :
void 0;\n      var uniqueId = name + '-' + hintText + '-' + floatingLabelText
 + '-' + Math.floor(Math.random() * 0xFFFF);\n      this.uniqueId = uniqueId.replace(/[^A-Za-z0-9-]/gi, '');\n    }\n  },
{\n    key: 'componentWillReceiveProps',\n    value: function componentWillReceiveProps(nextProps) {\n      if
```

```
(nextProps.disabled && !this.props.disabled) {\n        this.setState({\n          isFocused: false\n        });\n      }\n\n
if (nextProps.errorText !== this.props.errorText) {\n        this.setState({\n          errorText: nextProps.errorText\n
});\n      }\n\n      if (nextProps.children && nextProps.children.props) {\n        nextProps =
nextProps.children.props;\n      }\n\n      if (nextProps.hasOwnProperty('value')) {\n        var hasValue =
isValid(nextProps.value);\n        this.setState({\n          hasValue: hasValue\n        });\n      }\n    }\n  }, {\n    key:
'shouldComponentUpdate',\n    value: function shouldComponentUpdate(nextProps, nextState, nextContext) {\n
return !(0, _shallowEqual2.default)(this.props, nextProps)
 || !(0, _shallowEqual2.default)(this.state, nextState) || !(0, _shallowEqual2.default)(this.context, nextContext);\n
}\n  }, {\n    key: 'blur',\n    value: function blur() {\n      if (this.input) {\n        this.getInputNode().blur();\n      }\n
}\n  }, {\n    key: 'focus',\n    value: function focus() {\n      if (this.input) {\n        this.getInputNode().focus();\n
}\n    }\n  }, {\n    key: 'select',\n    value: function select() {\n      if (this.input) {\n
this.getInputNode().select();\n      }\n    }\n  }, {\n    key: 'getValue',\n    value: function getValue() {\n      return
this.input ? this.getInputNode().value : undefined;\n    }\n  }, {\n    key: 'getInputNode',\n    value: function
getInputNode() {\n      return this.props.children || this.props.multiLine ? this.input.getInputNode() :
_reactDom2.default.findDOMNode(this.input);\n    }\n  }, {\n    key: '_isControlled',\n    value: function
_isControlled() {\n      return this.props.hasOwnProperty('value');\n
    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var _this2 = this;\n\n      var _props2 = this.props,\n
     children = _props2.children,\n          className = _props2.className,\n          disabled = _props2.disabled,\n
 errorStyle = _props2.errorStyle,\n          errorText = _props2.errorText,\n          floatingLabelFixed =
_props2.floatingLabelFixed,\n          floatingLabelFocusStyle = _props2.floatingLabelFocusStyle,\n
floatingLabelShrinkStyle = _props2.floatingLabelShrinkStyle,\n          floatingLabelStyle =
_props2.floatingLabelStyle,\n          floatingLabelText = _props2.floatingLabelText,\n          fullWidth =
_props2.fullWidth,\n          hintText = _props2.hintText,\n          hintStyle = _props2.hintStyle,\n          id =
_props2.id,\n          inputStyle = _props2.inputStyle,\n          multiLine = _props2.multiLine,\n          onBlur =
_props2.onBlur,\n          onChange = _props2.onChange,\n          onFocus
 = _props2.onFocus,\n          style = _props2.style,\n          type = _props2.type,\n          underlineDisabledStyle =
_props2.underlineDisabledStyle,\n          underlineFocusStyle = _props2.underlineFocusStyle,\n
underlineShow = _props2.underlineShow,\n          underlineStyle = _props2.underlineStyle,\n          rows =
_props2.rows,\n          rowsMax = _props2.rowsMax,\n          textareaStyle = _props2.textareaStyle,\n          other =
(0, _objectWithoutProperties3.default)(_props2, ['children', 'className', 'disabled', 'errorStyle', 'errorText',
'floatingLabelFixed', 'floatingLabelFocusStyle', 'floatingLabelShrinkStyle', 'floatingLabelStyle', 'floatingLabelText',
'fullWidth', 'hintText', 'hintStyle', 'id', 'inputStyle', 'multiLine', 'onBlur', 'onChange', 'onFocus', 'style', 'type',
'underlineDisabledStyle', 'underlineFocusStyle', 'underlineShow', 'underlineStyle', 'rows', 'rowsMax',
'textareaStyle']);\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n
      var styles = getStyles(this.props, this.context, this.state);\n      var inputId = id || this.uniqueId;\n\n      var
errorTextElement = this.state.errorText && _react2.default.createElement('div', {\n        style: prepareStyles((0,
_simpleAssign2.default)(styles.error, errorStyle))\n      }, this.state.errorText);\n\n      var floatingLabelTextElement
= floatingLabelText && _react2.default.createElement(_TextFieldLabel2.default, {\n        muiTheme:
this.context.muiTheme,\n        style: (0, _simpleAssign2.default)(styles.floatingLabel, floatingLabelStyle,
this.state.isFocused ? floatingLabelFocusStyle : null),\n        shrinkStyle: floatingLabelShrinkStyle,\n        htmlFor:
inputId,\n        shrink: this.state.hasValue || this.state.isFocused || floatingLabelFixed,\n        disabled: disabled\n
}, floatingLabelText);\n\n      var inputProps = {\n        id: inputId,\n        ref: function ref(elem) {\n          return
_this2.input = elem;\n        },\n        disabled: this.props.disabled,\n
        onBlur: this.handleInputBlur,\n        onChange: this.handleInputChange,\n        onFocus:
this.handleInputFocus\n      };\n      var childStyleMerged = (0, _simpleAssign2.default)(styles.input, inputStyle);\n
 var inputElement = void 0;\n\n      if (children) {\n        inputElement = _react2.default.cloneElement(children, (0,
_extends3.default)({}, inputProps, children.props, {\n          style: (0, _simpleAssign2.default)(childStyleMerged,
children.props.style)\n        }));\n      } else {\n        inputElement = multiLine ?
```

_react2.default.createElement(_EnhancedTextarea2.default, (0, _extends3.default)({\n   style: childStyleMerged,\n   textareaStyle: (0, _simpleAssign2.default)(styles.textarea, styles.inputNative, textareaStyle),\n   rows: rows,\n   rowsMax: rowsMax,\n   hintText: hintText\n   }, other, inputProps, {\n   onHeightChange: this.handleHeightChange\n   })) : _react2.default.createElement('input', (0, _extends3.default)({\n   type: type,\n   style: prepareStyles((0, _simpleAssign2.default)(styles.inputNative, childStyleMerged))\n   }, other, inputProps));\n   }\n\n   var rootProps = {};\n\n   if (children) {\n   rootProps = other;\n   }\n\n   return _react2.default.createElement('div', (0, _extends3.default)({}, rootProps, {\n   className: className,\n style: prepareStyles((0, _simpleAssign2.default)(styles.root, style))\n   }), floatingLabelTextElement, hintText ? _react2.default.createElement(_TextFieldHint2.default, {\n   muiTheme: this.context.muiTheme,\n   show: !(this.state.hasValue || floatingLabelText && !this.state.isFocused) || !this.state.hasValue && floatingLabelText && floatingLabelFixed && !this.state.isFocused,\n   style: hintStyle,\n   text: hintText\n   }) : null, inputElement, underlineShow ? _react2.default.createElement(_TextFieldUnderline2.default, {\n   disabled: disabled,\n disabledStyle: underlineDisabledStyle,\n   error: !!this.state.errorText,\n   errorStyle: errorStyle,\n focus: this.state.isFocused,\n   focusStyle: underlineFocusStyle,\n   muiTheme: this.context.muiTheme,\n style: underlineStyle\n   }) : null, errorTextElement);\n   }\n }]);\n return TextField;\n}(_react.Component);\n\nTextField.defaultProps = {\n disabled: false,\n floatingLabelFixed: false,\n multiLine: false,\n fullWidth: false,\n type: 'text',\n underlineShow: true,\n rows: 1\n};\nTextField.contextTypes = {\n muiTheme: _propTypes2.default.object.isRequired\n};\nTextField.propTypes = process.env.NODE_ENV !== \"production\" ? {\n children: _propTypes2.default.node,\n\n /**\n   * The css class name of the root element.\n */\n className: _propTypes2.default.string,\n\n /**\n   * The text string to use for the default value.\n   */\n defaultValue: _propTypes2.default.any,\n\n /**\n   * Disables the text field if set to true.\n   */\n disabled: _propTypes2.default.bool,\n\n /**\n   * The style object to use to override error styles.\n   */\n errorStyle: _propTypes2.default.object,\n\n /**\n   * The error content to display.\n   */\n errorText: _propTypes2.default.node,\n\n /**\n   * If true, the floating label will float even when there is no value.\n   */\n floatingLabelFixed: _propTypes2.default.bool,\n\n /**\n   * The style object to use to override floating label styles when focused.\n   */\n floatingLabelFocusStyle: _propTypes2.default.object,\n\n /**\n   * The style object to use to override floating label styles when shrunk.\n   */\n floatingLabelShrinkStyle: _propTypes2.default.object,\n\n /**\n   * The style object to use to override floating label styles.\n   */\n floatingLabelStyle: _propTypes2.default.object,\n\n /**\n   * The content to use for the floating label element.\n   */\n floatingLabelText: _propTypes2.default.node,\n\n /**\n   * If true, the field receives the property width 100%.\n   */\n fullWidth: _propTypes2.default.bool,\n\n /**\n   * Override the inline-styles of the TextField's hint text element.\n   */\n hintStyle: _propTypes2.default.object,\n\n /**\n   * The hint content to display.\n   */\n hintText: _propTypes2.default.node,\n\n /**\n   * The id prop for the text field.\n   */\n id: _propTypes2.default.string,\n\n /**\n   * Override the inline-styles of the TextField's input element.\n   * When multiLine is false: define the style of the input element.\n   * When multiLine is true: define the style of the container of the textarea.\n   */\n inputStyle: _propTypes2.default.object,\n\n /**\n   * If true, a textarea element will be rendered.\n   * The textarea also grows and shrinks according to the number of lines.\n   */\n multiLine: _propTypes2.default.bool,\n\n /**\n   * Name applied to the input.\n   */\n name: _propTypes2.default.string,\n\n /** @ignore */\n onBlur: _propTypes2.default.func,\n\n /**\n   * Callback function that is fired when the textfield's value changes.\n   *\n   * @param {object} event Change event targeting the text field.\n   * @param {string} newValue The new value of the text field.\n   */\n onChange: _propTypes2.default.func,\n\n /** @ignore */\n onFocus: _propTypes2.default.func,\n\n /**\n   * Number of rows to display when multiLine option is set to true.\n   */\n rows: _propTypes2.default.number,\n\n /**\n   * Maximum number of rows to display when\n   * multiLine option is set to true.\n   */\n rowsMax: _propTypes2.default.number,\n\n /**\n   * Override the inline-styles of the root element.\n   */\n style: _propTypes2.default.object,\n\n /**\n   * Override the inline-styles of the TextField's textarea element.\n   * The

```
TextField use either a textarea or an input,\n   * this property has effects only when multiLine is true.\n   */\n
textareaStyle: _propTypes2.default.object,\n\n  /**\n   * Specifies the type of input to display\n   * such as
\"password\"
 or \"text\".\n   */\n  type: _propTypes2.default.string,\n\n  /**\n   * Override the inline-styles of the\n   * TextField's
underline element when disabled.\n   */\n  underlineDisabledStyle: _propTypes2.default.object,\n\n  /**\n   *
Override the inline-styles of the TextField's\n   * underline element when focussed.\n   */\n  underlineFocusStyle:
_propTypes2.default.object,\n\n  /**\n   * If true, shows the underline for the text field.\n   */\n  underlineShow:
_propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the TextField's underline element.\n   */\n
underlineStyle: _propTypes2.default.object,\n\n  /**\n   * The value of the text field.\n   */\n  value:
_propTypes2.default.any\n} : {};\nexports.default = TextField;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3
= _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar
 _objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
 require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _reactEventListener = require('react-event-
listener');\n\nvar _reactEventListener2 = _interopRequireDefault(_reactEventListener);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar rowsHeight
= 24;\n\nfunction getStyles(props, context, state) {\n  return {\n    root: {\n      position: 'relative' // because the
shadow has position: 'absolute'\n\n    },\n    textarea: {\n      height: state.height,\n      width: '100%',\n      resize:
'none',\n      font: 'inherit',\n      padding: 0,\n      cursor: 'inherit'\n    },\n    shadow: {\n      resize: 'none',\n      //
Overflow also needed to here to remove the extra row\n      // added to textareas in Firefox.\n      overflow:
'hidden',\n      // Visibility needed to hide the extra text area on ipads\n
      visibility: 'hidden',\n      position: 'absolute',\n      height: 'auto'\n    }\n  };\n}\n\nvar EnhancedTextarea = function
(_Component) {\n  (0, _inherits3.default)(EnhancedTextarea, _Component);\n\n  function EnhancedTextarea() {\n
var _ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this, EnhancedTextarea);\n\n    for (var
_len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] =
arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref =
EnhancedTextarea.__proto__ || (0, _getPrototypeOf2.default)(EnhancedTextarea)).call.apply(_ref,
[this].concat(args))), _this), _this.state = {\n      height: null\n    }, _this.handleResize = function (event) {\n
_this.syncHeightWithShadow(_this.props.value, event);\n    }, _this.handleChange = function (event) {\n      if
(!_this.props.hasOwnProperty('value')) {\n        _this.syncHeightWithShadow(event.target.value);\n
      }\n\n      if (_this.props.hasOwnProperty('valueLink')) {\n
_this.props.valueLink.requestChange(event.target.value);\n      }\n\n      if (_this.props.onChange) {\n
_this.props.onChange(event);\n      }\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n
(0, _createClass3.default)(EnhancedTextarea, [{\n    key: 'componentWillMount',\n    value: function
componentWillMount() {\n      this.setState({\n        height: this.props.rows * rowsHeight\n      });\n    }\n  }, {\n
key: 'componentDidMount',\n    value: function componentDidMount() {\n
this.syncHeightWithShadow(this.props.value);\n    }\n  }, {\n    key: 'componentWillReceiveProps',\n    value:
```

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function componentWillReceiveProps(nextProps) {\n      if (nextProps.value !== this.props.value ||
nextProps.rowsMax !== this.props.rowsMax) {\n        this.syncHeightWithShadow(nextProps.value, null,
nextProps);\n      }\n    }\n  }, {\n    key: 'getInputNode',\n    value: function
 getInputNode() {\n      return this.refs.input;\n    }\n  }, {\n    key: 'setValue',\n    value: function setValue(value) {\n
    this.getInputNode().value = value;\n      this.syncHeightWithShadow(value);\n    }\n  }, {\n    key:
'syncHeightWithShadow',\n    value: function syncHeightWithShadow(newValue, event, props) {\n      var shadow =
this.refs.shadow;\n      var displayText = this.props.hintText && (newValue === '' || newValue === undefined ||
newValue === null) ? this.props.hintText : newValue;\n\n      if (displayText !== undefined) {\n        shadow.value
= displayText;\n      }\n\n      var newHeight = shadow.scrollHeight; // Guarding for jsdom, where scrollHeight isn't
present.\n      // See https://github.com/tmpvar/jsdom/issues/1013\n\n      if (newHeight === undefined) return;\n
props = props || this.props;\n\n      if (props.rowsMax >= props.rows) {\n        newHeight =
Math.min(props.rowsMax * rowsHeight, newHeight);\n      }\n\n      newHeight = Math.max(newHeight,
 rowsHeight);\n\n      if (this.state.height !== newHeight) {\n        var input = this.refs.input;\n        var cursorPosition
= input.selectionEnd;\n        this.setState({\n          height: newHeight\n        }, function () {\n
input.setSelectionRange(cursorPosition, cursorPosition);\n        });\n\n        if (props.onHeightChange) {\n
props.onHeightChange(event, newHeight);\n        }\n      }\n    }\n  }, {\n    key: 'render',\n    value: function render()
{\n      var _props = this.props,\n          onChange = _props.onChange,\n          onHeightChange =
_props.onHeightChange,\n          rows = _props.rows,\n          rowsMax = _props.rowsMax,\n          shadowStyle =
_props.shadowStyle,\n          style = _props.style,\n          hintText = _props.hintText,\n          textareaStyle =
_props.textareaStyle,\n          valueLink = _props.valueLink,\n          other = (0,
_objectWithoutProperties3.default)(_props, ['onChange', 'onHeightChange', 'rows', 'rowsMax',
 'shadowStyle', 'style', 'hintText', 'textareaStyle', 'valueLink']);\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context, this.state);\n      var
rootStyles = (0, _simpleAssign2.default)(styles.root, style);\n      var textareaStyles = (0,
_simpleAssign2.default)(styles.textarea, textareaStyle);\n      var shadowStyles = (0, _simpleAssign2.default)({},
textareaStyles, styles.shadow, shadowStyle);\n      var props = {};\n\n      if (this.props.hasOwnProperty('valueLink'))
{\n        other.value = valueLink.value;\n        props.valueLink = valueLink;\n      }\n\n      return
_react2.default.createElement('div', {\n        style: prepareStyles(rootStyles)\n      },
_react2.default.createElement(_reactEventListener2.default, {\n        target: 'window',\n        onResize:
this.handleResize\n      }), _react2.default.createElement('textarea', (0, _extends3.default)({\n        ref: 'shadow',\n
 style: prepareStyles(shadowStyles),\n
        tabIndex: '-1',\n        rows: this.props.rows,\n        defaultValue: this.props.defaultValue,\n        readOnly: true,\n
      value: this.props.value\n      }, props)), _react2.default.createElement('textarea', (0, _extends3.default)({}, other,
{\n        ref: 'input',\n        rows: this.props.rows,\n        style: prepareStyles(textareaStyles),\n        onChange:
this.handleChange\n      })));\n    }\n  }]);\n  return
EnhancedTextarea;\n}(_react.Component);\n\nEnhancedTextarea.defaultProps = {\n  rows:
1\n};\nEnhancedTextarea.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nEnhancedTextarea.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  defaultValue: _propTypes2.default.any,\n  disabled: _propTypes2.default.bool,\n  hintText:
_propTypes2.default.node,\n  onChange: _propTypes2.default.func,\n  onHeightChange:
_propTypes2.default.func,\n  rows: _propTypes2.default.number,\n  rowsMax: _propTypes2.default.number,\n
shadowStyle:
 _propTypes2.default.object,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object,\n  textareaStyle: _propTypes2.default.object,\n  value: _propTypes2.default.string,\n
valueLink: _propTypes2.default.object\n} : {};\nexports.default = EnhancedTextarea;","function
_classCallCheck(instance, Constructor) {\n  if (!(instance instanceof Constructor)) {\n    throw new
TypeError(\"Cannot call a class as a function\");\n  }\n}\n\nmodule.exports = _classCallCheck,
module.exports.__esModule = true, module.exports[\"default\"] = module.exports;","function
```

_defineProperties(target, props) {\n for (var i = 0; i < props.length; i++) {\n   var descriptor = props[i];\n descriptor.enumerable = descriptor.enumerable || false;\n   descriptor.configurable = true;\n   if (\"value\" in descriptor) descriptor.writable = true;\n   Object.defineProperty(target, descriptor.key, descriptor);\n }\n}\n\nfunction _createClass(Constructor, protoProps,
 staticProps) {\n if (protoProps) _defineProperties(Constructor.prototype, protoProps);\n if (staticProps) _defineProperties(Constructor, staticProps);\n Object.defineProperty(Constructor, \"prototype\", {\n   writable: false\n });\n return Constructor;\n}\n\nmodule.exports = _createClass, module.exports.__esModule = true, module.exports[\"default\"] = module.exports;","var _typeof = require(\"./typeof.js\")[\"default\"];\n\nvar assertThisInitialized = require(\"./assertThisInitialized.js\");\n\nfunction _possibleConstructorReturn(self, call) {\n if (call && (_typeof(call) === \"object\" || typeof call === \"function\")) {\n   return call;\n } else if (call !== void 0) {\n   throw new TypeError(\"Derived constructors may only return object or undefined\");\n }\n\n return assertThisInitialized(self);\n}\n\nmodule.exports = _possibleConstructorReturn, module.exports.__esModule = true, module.exports[\"default\"] = module.exports;","function _assertThisInitialized(self)
 {\n if (self === void 0) {\n   throw new ReferenceError(\"this hasn't been initialised - super() hasn't been called\");\n }\n\n return self;\n}\n\nmodule.exports = _assertThisInitialized, module.exports.__esModule = true, module.exports[\"default\"] = module.exports;","function _getPrototypeOf(o) {\n module.exports = _getPrototypeOf = Object.setPrototypeOf ? Object.getPrototypeOf : function _getPrototypeOf(o) {\n   return o.__proto__ || Object.getPrototypeOf(o);\n }, module.exports.__esModule = true, module.exports[\"default\"] = module.exports;\n return _getPrototypeOf(o);\n}\n\nmodule.exports = _getPrototypeOf, module.exports.__esModule = true, module.exports[\"default\"] = module.exports;","var setPrototypeOf = require(\"./setPrototypeOf.js\");\n\nfunction _inherits(subClass, superClass) {\n if (typeof superClass !== \"function\" && superClass !== null) {\n   throw new TypeError(\"Super expression must either be null or a function\");\n }\n\n subClass.prototype = Object.create(superClass
 && superClass.prototype, {\n   constructor: {\n   value: subClass,\n   writable: true,\n   configurable: true\n   }\n });\n Object.defineProperty(subClass, \"prototype\", {\n   writable: false\n });\n if (superClass) setPrototypeOf(subClass, superClass);\n}\n\nmodule.exports = _inherits, module.exports.__esModule = true, module.exports[\"default\"] = module.exports;","function _setPrototypeOf(o, p) {\n module.exports = _setPrototypeOf = Object.setPrototypeOf || function _setPrototypeOf(o, p) {\n   o.__proto__ = p;\n   return o;\n }, module.exports.__esModule = true, module.exports[\"default\"] = module.exports;\n return _setPrototypeOf(o, p);\n}\n\nmodule.exports = _setPrototypeOf, module.exports.__esModule = true, module.exports[\"default\"] = module.exports;","var objectWithoutPropertiesLoose = require(\"./objectWithoutPropertiesLoose.js\");\n\nfunction _objectWithoutProperties(source, excluded) {\n if (source == null) return {};\n var target
 = objectWithoutPropertiesLoose(source, excluded);\n var key, i;\n\n if (Object.getOwnPropertySymbols) {\n   var sourceSymbolKeys = Object.getOwnPropertySymbols(source);\n\n   for (i = 0; i < sourceSymbolKeys.length; i++) {\n   key = sourceSymbolKeys[i];\n   if (excluded.indexOf(key) >= 0) continue;\n   if (!Object.prototype.propertyIsEnumerable.call(source, key)) continue;\n   target[key] = source[key];\n   }\n }\n\n return target;\n}\n\nmodule.exports = _objectWithoutProperties, module.exports.__esModule = true, module.exports[\"default\"] = module.exports;","function _objectWithoutPropertiesLoose(source, excluded) {\n if (source == null) return {};\n var target = {};\n var sourceKeys = Object.keys(source);\n var key, i;\n\n for (i = 0; i < sourceKeys.length; i++) {\n   key = sourceKeys[i];\n   if (excluded.indexOf(key) >= 0) continue;\n   target[key] = source[key];\n }\n\n return target;\n}\n\nmodule.exports = _objectWithoutPropertiesLoose, module.exports.__esModule
 = true, module.exports[\"default\"] = module.exports;","function _extends() {\n module.exports = _extends = Object.assign || function (target) {\n   for (var i = 1; i < arguments.length; i++) {\n   var source = arguments[i];\n\n   for (var key in source) {\n   if (Object.prototype.hasOwnProperty.call(source, key)) {\n   target[key] = source[key];\n   }\n   }\n   }\n\n   return target;\n }, module.exports.__esModule = true, module.exports[\"default\"] = module.exports;\n return _extends.apply(this, arguments);\n}\n\nmodule.exports = _extends, module.exports.__esModule = true, module.exports[\"default\"] = module.exports;","/**\n * Copyright (c)

```
2014-present, Facebook, Inc.\n *\n * This source code is licensed under the MIT license found in the\n * LICENSE
file in the root directory of this source tree.\n */\n'use strict';\n/**\n * Similar to invariant but only logs a warning if
the condition is not met.\n * This can be used to log issues in development
 environments in critical\n * paths. Removing the logging code for production environments will keep the\n * same
logic and follow the same code paths.\n */\n\nvar __DEV__ = process.env.NODE_ENV !== 'production';\n\nvar
warning = function warning() {};\n\nif (__DEV__) {\n  var printWarning = function printWarning(format, args) {\n
 var len = arguments.length;\n    args = new Array(len > 1 ? len - 1 : 0);\n\n    for (var key = 1; key < len; key++) {\n
    args[key - 1] = arguments[key];\n    }\n\n    var argIndex = 0;\n    var message = 'Warning: ' +
format.replace(/%s/g, function () {\n      return args[argIndex++];\n    });\n\n    if (typeof console !== 'undefined') {\n
    console.error(message);\n    }\n\n    try {\n      // --- Welcome to debugging React ---\n      // This error was thrown
as a convenience so that you can use this stack\n      // to find the callsite that caused this warning to fire.\n      throw
new Error(message);\n    } catch (x) {}\n  };\n\n  warning
 = function warning(condition, format, args) {\n    var len = arguments.length;\n    args = new Array(len > 2 ? len - 2
: 0);\n\n    for (var key = 2; key < len; key++) {\n      args[key - 2] = arguments[key];\n    }\n\n    if (format ===
undefined) {\n      throw new Error('`warning(condition, format, ...args)` requires a warning ' + 'message
argument');\n    }\n\n    if (!condition) {\n      printWarning.apply(null, [format].concat(args));\n    }\n
};\n}\n\nmodule.exports = warning;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 =
_interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _transitions = require('../styles/transitions');\n\nvar _transitions2 =
_interopRequireDefault(_transitions);\n\nfunction
 _interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction
getStyles(props) {\n  var hintColor = props.muiTheme.textField.hintColor,\n      show = props.show;\n  return {\n
root: {\n      position: 'absolute',\n      opacity: show ? 1 : 0,\n      color: hintColor,\n      transition:
_transitions2.default.easeOut(),\n      bottom: 12\n    }\n  };\n}\n\nvar TextFieldHint = function TextFieldHint(props)
{\n  var prepareStyles = props.muiTheme.prepareStyles,\n      style = props.style,\n      text = props.text;\n  var styles
= getStyles(props);\n  return _react2.default.createElement('div', {\n    style: prepareStyles((0,
_simpleAssign2.default)(styles.root, style))\n  }, text);\n};\n\nTextFieldHint.propTypes = process.env.NODE_ENV
!== \"production\" ? {\n  /**\n   * @ignore\n   * The material-ui theme applied to this component.\n   */\n
muiTheme: _propTypes2.default.object.isRequired,\n\n  /**\n   * True if the hint text should
 be visible.\n   */\n  show: _propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the root element.\n
*/\n  style: _propTypes2.default.object,\n\n  /**\n   * The hint text displayed.\n   */\n  text:
_propTypes2.default.node\n} : {};\nTextFieldHint.defaultProps = {\n  show: true\n};\nexports.default =
TextFieldHint;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _transitions =
require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction
getStyles(props) {\n  var defaultStyles
 = {\n    position: 'absolute',\n    lineHeight: '22px',\n    top: 38,\n    transition: _transitions2.default.easeOut(),\n
zIndex: 1,\n    // Needed to display label above Chrome's autocomplete field background\n    transform: 'scale(1)
translate(0, 0)',\n    transformOrigin: 'left top',\n    pointerEvents: 'auto',\n    userSelect: 'none'\n  };\n  var
shrinkStyles = props.shrink ? (0, _simpleAssign2.default)({\n    transform: 'scale(0.75) translate(0, -28px)',\n
pointerEvents: 'none'\n  }, props.shrinkStyle) : null;\n  return {\n    root: (0, _simpleAssign2.default)(defaultStyles,
props.style, shrinkStyles)\n  };\n}\n\nvar TextFieldLabel = function TextFieldLabel(props) {\n  var muiTheme =
props.muiTheme,\n      className = props.className,\n      children = props.children,\n      htmlFor =
```

```
props.htmlFor,\n      onClick = props.onClick;\n  var prepareStyles = muiTheme.prepareStyles;\n  var styles =
getStyles(props);\n  return _react2.default.createElement('label', {\n    className:
 className,\n    style: prepareStyles(styles.root),\n    htmlFor: htmlFor,\n    onClick: onClick\n  },
children);\n};\n\nTextFieldLabel.propTypes = process.env.NODE_ENV !== \"production\" ? {\n  /**\n   * The label
contents.\n   */\n  children: _propTypes2.default.node,\n\n  /**\n   * The css class name of the root element.\n   */\n
className: _propTypes2.default.string,\n\n  /**\n   * Disables the label if set to true.\n   */\n  disabled:
_propTypes2.default.bool,\n\n  /**\n   * The id of the target element that this label should refer to.\n   */\n  htmlFor:
_propTypes2.default.string,\n\n  /**\n   * @ignore\n   * The material-ui theme applied to this component.\n   */\n
muiTheme: _propTypes2.default.object.isRequired,\n\n  /**\n   * Callback function for when the label is selected
via a click.\n   *\n   * @param {object} event Click event targeting the text field label.\n   */\n  onClick:
_propTypes2.default.func,\n\n  /**\n   * True if the floating label should shrink.\n   */\n
 shrink: _propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the root element when shrunk.\n   */\n
shrinkStyle: _propTypes2.default.object,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object\n} : {};\nTextFieldLabel.defaultProps = {\n  disabled: false,\n  shrink:
false\n};\nexports.default = TextFieldLabel;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n
value: true\n});\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 =
_interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _transitions = require('../styles/transitions');\n\nvar _transitions2 =
_interopRequireDefault(_transitions);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule
? obj : {\n    default: obj\n  };\n}\n\nvar
 propTypes = {\n  /**\n   * True if the parent `TextField` is disabled.\n   */\n  disabled:
_propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the underline when parent `TextField` is
disabled.\n   */\n  disabledStyle: _propTypes2.default.object,\n\n  /**\n   * True if the parent `TextField` has an
error.\n   */\n  error: _propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the underline when parent
`TextField` has an error.\n   */\n  errorStyle: _propTypes2.default.object,\n\n  /**\n   * True if the parent `TextField`
is focused.\n   */\n  focus: _propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the underline when
parent `TextField` is focused.\n   */\n  focusStyle: _propTypes2.default.object,\n\n  /**\n   * @ignore\n   * The
material-ui theme applied to this component.\n   */\n  muiTheme: _propTypes2.default.object.isRequired,\n\n  /**\n
* Override the inline-styles of the root element.\n   */\n  style: _propTypes2.default.object\n};\nvar
 defaultProps = {\n  disabled: false,\n  disabledStyle: {},\n  error: false,\n  errorStyle: {},\n  focus: false,\n
focusStyle: {},\n  style: {}\n};\n\nvar TextFieldUnderline = function TextFieldUnderline(props) {\n  var disabled =
props.disabled,\n      disabledStyle = props.disabledStyle,\n      error = props.error,\n      errorStyle =
props.errorStyle,\n      focus = props.focus,\n      focusStyle = props.focusStyle,\n      muiTheme =
props.muiTheme,\n      style = props.style;\n  var errorStyleColor = errorStyle.color;\n  var prepareStyles =
muiTheme.prepareStyles,\n      _muiTheme$textField = muiTheme.textField,\n      borderColor =
_muiTheme$textField.borderColor,\n      disabledTextColor = _muiTheme$textField.disabledTextColor,\n
errorColor = _muiTheme$textField.errorColor,\n      focusColor = _muiTheme$textField.focusColor;\n  var styles =
{\n    root: {\n      borderTop: 'none',\n      borderLeft: 'none',\n      borderRight: 'none',\n      borderBottomStyle:
 'solid',\n      borderBottomWidth: 1,\n      borderColor: borderColor,\n      bottom: 8,\n      boxSizing: 'content-box',\n
   margin: 0,\n      position: 'absolute',\n      width: '100%'\n    },\n    disabled: {\n      borderBottomStyle: 'dotted',\n
 borderBottomWidth: 2,\n      borderColor: disabledTextColor\n    },\n    focus: {\n      borderBottomStyle: 'solid',\n
 borderBottomWidth: 2,\n      borderColor: focusColor,\n      transform: 'scaleX(0)',\n      transition:
_transitions2.default.easeOut()\n    },\n    error: {\n      borderColor: errorStyleColor ? errorStyleColor : errorColor,\n
   transform: 'scaleX(1)'\n    }\n  };\n  var underline = (0, _simpleAssign2.default)({}, styles.root, style);\n  var
focusedUnderline = (0, _simpleAssign2.default)({}, underline, styles.focus, focusStyle);\n  if (disabled) underline =
(0, _simpleAssign2.default)({}, underline, styles.disabled, disabledStyle);\n  if (focus) focusedUnderline = (0,
_simpleAssign2.default)({}, focusedUnderline,
```

{\n   transform: 'scaleX(1)'\n });\n if (error) focusedUnderline = (0, _simpleAssign2.default)({}, focusedUnderline, styles.error);\n return _react2.default.createElement('div', null, _react2.default.createElement('hr', {\n   'aria-hidden': 'true',\n   style: prepareStyles(underline)\n }), _react2.default.createElement('hr', {\n   'aria-hidden': 'true',\n   style: prepareStyles(focusedUnderline)\n }));\n};\n\nTextFieldUnderline.propTypes = process.env.NODE_ENV !== \"production\" ? propTypes : {};\nTextFieldUnderline.defaultProps = defaultProps;\nexports.default = TextFieldUnderline;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nvar Subheader = function Subheader(props, context) {\n var children = props.children,\n   inset = props.inset,\n   style = props.style,\n   other = (0, _objectWithoutProperties3.default)(props, ['children', 'inset', 'style']);\n var _context$muiTheme = context.muiTheme,\n   prepareStyles = _context$muiTheme.prepareStyles,\n   subheader = _context$muiTheme.subheader;\n var styles = {\n   root: {\n   boxSizing: 'border-box',\n   color: subheader.color,\n   fontSize: 14,\n   fontWeight: subheader.fontWeight,\n   lineHeight: '48px',\n   paddingLeft: inset ? 72 : 16,\n   width: '100%'\n   }\n };\n return _react2.default.createElement('div', (0, _extends3.default)({}, other, {\n   style: prepareStyles((0, _simpleAssign2.default)(styles.root, style))\n }), children);\n};\n\nSubheader.muiName = 'Subheader';\nSubheader.propTypes = process.env.NODE_ENV !== \"production\" ? {\n /**\n   * Node that will be placed inside the `Subheader`.\n   */\n children: _propTypes2.default.node,\n\n /**\n   * If true, the `Subheader` will be indented.\n   */\n inset: _propTypes2.default.bool,\n\n /**\n   * Override the inline-styles of the root element.\n   */\n style: _propTypes2.default.object\n} : {};\nSubheader.defaultProps = {\n inset: false\n};\nSubheader.contextTypes = {\n muiTheme: _propTypes2.default.object.isRequired\n};\nexports.default = Subheader;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\nexports.HotKeyHolder = undefined;\n\nvar _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nvar HotKeyHolder = exports.HotKeyHolder = function () {\n function HotKeyHolder() {\n   var _this = this;\n\n   (0, _classCallCheck3.default)(this, HotKeyHolder);\n\n   this.clear = function () {\n   _this.timerId = null;\n   _this.lastKeys = null;\n   };\n }\n\n (0, _createClass3.default)(HotKeyHolder, [{\n   key: 'append',\n   value: function append(key) {\n   clearTimeout(this.timerId);\n   this.timerId = setTimeout(this.clear, 500);\n   return this.lastKeys = (this.lastKeys || '') + key;\n   }\n }]);\n return HotKeyHolder;\n}();","/**\n * lodash (Custom Build) <https://lodash.com/>\n * Build: `lodash modularize exports=\"npm\" -o ./`\n * Copyright jQuery Foundation and other contributors <https://jquery.org/>\n * Released under MIT license <https://lodash.com/license>\n * Based on Underscore.js 1.8.3 <http://underscorejs.org/LICENSE>\n * Copyright Jeremy Ashkenas, DocumentCloud and Investigative Reporters & Editors\n */\n\n/** Used as the `TypeError` message for \"Functions\" methods. */\nvar FUNC_ERROR_TEXT = 'Expected a function';\n/** Used as references for various `Number` constants. */\n\nvar NAN = 0 / 0;\n/** `Object#toString` result references. */\n\nvar symbolTag = '[object Symbol]';\n/** Used to match leading and trailing whitespace. */\n\nvar reTrim = /^\\s+|\\s+$/g;\n/** Used to detect bad signed hexadecimal string values. */\n\nvar reIsBadHex = /^[-+]0x[0-9a-f]+$/i;\n/** Used to detect binary string values. */\n\nvar reIsBinary = /^0b[01]+$/i;\n/** Used to detect octal string values. */\n\nvar reIsOctal = /^0o[0-7]+$/i;\n/** Built-in method references without a dependency on `root`.

```
*/\n\nvar freeParseInt =
 parseInt;\n/** Detect free variable `global` from Node.js. */\n\nvar freeGlobal = typeof global == 'object' &&
global && global.Object === Object && global;\n/** Detect free variable `self`. */\n\nvar freeSelf = typeof self ==
'object' && self && self.Object === Object && self;\n/** Used as a reference to the global object. */\n\nvar root =
freeGlobal || freeSelf || Function('return this')();\n/** Used for built-in method references. */\n\nvar objectProto =
Object.prototype;\n/**\n * Used to resolve the\n * [`toStringTag`](http://ecma-international.org/ecma-262/7.0/#sec-
object.prototype.tostring)\n * of values.\n */\n\nvar objectToString = objectProto.toString;\n/* Built-in method
references for those with the same name as other `lodash` methods. */\n\nvar nativeMax = Math.max,\n    nativeMin
= Math.min;\n/**\n * Gets the timestamp of the number of milliseconds that have elapsed since\n * the Unix epoch
(1 January 1970 00:00:00 UTC).\n *\n * @static\n * @memberOf _\n * @since 2.4.0\n *
 @category Date\n * @returns {number} Returns the timestamp.\n * @example\n *\n * _.defer(function(stamp) {\n
*   console.log(_.now() - stamp);\n * }, _.now());\n * // => Logs the number of milliseconds it took for the deferred
invocation.\n */\n\nvar now = function now() {\n  return root.Date.now();\n};\n/**\n * Creates a debounced function
that delays invoking `func` until after `wait`\n * milliseconds have elapsed since the last time the debounced
function was\n * invoked. The debounced function comes with a `cancel` method to cancel\n * delayed `func`
invocations and a `flush` method to immediately invoke them.\n * Provide `options` to indicate whether `func`
should be invoked on the\n * leading and/or trailing edge of the `wait` timeout. The `func` is invoked\n * with the
last arguments provided to the debounced function. Subsequent\n * calls to the debounced function return the result
of the last `func`\n * invocation.\n *\n * **Note:** If `leading` and `trailing` options are `true`,
 `func` is\n * invoked on the trailing edge of the timeout only if the debounced function\n * is invoked more than
once during the `wait` timeout.\n *\n * If `wait` is `0` and `leading` is `false`, `func` invocation is deferred\n * until
to the next tick, similar to `setTimeout` with a timeout of `0`.\n *\n * See [David Corbacho's article](https://css-
tricks.com/debouncing-throttling-explained-examples/)\n * for details over the differences between `_.debounce`
and `_.throttle`.\n *\n * @static\n * @memberOf _\n * @since 0.1.0\n * @category Function\n * @param
{Function} func The function to debounce.\n * @param {number} [wait=0] The number of milliseconds to delay.\n
* @param {Object} [options={}] The options object.\n * @param {boolean} [options.leading=false]\n *  Specify
invoking on the leading edge of the timeout.\n * @param {number} [options.maxWait]\n *  The maximum time
`func` is allowed to be delayed before it's invoked.\n * @param {boolean} [options.trailing=true]\n *  Specify
 invoking on the trailing edge of the timeout.\n * @returns {Function} Returns the new debounced function.\n *
@example\n *\n * // Avoid costly calculations while the window size is in flux.\n * jQuery(window).on('resize',
_.debounce(calculateLayout, 150));\n *\n * // Invoke `sendMail` when clicked, debouncing subsequent calls.\n *
jQuery(element).on('click', _.debounce(sendMail, 300, {\n *   'leading': true,\n *   'trailing': false\n * }));\n *\n * //
Ensure `batchLog` is invoked once after 1 second of debounced calls.\n * var debounced = _.debounce(batchLog,
250, { 'maxWait': 1000 });\n * var source = new EventSource('/stream');\n * jQuery(source).on('message',
debounced);\n *\n * // Cancel the trailing debounced invocation.\n * jQuery(window).on('popstate',
debounced.cancel);\n */\n\n\nfunction debounce(func, wait, options) {\n  var lastArgs,\n      lastThis,\n
maxWait,\n      result,\n      timerId,\n      lastCallTime,\n      lastInvokeTime = 0,\n      leading = false,\n
      maxing = false,\n      trailing = true;\n\n  if (typeof func != 'function') {\n    throw new
TypeError(FUNC_ERROR_TEXT);\n  }\n\n  wait = toNumber(wait) || 0;\n\n  if (isObject(options)) {\n    leading =
!!options.leading;\n    maxing = 'maxWait' in options;\n    maxWait = maxing ?
nativeMax(toNumber(options.maxWait) || 0, wait) : maxWait;\n    trailing = 'trailing' in options ? !!options.trailing :
trailing;\n  }\n\n  function invokeFunc(time) {\n    var args = lastArgs,\n        thisArg = lastThis;\n    lastArgs =
lastThis = undefined;\n    lastInvokeTime = time;\n    result = func.apply(thisArg, args);\n    return result;\n  }\n\n
function leadingEdge(time) {\n    // Reset any `maxWait` timer.\n    lastInvokeTime = time; // Start the timer for the
trailing edge.\n\n    timerId = setTimeout(timerExpired, wait); // Invoke the leading edge.\n\n    return leading ?
invokeFunc(time) : result;\n  }\n\n  function remainingWait(time) {\n    var timeSinceLastCall = time -
lastCallTime,\n
```

timeSinceLastInvoke = time - lastInvokeTime,\n   result = wait - timeSinceLastCall;\n   return maxing ? nativeMin(result, maxWait - timeSinceLastInvoke) : result;\n }\n\n function shouldInvoke(time) {\n   var timeSinceLastCall = time - lastCallTime,\n   timeSinceLastInvoke = time - lastInvokeTime; // Either this is the first call, activity has stopped and we're at the\n   // trailing edge, the system time has gone backwards and we're treating\n   // it as the trailing edge, or we've hit the `maxWait` limit.\n\n   return lastCallTime === undefined || timeSinceLastCall >= wait || timeSinceLastCall < 0 || maxing && timeSinceLastInvoke >= maxWait;\n }\n\n function timerExpired() {\n   var time = now();\n\n   if (shouldInvoke(time)) {\n   return trailingEdge(time);\n   } // Restart the timer.\n\n\n   timerId = setTimeout(timerExpired, remainingWait(time));\n }\n\n function trailingEdge(time) {\n   timerId = undefined; // Only invoke if we have `lastArgs`
which means `func` has been\n   // debounced at least once.\n\n   if (trailing && lastArgs) {\n   return invokeFunc(time);\n   }\n\n   lastArgs = lastThis = undefined;\n   return result;\n }\n\n function cancel() {\n   if (timerId !== undefined) {\n   clearTimeout(timerId);\n   }\n\n   lastInvokeTime = 0;\n   lastArgs = lastCallTime = lastThis = timerId = undefined;\n }\n\n function flush() {\n   return timerId === undefined ? result : trailingEdge(now());\n }\n\n function debounced() {\n   var time = now(),\n   isInvoking = shouldInvoke(time);\n   lastArgs = arguments;\n   lastThis = this;\n   lastCallTime = time;\n\n   if (isInvoking) {\n   if (timerId === undefined) {\n   return leadingEdge(lastCallTime);\n   }\n\n   if (maxing) {\n   // Handle invocations in a tight loop.\n   timerId = setTimeout(timerExpired, wait);\n   return invokeFunc(lastCallTime);\n   }\n   }\n\n   if (timerId === undefined) {\n   timerId
= setTimeout(timerExpired, wait);\n   }\n\n   return result;\n }\n\n debounced.cancel = cancel;\n debounced.flush = flush;\n return debounced;\n}\n/**\n * Creates a throttled function that only invokes `func` at most once per\n * every `wait` milliseconds. The throttled function comes with a `cancel`\n * method to cancel delayed `func` invocations and a `flush` method to\n * immediately invoke them. Provide `options` to indicate whether `func`\n * should be invoked on the leading and/or trailing edge of the `wait`\n * timeout. The `func` is invoked with the last arguments provided to the\n * throttled function. Subsequent calls to the throttled function return the\n * result of the last `func` invocation.\n *\n * **Note:** If `leading` and `trailing` options are `true`, `func` is\n * invoked on the trailing edge of the timeout only if the throttled function\n * is invoked more than once during the `wait` timeout.\n *\n * If `wait` is `0` and `leading` is `false`, `func` invocation
is deferred\n * until to the next tick, similar to `setTimeout` with a timeout of `0`.\n *\n * See [David Corbacho's article](https://css-tricks.com/debouncing-throttling-explained-examples/)\n * for details over the differences between `_.throttle` and `_.debounce`.\n *\n * @static\n * @memberOf _\n * @since 0.1.0\n * @category Function\n * @param {Function} func The function to throttle.\n * @param {number} [wait=0] The number of milliseconds to throttle invocations to.\n * @param {Object} [options={}] The options object.\n * @param {boolean} [options.leading=true]\n * Specify invoking on the leading edge of the timeout.\n * @param {boolean} [options.trailing=true]\n * Specify invoking on the trailing edge of the timeout.\n * @returns {Function} Returns the new throttled function.\n * @example\n *\n * // Avoid excessively updating the position while scrolling.\n * jQuery(window).on('scroll', _.throttle(updatePosition, 100));\n *\n * // Invoke `renewToken` when the click event is
fired, but not more than once every 5 minutes.\n * var throttled = _.throttle(renewToken, 300000, { 'trailing': false });\n * jQuery(element).on('click', throttled);\n *\n * // Cancel the trailing throttled invocation.\n * jQuery(window).on('popstate', throttled.cancel);\n */\n\n\nfunction throttle(func, wait, options) {\n var leading = true,\n   trailing = true;\n\n if (typeof func != 'function') {\n   throw new TypeError(FUNC_ERROR_TEXT);\n }\n\n if (isObject(options)) {\n   leading = 'leading' in options ? !!options.leading : leading;\n   trailing = 'trailing' in options ? !!options.trailing : trailing;\n }\n\n return debounce(func, wait, {\n   'leading': leading,\n   'maxWait': wait,\n   'trailing': trailing\n });\n}\n/**\n * Checks if `value` is the\n * [language type](http://www.ecma-international.org/ecma-262/7.0/#sec-ecmascript-language-types)\n * of `Object`. (e.g. arrays, functions, objects, regexes, `new Number(0)`, and `new String('')`)\n *\n * @static\n *
@memberOf _\n * @since 0.1.0\n * @category Lang\n * @param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is an object, else `false`.\n * @example\n *\n * _.isObject({});\n * // => true\n *\n * _.isObject([1, 2, 3]);\n * // => true\n *\n * _.isObject(_.noop);\n * // => true\n *\n * _.isObject(null);\n * // =>

false\n */\n\n\nfunction isObject(value) {\n var type = typeof value;\n return !!value && (type == 'object' || type == 'function');\n}\n/**\n * Checks if `value` is object-like. A value is object-like if it's not `null`\n * and has a `typeof` result of \"object\".\n *\n * @static\n * @memberOf _\n * @since 4.0.0\n * @category Lang\n * @param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is object-like, else `false`.\n * @example\n *\n * _.isObjectLike({});\n * // => true\n *\n * _.isObjectLike([1, 2, 3]);\n * // => true\n *\n * _.isObjectLike(_.noop);\n * // => false\n *\n * _.isObjectLike(null);\n * // => false\n */\n\n\nfunction isObjectLike(value) {\n return !!value && typeof value == 'object';\n}\n/**\n * Checks if `value` is classified as a `Symbol` primitive or object.\n *\n * @static\n * @memberOf _\n * @since 4.0.0\n * @category Lang\n * @param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is a symbol, else `false`.\n * @example\n *\n * _.isSymbol(Symbol.iterator);\n * // => true\n *\n * _.isSymbol('abc');\n * // => false\n */\n\n\nfunction isSymbol(value) {\n return typeof value == 'symbol' || isObjectLike(value) && objectToString.call(value) == symbolTag;\n}\n/**\n * Converts `value` to a number.\n *\n * @static\n * @memberOf _\n * @since 4.0.0\n * @category Lang\n * @param {*} value The value to process.\n * @returns {number} Returns the number.\n * @example\n *\n * _.toNumber(3.2);\n * // => 3.2\n *\n * _.toNumber(Number.MIN_VALUE);\n * // => 5e-324\n *\n * _.toNumber(Infinity);\n * // => Infinity\n *\n * _.toNumber('3.2');\n * // => 3.2\n */\n\n\nfunction toNumber(value) {\n if (typeof value == 'number') {\n   return value;\n }\n\n if (isSymbol(value)) {\n   return NAN;\n }\n\n if (isObject(value)) {\n   var other = typeof value.valueOf == 'function' ? value.valueOf() : value;\n   value = isObject(other) ? other + '' : other;\n }\n\n if (typeof value != 'string') {\n   return value === 0 ? value : +value;\n }\n\n value = value.replace(reTrim, '');\n var isBinary = reIsBinary.test(value);\n return isBinary || reIsOctal.test(value) ? freeParseInt(value.slice(2), isBinary ? 2 : 8) : reIsBadHex.test(value) ? NAN : +value;\n}\n\nmodule.exports = throttle;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _transitions = require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _propTypes3 = require('../utils/propTypes');\n\nvar _propTypes4 = _interopRequireDefault(_propTypes3);\n\nvar _Paper = require('../Paper');\n\nvar _Paper2 = _interopRequireDefault(_Paper);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nfunction getStyles(props, context, state) {\n var targetOrigin = props.targetOrigin;\n var open = state.open;\n var muiTheme = context.muiTheme;\n var horizontal = targetOrigin.horizontal.replace('middle', 'vertical');\n return {\n   root: {\n   position: 'fixed',\n   zIndex: muiTheme.zIndex.popover,\n   opacity: open ? 1 : 0,\n   transform: open ? 'scale(1, 1)' : 'scale(0, 0)',\n   transformOrigin: horizontal + ' ' + targetOrigin.vertical,\n   transition: _transitions2.default.easeOut('250ms', ['transform', 'opacity']),\n   maxHeight: '100%'\n   },\n   horizontal: {\n   maxHeight: '100%',\n   overflowY: 'auto',\n   transform: open ? 'scaleX(1)' : 'scaleX(0)',\n   opacity: open ? 1 : 0,\n   transformOrigin: horizontal + ' ' + targetOrigin.vertical,\n   transition: _transitions2.default.easeOut('250ms', ['transform', 'opacity'])\n   },\n   vertical: {\n   opacity: open ? 1 : 0,\n   transform: open ? 'scaleY(1)' : 'scaleY(0)',\n   transformOrigin: horizontal + ' ' + targetOrigin.vertical,\n   transition: _transitions2.default.easeOut('500ms', ['transform', 'opacity'])\n   }\n };\n}\n\nvar PopoverAnimationDefault = function (_Component) {\n (0, _inherits3.default)(PopoverAnimationDefault, _Component);\n\n function

PopoverAnimationDefault() {\n   var _ref;\n\n   var _temp, _this, _ret;\n\n   (0, _classCallCheck3.default)(this,
PopoverAnimationDefault);\n\n   for (var _len = arguments.length, args = Array(_len), _key = 0; _key < _len;
_key++) {\n   args[_key] = arguments[_key];\n   }\n\n   return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = PopoverAnimationDefault.__proto__ || (0,
_getPrototypeOf2.default)(PopoverAnimationDefault)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n
      open: false\n   }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n }\n\n (0,
_createClass3.default)(PopoverAnimationDefault, [{\n   key: 'componentDidMount',\n   value: function
componentDidMount() {\n   this.setState({\n   open: true\n   }); // eslint-disable-line react/no-did-mount-set-
state\n   }\n }, {\n   key: 'componentWillReceiveProps',\n   value: function
componentWillReceiveProps(nextProps) {\n   this.setState({\n   open: nextProps.open\n   });\n   }\n }, {\n
key: 'render',\n   value: function render() {\n   var _props = this.props,\n   className = _props.className,\n
     style = _props.style,\n   zDepth = _props.zDepth;\n   var prepareStyles =
this.context.muiTheme.prepareStyles;\n   var styles = getStyles(this.props, this.context, this.state);\n   return
_react2.default.createElement(_Paper2.default, {\n   style: (0, _simpleAssign2.default)(styles.root, style),\n
zDepth: zDepth,\n
        className: className\n   }, _react2.default.createElement('div', {\n   style:
prepareStyles(styles.horizontal)\n   }, _react2.default.createElement('div', {\n   style:
prepareStyles(styles.vertical)\n   }, this.props.children)));\n   }\n }]);\n return
PopoverAnimationDefault;\n}(_react.Component);\n\nPopoverAnimationDefault.defaultProps = {\n style: {},\n
zDepth: 1\n};\nPopoverAnimationDefault.contextTypes = {\n muiTheme:
_propTypes2.default.object.isRequired\n};\nPopoverAnimationDefault.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n children: _propTypes2.default.node,\n\n /**\n   * The css class name of the root element.\n
*/\n className: _propTypes2.default.string,\n open: _propTypes2.default.bool.isRequired,\n\n /**\n   * Override
the inline-styles of the root element.\n   */\n style: _propTypes2.default.object,\n targetOrigin:
_propTypes4.default.origin.isRequired,\n zDepth: _propTypes4.default.zDepth\n} : {};\nexports.default
 = PopoverAnimationDefault;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value:
true\n});\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _pure =
require('recompose/pure');\n\nvar _pure2 = _interopRequireDefault(_pure);\n\nvar _SvgIcon =
require('../../SvgIcon');\n\nvar _SvgIcon2 = _interopRequireDefault(_SvgIcon);\n\nfunction
_interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nvar
NavigationCheck = function NavigationCheck(props) {\n return _react2.default.createElement(_SvgIcon2.default,
props, _react2.default.createElement('path', {\n   d: 'M9 16.17L4.83 12l-1.42 1.41L9 19 21 7l-1.41-1.41z'\n
}));\n};\n\nNavigationCheck = (0, _pure2.default)(NavigationCheck);\nNavigationCheck.displayName =
'NavigationCheck';\nNavigationCheck.muiName = 'SvgIcon';\nexports.default = NavigationCheck;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value:
 true\n});\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _pure =
require('recompose/pure');\n\nvar _pure2 = _interopRequireDefault(_pure);\n\nvar _SvgIcon =
require('../../SvgIcon');\n\nvar _SvgIcon2 = _interopRequireDefault(_SvgIcon);\n\nfunction
_interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nvar
NavigationExpandLess = function NavigationExpandLess(props) {\n return
_react2.default.createElement(_SvgIcon2.default, props, _react2.default.createElement('path', {\n   d: 'M12 8l-6 6
1.41 1.41L12 10.83l4.59 4.58L18 14z'\n }));\n};\n\nNavigationExpandLess = (0,
_pure2.default)(NavigationExpandLess);\nNavigationExpandLess.displayName =
'NavigationExpandLess';\nNavigationExpandLess.muiName = 'SvgIcon';\nexports.default =
NavigationExpandLess;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar
 _pure = require('recompose/pure');\n\nvar _pure2 = _interopRequireDefault(_pure);\n\nvar _SvgIcon =
require('../../SvgIcon');\n\nvar _SvgIcon2 = _interopRequireDefault(_SvgIcon);\n\nfunction

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_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar
NavigationExpandMore = function NavigationExpandMore(props) {\n  return
_react2.default.createElement(_SvgIcon2.default, props, _react2.default.createElement('path', {\n    d: 'M16.59
8.59L12 13.17 7.41 8.59 6 10l6 6 6-6z'\n  }));\n};\n\nNavigationExpandMore = (0,
_pure2.default)(NavigationExpandMore);\nNavigationExpandMore.displayName =
'NavigationExpandMore';\nNavigationExpandMore.muiName = 'SvgIcon';\nexports.default =
NavigationExpandMore;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes =
require('prop-types');\n\nvar _propTypes2
 = _interopRequireDefault(_propTypes);\n\nvar _List = require('./List');\n\nvar _List2 =
_interopRequireDefault(_List);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj :
{\n    default: obj\n  };\n}\n\nvar NestedList = function NestedList(props) {\n  var children = props.children,\n
open = props.open,\n      nestedLevel = props.nestedLevel,\n      style = props.style;\n\n  if (!open) {\n    return
null;\n  }\n\n  return _react2.default.createElement(_List2.default, {\n    style: style\n  },
_react.Children.map(children, function (child) {\n    return (0, _react.isValidElement)(child) ? (0,
_react.cloneElement)(child, {\n      nestedLevel: nestedLevel + 1\n    }) : child;\n  }));\n};\n\nNestedList.propTypes
= process.env.NODE_ENV !== \"production\" ? {\n  children: _propTypes2.default.node,\n  nestedLevel:
_propTypes2.default.number.isRequired,\n  open: _propTypes2.default.bool.isRequired,\n\n  /**\n   * Override the
inline-styles of the root element.\n
   */\n  style: _propTypes2.default.object\n} : {};\nexports.default = NestedList;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar Divider = function Divider(props, context) {\n  var inset =
props.inset,\n      style = props.style,\n      other = (0,
 _objectWithoutProperties3.default)(props, ['inset', 'style']);\n  var _context$muiTheme = context.muiTheme,\n
baseTheme = _context$muiTheme.baseTheme,\n      prepareStyles = _context$muiTheme.prepareStyles;\n  var
styles = {\n    root: {\n      margin: 0,\n      marginTop: -1,\n      marginLeft: inset ? 72 : 0,\n      height: 1,\n
border: 'none',\n      backgroundColor: baseTheme.palette.borderColor\n    }\n  };\n  return
_react2.default.createElement('hr', (0, _extends3.default)({}, other, {\n    style: prepareStyles((0,
_simpleAssign2.default)(styles.root, style))\n  }));\n};\n\nDivider.muiName = 'Divider';\nDivider.propTypes =
process.env.NODE_ENV !== \"production\" ? {\n  /**\n   * If true, the `Divider` will be indented.\n   */\n  inset:
_propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object\n} : {};\nDivider.defaultProps = {\n  inset: false\n};\nDivider.contextTypes = {\n
muiTheme: _propTypes2.default.object.isRequired\n};\nexports.default
 = Divider;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 =
require('babel-runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
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runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3
 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var backgroundColor =
props.backgroundColor,\n      color = props.color,\n      size = props.size;\n  var avatar = context.muiTheme.avatar;\n
var styles = {\n    root: {\n      color: color || avatar.color,\n      backgroundColor: backgroundColor ||
avatar.backgroundColor,\n      userSelect: 'none',\n      display: 'inline-flex',\n      alignItems: 'center',\n
justifyContent:
 'center',\n      fontSize: size / 2,\n      borderRadius: '50%',\n      height: size,\n      width: size\n    },\n    icon: {\n
color: color || avatar.color,\n      width: size * 0.6,\n      height: size * 0.6,\n      fontSize: size * 0.6,\n      margin: size
* 0.2\n    }\n  };\n  return styles;\n}\n\nvar Avatar = function (_Component) {\n  (0, _inherits3.default)(Avatar,
_Component);\n\n  function Avatar() {\n    (0, _classCallCheck3.default)(this, Avatar);\n    return (0,
_possibleConstructorReturn3.default)(this, (Avatar.__proto__ || (0, _getPrototypeOf2.default)(Avatar)).apply(this,
arguments));\n  }\n\n  (0, _createClass3.default)(Avatar, [{\n    key: 'render',\n    value: function render() {\n      var
_props = this.props,\n          backgroundColor = _props.backgroundColor,\n          icon = _props.icon,\n          src =
_props.src,\n          style = _props.style,\n          className = _props.className,\n          other = (0,
_objectWithoutProperties3.default)(_props,
 ['backgroundColor', 'icon', 'src', 'style', 'className']);\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n\n      if (src) {\n
return _react2.default.createElement('img', (0, _extends3.default)({\n          style: prepareStyles((0,
_simpleAssign2.default)(styles.root, style))\n        }, other, {\n          src: src,\n          className: className\n
}));\n      } else {\n        return _react2.default.createElement('div', (0, _extends3.default)({}, other, {\n          style:
prepareStyles((0, _simpleAssign2.default)(styles.root, style)),\n          className: className\n        }), icon &&
_react2.default.cloneElement(icon, {\n          color: styles.icon.color,\n          style: (0,
_simpleAssign2.default)(styles.icon, icon.props.style)\n        }), this.props.children);\n      }\n    }\n  }]);\n  return
Avatar;\n}(_react.Component);\n\nAvatar.muiName = 'Avatar';\nAvatar.defaultProps = {\n
  size: 40\n};\nAvatar.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nAvatar.propTypes = process.env.NODE_ENV !== \"production\" ? {\n
/**\n   * The backgroundColor of the avatar. Does not apply to image avatars.\n   */\n  backgroundColor:
_propTypes2.default.string,\n\n  /**\n   * Can be used, for instance, to render a letter inside the avatar.\n   */\n
children: _propTypes2.default.node,\n\n  /**\n   * The css class name of the root `div` or `img` element.\n   */\n
className: _propTypes2.default.string,\n\n  /**\n   * The icon or letter's color.\n   */\n  color:
_propTypes2.default.string,\n\n  /**\n   * This is the SvgIcon or FontIcon to be used inside the avatar.\n   */\n  icon:
_propTypes2.default.element,\n\n  /**\n   * This is the size of the avatar in pixels.\n   */\n  size:
_propTypes2.default.number,\n\n  /**\n   * If passed in, this component will render an img element. Otherwise, a
div will be rendered.\n   */\n  src: _propTypes2.default.string,\n\n
  /**\n   * Override the inline-styles of the root element.\n   */\n  style: _propTypes2.default.object\n} :
{};\nexports.default = Avatar;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
```

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runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
 _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n
return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var
primary = props.primary,\n      secondary = props.secondary;\n  var badge = context.muiTheme.badge;\n  var
badgeBackgroundColor = void 0;\n  var badgeTextColor = void 0;\n\n  if (primary) {\n    badgeBackgroundColor =
badge.primaryColor;\n    badgeTextColor = badge.primaryTextColor;\n  } else
 if (secondary) {\n    badgeBackgroundColor = badge.secondaryColor;\n    badgeTextColor =
badge.secondaryTextColor;\n  } else {\n    badgeBackgroundColor = badge.color;\n    badgeTextColor =
badge.textColor;\n  }\n\n  var radius = 12;\n  var radius2x = Math.floor(2 * radius);\n  return {\n    root: {\n
position: 'relative',\n      display: 'inline-block',\n      padding: radius2x + 'px ' + radius2x + 'px ' + radius + 'px ' +
radius + 'px'\n    },\n    badge: {\n      display: 'flex',\n      flexDirection: 'row',\n      flexWrap: 'wrap',\n
justifyContent: 'center',\n      alignContent: 'center',\n      alignItems: 'center',\n      position: 'absolute',\n      top: 0,\n
 right: 0,\n      fontWeight: badge.fontWeight,\n      fontSize: radius,\n      width: radius2x,\n      height: radius2x,\n
borderRadius: '50%',\n      backgroundColor: badgeBackgroundColor,\n      color: badgeTextColor\n    }\n
};\n}\n\nvar Badge = function (_Component) {\n  (0, _inherits3.default)(Badge,
 _Component);\n\n  function Badge() {\n    (0, _classCallCheck3.default)(this, Badge);\n    return (0,
_possibleConstructorReturn3.default)(this, (Badge.__proto__ || (0, _getPrototypeOf2.default)(Badge)).apply(this,
arguments));\n  }\n\n  (0, _createClass3.default)(Badge, [{\n    key: 'render',\n    value: function render() {\n      var
_props = this.props,\n          badgeContent = _props.badgeContent,\n          badgeStyle = _props.badgeStyle,\n
children = _props.children,\n          primary = _props.primary,\n          secondary = _props.secondary,\n          style =
_props.style,\n          other = (0, _objectWithoutProperties3.default)(_props, ['badgeContent', 'badgeStyle', 'children',
'primary', 'secondary', 'style']);\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles =
getStyles(this.props, this.context);\n      return _react2.default.createElement('div', (0, _extends3.default)({}, other,
{\n        style: prepareStyles((0, _simpleAssign2.default)({},
 styles.root, style))\n      }), children, _react2.default.createElement('span', {\n        style: prepareStyles((0,
_simpleAssign2.default)({}, styles.badge, badgeStyle))\n      }, badgeContent));\n    }\n  }]);\n  return
Badge;\n}(_react.Component);\n\nBadge.defaultProps = {\n  primary: false,\n  secondary:
false\n};\nBadge.contextTypes = {\n  muiTheme: _propTypes2.default.object.isRequired\n};\nBadge.propTypes =
process.env.NODE_ENV !== \"production\" ? {\n  /**\n   * This is the content rendered within the badge.\n   */\n
badgeContent: _propTypes2.default.node.isRequired,\n\n  /**\n   * Override the inline-styles of the badge
element.\n   */\n  badgeStyle: _propTypes2.default.object,\n\n  /**\n   * The badge will be added relativelty to this
node.\n   */\n  children: _propTypes2.default.node,\n\n  /**\n   * The css class name of the root element.\n   */\n
className: _propTypes2.default.string,\n\n  /**\n   * If true, the badge will use the primary badge colors.\n
   */\n  primary: _propTypes2.default.bool,\n\n  /**\n   * If true, the badge will use the secondary badge colors.\n
*/\n  secondary: _propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n
style: _propTypes2.default.object\n} : {};\nexports.default = Badge;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3
= _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar
_simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj)
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 {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var
bottomNavigation = context.muiTheme.bottomNavigation;\n  var styles = {\n    root: {\n      position: 'relative',\n
width: '100%',\n      display: 'flex',\n      justifyContent: 'center',\n      backgroundColor:
bottomNavigation.backgroundColor,\n      height: bottomNavigation.height\n    },\n    item: {\n      flex: '1'\n    }\n
};\n  return styles;\n}\n\nvar BottomNavigation = function BottomNavigation(props, context) {\n  var children =
props.children,\n      style = props.style,\n      selectedIndex = props.selectedIndex,\n      other = (0,
_objectWithoutProperties3.default)(props, ['children', 'style', 'selectedIndex']);\n  var prepareStyles =
context.muiTheme.prepareStyles;\n  var styles = getStyles(props, context);\n\n  var preparedChildren =
_react.Children.map(children, function (child, index) {\n    if (!child) {\n      return null;\n
    }\n\n    return (0, _react.cloneElement)(child, {\n      style: (0, _simpleAssign2.default)({}, styles.item,
child.props.style),\n      selected: index === selectedIndex\n    });\n  });\n\n  return
_react2.default.createElement('div', (0, _extends3.default)({}, other, {\n    style: prepareStyles((0,
_simpleAssign2.default)({}, styles.root, style))\n  }), preparedChildren);\n};\n\nBottomNavigation.propTypes =
process.env.NODE_ENV !== \"production\" ? {\n  /**\n   * The `BottomNavigationItem`s to populate the element
with.\n   */\n  children: _propTypes2.default.node,\n\n  /**\n   * The index of the currently selected navigation
item.\n   */\n  selectedIndex: _propTypes2.default.number,\n\n  /**\n   * @ignore\n   * Override the inline-styles of
the root element.\n   */\n  style: _propTypes2.default.object\n} : {};\nBottomNavigation.contextTypes = {\n
muiTheme: _propTypes2.default.object.isRequired\n};\nexports.default = BottomNavigation;","'use
strict';\n\nObject.defineProperty(exports,
 \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3
= _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar
 _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar
_simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _Paper = require('../Paper');\n\nvar _Paper2 =
_interopRequireDefault(_Paper);\n\nvar _CardExpandable = require('./CardExpandable');\n\nvar _CardExpandable2
= _interopRequireDefault(_CardExpandable);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar Card = function (_Component) {\n  (0,
_inherits3.default)(Card, _Component);\n\n  function Card() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0,
_classCallCheck3.default)(this, Card);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0; _key <
_len; _key++) {\n      args[_key] = arguments[_key];\n
    }\n\n    return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = Card.__proto__ || (0,
_getPrototypeOf2.default)(Card)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      expanded: null\n
}, _this.handleExpanding = function (event) {\n      event.preventDefault();\n      var newExpandedState =
!_this.state.expanded; // no automatic state update when the component is controlled\n\n      if (_this.props.expanded
=== null) {\n        _this.setState({\n          expanded: newExpandedState\n        });\n      }\n\n      if
(_this.props.onExpandChange) {\n        _this.props.onExpandChange(newExpandedState);\n      }\n    }, _temp), (0,
_possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(Card, [{\n    key:
'componentWillMount',\n    value: function componentWillMount() {\n      this.setState({\n        expanded:
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this.props.expanded === null ? this.props.initiallyExpanded === true :
 this.props.expanded\n      });\n    }\n  }, {\n    key: 'componentWillReceiveProps',\n    value: function
componentWillReceiveProps(nextProps) {\n      // update the state when the component is controlled.\n      if
(nextProps.expanded !== null) this.setState({\n        expanded: nextProps.expanded\n      });\n    }\n  }, {\n    key:
'render',\n    value: function render() {\n      var _this2 = this;\n\n      var _props = this.props,\n          style =
_props.style,\n          containerStyle = _props.containerStyle,\n          children = _props.children,\n          expandable
= _props.expandable,\n          expandedProp = _props.expanded,\n          initiallyExpanded =
_props.initiallyExpanded,\n          onExpandChange = _props.onExpandChange,\n          other = (0,
_objectWithoutProperties3.default)(_props, ['style', 'containerStyle', 'children', 'expandable', 'expanded',
'initiallyExpanded', 'onExpandChange']);\n      var lastElement = void 0;\n      var expanded =
this.state.expanded;\n\n
      var newChildren = _react2.default.Children.map(children, function (currentChild) {\n        var doClone = false;\n
      var newChild = undefined;\n        var newProps = {};\n        var element = currentChild;\n\n        if
(!currentChild || !currentChild.props) {\n          return null;\n        }\n\n        if (expanded === false &&
currentChild.props.expandable === true) return;\n\n        if (currentChild.props.actAsExpander === true) {\n
doClone = true;\n          newProps.onClick = _this2.handleExpanding;\n          newProps.style = (0,
_simpleAssign2.default)({\n            cursor: 'pointer'\n          }, currentChild.props.style);\n        }\n\n        if
(currentChild.props.showExpandableButton === true) {\n          doClone = true;\n          newChild =
_react2.default.createElement(_CardExpandable2.default, {\n            closeIcon: currentChild.props.closeIcon,\n
  expanded: expanded,\n            onExpanding: _this2.handleExpanding,\n
       openIcon: currentChild.props.openIcon,\n            iconStyle: currentChild.props.iconStyle\n          });\n
}\n\n        if (doClone) {\n          element = _react2.default.cloneElement(currentChild, newProps,
currentChild.props.children, newChild);\n        }\n\n        lastElement = element;\n        return element;\n      }, this);
// If the last element is text or a title we should add\n      // 8px padding to the bottom of the card\n\n\n      var
addBottomPadding = lastElement && (lastElement.type.muiName === 'CardText' || lastElement.type.muiName
=== 'CardTitle');\n      var mergedStyles = (0, _simpleAssign2.default)({\n        zIndex: 1\n      }, style);\n      var
containerMergedStyles = (0, _simpleAssign2.default)({\n        paddingBottom: addBottomPadding ? 8 : 0\n      },
containerStyle);\n      return _react2.default.createElement(_Paper2.default, (0, _extends3.default)({}, other, {\n
style: mergedStyles\n      }), _react2.default.createElement('div',
 {\n        style: containerMergedStyles\n      }, newChildren));\n    }\n  }]);\n  return
Card;\n}(_react.Component);\n\nCard.defaultProps = {\n  expandable: false,\n  expanded: null,\n  initiallyExpanded:
false\n};\nCard.propTypes = process.env.NODE_ENV !== \"production\" ? {\n  /**\n   * Can be used to render
elements inside the Card.\n   */\n  children: _propTypes2.default.node,\n\n  /**\n   * Override the inline-styles of the
container element.\n   */\n  containerStyle: _propTypes2.default.object,\n\n  /**\n   * If true, this card component is
expandable. Can be set on any child of the `Card` component.\n   */\n  expandable: _propTypes2.default.bool,\n\n
/**\n   * Whether this card is expanded.\n   * If `true` or `false` the component is controlled.\n   * if `null` the
component is uncontrolled.\n   */\n  expanded: _propTypes2.default.bool,\n\n  /**\n   * Whether this card is initially
expanded.\n   */\n  initiallyExpanded: _propTypes2.default.bool,\n\n  /**\n   * Callback function
 fired when the `expandable` state of the card has changed.\n   *\n   * @param {boolean} newExpandedState
Represents the new `expanded` state of the card.\n   */\n  onExpandChange: _propTypes2.default.func,\n\n  /**\n   *
If true, this card component will include a button to expand the card. `CardTitle`,\n   * `CardHeader` and
`CardActions` implement `showExpandableButton`. Any child component\n   * of `Card` can implements
`showExpandableButton` or forwards the property to a child\n   * component supporting it.\n   */\n
showExpandableButton: _propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the root element.\n
*/\n  style: _propTypes2.default.object\n} : {};\nexports.default = Card;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _pure = require('recompose/pure');\n\nvar
_pure2 = _interopRequireDefault(_pure);\n\nvar _SvgIcon = require('../../SvgIcon');\n\nvar
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 _SvgIcon2 = _interopRequireDefault(_SvgIcon);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar HardwareKeyboardArrowUp = function
HardwareKeyboardArrowUp(props) {\n  return _react2.default.createElement(_SvgIcon2.default, props,
_react2.default.createElement('path', {\n    d: 'M7.41 15.41L12 10.83l4.59 4.58L18 14l-6-6-6 6z'\n
}));\n};\n\nHardwareKeyboardArrowUp = (0,
_pure2.default)(HardwareKeyboardArrowUp);\nHardwareKeyboardArrowUp.displayName =
'HardwareKeyboardArrowUp';\nHardwareKeyboardArrowUp.muiName = 'SvgIcon';\nexports.default =
HardwareKeyboardArrowUp;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _pure =
require('recompose/pure');\n\nvar _pure2 = _interopRequireDefault(_pure);\n\nvar _SvgIcon =
require('../../SvgIcon');\n\nvar _SvgIcon2 = _interopRequireDefault(_SvgIcon);\n\nfunction
 _interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar
HardwareKeyboardArrowDown = function HardwareKeyboardArrowDown(props) {\n  return
_react2.default.createElement(_SvgIcon2.default, props, _react2.default.createElement('path', {\n    d: 'M7.41
7.84L12 12.42l4.59-4.58L18 9.25l-6 6-6-6z'\n  }));\n};\n\nHardwareKeyboardArrowDown = (0,
_pure2.default)(HardwareKeyboardArrowDown);\nHardwareKeyboardArrowDown.displayName =
'HardwareKeyboardArrowDown';\nHardwareKeyboardArrowDown.muiName = 'SvgIcon';\nexports.default =
HardwareKeyboardArrowDown;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar
 _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2
 = _interopRequireDefault(_propTypes);\n\nvar _EnhancedSwitch = require('../internal/EnhancedSwitch');\n\nvar
_EnhancedSwitch2 = _interopRequireDefault(_EnhancedSwitch);\n\nvar _transitions =
require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nvar
_checkBoxOutlineBlank = require('../svg-icons/toggle/check-box-outline-blank');\n\nvar _checkBoxOutlineBlank2
= _interopRequireDefault(_checkBoxOutlineBlank);\n\nvar _checkBox = require('../svg-icons/toggle/check-
box');\n\nvar _checkBox2 = _interopRequireDefault(_checkBox);\n\nfunction _interopRequireDefault(obj) {\n
return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var
checkbox = context.muiTheme.checkbox;\n  var checkboxSize = 24;\n  return {\n    icon: {\n      height:
checkboxSize,\n      width: checkboxSize\n    },\n    check: {\n      position: 'absolute',\n      opacity: 0,\n
transform: 'scale(0)',\n      transitionOrigin: '50%
 50%',\n      transition: _transitions2.default.easeOut('450ms', 'opacity', '0ms') + ', ' +
_transitions2.default.easeOut('0ms', 'transform', '450ms'),\n      fill: checkbox.checkedColor\n    },\n
checkWhenSwitched: {\n      opacity: 1,\n      transform: 'scale(1)',\n      transition:
_transitions2.default.easeOut('0ms', 'opacity', '0ms') + ', ' + _transitions2.default.easeOut('800ms', 'transform',
'0ms')\n    },\n    checkWhenDisabled: {\n      fill: checkbox.disabledColor\n    },\n    box: {\n      position:
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'absolute',\n      opacity: 1,\n      fill: checkbox.boxColor,\n      transition: _transitions2.default.easeOut('1000ms',
'opacity', '200ms')\n    },\n    boxWhenSwitched: {\n      opacity: 0,\n      transition:
_transitions2.default.easeOut('650ms', 'opacity', '150ms'),\n      fill: checkbox.checkedColor\n    },\n
boxWhenDisabled: {\n      fill: props.checked ? 'transparent' : checkbox.disabledColor\n    },\n    label: {\n      color:
props.disabled ? checkbox.labelDisabledColor
 : checkbox.labelColor\n    }\n  };\n}\n\nvar Checkbox = function (_Component) {\n  (0,
_inherits3.default)(Checkbox, _Component);\n\n  function Checkbox() {\n    var _ref;\n\n    var _temp, _this,
_ret;\n\n    (0, _classCallCheck3.default)(this, Checkbox);\n\n    for (var _len = arguments.length, args =
Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp
= (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = Checkbox.__proto__ || (0,
_getPrototypeOf2.default)(Checkbox)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      switched:
false\n    }, _this.handleStateChange = function (newSwitched) {\n      _this.setState({\n        switched:
newSwitched\n      });\n    }, _this.handleCheck = function (event, isInputChecked) {\n      if (_this.props.onCheck)
{\n        _this.props.onCheck(event, isInputChecked);\n      }\n    }, _temp), (0,
_possibleConstructorReturn3.default)(_this, _ret);\n
  }\n\n  (0, _createClass3.default)(Checkbox, [{\n    key: 'componentWillMount',\n    value: function
componentWillMount() {\n      var _props = this.props,\n          checked = _props.checked,\n          defaultChecked =
_props.defaultChecked,\n          valueLink = _props.valueLink;\n\n      if (checked || defaultChecked || valueLink &&
valueLink.value) {\n        this.setState({\n          switched: true\n        });\n      }\n    }\n  }, {\n    key:
'componentWillReceiveProps',\n    value: function componentWillReceiveProps(nextProps) {\n      if
(this.props.checked !== nextProps.checked) {\n        this.setState({\n          switched: nextProps.checked\n        });\n
  }\n    }\n  }, {\n    key: 'isChecked',\n    value: function isChecked() {\n      return
this.refs.enhancedSwitch.isSwitched();\n    }\n  }, {\n    key: 'setChecked',\n    value: function
setChecked(newCheckedValue) {\n      this.refs.enhancedSwitch.setSwitched(newCheckedValue);\n    }\n  }, {\n
key: 'render',\n
    value: function render() {\n      var _props2 = this.props,\n          iconStyle = _props2.iconStyle,\n          onCheck =
_props2.onCheck,\n          checkedIcon = _props2.checkedIcon,\n          uncheckedIcon = _props2.uncheckedIcon,\n
       other = (0, _objectWithoutProperties3.default)(_props2, ['iconStyle', 'onCheck', 'checkedIcon',
'uncheckedIcon']);\n      var styles = getStyles(this.props, this.context);\n      var boxStyles = (0,
_simpleAssign2.default)(styles.box, this.state.switched && styles.boxWhenSwitched, iconStyle, this.props.disabled
&& styles.boxWhenDisabled);\n      var checkStyles = (0, _simpleAssign2.default)(styles.check, this.state.switched
&& styles.checkWhenSwitched, iconStyle, this.props.disabled && styles.checkWhenDisabled);\n      var
checkedElement = checkedIcon ? _react2.default.cloneElement(checkedIcon, {\n        style: (0,
_simpleAssign2.default)(checkStyles, checkedIcon.props.style)\n      }) :
_react2.default.createElement(_checkBox2.default,
 {\n        style: checkStyles\n      });\n      var unCheckedElement = uncheckedIcon ?
_react2.default.cloneElement(uncheckedIcon, {\n        style: (0, _simpleAssign2.default)(boxStyles,
uncheckedIcon.props.style)\n      }) : _react2.default.createElement(_checkBoxOutlineBlank2.default, {\n        style:
boxStyles\n      });\n\n      var checkboxElement = _react2.default.createElement('div', null, unCheckedElement,
checkedElement);\n\n      var rippleColor = this.state.switched ? checkStyles.fill : boxStyles.fill;\n      var
mergedIconStyle = (0, _simpleAssign2.default)(styles.icon, iconStyle);\n      var labelStyle = (0,
_simpleAssign2.default)(styles.label, this.props.labelStyle);\n      var enhancedSwitchProps = {\n        ref:
'enhancedSwitch',\n        inputType: 'checkbox',\n        switched: this.state.switched,\n        switchElement:
checkboxElement,\n        rippleColor: rippleColor,\n        iconStyle: mergedIconStyle,\n        onSwitch:
this.handleCheck,\n        labelStyle:
 labelStyle,\n        onParentShouldUpdate: this.handleStateChange,\n        labelPosition: this.props.labelPosition\n
};\n      return _react2.default.createElement(_EnhancedSwitch2.default, (0, _extends3.default)({}, other,
enhancedSwitchProps));\n    }\n  }]);\n  return Checkbox;\n}(_react.Component);\n\nCheckbox.defaultProps = {\n
```

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labelPosition: 'right',\n  disabled: false\n};\nCheckbox.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nCheckbox.propTypes = process.env.NODE_ENV !== \"production\" ?
{\n  /**\n   * Checkbox is checked if true.\n   */\n  checked: _propTypes2.default.bool,\n\n  /**\n   * The SvgIcon to
use for the checked state.\n   * This is useful to create icon toggles.\n   */\n  checkedIcon:
_propTypes2.default.element,\n\n  /**\n   * The default state of our checkbox component.\n   * **Warning:** This
cannot be used in conjunction with `checked`.\n   * Decide between using a controlled or uncontrolled input element
and remove one
 of these props.\n   * More info: https://fb.me/react-controlled-components\n   */\n  defaultChecked:
_propTypes2.default.bool,\n\n  /**\n   * Disabled if true.\n   */\n  disabled: _propTypes2.default.bool,\n\n  /**\n   *
Overrides the inline-styles of the icon element.\n   */\n  iconStyle: _propTypes2.default.object,\n\n  /**\n   *
Overrides the inline-styles of the input element.\n   */\n  inputStyle: _propTypes2.default.object,\n\n  /**\n   *
Where the label will be placed next to the checkbox.\n   */\n  labelPosition: _propTypes2.default.oneOf(['left',
'right']),\n\n  /**\n   * Overrides the inline-styles of the Checkbox element label.\n   */\n  labelStyle:
_propTypes2.default.object,\n\n  /**\n   * Callback function that is fired when the checkbox is checked.\n   *\n   *
@param {object} event `change` event targeting the underlying checkbox `input`.\n   * @param {boolean}
isInputChecked The `checked` value of the underlying checkbox `input`.\n   */\n  onCheck:
_propTypes2.default.func,\n\n
  /**\n   * Override the inline-styles of the root element.\n   */\n  style: _propTypes2.default.object,\n\n  /**\n   * The
SvgIcon to use for the unchecked state.\n   * This is useful to create icon toggles.\n   */\n  uncheckedIcon:
_propTypes2.default.element,\n\n  /**\n   * ValueLink for when using controlled checkbox.\n   */\n  valueLink:
_propTypes2.default.object\n} : {};\nexports.default = Checkbox;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _pure = require('recompose/pure');\n\nvar _pure2 =
_interopRequireDefault(_pure);\n\nvar _SvgIcon = require('../../SvgIcon');\n\nvar _SvgIcon2 =
_interopRequireDefault(_SvgIcon);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nvar ToggleCheckBoxOutlineBlank = function
ToggleCheckBoxOutlineBlank(props) {\n  return _react2.default.createElement(_SvgIcon2.default,
 props, _react2.default.createElement('path', {\n    d: 'M19 5v14H5V5h14m0-2H5c-1.1 0-2 .9-2 2v14c0 1.1.9 2 2
2h14c1.1 0 2-.9 2-2V5c0-1.1-.9-2-2-2z'\n  }));\n};\n\nToggleCheckBoxOutlineBlank = (0,
_pure2.default)(ToggleCheckBoxOutlineBlank);\nToggleCheckBoxOutlineBlank.displayName =
'ToggleCheckBoxOutlineBlank';\nToggleCheckBoxOutlineBlank.muiName = 'SvgIcon';\nexports.default =
ToggleCheckBoxOutlineBlank;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _pure =
require('recompose/pure');\n\nvar _pure2 = _interopRequireDefault(_pure);\n\nvar _SvgIcon =
require('../../SvgIcon');\n\nvar _SvgIcon2 = _interopRequireDefault(_SvgIcon);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar
ToggleCheckBox = function ToggleCheckBox(props) {\n  return _react2.default.createElement(_SvgIcon2.default,
 props, _react2.default.createElement('path', {\n    d: 'M19 3H5c-1.11 0-2 .9-2 2v14c0 1.1.89 2 2 2h14c1.11 0 2-.9 2-
2V5c0-1.1-.89-2-2-2zm-9 14l-5-5 1.41-1.41L10 14.17l7.59-7.59L19 8l-9 9z'\n  }));\n};\n\nToggleCheckBox = (0,
_pure2.default)(ToggleCheckBox);\nToggleCheckBox.displayName =
'ToggleCheckBox';\nToggleCheckBox.muiName = 'SvgIcon';\nexports.default = ToggleCheckBox;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar
```

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 _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _keycode = require('keycode');\n\nvar
_keycode2 = _interopRequireDefault(_keycode);\n\nvar _colorManipulator =
require('../utils/colorManipulator');\n\nvar _EnhancedButton = require('../internal/EnhancedButton');\n\nvar
 _EnhancedButton2 = _interopRequireDefault(_EnhancedButton);\n\nvar _cancel = require('../svg-
icons/navigation/cancel');\n\nvar _cancel2 = _interopRequireDefault(_cancel);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction
getStyles(props, context, state) {\n  var chip = context.muiTheme.chip;\n  var backgroundColor =
props.backgroundColor || chip.backgroundColor;\n  var focusColor = (0,
_colorManipulator.emphasize)(backgroundColor, 0.08);\n  var pressedColor = (0,
_colorManipulator.emphasize)(backgroundColor, 0.12);\n  return {\n    avatar: {\n      marginRight: -4\n    },\n
deleteIcon: {\n      color: state.deleteHovered ? (0, _colorManipulator.fade)(chip.deleteIconColor, 0.4) :
chip.deleteIconColor,\n      cursor: 'pointer',\n      margin: '4px 4px 0px -8px'\n    },\n    label: {\n      color:
props.labelColor || chip.textColor,\n      fontSize: chip.fontSize,\n      fontWeight:
 chip.fontWeight,\n      lineHeight: '32px',\n      paddingLeft: 12,\n      paddingRight: 12,\n      userSelect: 'none',\n
whiteSpace: 'nowrap'\n    },\n    root: {\n      backgroundColor: state.clicked ? pressedColor : state.focused ||
state.hovered ? focusColor : backgroundColor,\n      borderRadius: 16,\n      boxShadow: state.clicked ? chip.shadow
: null,\n      cursor: props.onClick ? 'pointer' : 'default',\n      display: 'flex',\n      whiteSpace: 'nowrap',\n      width:
'fit-content'\n    }\n  };\n}\n\nvar Chip = function (_Component) {\n  (0, _inherits3.default)(Chip, _Component);\n\n
function Chip() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this, Chip);\n\n    for
(var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] =
arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref =
Chip.__proto__ || (0, _getPrototypeOf2.default)(Chip)).call.apply(_ref,
 [this].concat(args))), _this), _this.state = {\n      clicked: false,\n      deleteHovered: false,\n      focused: false,\n
hovered: false\n    }, _this.handleBlur = function (event) {\n      _this.setState({\n        clicked: false,\n        focused:
false\n      });\n\n      _this.props.onBlur(event);\n    }, _this.handleFocus = function (event) {\n      if
(_this.props.onClick || _this.props.onRequestDelete) {\n        _this.setState({\n          focused: true\n        });\n
}\n\n      _this.props.onFocus(event);\n    }, _this.handleKeyboardFocus = function (event, keyboardFocused) {\n
if (keyboardFocused) {\n        _this.handleFocus();\n\n        _this.props.onFocus(event);\n      } else {\n
_this.handleBlur();\n      }\n\n      _this.props.onKeyboardFocus(event, keyboardFocused);\n    },
_this.handleKeyDown = function (event) {\n      if ((0, _keycode2.default)(event) === 'backspace') {\n
event.preventDefault();\n\n        if
 (_this.props.onRequestDelete) {\n          _this.props.onRequestDelete(event);\n        }\n      }\n\n
_this.props.onKeyDown(event);\n    }, _this.handleMouseDown = function (event) {\n      // Only listen to left
clicks\n      if (event.button === 0) {\n        event.stopPropagation();\n\n        if (_this.props.onClick) {\n
_this.setState({\n            clicked: true\n          });\n        }\n      }\n\n      _this.props.onMouseDown(event);\n    },
_this.handleMouseEnter = function (event) {\n      if (_this.props.onClick) {\n        _this.setState({\n          hovered:
true\n        });\n      }\n\n      _this.props.onMouseEnter(event);\n    }, _this.handleMouseEnterDeleteIcon = function
() {\n      _this.setState({\n        deleteHovered: true\n      });\n    }, _this.handleMouseLeave = function (event) {\n
_this.setState({\n        clicked: false,\n        hovered: false\n      });\n\n      _this.props.onMouseLeave(event);\n    },
_this.handleMouseLeaveDeleteIcon
```

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 = function () {\n      _this.setState({\n        deleteHovered: false\n      });\n    }, _this.handleMouseUp = function
(event) {\n      _this.setState({\n        clicked: false\n      });\n\n      _this.props.onMouseUp(event);\n    },
_this.handleClickDeleteIcon = function (event) {\n      // Stop the event from bubbling up to the `Chip`\n
event.stopPropagation();\n\n      _this.props.onRequestDelete(event);\n    }, _this.handleTouchEnd = function (event)
{\n      _this.setState({\n        clicked: false\n      });\n\n      _this.props.onTouchEnd(event);\n    },
_this.handleTouchStart = function (event) {\n      event.stopPropagation();\n\n      if (_this.props.onClick) {\n
_this.setState({\n          clicked: true\n        });\n      }\n\n      _this.props.onTouchStart(event);\n    }, _temp), (0,
_possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(Chip, [{\n    key: 'render',\n
value: function render() {\n      var buttonEventHandlers
 = {\n        onBlur: this.handleBlur,\n        onFocus: this.handleFocus,\n        onKeyDown: this.handleKeyDown,\n
  onMouseDown: this.handleMouseDown,\n        onMouseEnter: this.handleMouseEnter,\n        onMouseLeave:
this.handleMouseLeave,\n        onMouseUp: this.handleMouseUp,\n        onTouchEnd: this.handleTouchEnd,\n
onTouchStart: this.handleTouchStart,\n        onKeyboardFocus: this.handleKeyboardFocus\n      };\n      var
prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context,
this.state);\n      var _props = this.props,\n          childrenProp = _props.children,\n          containerElement =
_props.containerElement,\n          style = _props.style,\n          className = _props.className,\n
deleteIconStyle = _props.deleteIconStyle,\n          labelStyle = _props.labelStyle,\n          labelColor =
_props.labelColor,\n          backgroundColor = _props.backgroundColor,\n          onRequestDelete
 = _props.onRequestDelete,\n          other = (0, _objectWithoutProperties3.default)(_props, ['children',
'containerElement', 'style', 'className', 'deleteIconStyle', 'labelStyle', 'labelColor', 'backgroundColor',
'onRequestDelete']);\n      var deletable = this.props.onRequestDelete;\n      var avatar = null;\n      var deleteIcon =
deletable ? _react2.default.createElement(_cancel2.default, {\n        color: styles.deleteIcon.color,\n        style: (0,
_simpleAssign2.default)(styles.deleteIcon, deleteIconStyle),\n        onClick: this.handleClickDeleteIcon,\n
onMouseEnter: this.handleMouseEnterDeleteIcon,\n        onMouseLeave: this.handleMouseLeaveDeleteIcon\n      })
: null;\n      var children = childrenProp;\n\n      var childCount = _react2.default.Children.count(children); // If the
first child is an avatar, extract it and style it\n\n\n      if (childCount > 1) {\n        children =
_react2.default.Children.toArray(children);\n\n        if (_react2.default.isValidElement(children[0])
 && children[0].type.muiName === 'Avatar') {\n          avatar = children.shift();\n          avatar =
_react2.default.cloneElement(avatar, {\n            style: (0, _simpleAssign2.default)(styles.avatar,
avatar.props.style),\n            size: 32\n          });\n        }\n      }\n\n      return
_react2.default.createElement(_EnhancedButton2.default, (0, _extends3.default)({}, other, buttonEventHandlers,
{\n        className: className,\n        containerElement: containerElement,\n        disableTouchRipple: true,\n
disableFocusRipple: true,\n        style: (0, _simpleAssign2.default)(styles.root, style)\n      }), avatar,
_react2.default.createElement('span', {\n        style: prepareStyles((0, _simpleAssign2.default)(styles.label,
labelStyle))\n      }, children), deleteIcon);\n    }\n  }]);\n  return Chip;\n}(_react.Component);\n\nChip.defaultProps
= {\n  containerElement: 'div',\n  // Firefox doesn't support nested buttons\n  onBlur: function onBlur() {},\n
 onFocus: function onFocus() {},\n  onKeyDown: function onKeyDown() {},\n  onKeyboardFocus: function
onKeyboardFocus() {},\n  onMouseDown: function onMouseDown() {},\n  onMouseEnter: function
onMouseEnter() {},\n  onMouseLeave: function onMouseLeave() {},\n  onMouseUp: function onMouseUp() {},\n
onTouchEnd: function onTouchEnd() {},\n  onTouchStart: function onTouchStart() {}\n};\nChip.contextTypes =
{\n  muiTheme: _propTypes2.default.object.isRequired\n};\nChip.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  /**\n   * Override the background color of the chip.\n   */\n  backgroundColor:
_propTypes2.default.string,\n\n  /**\n   * Used to render elements inside the Chip.\n   */\n  children:
_propTypes2.default.node,\n\n  /**\n   * CSS `className` of the root element.\n   */\n  className:
_propTypes2.default.node,\n\n  /**\n   * The element to use as the container for the Chip. Either a string to\n   * use
a DOM element or a ReactElement.\n   */\n  containerElement:
_propTypes2.default.oneOfType([_propTypes2.default.string,
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_propTypes2.default.element]),\n\n /**\n   * Override the inline-styles of the delete icon.\n   */\n deleteIconStyle: _propTypes2.default.object,\n\n /**\n   * Override the label color.\n   */\n labelColor: _propTypes2.default.string,\n\n /**\n   * Override the inline-styles of the label.\n   */\n labelStyle: _propTypes2.default.object,\n\n /** @ignore */\n onBlur: _propTypes2.default.func,\n\n /**\n   * Callback function fired when the `Chip` element is clicked.\n   *\n   * @param {object} event Click event targeting the element.\n   */\n onClick: _propTypes2.default.func,\n\n /** @ignore */\n onFocus: _propTypes2.default.func,\n\n /** @ignore */\n onKeyDown: _propTypes2.default.func,\n\n /** @ignore */\n onKeyboardFocus: _propTypes2.default.func,\n\n /** @ignore */\n onMouseDown: _propTypes2.default.func,\n\n /** @ignore */\n onMouseEnter: _propTypes2.default.func,\n\n /** @ignore */\n onMouseLeave: _propTypes2.default.func,\n\n /** @ignore */\n onMouseUp: _propTypes2.default.func,\n\n /**\n   * Callback function fired when the delete icon is clicked. If set, the delete icon will be shown.\n   * @param {object} event `click` event targeting the element.\n   */\n onRequestDelete: _propTypes2.default.func,\n\n /** @ignore */\n onTouchEnd: _propTypes2.default.func,\n\n /** @ignore */\n onTouchStart: _propTypes2.default.func,\n\n /**\n   * Override the inline-styles of the root element.\n   */\n style: _propTypes2.default.object\n} : {};\nexports.default = Chip;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _pure = require('recompose/pure');\n\nvar _pure2 = _interopRequireDefault(_pure);\n\nvar _SvgIcon = require('../../SvgIcon');\n\nvar _SvgIcon2 = _interopRequireDefault(_SvgIcon);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nvar NavigationCancel = function NavigationCancel(props) {\n return _react2.default.createElement(_SvgIcon2.default, props, _react2.default.createElement('path', {\n   d: 'M12 2C6.47 2 2 6.47 2 12s4.47 10 10 10 10-4.47 10-10S17.53 2 12 2zm5 13.59L15.59 17 12 13.41 8.41 17 7 15.59 10.59 12 7 8.41 8.41 7 12 10.59 15.59 7 17 8.41 13.41 12 17 15.59z'\n }));\n};\n\nNavigationCancel = (0, _pure2.default)(NavigationCancel);\nNavigationCancel.displayName = 'NavigationCancel';\nNavigationCancel.muiName = 'SvgIcon';\nexports.default = NavigationCancel;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _autoPrefix = require('../utils/autoPrefix');\n\nvar _autoPrefix2 = _interopRequireDefault(_autoPrefix);\n\nvar _transitions = require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nfunction getRelativeValue(value, min, max) {\n var clampedValue = Math.min(Math.max(min, value), max);\n return clampedValue / (max - min);\n}\n\nfunction getArcLength(fraction, props) {\n return fraction * Math.PI * (props.size - props.thickness);\n}\n\nfunction getStyles(props, context) {\n var max = props.max,\n   min = props.min,\n   size = props.size,\n   value = props.value;\n var palette = context.muiTheme.baseTheme.palette;\n var styles = {\n   root: {\n   position: 'relative',\n   display: 'inline-block',\n   width: size,\n   height: size\n

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},\n    wrapper: {\n      width: size,\n      height: size,\n      display:
 'inline-block',\n      transition: _transitions2.default.create('transform', '20s', null, 'linear'),\n
transitionTimingFunction: 'linear'\n    },\n    svg: {\n      width: size,\n      height: size,\n      position: 'relative'\n
},\n    path: {\n      stroke: props.color || palette.primary1Color,\n      strokeLinecap: 'round',\n      transition:
_transitions2.default.create('all', '1.5s', null, 'ease-in-out')\n    }\n  };\n\n  if (props.mode === 'determinate') {\n    var
relVal = getRelativeValue(value, min, max);\n    styles.path.transition = _transitions2.default.create('all', '0.3s', null,
'linear');\n    styles.path.strokeDasharray = getArcLength(relVal, props) + ', ' + getArcLength(1, props);\n  }\n\n
return styles;\n}\n\nvar CircularProgress = function (_Component) {\n  (0, _inherits3.default)(CircularProgress,
_Component);\n\n  function CircularProgress() {\n    (0, _classCallCheck3.default)(this, CircularProgress);\n
return (0, _possibleConstructorReturn3.default)(this,
 (CircularProgress.__proto__ || (0, _getPrototypeOf2.default)(CircularProgress)).apply(this, arguments));\n  }\n\n
(0, _createClass3.default)(CircularProgress, [{\n    key: 'componentDidMount',\n    value: function
componentDidMount() {\n      this.scalePath(this.refs.path);\n      this.rotateWrapper(this.refs.wrapper);\n    }\n  },
{\n    key: 'componentWillUnmount',\n    value: function componentWillUnmount() {\n
clearTimeout(this.scalePathTimer);\n      clearTimeout(this.rotateWrapperTimer);\n    }\n  }, {\n    key: 'scalePath',\n
  value: function scalePath(path) {\n      var _this2 = this;\n\n      var step = arguments.length > 1 && arguments[1]
!== undefined ? arguments[1] : 0;\n      if (this.props.mode !== 'indeterminate') return;\n      step %= 3;\n\n      if
(step === 0) {\n        path.style.strokeDasharray = getArcLength(0, this.props) + ', ' + getArcLength(1, this.props);\n
     path.style.strokeDashoffset = 0;\n        path.style.transitionDuration = '0ms';\n
      } else if (step === 1) {\n        path.style.strokeDasharray = getArcLength(0.7, this.props) + ', ' + getArcLength(1,
this.props);\n        path.style.strokeDashoffset = getArcLength(-0.3, this.props);\n        path.style.transitionDuration =
'750ms';\n      } else {\n        path.style.strokeDasharray = getArcLength(0.7, this.props) + ', ' + getArcLength(1,
this.props);\n        path.style.strokeDashoffset = getArcLength(-1, this.props);\n        path.style.transitionDuration =
'850ms';\n      }\n\n      this.scalePathTimer = setTimeout(function () {\n        return _this2.scalePath(path, step +
1);\n      }, step ? 750 : 250);\n    }\n  }, {\n    key: 'rotateWrapper',\n    value: function rotateWrapper(wrapper) {\n
var _this3 = this;\n\n      if (this.props.mode !== 'indeterminate') return;\n\n
_autoPrefix2.default.set(wrapper.style, 'transform', 'rotate(0deg)');\n\n      _autoPrefix2.default.set(wrapper.style,
'transitionDuration', '0ms');\n\n      setTimeout(function
 () {\n        _autoPrefix2.default.set(wrapper.style, 'transform', 'rotate(1800deg)');\n\n
_autoPrefix2.default.set(wrapper.style, 'transitionDuration', '10s');\n\n        _autoPrefix2.default.set(wrapper.style,
'transitionTimingFunction', 'linear');\n      }, 50);\n      this.rotateWrapperTimer = setTimeout(function () {\n
return _this3.rotateWrapper(wrapper);\n      }, 10050);\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n
   var _props = this.props,\n          style = _props.style,\n          innerStyle = _props.innerStyle,\n          size =
_props.size,\n          thickness = _props.thickness,\n          other = (0, _objectWithoutProperties3.default)(_props,
['style', 'innerStyle', 'size', 'thickness']);\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n      var
styles = getStyles(this.props, this.context);\n      return _react2.default.createElement('div', (0, _extends3.default)({},
other, {\n        style: prepareStyles((0,
 _simpleAssign2.default)(styles.root, style))\n      }), _react2.default.createElement('div', {\n        ref: 'wrapper',\n
style: prepareStyles((0, _simpleAssign2.default)(styles.wrapper, innerStyle))\n      },
_react2.default.createElement('svg', {\n        viewBox: '0 0 ' + size + ' ' + size,\n        style:
prepareStyles(styles.svg)\n      }, _react2.default.createElement('circle', {\n        ref: 'path',\n        style:
prepareStyles(styles.path),\n        cx: size / 2,\n        cy: size / 2,\n        r: (size - thickness) / 2,\n        fill: 'none',\n
strokeWidth: thickness,\n        strokeMiterlimit: '20'\n      }))));\n    }\n  }]);\n  return
CircularProgress;\n}(_react.Component);\n\nCircularProgress.defaultProps = {\n  mode: 'indeterminate',\n  value:
0,\n  min: 0,\n  max: 100,\n  size: 40,\n  thickness: 3.5\n};\nCircularProgress.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nCircularProgress.propTypes = process.env.NODE_ENV !==
\"production\"
```

```
 ? {\n  /**\n   * Override the progress's color.\n   */\n  color: _propTypes2.default.string,\n\n  /**\n   * Style for inner
wrapper div.\n   */\n  innerStyle: _propTypes2.default.object,\n\n  /**\n   * The max value of progress, only works
in determinate mode.\n   */\n  max: _propTypes2.default.number,\n\n  /**\n   * The min value of progress, only
works in determinate mode.\n   */\n  min: _propTypes2.default.number,\n\n  /**\n   * The mode of show your
progress, indeterminate\n   * for when there is no value for progress.\n   */\n  mode:
_propTypes2.default.oneOf(['determinate', 'indeterminate']),\n\n  /**\n   * The diameter of the progress in pixels.\n
*/\n  size: _propTypes2.default.number,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object,\n\n  /**\n   * Stroke width in pixels.\n   */\n  thickness:
_propTypes2.default.number,\n\n  /**\n   * The value of progress, only works in determinate mode.\n   */\n  value:
_propTypes2.default.number\n}
 : {};\nexports.default = CircularProgress;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n
value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3
 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _dateUtils = require('./dateUtils');\n\nvar
_DatePickerDialog = require('./DatePickerDialog');\n\nvar _DatePickerDialog2 =
_interopRequireDefault(_DatePickerDialog);\n\nvar _TextField = require('../TextField');\n\nvar _TextField2 =
_interopRequireDefault(_TextField);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nvar DatePicker = function (_Component) {\n  (0, _inherits3.default)(DatePicker,
_Component);\n\n  function DatePicker() {\n    var _ref;\n\n
    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this, DatePicker);\n\n    for (var _len =
arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n
}\n\n    return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = DatePicker.__proto__ ||
(0, _getPrototypeOf2.default)(DatePicker)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      date:
undefined\n    }, _this.handleAccept = function (date) {\n      if (!_this.isControlled()) {\n        _this.setState({\n
date: date\n        });\n      }\n\n      if (_this.props.onChange) {\n        _this.props.onChange(null, date);\n      }\n    },
_this.handleFocus = function (event) {\n      event.target.blur();\n\n      if (_this.props.onFocus) {\n
_this.props.onFocus(event);\n      }\n    }, _this.handleClick = function (event) {\n      if (_this.props.onClick) {\n
_this.props.onClick(event);\n      }\n\n
      if (!_this.props.disabled) {\n        setTimeout(function () {\n          _this.openDialog();\n        }, 0);\n      }\n    },
_this.formatDate = function (date) {\n      if (_this.props.locale) {\n        var DateTimeFormat =
_this.props.DateTimeFormat || _dateUtils.dateTimeFormat;\n        return new DateTimeFormat(_this.props.locale,
{\n          day: 'numeric',\n          month: 'numeric',\n          year: 'numeric'\n        }).format(date);\n      } else {\n
return (0, _dateUtils.formatIso)(date);\n      }\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n
}\n\n  (0, _createClass3.default)(DatePicker, [{\n    key: 'componentWillMount',\n    value: function
componentWillMount() {\n      this.setState({\n        date: this.isControlled() ? this.getControlledDate() :
this.props.defaultDate\n      });\n    }\n  }, {\n    key: 'componentWillReceiveProps',\n    value: function
```

```
componentWillReceiveProps(nextProps) {\n      if (this.isControlled()) {\n
        var newDate = this.getControlledDate(nextProps);\n\n        if (!(0, _dateUtils.isEqualDate)(this.state.date,
newDate)) {\n          this.setState({\n            date: newDate\n          });\n        }\n      }\n    }\n  }, {\n    key:
'getDate',\n    value: function getDate() {\n      return this.state.date;\n    }\n    /**\n     * Open the date-picker dialog
programmatically from a parent.\n     */\n\n  }, {\n    key: 'openDialog',\n    value: function openDialog() {\n      /**\n
     * if the date is not selected then set it to new date\n       * (get the current system date while doing so)\n       * else
set it to the currently selected date\n       */\n      if (this.state.date !== undefined) {\n        this.setState({\n
dialogDate: this.getDate()\n        }, this.refs.dialogWindow.show);\n      } else {\n        this.setState({\n
dialogDate: new Date()\n        }, this.refs.dialogWindow.show);\n      }\n    }\n    /**\n     * Alias for `openDialog()`
 for an api consistent with TextField.\n     */\n\n  }, {\n    key: 'focus',\n    value: function focus() {\n
this.openDialog();\n    }\n  }, {\n    key: 'isControlled',\n    value: function isControlled() {\n      return
this.props.hasOwnProperty('value');\n    }\n  }, {\n    key: 'getControlledDate',\n    value: function
getControlledDate() {\n      var props = arguments.length > 0 && arguments[0] !== undefined ? arguments[0] :
this.props;\n\n      if (props.value instanceof Date) {\n        return props.value;\n      }\n    }\n  }, {\n    key: 'render',\n
 value: function render() {\n      var _props = this.props,\n          DateTimeFormat = _props.DateTimeFormat,\n
autoOk = _props.autoOk,\n          cancelLabel = _props.cancelLabel,\n          className = _props.className,\n
container = _props.container,\n          defaultDate = _props.defaultDate,\n          dialogContainerStyle =
_props.dialogContainerStyle,\n          disableYearSelection = _props.disableYearSelection,\n
          firstDayOfWeek = _props.firstDayOfWeek,\n          formatDateProp = _props.formatDate,\n          locale =
_props.locale,\n          maxDate = _props.maxDate,\n          minDate = _props.minDate,\n          mode =
_props.mode,\n          okLabel = _props.okLabel,\n          onDismiss = _props.onDismiss,\n          onFocus =
_props.onFocus,\n          onShow = _props.onShow,\n          onClick = _props.onClick,\n          openToYearSelection
= _props.openToYearSelection,\n          shouldDisableDate = _props.shouldDisableDate,\n          hideCalendarDate
= _props.hideCalendarDate,\n          style = _props.style,\n          textFieldStyle = _props.textFieldStyle,\n          utils
= _props.utils,\n          other = (0, _objectWithoutProperties3.default)(_props, ['DateTimeFormat', 'autoOk',
'cancelLabel', 'className', 'container', 'defaultDate', 'dialogContainerStyle', 'disableYearSelection',
'firstDayOfWeek', 'formatDate', 'locale', 'maxDate', 'minDate', 'mode',
 'okLabel', 'onDismiss', 'onFocus', 'onShow', 'onClick', 'openToYearSelection', 'shouldDisableDate',
'hideCalendarDate', 'style', 'textFieldStyle', 'utils']);\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n
    var formatDate = formatDateProp || this.formatDate;\n      return _react2.default.createElement('div', {\n
className: className,\n        style: prepareStyles((0, _simpleAssign2.default)({}, style))\n      },
_react2.default.createElement(_TextField2.default, (0, _extends3.default)({}, other, {\n        onFocus:
this.handleFocus,\n        onClick: this.handleClick,\n        ref: 'input',\n        style: textFieldStyle,\n        value:
this.state.date ? formatDate(this.state.date) : ''\n      })), _react2.default.createElement(_DatePickerDialog2.default,
{\n        DateTimeFormat: DateTimeFormat,\n        autoOk: autoOk,\n        cancelLabel: cancelLabel,\n
container: container,\n        containerStyle: dialogContainerStyle,\n        disableYearSelection:
 disableYearSelection,\n        firstDayOfWeek: firstDayOfWeek,\n        initialDate: this.state.dialogDate,\n
locale: locale,\n        maxDate: maxDate,\n        minDate: minDate,\n        mode: mode,\n        okLabel: okLabel,\n
  onAccept: this.handleAccept,\n        onShow: onShow,\n        onDismiss: onDismiss,\n        ref: 'dialogWindow',\n
    shouldDisableDate: shouldDisableDate,\n        hideCalendarDate: hideCalendarDate,\n        openToYearSelection:
openToYearSelection,\n        utils: utils\n      }));\n    }\n  }]);\n  return
DatePicker;\n}(_react.Component);\n\nDatePicker.defaultProps = {\n  autoOk: false,\n  container: 'dialog',\n
disabled: false,\n  disableYearSelection: false,\n  firstDayOfWeek: 1,\n  hideCalendarDate: false,\n  style: {},\n
openToYearSelection: false\n};\nDatePicker.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nDatePicker.propTypes = process.env.NODE_ENV !== \"production\" ?
{\n  /**\n   * Constructor
 for date formatting for the specified `locale`.\n   * The constructor must follow this specification: ECMAScript
Internationalization API 1.0 (ECMA-402).\n   * `Intl.DateTimeFormat` is supported by most modern browsers, see
```

http://caniuse.com/#search=intl,\n   * otherwise https://github.com/andyearnshaw/Intl.js is a good polyfill.\n   *\n   * By default, a built-in `DateTimeFormat` is used which supports the 'en-US' `locale`.\n   */\n DateTimeFormat: _propTypes2.default.func,\n\n /**\n   * If true, automatically accept and close the picker on select a date.\n   */\n autoOk: _propTypes2.default.bool,\n\n /**\n   * Override the default text of the 'Cancel' button.\n   */\n cancelLabel: _propTypes2.default.node,\n\n /**\n   * The css class name of the root element.\n   */\n className: _propTypes2.default.string,\n\n /**\n   * Used to control how the Date Picker will be displayed when the input field is focused.\n   * `dialog` (default) displays the DatePicker as a dialog with

 a modal.\n   * `inline` displays the DatePicker below the input field (similar to auto complete).\n   */\n container: _propTypes2.default.oneOf(['dialog', 'inline']),\n\n /**\n   * This is the initial date value of the component.\n   * If either `value` or `valueLink` is provided they will override this\n   * prop with `value` taking precedence.\n   */\n defaultDate: _propTypes2.default.object,\n\n /**\n   * Override the inline-styles of DatePickerDialog's Container element.\n   */\n dialogContainerStyle: _propTypes2.default.object,\n\n /**\n   * Disables the year selection in the date picker.\n   */\n disableYearSelection: _propTypes2.default.bool,\n\n /**\n   * Disables the DatePicker.\n   */\n disabled: _propTypes2.default.bool,\n\n /**\n   * Used to change the first day of week. It varies from\n   * Saturday to Monday between different locales.\n   * The allowed range is 0 (Sunday) to 6 (Saturday).\n   * The default is `1`, Monday, as per ISO 8601.\n   */\n firstDayOfWeek:

 _propTypes2.default.number,\n\n /**\n   * This function is called to format the date displayed in the input field, and should return a string.\n   * By default if no `locale` and `DateTimeFormat` is provided date objects are formatted to ISO 8601 YYYY-MM-DD.\n   *\n   * @param {object} date Date object to be formatted.\n   * @returns {any} The formatted date.\n   */\n formatDate: _propTypes2.default.func,\n\n /**\n   * Hide date display\n   */\n hideCalendarDate: _propTypes2.default.bool,\n\n /**\n   * Locale used for formatting the `DatePicker` date strings. Other than for 'en-US', you\n   * must provide a `DateTimeFormat` that supports the chosen `locale`.\n   */\n locale: _propTypes2.default.string,\n\n /**\n   * The ending of a range of valid dates. The range includes the endDate.\n   * The default value is current date + 100 years.\n   */\n maxDate: _propTypes2.default.object,\n\n /**\n   * The beginning of a range of valid dates. The range includes the startDate.\n

 * The default value is current date - 100 years.\n   */\n minDate: _propTypes2.default.object,\n\n /**\n   * Tells the component to display the picker in portrait or landscape mode.\n   */\n mode: _propTypes2.default.oneOf(['portrait', 'landscape']),\n\n /**\n   * Override the default text of the 'OK' button.\n   */\n okLabel: _propTypes2.default.node,\n\n /**\n   * Callback function that is fired when the date value changes.\n   *\n   * @param {null} null Since there is no particular event associated with the change,\n   * the first argument will always be null.\n   * @param {object} date The new date.\n   */\n onChange: _propTypes2.default.func,\n\n /**\n   * Callback function that is fired when a click event occurs on the Date Picker's `TextField`.\n   *\n   * @param {object} event Click event targeting the `TextField`.\n   */\n onClick: _propTypes2.default.func,\n\n /**\n   * Callback function that is fired when the Date Picker's dialog is dismissed.\n   */\n onDismiss:

 _propTypes2.default.func,\n\n /**\n   * Callback function that is fired when the Date Picker's `TextField` gains focus.\n   */\n onFocus: _propTypes2.default.func,\n\n /**\n   * Callback function that is fired when the Date Picker's dialog is shown.\n   */\n onShow: _propTypes2.default.func,\n\n /**\n   * If true sets the datepicker to open to year selection first.\n   */\n openToYearSelection: _propTypes2.default.bool,\n\n /**\n   * Callback function used to determine if a day's entry should be disabled on the calendar.\n   *\n   * @param {object} day Date object of a day.\n   * @returns {boolean} Indicates whether the day should be disabled.\n   */\n shouldDisableDate: _propTypes2.default.func,\n\n /**\n   * Override the inline-styles of the root element.\n   */\n style: _propTypes2.default.object,\n\n /**\n   * Override the inline-styles of DatePicker's TextField element.\n   */\n textFieldStyle: _propTypes2.default.object,\n\n /**\n   * This object should contain methods

 needed to build the calendar system.\n   *\n   * Useful for building a custom calendar system. Refer to the\n   * [source code](https://github.com/mui-org/material-ui/blob/v0.x/src/DatePicker/dateUtils.js)\n   * and an [example implementation](https://github.com/alitaheri/material-ui-persian-date-picker-utils)\n   * for more information.\n   */\n utils: _propTypes2.default.object,\n\n /**\n   * Sets the date for the Date Picker programmatically.\n   */\n

```
value: _propTypes2.default.object\n} : {};\nexports.default = DatePicker;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar
 _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _reactEventListener = require('react-event-
listener');\n\nvar
 _reactEventListener2 = _interopRequireDefault(_reactEventListener);\n\nvar _keycode = require('keycode');\n\nvar
_keycode2 = _interopRequireDefault(_keycode);\n\nvar _Calendar = require('./Calendar');\n\nvar _Calendar2 =
_interopRequireDefault(_Calendar);\n\nvar _Dialog = require('../Dialog');\n\nvar _Dialog2 =
_interopRequireDefault(_Dialog);\n\nvar _Popover = require('../Popover/Popover');\n\nvar _Popover2 =
_interopRequireDefault(_Popover);\n\nvar _PopoverAnimationVertical =
require('../Popover/PopoverAnimationVertical');\n\nvar _PopoverAnimationVertical2 =
_interopRequireDefault(_PopoverAnimationVertical);\n\nvar _dateUtils = require('./dateUtils');\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar
DatePickerDialog = function (_Component) {\n  (0, _inherits3.default)(DatePickerDialog, _Component);\n\n
function DatePickerDialog() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this,
 DatePickerDialog);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n
  args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = DatePickerDialog.__proto__ || (0,
_getPrototypeOf2.default)(DatePickerDialog)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      open:
false\n    }, _this.show = function () {\n      if (_this.props.onShow && !_this.state.open) {\n
_this.props.onShow();\n      }\n\n      _this.setState({\n        open: true\n      });\n    }, _this.dismiss = function () {\n
if (_this.props.onDismiss && _this.state.open) {\n        _this.props.onDismiss();\n      }\n\n      _this.setState({\n
open: false\n      });\n    }, _this.handleClickDay = function () {\n      if (_this.props.autoOk) {\n
setTimeout(_this.handleClickOk, 300);\n      }\n    }, _this.handleClickCancel = function () {\n
    _this.dismiss();\n    }, _this.handleRequestClose = function () {\n      _this.dismiss();\n    }, _this.handleClickOk =
function () {\n      if (_this.props.onAccept && !_this.refs.calendar.isSelectedDateDisabled()) {\n
_this.props.onAccept(_this.refs.calendar.getSelectedDate());\n      }\n\n      _this.setState({\n        open: false\n
});\n    }, _this.handleWindowKeyUp = function (event) {\n      switch ((0, _keycode2.default)(event)) {\n        case
'enter':\n          _this.handleClickOk();\n\n          break;\n      }\n    }, _temp), (0,
_possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(DatePickerDialog, [{\n    key:
'render',\n    value: function render() {\n      var _props = this.props,\n          DateTimeFormat =
_props.DateTimeFormat,\n          autoOk = _props.autoOk,\n          cancelLabel = _props.cancelLabel,\n
container = _props.container,\n          containerStyle = _props.containerStyle,\n          disableYearSelection
 = _props.disableYearSelection,\n          initialDate = _props.initialDate,\n          firstDayOfWeek =
_props.firstDayOfWeek,\n          locale = _props.locale,\n          maxDate = _props.maxDate,\n          minDate =
_props.minDate,\n          mode = _props.mode,\n          okLabel = _props.okLabel,\n          onAccept =
```

```
_props.onAccept,\n          onDismiss = _props.onDismiss,\n          onShow = _props.onShow,\n
openToYearSelection = _props.openToYearSelection,\n          shouldDisableDate = _props.shouldDisableDate,\n
  hideCalendarDate = _props.hideCalendarDate,\n          style = _props.style,\n          animation =
_props.animation,\n          utils = _props.utils,\n          other = (0, _objectWithoutProperties3.default)(_props,
['DateTimeFormat', 'autoOk', 'cancelLabel', 'container', 'containerStyle', 'disableYearSelection', 'initialDate',
'firstDayOfWeek', 'locale', 'maxDate', 'minDate', 'mode', 'okLabel', 'onAccept', 'onDismiss', 'onShow',
'openToYearSelection',
 'shouldDisableDate', 'hideCalendarDate', 'style', 'animation', 'utils']);\n      var open = this.state.open;\n      var styles
= {\n        dialogContent: {\n          width: !hideCalendarDate && mode === 'landscape' ? 479 : 310\n        },\n
dialogBodyContent: {\n          padding: 0,\n          minHeight: hideCalendarDate || mode === 'landscape' ? 330 :
434,\n          minWidth: hideCalendarDate || mode !== 'landscape' ? 310 : 479\n        }\n      };\n      var Container =
container === 'inline' ? _Popover2.default : _Dialog2.default;\n      return _react2.default.createElement('div', (0,
_extends3.default)({}, other, {\n        ref: 'root'\n      }), _react2.default.createElement(Container, {\n        anchorEl:
this.refs.root // For Popover\n        ,\n        animation: animation || _PopoverAnimationVertical2.default // For
Popover\n        ,\n        bodyStyle: styles.dialogBodyContent,\n        contentStyle: styles.dialogContent,\n        ref:
'dialog',\n
        repositionOnUpdate: true,\n        open: open,\n        onRequestClose: this.handleRequestClose,\n        style: (0,
_simpleAssign2.default)(styles.dialogBodyContent, containerStyle)\n      },
_react2.default.createElement(_reactEventListener2.default, {\n        target: 'window',\n        onKeyUp:
this.handleWindowKeyUp\n      }), _react2.default.createElement(_Calendar2.default, {\n        autoOk: autoOk,\n
 DateTimeFormat: DateTimeFormat,\n        cancelLabel: cancelLabel,\n        disableYearSelection:
disableYearSelection,\n        firstDayOfWeek: firstDayOfWeek,\n        initialDate: initialDate,\n        locale: locale,\n
      onClickDay: this.handleClickDay,\n        maxDate: maxDate,\n        minDate: minDate,\n        mode: mode,\n
 open: open,\n        ref: 'calendar',\n        onClickCancel: this.handleClickCancel,\n        onClickOk:
this.handleClickOk,\n        okLabel: okLabel,\n        openToYearSelection: openToYearSelection,\n
shouldDisableDate:
 shouldDisableDate,\n        hideCalendarDate: hideCalendarDate,\n        utils: utils\n      })));\n    }\n  }]);\n  return
DatePickerDialog;\n}(_react.Component);\n\nDatePickerDialog.defaultProps = {\n  DateTimeFormat:
_dateUtils.dateTimeFormat,\n  cancelLabel: 'Cancel',\n  container: 'dialog',\n  locale: 'en-US',\n  okLabel: 'OK',\n
openToYearSelection: false\n};\nDatePickerDialog.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nDatePickerDialog.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  DateTimeFormat: _propTypes2.default.func,\n  animation: _propTypes2.default.func,\n
autoOk: _propTypes2.default.bool,\n  cancelLabel: _propTypes2.default.node,\n  container:
_propTypes2.default.oneOf(['dialog', 'inline']),\n  containerStyle: _propTypes2.default.object,\n
disableYearSelection: _propTypes2.default.bool,\n  firstDayOfWeek: _propTypes2.default.number,\n
hideCalendarDate: _propTypes2.default.bool,\n  initialDate: _propTypes2.default.object,\n
  locale: _propTypes2.default.string,\n  maxDate: _propTypes2.default.object,\n  minDate:
_propTypes2.default.object,\n  mode: _propTypes2.default.oneOf(['portrait', 'landscape']),\n  okLabel:
_propTypes2.default.node,\n  onAccept: _propTypes2.default.func,\n  onDismiss: _propTypes2.default.func,\n
onShow: _propTypes2.default.func,\n  open: _propTypes2.default.bool,\n  openToYearSelection:
_propTypes2.default.bool,\n  shouldDisableDate: _propTypes2.default.func,\n  style: _propTypes2.default.object,\n
utils: _propTypes2.default.object\n} : {};\nexports.default = DatePickerDialog;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar
```

```
 _createClass3 = _interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _toConsumableArray2 =
require('babel-runtime/helpers/toConsumableArray');\n\nvar _toConsumableArray3 =
_interopRequireDefault(_toConsumableArray2);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _reactEventListener = require('react-event-listener');\n\nvar
_reactEventListener2 = _interopRequireDefault(_reactEventListener);\n\nvar _keycode = require('keycode');\n\nvar
_keycode2 = _interopRequireDefault(_keycode);\n\nvar _transitions =
 require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nvar
_CalendarActionButtons = require('./CalendarActionButtons');\n\nvar _CalendarActionButtons2 =
_interopRequireDefault(_CalendarActionButtons);\n\nvar _CalendarMonth = require('./CalendarMonth');\n\nvar
_CalendarMonth2 = _interopRequireDefault(_CalendarMonth);\n\nvar _CalendarYear =
require('./CalendarYear');\n\nvar _CalendarYear2 = _interopRequireDefault(_CalendarYear);\n\nvar
_CalendarToolbar = require('./CalendarToolbar');\n\nvar _CalendarToolbar2 =
_interopRequireDefault(_CalendarToolbar);\n\nvar _DateDisplay = require('./DateDisplay');\n\nvar _DateDisplay2
= _interopRequireDefault(_DateDisplay);\n\nvar _SlideIn = require('../internal/SlideIn');\n\nvar _SlideIn2 =
_interopRequireDefault(_SlideIn);\n\nvar _dateUtils = require('./dateUtils');\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar daysArray
= [].concat((0,
 _toConsumableArray3.default)(Array(7)));\n\nvar Calendar = function (_Component) {\n  (0,
_inherits3.default)(Calendar, _Component);\n\n  function Calendar() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n
 (0, _classCallCheck3.default)(this, Calendar);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0;
_key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = Calendar.__proto__ || (0,
_getPrototypeOf2.default)(Calendar)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      displayDate:
undefined,\n      displayMonthDay: undefined,\n      selectedDate: undefined,\n      transitionDirection: 'left',\n
transitionEnter: true\n    }, _this.calendarRefs = {}, _this.handleClickDay = function (event, date) {\n
_this.setSelectedDate(date);\n\n      if (_this.props.onClickDay) _this.props.onClickDay(event, date);\n    },
_this.handleMonthChange
 = function (months) {\n      var nextDirection = _this.context.muiTheme.isRtl ? 'right' : 'left';\n      var prevDirection
= _this.context.muiTheme.isRtl ? 'left' : 'right';\n      var direction = months >= 0 ? nextDirection : prevDirection;\n\n
    _this.setState({\n        transitionDirection: direction,\n        displayDate:
_this.props.utils.addMonths(_this.state.displayDate, months)\n      });\n    }, _this.handleClickYear = function (event,
year) {\n      _this.setSelectedDate(_this.props.utils.setYear(_this.state.selectedDate, year), event);\n\n
_this.handleClickDateDisplayMonthDay();\n    }, _this.handleClickDateDisplayMonthDay = function () {\n
_this.setState({\n        displayMonthDay: true\n      });\n    }, _this.handleClickDateDisplayYear = function () {\n
_this.setState({\n        displayMonthDay: false\n      });\n    }, _this.handleWindowKeyDown = function (event) {\n
  if (_this.props.open) {\n        var nextArrow = _this.context.muiTheme.isRtl
 ? 'left' : 'right';\n        var prevArrow = _this.context.muiTheme.isRtl ? 'right' : 'left';\n\n        switch ((0,
_keycode2.default)(event)) {\n          case 'up':\n            if (event.altKey && event.shiftKey) {\n
_this.addSelectedYears(-1);\n            } else if (event.shiftKey) {\n              _this.addSelectedMonths(-1);\n            }
else {\n              _this.addSelectedDays(-7);\n            }\n\n            break;\n\n          case 'down':\n            if
(event.altKey && event.shiftKey) {\n              _this.addSelectedYears(1);\n            } else if (event.shiftKey) {\n
    _this.addSelectedMonths(1);\n            } else {\n              _this.addSelectedDays(7);\n            }\n\n
break;\n\n          case nextArrow:\n            if (event.altKey && event.shiftKey) {\n
_this.addSelectedYears(1);\n            } else if (event.shiftKey) {\n              _this.addSelectedMonths(1);\n            }
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else {\n              _this.addSelectedDays(1);\n
            }\n\n            break;\n\n          case prevArrow:\n            if (event.altKey && event.shiftKey) {\n
_this.addSelectedYears(-1);\n            } else if (event.shiftKey) {\n              _this.addSelectedMonths(-1);\n            }
else {\n              _this.addSelectedDays(-1);\n            }\n\n            break;\n        }\n      }\n    }, _temp), (0,
_possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(Calendar, [{\n    key:
'componentWillMount',\n    value: function componentWillMount() {\n      this.setState({\n        displayDate:
this.props.utils.getFirstDayOfMonth(this.props.initialDate),\n        selectedDate: this.props.initialDate,\n
displayMonthDay: !this.props.openToYearSelection\n      });\n    }\n  }, {\n    key: 'componentWillReceiveProps',\n
value: function componentWillReceiveProps(nextProps) {\n      if (nextProps.initialDate !== this.props.initialDate)
{\n        var
 date = nextProps.initialDate || new Date();\n        this.setState({\n          displayDate:
this.props.utils.getFirstDayOfMonth(date),\n          selectedDate: date\n        });\n      }\n    }\n  }, {\n    key:
'getMinDate',\n    value: function getMinDate() {\n      return this.props.minDate || this.props.utils.addYears(new
Date(), -100);\n    }\n  }, {\n    key: 'getMaxDate',\n    value: function getMaxDate() {\n      return
this.props.maxDate || this.props.utils.addYears(new Date(), 100);\n    }\n  }, {\n    key: 'getSelectedDate',\n    value:
function getSelectedDate() {\n      return this.state.selectedDate;\n    }\n  }, {\n    key: 'isSelectedDateDisabled',\n
value: function isSelectedDateDisabled() {\n      if (!this.state.displayMonthDay) {\n        return false;\n      }\n\n
if (this.calendarRefs.calendar) {\n        return this.calendarRefs.calendar.isSelectedDateDisabled();\n      } else {\n
 return false;\n      }\n    }\n  }, {\n    key: 'addSelectedDays',\n
    value: function addSelectedDays(days) {\n
this.setSelectedDate(this.props.utils.addDays(this.state.selectedDate, days));\n    }\n  }, {\n    key:
'addSelectedMonths',\n    value: function addSelectedMonths(months) {\n
this.setSelectedDate(this.props.utils.addMonths(this.state.selectedDate, months));\n    }\n  }, {\n    key:
'addSelectedYears',\n    value: function addSelectedYears(years) {\n
this.setSelectedDate(this.props.utils.addYears(this.state.selectedDate, years));\n    }\n  }, {\n    key:
'setDisplayDate',\n    value: function setDisplayDate(date, newSelectedDate) {\n      var newDisplayDate =
this.props.utils.getFirstDayOfMonth(date);\n\n      if (newDisplayDate !== this.state.displayDate) {\n        var
nextDirection = this.context.muiTheme.isRtl ? 'right' : 'left';\n        var prevDirection = this.context.muiTheme.isRtl
? 'left' : 'right';\n        var direction = newDisplayDate > this.state.displayDate ? nextDirection : prevDirection;\n
this.setState({\n
          displayDate: newDisplayDate,\n          transitionDirection: direction,\n          selectedDate: newSelectedDate ||
this.state.selectedDate\n        });\n      }\n    }\n  }, {\n    key: 'setSelectedDate',\n    value: function
setSelectedDate(date) {\n      var adjustedDate = date;\n      var minDate = this.getMinDate();\n      var maxDate =
this.getMaxDate();\n\n      if ((0, _dateUtils.isBeforeDate)(date, minDate)) {\n        adjustedDate = minDate;\n      }
else if ((0, _dateUtils.isAfterDate)(date, maxDate)) {\n        adjustedDate = maxDate;\n      }\n\n      var
newDisplayDate = this.props.utils.getFirstDayOfMonth(adjustedDate);\n\n      if (newDisplayDate !==
this.state.displayDate) {\n        this.setDisplayDate(newDisplayDate, adjustedDate);\n      } else {\n
this.setState({\n          selectedDate: adjustedDate\n        });\n      }\n    }\n  }, {\n    key: 'getToolbarInteractions',\n
value: function getToolbarInteractions() {\n      return {\n
    prevMonth: this.props.utils.monthDiff(this.state.displayDate, this.getMinDate()) > 0,\n        nextMonth:
this.props.utils.monthDiff(this.state.displayDate, this.getMaxDate()) < 0\n      };\n    }\n  }, {\n    key:
'yearSelector',\n    value: function yearSelector() {\n      if (!this.props.disableYearSelection) {\n        return
_react2.default.createElement(_CalendarYear2.default, {\n          key: 'years',\n          DateTimeFormat:
this.props.DateTimeFormat,\n          locale: this.props.locale,\n          onClickYear: this.handleClickYear,\n
selectedDate: this.state.selectedDate,\n          minDate: this.getMinDate(),\n          maxDate: this.getMaxDate(),\n
  utils: this.props.utils\n        });\n      }\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var _this2 =
this;\n\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n      var hideCalendarDate =
this.props.hideCalendarDate;\n      var toolbarInteractions = this.getToolbarInteractions();\n
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      var isLandscape = this.props.mode === 'landscape';\n      var calendarTextColor =
this.context.muiTheme.datePicker.calendarTextColor;\n      var styles = {\n        root: {\n          color:
calendarTextColor,\n          userSelect: 'none',\n          width: !hideCalendarDate && isLandscape ? 479 : 310\n
},\n        calendar: {\n          display: 'flex',\n          flexDirection: 'column'\n        },\n        calendarContainer: {\n
display: 'flex',\n          alignContent: 'space-between',\n          justifyContent: 'space-between',\n          flexDirection:
'column',\n          fontSize: 12,\n          fontWeight: 400,\n          padding: '0px 8px',\n          transition:
_transitions2.default.easeOut()\n        },\n        yearContainer: {\n          display: 'flex',\n          justifyContent: 'space-
between',\n          flexDirection: 'column',\n          height: 272,\n          marginTop: 10,\n          overflow: 'hidden',\n
    width:
 310\n        },\n        weekTitle: {\n          display: 'flex',\n          flexDirection: 'row',\n          justifyContent: 'space-
between',\n          fontWeight: '500',\n          height: 20,\n          lineHeight: '15px',\n          opacity: '0.5',\n
textAlign: 'center'\n        },\n        weekTitleDay: {\n          width: 42\n        },\n        transitionSlide: {\n          height:
214\n        }\n      };\n      var weekTitleDayStyle = prepareStyles(styles.weekTitleDay);\n      var _props =
this.props,\n          cancelLabel = _props.cancelLabel,\n          DateTimeFormat = _props.DateTimeFormat,\n
firstDayOfWeek = _props.firstDayOfWeek,\n          locale = _props.locale,\n          okLabel = _props.okLabel,\n
 onClickCancel = _props.onClickCancel,\n          onClickOk = _props.onClickOk,\n          utils = _props.utils;\n
return _react2.default.createElement('div', {\n        style: prepareStyles(styles.root)\n      },
_react2.default.createElement(_reactEventListener2.default,
 {\n        target: 'window',\n        onKeyDown: this.handleWindowKeyDown\n      }), !hideCalendarDate &&
_react2.default.createElement(_DateDisplay2.default, {\n        DateTimeFormat: DateTimeFormat,\n
disableYearSelection: this.props.disableYearSelection,\n        onClickMonthDay:
this.handleClickDateDisplayMonthDay,\n        onClickYear: this.handleClickDateDisplayYear,\n        locale:
locale,\n        monthDaySelected: this.state.displayMonthDay,\n        mode: this.props.mode,\n        selectedDate:
this.state.selectedDate\n      }), _react2.default.createElement('div', {\n        style: prepareStyles(styles.calendar)\n
}, this.state.displayMonthDay && _react2.default.createElement('div', {\n        style:
prepareStyles(styles.calendarContainer)\n      }, _react2.default.createElement(_CalendarToolbar2.default, {\n
DateTimeFormat: DateTimeFormat,\n        locale: locale,\n        displayDate: this.state.displayDate,\n
    onMonthChange: this.handleMonthChange,\n        prevMonth: toolbarInteractions.prevMonth,\n        nextMonth:
toolbarInteractions.nextMonth\n      }), _react2.default.createElement('div', {\n        style:
prepareStyles(styles.weekTitle)\n      }, daysArray.map(function (event, i) {\n        return
_react2.default.createElement('span', {\n          key: i,\n          style: weekTitleDayStyle\n        }, (0,
_dateUtils.localizedWeekday)(DateTimeFormat, locale, i, firstDayOfWeek));\n      })),
_react2.default.createElement(_SlideIn2.default, {\n        direction: this.state.transitionDirection,\n        style:
styles.transitionSlide\n      }, _react2.default.createElement(_CalendarMonth2.default, {\n        DateTimeFormat:
DateTimeFormat,\n        locale: locale,\n        displayDate: this.state.displayDate,\n        firstDayOfWeek:
this.props.firstDayOfWeek,\n        key: this.state.displayDate.toDateString(),\n        minDate: this.getMinDate(),\n
  maxDate: this.getMaxDate(),\n
        onClickDay: this.handleClickDay,\n        ref: function ref(_ref2) {\n          return _this2.calendarRefs.calendar =
_ref2;\n        },\n        selectedDate: this.state.selectedDate,\n        shouldDisableDate:
this.props.shouldDisableDate,\n        utils: utils\n      }))), !this.state.displayMonthDay &&
_react2.default.createElement('div', {\n        style: prepareStyles(styles.yearContainer)\n      }, this.yearSelector()),
okLabel && _react2.default.createElement(_CalendarActionButtons2.default, {\n        autoOk: this.props.autoOk,\n
     cancelLabel: cancelLabel,\n        okLabel: okLabel,\n        onClickCancel: onClickCancel,\n        onClickOk:
onClickOk\n      })));\n    }\n  }]);\n  return Calendar;\n}(_react.Component);\n\nCalendar.defaultProps = {\n
DateTimeFormat: _dateUtils.dateTimeFormat,\n  disableYearSelection: false,\n  initialDate: new Date(),\n  locale:
'en-US',\n  utils: _dateUtils.defaultUtils\n};\nCalendar.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nCalendar.propTypes
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 = process.env.NODE_ENV !== \"production\" ? {\n  DateTimeFormat: _propTypes2.default.func.isRequired,\n
autoOk: _propTypes2.default.bool,\n  cancelLabel: _propTypes2.default.node,\n  disableYearSelection:
_propTypes2.default.bool,\n  firstDayOfWeek: _propTypes2.default.number,\n  hideCalendarDate:
_propTypes2.default.bool,\n  initialDate: _propTypes2.default.object,\n  locale:
_propTypes2.default.string.isRequired,\n  maxDate: _propTypes2.default.object,\n  minDate:
_propTypes2.default.object,\n  mode: _propTypes2.default.oneOf(['portrait', 'landscape']),\n  okLabel:
_propTypes2.default.node,\n  onClickCancel: _propTypes2.default.func,\n  onClickDay:
_propTypes2.default.func,\n  onClickOk: _propTypes2.default.func,\n  open: _propTypes2.default.bool,\n
openToYearSelection: _propTypes2.default.bool,\n  shouldDisableDate: _propTypes2.default.func,\n  utils:
_propTypes2.default.object\n} : {};\nexports.default = Calendar;","'use strict';\n\nObject.defineProperty(exports,
 \"__esModule\", {\n  value: true\n});\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-
of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 =
require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _FlatButton
 = require('../FlatButton');\n\nvar _FlatButton2 = _interopRequireDefault(_FlatButton);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar
CalendarActionButton = function (_Component) {\n  (0, _inherits3.default)(CalendarActionButton,
_Component);\n\n  function CalendarActionButton() {\n    (0, _classCallCheck3.default)(this,
CalendarActionButton);\n    return (0, _possibleConstructorReturn3.default)(this, (CalendarActionButton.__proto__
|| (0, _getPrototypeOf2.default)(CalendarActionButton)).apply(this, arguments));\n  }\n\n  (0,
_createClass3.default)(CalendarActionButton, [{\n    key: 'render',\n    value: function render() {\n      var _props =
this.props,\n          cancelLabel = _props.cancelLabel,\n          okLabel = _props.okLabel;\n      var styles = {\n
root: {\n          display: 'flex',\n          flexDirection: 'row',\n          justifyContent: 'flex-end',\n          margin: 0,\n
maxHeight:
 48,\n          padding: 0\n        },\n        flatButtons: {\n          fontsize: 14,\n          margin: '4px 8px 8px 0px',\n
maxHeight: 36,\n          minWidth: 64,\n          padding: 0\n        }\n      };\n      return
_react2.default.createElement('div', {\n        style: styles.root\n      },
_react2.default.createElement(_FlatButton2.default, {\n        label: cancelLabel,\n        onClick:
this.props.onClickCancel,\n        primary: true,\n        style: styles.flatButtons\n      }), !this.props.autoOk &&
_react2.default.createElement(_FlatButton2.default, {\n        disabled: this.refs.calendar !== undefined &&
this.refs.calendar.isSelectedDateDisabled(),\n        label: okLabel,\n        onClick: this.props.onClickOk,\n
primary: true,\n        style: styles.flatButtons\n      }));\n    }\n  }]);\n  return
CalendarActionButton;\n}(_react.Component);\n\nCalendarActionButton.propTypes = process.env.NODE_ENV
!== \"production\" ? {\n  autoOk: _propTypes2.default.bool,\n
  cancelLabel: _propTypes2.default.node,\n  okLabel: _propTypes2.default.node,\n  onClickCancel:
_propTypes2.default.func,\n  onClickOk: _propTypes2.default.func\n} : {};\nexports.default =
CalendarActionButton;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar
_extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
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_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
 _possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _transitions =
require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nvar _colorManipulator
= require('../utils/colorManipulator');\n\nvar _EnhancedButton = require('../internal/EnhancedButton');\n\nvar
_EnhancedButton2 = _interopRequireDefault(_EnhancedButton);\n\nvar _FlatButtonLabel =
require('./FlatButtonLabel');\n\nvar
 _FlatButtonLabel2 = _interopRequireDefault(_FlatButtonLabel);\n\nfunction _interopRequireDefault(obj) {\n
return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction validateLabel(props, propName,
componentName) {\n  if (process.env.NODE_ENV !== 'production') {\n    if (!props.children && props.label !== 0
&& !props.label && !props.icon) {\n      return new Error('Required prop label or children or icon was not specified
in ' + componentName + '.');\n    }\n  }\n}\n\nvar FlatButton = function (_Component) {\n  (0,
_inherits3.default)(FlatButton, _Component);\n\n  function FlatButton() {\n    var _ref;\n\n    var _temp, _this,
_ret;\n\n    (0, _classCallCheck3.default)(this, FlatButton);\n\n    for (var _len = arguments.length, args =
Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp
= (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = FlatButton.__proto__ || (0,
_getPrototypeOf2.default)(FlatButton)).call.apply(_ref,
 [this].concat(args))), _this), _this.state = {\n      hovered: false,\n      isKeyboardFocused: false,\n      touch: false\n
}, _this.handleKeyboardFocus = function (event, isKeyboardFocused) {\n      _this.setState({\n
isKeyboardFocused: isKeyboardFocused\n      });\n\n      _this.props.onKeyboardFocus(event,
isKeyboardFocused);\n    }, _this.handleMouseEnter = function (event) {\n      // Cancel hover styles for touch
devices\n      if (!_this.state.touch) _this.setState({\n        hovered: true\n      });\n\n
_this.props.onMouseEnter(event);\n    }, _this.handleMouseLeave = function (event) {\n      _this.setState({\n
hovered: false\n      });\n\n      _this.props.onMouseLeave(event);\n    }, _this.handleTouchStart = function (event)
{\n      _this.setState({\n        touch: true\n      });\n\n      _this.props.onTouchStart(event);\n    }, _temp), (0,
_possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(FlatButton,
 [{\n    key: 'componentWillReceiveProps',\n    value: function componentWillReceiveProps(nextProps) {\n      if
(nextProps.disabled) {\n        this.setState({\n          hovered: false\n        });\n      }\n    }\n  }, {\n    key: 'render',\n
value: function render() {\n      var _props = this.props,\n          backgroundColor = _props.backgroundColor,\n
children = _props.children,\n          disabled = _props.disabled,\n          fullWidth = _props.fullWidth,\n
hoverColor = _props.hoverColor,\n          icon = _props.icon,\n          label = _props.label,\n          labelStyle =
_props.labelStyle,\n          labelPosition = _props.labelPosition,\n          primary = _props.primary,\n
rippleColor = _props.rippleColor,\n          secondary = _props.secondary,\n          style = _props.style,\n          other =
(0, _objectWithoutProperties3.default)(_props, ['backgroundColor', 'children', 'disabled', 'fullWidth', 'hoverColor',
'icon',
 'label', 'labelStyle', 'labelPosition', 'primary', 'rippleColor', 'secondary', 'style']);\n      var _context$muiTheme =
this.context.muiTheme,\n          borderRadius = _context$muiTheme.borderRadius,\n          _context$muiTheme$but
= _context$muiTheme.button,\n          buttonHeight = _context$muiTheme$but.height,\n          buttonMinWidth =
_context$muiTheme$but.minWidth,\n          buttonTextTransform = _context$muiTheme$but.textTransform,\n
_context$muiTheme$fla = _context$muiTheme.flatButton,\n          buttonFilterColor =
_context$muiTheme$fla.buttonFilterColor,\n          buttonColor = _context$muiTheme$fla.color,\n
disabledTextColor = _context$muiTheme$fla.disabledTextColor,\n          fontSize =
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_context$muiTheme$fla.fontSize,\n          fontWeight = _context$muiTheme$fla.fontWeight,\n
primaryTextColor = _context$muiTheme$fla.primaryTextColor,\n          secondaryTextColor =
_context$muiTheme$fla.secondaryTextColor,\n          textColor = _context$muiTheme$fla.textColor,\n
          _context$muiTheme$fla2 = _context$muiTheme$fla.textTransform,\n          textTransform =
_context$muiTheme$fla2 === undefined ? buttonTextTransform || 'uppercase' : _context$muiTheme$fla2;\n      var
defaultTextColor = disabled ? disabledTextColor : primary ? primaryTextColor : secondary ? secondaryTextColor :
textColor;\n      var defaultHoverColor = (0, _colorManipulator.fade)(buttonFilterColor, 0.2);\n      var
defaultRippleColor = buttonFilterColor;\n      var buttonHoverColor = hoverColor || defaultHoverColor;\n      var
buttonRippleColor = rippleColor || defaultRippleColor;\n      var buttonBackgroundColor = backgroundColor ||
buttonColor;\n      var hovered = (this.state.hovered || this.state.isKeyboardFocused) && !disabled;\n      var
mergedRootStyles = (0, _simpleAssign2.default)({}, {\n        height: buttonHeight,\n        lineHeight: buttonHeight
+ 'px',\n        minWidth: fullWidth ? '100%' : buttonMinWidth,\n        color: defaultTextColor,\n
        transition: _transitions2.default.easeOut(),\n        borderRadius: borderRadius,\n        userSelect: 'none',\n
overflow: 'hidden',\n        backgroundColor: hovered ? buttonHoverColor : buttonBackgroundColor,\n        padding:
0,\n        margin: 0,\n        textAlign: 'center'\n      }, style);\n      var iconCloned = void 0;\n      var labelStyleIcon =
{};\n\n      if (icon) {\n        var iconStyles = (0, _simpleAssign2.default)({\n          verticalAlign: 'middle',\n
marginLeft: label && labelPosition !== 'before' ? 12 : 0,\n          marginRight: label && labelPosition === 'before' ?
12 : 0\n        }, icon.props.style);\n        iconCloned = _react2.default.cloneElement(icon, {\n          color:
icon.props.color || mergedRootStyles.color,\n          style: iconStyles,\n          key: 'iconCloned'\n        });\n\n        if
(labelPosition === 'before') {\n          labelStyleIcon.paddingRight = 8;\n        } else {\n
labelStyleIcon.paddingLeft
 = 8;\n        }\n      }\n\n      var mergedLabelStyles = (0, _simpleAssign2.default)({\n        letterSpacing: 0,\n
textTransform: textTransform,\n        fontWeight: fontWeight,\n        fontSize: fontSize\n      }, labelStyleIcon,
labelStyle);\n      var labelElement = label ? _react2.default.createElement(_FlatButtonLabel2.default, {\n        key:
'labelElement',\n        label: label,\n        style: mergedLabelStyles\n      }) : undefined; // Place label before or after
children.\n\n      var enhancedButtonChildren = labelPosition === 'before' ? [labelElement, iconCloned, children] :
[children, iconCloned, labelElement];\n      return _react2.default.createElement(_EnhancedButton2.default, (0,
_extends3.default)({}, other, {\n        disabled: disabled,\n        focusRippleColor: buttonRippleColor,\n
focusRippleOpacity: 0.3,\n        onKeyboardFocus: this.handleKeyboardFocus,\n        onMouseLeave:
this.handleMouseLeave,\n        onMouseEnter: this.handleMouseEnter,\n
        onTouchStart: this.handleTouchStart,\n        style: mergedRootStyles,\n        touchRippleColor:
buttonRippleColor,\n        touchRippleOpacity: 0.3\n      }), enhancedButtonChildren);\n    }\n  }]);\n  return
FlatButton;\n}(_react.Component);\n\nFlatButton.muiName = 'FlatButton';\nFlatButton.defaultProps = {\n
disabled: false,\n  fullWidth: false,\n  labelStyle: {},\n  labelPosition: 'after',\n  onKeyboardFocus: function
onKeyboardFocus() {},\n  onMouseEnter: function onMouseEnter() {},\n  onMouseLeave: function
onMouseLeave() {},\n  onTouchStart: function onTouchStart() {},\n  primary: false,\n  secondary:
false\n};\nFlatButton.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nFlatButton.propTypes = process.env.NODE_ENV !== \"production\" ?
{\n  /**\n   * Color of button when mouse is not hovering over it.\n   */\n  backgroundColor:
_propTypes2.default.string,\n\n  /**\n   * This is what will be displayed inside the button.\n   * If a label is
 specified, the text within the label prop will\n   * be displayed. Otherwise, the component will expect children\n   *
which will then be displayed. (In our example,\n   * we are nesting an `<input type=\"file\" />` and a `span`\n   * that
acts as our label to be displayed.) This only\n   * applies to flat and raised buttons.\n   */\n  children:
_propTypes2.default.node,\n\n  /**\n   * The CSS class name of the root element.\n   */\n  className:
_propTypes2.default.string,\n\n  /**\n   * The element to use as the container for the FlatButton. Either a string to\n
* use a DOM element or a ReactElement. This is useful for wrapping the\n   * FlatButton in a custom Link
component. If a ReactElement is given, ensure\n   * that it passes all of its given props through to the underlying
DOM\n   * element and renders its children prop for proper integration.\n   */\n  containerElement:
```

```
_propTypes2.default.oneOfType([_propTypes2.default.string, _propTypes2.default.element]),\n\n  /**\n   * If
 true, the element's ripple effect will be disabled.\n   */\n  disableTouchRipple: _propTypes2.default.bool,\n\n  /**\n
* Disables the button if set to true.\n   */\n  disabled: _propTypes2.default.bool,\n\n  /**\n   * If true, the button will
take up the full width of its container.\n   */\n  fullWidth: _propTypes2.default.bool,\n\n  /**\n   * Color of button
when mouse hovers over.\n   */\n  hoverColor: _propTypes2.default.string,\n\n  /**\n   * The URL to link to when
the button is clicked.\n   */\n  href: _propTypes2.default.string,\n\n  /**\n   * Use this property to display an icon.\n
*/\n  icon: _propTypes2.default.node,\n\n  /**\n   * Label for the button.\n   */\n  label: validateLabel,\n\n  /**\n   *
Place label before or after the passed children.\n   */\n  labelPosition: _propTypes2.default.oneOf(['before',
'after']),\n\n  /**\n   * Override the inline-styles of the button's label element.\n   */\n  labelStyle:
_propTypes2.default.object,\n\n  /**\n   * Callback function
 fired when the button is clicked.\n   *\n   * @param {object} event Click event targeting the button.\n   */\n
onClick: _propTypes2.default.func,\n\n  /**\n   * Callback function fired when the element is focused or blurred by
the keyboard.\n   *\n   * @param {object} event `focus` or `blur` event targeting the element.\n   * @param
{boolean} isKeyboardFocused Indicates whether the element is focused.\n   */\n  onKeyboardFocus:
_propTypes2.default.func,\n\n  /** @ignore */\n  onMouseEnter: _propTypes2.default.func,\n\n  /** @ignore */\n
onMouseLeave: _propTypes2.default.func,\n\n  /** @ignore */\n  onTouchStart: _propTypes2.default.func,\n\n
/**\n   * If true, colors button according to\n   * primaryTextColor from the Theme.\n   */\n  primary:
_propTypes2.default.bool,\n\n  /**\n   * Color for the ripple after button is clicked.\n   */\n  rippleColor:
_propTypes2.default.string,\n\n  /**\n   * If true, colors button according to secondaryTextColor from the theme.\n
* The primary
 prop has precendent if set to true.\n   */\n  secondary: _propTypes2.default.bool,\n\n  /**\n   * Override the inline-
styles of the root element.\n   */\n  style: _propTypes2.default.object\n} : {};\nexports.default = FlatButton;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar
 _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar
_simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule
? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var baseTheme =
context.muiTheme.baseTheme;\n  return {\n    root: {\n      position: 'relative',\n      paddingLeft:
baseTheme.spacing.desktopGutterLess,\n      paddingRight: baseTheme.spacing.desktopGutterLess,\n
verticalAlign: 'middle'\n    }\n  };\n}\n\nvar FlatButtonLabel = function (_Component) {\n  (0,
_inherits3.default)(FlatButtonLabel, _Component);\n\n  function FlatButtonLabel() {\n    (0,
_classCallCheck3.default)(this, FlatButtonLabel);\n    return (0, _possibleConstructorReturn3.default)(this,
 (FlatButtonLabel.__proto__ || (0, _getPrototypeOf2.default)(FlatButtonLabel)).apply(this, arguments));\n  }\n\n  (0,
_createClass3.default)(FlatButtonLabel, [{\n    key: 'render',\n    value: function render() {\n      var _props =
this.props,\n          label = _props.label,\n          style = _props.style;\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n      return
_react2.default.createElement('span', {\n        style: prepareStyles((0, _simpleAssign2.default)(styles.root, style))\n
 }, label);\n    }\n  }]);\n  return FlatButtonLabel;\n}(_react.Component);\n\nFlatButtonLabel.contextTypes = {\n
muiTheme: _propTypes2.default.object.isRequired\n};\nFlatButtonLabel.propTypes = process.env.NODE_ENV
```

```
!== \"production\" ? {\n  label: _propTypes2.default.node,\n  style: _propTypes2.default.object\n} :
{};\nexports.default = FlatButtonLabel;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\",
 {\n  value: true\n});\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar
_getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _dateUtils = require('./dateUtils');\n\nvar _DayButton
 = require('./DayButton');\n\nvar _DayButton2 = _interopRequireDefault(_DayButton);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar styles = {\n
root: {\n    display: 'flex',\n    flexDirection: 'column',\n    justifyContent: 'flex-start',\n    fontWeight: 400,\n    height:
228,\n    lineHeight: 2,\n    position: 'relative',\n    textAlign: 'center',\n    MozPaddingStart: 0\n  },\n  week: {\n
display: 'flex',\n    flexDirection: 'row',\n    justifyContent: 'space-around',\n    height: 34,\n    marginBottom: 2\n
}\n};\n\nvar CalendarMonth = function (_Component) {\n  (0, _inherits3.default)(CalendarMonth,
_Component);\n\n  function CalendarMonth() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0,
_classCallCheck3.default)(this, CalendarMonth);\n\n    for (var _len = arguments.length, args = Array(_len), _key =
0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret
 = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = CalendarMonth.__proto__ || (0,
_getPrototypeOf2.default)(CalendarMonth)).call.apply(_ref, [this].concat(args))), _this), _this.handleClickDay =
function (event, date) {\n      if (_this.props.onClickDay) {\n        _this.props.onClickDay(event, date);\n      }\n    },
_temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(CalendarMonth,
[{\n    key: 'isSelectedDateDisabled',\n    value: function isSelectedDateDisabled() {\n      return
this.selectedDateDisabled;\n    }\n  }, {\n    key: 'shouldDisableDate',\n    value: function shouldDisableDate(day)
{\n      if (day === null) return false;\n      var disabled = !(0, _dateUtils.isBetweenDates)(day, this.props.minDate,
this.props.maxDate);\n      if (!disabled && this.props.shouldDisableDate) disabled =
this.props.shouldDisableDate(day);\n      return disabled;\n    }\n  }, {\n    key: 'getWeekElements',\n    value:
function
 getWeekElements() {\n      var _this2 = this;\n\n      var weekArray =
this.props.utils.getWeekArray(this.props.displayDate, this.props.firstDayOfWeek);\n      return
weekArray.map(function (week, i) {\n        return _react2.default.createElement('div', {\n          key: i,\n          style:
styles.week\n        }, _this2.getDayElements(week, i));\n      }, this);\n    }\n  }, {\n    key: 'getDayElements',\n
value: function getDayElements(week, i) {\n      var _this3 = this;\n\n      var _props = this.props,\n
DateTimeFormat = _props.DateTimeFormat,\n          locale = _props.locale,\n          selectedDate =
_props.selectedDate;\n      return week.map(function (day, j) {\n        var isSameDate = (0,
_dateUtils.isEqualDate)(selectedDate, day);\n\n        var disabled = _this3.shouldDisableDate(day);\n\n        var
selected = !disabled && isSameDate;\n\n        if (isSameDate) {\n          _this3.selectedDateDisabled = disabled;\n
  }\n\n        return _react2.default.createElement(_DayButton2.default,
 {\n          DateTimeFormat: DateTimeFormat,\n          locale: locale,\n          date: day,\n          disabled: disabled,\n
     key: 'db' + (i + j),\n          onClick: _this3.handleClickDay,\n          selected: selected\n        });\n      }, this);\n
}\n  }, {\n    key: 'render',\n    value: function render() {\n      return _react2.default.createElement('div', {\n
style: styles.root\n      }, this.getWeekElements());\n    }\n  }]);\n  return
CalendarMonth;\n}(_react.Component);\n\nCalendarMonth.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  DateTimeFormat: _propTypes2.default.func.isRequired,\n  autoOk:
_propTypes2.default.bool,\n  displayDate: _propTypes2.default.object.isRequired,\n  firstDayOfWeek:
```

```
_propTypes2.default.number,\n  locale: _propTypes2.default.string.isRequired,\n  maxDate:
_propTypes2.default.object,\n  minDate: _propTypes2.default.object,\n  onClickDay: _propTypes2.default.func,\n
selectedDate:
 _propTypes2.default.object.isRequired,\n  shouldDisableDate: _propTypes2.default.func,\n  utils:
_propTypes2.default.object.isRequired\n} : {};\nexports.default = CalendarMonth;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2
 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _transitions = require('../styles/transitions');\n\nvar
_transitions2 = _interopRequireDefault(_transitions);\n\nvar _dateUtils = require('./dateUtils');\n\nvar
_EnhancedButton = require('../internal/EnhancedButton');\n\nvar _EnhancedButton2 =
_interopRequireDefault(_EnhancedButton);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context, state) {\n  var date =
props.date,\n      disabled = props.disabled,\n      selected
 = props.selected;\n  var hover = state.hover;\n  var _context$muiTheme = context.muiTheme,\n      baseTheme =
_context$muiTheme.baseTheme,\n      datePicker = _context$muiTheme.datePicker;\n  var labelColor =
baseTheme.palette.textColor;\n  var buttonStateOpacity = 0;\n  var buttonStateTransform = 'scale(0)';\n\n  if (hover ||
selected) {\n    labelColor = datePicker.selectTextColor;\n    buttonStateOpacity = selected ? 1 : 0.6;\n
buttonStateTransform = 'scale(1)';\n  } else if ((0, _dateUtils.isEqualDate)(date, new Date())) {\n    labelColor =
datePicker.color;\n  }\n\n  return {\n    root: {\n      boxSizing: 'border-box',\n      fontWeight: '400',\n      opacity:
disabled && '0.4',\n      padding: '4px 0px',\n      position: 'relative',\n      WebkitTapHighlightColor: 'rgba(0,0,0,0)',\n
    // Remove mobile color flashing (deprecated)\n      width: 42\n    },\n    label: {\n      color: labelColor,\n
fontWeight: '400',\n      position: 'relative'\n    },\n    buttonState:
 {\n      backgroundColor: datePicker.selectColor,\n      borderRadius: '50%',\n      height: 34,\n      left: 4,\n
opacity: buttonStateOpacity,\n      position: 'absolute',\n      top: 0,\n      transform: buttonStateTransform,\n
transition: _transitions2.default.easeOut(),\n      width: 34\n    }\n  };\n}\n\nvar DayButton = function (_Component)
{\n  (0, _inherits3.default)(DayButton, _Component);\n\n  function DayButton() {\n    var _ref;\n\n    var _temp,
_this, _ret;\n\n    (0, _classCallCheck3.default)(this, DayButton);\n\n    for (var _len = arguments.length, args =
Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp
= (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = DayButton.__proto__ || (0,
_getPrototypeOf2.default)(DayButton)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      hover:
false\n    }, _this.handleMouseEnter = function () {\n      if (!_this.props.disabled)
 {\n        _this.setState({\n          hover: true\n        });\n      }\n    }, _this.handleMouseLeave = function () {\n      if
(!_this.props.disabled) {\n        _this.setState({\n          hover: false\n        });\n      }\n    }, _this.handleClick =
function (event) {\n      if (!_this.props.disabled && _this.props.onClick) {\n        _this.props.onClick(event,
_this.props.date);\n      }\n    }, _this.handleKeyboardFocus = function (event, keyboardFocused) {\n      if
(!_this.props.disabled && _this.props.onKeyboardFocus) {\n        _this.props.onKeyboardFocus(event,
keyboardFocused, _this.props.date);\n      }\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n
```

```
}\n\n  (0, _createClass3.default)(DayButton, [{\n    key: 'render',\n    value: function render() {\n      var _props =
this.props,\n          DateTimeFormat = _props.DateTimeFormat,\n          date = _props.date,\n          disabled =
_props.disabled,\n          locale = _props.locale,\n
      onClick = _props.onClick,\n          selected = _props.selected,\n          other = (0,
_objectWithoutProperties3.default)(_props, ['DateTimeFormat', 'date', 'disabled', 'locale', 'onClick', 'selected']);\n
var prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context,
this.state);\n      return date ? _react2.default.createElement(_EnhancedButton2.default, (0, _extends3.default)({},
other, {\n        disabled: disabled,\n        disableFocusRipple: true,\n        disableTouchRipple: true,\n
onKeyboardFocus: this.handleKeyboardFocus,\n        onMouseEnter: this.handleMouseEnter,\n        onMouseLeave:
this.handleMouseLeave,\n        onClick: this.handleClick,\n        style: styles.root\n      }),
_react2.default.createElement('div', {\n        style: prepareStyles(styles.buttonState)\n      }),
_react2.default.createElement('span', {\n        style: prepareStyles(styles.label)\n      }, new DateTimeFormat(locale,
{\n
       day: 'numeric'\n      }).format(date))) : _react2.default.createElement('span', {\n        style:
prepareStyles(styles.root)\n      });\n    }\n  }]);\n  return
DayButton;\n}(_react.Component);\n\nDayButton.defaultProps = {\n  selected: false,\n  disabled:
false\n};\nDayButton.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nDayButton.propTypes = process.env.NODE_ENV !== \"production\" ?
{\n  DateTimeFormat: _propTypes2.default.func.isRequired,\n  date: _propTypes2.default.object,\n  disabled:
_propTypes2.default.bool,\n  locale: _propTypes2.default.string.isRequired,\n  onClick: _propTypes2.default.func,\n
onKeyboardFocus: _propTypes2.default.func,\n  selected: _propTypes2.default.bool\n} : {};\nexports.default =
DayButton;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 =
require('babel-runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar
 _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-dom');\n\nvar _reactDom2
= _interopRequireDefault(_reactDom);\n\nvar _YearButton = require('./YearButton');\n\nvar
 _YearButton2 = _interopRequireDefault(_YearButton);\n\nfunction _interopRequireDefault(obj) {\n  return obj
&& obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar CalendarYear = function (_Component) {\n  (0,
_inherits3.default)(CalendarYear, _Component);\n\n  function CalendarYear() {\n    var _ref;\n\n    var _temp, _this,
_ret;\n\n    (0, _classCallCheck3.default)(this, CalendarYear);\n\n    for (var _len = arguments.length, args =
Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp
= (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = CalendarYear.__proto__ || (0,
_getPrototypeOf2.default)(CalendarYear)).call.apply(_ref, [this].concat(args))), _this), _this.handleClickYear =
function (event, year) {\n      if (_this.props.onClickYear) {\n        _this.props.onClickYear(event, year);\n      }\n
}, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n
  (0, _createClass3.default)(CalendarYear, [{\n    key: 'componentDidMount',\n    value: function
componentDidMount() {\n      this.scrollToSelectedYear();\n    }\n  }, {\n    key: 'componentDidUpdate',\n    value:
function componentDidUpdate() {\n      this.scrollToSelectedYear();\n    }\n  }, {\n    key: 'getYears',\n    value:
function getYears() {\n      var _props = this.props,\n          DateTimeFormat = _props.DateTimeFormat,\n
locale = _props.locale,\n          minDate = _props.minDate,\n          maxDate = _props.maxDate,\n          selectedDate
```

= _props.selectedDate,\n utils = _props.utils;\n var minYear = utils.getYear(minDate);\n var maxYear = utils.getYear(maxDate);\n var years = [];\n\n for (var year = minYear; year <= maxYear; year++) {\n var selected = utils.getYear(selectedDate) === year;\n var selectedProps = {};\n\n if (selected) {\n selectedProps.ref = 'selectedYearButton';\n }\n\n var yearFormated = new DateTimeFormat(locale, {\n year: 'numeric'\n }).format(utils.setYear(selectedDate, year));\n\n var yearButton = _react2.default.createElement(_YearButton2.default, (0, _extends3.default)({\n key: 'yb' + year,\n onClick: this.handleClickYear,\n selected: selected,\n year: year,\n utils: utils\n }, selectedProps), yearFormated);\n\n years.push(yearButton);\n }\n\n return years;\n }\n }, {\n key: 'scrollToSelectedYear',\n value: function scrollToSelectedYear() {\n if (this.refs.selectedYearButton === undefined) {\n return;\n }\n\n var container = _reactDom2.default.findDOMNode(this);\n\n var yearButtonNode = _reactDom2.default.findDOMNode(this.refs.selectedYearButton);\n\n var containerHeight = container.clientHeight;\n var yearButtonNodeHeight = yearButtonNode.clientHeight || 32;\n var scrollYOffset = yearButtonNode.offsetTop + yearButtonNodeHeight / 2 - containerHeight / 2;\n container.scrollTop = scrollYOffset;\n }\n }, {\n key: 'render',\n value: function render() {\n var _context$muiTheme = this.context.muiTheme,\n prepareStyles = _context$muiTheme.prepareStyles,\n calendarYearBackgroundColor = _context$muiTheme.datePicker.calendarYearBackgroundColor;\n var styles = {\n root: {\n backgroundColor: calendarYearBackgroundColor,\n height: 'inherit',\n lineHeight: '35px',\n overflowX: 'hidden',\n overflowY: 'scroll',\n position: 'relative'\n },\n child: {\n display: 'flex',\n flexDirection: 'column',\n justifyContent: 'center',\n minHeight: '100%'\n }\n };\n return _react2.default.createElement('div', {\n style: prepareStyles(styles.root)\n }, _react2.default.createElement('div', {\n style: prepareStyles(styles.child)\n }, this.getYears()));\n }\n }]);\n return CalendarYear;\n}(_react.Component);\n\nCalendarYear.contextTypes = {\n muiTheme: _propTypes2.default.object.isRequired\n};\nCalendarYear.propTypes = process.env.NODE_ENV !== \"production\" ? {\n DateTimeFormat: _propTypes2.default.func.isRequired,\n locale: _propTypes2.default.string.isRequired,\n maxDate: _propTypes2.default.object.isRequired,\n minDate: _propTypes2.default.object.isRequired,\n onClickYear: _propTypes2.default.func,\n selectedDate: _propTypes2.default.object.isRequired,\n utils: _propTypes2.default.object.isRequired,\n wordings: _propTypes2.default.object\n} : {};\nexports.default = CalendarYear;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _EnhancedButton = require('../internal/EnhancedButton');\n\nvar _EnhancedButton2 = _interopRequireDefault(_EnhancedButton);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n default: obj\n };\n}\n\nfunction getStyles(props, context, state) {\n var selected = props.selected,\n year = props.year,\n utils = props.utils;\n var _context$muiTheme = context.muiTheme,\n baseTheme = _context$muiTheme.baseTheme,\n datePicker = _context$muiTheme.datePicker;\n var hover =

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state.hover;\n  return {\n    root: {\n      boxSizing: 'border-box',\n      color: year === utils.getYear(new Date()) &&
datePicker.color,\n      display: 'block',\n      fontSize: 14,\n      margin: '0 auto',\n      position: 'relative',\n
textAlign: 'center',\n      lineHeight: 'inherit',\n      WebkitTapHighlightColor: 'rgba(0,0,0,0)' // Remove mobile color
flashing (deprecated)\n\n    },\n    label: {\n      alignSelf: 'center',\n      color: hover || selected ? datePicker.color
 : baseTheme.palette.textColor,\n      fontSize: selected ? 26 : 17,\n      fontWeight: hover ? 450 : selected ? 500 :
400,\n      position: 'relative',\n      top: -1\n    }\n  };\n}\n\nvar YearButton = function (_Component) {\n  (0,
_inherits3.default)(YearButton, _Component);\n\n  function YearButton() {\n    var _ref;\n\n    var _temp, _this,
_ret;\n\n    (0, _classCallCheck3.default)(this, YearButton);\n\n    for (var _len = arguments.length, args =
Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp
= (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = YearButton.__proto__ || (0,
_getPrototypeOf2.default)(YearButton)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      hover:
false\n    }, _this.handleMouseEnter = function () {\n      _this.setState({\n        hover: true\n      });\n    },
_this.handleMouseLeave = function () {\n      _this.setState({\n        hover: false\n
     });\n    }, _this.handleClick = function (event) {\n      if (_this.props.onClick) {\n        _this.props.onClick(event,
_this.props.year);\n      }\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0,
_createClass3.default)(YearButton, [{\n    key: 'render',\n    value: function render() {\n      var _props = this.props,\n
        children = _props.children,\n          className = _props.className,\n          onClick = _props.onClick,\n
selected = _props.selected,\n          year = _props.year,\n          utils = _props.utils,\n          other = (0,
_objectWithoutProperties3.default)(_props, ['children', 'className', 'onClick', 'selected', 'year', 'utils']);\n      var
prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context,
this.state);\n      return _react2.default.createElement(_EnhancedButton2.default, (0, _extends3.default)({}, other,
{\n        disableFocusRipple: true,\n        disableTouchRipple:
 true,\n        onMouseEnter: this.handleMouseEnter,\n        onMouseLeave: this.handleMouseLeave,\n        onClick:
this.handleClick,\n        style: styles.root\n      }), _react2.default.createElement('span', {\n        style:
prepareStyles(styles.label)\n      }, children));\n    }\n  }]);\n  return
YearButton;\n}(_react.Component);\n\nYearButton.defaultProps = {\n  selected:
false\n};\nYearButton.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nYearButton.propTypes = process.env.NODE_ENV !== \"production\" ?
{\n  children: _propTypes2.default.node.isRequired,\n\n  /**\n   * The css class name of the root element.\n   */\n
className: _propTypes2.default.string,\n  onClick: _propTypes2.default.func,\n  selected:
_propTypes2.default.bool,\n  utils: _propTypes2.default.object.isRequired,\n  year:
_propTypes2.default.number.isRequired\n} : {};\nexports.default = YearButton;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
 true\n});\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar
_getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _IconButton = require('../IconButton');\n\nvar
_IconButton2 = _interopRequireDefault(_IconButton);\n\nvar
 _chevronLeft = require('../svg-icons/navigation/chevron-left');\n\nvar _chevronLeft2 =
_interopRequireDefault(_chevronLeft);\n\nvar _chevronRight = require('../svg-icons/navigation/chevron-
right');\n\nvar _chevronRight2 = _interopRequireDefault(_chevronRight);\n\nvar _SlideIn =
require('../internal/SlideIn');\n\nvar _SlideIn2 = _interopRequireDefault(_SlideIn);\n\nfunction
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_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar styles = {\n
root: {\n    display: 'flex',\n    justifyContent: 'space-between',\n    backgroundColor: 'inherit',\n    height: 48\n  },\n
titleDiv: {\n    fontSize: 14,\n    fontWeight: '500',\n    textAlign: 'center',\n    width: '100%'\n  },\n  titleText: {\n
height: 'inherit',\n    paddingTop: 12\n  }\n};\n\nvar CalendarToolbar = function (_Component) {\n  (0,
_inherits3.default)(CalendarToolbar, _Component);\n\n  function CalendarToolbar() {\n    var _ref;\n\n
  var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this, CalendarToolbar);\n\n    for (var _len =
arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n
}\n\n    return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref =
CalendarToolbar.__proto__ || (0, _getPrototypeOf2.default)(CalendarToolbar)).call.apply(_ref, [this].concat(args))),
_this), _this.state = {\n      transitionDirection: 'up'\n    }, _this.handleClickPrevMonth = function () {\n      if
(_this.props.onMonthChange) {\n        _this.props.onMonthChange(-1);\n      }\n    }, _this.handleClickNextMonth =
function () {\n      if (_this.props.onMonthChange) {\n        _this.props.onMonthChange(1);\n      }\n    }, _temp), (0,
_possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(CalendarToolbar, [{\n    key:
'componentWillReceiveProps',\n    value: function componentWillReceiveProps(nextProps) {\n
      if (nextProps.displayDate !== this.props.displayDate) {\n        var nextDirection = this.context.muiTheme.isRtl ?
'right' : 'left';\n        var prevDirection = this.context.muiTheme.isRtl ? 'left' : 'right';\n        var direction =
nextProps.displayDate > this.props.displayDate ? nextDirection : prevDirection;\n        this.setState({\n
transitionDirection: direction\n        });\n      }\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var
_props = this.props,\n          DateTimeFormat = _props.DateTimeFormat,\n          locale = _props.locale,\n
displayDate = _props.displayDate;\n      var dateTimeFormatted = new DateTimeFormat(locale, {\n        month:
'long',\n        year: 'numeric'\n      }).format(displayDate);\n      var nextButtonIcon = this.context.muiTheme.isRtl ?
_react2.default.createElement(_chevronLeft2.default, null) : _react2.default.createElement(_chevronRight2.default,
null);\n      var prevButtonIcon = this.context.muiTheme.isRtl
 ? _react2.default.createElement(_chevronRight2.default, null) :
_react2.default.createElement(_chevronLeft2.default, null);\n      return _react2.default.createElement('div', {\n
style: styles.root\n      }, _react2.default.createElement(_IconButton2.default, {\n        disabled:
!this.props.prevMonth,\n        onClick: this.handleClickPrevMonth\n      }, prevButtonIcon),
_react2.default.createElement(_SlideIn2.default, {\n        direction: this.state.transitionDirection,\n        style:
styles.titleDiv\n      }, _react2.default.createElement('div', {\n        key: dateTimeFormatted,\n        style:
styles.titleText\n      }, dateTimeFormatted)), _react2.default.createElement(_IconButton2.default, {\n        disabled:
!this.props.nextMonth,\n        onClick: this.handleClickNextMonth\n      }, nextButtonIcon));\n    }\n  }]);\n  return
CalendarToolbar;\n}(_react.Component);\n\nCalendarToolbar.defaultProps = {\n  nextMonth: true,\n  prevMonth:
true\n};\nCalendarToolbar.contextTypes
 = {\n  muiTheme: _propTypes2.default.object.isRequired\n};\nCalendarToolbar.propTypes =
process.env.NODE_ENV !== \"production\" ? {\n  DateTimeFormat: _propTypes2.default.func.isRequired,\n
displayDate: _propTypes2.default.object.isRequired,\n  locale: _propTypes2.default.string.isRequired,\n
nextMonth: _propTypes2.default.bool,\n  onMonthChange: _propTypes2.default.func,\n  prevMonth:
_propTypes2.default.bool\n} : {};\nexports.default = CalendarToolbar;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _pure = require('recompose/pure');\n\nvar
_pure2 = _interopRequireDefault(_pure);\n\nvar _SvgIcon = require('../../SvgIcon');\n\nvar _SvgIcon2 =
_interopRequireDefault(_SvgIcon);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nvar NavigationChevronLeft = function NavigationChevronLeft(props)
 {\n  return _react2.default.createElement(_SvgIcon2.default, props, _react2.default.createElement('path', {\n    d:
'M15.41 7.41L14 6l-6 6 6 6 1.41-1.41L10.83 12z'\n  }));\n};\n\nNavigationChevronLeft = (0,
_pure2.default)(NavigationChevronLeft);\nNavigationChevronLeft.displayName =
'NavigationChevronLeft';\nNavigationChevronLeft.muiName = 'SvgIcon';\nexports.default =
NavigationChevronLeft;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
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true\n});\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _pure =
require('recompose/pure');\n\nvar _pure2 = _interopRequireDefault(_pure);\n\nvar _SvgIcon =
require('../../SvgIcon');\n\nvar _SvgIcon2 = _interopRequireDefault(_SvgIcon);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar
NavigationChevronRight = function NavigationChevronRight(props) {\n  return
_react2.default.createElement(_SvgIcon2.default,
 props, _react2.default.createElement('path', {\n    d: 'M10 6L8.59 7.41 13.17 12l-4.58 4.59L10 18l6-6z'\n
}));\n};\n\nNavigationChevronRight = (0,
_pure2.default)(NavigationChevronRight);\nNavigationChevronRight.displayName =
'NavigationChevronRight';\nNavigationChevronRight.muiName = 'SvgIcon';\nexports.default =
NavigationChevronRight;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar
 _createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-dom');\n\nvar _reactDom2
= _interopRequireDefault(_reactDom);\n\nvar _autoPrefix = require('../utils/autoPrefix');\n\nvar _autoPrefix2 =
_interopRequireDefault(_autoPrefix);\n\nvar _transitions = require('../styles/transitions');\n\nvar
 _transitions2 = _interopRequireDefault(_transitions);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar SlideInChild = function (_Component) {\n  (0,
_inherits3.default)(SlideInChild, _Component);\n\n  function SlideInChild() {\n    (0,
_classCallCheck3.default)(this, SlideInChild);\n    return (0, _possibleConstructorReturn3.default)(this,
(SlideInChild.__proto__ || (0, _getPrototypeOf2.default)(SlideInChild)).apply(this, arguments));\n  }\n\n  (0,
_createClass3.default)(SlideInChild, [{\n    key: 'componentWillUnmount',\n    value: function
componentWillUnmount() {\n      clearTimeout(this.enterTimer);\n      clearTimeout(this.leaveTimer);\n    }\n  }, {\n
  key: 'componentWillEnter',\n    value: function componentWillEnter(callback) {\n      var style =
_reactDom2.default.findDOMNode(this).style;\n\n      var x = this.props.direction === 'left' ? '100%' :
this.props.direction === 'right'
 ? '-100%' : '0';\n      var y = this.props.direction === 'up' ? '100%' : this.props.direction === 'down' ? '-100%' : '0';\n
  style.opacity = '0';\n\n      _autoPrefix2.default.set(style, 'transform', 'translate(' + x + ', ' + y + ')');\n\n
this.enterTimer = setTimeout(callback, this.props.enterDelay);\n    }\n  }, {\n    key: 'componentDidEnter',\n    value:
function componentDidEnter() {\n      var style = _reactDom2.default.findDOMNode(this).style;\n\n
style.opacity = '1';\n\n      _autoPrefix2.default.set(style, 'transform', 'translate(0,0)');\n    }\n  }, {\n    key:
'componentWillLeave',\n    value: function componentWillLeave(callback) {\n      var style =
_reactDom2.default.findDOMNode(this).style;\n\n      var direction = this.props.getLeaveDirection();\n      var x =
direction === 'left' ? '-100%' : direction === 'right' ? '100%' : '0';\n      var y = direction === 'up' ? '-100%' : direction
=== 'down' ? '100%' : '0';\n      style.opacity = '0';\n\n      _autoPrefix2.default.set(style,
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 'transform', 'translate(' + x + ', ' + y + ')');\n\n      this.leaveTimer = setTimeout(callback, 450);\n    }\n  }, {\n    key:
'render',\n    value: function render() {\n      var _props = this.props,\n          children = _props.children,\n
enterDelay = _props.enterDelay,\n          getLeaveDirection = _props.getLeaveDirection,\n          style =
_props.style,\n          other = (0, _objectWithoutProperties3.default)(_props, ['children', 'enterDelay',
'getLeaveDirection', 'style']);\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n      var
mergedRootStyles = (0, _simpleAssign2.default)({}, {\n        position: 'absolute',\n        height: '100%',\n        width:
'100%',\n        top: 0,\n        left: 0,\n        transition: _transitions2.default.easeOut(null, ['transform', 'opacity'])\n
}, style);\n      return _react2.default.createElement('div', (0, _extends3.default)({}, other, {\n        style:
prepareStyles(mergedRootStyles)\n
      }), children);\n    }\n  }]);\n  return SlideInChild;\n}(_react.Component);\n\nSlideInChild.defaultProps = {\n
enterDelay: 0\n};\nSlideInChild.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nSlideInChild.propTypes = process.env.NODE_ENV !== \"production\"
? {\n  children: _propTypes2.default.node,\n  direction: _propTypes2.default.string,\n  enterDelay:
_propTypes2.default.number,\n  // This callback is needed bacause the direction could change when leaving the
DOM\n  getLeaveDirection: _propTypes2.default.func.isRequired,\n  style: _propTypes2.default.object\n} :
{};\nexports.default = SlideInChild;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar
 _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _transitions = require('../styles/transitions');\n\nvar
 _transitions2 = _interopRequireDefault(_transitions);\n\nvar _SlideIn = require('../internal/SlideIn');\n\nvar
_SlideIn2 = _interopRequireDefault(_SlideIn);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context, state) {\n  var datePicker =
context.muiTheme.datePicker;\n  var selectedYear = state.selectedYear;\n  var isLandscape = props.mode ===
'landscape';\n  var styles = {\n    root: {\n      width: isLandscape ? 165 : '100%',\n      height: isLandscape ? 330 :
'auto',\n      float: isLandscape ? 'left' : 'none',\n      fontWeight: 700,\n      display: 'inline-block',\n
backgroundColor: datePicker.headerColor,\n      borderTopLeftRadius: 2,\n      borderTopRightRadius: isLandscape
? 0 : 2,\n      borderBottomLeftRadius: isLandscape ? 2 : 0,\n      color: datePicker.textColor,\n      padding: 20,\n
boxSizing: 'border-box'\n    },\n    monthDay: {\n      display: 'block',\n
   fontSize: 36,\n      lineHeight: '36px',\n      height: props.mode === 'landscape' ? '100%' : 38,\n      opacity:
selectedYear ? 0.7 : 1,\n      transition: _transitions2.default.easeOut(),\n      width: '100%',\n      fontWeight: '500'\n
},\n    monthDayTitle: {\n      cursor: !selectedYear ? 'default' : 'pointer',\n      width: '100%',\n      display: 'block'\n
},\n    year: {\n      margin: 0,\n      fontSize: 16,\n      fontWeight: '500',\n      lineHeight: '16px',\n      height: 16,\n
opacity: selectedYear ? 1 : 0.7,\n      transition: _transitions2.default.easeOut(),\n      marginBottom: 10\n    },\n
yearTitle: {\n      cursor: props.disableYearSelection || selectedYear ? 'default' : 'pointer'\n    }\n  };\n  return
styles;\n}\n\nvar DateDisplay = function (_Component) {\n  (0, _inherits3.default)(DateDisplay, _Component);\n\n
function DateDisplay() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this,
DateDisplay);\n\n    for
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 (var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] =
arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref =
DateDisplay.__proto__ || (0, _getPrototypeOf2.default)(DateDisplay)).call.apply(_ref, [this].concat(args))), _this),
_this.state = {\n      selectedYear: false,\n      transitionDirection: 'up'\n    }, _this.handleClickMonthDay = function
() {\n      if (_this.props.onClickMonthDay && _this.state.selectedYear) {\n        _this.props.onClickMonthDay();\n
   }\n\n      _this.setState({\n        selectedYear: false\n      });\n    }, _this.handleClickYear = function () {\n      if
(_this.props.onClickYear && !_this.props.disableYearSelection && !_this.state.selectedYear) {\n
_this.props.onClickYear();\n      }\n\n      if (!_this.props.disableYearSelection) {\n        _this.setState({\n
selectedYear: true\n        });\n      }\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this,
 _ret);\n  }\n\n  (0, _createClass3.default)(DateDisplay, [{\n    key: 'componentWillMount',\n    value: function
componentWillMount() {\n      if (!this.props.monthDaySelected) {\n        this.setState({\n          selectedYear: true\n
      });\n      }\n    }\n  }, {\n    key: 'componentWillReceiveProps',\n    value: function
componentWillReceiveProps(nextProps) {\n      if (nextProps.selectedDate !== this.props.selectedDate) {\n        var
direction = nextProps.selectedDate > this.props.selectedDate ? 'up' : 'down';\n        this.setState({\n
transitionDirection: direction\n        });\n      }\n\n      if (nextProps.monthDaySelected !== undefined) {\n
this.setState({\n          selectedYear: !nextProps.monthDaySelected\n        });\n      }\n    }\n  }, {\n    key: 'render',\n
value: function render() {\n      var _props = this.props,\n          DateTimeFormat = _props.DateTimeFormat,\n
disableYearSelection = _props.disableYearSelection,\n
          locale = _props.locale,\n          mode = _props.mode,\n          monthDaySelected =
_props.monthDaySelected,\n          onClickMonthDay = _props.onClickMonthDay,\n          onClickYear =
_props.onClickYear,\n          selectedDate = _props.selectedDate,\n          style = _props.style,\n          other = (0,
_objectWithoutProperties3.default)(_props, ['DateTimeFormat', 'disableYearSelection', 'locale', 'mode',
'monthDaySelected', 'onClickMonthDay', 'onClickYear', 'selectedDate', 'style']);\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context, this.state);\n      var year =
new DateTimeFormat(locale, {\n        year: 'numeric'\n      }).format(selectedDate);\n      var dateTime = new
DateTimeFormat(locale, {\n        month: 'short',\n        weekday: 'short',\n        day: '2-digit'\n
}).format(selectedDate);\n      return _react2.default.createElement('div', (0, _extends3.default)({},
 other, {\n        style: prepareStyles(styles.root, style)\n      }), _react2.default.createElement(_SlideIn2.default, {\n
  style: styles.year,\n        direction: this.state.transitionDirection\n      }, _react2.default.createElement('div', {\n
key: year,\n        style: styles.yearTitle,\n        onClick: this.handleClickYear\n      }, year)),
_react2.default.createElement(_SlideIn2.default, {\n        style: styles.monthDay,\n        direction:
this.state.transitionDirection\n      }, _react2.default.createElement('div', {\n        key: dateTime,\n        onClick:
this.handleClickMonthDay,\n        style: styles.monthDayTitle\n      }, dateTime)));\n    }\n  }]);\n  return
DateDisplay;\n}(_react.Component);\n\nDateDisplay.defaultProps = {\n  disableYearSelection: false,\n
monthDaySelected: true\n};\nDateDisplay.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nDateDisplay.propTypes = process.env.NODE_ENV !== \"production\"
? {\n  DateTimeFormat:
 _propTypes2.default.func.isRequired,\n  disableYearSelection: _propTypes2.default.bool,\n  locale:
_propTypes2.default.string.isRequired,\n  mode: _propTypes2.default.oneOf(['portrait', 'landscape']),\n
monthDaySelected: _propTypes2.default.bool,\n  onClickMonthDay: _propTypes2.default.func,\n  onClickYear:
_propTypes2.default.func,\n  selectedDate: _propTypes2.default.object.isRequired,\n  style:
_propTypes2.default.object\n} : {};\nexports.default = DateDisplay;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3
= _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
```

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 _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-
dom');\n\nvar _reactDom2 = _interopRequireDefault(_reactDom);\n\nvar _reactEventListener
 = require('react-event-listener');\n\nvar _reactEventListener2 =
_interopRequireDefault(_reactEventListener);\n\nvar _keycode = require('keycode');\n\nvar _keycode2 =
_interopRequireDefault(_keycode);\n\nvar _transitions = require('../styles/transitions');\n\nvar _transitions2 =
_interopRequireDefault(_transitions);\n\nvar _Overlay = require('../internal/Overlay');\n\nvar _Overlay2 =
_interopRequireDefault(_Overlay);\n\nvar _RenderToLayer = require('../internal/RenderToLayer');\n\nvar
_RenderToLayer2 = _interopRequireDefault(_RenderToLayer);\n\nvar _Paper = require('../Paper');\n\nvar _Paper2
= _interopRequireDefault(_Paper);\n\nvar _TransitionGroup = require('react-transition-
group/TransitionGroup');\n\nvar _TransitionGroup2 = _interopRequireDefault(_TransitionGroup);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar
TransitionItem = function (_Component) {\n  (0, _inherits3.default)(TransitionItem, _Component);\n\n
  function TransitionItem() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this,
TransitionItem);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n
args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = TransitionItem.__proto__ || (0,
_getPrototypeOf2.default)(TransitionItem)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      style:
{}\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0,
_createClass3.default)(TransitionItem, [{\n    key: 'componentWillUnmount',\n    value: function
componentWillUnmount() {\n      clearTimeout(this.enterTimeout);\n      clearTimeout(this.leaveTimeout);\n    }\n
}, {\n    key: 'componentWillEnter',\n    value: function componentWillEnter(callback) {\n
this.componentWillAppear(callback);\n    }\n  }, {\n    key: 'componentWillAppear',\n
    value: function componentWillAppear(callback) {\n      var spacing =
this.context.muiTheme.baseTheme.spacing;\n      this.setState({\n        style: {\n          opacity: 1,\n          transform:
'translate(0, ' + spacing.desktopKeylineIncrement + 'px)'\n        }\n      });\n      this.enterTimeout =
setTimeout(callback, 450); // matches transition duration\n    }\n  }, {\n    key: 'componentWillLeave',\n    value:
function componentWillLeave(callback) {\n      this.setState({\n        style: {\n          opacity: 0,\n          transform:
'translate(0, 0)'\n        }\n      });\n      this.leaveTimeout = setTimeout(callback, 450); // matches transition duration\n
  }\n  }, {\n    key: 'render',\n    value: function render() {\n      var _props = this.props,\n          style = _props.style,\n
      children = _props.children,\n          other = (0, _objectWithoutProperties3.default)(_props, ['style', 'children']);\n
   var prepareStyles = this.context.muiTheme.prepareStyles;\n
      return _react2.default.createElement('div', (0, _extends3.default)({}, other, {\n        style: prepareStyles((0,
_simpleAssign2.default)({}, this.state.style, style))\n      }), children);\n    }\n  }]);\n  return
TransitionItem;\n}(_react.Component);\n\nTransitionItem.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nTransitionItem.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  children: _propTypes2.default.node,\n  style: _propTypes2.default.object\n} : {};\n\nfunction
getStyles(props, context) {\n  var autoScrollBodyContent = props.autoScrollBodyContent,\n      open =
props.open;\n  var _context$muiTheme = context.muiTheme,\n      _context$muiTheme$bas =
_context$muiTheme.baseTheme,\n      spacing = _context$muiTheme$bas.spacing,\n      palette =
_context$muiTheme$bas.palette,\n      dialog = _context$muiTheme.dialog,\n      zIndex =
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_context$muiTheme.zIndex;\n  var gutter = spacing.desktopGutter;\n  var borderScroll = '1px solid ' +
palette.borderColor;\n
  return {\n    root: {\n      position: 'fixed',\n      boxSizing: 'border-box',\n      WebkitTapHighlightColor:
'rgba(0,0,0,0)',\n      // Remove mobile color flashing (deprecated)\n      zIndex: zIndex.dialog,\n      top: 0,\n      left:
open ? 0 : -10000,\n      width: '100%',\n      height: '100%',\n      transition: open ?
_transitions2.default.easeOut('0ms', 'left', '0ms') : _transitions2.default.easeOut('0ms', 'left', '450ms')\n    },\n
content: {\n      boxSizing: 'border-box',\n      WebkitTapHighlightColor: 'rgba(0,0,0,0)',\n      // Remove mobile
color flashing (deprecated)\n      transition: _transitions2.default.easeOut(),\n      position: 'relative',\n      width:
'75%',\n      maxWidth: spacing.desktopKeylineIncrement * 12,\n      margin: '0 auto',\n      zIndex: zIndex.dialog\n
},\n    actionsContainer: {\n      boxSizing: 'border-box',\n      WebkitTapHighlightColor: 'rgba(0,0,0,0)',\n      //
Remove mobile color flashing (deprecated)\n
 padding: 8,\n      width: '100%',\n      textAlign: 'right',\n      marginTop: autoScrollBodyContent ? -1 : 0\n    },\n
overlay: {\n      zIndex: zIndex.dialogOverlay\n    },\n    title: {\n      margin: 0,\n      padding: gutter + 'px ' + gutter +
'px 20px ' + gutter + 'px',\n      color: palette.textColor,\n      fontSize: dialog.titleFontSize,\n      lineHeight: '32px',\n
   fontWeight: 400,\n      marginBottom: autoScrollBodyContent ? -1 : 0\n    },\n    body: {\n      fontSize:
dialog.bodyFontSize,\n      color: dialog.bodyColor,\n      padding: (props.title ? 0 : gutter) + 'px ' + gutter + 'px ' +
gutter + 'px',\n      boxSizing: 'border-box',\n      overflowY: autoScrollBodyContent ? 'auto' : 'hidden',\n
borderTop: autoScrollBodyContent ? borderScroll : 'none',\n      borderBottom: autoScrollBodyContent ?
borderScroll : 'none'\n    }\n  };\n}\n\nvar DialogInline = function (_Component2) {\n  (0,
_inherits3.default)(DialogInline, _Component2);\n\n  function DialogInline()
 {\n    var _ref2;\n\n    var _temp2, _this2, _ret2;\n\n    (0, _classCallCheck3.default)(this, DialogInline);\n\n    for
(var _len2 = arguments.length, args = Array(_len2), _key2 = 0; _key2 < _len2; _key2++) {\n      args[_key2] =
arguments[_key2];\n    }\n\n    return _ret2 = (_temp2 = (_this2 = (0, _possibleConstructorReturn3.default)(this,
(_ref2 = DialogInline.__proto__ || (0, _getPrototypeOf2.default)(DialogInline)).call.apply(_ref2,
[this].concat(args))), _this2), _this2.handleClickOverlay = function () {\n      _this2.requestClose(false);\n    },
_this2.handleKeyUp = function (event) {\n      if ((0, _keycode2.default)(event) === 'esc') {\n
_this2.requestClose(false);\n      }\n    }, _this2.handleResize = function () {\n      _this2.positionDialog();\n    },
_temp2), (0, _possibleConstructorReturn3.default)(_this2, _ret2);\n  }\n\n  (0, _createClass3.default)(DialogInline,
[{\n    key: 'componentDidMount',\n    value: function componentDidMount() {\n      this.positionDialog();\n
    }\n  }, {\n    key: 'componentDidUpdate',\n    value: function componentDidUpdate() {\n
this.positionDialog();\n    }\n  }, {\n    key: 'positionDialog',\n    value: function positionDialog() {\n      var _props2
= this.props,\n          actions = _props2.actions,\n          autoDetectWindowHeight =
_props2.autoDetectWindowHeight,\n          autoScrollBodyContent = _props2.autoScrollBodyContent,\n
bodyStyle = _props2.bodyStyle,\n          open = _props2.open,\n          repositionOnUpdate =
_props2.repositionOnUpdate,\n          title = _props2.title;\n\n      if (!open) {\n        return;\n      }\n\n      var
clientHeight = window.innerHeight || document.documentElement.clientHeight || document.body.clientHeight;\n\n
 var container = _reactDom2.default.findDOMNode(this);\n\n      var dialogWindow =
_reactDom2.default.findDOMNode(this.refs.dialogWindow);\n\n      var dialogContent =
_reactDom2.default.findDOMNode(this.refs.dialogContent);\n\n      var
 minPaddingTop = 16; // Reset the height in case the window was resized.\n\n      dialogWindow.style.height = '';\n
 dialogContent.style.height = '';\n      var dialogWindowHeight = dialogWindow.offsetHeight;\n      var paddingTop
= (clientHeight - dialogWindowHeight) / 2 - 64;\n      if (paddingTop < minPaddingTop) paddingTop =
minPaddingTop; // Vertically center the dialog window, but make sure it doesn't\n      // transition to that
position.\n\n      if (repositionOnUpdate || !container.style.paddingTop) {\n        container.style.paddingTop =
paddingTop + 'px';\n      } // Force a height if the dialog is taller than clientHeight\n\n\n      if
(autoDetectWindowHeight || autoScrollBodyContent) {\n        var styles = getStyles(this.props, this.context);\n
styles.body = (0, _simpleAssign2.default)(styles.body, bodyStyle);\n        var maxDialogContentHeight =
clientHeight - 2 * 64;\n        if (title) maxDialogContentHeight -= dialogContent.previousSibling.offsetHeight;\n\n
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      if (_react2.default.Children.count(actions)) {\n        maxDialogContentHeight -=
dialogContent.nextSibling.offsetHeight;\n      }\n\n      dialogContent.style.maxHeight = maxDialogContentHeight
+ 'px';\n\n      if (maxDialogContentHeight > dialogWindowHeight) {\n        dialogContent.style.borderBottom =
'none';\n        dialogContent.style.borderTop = 'none';\n      }\n    }\n  }\n  }, {\n    key: 'requestClose',\n    value:
function requestClose(buttonClicked) {\n      if (!buttonClicked && this.props.modal) {\n        return;\n      }\n\n
if (this.props.onRequestClose) {\n        this.props.onRequestClose(!!buttonClicked);\n      }\n    }\n  }, {\n    key:
'render',\n    value: function render() {\n      var _props3 = this.props,\n          actions = _props3.actions,\n
actionsContainerClassName = _props3.actionsContainerClassName,\n          actionsContainerStyle =
_props3.actionsContainerStyle,\n          bodyClassName = _props3.bodyClassName,\n
          bodyStyle = _props3.bodyStyle,\n          children = _props3.children,\n          className =
_props3.className,\n          contentClassName = _props3.contentClassName,\n          contentStyle =
_props3.contentStyle,\n          overlayClassName = _props3.overlayClassName,\n          overlayStyle =
_props3.overlayStyle,\n          open = _props3.open,\n          paperClassName = _props3.paperClassName,\n
paperProps = _props3.paperProps,\n          style = _props3.style,\n          titleClassName = _props3.titleClassName,\n
        titleStyle = _props3.titleStyle,\n          title = _props3.title;\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n      styles.root = (0,
_simpleAssign2.default)(styles.root, style);\n      styles.content = (0, _simpleAssign2.default)(styles.content,
contentStyle);\n      styles.body = (0, _simpleAssign2.default)(styles.body, bodyStyle);\n      styles.actionsContainer
 = (0, _simpleAssign2.default)(styles.actionsContainer, actionsContainerStyle);\n      styles.overlay = (0,
_simpleAssign2.default)(styles.overlay, overlayStyle);\n      styles.title = (0, _simpleAssign2.default)(styles.title,
titleStyle);\n\n      var actionsContainer = _react2.default.Children.count(actions) > 0 &&
_react2.default.createElement('div', {\n        className: actionsContainerClassName,\n        style:
prepareStyles(styles.actionsContainer)\n      }, _react2.default.Children.toArray(actions));\n\n      var titleElement =
title;\n\n      if (_react2.default.isValidElement(title)) {\n        titleElement = _react2.default.cloneElement(title, {\n
      className: title.props.className || titleClassName,\n          style: prepareStyles((0,
_simpleAssign2.default)(styles.title, title.props.style))\n        });\n      } else if (typeof title === 'string') {\n
titleElement = _react2.default.createElement('h3', {\n          className: titleClassName,\n          style:
 prepareStyles(styles.title)\n        }, title);\n      }\n\n      return _react2.default.createElement('div', {\n
className: className,\n        style: prepareStyles(styles.root)\n      }, open &&
_react2.default.createElement(_reactEventListener2.default, {\n        target: 'window',\n        onKeyUp:
this.handleKeyUp,\n        onResize: this.handleResize\n      }),
_react2.default.createElement(_TransitionGroup2.default, {\n        component: 'div',\n        ref: 'dialogWindow',\n
 transitionAppear: true,\n        transitionAppearTimeout: 450,\n        transitionEnter: true,\n
transitionEnterTimeout: 450\n      }, open && _react2.default.createElement(TransitionItem, {\n        className:
contentClassName,\n        style: styles.content\n      }, _react2.default.createElement(_Paper2.default, (0,
_extends3.default)({\n        className: paperClassName,\n        zDepth: 4\n      }, paperProps), titleElement,
_react2.default.createElement('div', {\n        ref:
 'dialogContent',\n        className: bodyClassName,\n        style: prepareStyles(styles.body)\n      }, children),
actionsContainer))), _react2.default.createElement(_Overlay2.default, {\n        show: open,\n        className:
overlayClassName,\n        style: styles.overlay,\n        onClick: this.handleClickOverlay\n      }));\n    }\n  }]);\n
return DialogInline;\n}(_react.Component);\n\nDialogInline.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nDialogInline.propTypes = process.env.NODE_ENV !== \"production\"
? {\n  actions: _propTypes2.default.node,\n  actionsContainerClassName: _propTypes2.default.string,\n
actionsContainerStyle: _propTypes2.default.object,\n  autoDetectWindowHeight: _propTypes2.default.bool,\n
autoScrollBodyContent: _propTypes2.default.bool,\n  bodyClassName: _propTypes2.default.string,\n  bodyStyle:
_propTypes2.default.object,\n  children: _propTypes2.default.node,\n  className: _propTypes2.default.string,\n
contentClassName: _propTypes2.default.string,\n
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contentStyle: _propTypes2.default.object,\n modal: _propTypes2.default.bool,\n onRequestClose: _propTypes2.default.func,\n open: _propTypes2.default.bool.isRequired,\n overlayClassName: _propTypes2.default.string,\n overlayStyle: _propTypes2.default.object,\n paperClassName: _propTypes2.default.string,\n paperProps: _propTypes2.default.object,\n repositionOnUpdate: _propTypes2.default.bool,\n style: _propTypes2.default.object,\n title: _propTypes2.default.node,\n titleClassName: _propTypes2.default.string,\n titleStyle: _propTypes2.default.object\n} : {};\n\nvar Dialog = function (_Component3) {\n (0, _inherits3.default)(Dialog, _Component3);\n\n function Dialog() {\n   var _ref3;\n\n   var _temp3, _this3, _ret3;\n\n   (0, _classCallCheck3.default)(this, Dialog);\n\n   for (var _len3 = arguments.length, args = Array(_len3), _key3 = 0; _key3 < _len3; _key3++) {\n   args[_key3] = arguments[_key3];\n   }\n\n   return _ret3 = (_temp3 = (_this3

= (0, _possibleConstructorReturn3.default)(this, (_ref3 = Dialog.__proto__ || (0, _getPrototypeOf2.default)(Dialog)).call.apply(_ref3, [this].concat(args))), _this3), _this3.renderLayer = function () {\n   return _react2.default.createElement(DialogInline, _this3.props);\n   }, _temp3), (0, _possibleConstructorReturn3.default)(_this3, _ret3);\n }\n\n (0, _createClass3.default)(Dialog, [{\n   key: 'render',\n   value: function render() {\n   return _react2.default.createElement(_RenderToLayer2.default, {\n   render: this.renderLayer,\n   open: true,\n   useLayerForClickAway: false\n   });\n   }\n }]);\n return Dialog;\n}(_react.Component);\n\nDialog.contextTypes = {\n muiTheme: _propTypes2.default.object.isRequired\n};\nDialog.defaultProps = {\n autoDetectWindowHeight: true,\n autoScrollBodyContent: false,\n modal: false,\n repositionOnUpdate: true\n};\nDialog.propTypes = process.env.NODE_ENV !== \"production\" ? {\n /**\n   * Action buttons

to display below the Dialog content (`children`).\n   * This property accepts either a React element, or an array of React elements.\n   */\n actions: _propTypes2.default.node,\n\n /**\n   * The `className` to add to the actions container's root element.\n   */\n actionsContainerClassName: _propTypes2.default.string,\n\n /**\n   * Overrides the inline-styles of the actions container's root element.\n   */\n actionsContainerStyle: _propTypes2.default.object,\n\n /**\n   * If set to true, the height of the `Dialog` will be auto detected. A max height\n   * will be enforced so that the content does not extend beyond the viewport.\n   */\n autoDetectWindowHeight: _propTypes2.default.bool,\n\n /**\n   * If set to true, the body content of the `Dialog` will be scrollable.\n   */\n autoScrollBodyContent: _propTypes2.default.bool,\n\n /**\n   * The `className` to add to the content's root element under the title.\n   */\n bodyClassName: _propTypes2.default.string,\n\n /**\n   * Overrides

the inline-styles of the content's root element under the title.\n   */\n bodyStyle: _propTypes2.default.object,\n\n /**\n   * The contents of the `Dialog`.\n   */\n children: _propTypes2.default.node,\n\n /**\n   * @ignore\n   */\n className: _propTypes2.default.string,\n\n /**\n   * The `className` to add to the content container.\n   */\n contentClassName: _propTypes2.default.string,\n\n /**\n   * Overrides the inline-styles of the content container.\n   */\n contentStyle: _propTypes2.default.object,\n\n /**\n   * Force the user to use one of the actions in the `Dialog`.\n   * Clicking outside the `Dialog` will not trigger the `onRequestClose`.\n   */\n modal: _propTypes2.default.bool,\n\n /**\n   * Fired when the `Dialog` is requested to be closed by a click outside the `Dialog` or on the buttons.\n   *\n   * @param {bool} buttonClicked Determines whether a button click triggered this request.\n   */\n onRequestClose: _propTypes2.default.func,\n\n /**\n   * Controls

whether the Dialog is opened or not.\n   */\n open: _propTypes2.default.bool.isRequired,\n\n /**\n   * The `className` to add to the `Overlay` component that is rendered behind the `Dialog`.\n   */\n overlayClassName: _propTypes2.default.string,\n\n /**\n   * Overrides the inline-styles of the `Overlay` component that is rendered behind the `Dialog`.\n   */\n overlayStyle: _propTypes2.default.object,\n\n /**\n   * The CSS class name of the `Paper` element.\n   */\n paperClassName: _propTypes2.default.string,\n\n /**\n   * Properties applied to the `Paper` element.\n   */\n paperProps: _propTypes2.default.object,\n\n /**\n   * Determines whether the `Dialog` should be repositioned when it's contents are updated.\n   */\n repositionOnUpdate: _propTypes2.default.bool,\n\n /**\n   * Override the inline-styles of the root element.\n   */\n style: _propTypes2.default.object,\n\n /**\n   * The title to display on the `Dialog`. Could be number, string, element or an array containing

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 these types.\n   */\n  title: _propTypes2.default.node,\n\n  /**\n   * The `className` to add to the title's root
container element.\n   */\n  titleClassName: _propTypes2.default.string,\n\n  /**\n   * Overrides the inline-styles of
the title's root container element.\n   */\n  titleStyle: _propTypes2.default.object\n} : {};\nexports.default =
Dialog;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar
_getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3
 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _react =
require('react');\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule
? obj : {\n    default: obj\n  };\n}\n\nvar originalBodyOverflow = null;\nvar lockingCounter = 0;\n\nvar
AutoLockScrolling = function (_Component) {\n  (0, _inherits3.default)(AutoLockScrolling, _Component);\n\n
function AutoLockScrolling() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this,
AutoLockScrolling);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n
   args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = AutoLockScrolling.__proto__
 || (0, _getPrototypeOf2.default)(AutoLockScrolling)).call.apply(_ref, [this].concat(args))), _this), _this.locked =
false, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0,
_createClass3.default)(AutoLockScrolling, [{\n    key: 'componentDidMount',\n    value: function
componentDidMount() {\n      if (this.props.lock === true) {\n        this.preventScrolling();\n      }\n    }\n  }, {\n
key: 'componentWillReceiveProps',\n    value: function componentWillReceiveProps(nextProps) {\n      if
(this.props.lock !== nextProps.lock) {\n        if (nextProps.lock) {\n          this.preventScrolling();\n        } else {\n
   this.allowScrolling();\n        }\n      }\n    }\n  }, {\n    key: 'componentWillUnmount',\n    value: function
componentWillUnmount() {\n      this.allowScrolling();\n    } // force to only lock/unlock once\n\n  }, {\n    key:
'preventScrolling',\n    value: function preventScrolling() {\n      if (this.locked === true) {\n        return;\n
      }\n\n      lockingCounter = lockingCounter + 1;\n      this.locked = true; // only lock the first time the component
is mounted.\n\n      if (lockingCounter === 1) {\n        var body = document.getElementsByTagName('body')[0];\n
  originalBodyOverflow = body.style.overflow;\n        body.style.overflow = 'hidden';\n      }\n    }\n  }, {\n    key:
'allowScrolling',\n    value: function allowScrolling() {\n      if (this.locked === true) {\n        lockingCounter =
lockingCounter - 1;\n        this.locked = false;\n      }\n\n      if (lockingCounter === 0 && originalBodyOverflow
!== null) {\n        var body = document.getElementsByTagName('body')[0];\n        body.style.overflow =
originalBodyOverflow || '';\n        originalBodyOverflow = null;\n      }\n    }\n  }, {\n    key: 'render',\n    value:
function render() {\n      return null;\n    }\n  }]);\n  return
AutoLockScrolling;\n}(_react.Component);\n\nAutoLockScrolling.propTypes = process.env.NODE_ENV !==
\"production\"
 ? {\n  lock: _propTypes2.default.bool.isRequired\n} : {};\nexports.default = AutoLockScrolling;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
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runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
 _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-
dom');\n\nvar _reactDom2 = _interopRequireDefault(_reactDom);\n\nvar _reactEventListener = require('react-
event-listener');\n\nvar _reactEventListener2 = _interopRequireDefault(_reactEventListener);\n\nvar _keycode =
require('keycode');\n\nvar _keycode2 = _interopRequireDefault(_keycode);\n\nvar _autoPrefix =
require('../utils/autoPrefix');\n\nvar _autoPrefix2 = _interopRequireDefault(_autoPrefix);\n\nvar _transitions =
require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nvar _Overlay =
require('../internal/Overlay');\n\nvar _Overlay2 = _interopRequireDefault(_Overlay);\n\nvar _Paper =
require('../Paper');\n\nvar _Paper2 = _interopRequireDefault(_Paper);\n\nvar _propTypes3 =
require('../utils/propTypes');\n\nvar
 _propTypes4 = _interopRequireDefault(_propTypes3);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar openNavEventHandler = null;\n\nvar Drawer = function
(_Component) {\n  (0, _inherits3.default)(Drawer, _Component);\n\n  function Drawer() {\n    var _ref;\n\n    var
_temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this, Drawer);\n\n    for (var _len = arguments.length, args =
Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp
= (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = Drawer.__proto__ || (0,
_getPrototypeOf2.default)(Drawer)).call.apply(_ref, [this].concat(args))), _this), _this.handleClickOverlay =
function (event) {\n      event.preventDefault();\n\n      _this.close('clickaway');\n    }, _this.handleKeyUp = function
(event) {\n      if (_this.state.open && !_this.props.docked && (0, _keycode2.default)(event)
 === 'esc') {\n        _this.close('escape');\n      }\n    }, _this.onBodyTouchStart = function (event) {\n      var
swipeAreaWidth = _this.props.swipeAreaWidth;\n      var touchStartX = _this.context.muiTheme.isRtl ?
document.body.offsetWidth - event.touches[0].pageX : event.touches[0].pageX;\n      var touchStartY =
event.touches[0].pageY; // Open only if swiping from far left (or right) while closed\n\n      if (swipeAreaWidth !==
null && !_this.state.open) {\n        if (_this.props.openSecondary) {\n          // If openSecondary is true calculate
from the far right\n          if (touchStartX < document.body.offsetWidth - swipeAreaWidth) return;\n        } else {\n
     // If openSecondary is false calculate from the far left\n          if (touchStartX > swipeAreaWidth) return;\n
}\n      }\n\n      if (!_this.state.open && (openNavEventHandler !== _this.onBodyTouchStart ||
_this.props.disableSwipeToOpen)) {\n        return;\n      }\n\n      _this.maybeSwiping
 = true;\n      _this.touchStartX = touchStartX;\n      _this.touchStartY = touchStartY;\n
document.body.addEventListener('touchmove', _this.onBodyTouchMove);\n
document.body.addEventListener('touchend', _this.onBodyTouchEnd);\n
document.body.addEventListener('touchcancel', _this.onBodyTouchEnd);\n    }, _this.onBodyTouchMove =
function (event) {\n      var currentX = _this.context.muiTheme.isRtl ? document.body.offsetWidth -
event.touches[0].pageX : event.touches[0].pageX;\n      var currentY = event.touches[0].pageY;\n\n      if
(_this.state.swiping) {\n        event.preventDefault();\n\n        _this.setPosition(_this.getTranslateX(currentX));\n
} else if (_this.maybeSwiping) {\n        var dXAbs = Math.abs(currentX - _this.touchStartX);\n        var dYAbs =
Math.abs(currentY - _this.touchStartY); // If the user has moved his thumb ten pixels in either direction,\n        // we
can safely make an assumption about whether he was intending\n        // to swipe or
 scroll.\n\n        var threshold = 10;\n\n        if (dXAbs > threshold && dYAbs <= threshold) {\n
_this.swipeStartX = currentX;\n\n          _this.setState({\n            swiping: _this.state.open ? 'closing' : 'opening'\n
  });\n\n          _this.setPosition(_this.getTranslateX(currentX));\n        } else if (dXAbs <= threshold && dYAbs >
threshold) {\n          _this.onBodyTouchEnd();\n        }\n      }\n    }, _this.onBodyTouchEnd = function (event) {\n
 if (_this.state.swiping) {\n        var currentX = _this.context.muiTheme.isRtl ? document.body.offsetWidth -
event.changedTouches[0].pageX : event.changedTouches[0].pageX;\n\n        var translateRatio =
_this.getTranslateX(currentX) / _this.getMaxTranslateX();\n\n        _this.maybeSwiping = false;\n        var swiping =
_this.state.swiping;\n\n        _this.setState({\n          swiping: null\n        }); // We have to open or close after setting
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swiping to null,\n        // because only then CSS transition
 is enabled.\n\n\n        if (translateRatio > 0.5) {\n          if (swiping === 'opening') {\n
_this.setPosition(_this.getMaxTranslateX());\n          } else {\n            _this.close('swipe');\n          }\n        } else {\n
      if (swiping === 'opening') {\n            _this.open('swipe');\n          } else {\n            _this.setPosition(0);\n
}\n        }\n      } else {\n        _this.maybeSwiping = false;\n      }\n\n      _this.removeBodyTouchListeners();\n    },
_temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(Drawer, [{\n
key: 'componentWillMount',\n    value: function componentWillMount() {\n      this.maybeSwiping = false;\n
this.touchStartX = null;\n      this.touchStartY = null;\n      this.swipeStartX = null;\n      this.setState({\n        open:
this.props.open !== null ? this.props.open : this.props.docked,\n        swiping: null\n      });\n    }\n  }, {\n    key:
'componentDidMount',\n
    value: function componentDidMount() {\n      this.enableSwipeHandling();\n    }\n  }, {\n    key:
'componentWillReceiveProps',\n    value: function componentWillReceiveProps(nextProps) {\n      // If controlled
then the open prop takes precedence.\n      if (nextProps.open !== null) {\n        this.setState({\n          open:
nextProps.open\n        }); // Otherwise, if docked is changed, change the open state for when uncontrolled.\n      }
else if (this.props.docked !== nextProps.docked) {\n        this.setState({\n          open: nextProps.docked\n        });\n
  }\n    }\n  }, {\n    key: 'componentDidUpdate',\n    value: function componentDidUpdate() {\n
this.enableSwipeHandling();\n    }\n  }, {\n    key: 'componentWillUnmount',\n    value: function
componentWillUnmount() {\n      this.disableSwipeHandling();\n      this.removeBodyTouchListeners();\n    }\n  },
{\n    key: 'getStyles',\n    value: function getStyles() {\n      var muiTheme = this.context.muiTheme;\n
      var theme = muiTheme.drawer;\n      var x = this.getTranslateMultiplier() * (this.state.open ? 0 :
this.getMaxTranslateX());\n      var styles = {\n        root: {\n          height: '100%',\n          width:
this.getTranslatedWidth() || theme.width,\n          position: 'fixed',\n          zIndex: muiTheme.zIndex.drawer,\n
left: 0,\n          top: 0,\n          transform: 'translate(' + x + 'px, 0)',\n          transition: !this.state.swiping &&
_transitions2.default.easeOut(null, 'transform', null),\n          backgroundColor: theme.color,\n          overflow:
'auto',\n          WebkitOverflowScrolling: 'touch' // iOS momentum scrolling\n\n        },\n        overlay: {\n
zIndex: muiTheme.zIndex.drawerOverlay,\n          pointerEvents: this.state.open ? 'auto' : 'none' // Bypass mouse
events when left nav is closing.\n\n        },\n        rootWhenOpenRight: {\n          left: 'auto',\n          right: 0\n        }\n
    };\n      return styles;\n    }\n  },
 {\n    key: 'shouldShow',\n    value: function shouldShow() {\n      return this.state.open || !!this.state.swiping; //
component is swiping\n    }\n  }, {\n    key: 'close',\n    value: function close(reason) {\n      if (this.props.open ===
null) this.setState({\n        open: false\n      });\n      if (this.props.onRequestChange)
this.props.onRequestChange(false, reason);\n      return this;\n    }\n  }, {\n    key: 'open',\n    value: function
open(reason) {\n      if (this.props.open === null) this.setState({\n        open: true\n      });\n      if
(this.props.onRequestChange) this.props.onRequestChange(true, reason);\n      return this;\n    }\n  }, {\n    key:
'getTranslatedWidth',\n    value: function getTranslatedWidth() {\n      if (typeof this.props.width === 'string') {\n
 if (!/^\\d+(\\.\\d+)?%$/.test(this.props.width)) {\n          throw new Error('Not a valid percentage format.');\n
}\n\n        var width = parseFloat(this.props.width) / 100.0; // We are
 doing our best on the Server to render a consistent UI, hence the\n        // default value of 10000\n\n        return
typeof window !== 'undefined' ? width * window.innerWidth : 10000;\n      } else {\n        return this.props.width;\n
   }\n    }\n  }, {\n    key: 'getMaxTranslateX',\n    value: function getMaxTranslateX() {\n      var width =
this.getTranslatedWidth() || this.context.muiTheme.drawer.width;\n      return width + 10;\n    }\n  }, {\n    key:
'getTranslateMultiplier',\n    value: function getTranslateMultiplier() {\n      return this.props.openSecondary ? 1 : -
1;\n    }\n  }, {\n    key: 'enableSwipeHandling',\n    value: function enableSwipeHandling() {\n      if
(!this.props.docked) {\n        document.body.addEventListener('touchstart', this.onBodyTouchStart);\n\n        if
(!openNavEventHandler) {\n          openNavEventHandler = this.onBodyTouchStart;\n        }\n      } else {\n
this.disableSwipeHandling();\n      }\n    }\n  }, {\n    key: 'disableSwipeHandling',\n
    value: function disableSwipeHandling() {\n      document.body.removeEventListener('touchstart',
this.onBodyTouchStart);\n\n      if (openNavEventHandler === this.onBodyTouchStart) {\n
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openNavEventHandler = null;\n      }\n    }\n  }, {\n    key: 'removeBodyTouchListeners',\n    value: function
removeBodyTouchListeners() {\n      document.body.removeEventListener('touchmove',
this.onBodyTouchMove);\n      document.body.removeEventListener('touchend', this.onBodyTouchEnd);\n
document.body.removeEventListener('touchcancel', this.onBodyTouchEnd);\n    }\n  }, {\n    key: 'setPosition',\n
value: function setPosition(translateX) {\n      var rtlTranslateMultiplier = this.context.muiTheme.isRtl ? -1 : 1;\n\n
 var drawer = _reactDom2.default.findDOMNode(this.refs.clickAwayableElement);\n\n      var transformCSS =
'translate(' + this.getTranslateMultiplier() * rtlTranslateMultiplier * translateX + 'px, 0)';\n
this.refs.overlay.setOpacity(1 - translateX /
 this.getMaxTranslateX());\n\n      _autoPrefix2.default.set(drawer.style, 'transform', transformCSS);\n    }\n  }, {\n
key: 'getTranslateX',\n    value: function getTranslateX(currentX) {\n      return
Math.min(Math.max(this.state.swiping === 'closing' ? this.getTranslateMultiplier() * (currentX - this.swipeStartX) :
this.getMaxTranslateX() - this.getTranslateMultiplier() * (this.swipeStartX - currentX), 0),
this.getMaxTranslateX());\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var _props =
this.props,\n          children = _props.children,\n          className = _props.className,\n          containerClassName
= _props.containerClassName,\n          containerStyle = _props.containerStyle,\n          docked = _props.docked,\n
   openSecondary = _props.openSecondary,\n          overlayClassName = _props.overlayClassName,\n
overlayStyle = _props.overlayStyle,\n          style = _props.style,\n          zDepth = _props.zDepth;\n      var styles
 = this.getStyles();\n      var overlay = void 0;\n\n      if (!docked) {\n        overlay =
_react2.default.createElement(_Overlay2.default, {\n          ref: 'overlay',\n          show: this.shouldShow(),\n
className: overlayClassName,\n          style: (0, _simpleAssign2.default)(styles.overlay, overlayStyle),\n
transitionEnabled: !this.state.swiping,\n          onClick: this.handleClickOverlay\n        });\n      }\n\n      return
_react2.default.createElement('div', {\n        className: className,\n        style: style\n      },
_react2.default.createElement(_reactEventListener2.default, {\n        target: 'window',\n        onKeyUp:
this.handleKeyUp\n      }), overlay, _react2.default.createElement(_Paper2.default, {\n        ref:
'clickAwayableElement',\n        zDepth: zDepth,\n        rounded: false,\n        transitionEnabled: !this.state.swiping,\n
      className: containerClassName,\n        style: (0, _simpleAssign2.default)(styles.root, openSecondary
 && styles.rootWhenOpenRight, containerStyle)\n      }, children));\n    }\n  }]);\n  return
Drawer;\n}(_react.Component);\n\nDrawer.defaultProps = {\n  disableSwipeToOpen: false,\n  docked: true,\n  open:
null,\n  openSecondary: false,\n  swipeAreaWidth: 30,\n  width: null,\n  zDepth: 2\n};\nDrawer.contextTypes = {\n
muiTheme: _propTypes2.default.object.isRequired\n};\nDrawer.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  /**\n   * The contents of the `Drawer`\n   */\n  children: _propTypes2.default.node,\n\n  /**\n
* The CSS class name of the root element.\n   */\n  className: _propTypes2.default.string,\n\n  /**\n   * The CSS
class name of the container element.\n   */\n  containerClassName: _propTypes2.default.string,\n\n  /**\n   *
Override the inline-styles of the container element.\n   */\n  containerStyle: _propTypes2.default.object,\n\n  /**\n
* If true, swiping sideways when the `Drawer` is closed will not open it.\n   */\n  disableSwipeToOpen:
_propTypes2.default.bool,\n\n
  /**\n   * If true, the `Drawer` will be docked. In this state, the overlay won't show and\n   * clicking on a menu
item will not close the `Drawer`.\n   */\n  docked: _propTypes2.default.bool,\n\n  /**\n   * Callback function fired
when the `open` state of the `Drawer` is requested to be changed.\n   *\n   * @param {boolean} open If true, the
`Drawer` was requested to be opened.\n   * @param {string} reason The reason for the open or close request.
Possible values are\n   * 'swipe' for open requests; 'clickaway' (on overlay clicks),\n   * 'escape' (on escape key
press), and 'swipe' for close requests.\n   */\n  onRequestChange: _propTypes2.default.func,\n\n  /**\n   * If true, the
`Drawer` is opened.  Providing a value will turn the `Drawer`\n   * into a controlled component.\n   */\n  open:
_propTypes2.default.bool,\n\n  /**\n   * If true, the `Drawer` is positioned to open from the opposite side.\n   */\n
openSecondary: _propTypes2.default.bool,\n\n  /**\n   * The
 CSS class name to add to the `Overlay` component that is rendered behind the `Drawer`.\n   */\n
overlayClassName: _propTypes2.default.string,\n\n  /**\n   * Override the inline-styles of the `Overlay` component
that is rendered behind the `Drawer`.\n   */\n  overlayStyle: _propTypes2.default.object,\n\n  /**\n   * Override the
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inline-styles of the root element.\n   */\n  style: _propTypes2.default.object,\n\n  /**\n   * The width of the left most
(or right most) area in pixels where the `Drawer` can be\n   * swiped open from. Setting this to `null` spans that area
to the entire page\n   * (**CAUTION!** Setting this property to `null` might cause issues with sliders and\n   *
swipeable `Tabs`: use at your own risk).\n   */\n  swipeAreaWidth: _propTypes2.default.number,\n\n  /**\n   * The
width of the `Drawer` in pixels or percentage in string format ex. `50%` to fill\n   * half of the window or `100%`
and so on. Defaults to using the values from theme.\n   */\n  width:
_propTypes2.default.oneOfType([_propTypes2.default.string,
 _propTypes2.default.number]),\n\n  /**\n   * The zDepth of the `Drawer`.\n   */\n  zDepth:
_propTypes4.default.zDepth\n} : {};\nexports.default = Drawer;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3
= _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
 _possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-
dom');\n\nvar _reactDom2 = _interopRequireDefault(_reactDom);\n\nvar _transitions =
require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nvar _arrowDropDown
= require('../svg-icons/navigation/arrow-drop-down');\n\nvar _arrowDropDown2 =
_interopRequireDefault(_arrowDropDown);\n\nvar _Menu = require('../Menu/Menu');\n\nvar
 _Menu2 = _interopRequireDefault(_Menu);\n\nvar _ClearFix = require('../internal/ClearFix');\n\nvar _ClearFix2 =
_interopRequireDefault(_ClearFix);\n\nvar _Popover = require('../Popover/Popover');\n\nvar _Popover2 =
_interopRequireDefault(_Popover);\n\nvar _PopoverAnimationVertical =
require('../Popover/PopoverAnimationVertical');\n\nvar _PopoverAnimationVertical2 =
_interopRequireDefault(_PopoverAnimationVertical);\n\nvar _keycode = require('keycode');\n\nvar _keycode2 =
_interopRequireDefault(_keycode);\n\nvar _events = require('../utils/events');\n\nvar _events2 =
_interopRequireDefault(_events);\n\nvar _IconButton = require('../IconButton');\n\nvar _IconButton2 =
_interopRequireDefault(_IconButton);\n\nvar _propTypes3 = require('../utils/propTypes');\n\nvar _propTypes4 =
_interopRequireDefault(_propTypes3);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule
? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var disabled = props.disabled;\n
  var spacing = context.muiTheme.baseTheme.spacing;\n  var palette = context.muiTheme.baseTheme.palette;\n  var
accentColor = context.muiTheme.dropDownMenu.accentColor;\n  return {\n    control: {\n      cursor: disabled ?
'not-allowed' : 'pointer',\n      height: '100%',\n      position: 'relative',\n      width: '100%'\n    },\n    icon: {\n      fill:
accentColor,\n      position: 'absolute',\n      right: spacing.desktopGutterLess,\n      top: (spacing.iconSize - 24) / 2 +
spacing.desktopGutterMini / 2\n    },\n    iconChildren: {\n      fill: 'inherit'\n    },\n    label: {\n      color: disabled ?
palette.disabledColor : palette.textColor,\n      height: spacing.desktopToolbarHeight + 'px',\n      lineHeight:
spacing.desktopToolbarHeight + 'px',\n      overflow: 'hidden',\n      opacity: 1,\n      position: 'relative',\n
paddingLeft: spacing.desktopGutter,\n      paddingRight: spacing.iconSize * 2 + spacing.desktopGutterMini,\n
textOverflow: 'ellipsis',\n
     top: 0,\n      whiteSpace: 'nowrap'\n    },\n    labelWhenOpen: {\n      opacity: 0,\n      top:
spacing.desktopToolbarHeight / 8\n    },\n    root: {\n      display: 'inline-block',\n      fontSize:
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spacing.desktopDropDownMenuFontSize,\n      height: spacing.desktopSubheaderHeight,\n      fontFamily:
context.muiTheme.baseTheme.fontFamily,\n      outline: 'none',\n      position: 'relative',\n      transition:
_transitions2.default.easeOut()\n    },\n    rootWhenOpen: {\n      opacity: 1\n    },\n    underline: {\n      borderTop:
'solid 1px ' + accentColor,\n      bottom: 1,\n      left: 0,\n      margin: '-1px ' + spacing.desktopGutter + 'px',\n
right: 0,\n      position: 'absolute'\n    }\n  };\n}\n\nvar DropDownMenu = function (_Component) {\n  (0,
_inherits3.default)(DropDownMenu, _Component);\n\n  function DropDownMenu() {\n    var _ref;\n\n    var _temp,
_this, _ret;\n\n    (0, _classCallCheck3.default)(this, DropDownMenu);\n\n    for (var _len = arguments.length, args
 = Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret =
(_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = DropDownMenu.__proto__ || (0,
_getPrototypeOf2.default)(DropDownMenu)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      open:
false\n    }, _this.rootNode = undefined, _this.arrowNode = undefined, _this.handleClickControl = function (event)
{\n      event.preventDefault();\n\n      if (!_this.props.disabled) {\n        _this.setState({\n          open:
!_this.state.open,\n          anchorEl: _this.rootNode\n        });\n      }\n    }, _this.handleRequestCloseMenu = function
() {\n      _this.close(false);\n    }, _this.handleEscKeyDownMenu = function () {\n      _this.close(true);\n    },
_this.handleKeyDown = function (event) {\n      switch ((0, _keycode2.default)(event)) {\n        case 'up':\n        case
'down':\n        case 'space':\n        case 'enter':\n          event.preventDefault();\n\n
          _this.setState({\n            open: true,\n            anchorEl: _this.rootNode\n          });\n\n          break;\n      }\n    },
_this.handleItemClick = function (event, child, index) {\n      if (_this.props.multiple) {\n        if (!_this.state.open)
{\n          _this.setState({\n            open: true\n          });\n        }\n      } else {\n        event.persist();\n\n
_this.setState({\n          open: false\n        }, function () {\n          if (_this.props.onChange) {\n
_this.props.onChange(event, index, child.props.value);\n          }\n\n
_this.close(_events2.default.isKeyboard(event));\n        });\n      }\n    }, _this.handleChange = function (event,
value) {\n      if (_this.props.multiple && _this.props.onChange) {\n        _this.props.onChange(event, undefined,
value);\n      }\n    }, _this.close = function (isKeyboard) {\n      _this.setState({\n        open: false\n      }, function ()
{\n        if (_this.props.onClose)
 {\n          _this.props.onClose();\n        }\n\n        if (isKeyboard) {\n          var dropArrow = _this.arrowNode;\n\n
   var dropNode = _reactDom2.default.findDOMNode(dropArrow);\n\n          dropNode.focus();\n
dropArrow.setKeyboardFocus(true);\n        }\n      });\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this,
_ret);\n  } // The nested styles for drop-down-menu are modified by toolbar and possibly\n  // other user
components, so it will give full access to its js styles rather\n  // than just the parent.\n\n\n  (0,
_createClass3.default)(DropDownMenu, [{\n    key: 'componentDidMount',\n    value: function
componentDidMount() {\n      var _this2 = this;\n\n      if (this.props.autoWidth) {\n        this.setWidth();\n      }\n\n
  if (this.props.openImmediately) {\n        // TODO: Temporary fix to make openImmediately work with
popover.\n\n        /* eslint-disable react/no-did-mount-set-state */\n        setTimeout(function ()
 {\n          return _this2.setState({\n            open: true,\n            anchorEl: _this2.rootNode\n          });\n        }, 0);\n
  /* eslint-enable react/no-did-mount-set-state */\n      }\n    }\n  }, {\n    key: 'componentWillReceiveProps',\n
value: function componentWillReceiveProps() {\n      if (this.props.autoWidth) {\n        this.setWidth();\n      }\n
}\n  }, {\n    key: 'getInputNode',\n\n    /**\n     * This method is deprecated but still here because the TextField\n
* need it in order to work. TODO: That will be addressed later.\n     */\n    value: function getInputNode() {\n      var
_this3 = this;\n\n      var rootNode = this.rootNode;\n\n      rootNode.focus = function () {\n        if
(!_this3.props.disabled) {\n          _this3.setState({\n            open: !_this3.state.open,\n            anchorEl:
_this3.rootNode\n          });\n        }\n      };\n\n      return rootNode;\n    }\n  }, {\n    key: 'setWidth',\n    value:
function setWidth() {\n
      var el = this.rootNode;\n\n      if (!this.props.style || !this.props.style.hasOwnProperty('width')) {\n
el.style.width = 'auto';\n      }\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var _this4 = this;\n\n
  var _props = this.props,\n          animated = _props.animated,\n          animation = _props.animation,\n
autoWidth = _props.autoWidth,\n          multiple = _props.multiple,\n          children = _props.children,\n
className = _props.className,\n          disabled = _props.disabled,\n          iconStyle = _props.iconStyle,\n
```

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labelStyle = _props.labelStyle,\n          listStyle = _props.listStyle,\n          maxHeight = _props.maxHeight,\n
menuStyleProp = _props.menuStyle,\n          selectionRenderer = _props.selectionRenderer,\n          onClose =
_props.onClose,\n          openImmediately = _props.openImmediately,\n          menuItemStyle =
_props.menuItemStyle,\n          selectedMenuItemStyle
 = _props.selectedMenuItemStyle,\n          style = _props.style,\n          underlineStyle = _props.underlineStyle,\n
  value = _props.value,\n          iconButton = _props.iconButton,\n          anchorOrigin = _props.anchorOrigin,\n
targetOrigin = _props.targetOrigin,\n          other = (0, _objectWithoutProperties3.default)(_props, ['animated',
'animation', 'autoWidth', 'multiple', 'children', 'className', 'disabled', 'iconStyle', 'labelStyle', 'listStyle', 'maxHeight',
'menuStyle', 'selectionRenderer', 'onClose', 'openImmediately', 'menuItemStyle', 'selectedMenuItemStyle', 'style',
'underlineStyle', 'value', 'iconButton', 'anchorOrigin', 'targetOrigin']);\n      var _state = this.state,\n          anchorEl =
_state.anchorEl,\n          open = _state.open;\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n      var
styles = getStyles(this.props, this.context);\n      var displayValue = '';\n\n      if (!multiple) {\n
_react2.default.Children.forEach(children,
 function (child) {\n          if (child && value === child.props.value) {\n            if (selectionRenderer) {\n
displayValue = selectionRenderer(value, child);\n            } else {\n              // This will need to be improved (in case
primaryText is a node)\n              displayValue = child.props.label || child.props.primaryText;\n            }\n          }\n
    });\n      } else {\n        var values = [];\n        var selectionRendererChildren = [];\n\n
_react2.default.Children.forEach(children, function (child) {\n          if (child && value &&
value.indexOf(child.props.value) > -1) {\n            if (selectionRenderer) {\n
values.push(child.props.value);\n              selectionRendererChildren.push(child);\n            } else {\n
values.push(child.props.label || child.props.primaryText);\n            }\n          }\n        });\n\n        displayValue =
[];\n\n        if (selectionRenderer) {\n          displayValue
 = selectionRenderer(values, selectionRendererChildren);\n        } else {\n          displayValue = values.join(', ');\n
 }\n      }\n\n      var menuStyle = void 0;\n\n      if (anchorEl && !autoWidth) {\n        menuStyle = (0,
_simpleAssign2.default)({\n          width: anchorEl.clientWidth\n        }, menuStyleProp);\n      } else {\n
menuStyle = menuStyleProp;\n      }\n\n      return _react2.default.createElement('div', (0, _extends3.default)({},
other, {\n        ref: function ref(node) {\n          _this4.rootNode = node;\n        },\n        className: className,\n
style: prepareStyles((0, _simpleAssign2.default)({}, styles.root, open && styles.rootWhenOpen, style))\n      }),
_react2.default.createElement(_ClearFix2.default, {\n        style: styles.control,\n        onClick:
this.handleClickControl\n      }, _react2.default.createElement('div', {\n        style: prepareStyles((0,
_simpleAssign2.default)({}, styles.label, open && styles.labelWhenOpen,
 labelStyle))\n      }, displayValue), _react2.default.createElement(_IconButton2.default, {\n        disabled:
disabled,\n        onKeyDown: this.handleKeyDown,\n        ref: function ref(node) {\n          _this4.arrowNode =
node;\n        },\n        style: (0, _simpleAssign2.default)({}, styles.icon, iconStyle),\n        iconStyle:
styles.iconChildren\n      }, iconButton), _react2.default.createElement('div', {\n        style: prepareStyles((0,
_simpleAssign2.default)({}, styles.underline, underlineStyle))\n      })),
_react2.default.createElement(_Popover2.default, {\n        anchorOrigin: anchorOrigin,\n        targetOrigin:
targetOrigin,\n        anchorEl: anchorEl,\n        animation: animation || _PopoverAnimationVertical2.default,\n
open: open,\n        animated: animated,\n        onRequestClose: this.handleRequestCloseMenu\n      },
_react2.default.createElement(_Menu2.default, {\n        multiple: multiple,\n        maxHeight: maxHeight,\n
desktop: true,\n
        value: value,\n        onEscKeyDown: this.handleEscKeyDownMenu,\n        style: menuStyle,\n        listStyle:
listStyle,\n        onItemClick: this.handleItemClick,\n        onChange: this.handleChange,\n        menuItemStyle:
menuItemStyle,\n        selectedMenuItemStyle: selectedMenuItemStyle,\n        autoWidth: autoWidth,\n        width:
!autoWidth && menuStyle ? menuStyle.width : null\n      }, children)));\n    }\n  }]);\n  return
DropDownMenu;\n}(_react.Component);\n\nDropDownMenu.muiName =
'DropDownMenu';\nDropDownMenu.defaultProps = {\n  animated: true,\n  autoWidth: true,\n  disabled: false,\n
iconButton: _react2.default.createElement(_arrowDropDown2.default, null),\n  openImmediately: false,\n
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maxHeight: 500,\n multiple: false,\n anchorOrigin: {\n   vertical: 'top',\n   horizontal: 'left'\n
}\n};\nDropDownMenu.contextTypes = {\n muiTheme:
_propTypes2.default.object.isRequired\n};\nDropDownMenu.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n /**\n
   * This is the point on the anchor that the popover's\n   * `targetOrigin` will attach to.\n   * Options:\n   * vertical:
[top, center, bottom]\n   * horizontal: [left, middle, right].\n   */\n anchorOrigin: _propTypes4.default.origin,\n\n
/**\n   * If true, the popover will apply transitions when\n   * it gets added to the DOM.\n   */\n animated:
_propTypes2.default.bool,\n\n /**\n   * Override the default animation component used.\n   */\n animation:
_propTypes2.default.func,\n\n /**\n   * The width will automatically be set according to the items inside the
menu.\n   * To control this width in css instead, set this prop to `false`.\n   */\n autoWidth:
_propTypes2.default.bool,\n\n /**\n   * The `MenuItem`s to populate the `Menu` with. If the `MenuItems` have
the\n   * prop `label` that value will be used to render the representation of that\n   * item within the field.\n   */\n
children: _propTypes2.default.node,\n\n /**\n   * The css class name of the root element.\n
 */\n className: _propTypes2.default.string,\n\n /**\n   * Disables the menu.\n   */\n disabled:
_propTypes2.default.bool,\n\n /**\n   * Overrides default `SvgIcon` dropdown arrow component.\n   */\n
iconButton: _propTypes2.default.node,\n\n /**\n   * Overrides the styles of icon element.\n   */\n iconStyle:
_propTypes2.default.object,\n\n /**\n   * Overrides the styles of label when the `DropDownMenu` is inactive.\n
*/\n labelStyle: _propTypes2.default.object,\n\n /**\n   * The style object to use to override underlying list style.\n
*/\n listStyle: _propTypes2.default.object,\n\n /**\n   * The maximum height of the `Menu` when it is displayed.\n
*/\n maxHeight: _propTypes2.default.number,\n\n /**\n   * Override the inline-styles of menu items.\n   */\n
menuItemStyle: _propTypes2.default.object,\n\n /**\n   * Overrides the styles of `Menu` when the
`DropDownMenu` is displayed.\n   */\n menuStyle: _propTypes2.default.object,\n\n /**\n   * If true, `value` must
be
 an array and the menu will support\n   * multiple selections.\n   */\n multiple: _propTypes2.default.bool,\n\n /**\n
* Callback function fired when a menu item is clicked, other than the one currently selected.\n   *\n   * @param
{object} event Click event targeting the menu item that was clicked.\n   * @param {number} key The index of the
clicked menu item in the `children` collection.\n   * @param {any} value If `multiple` is true, the menu's `value`\n
* array with either the menu item's `value` added (if\n   * it wasn't already selected) or omitted (if it was already
selected).\n   * Otherwise, the `value` of the menu item.\n   */\n onChange: _propTypes2.default.func,\n\n /**\n   *
Callback function fired when the menu is closed.\n   */\n onClose: _propTypes2.default.func,\n\n /**\n   * Set to
true to have the `DropDownMenu` automatically open on mount.\n   */\n openImmediately:
_propTypes2.default.bool,\n\n /**\n   * Override the inline-styles of selected menu items.\n
   */\n selectedMenuItemStyle: _propTypes2.default.object,\n\n /**\n   * Callback function fired when a menu item
is clicked, other than the one currently selected.\n   *\n   * @param {any} value If `multiple` is true, the menu's
`value`\n   * array with either the menu item's `value` added (if\n   * it wasn't already selected) or omitted (if it was
already selected).\n   * Otherwise, the `value` of the menu item.\n   * @param {any} menuItem The selected
`MenuItem`.\n   * If `multiple` is true, this will be an array with the `MenuItem`s matching the `value`s parameter.\n
 */\n selectionRenderer: _propTypes2.default.func,\n\n /**\n   * Override the inline-styles of the root element.\n
*/\n style: _propTypes2.default.object,\n\n /**\n   * This is the point on the popover which will attach to\n   * the
anchor's origin.\n   * Options:\n   * vertical: [top, center, bottom]\n   * horizontal: [left, middle, right].\n   */\n
targetOrigin: _propTypes4.default.origin,\n\n /**\n   * Overrides
 the inline-styles of the underline.\n   */\n underlineStyle: _propTypes2.default.object,\n\n /**\n   * If `multiple` is
true, an array of the `value`s of the selected\n   * menu items. Otherwise, the `value` of the selected menu item.\n   *
If provided, the menu will be a controlled component.\n   */\n value: _propTypes2.default.any\n} :
{};\nexports.default = DropDownMenu;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value:
true\n});\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _pure =
require('recompose/pure');\n\nvar _pure2 = _interopRequireDefault(_pure);\n\nvar _SvgIcon =
require('../../SvgIcon');\n\nvar _SvgIcon2 = _interopRequireDefault(_SvgIcon);\n\nfunction

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_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar
NavigationArrowDropDown = function NavigationArrowDropDown(props) {\n  return
_react2.default.createElement(_SvgIcon2.default, props, _react2.default.createElement('path',
 {\n    d: 'M7 10l5 5 5-5z'\n  }));\n};\n\nNavigationArrowDropDown = (0,
_pure2.default)(NavigationArrowDropDown);\nNavigationArrowDropDown.displayName =
'NavigationArrowDropDown';\nNavigationArrowDropDown.muiName = 'SvgIcon';\nexports.default =
NavigationArrowDropDown;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _BeforeAfterWrapper = require('./BeforeAfterWrapper');\n\nvar
_BeforeAfterWrapper2 = _interopRequireDefault(_BeforeAfterWrapper);\n\nfunction
 _interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar styles =
{\n  before: {\n    content: \"' '\",\n    display: 'table'\n  },\n  after: {\n    content: \"' '\",\n    clear: 'both',\n    display:
'table'\n  }\n};\n\nvar ClearFix = function ClearFix(_ref) {\n  var style = _ref.style,\n      children = _ref.children,\n
 other = (0, _objectWithoutProperties3.default)(_ref, ['style', 'children']);\n  return
_react2.default.createElement(_BeforeAfterWrapper2.default, (0, _extends3.default)({}, other, {\n    beforeStyle:
styles.before,\n    afterStyle: styles.after,\n    style: style\n  }), children);\n};\n\nClearFix.muiName =
'ClearFix';\nClearFix.propTypes = process.env.NODE_ENV !== \"production\" ? {\n  children:
_propTypes2.default.node,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object\n} : {};\nexports.default = ClearFix;","'use strict';\n\nObject.defineProperty(exports,
 \"__esModule\", {\n  value: true\n});\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar
 _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule
? obj : {\n    default: obj\n  };\n}\n/**\n *  BeforeAfterWrapper\n *    An alternative for the ::before and ::after css
pseudo-elements for\n *    components whose styles are defined in javascript instead of css.\n *\n *  Usage: For the
element that we want to apply before and after elements to,\n *    wrap its children with BeforeAfterWrapper. For
example:\n *\n *                                            <Paper>\n *  <Paper>                              <div> // See notice\n *
<BeforeAfterWrapper>        renders         <div/> // before element\n *      [children of paper]       ------>
[children of paper]\n *    </BeforeAfterWrapper>
                    <div/> // after element\n *  </Paper>                              </div>\n *
</Paper>\n *\n *  Notice: Notice that this div bundles together our elements. If the element\n *    that we want to
apply before and after elements is a HTML tag (i.e. a\n *    div, p, or button tag), we can avoid this extra nesting by
passing using\n *    the BeforeAfterWrapper in place of said tag like so:\n *\n *  <p>\n *    <BeforeAfterWrapper>
do this instead   <BeforeAfterWrapper elementType='p'>\n *      [children of p]          ------>         [children of p]\n *
```

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</BeforeAfterWrapper>                    </BeforeAfterWrapper>\n *  </p>\n *\n *  BeforeAfterWrapper features spread
functionality. This means that we can\n *  pass HTML tag properties directly into the BeforeAfterWrapper tag.\n *\n
*  When using BeforeAfterWrapper, ensure that the parent of the beforeElement\n *  and afterElement have a
defined style position.\n */\n\n\nvar
 styles = {\n  box: {\n    boxSizing: 'border-box'\n  }\n};\n\nvar BeforeAfterWrapper = function (_Component) {\n
(0, _inherits3.default)(BeforeAfterWrapper, _Component);\n\n  function BeforeAfterWrapper() {\n    (0,
_classCallCheck3.default)(this, BeforeAfterWrapper);\n    return (0, _possibleConstructorReturn3.default)(this,
(BeforeAfterWrapper.__proto__ || (0, _getPrototypeOf2.default)(BeforeAfterWrapper)).apply(this, arguments));\n
}\n\n  (0, _createClass3.default)(BeforeAfterWrapper, [{\n    key: 'render',\n    value: function render() {\n      var
_props = this.props,\n          beforeStyle = _props.beforeStyle,\n          afterStyle = _props.afterStyle,\n
beforeElementType = _props.beforeElementType,\n          afterElementType = _props.afterElementType,\n
elementType = _props.elementType,\n          other = (0, _objectWithoutProperties3.default)(_props, ['beforeStyle',
'afterStyle', 'beforeElementType', 'afterElementType', 'elementType']);\n      var prepareStyles
 = this.context.muiTheme.prepareStyles;\n      var beforeElement = void 0;\n      var afterElement = void 0;\n\n      if
(beforeStyle) {\n        beforeElement = _react2.default.createElement(this.props.beforeElementType, {\n          style:
prepareStyles((0, _simpleAssign2.default)({}, styles.box, beforeStyle)),\n          key: '::before'\n        });\n      }\n\n
if (afterStyle) {\n        afterElement = _react2.default.createElement(this.props.afterElementType, {\n          style:
prepareStyles((0, _simpleAssign2.default)({}, styles.box, afterStyle)),\n          key: '::after'\n        });\n      }\n\n
var children = [beforeElement, this.props.children, afterElement];\n      var props = other;\n      props.style =
prepareStyles((0, _simpleAssign2.default)({}, this.props.style));\n      return
_react2.default.createElement(this.props.elementType, props, children);\n    }\n  }]);\n  return
BeforeAfterWrapper;\n}(_react.Component);\n\nBeforeAfterWrapper.defaultProps
 = {\n  beforeElementType: 'div',\n  afterElementType: 'div',\n  elementType:
'div'\n};\nBeforeAfterWrapper.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nBeforeAfterWrapper.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  afterElementType: _propTypes2.default.string,\n  afterStyle: _propTypes2.default.object,\n
beforeElementType: _propTypes2.default.string,\n  beforeStyle: _propTypes2.default.object,\n  children:
_propTypes2.default.node,\n  elementType: _propTypes2.default.string,\n\n  /**\n   * Override the inline-styles of
the root element.\n   */\n  style: _propTypes2.default.object\n} : {};\nexports.default = BeforeAfterWrapper;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3
 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes
 = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _transitions =
require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nvar _colorManipulator
= require('../utils/colorManipulator');\n\nvar _EnhancedButton = require('../internal/EnhancedButton');\n\nvar
_EnhancedButton2 = _interopRequireDefault(_EnhancedButton);\n\nvar _FontIcon = require('../FontIcon');\n\nvar
_FontIcon2 = _interopRequireDefault(_FontIcon);\n\nvar _Paper = require('../Paper');\n\nvar _Paper2 =
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_interopRequireDefault(_Paper);\n\nvar _childUtils = require('../utils/childUtils');\n\nvar _warning =
require('warning');\n\nvar _warning2 = _interopRequireDefault(_warning);\n\nvar _propTypes3 =
require('../utils/propTypes');\n\nvar _propTypes4 = _interopRequireDefault(_propTypes3);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction
getStyles(props, context) {\n  var floatingActionButton
 = context.muiTheme.floatingActionButton;\n  var backgroundColor = props.backgroundColor ||
floatingActionButton.color;\n  var iconColor = floatingActionButton.iconColor;\n\n  if (props.disabled) {\n
backgroundColor = props.disabledColor || floatingActionButton.disabledColor;\n    iconColor =
floatingActionButton.disabledTextColor;\n  } else if (props.secondary) {\n    backgroundColor =
floatingActionButton.secondaryColor;\n    iconColor = floatingActionButton.secondaryIconColor;\n  }\n\n  return
{\n    root: {\n      transition: _transitions2.default.easeOut(),\n      display: 'inline-block',\n      backgroundColor:
'transparent'\n    },\n    container: {\n      backgroundColor: backgroundColor,\n      transition:
_transitions2.default.easeOut(),\n      height: floatingActionButton.buttonSize,\n      width:
floatingActionButton.buttonSize,\n      padding: 0,\n      overflow: 'hidden',\n      borderRadius: '50%',\n
textAlign: 'center',\n      verticalAlign: 'bottom'\n
    },\n    containerWhenMini: {\n      height: floatingActionButton.miniSize,\n      width:
floatingActionButton.miniSize\n    },\n    overlay: {\n      transition: _transitions2.default.easeOut(),\n      top: 0\n
},\n    overlayWhenHovered: {\n      backgroundColor: (0, _colorManipulator.fade)(iconColor, 0.4)\n    },\n    icon:
{\n      height: floatingActionButton.buttonSize,\n      lineHeight: floatingActionButton.buttonSize + 'px',\n      fill:
iconColor,\n      color: iconColor\n    },\n    iconWhenMini: {\n      height: floatingActionButton.miniSize,\n
lineHeight: floatingActionButton.miniSize + 'px'\n    }\n  };\n}\n\nvar FloatingActionButton = function
(_Component) {\n  (0, _inherits3.default)(FloatingActionButton, _Component);\n\n  function
FloatingActionButton() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this,
FloatingActionButton);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++)
 {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = FloatingActionButton.__proto__ || (0,
_getPrototypeOf2.default)(FloatingActionButton)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n
hovered: false,\n      touch: false,\n      zDepth: undefined\n    }, _this.handleMouseDown = function (event) {\n      //
only listen to left clicks\n      if (event.button === 0) {\n        _this.setState({\n          zDepth: _this.props.zDepth +
1\n        });\n      }\n\n      if (_this.props.onMouseDown) _this.props.onMouseDown(event);\n    },
_this.handleMouseUp = function (event) {\n      _this.setState({\n        zDepth: _this.props.zDepth\n      });\n\n      if
(_this.props.onMouseUp) {\n        _this.props.onMouseUp(event);\n      }\n    }, _this.handleMouseLeave = function
(event) {\n      if (!_this.refs.container.isKeyboardFocused()) {\n        _this.setState({\n          zDepth:
 _this.props.zDepth,\n          hovered: false\n        });\n      }\n\n      if (_this.props.onMouseLeave) {\n
_this.props.onMouseLeave(event);\n      }\n    }, _this.handleMouseEnter = function (event) {\n      if
(!_this.refs.container.isKeyboardFocused() && !_this.state.touch) {\n        _this.setState({\n          hovered: true\n
 });\n      }\n\n      if (_this.props.onMouseEnter) {\n        _this.props.onMouseEnter(event);\n      }\n    },
_this.handleTouchStart = function (event) {\n      _this.setState({\n        touch: true,\n        zDepth:
_this.props.zDepth + 1\n      });\n\n      if (_this.props.onTouchStart) {\n        _this.props.onTouchStart(event);\n
}\n    }, _this.handleTouchEnd = function (event) {\n      _this.setState({\n        touch: true,\n        zDepth:
_this.props.zDepth\n      });\n\n      if (_this.props.onTouchEnd) {\n        _this.props.onTouchEnd(event);\n      }\n
}, _this.handleKeyboardFocus = function (event, keyboardFocused)
 {\n      if (keyboardFocused && !_this.props.disabled) {\n        _this.setState({\n          zDepth: _this.props.zDepth +
1\n        });\n\n        _this.refs.overlay.style.backgroundColor = (0, _colorManipulator.fade)(getStyles(_this.props,
_this.context).icon.color, 0.4);\n      } else if (!_this.state.hovered) {\n        _this.setState({\n          zDepth:
_this.props.zDepth\n        });\n\n        _this.refs.overlay.style.backgroundColor = 'transparent';\n      }\n    }, _temp),
(0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(FloatingActionButton, [{\n
  key: 'componentWillMount',\n    value: function componentWillMount() {\n      this.setState({\n        zDepth:
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this.props.disabled ? 0 : this.props.zDepth\n });\n }\n }, {\n key: 'componentDidMount',\n value: function componentDidMount() {\n process.env.NODE_ENV !== \"production\" ? (0, _warning2.default)(!this.props.iconClassName || !this.props.children, 'Material-UI:
You have set both an iconClassName and a child icon. ' + 'It is recommended you use only one method when adding ' + 'icons to FloatingActionButtons.') : void 0;\n }\n }, {\n key: 'componentWillReceiveProps',\n value: function componentWillReceiveProps(nextProps) {\n var nextState = {};\n\n if (nextProps.disabled !== this.props.disabled) {\n nextState.zDepth = nextProps.disabled ? 0 : this.props.zDepth;\n }\n\n if (nextProps.disabled) {\n nextState.hovered = false;\n }\n\n this.setState(nextState);\n }\n }, {\n key: 'render',\n value: function render() {\n var _props = this.props,\n backgroundColor = _props.backgroundColor,\n className = _props.className,\n childrenProp = _props.children,\n disabled = _props.disabled,\n disabledColor = _props.disabledColor,\n mini = _props.mini,\n secondary = _props.secondary,\n iconStyle = _props.iconStyle,\n
iconClassName = _props.iconClassName,\n zDepth = _props.zDepth,\n other = (0, _objectWithoutProperties3.default)(_props, ['backgroundColor', 'className', 'children', 'disabled', 'disabledColor', 'mini', 'secondary', 'iconStyle', 'iconClassName', 'zDepth']);\n var prepareStyles = this.context.muiTheme.prepareStyles;\n var styles = getStyles(this.props, this.context);\n var iconElement = void 0;\n\n if (iconClassName) {\n iconElement = _react2.default.createElement(_FontIcon2.default, {\n className: iconClassName,\n style: (0, _simpleAssign2.default)({}, styles.icon, mini && styles.iconWhenMini, iconStyle)\n });\n }\n\n var children = void 0;\n\n if (childrenProp) {\n children = (0, _childUtils.extendChildren)(childrenProp, function (child) {\n return {\n style: (0, _simpleAssign2.default)({}, styles.icon, mini && styles.iconWhenMini, iconStyle, child.props.style)\n
};\n });\n }\n\n var buttonEventHandlers = disabled ? null : {\n onMouseDown: this.handleMouseDown,\n onMouseUp: this.handleMouseUp,\n onMouseLeave: this.handleMouseLeave,\n onMouseEnter: this.handleMouseEnter,\n onTouchStart: this.handleTouchStart,\n onTouchEnd: this.handleTouchEnd,\n onKeyboardFocus: this.handleKeyboardFocus\n };\n return _react2.default.createElement(_Paper2.default, {\n className: className,\n style: (0, _simpleAssign2.default)(styles.root, this.props.style),\n zDepth: this.state.zDepth,\n circle: true\n }, _react2.default.createElement(_EnhancedButton2.default, (0, _extends3.default)({}, other, buttonEventHandlers, {\n ref: 'container',\n disabled: disabled,\n style: (0, _simpleAssign2.default)(styles.container, this.props.mini && styles.containerWhenMini, iconStyle),\n focusRippleColor: styles.icon.color,\n touchRippleColor:
styles.icon.color\n }), _react2.default.createElement('div', {\n ref: 'overlay',\n style: prepareStyles((0, _simpleAssign2.default)(styles.overlay, this.state.hovered && !this.props.disabled && styles.overlayWhenHovered))\n }, iconElement, children)));\n }\n }]);\n return FloatingActionButton;\n}(_react.Component);\n\nFloatingActionButton.defaultProps = {\n disabled: false,\n mini: false,\n secondary: false,\n zDepth: 2\n};\nFloatingActionButton.contextTypes = {\n muiTheme: _propTypes2.default.object.isRequired\n};\nFloatingActionButton.propTypes = process.env.NODE_ENV !== \"production\" ? {\n /**\n * This value will override the default background color for the button.\n * However it will not override the default disabled background color.\n * This has to be set separately using the disabledColor attribute.\n */\n backgroundColor: _propTypes2.default.string,\n\n /**\n * This is what displayed inside the floating action button;
for example, a SVG Icon.\n */\n children: _propTypes2.default.node,\n\n /**\n * The css class name of the root element.\n */\n className: _propTypes2.default.string,\n\n /**\n * Disables the button if set to true.\n */\n disabled: _propTypes2.default.bool,\n\n /**\n * This value will override the default background color for the button when it is disabled.\n */\n disabledColor: _propTypes2.default.string,\n\n /**\n * The URL to link to when the button is clicked.\n */\n href: _propTypes2.default.string,\n\n /**\n * The icon within the FloatingActionButton is a FontIcon component.\n * This property is the classname of the icon to be displayed inside the button.\n * An alternative to adding an iconClassName would be to manually insert a\n * FontIcon

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component or custom SvgIcon component or as a child of FloatingActionButton.\n   */\n  iconClassName:
_propTypes2.default.string,\n\n  /**\n   * This is the equivalent to iconClassName except that it is used
 for\n   * overriding the inline-styles of the FontIcon component.\n   */\n  iconStyle: _propTypes2.default.object,\n\n
/**\n   * If true, the button will be a small floating action button.\n   */\n  mini: _propTypes2.default.bool,\n\n  /**\n
* Callback function fired when the button is clicked.\n   *\n   * @param {object} event Click event targeting the
button.\n   */\n  onClick: _propTypes2.default.func,\n\n  /** @ignore */\n  onMouseDown:
_propTypes2.default.func,\n\n  /** @ignore */\n  onMouseEnter: _propTypes2.default.func,\n\n  /** @ignore */\n
onMouseLeave: _propTypes2.default.func,\n\n  /** @ignore */\n  onMouseUp: _propTypes2.default.func,\n\n  /**
@ignore */\n  onTouchEnd: _propTypes2.default.func,\n\n  /** @ignore */\n  onTouchStart:
_propTypes2.default.func,\n\n  /**\n   * If true, the button will use the secondary button colors.\n   */\n  secondary:
_propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object,\n\n
  /**\n   * The zDepth of the underlying `Paper` component.\n   */\n  zDepth: _propTypes4.default.zDepth\n} :
{};\nexports.default = FloatingActionButton;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n
value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2
 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props) {\n  return {\n    root: {\n      display:
'flex',\n      flexWrap: 'wrap',\n      margin: -props.padding / 2\n    },\n    item: {\n      boxSizing: 'border-box',\n
padding: props.padding / 2\n    }\n  };\n}\n\nvar GridList = function (_Component) {\n  (0,
_inherits3.default)(GridList,
 _Component);\n\n  function GridList() {\n    (0, _classCallCheck3.default)(this, GridList);\n    return (0,
_possibleConstructorReturn3.default)(this, (GridList.__proto__ || (0,
_getPrototypeOf2.default)(GridList)).apply(this, arguments));\n  }\n\n  (0, _createClass3.default)(GridList, [{\n
key: 'render',\n    value: function render() {\n      var _props = this.props,\n          cols = _props.cols,\n          padding
= _props.padding,\n          cellHeight = _props.cellHeight,\n          children = _props.children,\n          style =
_props.style,\n          other = (0, _objectWithoutProperties3.default)(_props, ['cols', 'padding', 'cellHeight', 'children',
'style']);\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props,
this.context);\n      var mergedRootStyles = (0, _simpleAssign2.default)(styles.root, style);\n\n      var
wrappedChildren = _react2.default.Children.map(children, function (currentChild) {\n        if
 (_react2.default.isValidElement(currentChild) && currentChild.type.muiName === 'Subheader') {\n          return
currentChild;\n        }\n\n        var childCols = currentChild.props.cols || 1;\n        var childRows =
currentChild.props.rows || 1;\n        var itemStyle = (0, _simpleAssign2.default)({}, styles.item, {\n          width: 100
/ cols * childCols + '%',\n          height: cellHeight === 'auto' ? 'auto' : cellHeight * childRows + padding\n        });\n
     return _react2.default.createElement('div', {\n          style: prepareStyles(itemStyle)\n        }, currentChild);\n
});\n\n      return _react2.default.createElement('div', (0, _extends3.default)({\n        style:
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prepareStyles(mergedRootStyles)\n      }, other), wrappedChildren);\n    }\n  }]);\n  return
GridList;\n}(_react.Component);\n\nGridList.defaultProps = {\n  cols: 2,\n  padding: 4,\n  cellHeight:
180\n};\nGridList.contextTypes = {\n  muiTheme: _propTypes2.default.object.isRequired\n};\nGridList.propTypes
 = process.env.NODE_ENV !== \"production\" ? {\n  /**\n   * Number of px for one cell height.\n   * You can set
`'auto'` if you want to let the children determine the height.\n   */\n  cellHeight:
_propTypes2.default.oneOfType([_propTypes2.default.number, _propTypes2.default.oneOf(['auto'])]),\n\n  /**\n   *
Grid Tiles that will be in Grid List.\n   */\n  children: _propTypes2.default.node,\n\n  /**\n   * Number of columns.\n
 */\n  cols: _propTypes2.default.number,\n\n  /**\n   * Number of px for the padding/spacing between items.\n   */\n
padding: _propTypes2.default.number,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object\n} : {};\nexports.default = GridList;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3
= _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar
 _objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2
 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-dom');\n\nvar _reactDom2 =
_interopRequireDefault(_reactDom);\n\nvar _events = require('../utils/events');\n\nvar _events2 =
_interopRequireDefault(_events);\n\nvar _propTypes3 = require('../utils/propTypes');\n\nvar _propTypes4 =
_interopRequireDefault(_propTypes3);\n\nvar _Menu = require('../Menu/Menu');\n\nvar _Menu2 =
_interopRequireDefault(_Menu);\n\nvar _Popover = require('../Popover/Popover');\n\nvar _Popover2 =
_interopRequireDefault(_Popover);\n\nvar _warning = require('warning');\n\nvar _warning2 =
_interopRequireDefault(_warning);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nvar IconMenu = function (_Component) {\n  (0, _inherits3.default)(IconMenu,
_Component);\n\n  function IconMenu() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n
    (0, _classCallCheck3.default)(this, IconMenu);\n\n    for (var _len = arguments.length, args = Array(_len), _key =
0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = IconMenu.__proto__ || (0,
_getPrototypeOf2.default)(IconMenu)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n
menuInitiallyKeyboardFocused: false,\n      open: false\n    }, _this.handleItemClick = function (event, child) {\n
if (_this.props.clickCloseDelay !== 0 && !child.props.hasOwnProperty('menuItems')) {\n        var isKeyboard =
_events2.default.isKeyboard(event);\n\n        _this.timerCloseId = setTimeout(function () {\n
_this.close(isKeyboard ? 'enter' : 'itemTap', isKeyboard);\n        }, _this.props.clickCloseDelay);\n      }\n\n
_this.props.onItemClick(event, child);\n    }, _this.handleRequestClose = function (reason) {\n
_this.close(reason);\n
  }, _this.handleEscKeyDownMenu = function (event) {\n      _this.close('escape', event);\n    }, _temp), (0,
_possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(IconMenu, [{\n    key:
'componentWillReceiveProps',\n    value: function componentWillReceiveProps(nextProps) {\n      if
(nextProps.open != null) {\n        this.setState({\n          open: nextProps.open,\n          anchorEl:
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this.refs.iconMenuContainer\n        });\n      }\n    }\n  }, {\n    key: 'componentWillUnmount',\n    value: function
componentWillUnmount() {\n      clearTimeout(this.timerCloseId);\n    }\n  }, {\n    key: 'isOpen',\n    value:
function isOpen() {\n      return this.state.open;\n    }\n  }, {\n    key: 'close',\n    value: function close(reason,
isKeyboard) {\n      var _this2 = this;\n\n      if (!this.state.open) {\n        return;\n      }\n\n      if (this.props.open !==
null) {\n        this.props.onRequestChange(false, reason);\n      } else {\n        this.setState({\n
          open: false\n        }, function () {\n          // Set focus on the icon button when the menu close\n          if
(isKeyboard) {\n            var iconButton = _this2.refs.iconButton;\n\n
_reactDom2.default.findDOMNode(iconButton).focus();\n\n            iconButton.setKeyboardFocus();\n          }\n
});\n      }\n    }\n  }, {\n    key: 'open',\n    value: function open(reason, event) {\n      if (this.props.open !== null) {\n
      this.props.onRequestChange(true, reason);\n        return this.setState({\n          menuInitiallyKeyboardFocused:
_events2.default.isKeyboard(event),\n          anchorEl: event.currentTarget\n        });\n      }\n\n      this.setState({\n
   open: true,\n        menuInitiallyKeyboardFocused: _events2.default.isKeyboard(event),\n        anchorEl:
event.currentTarget\n      });\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var _this3 = this;\n\n
var _props = this.props,\n
 anchorOrigin = _props.anchorOrigin,\n          className = _props.className,\n          animated =
_props.animated,\n          animation = _props.animation,\n          iconButtonElement = _props.iconButtonElement,\n
       iconStyle = _props.iconStyle,\n          onItemClick = _props.onItemClick,\n          onKeyboardFocus =
_props.onKeyboardFocus,\n          onMouseDown = _props.onMouseDown,\n          onMouseLeave =
_props.onMouseLeave,\n          onMouseEnter = _props.onMouseEnter,\n          onMouseUp =
_props.onMouseUp,\n          onRequestChange = _props.onRequestChange,\n          onClick = _props.onClick,\n
 listStyle = _props.listStyle,\n          menuStyle = _props.menuStyle,\n          style = _props.style,\n          targetOrigin
= _props.targetOrigin,\n          clickCloseDelay = _props.clickCloseDelay,\n          useLayerForClickAway =
_props.useLayerForClickAway,\n          other = (0, _objectWithoutProperties3.default)(_props, ['anchorOrigin',
'className', 'animated',
 'animation', 'iconButtonElement', 'iconStyle', 'onItemClick', 'onKeyboardFocus', 'onMouseDown', 'onMouseLeave',
'onMouseEnter', 'onMouseUp', 'onRequestChange', 'onClick', 'listStyle', 'menuStyle', 'style', 'targetOrigin',
'clickCloseDelay', 'useLayerForClickAway']);\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n
var _state = this.state,\n          open = _state.open,\n          anchorEl = _state.anchorEl;\n      var styles = {\n        root:
{\n          display: 'inline-block',\n          position: 'relative'\n        },\n        menu: {\n          position: 'relative'\n
}\n      };\n      var mergedRootStyles = (0, _simpleAssign2.default)(styles.root, style);\n      var mergedMenuStyles =
(0, _simpleAssign2.default)(styles.menu, menuStyle);\n      process.env.NODE_ENV !== \"production\" ? (0,
_warning2.default)(iconButtonElement.type.muiName !== 'SvgIcon', 'Material-UI: You shoud not provide an
<SvgIcon /> to the \\'iconButtonElement\\' property
 of <IconMenu />.\\nYou should wrapped it with an <IconButton />.') : void 0;\n      var iconButtonProps = {\n
onKeyboardFocus: onKeyboardFocus,\n        onClick: function onClick(event) {\n
_this3.open(_events2.default.isKeyboard(event) ? 'keyboard' : 'iconTap', event);\n\n          if
(iconButtonElement.props.onClick) {\n            iconButtonElement.props.onClick(event);\n          }\n        },\n
ref: 'iconButton'\n      };\n\n      if (iconStyle || iconButtonElement.props.iconStyle) {\n
iconButtonProps.iconStyle = iconStyle ? (0, _simpleAssign2.default)({}, iconStyle,
iconButtonElement.props.iconStyle) : iconButtonElement.props.iconStyle;\n      }\n\n      var iconButton =
_react2.default.cloneElement(iconButtonElement, iconButtonProps);\n\n      var menu =
_react2.default.createElement(_Menu2.default, (0, _extends3.default)({}, other, {\n        initiallyKeyboardFocused:
this.state.menuInitiallyKeyboardFocused,\n        onEscKeyDown: this.handleEscKeyDownMenu,\n
        onItemClick: this.handleItemClick,\n        style: mergedMenuStyles,\n        listStyle: listStyle\n      }),
this.props.children);\n\n      return _react2.default.createElement('div', {\n        ref: 'iconMenuContainer',\n
className: className,\n        onMouseDown: onMouseDown,\n        onMouseLeave: onMouseLeave,\n
onMouseEnter: onMouseEnter,\n        onMouseUp: onMouseUp,\n        onClick: onClick,\n        style:
prepareStyles(mergedRootStyles)\n      }, iconButton, _react2.default.createElement(_Popover2.default, {\n
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anchorOrigin: anchorOrigin,\n   targetOrigin: targetOrigin,\n   open: open,\n   anchorEl: anchorEl,\n   childContextTypes: this.constructor.childContextTypes,\n   useLayerForClickAway: useLayerForClickAway,\n   onRequestClose: this.handleRequestClose,\n   animated: animated,\n   animation: animation,\n   context: this.context\n   }, menu));\n   }\n }]);\n return IconMenu;\n}(_react.Component);\n\nIconMenu.muiName = 'IconMenu';\nIconMenu.defaultProps = {\n anchorOrigin: {\n   vertical: 'top',\n   horizontal: 'left'\n },\n animated: true,\n multiple: false,\n open: null,\n onItemClick: function onItemClick() {},\n onKeyboardFocus: function onKeyboardFocus() {},\n onMouseDown: function onMouseDown() {},\n onMouseLeave: function onMouseLeave() {},\n onMouseEnter: function onMouseEnter() {},\n onMouseUp: function onMouseUp() {},\n onRequestChange: function onRequestChange() {},\n onClick: function onClick() {},\n targetOrigin: {\n   vertical: 'top',\n   horizontal: 'left'\n },\n clickCloseDelay: 200,\n useLayerForClickAway: false\n};\nIconMenu.contextTypes = {\n muiTheme: _propTypes2.default.object.isRequired\n};\nIconMenu.propTypes = process.env.NODE_ENV !== \"production\" ? {\n /**\n   * This is the point on the icon where the menu\n   * `targetOrigin` will attach.\n   * Options:\n   * vertical: [top, center, bottom]\n   * horizontal: [left, middle, right].\n   */\n anchorOrigin: _propTypes4.default.origin,\n\n /**\n   * If true, the popover will apply transitions when\n   * it gets added to the DOM.\n   */\n animated: _propTypes2.default.bool,\n\n /**\n   * Override the default animation component used.\n   */\n animation: _propTypes2.default.func,\n\n /**\n   * Should be used to pass `MenuItem` components.\n   */\n children: _propTypes2.default.node,\n\n /**\n   * The CSS class name of the root element.\n   */\n className: _propTypes2.default.string,\n\n /**\n   * Sets the delay in milliseconds before closing the\n   * menu when an item is clicked.\n   * If set to 0 then the auto close functionality\n   * will be disabled.\n   */\n clickCloseDelay: _propTypes2.default.number,\n\n /**\n   * This is the `IconButton` to render. This button will open the menu.\n   */\n iconButtonElement: _propTypes2.default.element.isRequired,\n\n /**\n   * Override the inline-styles of the underlying icon element.\n   */\n iconStyle: _propTypes2.default.object,\n\n /**\n   * Override the inline-styles of the underlying `List` element.\n   */\n listStyle: _propTypes2.default.object,\n\n /**\n   * Override the inline-styles of the menu element.\n   */\n menuStyle: _propTypes2.default.object,\n\n /**\n   * If true, the value can an be array and allow the menu to be a multi-select.\n   */\n multiple: _propTypes2.default.bool,\n\n /**\n   * Callback function fired when the `IconButton` element is clicked.\n   *\n   * @param {object} event Click event targeting the `IconButton` element.\n   */\n onClick: _propTypes2.default.func,\n\n /**\n   * Callback function fired when a menu item is selected with a click.\n   *\n   * @param {object} event Click event targeting the selected menu item element.\n   * @param {object} child The selected element.\n   */\n onItemClick: _propTypes2.default.func,\n\n /**\n   * Callback function fired when the `IconButton` element is focused or blurred by the keyboard.\n   *\n   * @param {object} event `focus` or `blur` event targeting the `IconButton` element.\n   * @param {boolean} keyboardFocused If true, the `IconButton` element is focused.\n   */\n onKeyboardFocus: _propTypes2.default.func,\n\n /** @ignore */\n onMouseDown: _propTypes2.default.func,\n\n /** @ignore */\n onMouseEnter: _propTypes2.default.func,\n\n /** @ignore */\n onMouseLeave: _propTypes2.default.func,\n\n /** @ignore */\n onMouseUp: _propTypes2.default.func,\n\n /**\n   * Callback function fired when the `open` state of the menu is requested to be changed.\n   *\n   * @param {boolean} open If true, the menu was requested to be opened.\n   * @param {string} reason The reason for the open or close request. Possible values are\n   * 'keyboard' and 'iconTap' for open requests; 'enter', 'escape', 'itemTap', and 'clickAway'\n   * for close requests.\n   */\n onRequestChange: _propTypes2.default.func,\n\n /**\n   * If true, the `IconMenu` is opened.\n   */\n open: _propTypes2.default.bool,\n\n /**\n   * Override the inline-styles of the root element.\n   */\n style: _propTypes2.default.object,\n\n /**\n   * This is the point on the menu which will stick to the menu\n   * origin.\n   * Options:\n   * vertical: [top, center, bottom]\n   * horizontal: [left, middle, right].\n   */\n targetOrigin: _propTypes4.default.origin,\n\n /**\n   * If true, the popover will render on top of an invisible\n   * layer, which will prevent clicks to the underlying elements.\n   */\n useLayerForClickAway: _propTypes2.default.bool\n} : {};\nexports.default = IconMenu;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _extends2 = require('babel-

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runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf
 = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar
 _transitions = require('../styles/transitions');\n\nvar _transitions2 =
_interopRequireDefault(_transitions);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule
? obj : {\n    default: obj\n  };\n}\n\nfunction getRelativeValue(value, min, max) {\n  var clampedValue =
Math.min(Math.max(min, value), max);\n  var rangeValue = max - min;\n  var relValue =
Math.round((clampedValue - min) / rangeValue * 10000) / 10000;\n  return relValue * 100;\n}\n\nfunction
getStyles(props, context) {\n  var max = props.max,\n      min = props.min,\n      value = props.value;\n  var
_context$muiTheme = context.muiTheme,\n      palette = _context$muiTheme.baseTheme.palette,\n
borderRadius = _context$muiTheme.borderRadius;\n  var styles = {\n    root: {\n      position: 'relative',\n      height:
4,\n      display: 'block',\n      width: '100%',\n      backgroundColor: palette.primary3Color,\n      borderRadius:
borderRadius,\n      margin: 0,\n      overflow: 'hidden'\n
    },\n    bar: {\n      height: '100%'\n    },\n    barFragment1: {},\n    barFragment2: {}\n  };\n\n  if (props.mode ===
'indeterminate') {\n    styles.barFragment1 = {\n      position: 'absolute',\n      backgroundColor: props.color ||
palette.primary1Color,\n      top: 0,\n      left: 0,\n      bottom: 0,\n      transition: _transitions2.default.create('all',
'840ms', null, 'cubic-bezier(0.650, 0.815, 0.735, 0.395)')\n    };\n    styles.barFragment2 = {\n      position:
'absolute',\n      backgroundColor: props.color || palette.primary1Color,\n      top: 0,\n      left: 0,\n      bottom: 0,\n
transition: _transitions2.default.create('all', '840ms', null, 'cubic-bezier(0.165, 0.840, 0.440, 1.000)')\n    };\n  } else
{\n    styles.bar.backgroundColor = props.color || palette.primary1Color;\n    styles.bar.transition =
_transitions2.default.create('width', '.3s', null, 'linear');\n    styles.bar.width = getRelativeValue(value, min, max) +
'%';\n  }\n\n  return styles;\n}\n\nvar
 LinearProgress = function (_Component) {\n  (0, _inherits3.default)(LinearProgress, _Component);\n\n  function
LinearProgress() {\n    (0, _classCallCheck3.default)(this, LinearProgress);\n    return (0,
_possibleConstructorReturn3.default)(this, (LinearProgress.__proto__ || (0,
_getPrototypeOf2.default)(LinearProgress)).apply(this, arguments));\n  }\n\n  (0,
_createClass3.default)(LinearProgress, [{\n    key: 'componentDidMount',\n    value: function
componentDidMount() {\n      var _this2 = this;\n\n      this.timers = {};\n      this.timers.bar1 = this.barUpdate('bar1',
0, this.refs.bar1, [[-35, 100], [100, -90]], 0);\n      this.timers.bar2 = setTimeout(function () {\n
_this2.barUpdate('bar2', 0, _this2.refs.bar2, [[-200, 100], [107, -8]], 0);\n      }, 850);\n    }\n  }, {\n    key:
'componentWillUnmount',\n    value: function componentWillUnmount() {\n      clearTimeout(this.timers.bar1);\n
clearTimeout(this.timers.bar2);\n    }\n  }, {\n    key: 'barUpdate',\n    value:
 function barUpdate(id, step, barElement, stepValues, timeToNextStep) {\n      var _this3 = this;\n\n      if
(this.props.mode !== 'indeterminate') return;\n      timeToNextStep = timeToNextStep || 420;\n      step = step || 0;\n
  step %= 4;\n      var right = this.context.muiTheme.isRtl ? 'left' : 'right';\n      var left = this.context.muiTheme.isRtl
? 'right' : 'left';\n\n      if (step === 0) {\n        barElement.style[left] = stepValues[0][0] + '%';\n
barElement.style[right] = stepValues[0][1] + '%';\n      } else if (step === 1) {\n
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barElement.style.transitionDuration = '840ms';\n      } else if (step === 2) {\n        barElement.style[left] =
stepValues[1][0] + '%';\n        barElement.style[right] = stepValues[1][1] + '%';\n      } else if (step === 3) {\n
barElement.style.transitionDuration = '0ms';\n      }\n\n      this.timers[id] = setTimeout(function () {\n        return
_this3.barUpdate(id, step + 1, barElement, stepValues);\n      }, timeToNextStep);\n
    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var _props = this.props,\n          style =
_props.style,\n          other = (0, _objectWithoutProperties3.default)(_props, ['style']);\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n      return
_react2.default.createElement('div', (0, _extends3.default)({}, other, {\n        style: prepareStyles((0,
_simpleAssign2.default)(styles.root, style))\n      }), _react2.default.createElement('div', {\n        style:
prepareStyles(styles.bar)\n      }, _react2.default.createElement('div', {\n        ref: 'bar1',\n        style:
prepareStyles(styles.barFragment1)\n      }), _react2.default.createElement('div', {\n        ref: 'bar2',\n        style:
prepareStyles(styles.barFragment2)\n      })));\n    }\n  }]);\n  return
LinearProgress;\n}(_react.Component);\n\nLinearProgress.defaultProps = {\n  mode: 'indeterminate',\n  value: 0,\n
min:
 0,\n  max: 100\n};\nLinearProgress.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nLinearProgress.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  /**\n   * The color of the progress bar, defaults to\n   * primary color of theme.\n   */\n  color:
_propTypes2.default.string,\n\n  /**\n   * The max value of progress, only works in determinate mode.\n   */\n  max:
_propTypes2.default.number,\n\n  /**\n   * The min value of progress, only works in determinate mode.\n   */\n
min: _propTypes2.default.number,\n\n  /**\n   * The mode of show your progress, indeterminate for when\n   *
there is no value for progress.\n   */\n  mode: _propTypes2.default.oneOf(['determinate', 'indeterminate']),\n\n  /**\n
* Override the inline-styles of the root element.\n   */\n  style: _propTypes2.default.object,\n\n  /**\n   * The value
of progress, only works in determinate mode.\n   */\n  value: _propTypes2.default.number\n} : {};\nexports.default
= LinearProgress;","'use
 strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _toConsumableArray2 =
require('babel-runtime/helpers/toConsumableArray');\n\nvar _toConsumableArray3 =
_interopRequireDefault(_toConsumableArray2);\n\nexports.default = getMuiTheme;\n\nvar _lodash =
require('lodash.merge');\n\nvar _lodash2 = _interopRequireDefault(_lodash);\n\nvar _colorManipulator =
require('../utils/colorManipulator');\n\nvar _lightBaseTheme = require('./baseThemes/lightBaseTheme');\n\nvar
_lightBaseTheme2 = _interopRequireDefault(_lightBaseTheme);\n\nvar _zIndex = require('./zIndex');\n\nvar
_zIndex2 = _interopRequireDefault(_zIndex);\n\nvar _autoprefixer = require('../utils/autoprefixer');\n\nvar
_autoprefixer2 = _interopRequireDefault(_autoprefixer);\n\nvar _callOnce = require('../utils/callOnce');\n\nvar
_callOnce2 = _interopRequireDefault(_callOnce);\n\nvar _rtl = require('../utils/rtl');\n\nvar _rtl2 =
_interopRequireDefault(_rtl);\n\nvar _compose = require('recompose/compose');\n\nvar
 _compose2 = _interopRequireDefault(_compose);\n\nvar _typography = require('./typography');\n\nvar
_typography2 = _interopRequireDefault(_typography);\n\nvar _colors = require('./colors');\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n/**\n * Get the
MUI theme corresponding to a base theme.\n * It's possible to override the computed theme values\n * by providing
a second argument. The calculated\n * theme will be deeply merged with the second argument.\n */\n\nfunction
getMuiTheme(muiTheme) {\n  for (var _len = arguments.length, more = Array(_len > 1 ? _len - 1 : 0), _key = 1;
_key < _len; _key++) {\n    more[_key - 1] = arguments[_key];\n  }\n\n  muiTheme =
_lodash2.default.apply(undefined, [{\n    zIndex: _zIndex2.default,\n    isRtl: false,\n    userAgent: undefined\n  },
_lightBaseTheme2.default, muiTheme].concat(more));\n  var _muiTheme = muiTheme,\n      spacing =
_muiTheme.spacing,\n      fontFamily
 = _muiTheme.fontFamily,\n      palette = _muiTheme.palette;\n  var baseTheme = {\n    spacing: spacing,\n
fontFamily: fontFamily,\n    palette: palette\n  };\n  muiTheme = (0, _lodash2.default)({\n    appBar: {\n      color:
palette.primary1Color,\n      textColor: palette.alternateTextColor,\n      height: spacing.desktopKeylineIncrement,\n
   titleFontWeight: _typography2.default.fontWeightNormal,\n      padding: spacing.desktopGutter\n    },\n    avatar:
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{\n      color: palette.canvasColor,\n      backgroundColor: (0, _colorManipulator.emphasize)(palette.canvasColor,
0.26)\n    },\n    badge: {\n      color: palette.alternateTextColor,\n      textColor: palette.textColor,\n
primaryColor: palette.primary1Color,\n      primaryTextColor: palette.alternateTextColor,\n      secondaryColor:
palette.accent1Color,\n      secondaryTextColor: palette.alternateTextColor,\n      fontWeight:
_typography2.default.fontWeightMedium\n    },\n    bottomNavigation: {\n      backgroundColor:
 palette.canvasColor,\n      unselectedColor: (0, _colorManipulator.fade)(palette.textColor, 0.54),\n      selectedColor:
palette.primary1Color,\n      height: 56,\n      unselectedFontSize: 12,\n      selectedFontSize: 14\n    },\n    button: {\n
    height: 36,\n      minWidth: 88,\n      iconButtonSize: spacing.iconSize * 2\n    },\n    card: {\n      titleColor: (0,
_colorManipulator.fade)(palette.textColor, 0.87),\n      subtitleColor: (0, _colorManipulator.fade)(palette.textColor,
0.54),\n      fontWeight: _typography2.default.fontWeightMedium\n    },\n    cardMedia: {\n      color:
_colors.darkWhite,\n      overlayContentBackground: _colors.lightBlack,\n      titleColor: _colors.darkWhite,\n
subtitleColor: _colors.lightWhite\n    },\n    cardText: {\n      textColor: palette.textColor\n    },\n    checkbox: {\n
boxColor: palette.textColor,\n      checkedColor: palette.primary1Color,\n      requiredColor:
palette.primary1Color,\n      disabledColor: palette.disabledColor,\n
      labelColor: palette.textColor,\n      labelDisabledColor: palette.disabledColor\n    },\n    chip: {\n
backgroundColor: (0, _colorManipulator.emphasize)(palette.canvasColor, 0.12),\n      deleteIconColor: (0,
_colorManipulator.fade)(palette.textColor, 0.26),\n      textColor: (0, _colorManipulator.fade)(palette.textColor,
0.87),\n      fontSize: 14,\n      fontWeight: _typography2.default.fontWeightNormal,\n      shadow: '0 1px 6px ' + (0,
_colorManipulator.fade)(palette.shadowColor, 0.12) + ',\\n        0 1px 4px ' + (0,
_colorManipulator.fade)(palette.shadowColor, 0.12)\n    },\n    datePicker: {\n      color: palette.primary1Color,\n
textColor: palette.alternateTextColor,\n      calendarTextColor: palette.textColor,\n      selectColor:
palette.primary2Color,\n      selectTextColor: palette.alternateTextColor,\n      calendarYearBackgroundColor:
palette.canvasColor,\n      headerColor: palette.pickerHeaderColor || palette.primary1Color\n    },\n    dialog: {\n
      titleFontSize: 22,\n      bodyFontSize: 16,\n      bodyColor: (0, _colorManipulator.fade)(palette.textColor, 0.6)\n
},\n    dropDownMenu: {\n      accentColor: palette.borderColor\n    },\n    enhancedButton: {\n
tapHighlightColor: _colors.transparent\n    },\n    flatButton: {\n      color: _colors.transparent,\n
buttonFilterColor: '#999999',\n      disabledTextColor: (0, _colorManipulator.fade)(palette.textColor, 0.3),\n
textColor: palette.textColor,\n      primaryTextColor: palette.primary1Color,\n      secondaryTextColor:
palette.accent1Color,\n      fontSize: _typography2.default.fontStyleButtonFontSize,\n      fontWeight:
_typography2.default.fontWeightMedium\n    },\n    floatingActionButton: {\n      buttonSize: 56,\n      miniSize:
40,\n      color: palette.primary1Color,\n      iconColor: palette.alternateTextColor,\n      secondaryColor:
palette.accent1Color,\n      secondaryIconColor: palette.alternateTextColor,\n      disabledTextColor:
palette.disabledColor,\n
      disabledColor: (0, _colorManipulator.emphasize)(palette.canvasColor, 0.12)\n    },\n    gridTile: {\n
textColor: _colors.white\n    },\n    icon: {\n      color: palette.canvasColor,\n      backgroundColor:
palette.primary1Color\n    },\n    inkBar: {\n      backgroundColor: palette.accent1Color\n    },\n    drawer: {\n
width: spacing.desktopKeylineIncrement * 4,\n      color: palette.canvasColor\n    },\n    listItem: {\n
nestedLevelDepth: 18,\n      secondaryTextColor: palette.secondaryTextColor,\n      leftIconColor:
_colors.grey600,\n      rightIconColor: _colors.grey600\n    },\n    menu: {\n      backgroundColor:
palette.canvasColor,\n      containerBackgroundColor: palette.canvasColor\n    },\n    menuItem: {\n      dataHeight:
32,\n      height: 48,\n      hoverColor: (0, _colorManipulator.fade)(palette.textColor, 0.1),\n      padding:
spacing.desktopGutter,\n      selectedTextColor: palette.accent1Color,\n      rightIconDesktopFill: _colors.grey600\n
    },\n    menuSubheader: {\n      padding: spacing.desktopGutter,\n      borderColor: palette.borderColor,\n
textColor: palette.primary1Color\n    },\n    overlay: {\n      backgroundColor: _colors.lightBlack\n    },\n    paper:
{\n      color: palette.textColor,\n      backgroundColor: palette.canvasColor,\n      zDepthShadows: [[1, 6, 0.12, 1, 4,
0.12], [3, 10, 0.16, 3, 10, 0.23], [10, 30, 0.19, 6, 10, 0.23], [14, 45, 0.25, 10, 18, 0.22], [19, 60, 0.30, 15, 20,
0.22]].map(function (d) {\n        return '0 ' + d[0] + 'px ' + d[1] + 'px ' + (0,
_colorManipulator.fade)(palette.shadowColor, d[2]) + ',\\n        0 ' + d[3] + 'px ' + d[4] + 'px ' + (0,
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_colorManipulator.fade)(palette.shadowColor, d[5]);\n      })\n    },\n    radioButton: {\n      borderColor:
palette.textColor,\n      backgroundColor: palette.alternateTextColor,\n      checkedColor: palette.primary1Color,\n
requiredColor: palette.primary1Color,\n      disabledColor: palette.disabledColor,\n      size: 24,\n
      labelColor: palette.textColor,\n      labelDisabledColor: palette.disabledColor\n    },\n    raisedButton: {\n
color: palette.alternateTextColor,\n      textColor: palette.textColor,\n      primaryColor: palette.primary1Color,\n
primaryTextColor: palette.alternateTextColor,\n      secondaryColor: palette.accent1Color,\n
secondaryTextColor: palette.alternateTextColor,\n      disabledColor: (0,
_colorManipulator.darken)(palette.alternateTextColor, 0.1),\n      disabledTextColor: (0,
_colorManipulator.fade)(palette.textColor, 0.3),\n      fontSize: _typography2.default.fontStyleButtonFontSize,\n
fontWeight: _typography2.default.fontWeightMedium\n    },\n    refreshIndicator: {\n      strokeColor:
palette.borderColor,\n      loadingStrokeColor: palette.primary1Color\n    },\n    ripple: {\n      color: (0,
_colorManipulator.fade)(palette.textColor, 0.87)\n    },\n    slider: {\n      trackSize: 2,\n      trackColor:
palette.primary3Color,\n      trackColorSelected:
 palette.accent3Color,\n      handleSize: 12,\n      handleSizeDisabled: 8,\n      handleSizeActive: 18,\n
handleColorZero: palette.primary3Color,\n      handleFillColor: palette.alternateTextColor,\n      selectionColor:
palette.primary1Color,\n      rippleColor: palette.primary1Color\n    },\n    snackbar: {\n      textColor:
palette.alternateTextColor,\n      backgroundColor: palette.textColor,\n      actionColor: palette.accent1Color\n    },\n
 subheader: {\n      color: (0, _colorManipulator.fade)(palette.textColor, 0.54),\n      fontWeight:
_typography2.default.fontWeightMedium\n    },\n    stepper: {\n      backgroundColor: 'transparent',\n
hoverBackgroundColor: (0, _colorManipulator.fade)(_colors.black, 0.06),\n      iconColor: palette.primary1Color,\n
   hoveredIconColor: _colors.grey700,\n      inactiveIconColor: _colors.grey500,\n      textColor: (0,
_colorManipulator.fade)(_colors.black, 0.87),\n      disabledTextColor: (0, _colorManipulator.fade)(_colors.black,
 0.26),\n      connectorLineColor: _colors.grey400\n    },\n    svgIcon: {\n      color: palette.textColor\n    },\n    table:
{\n      backgroundColor: palette.canvasColor\n    },\n    tableFooter: {\n      borderColor: palette.borderColor,\n
textColor: palette.accent3Color\n    },\n    tableHeader: {\n      borderColor: palette.borderColor\n    },\n
tableHeaderColumn: {\n      textColor: palette.accent3Color,\n      height: 56,\n      spacing: 24\n    },\n    tableRow:
{\n      hoverColor: palette.accent2Color,\n      stripeColor: (0, _colorManipulator.fade)((0,
_colorManipulator.lighten)(palette.primary1Color, 0.5), 0.4),\n      selectedColor: palette.borderColor,\n
textColor: palette.textColor,\n      borderColor: palette.borderColor,\n      height: 48\n    },\n    tableRowColumn: {\n
   height: 48,\n      spacing: 24\n    },\n    tabs: {\n      backgroundColor: palette.primary1Color,\n      textColor: (0,
_colorManipulator.fade)(palette.alternateTextColor, 0.7),\n
      selectedTextColor: palette.alternateTextColor\n    },\n    textField: {\n      textColor: palette.textColor,\n
hintColor: palette.disabledColor,\n      floatingLabelColor: palette.disabledColor,\n      disabledTextColor:
palette.disabledColor,\n      errorColor: _colors.red500,\n      focusColor: palette.primary1Color,\n
backgroundColor: 'transparent',\n      borderColor: palette.borderColor\n    },\n    timePicker: {\n      color:
palette.alternateTextColor,\n      textColor: palette.alternateTextColor,\n      accentColor: palette.primary1Color,\n
clockColor: palette.textColor,\n      clockCircleColor: palette.clockCircleColor,\n      headerColor:
palette.pickerHeaderColor || palette.primary1Color,\n      selectColor: palette.primary2Color,\n      selectTextColor:
palette.alternateTextColor\n    },\n    toggle: {\n      thumbOnColor: palette.primary1Color,\n      thumbOffColor:
palette.accent2Color,\n      thumbDisabledColor: palette.borderColor,\n      thumbRequiredColor:
 palette.primary1Color,\n      trackOnColor: (0, _colorManipulator.fade)(palette.primary1Color, 0.5),\n
trackOffColor: palette.primary3Color,\n      trackDisabledColor: palette.primary3Color,\n      labelColor:
palette.textColor,\n      labelDisabledColor: palette.disabledColor,\n      trackRequiredColor: (0,
_colorManipulator.fade)(palette.primary1Color, 0.5)\n    },\n    toolbar: {\n      color: (0,
_colorManipulator.fade)(palette.textColor, 0.54),\n      hoverColor: (0, _colorManipulator.fade)(palette.textColor,
0.87),\n      backgroundColor: (0, _colorManipulator.darken)(palette.accent2Color, 0.05),\n      height: 56,\n
titleFontSize: 20,\n      iconColor: (0, _colorManipulator.fade)(palette.textColor, 0.4),\n      separatorColor: (0,
_colorManipulator.fade)(palette.textColor, 0.175),\n      menuHoverColor: (0,
```

```
_colorManipulator.fade)(palette.textColor, 0.1)\n    },\n    tooltip: {\n      color: _colors.white,\n
rippleBackgroundColor: _colors.grey700,\n
      opacity: 0.9\n    }\n  }, muiTheme, {\n    baseTheme: baseTheme,\n    // To provide backward compatibility.\n
rawTheme: baseTheme // To provide backward compatibility.\n\n  });\n  var transformers = [_autoprefixer2.default,
_rtl2.default, _callOnce2.default].map(function (t) {\n    return t(muiTheme);\n  }).filter(function (t) {\n    return t;\n
});\n  muiTheme.prepareStyles = _compose2.default.apply(undefined, (0,
_toConsumableArray3.default)(transformers));\n  return muiTheme;\n}","/**\n * Lodash (Custom Build)
<https://lodash.com/>\n * Build: `lodash modularize exports=\"npm\" -o ./`\n * Copyright OpenJS Foundation and
other contributors <https://openjsf.org/>\n * Released under MIT license <https://lodash.com/license>\n * Based on
Underscore.js 1.8.3 <http://underscorejs.org/LICENSE>\n * Copyright Jeremy Ashkenas, DocumentCloud and
Investigative Reporters & Editors\n */\n\n/** Used as the size to enable large array optimizations. */\nvar
LARGE_ARRAY_SIZE = 200;\n/** Used to
 stand-in for `undefined` hash values. */\n\nvar HASH_UNDEFINED = '__lodash_hash_undefined__';\n/** Used to
detect hot functions by number of calls within a span of milliseconds. */\n\nvar HOT_COUNT = 800,\n
HOT_SPAN = 16;\n/** Used as references for various `Number` constants. */\n\nvar MAX_SAFE_INTEGER =
9007199254740991;\n/** `Object#toString` result references. */\n\nvar argsTag = '[object Arguments]',\n
arrayTag = '[object Array]',\n    asyncTag = '[object AsyncFunction]',\n    boolTag = '[object Boolean]',\n    dateTag
= '[object Date]',\n    errorTag = '[object Error]',\n    funcTag = '[object Function]',\n    genTag = '[object
GeneratorFunction]',\n    mapTag = '[object Map]',\n    numberTag = '[object Number]',\n    nullTag = '[object
Null]',\n    objectTag = '[object Object]',\n    proxyTag = '[object Proxy]',\n    regexpTag = '[object RegExp]',\n
setTag = '[object Set]',\n    stringTag = '[object String]',\n    undefinedTag = '[object Undefined]',\n    weakMapTag =
 '[object WeakMap]';\nvar arrayBufferTag = '[object ArrayBuffer]',\n    dataViewTag = '[object DataView]',\n
float32Tag = '[object Float32Array]',\n    float64Tag = '[object Float64Array]',\n    int8Tag = '[object Int8Array]',\n
int16Tag = '[object Int16Array]',\n    int32Tag = '[object Int32Array]',\n    uint8Tag = '[object Uint8Array]',\n
uint8ClampedTag = '[object Uint8ClampedArray]',\n    uint16Tag = '[object Uint16Array]',\n    uint32Tag = '[object
Uint32Array]';\n/**\n * Used to match `RegExp`\n * [syntax characters](http://ecma-international.org/ecma-
262/7.0/#sec-patterns).\n */\n\nvar reRegExpChar = /[\\\\^$.*+?()[\\]{}|]/g;\n/** Used to detect host constructors
(Safari). */\n\nvar reIsHostCtor = /^\\[object .+?Constructor\\]$/;\n/** Used to detect unsigned integer values.
*/\n\nvar reIsUint = /^(?:0|[1-9]\\d*)$/;\n/** Used to identify `toStringTag` values of typed arrays. */\n\nvar
typedArrayTags = {};\ntypedArrayTags[float32Tag] = typedArrayTags[float64Tag] = typedArrayTags[int8Tag]
 = typedArrayTags[int16Tag] = typedArrayTags[int32Tag] = typedArrayTags[uint8Tag] =
typedArrayTags[uint8ClampedTag] = typedArrayTags[uint16Tag] = typedArrayTags[uint32Tag] =
true;\ntypedArrayTags[argsTag] = typedArrayTags[arrayTag] = typedArrayTags[arrayBufferTag] =
typedArrayTags[boolTag] = typedArrayTags[dataViewTag] = typedArrayTags[dateTag] =
typedArrayTags[errorTag] = typedArrayTags[funcTag] = typedArrayTags[mapTag] = typedArrayTags[numberTag]
= typedArrayTags[objectTag] = typedArrayTags[regexpTag] = typedArrayTags[setTag] =
typedArrayTags[stringTag] = typedArrayTags[weakMapTag] = false;\n/** Detect free variable `global` from
Node.js. */\n\nvar freeGlobal = typeof global == 'object' && global && global.Object === Object && global;\n/**
Detect free variable `self`. */\n\nvar freeSelf = typeof self == 'object' && self && self.Object === Object &&
self;\n/** Used as a reference to the global object. */\n\nvar root = freeGlobal || freeSelf || Function('return
this')();\n/**
 Detect free variable `exports`. */\n\nvar freeExports = typeof exports == 'object' && exports &&
!exports.nodeType && exports;\n/** Detect free variable `module`. */\n\nvar freeModule = freeExports && typeof
module == 'object' && module && !module.nodeType && module;\n/** Detect the popular CommonJS extension
`module.exports`. */\n\nvar moduleExports = freeModule && freeModule.exports === freeExports;\n/** Detect
free variable `process` from Node.js. */\n\nvar freeProcess = moduleExports && freeGlobal.process;\n/** Used to
access faster Node.js helpers. */\n\nvar nodeUtil = function () {\n  try {\n    // Use `util.types` for Node.js 10+.\n
var types = freeModule && freeModule.require && freeModule.require('util').types;\n\n    if (types) {\n      return
```

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types;\n    } // Legacy `process.binding('util')` for Node.js < 10.\n\n\n    return freeProcess && freeProcess.binding
&& freeProcess.binding('util');\n  } catch (e) {}\n}();\n/* Node.js helper references. */\n\n\nvar nodeIsTypedArray
 = nodeUtil && nodeUtil.isTypedArray;\n/**\n * A faster alternative to `Function#apply`, this function invokes
`func`\n * with the `this` binding of `thisArg` and the arguments of `args`.\n *\n * @private\n * @param {Function}
func The function to invoke.\n * @param {*} thisArg The `this` binding of `func`.\n * @param {Array} args The
arguments to invoke `func` with.\n * @returns {*} Returns the result of `func`.\n */\n\nfunction apply(func, thisArg,
args) {\n  switch (args.length) {\n    case 0:\n      return func.call(thisArg);\n\n    case 1:\n      return
func.call(thisArg, args[0]);\n\n    case 2:\n      return func.call(thisArg, args[0], args[1]);\n\n    case 3:\n      return
func.call(thisArg, args[0], args[1], args[2]);\n  }\n\n  return func.apply(thisArg, args);\n}\n/**\n * The base
implementation of `_.times` without support for iteratee shorthands\n * or max array length checks.\n *\n *
@private\n * @param {number} n The number of times to invoke `iteratee`.\n * @param
 {Function} iteratee The function invoked per iteration.\n * @returns {Array} Returns the array of results.\n
*/\n\n\nfunction baseTimes(n, iteratee) {\n  var index = -1,\n      result = Array(n);\n\n  while (++index < n) {\n
result[index] = iteratee(index);\n  }\n\n  return result;\n}\n/**\n * The base implementation of `_.unary` without
support for storing metadata.\n *\n * @private\n * @param {Function} func The function to cap arguments for.\n *
@returns {Function} Returns the new capped function.\n */\n\n\nfunction baseUnary(func) {\n  return function
(value) {\n    return func(value);\n  };\n}\n/**\n * Gets the value at `key` of `object`.\n *\n * @private\n * @param
{Object} [object] The object to query.\n * @param {string} key The key of the property to get.\n * @returns {*}
Returns the property value.\n */\n\n\nfunction getValue(object, key) {\n  return object == null ? undefined :
object[key];\n}\n/**\n * Creates a unary function that invokes `func` with its argument transformed.\n
 *\n * @private\n * @param {Function} func The function to wrap.\n * @param {Function} transform The
argument transform.\n * @returns {Function} Returns the new function.\n */\n\n\nfunction overArg(func,
transform) {\n  return function (arg) {\n    return func(transform(arg));\n  };\n}\n/** Used for built-in method
references. */\n\n\nvar arrayProto = Array.prototype,\n    funcProto = Function.prototype,\n    objectProto =
Object.prototype;\n/** Used to detect overreaching core-js shims. */\n\nvar coreJsData = root['__core-
js_shared__'];\n/** Used to resolve the decompiled source of functions. */\n\nvar funcToString =
funcProto.toString;\n/** Used to check objects for own properties. */\n\nvar hasOwnProperty =
objectProto.hasOwnProperty;\n/** Used to detect methods masquerading as native. */\n\nvar maskSrcKey =
function () {\n  var uid = /[^.]+$/.exec(coreJsData && coreJsData.keys && coreJsData.keys.IE_PROTO || '');\n
return uid ? 'Symbol(src)_1.' + uid : '';\n}();\n/**\n * Used
 to resolve the\n * [`toStringTag`](http://ecma-international.org/ecma-262/7.0/#sec-object.prototype.tostring)\n * of
values.\n */\n\n\nvar nativeObjectToString = objectProto.toString;\n/** Used to infer the `Object` constructor.
*/\n\nvar objectCtorString = funcToString.call(Object);\n/** Used to detect if a method is native. */\n\nvar
reIsNative = RegExp('^' + funcToString.call(hasOwnProperty).replace(reRegExpChar,
'\\\\$&').replace(/hasOwnProperty|(function).*?(?=\\\\\\()| for .+?(?=\\\\\\])/g, '$1.*?') + '$');\n/** Built-in value
references. */\n\nvar Buffer = moduleExports ? root.Buffer : undefined,\n    Symbol = root.Symbol,\n    Uint8Array
= root.Uint8Array,\n    allocUnsafe = Buffer ? Buffer.allocUnsafe : undefined,\n    getPrototype =
overArg(Object.getPrototypeOf, Object),\n    objectCreate = Object.create,\n    propertyIsEnumerable =
objectProto.propertyIsEnumerable,\n    splice = arrayProto.splice,\n    symToStringTag = Symbol ?
Symbol.toStringTag : undefined;\n\nvar defineProperty
 = function () {\n  try {\n    var func = getNative(Object, 'defineProperty');\n    func({}, '', {});\n    return func;\n  }
catch (e) {}\n}();\n/* Built-in method references for those with the same name as other `lodash` methods.
*/\n\n\nvar nativeIsBuffer = Buffer ? Buffer.isBuffer : undefined,\n    nativeMax = Math.max,\n    nativeNow =
Date.now;\n/* Built-in method references that are verified to be native. */\n\nvar Map = getNative(root, 'Map'),\n
nativeCreate = getNative(Object, 'create');\n/**\n * The base implementation of `_.create` without support for
assigning\n * properties to the created object.\n *\n * @private\n * @param {Object} proto The object to inherit
from.\n * @returns {Object} Returns the new object.\n */\n\nvar baseCreate = function () {\n  function object()
{}\n\n  return function (proto) {\n    if (!isObject(proto)) {\n      return {};\n    }\n\n    if (objectCreate) {\n      return
```

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objectCreate(proto);\n    }\n\n    object.prototype = proto;\n
   var result = new object();\n    object.prototype = undefined;\n    return result;\n  };\n}();\n/**\n * Creates a hash
object.\n *\n * @private\n * @constructor\n * @param {Array} [entries] The key-value pairs to cache.\n
*/\n\n\nfunction Hash(entries) {\n  var index = -1,\n      length = entries == null ? 0 : entries.length;\n
this.clear();\n\n  while (++index < length) {\n    var entry = entries[index];\n    this.set(entry[0], entry[1]);\n
}\n}\n/**\n * Removes all key-value entries from the hash.\n *\n * @private\n * @name clear\n * @memberOf
Hash\n */\n\n\nfunction hashClear() {\n  this.__data__ = nativeCreate ? nativeCreate(null) : {};\n  this.size =
0;\n}\n/**\n * Removes `key` and its value from the hash.\n *\n * @private\n * @name delete\n * @memberOf
Hash\n * @param {Object} hash The hash to modify.\n * @param {string} key The key of the value to remove.\n *
@returns {boolean} Returns `true` if the entry was removed, else `false`.\n */\n\n\nfunction hashDelete(key) {\n  var
 result = this.has(key) && delete this.__data__[key];\n  this.size -= result ? 1 : 0;\n  return result;\n}\n/**\n * Gets
the hash value for `key`.\n *\n * @private\n * @name get\n * @memberOf Hash\n * @param {string} key The key
of the value to get.\n * @returns {*} Returns the entry value.\n */\n\n\nfunction hashGet(key) {\n  var data =
this.__data__;\n\n  if (nativeCreate) {\n    var result = data[key];\n    return result === HASH_UNDEFINED ?
undefined : result;\n  }\n\n  return hasOwnProperty.call(data, key) ? data[key] : undefined;\n}\n/**\n * Checks if a
hash value for `key` exists.\n *\n * @private\n * @name has\n * @memberOf Hash\n * @param {string} key The
key of the entry to check.\n * @returns {boolean} Returns `true` if an entry for `key` exists, else `false`.\n
*/\n\n\nfunction hashHas(key) {\n  var data = this.__data__;\n  return nativeCreate ? data[key] !== undefined :
hasOwnProperty.call(data, key);\n}\n/**\n * Sets the hash `key` to `value`.\n *\n * @private\n * @name set\n
 * @memberOf Hash\n * @param {string} key The key of the value to set.\n * @param {*} value The value to
set.\n * @returns {Object} Returns the hash instance.\n */\n\n\nfunction hashSet(key, value) {\n  var data =
this.__data__;\n  this.size += this.has(key) ? 0 : 1;\n  data[key] = nativeCreate && value === undefined ?
HASH_UNDEFINED : value;\n  return this;\n} // Add methods to `Hash`.\n\n\nHash.prototype.clear =
hashClear;\nHash.prototype['delete'] = hashDelete;\nHash.prototype.get = hashGet;\nHash.prototype.has =
hashHas;\nHash.prototype.set = hashSet;\n/**\n * Creates an list cache object.\n *\n * @private\n * @constructor\n
* @param {Array} [entries] The key-value pairs to cache.\n */\n\nfunction ListCache(entries) {\n  var index = -1,\n
   length = entries == null ? 0 : entries.length;\n  this.clear();\n\n  while (++index < length) {\n    var entry =
entries[index];\n    this.set(entry[0], entry[1]);\n  }\n}\n/**\n * Removes all key-value entries from the list cache.\n
*\n
 * @private\n * @name clear\n * @memberOf ListCache\n */\n\n\nfunction listCacheClear() {\n  this.__data__ =
[];\n  this.size = 0;\n}\n/**\n * Removes `key` and its value from the list cache.\n *\n * @private\n * @name
delete\n * @memberOf ListCache\n * @param {string} key The key of the value to remove.\n * @returns
{boolean} Returns `true` if the entry was removed, else `false`.\n */\n\n\nfunction listCacheDelete(key) {\n  var data
= this.__data__,\n      index = assocIndexOf(data, key);\n\n  if (index < 0) {\n    return false;\n  }\n\n  var lastIndex =
data.length - 1;\n\n  if (index == lastIndex) {\n    data.pop();\n  } else {\n    splice.call(data, index, 1);\n  }\n\n  --
this.size;\n  return true;\n}\n/**\n * Gets the list cache value for `key`.\n *\n * @private\n * @name get\n *
@memberOf ListCache\n * @param {string} key The key of the value to get.\n * @returns {*} Returns the entry
value.\n */\n\n\nfunction listCacheGet(key) {\n  var data = this.__data__,\n      index = assocIndexOf(data,
 key);\n  return index < 0 ? undefined : data[index][1];\n}\n/**\n * Checks if a list cache value for `key` exists.\n *\n
* @private\n * @name has\n * @memberOf ListCache\n * @param {string} key The key of the entry to check.\n *
@returns {boolean} Returns `true` if an entry for `key` exists, else `false`.\n */\n\n\nfunction listCacheHas(key) {\n
return assocIndexOf(this.__data__, key) > -1;\n}\n/**\n * Sets the list cache `key` to `value`.\n *\n * @private\n *
@name set\n * @memberOf ListCache\n * @param {string} key The key of the value to set.\n * @param {*} value
The value to set.\n * @returns {Object} Returns the list cache instance.\n */\n\n\nfunction listCacheSet(key, value)
{\n  var data = this.__data__,\n      index = assocIndexOf(data, key);\n\n  if (index < 0) {\n    ++this.size;\n
data.push([key, value]);\n  } else {\n    data[index][1] = value;\n  }\n\n  return this;\n} // Add methods to
`ListCache`.\n\n\nListCache.prototype.clear = listCacheClear;\nListCache.prototype['delete']
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 = listCacheDelete;\nListCache.prototype.get = listCacheGet;\nListCache.prototype.has =
listCacheHas;\nListCache.prototype.set = listCacheSet;\n/**\n * Creates a map cache object to store key-value
pairs.\n *\n * @private\n * @constructor\n * @param {Array} [entries] The key-value pairs to cache.\n
*/\n\nfunction MapCache(entries) {\n  var index = -1,\n      length = entries == null ? 0 : entries.length;\n
this.clear();\n\n  while (++index < length) {\n    var entry = entries[index];\n    this.set(entry[0], entry[1]);\n
}\n}\n/**\n * Removes all key-value entries from the map.\n *\n * @private\n * @name clear\n * @memberOf
MapCache\n */\n\n\nfunction mapCacheClear() {\n  this.size = 0;\n  this.__data__ = {\n    'hash': new Hash(),\n
'map': new (Map || ListCache)(),\n    'string': new Hash()\n  };\n}\n/**\n * Removes `key` and its value from the
map.\n *\n * @private\n * @name delete\n * @memberOf MapCache\n * @param {string} key The key of the
value to remove.\n
 * @returns {boolean} Returns `true` if the entry was removed, else `false`.\n */\n\n\nfunction
mapCacheDelete(key) {\n  var result = getMapData(this, key)['delete'](key);\n  this.size -= result ? 1 : 0;\n  return
result;\n}\n/**\n * Gets the map value for `key`.\n *\n * @private\n * @name get\n * @memberOf MapCache\n *
@param {string} key The key of the value to get.\n * @returns {*} Returns the entry value.\n */\n\n\nfunction
mapCacheGet(key) {\n  return getMapData(this, key).get(key);\n}\n/**\n * Checks if a map value for `key` exists.\n
*\n * @private\n * @name has\n * @memberOf MapCache\n * @param {string} key The key of the entry to
check.\n * @returns {boolean} Returns `true` if an entry for `key` exists, else `false`.\n */\n\n\nfunction
mapCacheHas(key) {\n  return getMapData(this, key).has(key);\n}\n/**\n * Sets the map `key` to `value`.\n *\n *
@private\n * @name set\n * @memberOf MapCache\n * @param {string} key The key of the value to set.\n *
@param {*} value The value to
 set.\n * @returns {Object} Returns the map cache instance.\n */\n\n\nfunction mapCacheSet(key, value) {\n  var
data = getMapData(this, key),\n      size = data.size;\n  data.set(key, value);\n  this.size += data.size == size ? 0 : 1;\n
return this;\n} // Add methods to `MapCache`.\n\n\nMapCache.prototype.clear =
mapCacheClear;\nMapCache.prototype['delete'] = mapCacheDelete;\nMapCache.prototype.get =
mapCacheGet;\nMapCache.prototype.has = mapCacheHas;\nMapCache.prototype.set = mapCacheSet;\n/**\n *
Creates a stack cache object to store key-value pairs.\n *\n * @private\n * @constructor\n * @param {Array}
[entries] The key-value pairs to cache.\n */\n\nfunction Stack(entries) {\n  var data = this.__data__ = new
ListCache(entries);\n  this.size = data.size;\n}\n/**\n * Removes all key-value entries from the stack.\n *\n *
@private\n * @name clear\n * @memberOf Stack\n */\n\n\nfunction stackClear() {\n  this.__data__ = new
ListCache();\n  this.size = 0;\n}\n/**\n * Removes `key` and its
 value from the stack.\n *\n * @private\n * @name delete\n * @memberOf Stack\n * @param {string} key The key
of the value to remove.\n * @returns {boolean} Returns `true` if the entry was removed, else `false`.\n
*/\n\n\nfunction stackDelete(key) {\n  var data = this.__data__,\n      result = data['delete'](key);\n  this.size =
data.size;\n  return result;\n}\n/**\n * Gets the stack value for `key`.\n *\n * @private\n * @name get\n *
@memberOf Stack\n * @param {string} key The key of the value to get.\n * @returns {*} Returns the entry
value.\n */\n\n\nfunction stackGet(key) {\n  return this.__data__.get(key);\n}\n/**\n * Checks if a stack value for
`key` exists.\n *\n * @private\n * @name has\n * @memberOf Stack\n * @param {string} key The key of the entry
to check.\n * @returns {boolean} Returns `true` if an entry for `key` exists, else `false`.\n */\n\n\nfunction
stackHas(key) {\n  return this.__data__.has(key);\n}\n/**\n * Sets the stack `key` to `value`.\n *\n * @private\n *
@name
 set\n * @memberOf Stack\n * @param {string} key The key of the value to set.\n * @param {*} value The value
to set.\n * @returns {Object} Returns the stack cache instance.\n */\n\n\nfunction stackSet(key, value) {\n  var data
= this.__data__;\n\n  if (data instanceof ListCache) {\n    var pairs = data.__data__;\n\n    if (!Map || pairs.length <
LARGE_ARRAY_SIZE - 1) {\n      pairs.push([key, value]);\n      this.size = ++data.size;\n      return this;\n    }\n\n
 data = this.__data__ = new MapCache(pairs);\n  }\n\n  data.set(key, value);\n  this.size = data.size;\n  return this;\n}
// Add methods to `Stack`.\n\n\nStack.prototype.clear = stackClear;\nStack.prototype['delete'] =
stackDelete;\nStack.prototype.get = stackGet;\nStack.prototype.has = stackHas;\nStack.prototype.set =
stackSet;\n/**\n * Creates an array of the enumerable property names of the array-like `value`.\n *\n * @private\n *
```

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@param {*} value The value to query.\n * @param {boolean} inherited Specify returning inherited
 property names.\n * @returns {Array} Returns the array of property names.\n */\n\nfunction arrayLikeKeys(value,
inherited) {\n  var isArr = isArray(value),\n      isArg = !isArr && isArguments(value),\n      isBuff = !isArr &&
!isArg && isBuffer(value),\n      isType = !isArr && !isArg && !isBuff && isTypedArray(value),\n      skipIndexes
= isArr || isArg || isBuff || isType,\n      result = skipIndexes ? baseTimes(value.length, String) : [],\n      length =
result.length;\n\n  for (var key in value) {\n    if ((inherited || hasOwnProperty.call(value, key)) && !(skipIndexes
&& ( // Safari 9 has enumerable `arguments.length` in strict mode.\n    key == 'length' || // Node.js 0.10 has
enumerable non-index properties on buffers.\n    isBuff && (key == 'offset' || key == 'parent') || // PhantomJS 2 has
enumerable non-index properties on typed arrays.\n    isType && (key == 'buffer' || key == 'byteLength' || key ==
'byteOffset') || // Skip index properties.\n    isIndex(key, length))))
 {\n      result.push(key);\n    }\n  }\n\n  return result;\n}\n/**\n * This function is like `assignValue` except that it
doesn't assign\n * `undefined` values.\n *\n * @private\n * @param {Object} object The object to modify.\n *
@param {string} key The key of the property to assign.\n * @param {*} value The value to assign.\n
*/\n\n\nfunction assignMergeValue(object, key, value) {\n  if (value !== undefined && !eq(object[key], value) ||
value === undefined && !(key in object)) {\n    baseAssignValue(object, key, value);\n  }\n}\n/**\n * Assigns
`value` to `key` of `object` if the existing value is not equivalent\n * using [`SameValueZero`](http://ecma-
international.org/ecma-262/7.0/#sec-samevaluezero)\n * for equality comparisons.\n *\n * @private\n * @param
{Object} object The object to modify.\n * @param {string} key The key of the property to assign.\n * @param {*}
value The value to assign.\n */\n\n\nfunction assignValue(object, key, value) {\n  var objValue = object[key];\n\n  if
 (!(hasOwnProperty.call(object, key) && eq(objValue, value)) || value === undefined && !(key in object)) {\n
baseAssignValue(object, key, value);\n  }\n}\n/**\n * Gets the index at which the `key` is found in `array` of key-
value pairs.\n *\n * @private\n * @param {Array} array The array to inspect.\n * @param {*} key The key to
search for.\n * @returns {number} Returns the index of the matched value, else `-1`.\n */\n\n\nfunction
assocIndexOf(array, key) {\n  var length = array.length;\n\n  while (length--) {\n    if (eq(array[length][0], key)) {\n
  return length;\n    }\n  }\n\n  return -1;\n}\n/**\n * The base implementation of `assignValue` and
`assignMergeValue` without\n * value checks.\n *\n * @private\n * @param {Object} object The object to
modify.\n * @param {string} key The key of the property to assign.\n * @param {*} value The value to assign.\n
*/\n\n\nfunction baseAssignValue(object, key, value) {\n  if (key == '__proto__' && defineProperty) {\n
defineProperty(object,
 key, {\n      'configurable': true,\n      'enumerable': true,\n      'value': value,\n      'writable': true\n    });\n  } else {\n
object[key] = value;\n  }\n}\n/**\n * The base implementation of `baseForOwn` which iterates over `object`\n *
properties returned by `keysFunc` and invokes `iteratee` for each property.\n * Iteratee functions may exit iteration
early by explicitly returning `false`.\n *\n * @private\n * @param {Object} object The object to iterate over.\n *
@param {Function} iteratee The function invoked per iteration.\n * @param {Function} keysFunc The function to
get the keys of `object`.\n * @returns {Object} Returns `object`.\n */\n\n\nvar baseFor = createBaseFor();\n/**\n *
The base implementation of `getTag` without fallbacks for buggy environments.\n *\n * @private\n * @param {*}
value The value to query.\n * @returns {string} Returns the `toStringTag`.\n */\n\nfunction baseGetTag(value) {\n
if (value == null) {\n    return value === undefined ? undefinedTag
 : nullTag;\n  }\n\n  return symToStringTag && symToStringTag in Object(value) ? getRawTag(value) :
objectToString(value);\n}\n/**\n * The base implementation of `_.isArguments`.\n *\n * @private\n * @param {*}
value The value to check.\n * @returns {boolean} Returns `true` if `value` is an `arguments` object,\n
*/\n\n\nfunction baseIsArguments(value) {\n  return isObjectLike(value) && baseGetTag(value) ==
argsTag;\n}\n/**\n * The base implementation of `_.isNative` without bad shim checks.\n *\n * @private\n *
@param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is a native function,\n *
else `false`.\n */\n\n\nfunction baseIsNative(value) {\n  if (!isObject(value) || isMasked(value)) {\n    return false;\n
}\n\n  var pattern = isFunction(value) ? reIsNative : reIsHostCtor;\n  return pattern.test(toSource(value));\n}\n/**\n *
The base implementation of `_.isTypedArray` without Node.js optimizations.\n *\n * @private\n * @param {*}
value The value
```

to check.\n * @returns {boolean} Returns `true` if `value` is a typed array, else `false`.\n */\n\n\nfunction baseIsTypedArray(value) {\n return isObjectLike(value) && isLength(value.length) && !!typedArrayTags[baseGetTag(value)];\n}\n/**\n * The base implementation of `_.keysIn` which doesn't treat sparse arrays as dense.\n *\n * @private\n * @param {Object} object The object to query.\n * @returns {Array} Returns the array of property names.\n */\n\n\nfunction baseKeysIn(object) {\n if (!isObject(object)) {\n   return nativeKeysIn(object);\n }\n\n var isProto = isPrototype(object),\n   result = [];\n\n for (var key in object) {\n   if (!(key == 'constructor' && (isProto || !hasOwnProperty.call(object, key)))) {\n   result.push(key);\n   }\n }\n\n return result;\n}\n/**\n * The base implementation of `_.merge` without support for multiple sources.\n *\n * @private\n * @param {Object} object The destination object.\n * @param {Object} source The source object.\n * @param {number} srcIndex The index of `source`.\n * @param {Function} [customizer] The function to customize merged values.\n * @param {Object} [stack] Tracks traversed source values and their merged\n * counterparts.\n */\n\n\nfunction baseMerge(object, source, srcIndex, customizer, stack) {\n if (object === source) {\n   return;\n }\n\n baseFor(source, function (srcValue, key) {\n   stack || (stack = new Stack());\n\n   if (isObject(srcValue)) {\n   baseMergeDeep(object, source, key, srcIndex, baseMerge, customizer, stack);\n   } else {\n   var newValue = customizer ? customizer(safeGet(object, key), srcValue, key + '', object, source, stack) : undefined;\n\n   if (newValue === undefined) {\n   newValue = srcValue;\n   }\n\n   assignMergeValue(object, key, newValue);\n   }\n }, keysIn);\n}\n/**\n * A specialized version of `baseMerge` for arrays and objects which performs\n * deep merges and tracks traversed objects enabling objects with circular\n * references to be merged.\n *\n * @private\n * @param {Object} object The destination object.\n * @param {Object} source The source object.\n * @param {string} key The key of the value to merge.\n * @param {number} srcIndex The index of `source`.\n * @param {Function} mergeFunc The function to merge values.\n * @param {Function} [customizer] The function to customize assigned values.\n * @param {Object} [stack] Tracks traversed source values and their merged\n * counterparts.\n */\n\n\nfunction baseMergeDeep(object, source, key, srcIndex, mergeFunc, customizer, stack) {\n var objValue = safeGet(object, key),\n   srcValue = safeGet(source, key),\n   stacked = stack.get(srcValue);\n\n if (stacked) {\n   assignMergeValue(object, key, stacked);\n   return;\n }\n\n var newValue = customizer ? customizer(objValue, srcValue, key + '', object, source, stack) : undefined;\n var isCommon = newValue === undefined;\n\n if (isCommon) {\n   var isArr = isArray(srcValue),\n   isBuff = !isArr && isBuffer(srcValue),\n   isTyped = !isArr && !isBuff && isTypedArray(srcValue);\n   newValue = srcValue;\n\n   if (isArr || isBuff || isTyped) {\n   if (isArray(objValue)) {\n   newValue = objValue;\n   } else if (isArrayLikeObject(objValue)) {\n   newValue = copyArray(objValue);\n   } else if (isBuff) {\n   isCommon = false;\n   newValue = cloneBuffer(srcValue, true);\n   } else if (isTyped) {\n   isCommon = false;\n   newValue = cloneTypedArray(srcValue, true);\n   } else {\n   newValue = [];\n   }\n   } else if (isPlainObject(srcValue) || isArguments(srcValue)) {\n   newValue = objValue;\n\n   if (isArguments(objValue)) {\n   newValue = toPlainObject(objValue);\n   } else if (!isObject(objValue) || isFunction(objValue)) {\n   newValue = initCloneObject(srcValue);\n   }\n   } else {\n   isCommon = false;\n   }\n }\n\n if (isCommon) {\n   // Recursively merge objects and arrays (susceptible to call stack limits).\n   stack.set(srcValue, newValue);\n   mergeFunc(newValue, srcValue, srcIndex, customizer, stack);\n   stack['delete'](srcValue);\n }\n\n assignMergeValue(object, key, newValue);\n}\n/**\n * The base implementation of `_.rest` which doesn't validate or coerce arguments.\n *\n * @private\n * @param {Function} func The function to apply a rest parameter to.\n * @param {number} [start=func.length-1] The start position of the rest parameter.\n * @returns {Function} Returns the new function.\n */\n\n\nfunction baseRest(func, start) {\n return setToString(overRest(func, start, identity), func + '');\n}\n/**\n * The base implementation of `setToString` without support for hot loop shorting.\n *\n * @private\n * @param {Function} func The function to modify.\n * @param {Function} string The `toString` result.\n * @returns {Function} Returns `func`.\n */\n\n\nvar baseSetToString = !defineProperty ? identity : function (func, string) {\n return defineProperty(func, 'toString', {\n   'configurable': true,\n   'enumerable': false,\n   'value': constant(string),\n   'writable': true\n });\n};\n/**\n * Creates a clone of `buffer`.\n *\n * @private\n * @param {Buffer} buffer The buffer to clone.\n *

@param {boolean} [isDeep] Specify a deep clone.\n * @returns {Buffer} Returns the cloned buffer.\n */\n\nfunction cloneBuffer(buffer, isDeep) {\n if (isDeep) {\n   return buffer.slice();\n }\n\n var length = buffer.length,\n   result = allocUnsafe ? allocUnsafe(length) : new buffer.constructor(length);\n buffer.copy(result);\n return result;\n}\n/**\n * Creates a clone of `arrayBuffer`.\n *\n * @private\n * @param {ArrayBuffer} arrayBuffer The array buffer to clone.\n * @returns {ArrayBuffer} Returns the cloned array buffer.\n */\n\n\nfunction cloneArrayBuffer(arrayBuffer) {\n var result = new arrayBuffer.constructor(arrayBuffer.byteLength);\n new Uint8Array(result).set(new Uint8Array(arrayBuffer));\n return result;\n}\n/**\n * Creates a clone of `typedArray`.\n *\n * @private\n * @param {Object} typedArray The typed array to clone.\n * @param {boolean} [isDeep] Specify a deep clone.\n * @returns {Object} Returns the cloned typed array.\n */\n\n\nfunction cloneTypedArray(typedArray, isDeep) {\n var buffer = isDeep ? cloneArrayBuffer(typedArray.buffer) : typedArray.buffer;\n return new typedArray.constructor(buffer, typedArray.byteOffset, typedArray.length);\n}\n/**\n * Copies the values of `source` to `array`.\n *\n * @private\n * @param {Array} source The array to copy values from.\n * @param {Array} [array=[]] The array to copy values to.\n * @returns {Array} Returns `array`.\n */\n\n\nfunction copyArray(source, array) {\n var index = -1,\n   length = source.length;\n array || (array = Array(length));\n\n while (++index < length) {\n   array[index] = source[index];\n }\n\n return array;\n}\n/**\n * Copies properties of `source` to `object`.\n *\n * @private\n * @param {Object} source The object to copy properties from.\n * @param {Array} props The property identifiers to copy.\n * @param {Object} [object={}] The object to copy properties to.\n * @param {Function} [customizer] The function to customize copied values.\n * @returns {Object} Returns `object`.\n */\n\n\nfunction copyObject(source, props, object, customizer) {\n var isNew = !object;\n object || (object = {});\n var index = -1,\n   length = props.length;\n\n while (++index < length) {\n   var key = props[index];\n   var newValue = customizer ? customizer(object[key], source[key], key, object, source) : undefined;\n\n   if (newValue === undefined) {\n   newValue = source[key];\n   }\n\n   if (isNew) {\n   baseAssignValue(object, key, newValue);\n   } else {\n   assignValue(object, key, newValue);\n   }\n }\n\n return object;\n}\n/**\n * Creates a function like `_.assign`.\n *\n * @private\n * @param {Function} assigner The function to assign values.\n * @returns {Function} Returns the new assigner function.\n */\n\n\nfunction createAssigner(assigner) {\n return baseRest(function (object, sources) {\n   var index = -1,\n   length = sources.length,\n   customizer = length > 1 ? sources[length - 1] : undefined,\n   guard = length > 2 ? sources[2] : undefined;\n   customizer = assigner.length > 3 && typeof customizer == 'function' ? (length--, customizer) : undefined;\n\n   if (guard && isIterateeCall(sources[0], sources[1], guard)) {\n   customizer = length < 3 ? undefined : customizer;\n   length = 1;\n   }\n\n   object = Object(object);\n\n   while (++index < length) {\n   var source = sources[index];\n\n   if (source) {\n   assigner(object, source, index, customizer);\n   }\n   }\n\n   return object;\n });\n}\n/**\n * Creates a base function for methods like `_.forIn` and `_.forOwn`.\n *\n * @private\n * @param {boolean} [fromRight] Specify iterating from right to left.\n * @returns {Function} Returns the new base function.\n */\n\n\nfunction createBaseFor(fromRight) {\n return function (object, iteratee, keysFunc) {\n   var index = -1,\n   iterable = Object(object),\n   props = keysFunc(object),\n   length = props.length;\n\n   while (length--) {\n   var key = props[fromRight ? length : ++index];\n\n   if (iteratee(iterable[key], key, iterable) === false) {\n   break;\n   }\n   }\n\n   return object;\n };\n}\n/**\n * Gets the data for `map`.\n *\n * @private\n * @param {Object} map The map to query.\n * @param {string} key The reference key.\n * @returns {*} Returns the map data.\n */\n\n\nfunction getMapData(map, key) {\n var data = map.__data__;\n return isKeyable(key) ? data[typeof key == 'string' ? 'string' : 'hash'] : data.map;\n}\n/**\n * Gets the native function at `key` of `object`.\n *\n * @private\n * @param {Object} object The object to query.\n * @param {string} key The key of the method to get.\n * @returns {*} Returns the function if it's native, else `undefined`.\n */\n\n\nfunction getNative(object, key) {\n var value = getValue(object, key);\n return baseIsNative(value) ? value : undefined;\n}\n/**\n * A specialized version of `baseGetTag` which ignores `Symbol.toStringTag` values.\n *\n * @private\n * @param {*} value The value to query.\n * @returns {string} Returns the raw `toStringTag`.\n

*/\n\n\nfunction getRawTag(value) {\n var isOwn = hasOwnProperty.call(value, symToStringTag),\n   tag = value[symToStringTag];\n\n try {\n   value[symToStringTag] = undefined;\n   var unmasked = true;\n } catch (e) {}\n\n var result = nativeObjectToString.call(value);\n\n if (unmasked) {\n   if (isOwn) {\n value[symToStringTag] = tag;\n   } else {\n   delete value[symToStringTag];\n   }\n }\n\n return result;\n}\n/**\n * Initializes an object clone.\n *\n * @private\n * @param {Object} object The object to clone.\n * @returns {Object} Returns the initialized clone.\n */\n\n\nfunction initCloneObject(object) {\n return typeof object.constructor
 == 'function' && !isPrototype(object) ? baseCreate(getPrototype(object)) : {};\n}\n/**\n * Checks if `value` is a valid array-like index.\n *\n * @private\n * @param {*} value The value to check.\n * @param {number} [length=MAX_SAFE_INTEGER] The upper bounds of a valid index.\n * @returns {boolean} Returns `true` if `value` is a valid index, else `false`.\n */\n\n\nfunction isIndex(value, length) {\n var type = typeof value;\n length = length == null ? MAX_SAFE_INTEGER : length;\n return !!length && (type == 'number' || type != 'symbol' && reIsUint.test(value)) && value > -1 && value % 1 == 0 && value < length;\n}\n/**\n * Checks if the given arguments are from an iteratee call.\n *\n * @private\n * @param {*} value The potential iteratee value argument.\n * @param {*} index The potential iteratee index or key argument.\n * @param {*} object The potential iteratee object argument.\n * @returns {boolean} Returns `true` if the arguments are from an iteratee call,\n *
  else `false`.\n */\n\n\nfunction isIterateeCall(value, index, object) {\n if (!isObject(object)) {\n   return false;\n }\n\n var type = typeof index;\n\n if (type == 'number' ? isArrayLike(object) && isIndex(index, object.length) : type == 'string' && index in object) {\n   return eq(object[index], value);\n }\n\n return false;\n}\n/**\n * Checks if `value` is suitable for use as unique object key.\n *\n * @private\n * @param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is suitable, else `false`.\n */\n\n\nfunction isKeyable(value) {\n var type = typeof value;\n return type == 'string' || type == 'number' || type == 'symbol' || type == 'boolean' ? value !== '__proto__' : value === null;\n}\n/**\n * Checks if `func` has its source masked.\n *\n * @private\n * @param {Function} func The function to check.\n * @returns {boolean} Returns `true` if `func` is masked, else `false`.\n */\n\n\nfunction isMasked(func) {\n return !!maskSrcKey && maskSrcKey
 in func;\n}\n/**\n * Checks if `value` is likely a prototype object.\n *\n * @private\n * @param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is a prototype, else `false`.\n */\n\n\nfunction isPrototype(value) {\n var Ctor = value && value.constructor,\n   proto = typeof Ctor == 'function' && Ctor.prototype || objectProto;\n return value === proto;\n}\n/**\n * This function is like\n * [`Object.keys`](http://ecma-international.org/ecma-262/7.0/#sec-object.keys)\n * except that it includes inherited enumerable properties.\n *\n * @private\n * @param {Object} object The object to query.\n * @returns {Array} Returns the array of property names.\n */\n\n\nfunction nativeKeysIn(object) {\n var result = [];\n\n if (object != null) {\n   for (var key in Object(object)) {\n   result.push(key);\n   }\n }\n\n return result;\n}\n/**\n * Converts `value` to a string using `Object.prototype.toString`.\n *\n * @private\n * @param {*} value The value
 to convert.\n * @returns {string} Returns the converted string.\n */\n\n\nfunction objectToString(value) {\n return nativeObjectToString.call(value);\n}\n/**\n * A specialized version of `baseRest` which transforms the rest array.\n *\n * @private\n * @param {Function} func The function to apply a rest parameter to.\n * @param {number} [start=func.length-1] The start position of the rest parameter.\n * @param {Function} transform The rest array transform.\n * @returns {Function} Returns the new function.\n */\n\n\nfunction overRest(func, start, transform) {\n start = nativeMax(start === undefined ? func.length - 1 : start, 0);\n return function () {\n   var args = arguments,\n   index = -1,\n   length = nativeMax(args.length - start, 0),\n   array = Array(length);\n\n   while (++index < length) {\n   array[index] = args[start + index];\n   }\n\n   index = -1;\n   var otherArgs = Array(start + 1);\n\n   while (++index < start) {\n   otherArgs[index] = args[index];\n
    }\n\n   otherArgs[start] = transform(array);\n   return apply(func, this, otherArgs);\n };\n}\n/**\n * Gets the value at `key`, unless `key` is \"__proto__\" or \"constructor\".\n *\n * @private\n * @param {Object} object The object to query.\n * @param {string} key The key of the property to get.\n * @returns {*} Returns the property value.\n */\n\n\nfunction safeGet(object, key) {\n if (key === 'constructor' && typeof object[key] === 'function') {\n   return;\n }\n\n if (key == '__proto__') {\n   return;\n }\n\n return object[key];\n}\n/**\n * Sets the `toString`

method of `func` to return `string`.\n *\n * @private\n * @param {Function} func The function to modify.\n * @param {Function} string The `toString` result.\n * @returns {Function} Returns `func`.\n */\n\n\nvar setToString = shortOut(baseSetToString);\n/**\n * Creates a function that'll short out and invoke `identity` instead\n * of `func` when it's called `HOT_COUNT` or more times in `HOT_SPAN`\n
 * milliseconds.\n *\n * @private\n * @param {Function} func The function to restrict.\n * @returns {Function} Returns the new shortable function.\n */\n\nfunction shortOut(func) {\n var count = 0,\n   lastCalled = 0;\n return function () {\n   var stamp = nativeNow(),\n   remaining = HOT_SPAN - (stamp - lastCalled);\n   lastCalled = stamp;\n\n   if (remaining > 0) {\n   if (++count >= HOT_COUNT) {\n   return arguments[0];\n   }\n   } else {\n   count = 0;\n   }\n\n   return func.apply(undefined, arguments);\n };\n}\n/**\n * Converts `func` to its source code.\n *\n * @private\n * @param {Function} func The function to convert.\n * @returns {string} Returns the source code.\n */\n\n\nfunction toSource(func) {\n if (func != null) {\n   try {\n   return funcToString.call(func);\n   } catch (e) {}\n\n   try {\n   return func + '';\n   } catch (e) {}\n }\n\n return '';\n}\n/**\n * Performs a\n * [`SameValueZero`](http://ecma-international.org/ecma-262/7.0/#sec-samevaluezero)\n
 * comparison between two values to determine if they are equivalent.\n *\n * @static\n * @memberOf _\n * @since 4.0.0\n * @category Lang\n * @param {*} value The value to compare.\n * @param {*} other The other value to compare.\n * @returns {boolean} Returns `true` if the values are equivalent, else `false`.\n * @example\n *\n * var object = { 'a': 1 };\n * var other = { 'a': 1 };\n *\n * _.eq(object, object);\n * // => true\n *\n * _.eq(object, other);\n * // => false\n *\n * _.eq('a', 'a');\n * // => true\n *\n * _.eq('a', Object('a'));\n * // => false\n *\n * _.eq(NaN, NaN);\n * // => true\n */\n\n\nfunction eq(value, other) {\n return value === other || value !== value && other !== other;\n}\n/**\n * Checks if `value` is likely an `arguments` object.\n *\n * @static\n * @memberOf _\n * @since 0.1.0\n * @category Lang\n * @param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is an `arguments` object,\n * else `false`.\n
 * @example\n *\n * _.isArguments(function() { return arguments; }());\n * // => true\n *\n * _.isArguments([1, 2, 3]);\n * // => false\n */\n\n\nvar isArguments = baseIsArguments(function () {\n return arguments;\n}()) ? baseIsArguments : function (value) {\n return isObjectLike(value) && hasOwnProperty.call(value, 'callee') && !propertyIsEnumerable.call(value, 'callee');\n};\n/**\n * Checks if `value` is classified as an `Array` object.\n *\n * @static\n * @memberOf _\n * @since 0.1.0\n * @category Lang\n * @param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is an array, else `false`.\n * @example\n *\n * _.isArray([1, 2, 3]);\n * // => true\n *\n * _.isArray(document.body.children);\n * // => false\n *\n * _.isArray('abc');\n * // => false\n *\n * _.isArray(_.noop);\n * // => false\n */\n\nvar isArray = Array.isArray;\n/**\n * Checks if `value` is array-like. A value is considered array-like if it's\n * not a function and has a `value.length` that's
 an integer greater than or\n * equal to `0` and less than or equal to `Number.MAX_SAFE_INTEGER`.\n *\n * @static\n * @memberOf _\n * @since 4.0.0\n * @category Lang\n * @param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is array-like, else `false`.\n * @example\n *\n * _.isArrayLike([1, 2, 3]);\n * // => true\n *\n * _.isArrayLike(document.body.children);\n * // => true\n *\n * _.isArrayLike('abc');\n * // => true\n *\n * _.isArrayLike(_.noop);\n * // => false\n */\n\nfunction isArrayLike(value) {\n return value != null && isLength(value.length) && !isFunction(value);\n}\n/**\n * This method is like `_.isArrayLike` except that it also checks if `value`\n * is an object.\n *\n * @static\n * @memberOf _\n * @since 4.0.0\n * @category Lang\n * @param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is an array-like object,\n * else `false`.\n * @example\n *\n * _.isArrayLikeObject([1, 2, 3]);\n * // => true\n *\n * _.isArrayLikeObject(document.body.children);\n
 * // => true\n *\n * _.isArrayLikeObject('abc');\n * // => false\n *\n * _.isArrayLikeObject(_.noop);\n * // => false\n */\n\n\nfunction isArrayLikeObject(value) {\n return isObjectLike(value) && isArrayLike(value);\n}\n/**\n * Checks if `value` is a buffer.\n *\n * @static\n * @memberOf _\n * @since 4.3.0\n * @category Lang\n * @param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is a buffer, else `false`.\n * @example\n *\n * _.isBuffer(new Buffer(2));\n * // => true\n *\n * _.isBuffer(new Uint8Array(2));\n * // => false\n */\n\n\nvar isBuffer = nativeIsBuffer || stubFalse;\n/**\n * Checks if `value` is classified as a `Function` object.\n *\n * @static\n * @memberOf _\n * @since 0.1.0\n * @category Lang\n * @param {*} value The value to check.\n

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* @returns {boolean} Returns `true` if `value` is a function, else `false`.\n * @example\n *\n * _.isFunction(_);\n *
// => true\n *\n * _.isFunction(/abc/);\n *
 // => false\n */\n\nfunction isFunction(value) {\n  if (!isObject(value)) {\n    return false;\n  } // The use of
`Object#toString` avoids issues with the `typeof` operator\n  // in Safari 9 which returns 'object' for typed arrays and
other constructors.\n\n\n  var tag = baseGetTag(value);\n  return tag == funcTag || tag == genTag || tag == asyncTag
|| tag == proxyTag;\n}\n/**\n * Checks if `value` is a valid array-like length.\n *\n * **Note:** This method is
loosely based on\n * [`ToLength`](http://ecma-international.org/ecma-262/7.0/#sec-tolength).\n *\n * @static\n *
@memberOf _\n * @since 4.0.0\n * @category Lang\n * @param {*} value The value to check.\n * @returns
{boolean} Returns `true` if `value` is a valid length, else `false`.\n * @example\n *\n * _.isLength(3);\n * // =>
true\n *\n * _.isLength(Number.MIN_VALUE);\n * // => false\n *\n * _.isLength(Infinity);\n * // => false\n *\n *
_.isLength('3');\n * // => false\n */\n\n\nfunction isLength(value) {\n  return typeof value
 == 'number' && value > -1 && value % 1 == 0 && value <= MAX_SAFE_INTEGER;\n}\n/**\n * Checks if
`value` is the\n * [language type](http://www.ecma-international.org/ecma-262/7.0/#sec-ecmascript-language-
types)\n * of `Object`. (e.g. arrays, functions, objects, regexes, `new Number(0)`, and `new String('')`)\n *\n *
@static\n * @memberOf _\n * @since 0.1.0\n * @category Lang\n * @param {*} value The value to check.\n *
@returns {boolean} Returns `true` if `value` is an object, else `false`.\n * @example\n *\n * _.isObject({});\n * //
=> true\n *\n * _.isObject([1, 2, 3]);\n * // => true\n *\n * _.isObject(_.noop);\n * // => true\n *\n *
_.isObject(null);\n * // => false\n */\n\n\nfunction isObject(value) {\n  var type = typeof value;\n  return value !=
null && (type == 'object' || type == 'function');\n}\n/**\n * Checks if `value` is object-like. A value is object-like if
it's not `null`\n * and has a `typeof` result of \"object\".\n *\n * @static\n * @memberOf _\n * @since 4.0.0\n *
@category
 Lang\n * @param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is object-like,
else `false`.\n * @example\n *\n * _.isObjectLike({});\n * // => true\n *\n * _.isObjectLike([1, 2, 3]);\n * // =>
true\n *\n * _.isObjectLike(_.noop);\n * // => false\n *\n * _.isObjectLike(null);\n * // => false\n */\n\n\nfunction
isObjectLike(value) {\n  return value != null && typeof value == 'object';\n}\n/**\n * Checks if `value` is a plain
object, that is, an object created by the\n * `Object` constructor or one with a `[[Prototype]]` of `null`.\n *\n *
@static\n * @memberOf _\n * @since 0.8.0\n * @category Lang\n * @param {*} value The value to check.\n *
@returns {boolean} Returns `true` if `value` is a plain object, else `false`.\n * @example\n *\n * function Foo() {\n
*   this.a = 1;\n * }\n *\n * _.isPlainObject(new Foo);\n * // => false\n *\n * _.isPlainObject([1, 2, 3]);\n * // =>
false\n *\n * _.isPlainObject({ 'x': 0, 'y': 0 });\n * // => true\n *\n *
 _.isPlainObject(Object.create(null));\n * // => true\n */\n\n\nfunction isPlainObject(value) {\n  if
(!isObjectLike(value) || baseGetTag(value) != objectTag) {\n    return false;\n  }\n\n  var proto =
getPrototype(value);\n\n  if (proto === null) {\n    return true;\n  }\n\n  var Ctor = hasOwnProperty.call(proto,
'constructor') && proto.constructor;\n  return typeof Ctor == 'function' && Ctor instanceof Ctor &&
funcToString.call(Ctor) == objectCtorString;\n}\n/**\n * Checks if `value` is classified as a typed array.\n *\n *
@static\n * @memberOf _\n * @since 3.0.0\n * @category Lang\n * @param {*} value The value to check.\n *
@returns {boolean} Returns `true` if `value` is a typed array, else `false`.\n * @example\n *\n *
_.isTypedArray(new Uint8Array);\n * // => true\n *\n * _.isTypedArray([]);\n * // => false\n */\n\n\nvar
isTypedArray = nodeIsTypedArray ? baseUnary(nodeIsTypedArray) : baseIsTypedArray;\n/**\n * Converts `value`
to a plain object flattening inherited enumerable string\n
 * keyed properties of `value` to own properties of the plain object.\n *\n * @static\n * @memberOf _\n * @since
3.0.0\n * @category Lang\n * @param {*} value The value to convert.\n * @returns {Object} Returns the
converted plain object.\n * @example\n *\n * function Foo() {\n *   this.b = 2;\n * }\n *\n * Foo.prototype.c = 3;\n
*\n * _.assign({ 'a': 1 }, new Foo);\n * // => { 'a': 1, 'b': 2 }\n *\n * _.assign({ 'a': 1 }, _.toPlainObject(new Foo));\n *
// => { 'a': 1, 'b': 2, 'c': 3 }\n */\n\nfunction toPlainObject(value) {\n  return copyObject(value,
keysIn(value));\n}\n/**\n * Creates an array of the own and inherited enumerable property names of `object`.\n *\n
* **Note:** Non-object values are coerced to objects.\n *\n * @static\n * @memberOf _\n * @since 3.0.0\n *
@category Object\n * @param {Object} object The object to query.\n * @returns {Array} Returns the array of
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property names.\n * @example\n *\n * function Foo() {\n *   this.a = 1;\n *   this.b = 2;\n * }\n *\n *
Foo.prototype.c
 = 3;\n *\n * _.keysIn(new Foo);\n * // => ['a', 'b', 'c'] (iteration order is not guaranteed)\n */\n\n\nfunction
keysIn(object) {\n  return isArrayLike(object) ? arrayLikeKeys(object, true) : baseKeysIn(object);\n}\n/**\n * This
method is like `_.assign` except that it recursively merges own and\n * inherited enumerable string keyed properties
of source objects into the\n * destination object. Source properties that resolve to `undefined` are\n * skipped if a
destination value exists. Array and plain object properties\n * are merged recursively. Other objects and value types
are overridden by\n * assignment. Source objects are applied from left to right. Subsequent\n * sources overwrite
property assignments of previous sources.\n *\n * **Note:** This method mutates `object`.\n *\n * @static\n *
@memberOf _\n * @since 0.5.0\n * @category Object\n * @param {Object} object The destination object.\n *
@param {...Object} [sources] The source objects.\n * @returns {Object} Returns
 `object`.\n * @example\n *\n * var object = {\n *   'a': [{ 'b': 2 }, { 'd': 4 }]\n * };\n *\n * var other = {\n *   'a': [{ 'c':
3 }, { 'e': 5 }]\n * };\n *\n * _.merge(object, other);\n * // => { 'a': [{ 'b': 2, 'c': 3 }, { 'd': 4, 'e': 5 }] }\n */\n\n\nvar
merge = createAssigner(function (object, source, srcIndex) {\n  baseMerge(object, source, srcIndex);\n});\n/**\n *
Creates a function that returns `value`.\n *\n * @static\n * @memberOf _\n * @since 2.4.0\n * @category Util\n *
@param {*} value The value to return from the new function.\n * @returns {Function} Returns the new constant
function.\n * @example\n *\n * var objects = _.times(2, _.constant({ 'a': 1 }));\n *\n * console.log(objects);\n * // =>
[{ 'a': 1 }, { 'a': 1 }]\n *\n * console.log(objects[0] === objects[1]);\n * // => true\n */\n\nfunction constant(value)
{\n  return function () {\n    return value;\n  };\n}\n/**\n * This method returns the first argument it receives.\n *\n *
@static\n * @since 0.1.0\n * @memberOf
 _\n * @category Util\n * @param {*} value Any value.\n * @returns {*} Returns `value`.\n * @example\n *\n *
var object = { 'a': 1 };\n *\n * console.log(_.identity(object) === object);\n * // => true\n */\n\n\nfunction
identity(value) {\n  return value;\n}\n/**\n * This method returns `false`.\n *\n * @static\n * @memberOf _\n *
@since 4.13.0\n * @category Util\n * @returns {boolean} Returns `false`.\n * @example\n *\n * _.times(2,
_.stubFalse);\n * // => [false, false]\n */\n\n\nfunction stubFalse() {\n  return false;\n}\n\nmodule.exports =
merge;","module.exports = function (module) {\n  if (!module.webpackPolyfill) {\n    module.deprecate = function
() {};\n\n    module.paths = []; // module.parent = undefined by default\n\n    if (!module.children) module.children =
[];\n    Object.defineProperty(module, \"loaded\", {\n      enumerable: true,\n      get: function get() {\n        return
module.l;\n      }\n    });\n    Object.defineProperty(module, \"id\", {\n      enumerable: true,\n
      get: function get() {\n        return module.i;\n      }\n    });\n    module.webpackPolyfill = 1;\n  }\n\n  return
module;\n};","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _colors =
require('../colors');\n\nvar _colorManipulator = require('../../utils/colorManipulator');\n\nvar _spacing =
require('../spacing');\n\nvar _spacing2 = _interopRequireDefault(_spacing);\n\nfunction _interopRequireDefault(obj)
{\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n/**\n *  Light Theme is the default theme
used in material-ui. It is guaranteed to\n *  have all theme variables needed for every component. Variables not
defined\n *  in a custom theme will default to these values.\n */\n\n\nexports.default = {\n  spacing:
_spacing2.default,\n  fontFamily: 'Roboto, sans-serif',\n  borderRadius: 2,\n  palette: {\n    primary1Color:
_colors.cyan500,\n    primary2Color: _colors.cyan700,\n    primary3Color: _colors.grey400,\n
    accent1Color: _colors.pinkA200,\n    accent2Color: _colors.grey100,\n    accent3Color: _colors.grey500,\n
textColor: _colors.darkBlack,\n    secondaryTextColor: (0, _colorManipulator.fade)(_colors.darkBlack, 0.54),\n
alternateTextColor: _colors.white,\n    canvasColor: _colors.white,\n    borderColor: _colors.grey300,\n
disabledColor: (0, _colorManipulator.fade)(_colors.darkBlack, 0.3),\n    pickerHeaderColor: _colors.cyan500,\n
clockCircleColor: (0, _colorManipulator.fade)(_colors.darkBlack, 0.07),\n    shadowColor: _colors.fullBlack\n
}\n};\n/**\n * NB: If you update this file, please also update `docs/src/app/customization/Themes.js`\n */","\"use
strict\";\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default = {\n  iconSize:
24,\n  desktopGutter: 24,\n  desktopGutterMore: 32,\n  desktopGutterLess: 16,\n  desktopGutterMini: 8,\n
desktopKeylineIncrement: 64,\n  desktopDropDownMenuItemHeight: 32,\n  desktopDropDownMenuFontSize:
15,\n
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  desktopDrawerMenuItemHeight: 48,\n  desktopSubheaderHeight: 48,\n  desktopToolbarHeight: 56\n};","\"use
strict\";\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default = {\n  menu:
1000,\n  appBar: 1100,\n  drawerOverlay: 1200,\n  drawer: 1300,\n  dialogOverlay: 1400,\n  dialog: 1500,\n  layer:
2000,\n  popover: 2100,\n  snackbar: 2900,\n  tooltip: 3000\n};","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\n\nexports.default = function (muiTheme) {\n  var isClient = typeof navigator
!== 'undefined';\n  var userAgent = muiTheme.userAgent;\n\n  if (userAgent === undefined && isClient) {\n
userAgent = navigator.userAgent;\n  }\n\n  if (userAgent === undefined && !hasWarnedAboutUserAgent) {\n
process.env.NODE_ENV !== \"production\" ? (0, _warning2.default)(false, 'Material-UI: userAgent should be
supplied in the muiTheme context\\n      for server-side rendering.') : void 0;\n    hasWarnedAboutUserAgent =
true;\n
  }\n\n  var prefixAll = (0, _createPrefixer2.default)(_autoprefixerStatic2.default);\n\n  if (userAgent === false) {\n
// Disabled autoprefixer\n    return null;\n  } else if (userAgent === 'all' || userAgent === undefined) {\n    // Prefix
for all user agent\n    return function (style) {\n      var isFlex = ['flex', 'inline-flex'].indexOf(style.display) !== -1;\n
 var stylePrefixed = prefixAll(style);\n\n      if (isFlex) {\n        var display = stylePrefixed.display;\n\n        if
(isClient) {\n          // We can't apply this join with react-dom:\n          //
#https://github.com/facebook/react/issues/6467\n          stylePrefixed.display = display[display.length - 1];\n        }
else {\n          stylePrefixed.display = display.join('; display: ');\n        }\n      }\n\n      return stylePrefixed;\n    };\n  }
else {\n    var Prefixer = (0, _createPrefixer4.default)(_autoprefixerDynamic2.default, prefixAll);\n    var prefixer =
new Prefixer({\n      userAgent: userAgent\n
    });\n    return function (style) {\n      return prefixer.prefix(style);\n    };\n  }\n};\n\nvar _createPrefixer =
require('inline-style-prefixer/static/createPrefixer');\n\nvar _createPrefixer2 =
_interopRequireDefault(_createPrefixer);\n\nvar _createPrefixer3 = require('inline-style-
prefixer/dynamic/createPrefixer');\n\nvar _createPrefixer4 = _interopRequireDefault(_createPrefixer3);\n\nvar
_autoprefixerDynamic = require('./autoprefixerDynamic');\n\nvar _autoprefixerDynamic2 =
_interopRequireDefault(_autoprefixerDynamic);\n\nvar _autoprefixerStatic = require('./autoprefixerStatic');\n\nvar
_autoprefixerStatic2 = _interopRequireDefault(_autoprefixerStatic);\n\nvar _warning = require('warning');\n\nvar
_warning2 = _interopRequireDefault(_warning);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar hasWarnedAboutUserAgent = false;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default
 = createPrefixer;\n\nvar _prefixProperty = require('../utils/prefixProperty');\n\nvar _prefixProperty2 =
_interopRequireDefault(_prefixProperty);\n\nvar _prefixValue = require('../utils/prefixValue');\n\nvar _prefixValue2
= _interopRequireDefault(_prefixValue);\n\nvar _addNewValuesOnly =
require('../utils/addNewValuesOnly');\n\nvar _addNewValuesOnly2 =
_interopRequireDefault(_addNewValuesOnly);\n\nvar _isObject = require('../utils/isObject');\n\nvar _isObject2 =
_interopRequireDefault(_isObject);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nfunction createPrefixer(_ref) {\n  var prefixMap = _ref.prefixMap,\n      plugins =
_ref.plugins;\n\n  function prefixAll(style) {\n    for (var property in style) {\n      var value = style[property]; //
handle nested objects\n\n      if ((0, _isObject2.default)(value)) {\n        style[property] = prefixAll(value); // handle
array values\n      } else if (Array.isArray(value))
 {\n        var combinedValue = [];\n\n        for (var i = 0, len = value.length; i < len; ++i) {\n          var
processedValue = (0, _prefixValue2.default)(plugins, property, value[i], style, prefixMap);\n          (0,
_addNewValuesOnly2.default)(combinedValue, processedValue || value[i]);\n        } // only modify the value if it
was touched\n        // by any plugin to prevent unnecessary mutations\n\n\n        if (combinedValue.length > 0) {\n
    style[property] = combinedValue;\n        }\n      } else {\n        var _processedValue = (0,
_prefixValue2.default)(plugins, property, value, style, prefixMap); // only modify the value if it was touched\n        //
by any plugin to prevent unnecessary mutations\n\n\n        if (_processedValue) {\n          style[property] =
_processedValue;\n        }\n\n        (0, _prefixProperty2.default)(prefixMap, property, style);\n      }\n    }\n\n
return style;\n  }\n\n  return prefixAll;\n}\n\nmodule.exports = exports['default'];","'use
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 strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default =
prefixProperty;\n\nvar _capitalizeString = require('./capitalizeString');\n\nvar _capitalizeString2 =
_interopRequireDefault(_capitalizeString);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction prefixProperty(prefixProperties, property, style) {\n  if
(prefixProperties.hasOwnProperty(property)) {\n    var requiredPrefixes = prefixProperties[property];\n\n    for (var i
= 0, len = requiredPrefixes.length; i < len; ++i) {\n      style[requiredPrefixes[i] + (0,
_capitalizeString2.default)(property)] = style[property];\n    }\n  }\n}\n\nmodule.exports = exports['default'];","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _createClass = function () {\n
function defineProperties(target, props) {\n    for (var i = 0; i < props.length; i++) {\n      var
 descriptor = props[i];\n      descriptor.enumerable = descriptor.enumerable || false;\n      descriptor.configurable =
true;\n      if (\"value\" in descriptor) descriptor.writable = true;\n      Object.defineProperty(target, descriptor.key,
descriptor);\n    }\n  }\n\n  return function (Constructor, protoProps, staticProps) {\n    if (protoProps)
defineProperties(Constructor.prototype, protoProps);\n    if (staticProps) defineProperties(Constructor,
staticProps);\n    return Constructor;\n  };\n}();\n\nexports.default = createPrefixer;\n\nvar _getBrowserInformation
= require('../utils/getBrowserInformation');\n\nvar _getBrowserInformation2 =
_interopRequireDefault(_getBrowserInformation);\n\nvar _getPrefixedKeyframes =
require('../utils/getPrefixedKeyframes');\n\nvar _getPrefixedKeyframes2 =
_interopRequireDefault(_getPrefixedKeyframes);\n\nvar _capitalizeString =
require('../utils/capitalizeString');\n\nvar _capitalizeString2 = _interopRequireDefault(_capitalizeString);\n\nvar
_addNewValuesOnly
 = require('../utils/addNewValuesOnly');\n\nvar _addNewValuesOnly2 =
_interopRequireDefault(_addNewValuesOnly);\n\nvar _isObject = require('../utils/isObject');\n\nvar _isObject2 =
_interopRequireDefault(_isObject);\n\nvar _prefixValue = require('../utils/prefixValue');\n\nvar _prefixValue2 =
_interopRequireDefault(_prefixValue);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule
? obj : {\n    default: obj\n  };\n}\n\nfunction _classCallCheck(instance, Constructor) {\n  if (!(instance instanceof
Constructor)) {\n    throw new TypeError(\"Cannot call a class as a function\");\n  }\n}\n\nfunction
createPrefixer(_ref) {\n  var prefixMap = _ref.prefixMap,\n      plugins = _ref.plugins;\n  var fallback =
arguments.length > 1 && arguments[1] !== undefined ? arguments[1] : function (style) {\n    return style;\n  };\n
return function () {\n    /**\n    * Instantiante a new prefixer\n    * @param {string} userAgent - userAgent to gather
prefix information
 according to caniuse.com\n    * @param {string} keepUnprefixed - keeps unprefixed properties and values\n    */\n
 function Prefixer() {\n      var options = arguments.length > 0 && arguments[0] !== undefined ? arguments[0] :
{};\n\n      _classCallCheck(this, Prefixer);\n\n      var defaultUserAgent = typeof navigator !== 'undefined' ?
navigator.userAgent : undefined;\n      this._userAgent = options.userAgent || defaultUserAgent;\n
this._keepUnprefixed = options.keepUnprefixed || false;\n\n      if (this._userAgent) {\n        this._browserInfo = (0,
_getBrowserInformation2.default)(this._userAgent);\n      } // Checks if the userAgent was resolved correctly\n\n\n
 if (this._browserInfo && this._browserInfo.cssPrefix) {\n        this.prefixedKeyframes = (0,
_getPrefixedKeyframes2.default)(this._browserInfo.browserName, this._browserInfo.browserVersion,
this._browserInfo.cssPrefix);\n      } else {\n        this._useFallback = true;\n        return false;\n      }\n\n
  var prefixData = this._browserInfo.browserName && prefixMap[this._browserInfo.browserName];\n\n      if
(prefixData) {\n        this._requiresPrefix = {};\n\n        for (var property in prefixData) {\n          if
(prefixData[property] >= this._browserInfo.browserVersion) {\n            this._requiresPrefix[property] = true;\n
}\n        }\n\n        this._hasPropsRequiringPrefix = Object.keys(this._requiresPrefix).length > 0;\n      } else {\n
this._useFallback = true;\n      }\n\n      this._metaData = {\n        browserVersion:
this._browserInfo.browserVersion,\n        browserName: this._browserInfo.browserName,\n        cssPrefix:
this._browserInfo.cssPrefix,\n        jsPrefix: this._browserInfo.jsPrefix,\n        keepUnprefixed:
this._keepUnprefixed,\n        requiresPrefix: this._requiresPrefix\n      };\n    }\n\n    _createClass(Prefixer, [{\n
key: 'prefix',\n      value: function prefix(style) {\n        // use static prefixer as fallback if userAgent can
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 not be resolved\n        if (this._useFallback) {\n          return fallback(style);\n        } // only add prefixes if
needed\n\n\n        if (!this._hasPropsRequiringPrefix) {\n          return style;\n        }\n\n        return
this._prefixStyle(style);\n      }\n    }, {\n      key: '_prefixStyle',\n      value: function _prefixStyle(style) {\n        for
(var property in style) {\n          var value = style[property]; // handle nested objects\n\n          if ((0,
_isObject2.default)(value)) {\n            style[property] = this.prefix(value); // handle array values\n          } else if
(Array.isArray(value)) {\n            var combinedValue = [];\n\n            for (var i = 0, len = value.length; i < len; ++i)
{\n              var processedValue = (0, _prefixValue2.default)(plugins, property, value[i], style, this._metaData);\n
      (0, _addNewValuesOnly2.default)(combinedValue, processedValue || value[i]);\n            } // only modify the
value if it was touched\n
          // by any plugin to prevent unnecessary mutations\n\n\n            if (combinedValue.length > 0) {\n
style[property] = combinedValue;\n            }\n          } else {\n            var _processedValue = (0,
_prefixValue2.default)(plugins, property, value, style, this._metaData); // only modify the value if it was touched\n
      // by any plugin to prevent unnecessary mutations\n\n\n            if (_processedValue) {\n              style[property]
= _processedValue;\n            } // add prefixes to properties\n\n\n            if
(this._requiresPrefix.hasOwnProperty(property)) {\n              style[this._browserInfo.jsPrefix + (0,
_capitalizeString2.default)(property)] = value;\n\n              if (!this._keepUnprefixed) {\n                delete
style[property];\n              }\n            }\n          }\n        }\n\n        return style;\n      }\n      /**\n       * Returns a
prefixed version of the style object using all vendor prefixes\n       * @param
 {Object} styles - Style object that gets prefixed properties added\n       * @returns {Object} - Style object with
prefixed properties and values\n       */\n\n    }], [{\n      key: 'prefixAll',\n      value: function prefixAll(styles) {\n
return fallback(styles);\n      }\n    }]);\n\n    return Prefixer;\n  }();\n}\n\nmodule.exports = exports['default'];","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default =
getBrowserInformation;\n\nvar _bowser = require('bowser');\n\nvar _bowser2 =
_interopRequireDefault(_bowser);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nvar prefixByBrowser = {\n  chrome: 'Webkit',\n  safari: 'Webkit',\n  ios:
'Webkit',\n  android: 'Webkit',\n  phantom: 'Webkit',\n  opera: 'Webkit',\n  webos: 'Webkit',\n  blackberry: 'Webkit',\n
bada: 'Webkit',\n  tizen: 'Webkit',\n  chromium: 'Webkit',\n  vivaldi: 'Webkit',\n  firefox: 'Moz',\n  seamoney:
 'Moz',\n  sailfish: 'Moz',\n  msie: 'ms',\n  msedge: 'ms'\n};\nvar browserByCanIuseAlias = {\n  chrome: 'chrome',\n
chromium: 'chrome',\n  safari: 'safari',\n  firfox: 'firefox',\n  msedge: 'edge',\n  opera: 'opera',\n  vivaldi: 'opera',\n
msie: 'ie'\n};\n\nfunction getBrowserName(browserInfo) {\n  if (browserInfo.firefox) {\n    return 'firefox';\n  }\n\n
if (browserInfo.mobile || browserInfo.tablet) {\n    if (browserInfo.ios) {\n      return 'ios_saf';\n    } else if
(browserInfo.android) {\n      return 'android';\n    } else if (browserInfo.opera) {\n      return 'op_mini';\n    }\n  }\n\n
for (var browser in browserByCanIuseAlias) {\n    if (browserInfo.hasOwnProperty(browser)) {\n      return
browserByCanIuseAlias[browser];\n    }\n  }\n}\n/**\n * Uses bowser to get default browser browserInformation
such as version and name\n * Evaluates bowser browserInfo and adds vendorPrefix browserInformation\n *
@param {string} userAgent - userAgent that gets evaluated\n */\n\n\nfunction
 getBrowserInformation(userAgent) {\n  var browserInfo = _bowser2.default._detect(userAgent);\n\n  if
(browserInfo.yandexbrowser) {\n    browserInfo = _bowser2.default._detect(userAgent.replace(/YaBrowser\\/[0-
9.]*/, ''));\n  }\n\n  for (var browser in prefixByBrowser) {\n    if (browserInfo.hasOwnProperty(browser)) {\n      var
prefix = prefixByBrowser[browser];\n      browserInfo.jsPrefix = prefix;\n      browserInfo.cssPrefix = '-' +
prefix.toLowerCase() + '-';\n      break;\n    }\n  }\n\n  browserInfo.browserName = getBrowserName(browserInfo);
// For cordova IOS 8 the version is missing, set truncated osversion to prevent NaN\n\n  if (browserInfo.version) {\n
 browserInfo.browserVersion = parseFloat(browserInfo.version);\n  } else {\n    browserInfo.browserVersion =
parseInt(parseFloat(browserInfo.osversion), 10);\n  }\n\n  browserInfo.osVersion =
parseFloat(browserInfo.osversion); // iOS forces all browsers to use Safari under the hood\n  // as the Safari version
seems
 to match the iOS version\n  // we just explicitely use the osversion instead\n  //
https://github.com/rofrischmann/inline-style-prefixer/issues/72\n\n  if (browserInfo.browserName === 'ios_saf' &&
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browserInfo.browserVersion > browserInfo.osVersion) {\n   browserInfo.browserVersion = browserInfo.osVersion;\n } // seperate native android chrome\n // https://github.com/rofrischmann/inline-style-prefixer/issues/45\n\n\n if (browserInfo.browserName === 'android' && browserInfo.chrome && browserInfo.browserVersion > 37) {\n   browserInfo.browserName = 'and_chr';\n } // For android < 4.4 we want to check the osversion\n // not the chrome version, see issue #26\n // https://github.com/rofrischmann/inline-style-prefixer/issues/26\n\n\n if (browserInfo.browserName === 'android' && browserInfo.osVersion < 5) {\n   browserInfo.browserVersion = browserInfo.osVersion;\n } // Samsung browser are basically build on Chrome > 44\n // https://github.com/rofrischmann/inline-style-prefixer/issues/102\n\n\n if (browserInfo.browserName === 'android' && browserInfo.samsungBrowser) {\n   browserInfo.browserName = 'and_chr';\n   browserInfo.browserVersion = 44;\n }\n\n return browserInfo;\n}\n\nmodule.exports = exports['default'];","/*!\n * Bowser - a browser detector\n * https://github.com/ded/bowser\n * MIT License | (c) Dustin Diaz 2015\n */\n!function (root, name, definition) {\n if (typeof module != 'undefined' && module.exports) module.exports = definition();else if (typeof define == 'function' && define.amd) define(name, definition);else root[name] = definition();\n}(this, 'bowser', function () {\n /**\n   * See useragents.js for examples of navigator.userAgent\n   */\n var t = true;\n\n function detect(ua) {\n   function getFirstMatch(regex) {\n   var match = ua.match(regex);\n   return match && match.length > 1 && match[1] || '';\n   }\n\n   function getSecondMatch(regex) {\n   var match = ua.match(regex);\n   return match && match.length > 1 && match[2] || '';\n   }\n\n   var iosdevice = getFirstMatch(/(ipod|iphone|ipad)/i).toLowerCase(),\n   likeAndroid = /like android/i.test(ua),\n   android = !likeAndroid && /android/i.test(ua),\n   nexusMobile = /nexus\\s*[0-6]\\s*/i.test(ua),\n   nexusTablet = !nexusMobile && /nexus\\s*[0-9]+/i.test(ua),\n   chromeos = /CrOS/.test(ua),\n   silk = /silk/i.test(ua),\n   sailfish = /sailfish/i.test(ua),\n   tizen = /tizen/i.test(ua),\n   webos = /(web|hpw)(o|0)s/i.test(ua),\n   windowsphone = /windows phone/i.test(ua),\n   samsungBrowser = /SamsungBrowser/i.test(ua),\n   windows = !windowsphone && /windows/i.test(ua),\n   mac = !iosdevice && !silk && /macintosh/i.test(ua),\n   linux = !android && !sailfish && !tizen && !webos && /linux/i.test(ua),\n   edgeVersion = getSecondMatch(/edg([ea]|ios)\\/(\\d+(\\.\\d+)?)/i),\n   versionIdentifier = getFirstMatch(/version\\/(\\d+(\\.\\d+)?)/i),\n   tablet = /tablet/i.test(ua) && !/tablet pc/i.test(ua),\n   mobile = !tablet && /[^-]mobi/i.test(ua),\n   xbox = /xbox/i.test(ua),\n   result;\n\n   if (/opera/i.test(ua)) {\n   // an old Opera\n   result = {\n   name: 'Opera',\n   opera: t,\n   version: versionIdentifier || getFirstMatch(/(?:opera|opr|opios)[\\s\\/](\\d+(\\.\\d+)?)/i)\n   };\n   } else if (/opr\\/|opios/i.test(ua)) {\n   // a new Opera\n   result = {\n   name: 'Opera',\n   opera: t,\n   version: getFirstMatch(/(?:opr|opios)[\\s\\/](\\d+(\\.\\d+)?)/i) || versionIdentifier\n   };\n   } else if (/SamsungBrowser/i.test(ua)) {\n   result = {\n   name: 'Samsung Internet for Android',\n   samsungBrowser: t,\n   version: versionIdentifier || getFirstMatch(/(?:SamsungBrowser)[\\s\\/](\\d+(\\.\\d+)?)/i)\n   };\n   } else if (/Whale/i.test(ua)) {\n   result = {\n   name: 'NAVER Whale browser',\n   whale: t,\n   version: getFirstMatch(/(?:whale)[\\s\\/](\\d+(?:\\.\\d+)+)/i)\n   };\n   } else if (/MZBrowser/i.test(ua)) {\n   result = {\n   name: 'MZ Browser',\n   mzbrowser: t,\n   version: getFirstMatch(/(?:MZBrowser)[\\s\\/](\\d+(?:\\.\\d+)+)/i)\n   };\n   } else if (/coast/i.test(ua)) {\n   result = {\n   name: 'Opera Coast',\n   coast: t,\n   version: versionIdentifier || getFirstMatch(/(?:coast)[\\s\\/](\\d+(\\.\\d+)?)/i)\n   };\n   } else if (/focus/i.test(ua)) {\n   result = {\n   name: 'Focus',\n   focus: t,\n   version: getFirstMatch(/(?:focus)[\\s\\/](\\d+(?:\\.\\d+)+)/i)\n   };\n   } else if (/yabrowser/i.test(ua)) {\n   result = {\n   name: 'Yandex Browser',\n   yandexbrowser: t,\n   version: versionIdentifier || getFirstMatch(/(?:yabrowser)[\\s\\/](\\d+(\\.\\d+)?)/i)\n   };\n   } else if (/ucbrowser/i.test(ua)) {\n   result = {\n   name: 'UC Browser',\n   ucbrowser: t,\n   version: getFirstMatch(/(?:ucbrowser)[\\s\\/](\\d+(?:\\.\\d+)+)/i)\n   };\n   } else if (/mxios/i.test(ua)) {\n   result = {\n   name: 'Maxthon',\n   maxthon: t,\n   version: getFirstMatch(/(?:mxios)[\\s\\/](\\d+(?:\\.\\d+)+)/i)\n   };\n   } else if (/epiphany/i.test(ua)) {\n   result = {\n   name: 'Epiphany',\n   epiphany: t,\n   version: getFirstMatch(/(?:epiphany)[\\s\\/](\\d+(?:\\.\\d+)+)/i)\n   };\n   } else if (/puffin/i.test(ua)) {\n   result = {\n   name: 'Puffin',\n   puffin: t,\n   version:

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getFirstMatch(/(?:puffin)[\\s\\/](\\d+(?:\\.\\d+)?)/i)\n      };\n    } else if (/sleipnir/i.test(ua)) {\n      result = {\n
name: 'Sleipnir',\n        sleipnir: t,\n        version: getFirstMatch(/(?:sleipnir)[\\s\\/](\\d+(?:\\.\\d+)+)/i)\n      };\n    }
else if (/k-meleon/i.test(ua)) {\n      result = {\n        name: 'K-Meleon',\n        kMeleon: t,\n        version:
getFirstMatch(/(?:k-meleon)[\\s\\/](\\d+(?:\\.\\d+)+)/i)\n      };\n    }
 else if (windowsphone) {\n      result = {\n        name: 'Windows Phone',\n        osname: 'Windows Phone',\n
windowsphone: t\n      };\n\n      if (edgeVersion) {\n        result.msedge = t;\n        result.version = edgeVersion;\n
} else {\n        result.msie = t;\n        result.version = getFirstMatch(/iemobile\\/(\\d+(\\.\\d+)?)/i);\n      }\n    } else if
(/msie|trident/i.test(ua)) {\n      result = {\n        name: 'Internet Explorer',\n        msie: t,\n        version:
getFirstMatch(/(?:msie |rv:)(\\d+(\\.\\d+)?)/i)\n      };\n    } else if (chromeos) {\n      result = {\n        name:
'Chrome',\n        osname: 'Chrome OS',\n        chromeos: t,\n        chromeBook: t,\n        chrome: t,\n        version:
getFirstMatch(/(?:chrome|crios|crmo)\\/(\\d+(\\.\\d+)?)/i)\n      };\n    } else if (/edg([ea]|ios)/i.test(ua)) {\n      result =
{\n        name: 'Microsoft Edge',\n        msedge: t,\n        version: edgeVersion\n      };\n    } else if (/vivaldi/i.test(ua))
 {\n      result = {\n        name: 'Vivaldi',\n        vivaldi: t,\n        version: getFirstMatch(/vivaldi\\/(\\d+(\\.\\d+)?)/i) ||
versionIdentifier\n      };\n    } else if (sailfish) {\n      result = {\n        name: 'Sailfish',\n        osname: 'Sailfish OS',\n
      sailfish: t,\n        version: getFirstMatch(/sailfish\\s?browser\\/(\\d+(\\.\\d+)?)/i)\n      };\n    } else if
(/seamonkey\\//i.test(ua)) {\n      result = {\n        name: 'SeaMonkey',\n        seamonkey: t,\n        version:
getFirstMatch(/seamonkey\\/(\\d+(\\.\\d+)?)/i)\n      };\n    } else if (/firefox|iceweasel|fxios/i.test(ua)) {\n      result =
{\n        name: 'Firefox',\n        firefox: t,\n        version: getFirstMatch(/(?:firefox|iceweasel|fxios)[
\\/](\\d+(\\.\\d+)?)/i)\n      };\n\n      if (/\\((mobile|tablet);[^\\)]*rv:[\\d\\.]+\\)/i.test(ua)) {\n        result.firefoxos = t;\n
    result.osname = 'Firefox OS';\n      }\n    } else if (silk) {\n      result = {\n        name: 'Amazon Silk',\n
        silk: t,\n        version: getFirstMatch(/silk\\/(\\d+(\\.\\d+)?)/i)\n      };\n    } else if (/phantom/i.test(ua)) {\n
result = {\n        name: 'PhantomJS',\n        phantom: t,\n        version: getFirstMatch(/phantomjs\\/(\\d+(\\.\\d+)?)/i)\n
    };\n    } else if (/slimerjs/i.test(ua)) {\n      result = {\n        name: 'SlimerJS',\n        slimer: t,\n        version:
getFirstMatch(/slimerjs\\/(\\d+(\\.\\d+)?)/i)\n      };\n    } else if (/blackberry|\\bbb\\d+/i.test(ua) ||
/rim\\stablet/i.test(ua)) {\n      result = {\n        name: 'BlackBerry',\n        osname: 'BlackBerry OS',\n
blackberry: t,\n        version: versionIdentifier || getFirstMatch(/blackberry[\\d]+\\/(\\d+(\\.\\d+)?)/i)\n      };\n    } else
if (webos) {\n      result = {\n        name: 'WebOS',\n        osname: 'WebOS',\n        webos: t,\n        version:
versionIdentifier || getFirstMatch(/w(?:eb)?osbrowser\\/(\\d+(\\.\\d+)?)/i)\n      };\n      /touchpad\\//i.test(ua) &&
(result.touchpad
 = t);\n    } else if (/bada/i.test(ua)) {\n      result = {\n        name: 'Bada',\n        osname: 'Bada',\n        bada: t,\n
version: getFirstMatch(/dolfin\\/(\\d+(\\.\\d+)?)/i)\n      };\n    } else if (tizen) {\n      result = {\n        name: 'Tizen',\n
     osname: 'Tizen',\n        tizen: t,\n        version: getFirstMatch(/(?:tizen\\s?)?browser\\/(\\d+(\\.\\d+)?)/i) ||
versionIdentifier\n      };\n    } else if (/qupzilla/i.test(ua)) {\n      result = {\n        name: 'QupZilla',\n        qupzilla:
t,\n        version: getFirstMatch(/(?:qupzilla)[\\s\\/](\\d+(?:\\.\\d+)+)/i) || versionIdentifier\n      };\n    } else if
(/chromium/i.test(ua)) {\n      result = {\n        name: 'Chromium',\n        chromium: t,\n        version:
getFirstMatch(/(?:chromium)[\\s\\/](\\d+(?:\\.\\d+)?)/i) || versionIdentifier\n      };\n    } else if
(/chrome|crios|crmo/i.test(ua)) {\n      result = {\n        name: 'Chrome',\n        chrome: t,\n        version:
getFirstMatch(/(?:chrome|crios|crmo)\\/(\\d+(\\.\\d+)?)/i)\n
      };\n    } else if (android) {\n      result = {\n        name: 'Android',\n        version: versionIdentifier\n      };\n    }
else if (/safari|applewebkit/i.test(ua)) {\n      result = {\n        name: 'Safari',\n        safari: t\n      };\n\n      if
(versionIdentifier) {\n        result.version = versionIdentifier;\n      }\n    } else if (iosdevice) {\n      result = {\n
name: iosdevice == 'iphone' ? 'iPhone' : iosdevice == 'ipad' ? 'iPad' : 'iPod'\n      }; // WTF: version is not part of user
agent in web apps\n\n      if (versionIdentifier) {\n        result.version = versionIdentifier;\n      }\n    } else if
(/googlebot/i.test(ua)) {\n      result = {\n        name: 'Googlebot',\n        googlebot: t,\n        version:
getFirstMatch(/googlebot\\/(\\d+(\\.\\d+))/i) || versionIdentifier\n      };\n    } else {\n      result = {\n        name:
getFirstMatch(/^(.*)\\/(.*) /),\n        version: getSecondMatch(/^(.*)\\/(.*) /)\n
   };\n    } // set webkit or gecko flag for browsers based on these engines\n\n\n    if (!result.msedge &&
/(apple)?webkit/i.test(ua)) {\n      if (/(apple)?webkit\\/537\\.36/i.test(ua)) {\n        result.name = result.name ||
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\"Blink\";\n   result.blink = t;\n   } else {\n   result.name = result.name || \"Webkit\";\n   result.webkit = t;\n   }\n\n   if (!result.version && versionIdentifier) {\n   result.version = versionIdentifier;\n   }\n   } else if (!result.opera && /gecko\\//i.test(ua)) {\n   result.name = result.name || \"Gecko\";\n   result.gecko = t;\n   result.version = result.version || getFirstMatch(/gecko\\/(\\d+(\\.\\d+)?)/i);\n   } // set OS flags for platforms that have multiple browsers\n\n\n   if (!result.windowsphone && (android || result.silk)) {\n   result.android = t;\n   result.osname = 'Android';\n   } else if (!result.windowsphone && iosdevice) {\n   result[iosdevice] = t;\n   result.ios = t;\n   result.osname = 'iOS';\n   } else if (mac) {\n   result.mac = t;\n   result.osname = 'macOS';\n   } else if (xbox) {\n   result.xbox = t;\n   result.osname = 'Xbox';\n   } else if (windows) {\n   result.windows = t;\n   result.osname = 'Windows';\n   } else if (linux) {\n   result.linux = t;\n   result.osname = 'Linux';\n   }\n\n   function getWindowsVersion(s) {\n   switch (s) {\n   case 'NT':\n   return 'NT';\n\n   case 'XP':\n   return 'XP';\n\n   case 'NT 5.0':\n   return '2000';\n\n   case 'NT 5.1':\n   return 'XP';\n\n   case 'NT 5.2':\n   return '2003';\n\n   case 'NT 6.0':\n   return 'Vista';\n\n   case 'NT 6.1':\n   return '7';\n\n   case 'NT 6.2':\n   return '8';\n\n   case 'NT 6.3':\n   return '8.1';\n\n   case 'NT 10.0':\n   return '10';\n\n   default:\n   return undefined;\n   }\n   } // OS version extraction\n\n\n   var osVersion = '';\n   if (result.windows) {\n   osVersion = getWindowsVersion(getFirstMatch(/Windows ((NT|XP)(\\d\\d?.\\d)?)/i));\n   } else if (result.windowsphone) {\n   osVersion = getFirstMatch(/windows phone (?:os)?\\s?(\\d+(\\.\\d+)*)/i);\n   } else if (result.mac) {\n   osVersion = getFirstMatch(/Mac OS X (\\d+([_\\.\\s]\\d+)*)/i);\n   osVersion = osVersion.replace(/[_\\s]/g, '.');\n   } else if (iosdevice) {\n   osVersion = getFirstMatch(/os (\\d+([_\\s]\\d+)*) like mac os x/i);\n   osVersion = osVersion.replace(/[_\\s]/g, '.');\n   } else if (android) {\n   osVersion = getFirstMatch(/android[\\/-](\\d+(\\.\\d+)*)/i);\n   } else if (result.webos) {\n   osVersion = getFirstMatch(/(?:web|hpw)os\\/(\\d+(\\.\\d+)*)/i);\n   } else if (result.blackberry) {\n   osVersion = getFirstMatch(/rim\\stablet\\sos\\s(\\d+(\\.\\d+)*)/i);\n   } else if (result.bada) {\n   osVersion = getFirstMatch(/bada\\/(\\d+(\\.\\d+)*)/i);\n   } else if (result.tizen) {\n   osVersion = getFirstMatch(/tizen[\\/\\s](\\d+(\\.\\d+)*)/i);\n   }\n\n   if (osVersion) {\n   result.osversion = osVersion;\n   } // device type extraction\n\n\n   var osMajorVersion = !result.windows && osVersion.split('.')[0];\n\n   if (tablet || nexusTablet || iosdevice == 'ipad' || android && (osMajorVersion == 3 || osMajorVersion >= 4 && !mobile) || result.silk) {\n   result.tablet = t;\n   } else if (mobile || iosdevice == 'iphone' || iosdevice == 'ipod' || android || nexusMobile || result.blackberry || result.webos || result.bada) {\n   result.mobile = t;\n   } // Graded Browser Support\n   // http://developer.yahoo.com/yui/articles/gbs\n\n\n   if (result.msedge || result.msie && result.version >= 10 || result.yandexbrowser && result.version >= 15 || result.vivaldi && result.version >= 1.0 || result.chrome && result.version >= 20 || result.samsungBrowser && result.version >= 4 || result.whale && compareVersions([result.version, '1.0']) === 1 || result.mzbrowser && compareVersions([result.version, '6.0']) === 1 || result.focus && compareVersions([result.version, '1.0']) === 1 || result.firefox && result.version >= 20.0 || result.safari && result.version >= 6 || result.opera && result.version >= 10.0 || result.ios && result.osversion && result.osversion.split(\".\")[0] >= 6 || result.blackberry && result.version >= 10.1 || result.chromium && result.version >= 20) {\n   result.a = t;\n   } else if (result.msie && result.version < 10 || result.chrome && result.version < 20 || result.firefox && result.version < 20.0 || result.safari && result.version < 6 || result.opera && result.version < 10.0 || result.ios && result.osversion && result.osversion.split(\".\")[0] < 6 || result.chromium && result.version < 20) {\n   result.c = t;\n   } else result.x = t;\n\n   return result;\n }\n\n var bowser = detect(typeof navigator !== 'undefined' ? navigator.userAgent || '' : '');\n\n bowser.test = function (browserList) {\n   for (var i = 0; i < browserList.length; ++i) {\n   var browserItem = browserList[i];\n\n   if (typeof browserItem === 'string') {\n   if (browserItem in bowser) {\n   return true;\n   }\n   }\n   }\n\n   return false;\n };\n /**\n   * Get version precisions count\n   *\n   * @example\n   *   getVersionPrecision(\"1.10.3\") // 3\n   *\n   * @param {string} version\n   * @return {number}\n   */\n\n\n function getVersionPrecision(version) {\n   return version.split(\".\").length;\n }\n /**\n   * Array::map polyfill\n   *\n   * @param {Array} arr\n   * @param {Function} iterator\n   * @return {Array}\n   */\n\n\n function map(arr, iterator) {\n   var result = [],\n   i;\n\n

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if (Array.prototype.map) {\n      return Array.prototype.map.call(arr, iterator);\n    }\n\n    for (i = 0; i < arr.length;
i++) {\n      result.push(iterator(arr[i]));\n    }\n\n    return result;\n  }\n  /**\n   * Calculate browser version weight\n
*\n   * @example\n
 *   compareVersions(['1.10.2.1',  '1.8.2.1.90'])    // 1\n   *   compareVersions(['1.010.2.1', '1.09.2.1.90']);  // 1\n   *
compareVersions(['1.10.2.1',  '1.10.2.1']);     // 0\n   *   compareVersions(['1.10.2.1',  '1.0800.2']);     // -1\n   *\n   *
@param  {Array<String>} versions versions to compare\n   * @return {Number} comparison result\n   */\n\n\n
function compareVersions(versions) {\n    // 1) get common precision for both versions, for example for \"10.0\" and
\"9\" it should be 2\n    var precision = Math.max(getVersionPrecision(versions[0]),
getVersionPrecision(versions[1]));\n    var chunks = map(versions, function (version) {\n      var delta = precision -
getVersionPrecision(version); // 2) \"9\" -> \"9.0\" (for precision = 2)\n\n      version = version + new Array(delta +
1).join(\".0\"); // 3) \"9.0\" -> [\"000000000\"\", \"000000009\"]\n\n      return map(version.split(\".\"), function
(chunk) {\n        return new Array(20 - chunk.length).join(\"0\") + chunk;\n
    }).reverse();\n    }); // iterate in reverse order by reversed chunks array\n\n    while (--precision >= 0) {\n      // 4)
compare: \"000000009\" > \"000000010\" = false (but \"9\" > \"10\" = true)\n      if (chunks[0][precision] >
chunks[1][precision]) {\n        return 1;\n      } else if (chunks[0][precision] === chunks[1][precision]) {\n        if
(precision === 0) {\n          // all version chunks are same\n          return 0;\n        }\n      } else {\n        return -1;\n
}\n    }\n  }\n  /**\n   * Check if browser is unsupported\n   *\n   * @example\n   *
bowser.isUnsupportedBrowser({\n   *     msie: \"10\",\n   *     firefox: \"23\",\n   *     chrome: \"29\",\n   *     safari:
\"5.1\",\n   *     opera: \"16\",\n   *     phantom: \"534\"\n   *   });\n   *\n   * @param  {Object}  minVersions map of
minimal version to browser\n   * @param  {Boolean} [strictMode = false] flag to return false if browser wasn't
found in map\n   * @param  {String}  [ua] user agent string\n
   * @return {Boolean}\n   */\n\n\n  function isUnsupportedBrowser(minVersions, strictMode, ua) {\n    var _bowser
= bowser; // make strictMode param optional with ua param usage\n\n    if (typeof strictMode === 'string') {\n      ua
= strictMode;\n      strictMode = void 0;\n    }\n\n    if (strictMode === void 0) {\n      strictMode = false;\n    }\n\n
if (ua) {\n      _bowser = detect(ua);\n    }\n\n    var version = \"\" + _bowser.version;\n\n    for (var browser in
minVersions) {\n      if (minVersions.hasOwnProperty(browser)) {\n        if (_bowser[browser]) {\n          if (typeof
minVersions[browser] !== 'string') {\n            throw new Error('Browser version in the minVersion map should be a
string: ' + browser + ': ' + String(minVersions));\n          } // browser version and min supported version.\n\n\n
return compareVersions([version, minVersions[browser]]) < 0;\n        }\n      }\n    }\n\n    return strictMode; // not
found\n  }\n  /**\n   * Check if browser
 is supported\n   *\n   * @param  {Object} minVersions map of minimal version to browser\n   * @param
{Boolean} [strictMode = false] flag to return false if browser wasn't found in map\n   * @param  {String}  [ua] user
agent string\n   * @return {Boolean}\n   */\n\n\n  function check(minVersions, strictMode, ua) {\n    return
!isUnsupportedBrowser(minVersions, strictMode, ua);\n  }\n\n  bowser.isUnsupportedBrowser =
isUnsupportedBrowser;\n  bowser.compareVersions = compareVersions;\n  bowser.check = check;\n  /*\n   * Set
our detect method to the main bowser object so we can\n   * reuse it to test other user agents.\n   * This is needed to
implement future tests.\n   */\n\n  bowser._detect = detect;\n  /*\n   * Set our detect public method to the main
bowser object\n   * This is needed to implement bowser in server side\n   */\n\n  bowser.detect = detect;\n  return
bowser;\n});","module.exports = function() {\n\tthrow new Error(\"define cannot be used indirect\");\n};\n","'use
strict';\n\nObject.defineProperty(exports,
 \"__esModule\", {\n  value: true\n});\nexports.default = getPrefixedKeyframes;\n\nfunction
getPrefixedKeyframes(browserName, browserVersion, cssPrefix) {\n  var prefixedKeyframes = 'keyframes';\n\n  if
(browserName === 'chrome' && browserVersion < 43 || (browserName === 'safari' || browserName === 'ios_saf')
&& browserVersion < 9 || browserName === 'opera' && browserVersion < 30 || browserName === 'android' &&
browserVersion <= 4.4 || browserName === 'and_uc') {\n    return cssPrefix + prefixedKeyframes;\n  }\n\n  return
prefixedKeyframes;\n}\n\nmodule.exports = exports['default'];","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\n\nvar _calc = require('inline-style-prefixer/dynamic/plugins/calc');\n\nvar
_calc2 = _interopRequireDefault(_calc);\n\nvar _flex = require('inline-style-prefixer/dynamic/plugins/flex');\n\nvar
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_flex2 = _interopRequireDefault(_flex);\n\nvar _flexboxIE = require('inline-style-
prefixer/dynamic/plugins/flexboxIE');\n\nvar
 _flexboxIE2 = _interopRequireDefault(_flexboxIE);\n\nvar _flexboxOld = require('inline-style-
prefixer/dynamic/plugins/flexboxOld');\n\nvar _flexboxOld2 = _interopRequireDefault(_flexboxOld);\n\nvar
_gradient = require('inline-style-prefixer/dynamic/plugins/gradient');\n\nvar _gradient2 =
_interopRequireDefault(_gradient);\n\nvar _sizing = require('inline-style-prefixer/dynamic/plugins/sizing');\n\nvar
_sizing2 = _interopRequireDefault(_sizing);\n\nvar _transition = require('inline-style-
prefixer/dynamic/plugins/transition');\n\nvar _transition2 = _interopRequireDefault(_transition);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.default
= {\n  plugins: [_calc2.default, _flex2.default, _flexboxIE2.default, _flexboxOld2.default, _gradient2.default,
_sizing2.default, _transition2.default],\n  prefixMap: {\n    \"chrome\": {\n      \"transform\": 35,\n
\"transformOrigin\": 35,\n
     \"transformOriginX\": 35,\n      \"transformOriginY\": 35,\n      \"backfaceVisibility\": 35,\n      \"perspective\":
35,\n      \"perspectiveOrigin\": 35,\n      \"transformStyle\": 35,\n      \"transformOriginZ\": 35,\n      \"animation\":
42,\n      \"animationDelay\": 42,\n      \"animationDirection\": 42,\n      \"animationFillMode\": 42,\n
\"animationDuration\": 42,\n      \"animationIterationCount\": 42,\n      \"animationName\": 42,\n
\"animationPlayState\": 42,\n      \"animationTimingFunction\": 42,\n      \"appearance\": 60,\n      \"userSelect\":
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strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default = calc;\n\nvar
_getPrefixedValue = require('../../utils/getPrefixedValue');\n\nvar _getPrefixedValue2 =
_interopRequireDefault(_getPrefixedValue);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction calc(property, value, style, _ref) {\n  var browserName
= _ref.browserName,\n      browserVersion = _ref.browserVersion,\n      cssPrefix = _ref.cssPrefix,\n
      keepUnprefixed = _ref.keepUnprefixed;\n\n  if (typeof value === 'string' && value.indexOf('calc(') > -1 &&
(browserName === 'firefox' && browserVersion < 15 || browserName === 'chrome' && browserVersion < 25 ||
browserName === 'safari' && browserVersion < 6.1 || browserName === 'ios_saf' && browserVersion < 7)) {\n
return (0, _getPrefixedValue2.default)(value.replace(/calc\\(/g, cssPrefix + 'calc('), value, keepUnprefixed);\n
}\n}\n\nmodule.exports = exports['default'];","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n
value: true\n});\nexports.default = flex;\n\nvar _getPrefixedValue = require('../../utils/getPrefixedValue');\n\nvar
_getPrefixedValue2 = _interopRequireDefault(_getPrefixedValue);\n\nfunction _interopRequireDefault(obj) {\n
return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar values = {\n  flex: true,\n  'inline-flex':
true\n};\n\nfunction flex(property, value, style, _ref) {\n  var browserName = _ref.browserName,\n
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    browserVersion = _ref.browserVersion,\n      cssPrefix = _ref.cssPrefix,\n      keepUnprefixed =
_ref.keepUnprefixed;\n\n  if (property === 'display' && values[value] && (browserName === 'chrome' &&
browserVersion < 29 && browserVersion > 20 || (browserName === 'safari' || browserName === 'ios_saf') &&
browserVersion < 9 && browserVersion > 6 || browserName === 'opera' && (browserVersion === 15 ||
browserVersion === 16))) {\n    return (0, _getPrefixedValue2.default)(cssPrefix + value, value, keepUnprefixed);\n
}\n}\n\nmodule.exports = exports['default'];","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n
value: true\n});\nexports.default = flexboxIE;\n\nvar _getPrefixedValue =
require('../../utils/getPrefixedValue');\n\nvar _getPrefixedValue2 =
_interopRequireDefault(_getPrefixedValue);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar alternativeValues = {\n  'space-around': 'distribute',\n
 'space-between': 'justify',\n  'flex-start': 'start',\n  'flex-end': 'end',\n  flex: 'flexbox',\n  'inline-flex': 'inline-
flexbox'\n};\nvar alternativeProps = {\n  alignContent: 'msFlexLinePack',\n  alignSelf: 'msFlexItemAlign',\n
alignItems: 'msFlexAlign',\n  justifyContent: 'msFlexPack',\n  order: 'msFlexOrder',\n  flexGrow: 'msFlexPositive',\n
flexShrink: 'msFlexNegative',\n  flexBasis: 'msFlexPreferredSize'\n};\n\nfunction flexboxIE(property, value, style,
_ref) {\n  var browserName = _ref.browserName,\n      browserVersion = _ref.browserVersion,\n      cssPrefix =
_ref.cssPrefix,\n      keepUnprefixed = _ref.keepUnprefixed,\n      requiresPrefix = _ref.requiresPrefix;\n\n  if
((alternativeProps.hasOwnProperty(property) || property === 'display' && typeof value === 'string' &&
value.indexOf('flex') > -1) && (browserName === 'ie_mob' || browserName === 'ie') && browserVersion === 10)
{\n    delete requiresPrefix[property];\n\n    if (!keepUnprefixed && !Array.isArray(style[property]))
 {\n      delete style[property];\n    }\n\n    if (property === 'display' && alternativeValues.hasOwnProperty(value))
{\n      return (0, _getPrefixedValue2.default)(cssPrefix + alternativeValues[value], value, keepUnprefixed);\n
}\n\n    if (alternativeProps.hasOwnProperty(property)) {\n      style[alternativeProps[property]] =
alternativeValues[value] || value;\n    }\n  }\n}\n\nmodule.exports = exports['default'];","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default =
flexboxOld;\n\nvar _getPrefixedValue = require('../../utils/getPrefixedValue');\n\nvar _getPrefixedValue2 =
_interopRequireDefault(_getPrefixedValue);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar alternativeValues = {\n  'space-around': 'justify',\n  'space-
between': 'justify',\n  'flex-start': 'start',\n  'flex-end': 'end',\n  'wrap-reverse': 'multiple',\n  wrap: 'multiple',\n  flex:
'box',\n
  'inline-flex': 'inline-box'\n};\nvar alternativeProps = {\n  alignItems: 'WebkitBoxAlign',\n  justifyContent:
'WebkitBoxPack',\n  flexWrap: 'WebkitBoxLines'\n};\nvar otherProps = ['alignContent', 'alignSelf', 'order',
'flexGrow', 'flexShrink', 'flexBasis', 'flexDirection'];\nvar properties =
Object.keys(alternativeProps).concat(otherProps);\n\nfunction flexboxOld(property, value, style, _ref) {\n  var
browserName = _ref.browserName,\n      browserVersion = _ref.browserVersion,\n      cssPrefix = _ref.cssPrefix,\n
  keepUnprefixed = _ref.keepUnprefixed,\n      requiresPrefix = _ref.requiresPrefix;\n\n  if
((properties.indexOf(property) > -1 || property === 'display' && typeof value === 'string' && value.indexOf('flex')
> -1) && (browserName === 'firefox' && browserVersion < 22 || browserName === 'chrome' && browserVersion
< 21 || (browserName === 'safari' || browserName === 'ios_saf') && browserVersion <= 6.1 || browserName ===
'android' && browserVersion < 4.4 || browserName
 === 'and_uc')) {\n    delete requiresPrefix[property];\n\n    if (!keepUnprefixed && !Array.isArray(style[property]))
{\n      delete style[property];\n    }\n\n    if (property === 'flexDirection' && typeof value === 'string') {\n      if
(value.indexOf('column') > -1) {\n        style.WebkitBoxOrient = 'vertical';\n      } else {\n
style.WebkitBoxOrient = 'horizontal';\n      }\n\n      if (value.indexOf('reverse') > -1) {\n
style.WebkitBoxDirection = 'reverse';\n      } else {\n        style.WebkitBoxDirection = 'normal';\n      }\n    }\n\n    if
(property === 'display' && alternativeValues.hasOwnProperty(value)) {\n      return (0,
_getPrefixedValue2.default)(cssPrefix + alternativeValues[value], value, keepUnprefixed);\n    }\n\n    if
(alternativeProps.hasOwnProperty(property)) {\n      style[alternativeProps[property]] = alternativeValues[value] ||
value;\n    }\n  }\n}\n\nmodule.exports = exports['default'];","'use strict';\n\nObject.defineProperty(exports,
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\"__esModule\",
 {\n  value: true\n});\nexports.default = gradient;\n\nvar _getPrefixedValue =
require('../../utils/getPrefixedValue');\n\nvar _getPrefixedValue2 =
_interopRequireDefault(_getPrefixedValue);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar values = /linear-gradient|radial-gradient|repeating-linear-
gradient|repeating-radial-gradient/;\n\nfunction gradient(property, value, style, _ref) {\n  var browserName =
_ref.browserName,\n      browserVersion = _ref.browserVersion,\n      cssPrefix = _ref.cssPrefix,\n
keepUnprefixed = _ref.keepUnprefixed;\n\n  if (typeof value === 'string' && values.test(value) && (browserName
=== 'firefox' && browserVersion < 16 || browserName === 'chrome' && browserVersion < 26 || (browserName
=== 'safari' || browserName === 'ios_saf') && browserVersion < 7 || (browserName === 'opera' || browserName
=== 'op_mini') && browserVersion < 12.1 || browserName === 'android' && browserVersion
 < 4.4 || browserName === 'and_uc')) {\n    return (0, _getPrefixedValue2.default)(cssPrefix + value, value,
keepUnprefixed);\n  }\n}\n\nmodule.exports = exports['default'];","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\nexports.default = sizing;\n\nvar _getPrefixedValue =
require('../../utils/getPrefixedValue');\n\nvar _getPrefixedValue2 =
_interopRequireDefault(_getPrefixedValue);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar properties = {\n  maxHeight: true,\n  maxWidth: true,\n
width: true,\n  height: true,\n  columnWidth: true,\n  minWidth: true,\n  minHeight: true\n};\nvar values = {\n  'min-
content': true,\n  'max-content': true,\n  'fill-available': true,\n  'fit-content': true,\n  'contain-floats': true // TODO:
chrome & opera support it\n\n};\n\nfunction sizing(property, value, style, _ref) {\n  var cssPrefix = _ref.cssPrefix,\n
   keepUnprefixed = _ref.keepUnprefixed;
 // This might change in the future\n  // Keep an eye on it\n\n  if (properties.hasOwnProperty(property) &&
values.hasOwnProperty(value)) {\n    return (0, _getPrefixedValue2.default)(cssPrefix + value, value,
keepUnprefixed);\n  }\n}\n\nmodule.exports = exports['default'];","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\nexports.default = transition;\n\nvar _hyphenateProperty = require('css-in-js-
utils/lib/hyphenateProperty');\n\nvar _hyphenateProperty2 =
_interopRequireDefault(_hyphenateProperty);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar properties = {\n  transition: true,\n  transitionProperty:
true,\n  WebkitTransition: true,\n  WebkitTransitionProperty: true,\n  MozTransition: true,\n
MozTransitionProperty: true\n};\nvar requiresPrefixDashCased = void 0;\n\nfunction transition(property, value,
style, _ref) {\n  var cssPrefix = _ref.cssPrefix,\n      keepUnprefixed
 = _ref.keepUnprefixed,\n      requiresPrefix = _ref.requiresPrefix;\n\n  if (typeof value === 'string' &&
properties.hasOwnProperty(property)) {\n    // memoize the prefix array for later use\n    if
(!requiresPrefixDashCased) {\n      requiresPrefixDashCased = Object.keys(requiresPrefix).map(function (prop) {\n
     return (0, _hyphenateProperty2.default)(prop);\n      });\n    } // only split multi values, not cubic beziers\n\n\n
var multipleValues = value.split(/,(?![^()]*(?:\\([^()]*\\))?\\))/g);\n    requiresPrefixDashCased.forEach(function
(prop) {\n      multipleValues.forEach(function (val, index) {\n        if (val.indexOf(prop) > -1 && prop !== 'order')
{\n          multipleValues[index] = val.replace(prop, cssPrefix + prop) + (keepUnprefixed ? ',' + val : '');\n        }\n
});\n    });\n    return multipleValues.join(',');\n  }\n}\n\nmodule.exports = exports['default'];","/* eslint-disable no-
var, prefer-template */\nvar uppercasePattern = /[A-Z]/g;\nvar
 msPattern = /^ms-/;\nvar cache = {};\n\nfunction toHyphenLower(match) {\n  return '-' +
match.toLowerCase();\n}\n\nfunction hyphenateStyleName(name) {\n  if (cache.hasOwnProperty(name)) {\n
return cache[name];\n  }\n\n  var hName = name.replace(uppercasePattern, toHyphenLower);\n  return cache[name]
= msPattern.test(hName) ? '-' + hName : hName;\n}\n\nexport default hyphenateStyleName;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _calc = require('inline-style-
prefixer/static/plugins/calc');\n\nvar _calc2 = _interopRequireDefault(_calc);\n\nvar _flex = require('inline-style-
prefixer/static/plugins/flex');\n\nvar _flex2 = _interopRequireDefault(_flex);\n\nvar _flexboxIE = require('inline-
style-prefixer/static/plugins/flexboxIE');\n\nvar _flexboxIE2 = _interopRequireDefault(_flexboxIE);\n\nvar
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_flexboxOld = require('inline-style-prefixer/static/plugins/flexboxOld');\n\nvar _flexboxOld2 =
_interopRequireDefault(_flexboxOld);\n\nvar _gradient
 = require('inline-style-prefixer/static/plugins/gradient');\n\nvar _gradient2 =
_interopRequireDefault(_gradient);\n\nvar _sizing = require('inline-style-prefixer/static/plugins/sizing');\n\nvar
_sizing2 = _interopRequireDefault(_sizing);\n\nvar _transition = require('inline-style-
prefixer/static/plugins/transition');\n\nvar _transition2 = _interopRequireDefault(_transition);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nexports.default
= {\n  plugins: [_calc2.default, _flex2.default, _flexboxIE2.default, _flexboxOld2.default, _gradient2.default,
_sizing2.default, _transition2.default],\n  prefixMap: {\n    \"transform\": [\"Webkit\", \"ms\"],\n
\"transformOrigin\": [\"Webkit\", \"ms\"],\n    \"transformOriginX\": [\"Webkit\", \"ms\"],\n    \"transformOriginY\":
[\"Webkit\", \"ms\"],\n    \"backfaceVisibility\": [\"Webkit\"],\n    \"perspective\": [\"Webkit\"],\n
\"perspectiveOrigin\": [\"Webkit\"],\n    \"transformStyle\":
 [\"Webkit\"],\n    \"transformOriginZ\": [\"Webkit\"],\n    \"animation\": [\"Webkit\"],\n    \"animationDelay\":
[\"Webkit\"],\n    \"animationDirection\": [\"Webkit\"],\n    \"animationFillMode\": [\"Webkit\"],\n
\"animationDuration\": [\"Webkit\"],\n    \"animationIterationCount\": [\"Webkit\"],\n    \"animationName\":
[\"Webkit\"],\n    \"animationPlayState\": [\"Webkit\"],\n    \"animationTimingFunction\": [\"Webkit\"],\n
\"appearance\": [\"Webkit\", \"Moz\"],\n    \"userSelect\": [\"Webkit\", \"Moz\", \"ms\"],\n    \"fontKerning\":
[\"Webkit\"],\n    \"textEmphasisPosition\": [\"Webkit\"],\n    \"textEmphasis\": [\"Webkit\"],\n
\"textEmphasisStyle\": [\"Webkit\"],\n    \"textEmphasisColor\": [\"Webkit\"],\n    \"boxDecorationBreak\":
[\"Webkit\"],\n    \"clipPath\": [\"Webkit\"],\n    \"maskImage\": [\"Webkit\"],\n    \"maskMode\": [\"Webkit\"],\n
\"maskRepeat\": [\"Webkit\"],\n    \"maskPosition\": [\"Webkit\"],\n    \"maskClip\": [\"Webkit\"],\n
   \"maskOrigin\": [\"Webkit\"],\n    \"maskSize\": [\"Webkit\"],\n    \"maskComposite\": [\"Webkit\"],\n    \"mask\":
[\"Webkit\"],\n    \"maskBorderSource\": [\"Webkit\"],\n    \"maskBorderMode\": [\"Webkit\"],\n
\"maskBorderSlice\": [\"Webkit\"],\n    \"maskBorderWidth\": [\"Webkit\"],\n    \"maskBorderOutset\":
[\"Webkit\"],\n    \"maskBorderRepeat\": [\"Webkit\"],\n    \"maskBorder\": [\"Webkit\"],\n    \"maskType\":
[\"Webkit\"],\n    \"textDecorationStyle\": [\"Webkit\", \"Moz\"],\n    \"textDecorationSkip\": [\"Webkit\",
\"Moz\"],\n    \"textDecorationLine\": [\"Webkit\", \"Moz\"],\n    \"textDecorationColor\": [\"Webkit\", \"Moz\"],\n
\"filter\": [\"Webkit\"],\n    \"fontFeatureSettings\": [\"Webkit\", \"Moz\"],\n    \"breakAfter\": [\"Webkit\", \"Moz\",
\"ms\"],\n    \"breakBefore\": [\"Webkit\", \"Moz\", \"ms\"],\n    \"breakInside\": [\"Webkit\", \"Moz\", \"ms\"],\n
\"columnCount\": [\"Webkit\", \"Moz\"],\n    \"columnFill\": [\"Webkit\", \"Moz\"],\n    \"columnGap\":
 [\"Webkit\", \"Moz\"],\n    \"columnRule\": [\"Webkit\", \"Moz\"],\n    \"columnRuleColor\": [\"Webkit\",
\"Moz\"],\n    \"columnRuleStyle\": [\"Webkit\", \"Moz\"],\n    \"columnRuleWidth\": [\"Webkit\", \"Moz\"],\n
\"columns\": [\"Webkit\", \"Moz\"],\n    \"columnSpan\": [\"Webkit\", \"Moz\"],\n    \"columnWidth\": [\"Webkit\",
\"Moz\"],\n    \"flex\": [\"Webkit\", \"ms\"],\n    \"flexBasis\": [\"Webkit\"],\n    \"flexDirection\": [\"Webkit\",
\"ms\"],\n    \"flexGrow\": [\"Webkit\"],\n    \"flexFlow\": [\"Webkit\", \"ms\"],\n    \"flexShrink\": [\"Webkit\"],\n
\"flexWrap\": [\"Webkit\", \"ms\"],\n    \"alignContent\": [\"Webkit\"],\n    \"alignItems\": [\"Webkit\"],\n
\"alignSelf\": [\"Webkit\"],\n    \"justifyContent\": [\"Webkit\"],\n    \"order\": [\"Webkit\"],\n    \"transitionDelay\":
[\"Webkit\"],\n    \"transitionDuration\": [\"Webkit\"],\n    \"transitionProperty\": [\"Webkit\"],\n
\"transitionTimingFunction\": [\"Webkit\"],\n    \"backdropFilter\": [\"Webkit\"],\n
    \"scrollSnapType\": [\"Webkit\", \"ms\"],\n    \"scrollSnapPointsX\": [\"Webkit\", \"ms\"],\n
\"scrollSnapPointsY\": [\"Webkit\", \"ms\"],\n    \"scrollSnapDestination\": [\"Webkit\", \"ms\"],\n
\"scrollSnapCoordinate\": [\"Webkit\", \"ms\"],\n    \"shapeImageThreshold\": [\"Webkit\"],\n
\"shapeImageMargin\": [\"Webkit\"],\n    \"shapeImageOutside\": [\"Webkit\"],\n    \"hyphens\": [\"Webkit\",
\"Moz\", \"ms\"],\n    \"flowInto\": [\"Webkit\", \"ms\"],\n    \"flowFrom\": [\"Webkit\", \"ms\"],\n
\"regionFragment\": [\"Webkit\", \"ms\"],\n    \"boxSizing\": [\"Moz\"],\n    \"textAlignLast\": [\"Moz\"],\n
\"tabSize\": [\"Moz\"],\n    \"wrapFlow\": [\"ms\"],\n    \"wrapThrough\": [\"ms\"],\n    \"wrapMargin\": [\"ms\"],\n
\"touchAction\": [\"ms\"],\n    \"gridTemplateColumns\": [\"ms\"],\n    \"gridTemplateRows\": [\"ms\"],\n
\"gridTemplateAreas\": [\"ms\"],\n    \"gridTemplate\": [\"ms\"],\n    \"gridAutoColumns\": [\"ms\"],\n
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\"gridAutoRows\": [\"ms\"],\n
   \"gridAutoFlow\": [\"ms\"],\n    \"grid\": [\"ms\"],\n    \"gridRowStart\": [\"ms\"],\n    \"gridColumnStart\":
[\"ms\"],\n    \"gridRowEnd\": [\"ms\"],\n    \"gridRow\": [\"ms\"],\n    \"gridColumn\": [\"ms\"],\n
\"gridColumnEnd\": [\"ms\"],\n    \"gridColumnGap\": [\"ms\"],\n    \"gridRowGap\": [\"ms\"],\n    \"gridArea\":
[\"ms\"],\n    \"gridGap\": [\"ms\"],\n    \"textSizeAdjust\": [\"Webkit\", \"ms\"],\n    \"borderImage\": [\"Webkit\"],\n
 \"borderImageOutset\": [\"Webkit\"],\n    \"borderImageRepeat\": [\"Webkit\"],\n    \"borderImageSlice\":
[\"Webkit\"],\n    \"borderImageSource\": [\"Webkit\"],\n    \"borderImageWidth\": [\"Webkit\"]\n  }\n};\n/* eslint-
disable */","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default =
calc;\n\nvar _isPrefixedValue = require('css-in-js-utils/lib/isPrefixedValue');\n\nvar _isPrefixedValue2 =
_interopRequireDefault(_isPrefixedValue);\n\nfunction _interopRequireDefault(obj) {\n  return
 obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar prefixes = ['-webkit-', '-moz-', ''];\n\nfunction
calc(property, value) {\n  if (typeof value === 'string' && !(0, _isPrefixedValue2.default)(value) &&
value.indexOf('calc(') > -1) {\n    return prefixes.map(function (prefix) {\n      return value.replace(/calc\\(/g, prefix +
'calc(');\n    });\n  }\n}\n\nmodule.exports = exports['default'];","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\nexports.default = flex;\nvar values = {\n  flex: ['-webkit-box', '-moz-box', '-
ms-flexbox', '-webkit-flex', 'flex'],\n  'inline-flex': ['-webkit-inline-box', '-moz-inline-box', '-ms-inline-flexbox', '-
webkit-inline-flex', 'inline-flex']\n};\n\nfunction flex(property, value) {\n  if (property === 'display' &&
values.hasOwnProperty(value)) {\n    return values[value];\n  }\n}\n\nmodule.exports = exports['default'];","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default
 = flexboxIE;\nvar alternativeValues = {\n  'space-around': 'distribute',\n  'space-between': 'justify',\n  'flex-start':
'start',\n  'flex-end': 'end'\n};\nvar alternativeProps = {\n  alignContent: 'msFlexLinePack',\n  alignSelf:
'msFlexItemAlign',\n  alignItems: 'msFlexAlign',\n  justifyContent: 'msFlexPack',\n  order: 'msFlexOrder',\n
flexGrow: 'msFlexPositive',\n  flexShrink: 'msFlexNegative',\n  flexBasis: 'msFlexPreferredSize'\n};\n\nfunction
flexboxIE(property, value, style) {\n  if (alternativeProps.hasOwnProperty(property)) {\n
style[alternativeProps[property]] = alternativeValues[value] || value;\n  }\n}\n\nmodule.exports =
exports['default'];","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\nexports.default = flexboxOld;\nvar alternativeValues = {\n  'space-around': 'justify',\n  'space-between':
'justify',\n  'flex-start': 'start',\n  'flex-end': 'end',\n  'wrap-reverse': 'multiple',\n  wrap: 'multiple'\n};\nvar
 alternativeProps = {\n  alignItems: 'WebkitBoxAlign',\n  justifyContent: 'WebkitBoxPack',\n  flexWrap:
'WebkitBoxLines'\n};\n\nfunction flexboxOld(property, value, style) {\n  if (property === 'flexDirection' && typeof
value === 'string') {\n    if (value.indexOf('column') > -1) {\n      style.WebkitBoxOrient = 'vertical';\n    } else {\n
style.WebkitBoxOrient = 'horizontal';\n    }\n\n    if (value.indexOf('reverse') > -1) {\n      style.WebkitBoxDirection
= 'reverse';\n    } else {\n      style.WebkitBoxDirection = 'normal';\n    }\n  }\n\n  if
(alternativeProps.hasOwnProperty(property)) {\n    style[alternativeProps[property]] = alternativeValues[value] ||
value;\n  }\n}\n\nmodule.exports = exports['default'];","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\nexports.default = gradient;\n\nvar _isPrefixedValue = require('css-in-js-
utils/lib/isPrefixedValue');\n\nvar _isPrefixedValue2 = _interopRequireDefault(_isPrefixedValue);\n\nfunction
 _interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar prefixes =
['-webkit-', '-moz-', ''];\nvar values = /linear-gradient|radial-gradient|repeating-linear-gradient|repeating-radial-
gradient/;\n\nfunction gradient(property, value) {\n  if (typeof value === 'string' && !(0,
_isPrefixedValue2.default)(value) && values.test(value)) {\n    return prefixes.map(function (prefix) {\n      return
prefix + value;\n    });\n  }\n}\n\nmodule.exports = exports['default'];","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\nexports.default = sizing;\nvar
prefixes = ['-webkit-', '-moz-', ''];\nvar properties = {\n  maxHeight: true,\n  maxWidth: true,\n  width: true,\n  height:
true,\n  columnWidth: true,\n  minWidth: true,\n  minHeight: true\n};\nvar values = {\n  'min-content': true,\n  'max-
content': true,\n  'fill-available': true,\n  'fit-content': true,\n  'contain-floats': true\n};\n\nfunction sizing(property,
 value) {\n  if (properties.hasOwnProperty(property) && values.hasOwnProperty(value)) {\n    return
prefixes.map(function (prefix) {\n      return prefix + value;\n    });\n  }\n}\n\nmodule.exports =
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exports['default'];","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\nexports.default = transition;\n\nvar _hyphenateProperty = require('css-in-js-
utils/lib/hyphenateProperty');\n\nvar _hyphenateProperty2 = _interopRequireDefault(_hyphenateProperty);\n\nvar
_isPrefixedValue = require('css-in-js-utils/lib/isPrefixedValue');\n\nvar _isPrefixedValue2 =
_interopRequireDefault(_isPrefixedValue);\n\nvar _capitalizeString = require('../../utils/capitalizeString');\n\nvar
_capitalizeString2 = _interopRequireDefault(_capitalizeString);\n\nfunction _interopRequireDefault(obj) {\n  return
obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar properties = {\n  transition: true,\n
transitionProperty: true,\n  WebkitTransition: true,\n  WebkitTransitionProperty:
 true,\n  MozTransition: true,\n  MozTransitionProperty: true\n};\nvar prefixMapping = {\n  Webkit: '-webkit-',\n
Moz: '-moz-',\n  ms: '-ms-'\n};\n\nfunction prefixValue(value, propertyPrefixMap) {\n  if ((0,
_isPrefixedValue2.default)(value)) {\n    return value;\n  } // only split multi values, not cubic beziers\n\n\n  var
multipleValues = value.split(/,(?![^()]*(?:\\([^()]*\\))?\\))/g);\n\n  for (var i = 0, len = multipleValues.length; i < len;
++i) {\n    var singleValue = multipleValues[i];\n    var values = [singleValue];\n\n    for (var property in
propertyPrefixMap) {\n      var dashCaseProperty = (0, _hyphenateProperty2.default)(property);\n\n      if
(singleValue.indexOf(dashCaseProperty) > -1 && dashCaseProperty !== 'order') {\n        var prefixes =
propertyPrefixMap[property];\n\n        for (var j = 0, pLen = prefixes.length; j < pLen; ++j) {\n          // join all
prefixes and create a new value\n          values.unshift(singleValue.replace(dashCaseProperty,
 prefixMapping[prefixes[j]] + dashCaseProperty));\n        }\n      }\n    }\n\n    multipleValues[i] = values.join(',');\n
}\n\n  return multipleValues.join(',');\n}\n\nfunction transition(property, value, style, propertyPrefixMap) {\n  // also
check for already prefixed transitions\n  if (typeof value === 'string' && properties.hasOwnProperty(property)) {\n
var outputValue = prefixValue(value, propertyPrefixMap); // if the property is already prefixed\n\n    var
webkitOutput = outputValue.split(/,(?![^()]*(?:\\([^()]*\\))?\\))/g).filter(function (val) {\n      return !/-moz-|-ms-
/.test(val);\n    }).join(',');\n\n    if (property.indexOf('Webkit') > -1) {\n      return webkitOutput;\n    }\n\n    var
mozOutput = outputValue.split(/,(?![^()]*(?:\\([^()]*\\))?\\))/g).filter(function (val) {\n      return !/-webkit-|-ms-
/.test(val);\n    }).join(',');\n\n    if (property.indexOf('Moz') > -1) {\n      return mozOutput;\n    }\n\n    style['Webkit'
+ (0, _capitalizeString2.default)(property)]
 = webkitOutput;\n    style['Moz' + (0, _capitalizeString2.default)(property)] = mozOutput;\n    return outputValue;\n
}\n}\n\nmodule.exports = exports['default'];","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n
value: true\n});\nexports.default = callOnce;\n\nvar _warning = require('warning');\n\nvar _warning2 =
_interopRequireDefault(_warning);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nvar CALLED_ONCE = 'muiPrepared';\n\nfunction callOnce() {\n  if
(process.env.NODE_ENV !== 'production') {\n    return function (style) {\n      if (style[CALLED_ONCE]) {\n
process.env.NODE_ENV !== \"production\" ? (0, _warning2.default)(false, 'Material-UI: You cannot call
prepareStyles() on the same style object more than once.') : void 0;\n      }\n\n      style[CALLED_ONCE] = true;\n
 return style;\n    };\n  }\n}","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n
  value: true\n});\n\nvar _keys = require('babel-runtime/core-js/object/keys');\n\nvar _keys2 =
_interopRequireDefault(_keys);\n\nexports.default = rtl;\n\nfunction _interopRequireDefault(obj) {\n  return obj
&& obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar reTranslate = /((^|\\s)translate(3d|X)?\\()(\\-
?[\\d]+)/;\nvar reSkew = /((^|\\s)skew(x|y)?\\()\\s*(\\-?[\\d]+)(deg|rad|grad)(,\\s*(\\-?[\\d]+)(deg|rad|grad))?/;\n/**\n *
This function ensures that `style` supports both ltr and rtl directions by\n * checking `styleConstants` in `muiTheme`
and replacing attribute keys if\n * necessary.\n */\n\nfunction rtl(muiTheme) {\n  if (muiTheme.isRtl) {\n    return
function (style) {\n      if (style.directionInvariant === true) {\n        return style;\n      }\n\n      var flippedAttributes
= {\n        // Keys and their replacements.\n        right: 'left',\n        left: 'right',\n        marginRight: 'marginLeft',\n
marginLeft: 'marginRight',\n        paddingRight: 'paddingLeft',\n
       paddingLeft: 'paddingRight',\n        borderRight: 'borderLeft',\n        borderLeft: 'borderRight'\n      };\n      var
newStyle = {};\n\n      (0, _keys2.default)(style).forEach(function (attribute) {\n        var value = style[attribute];\n
var key = attribute;\n\n        if (flippedAttributes.hasOwnProperty(attribute)) {\n          key =
flippedAttributes[attribute];\n        }\n\n        switch (attribute) {\n          case 'float':\n          case 'textAlign':\n
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if (value === 'right') {\n            value = 'left';\n          } else if (value === 'left') {\n            value = 'right';\n
}\n\n          break;\n\n        case 'direction':\n          if (value === 'ltr') {\n            value = 'rtl';\n          } else if
(value === 'rtl') {\n            value = 'ltr';\n          }\n\n          break;\n\n        case 'transform':\n          if (!value)
break;\n          var matches = void 0;\n\n          if
 (matches = value.match(reTranslate)) {\n            value = value.replace(matches[0], matches[1] + -
parseFloat(matches[4]));\n          }\n\n          if (matches = value.match(reSkew)) {\n            value =
value.replace(matches[0], matches[1] + -parseFloat(matches[4]) + matches[5] + matches[6] ? ', ' + (-
parseFloat(matches[7]) + matches[8]) : '');\n          }\n\n          break;\n\n        case 'transformOrigin':\n          if
(!value) break;\n\n          if (value.indexOf('right') > -1) {\n            value = value.replace('right', 'left');\n          }
else if (value.indexOf('left') > -1) {\n            value = value.replace('left', 'right');\n          }\n\n          break;\n
}\n\n        newStyle[key] = value;\n      });\n      return newStyle;\n    };\n  }\n}","\"use
strict\";\n\nexports.__esModule = true;\nexports.default = compose;\n\nfunction compose() {\n  for (var _len =
arguments.length, funcs = Array(_len), _key = 0; _key < _len; _key++)
 {\n    funcs[_key] = arguments[_key];\n  }\n\n  if (funcs.length === 0) {\n    return function (arg) {\n      return
arg;\n    };\n  }\n\n  if (funcs.length === 1) {\n    return funcs[0];\n  }\n\n  return funcs.reduce(function (a, b) {\n
return function () {\n      return a(b.apply(undefined, arguments));\n    };\n  });\n}","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _classCallCheck2 =
require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _colors = require('./colors');\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar
Typography = function Typography() {\n  (0, _classCallCheck3.default)(this, Typography); // text colors\n\n
this.textFullBlack = _colors.fullBlack;\n  this.textDarkBlack = _colors.darkBlack;\n  this.textLightBlack =
_colors.lightBlack;\n  this.textMinBlack = _colors.minBlack;\n  this.textFullWhite
 = _colors.fullWhite;\n  this.textDarkWhite = _colors.darkWhite;\n  this.textLightWhite = _colors.lightWhite; // font
weight\n\n  this.fontWeightLight = 300;\n  this.fontWeightNormal = 400;\n  this.fontWeightMedium = 500;\n
this.fontStyleButtonFontSize = 14;\n};\n\nexports.default = new Typography();","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _pure = require('recompose/pure');\n\nvar
_pure2 = _interopRequireDefault(_pure);\n\nvar _SvgIcon = require('../../SvgIcon');\n\nvar _SvgIcon2 =
_interopRequireDefault(_SvgIcon);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nvar ToggleRadioButtonUnchecked = function
ToggleRadioButtonUnchecked(props) {\n  return _react2.default.createElement(_SvgIcon2.default, props,
_react2.default.createElement('path', {\n    d: 'M12 2C6.48 2 2 6.48
 2 12s4.48 10 10 10 10-4.48 10-10S17.52 2 12 2zm0 18c-4.42 0-8-3.58-8-8s3.58-8 8-8 8 3.58 8 8-3.58 8-8 8z'\n
}));\n};\n\nToggleRadioButtonUnchecked = (0,
_pure2.default)(ToggleRadioButtonUnchecked);\nToggleRadioButtonUnchecked.displayName =
'ToggleRadioButtonUnchecked';\nToggleRadioButtonUnchecked.muiName = 'SvgIcon';\nexports.default =
ToggleRadioButtonUnchecked;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _pure =
require('recompose/pure');\n\nvar _pure2 = _interopRequireDefault(_pure);\n\nvar _SvgIcon =
require('../../SvgIcon');\n\nvar _SvgIcon2 = _interopRequireDefault(_SvgIcon);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar
ToggleRadioButtonChecked = function ToggleRadioButtonChecked(props) {\n  return
_react2.default.createElement(_SvgIcon2.default, props, _react2.default.createElement('path',
 {\n    d: 'M12 7c-2.76 0-5 2.24-5 5s2.24 5 5 5 5-2.24 5-5-2.24-5-5-5zm0-5C6.48 2 2 6.48 2 12s4.48 10 10 10 10-
4.48 10-10S17.52 2 12 2zm0 18c-4.42 0-8-3.58-8-8s3.58-8 8-8 8 3.58 8 8-3.58 8-8 8z'\n
}));\n};\n\nToggleRadioButtonChecked = (0,
_pure2.default)(ToggleRadioButtonChecked);\nToggleRadioButtonChecked.displayName =
```

```
'ToggleRadioButtonChecked';\nToggleRadioButtonChecked.muiName = 'SvgIcon';\nexports.default =
ToggleRadioButtonChecked;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
 _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _transitions =
require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nvar _colorManipulator
 = require('../utils/colorManipulator');\n\nvar _EnhancedButton = require('../internal/EnhancedButton');\n\nvar
_EnhancedButton2 = _interopRequireDefault(_EnhancedButton);\n\nvar _Paper = require('../Paper');\n\nvar
_Paper2 = _interopRequireDefault(_Paper);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction validateLabel(props, propName, componentName) {\n
if (process.env.NODE_ENV !== 'production') {\n    if (!props.children && props.label !== 0 && !props.label &&
!props.icon) {\n      return new Error('Required prop label or children or icon was not specified in ' +
componentName + '.');\n    }\n  }\n}\n\nfunction getStyles(props, context, state) {\n  var _context$muiTheme =
context.muiTheme,\n      baseTheme = _context$muiTheme.baseTheme,\n      button =
_context$muiTheme.button,\n      raisedButton = _context$muiTheme.raisedButton,\n      borderRadius =
_context$muiTheme.borderRadius;\n  var disabled
 = props.disabled,\n      disabledBackgroundColor = props.disabledBackgroundColor,\n      disabledLabelColor =
props.disabledLabelColor,\n      fullWidth = props.fullWidth,\n      icon = props.icon,\n      label = props.label,\n
labelPosition = props.labelPosition,\n      primary = props.primary,\n      secondary = props.secondary,\n      style =
props.style;\n  var amount = primary || secondary ? 0.4 : 0.08;\n  var backgroundColor = raisedButton.color;\n  var
labelColor = raisedButton.textColor;\n\n  if (disabled) {\n    backgroundColor = disabledBackgroundColor ||
raisedButton.disabledColor;\n    labelColor = disabledLabelColor || raisedButton.disabledTextColor;\n  } else if
(primary) {\n    backgroundColor = raisedButton.primaryColor;\n    labelColor = raisedButton.primaryTextColor;\n
} else if (secondary) {\n    backgroundColor = raisedButton.secondaryColor;\n    labelColor =
raisedButton.secondaryTextColor;\n  } else {\n    if (props.backgroundColor) {\n      backgroundColor
 = props.backgroundColor;\n    }\n\n    if (props.labelColor) {\n      labelColor = props.labelColor;\n    }\n  }\n\n  var
buttonHeight = style && style.height || button.height;\n  return {\n    root: {\n      display: 'inline-block',\n
transition: _transitions2.default.easeOut(),\n      minWidth: fullWidth ? '100%' : button.minWidth\n    },\n    button:
{\n      height: buttonHeight,\n      lineHeight: buttonHeight + 'px',\n      width: '100%',\n      padding: 0,\n
borderRadius: borderRadius,\n      transition: _transitions2.default.easeOut(),\n      backgroundColor:
backgroundColor,\n      // That's the default value for a button but not a link\n      textAlign: 'center'\n    },\n    label:
{\n      position: 'relative',\n      opacity: 1,\n      fontSize: raisedButton.fontSize,\n      letterSpacing: 0,\n
textTransform: raisedButton.textTransform || button.textTransform || 'uppercase',\n      fontWeight:
raisedButton.fontWeight,\n      margin: 0,\n      userSelect: 'none',\n
      paddingLeft: icon && labelPosition !== 'before' ? 8 : baseTheme.spacing.desktopGutterLess,\n
paddingRight: icon && labelPosition === 'before' ? 8 : baseTheme.spacing.desktopGutterLess,\n      color:
labelColor\n    },\n    icon: {\n      verticalAlign: 'middle',\n      marginLeft: label && labelPosition !== 'before' ? 12 :
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0,\n      marginRight: label && labelPosition === 'before' ? 12 : 0\n    },\n    overlay: {\n      height: buttonHeight,\n
  borderRadius: borderRadius,\n      backgroundColor: (state.keyboardFocused || state.hovered) && !disabled && (0,
_colorManipulator.fade)(labelColor, amount),\n      transition: _transitions2.default.easeOut(),\n      top: 0\n    },\n
ripple: {\n      color: labelColor,\n      opacity: !(primary || secondary) ? 0.1 : 0.16\n    }\n  };\n}\n\nvar RaisedButton
= function (_Component) {\n  (0, _inherits3.default)(RaisedButton, _Component);\n\n  function RaisedButton() {\n
var _ref;\n\n    var _temp, _this, _ret;\n\n    (0,
 _classCallCheck3.default)(this, RaisedButton);\n\n    for (var _len = arguments.length, args = Array(_len), _key =
0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = RaisedButton.__proto__ || (0,
_getPrototypeOf2.default)(RaisedButton)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      hovered:
false,\n      keyboardFocused: false,\n      touched: false,\n      initialZDepth: 0,\n      zDepth: 0\n    },
_this.handleMouseDown = function (event) {\n      // only listen to left clicks\n      if (event.button === 0) {\n
_this.setState({\n          zDepth: _this.state.initialZDepth + 1\n        });\n      }\n\n      if (_this.props.onMouseDown)
{\n        _this.props.onMouseDown(event);\n      }\n    }, _this.handleMouseUp = function (event) {\n
_this.setState({\n        zDepth: _this.state.initialZDepth\n      });\n\n      if (_this.props.onMouseUp)
 {\n        _this.props.onMouseUp(event);\n      }\n    }, _this.handleMouseLeave = function (event) {\n      if
(!_this.state.keyboardFocused) {\n        _this.setState({\n          zDepth: _this.state.initialZDepth,\n          hovered:
false\n        });\n      }\n\n      if (_this.props.onMouseLeave) {\n        _this.props.onMouseLeave(event);\n      }\n    },
_this.handleMouseEnter = function (event) {\n      if (!_this.state.keyboardFocused && !_this.state.touched) {\n
_this.setState({\n          hovered: true\n        });\n      }\n\n      if (_this.props.onMouseEnter) {\n
_this.props.onMouseEnter(event);\n      }\n    }, _this.handleTouchStart = function (event) {\n      _this.setState({\n
   touched: true,\n        zDepth: _this.state.initialZDepth + 1\n      });\n\n      if (_this.props.onTouchStart) {\n
_this.props.onTouchStart(event);\n      }\n    }, _this.handleTouchEnd = function (event) {\n      _this.setState({\n
touched: true,\n
   zDepth: _this.state.initialZDepth\n      });\n\n      if (_this.props.onTouchEnd) {\n
_this.props.onTouchEnd(event);\n      }\n    }, _this.handleKeyboardFocus = function (event, keyboardFocused) {\n
  var zDepth = keyboardFocused && !_this.props.disabled ? _this.state.initialZDepth + 1 :
_this.state.initialZDepth;\n\n      _this.setState({\n        zDepth: zDepth,\n        keyboardFocused: keyboardFocused\n
    });\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0,
_createClass3.default)(RaisedButton, [{\n    key: 'componentWillMount',\n    value: function
componentWillMount() {\n      var zDepth = this.props.disabled ? 0 : 1;\n      this.setState({\n        zDepth: zDepth,\n
     initialZDepth: zDepth\n      });\n    }\n  }, {\n    key: 'componentWillReceiveProps',\n    value: function
componentWillReceiveProps(nextProps) {\n      var zDepth = nextProps.disabled ? 0 : 1;\n      var nextState = {\n
 zDepth: zDepth,\n        initialZDepth:
 zDepth\n      };\n\n      if (nextProps.disabled) {\n        nextState.hovered = false;\n      }\n\n
this.setState(nextState);\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var _props = this.props,\n
     backgroundColor = _props.backgroundColor,\n          buttonStyle = _props.buttonStyle,\n          children =
_props.children,\n          className = _props.className,\n          disabled = _props.disabled,\n
disabledBackgroundColor = _props.disabledBackgroundColor,\n          disabledLabelColor =
_props.disabledLabelColor,\n          fullWidth = _props.fullWidth,\n          icon = _props.icon,\n          label =
_props.label,\n          labelColor = _props.labelColor,\n          labelPosition = _props.labelPosition,\n          labelStyle
= _props.labelStyle,\n          overlayStyle = _props.overlayStyle,\n          primary = _props.primary,\n
rippleStyle = _props.rippleStyle,\n          secondary = _props.secondary,\n
       style = _props.style,\n          other = (0, _objectWithoutProperties3.default)(_props, ['backgroundColor',
'buttonStyle', 'children', 'className', 'disabled', 'disabledBackgroundColor', 'disabledLabelColor', 'fullWidth', 'icon',
'label', 'labelColor', 'labelPosition', 'labelStyle', 'overlayStyle', 'primary', 'rippleStyle', 'secondary', 'style']);\n      var
prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context,
this.state);\n      var mergedRippleStyles = (0, _simpleAssign2.default)({}, styles.ripple, rippleStyle);\n      var
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buttonEventHandlers = disabled ? {} : {\n   onMouseDown: this.handleMouseDown,\n   onMouseUp:
this.handleMouseUp,\n   onMouseLeave: this.handleMouseLeave,\n   onMouseEnter:
this.handleMouseEnter,\n   onTouchStart: this.handleTouchStart,\n   onTouchEnd: this.handleTouchEnd,\n
 onKeyboardFocus: this.handleKeyboardFocus\n   };\n\n   var labelElement = label &&
_react2.default.createElement('span',
 {\n   style: prepareStyles((0, _simpleAssign2.default)(styles.label, labelStyle)),\n   key: 'labelElement'\n   },
label);\n\n   var iconCloned = icon && (0, _react.cloneElement)(icon, {\n   color: icon.props.color ||
styles.label.color,\n   style: (0, _simpleAssign2.default)(styles.icon, icon.props.style),\n   key: 'iconCloned'\n
 });\n   var overlayBackgroundProxy = {\n   backgroundColor: overlayStyle &&
styles.overlay.backgroundColor && overlayStyle.backgroundColor || styles.overlay.backgroundColor\n   }; //
Place label before or after children.\n\n   var enhancedButtonChildren = labelPosition === 'before' ?
[labelElement, iconCloned, children] : [children, iconCloned, labelElement];\n   return
_react2.default.createElement(_Paper2.default, {\n   className: className,\n   style: (0,
_simpleAssign2.default)(styles.root, style),\n   zDepth: this.state.zDepth\n   },
_react2.default.createElement(_EnhancedButton2.default,
 (0, _extends3.default)({}, other, buttonEventHandlers, {\n   ref: 'container',\n   disabled: disabled,\n   style:
(0, _simpleAssign2.default)(styles.button, buttonStyle),\n   focusRippleColor: mergedRippleStyles.color,\n
touchRippleColor: mergedRippleStyles.color,\n   focusRippleOpacity: mergedRippleStyles.opacity,\n
touchRippleOpacity: mergedRippleStyles.opacity\n   }), _react2.default.createElement('div', {\n   ref:
'overlay',\n   style: prepareStyles((0, _simpleAssign2.default)(styles.overlay, overlayStyle,
overlayBackgroundProxy))\n   }, enhancedButtonChildren)));\n   }\n }]);\n return
RaisedButton;\n}(_react.Component);\n\nRaisedButton.muiName = 'RaisedButton';\nRaisedButton.defaultProps =
{\n disabled: false,\n labelPosition: 'after',\n fullWidth: false,\n primary: false,\n secondary:
false\n};\nRaisedButton.contextTypes = {\n muiTheme:
_propTypes2.default.object.isRequired\n};\nRaisedButton.propTypes
 = process.env.NODE_ENV !== \"production\" ? {\n /**\n   * Override the default background color for the
button,\n   * but not the default disabled background color\n   * (use `disabledBackgroundColor` for this).\n   */\n
backgroundColor: _propTypes2.default.string,\n\n /**\n   * Override the inline-styles of the button element.\n   */\n
buttonStyle: _propTypes2.default.object,\n\n /**\n   * The content of the button.\n   * If a label is provided via the
`label` prop, the text within the label\n   * will be displayed in addition to the content provided here.\n   */\n
children: _propTypes2.default.node,\n\n /**\n   * The CSS class name of the root element.\n   */\n className:
_propTypes2.default.string,\n\n /**\n   * The element to use as the container for the RaisedButton. Either a string
to\n   * use a DOM element or a ReactElement. This is useful for wrapping the\n   * RaisedButton in a custom Link
component. If a ReactElement is given, ensure\n   *
 that it passes all of its given props through to the underlying DOM\n   * element and renders its children prop for
proper integration.\n   */\n containerElement: _propTypes2.default.oneOfType([_propTypes2.default.string,
_propTypes2.default.element]),\n\n /**\n   * If true, the element's ripple effect will be disabled.\n   */\n
disableTouchRipple: _propTypes2.default.bool,\n\n /**\n   * If true, the button will be disabled.\n   */\n disabled:
_propTypes2.default.bool,\n\n /**\n   * Override the default background color for the button\n   * when it is
disabled.\n   */\n disabledBackgroundColor: _propTypes2.default.string,\n\n /**\n   * The color of the button's
label when the button is disabled.\n   */\n disabledLabelColor: _propTypes2.default.string,\n\n /**\n   * If true, the
button will take up the full width of its container.\n   */\n fullWidth: _propTypes2.default.bool,\n\n /**\n   * The
URL to link to when the button is clicked.\n   */\n href: _propTypes2.default.string,\n\n
  /**\n   * An icon to be displayed within the button.\n   */\n icon: _propTypes2.default.node,\n\n /**\n   * The
label to be displayed within the button.\n   * If content is provided via the `children` prop, that content will be\n   *
displayed in addition to the label provided here.\n   */\n label: validateLabel,\n\n /**\n   * The color of the button's
label.\n   */\n labelColor: _propTypes2.default.string,\n\n /**\n   * The position of the button's label relative to the
button's `children`.\n   */\n labelPosition: _propTypes2.default.oneOf(['before', 'after']),\n\n /**\n   * Override the

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inline-styles of the button's label element.\n   */\n  labelStyle: _propTypes2.default.object,\n\n  /**\n   * Callback
function fired when the button is clicked.\n   *\n   * @param {object} event Click event targeting the button.\n   */\n
onClick: _propTypes2.default.func,\n\n  /** @ignore */\n  onMouseDown: _propTypes2.default.func,\n\n  /**
@ignore */\n  onMouseEnter: _propTypes2.default.func,\n\n
  /** @ignore */\n  onMouseLeave: _propTypes2.default.func,\n\n  /** @ignore */\n  onMouseUp:
_propTypes2.default.func,\n\n  /** @ignore */\n  onTouchEnd: _propTypes2.default.func,\n\n  /** @ignore */\n
onTouchStart: _propTypes2.default.func,\n\n  /**\n   * Override the inline style of the button overlay.\n   */\n
overlayStyle: _propTypes2.default.object,\n\n  /**\n   * If true, the button will use the theme's primary color.\n   */\n
primary: _propTypes2.default.bool,\n\n  /**\n   * Override the inline style of the ripple element.\n   */\n  rippleStyle:
_propTypes2.default.object,\n\n  /**\n   * If true, the button will use the theme's secondary color.\n   * If both
`secondary` and `primary` are true, the button will use\n   * the theme's primary color.\n   */\n  secondary:
_propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object\n} : {};\nexports.default = RaisedButton;","'use
strict';\n\nObject.defineProperty(exports,
 \"__esModule\", {\n  value: true\n});\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _slicedToArray2 = require('babel-
runtime/helpers/slicedToArray');\n\nvar _slicedToArray3 = _interopRequireDefault(_slicedToArray2);\n\nvar
_extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-
of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 =
require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
 _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _autoPrefix =
require('../utils/autoPrefix');\n\nvar _autoPrefix2 = _interopRequireDefault(_autoPrefix);\n\nvar _transitions =
require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nvar _Paper =
require('../Paper');\n\nvar _Paper2 = _interopRequireDefault(_Paper);\n\nfunction _interopRequireDefault(obj) {\n
return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar VIEWBOX_SIZE = 32;\n\nfunction
getStyles(props)
 {\n  var padding = props.size * 0.1; // same implementation of `this.getPaddingSize()`\n\n  return {\n    root: {\n
position: 'absolute',\n      zIndex: 2,\n      width: props.size,\n      height: props.size,\n      padding: padding,\n      top:
-10000,\n      left: -10000,\n      transform: 'translate(' + (10000 + props.left) + 'px, ' + (10000 + props.top) + 'px)',\n
 opacity: props.status === 'hide' ? 0 : 1,\n      transition: props.status === 'hide' ? _transitions2.default.create('all',
'.3s', 'ease-out') : 'none'\n    }\n  };\n}\n\nvar RefreshIndicator = function (_Component) {\n  (0,
_inherits3.default)(RefreshIndicator, _Component);\n\n  function RefreshIndicator() {\n    (0,
_classCallCheck3.default)(this, RefreshIndicator);\n    return (0, _possibleConstructorReturn3.default)(this,
(RefreshIndicator.__proto__ || (0, _getPrototypeOf2.default)(RefreshIndicator)).apply(this, arguments));\n  }\n\n  (0,
_createClass3.default)(RefreshIndicator, [{\n    key: 'componentDidMount',\n
    value: function componentDidMount() {\n      this.scalePath(this.refs.path, 0);\n
this.rotateWrapper(this.refs.wrapper);\n    }\n  }, {\n    key: 'componentDidUpdate',\n    value: function
componentDidUpdate() {\n      clearTimeout(this.scalePathTimer);\n      clearTimeout(this.rotateWrapperTimer);\n
 clearTimeout(this.rotateWrapperSecondTimer);\n      this.scalePath(this.refs.path, 0);\n
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this.rotateWrapper(this.refs.wrapper);\n    }\n  }, {\n    key: 'componentWillUnmount',\n    value: function
componentWillUnmount() {\n      clearTimeout(this.scalePathTimer);\n
clearTimeout(this.rotateWrapperTimer);\n      clearTimeout(this.rotateWrapperSecondTimer);\n    }\n  }, {\n    key:
'renderChildren',\n    value: function renderChildren() {\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var paperSize = this.getPaperSize();\n      var childrenCmp = null;\n\n
if (this.props.status !== 'ready') {\n        var circleStyle = this.getCircleStyle(paperSize);\n
        childrenCmp = _react2.default.createElement('div', {\n          ref: 'wrapper',\n          style: prepareStyles({\n
  transition: _transitions2.default.create('transform', '20s', null, 'linear'),\n            width: '100%',\n            height:
'100%'\n          })\n        }, _react2.default.createElement('svg', {\n          style: {\n            width: paperSize,\n
height: paperSize\n          },\n          viewBox: '0 0 ' + VIEWBOX_SIZE + ' ' + VIEWBOX_SIZE\n        },
_react2.default.createElement('circle', (0, _extends3.default)({\n          ref: 'path',\n          style: prepareStyles((0,
_simpleAssign2.default)(circleStyle.style, {\n            transition: _transitions2.default.create('all', '1.5s', null, 'ease-in-
out')\n          }))\n        }, circleStyle.attr))));\n      } else {\n        var _circleStyle = this.getCircleStyle(paperSize);\n\n
      var polygonStyle = this.getPolygonStyle(paperSize);\n        childrenCmp
 = _react2.default.createElement('svg', {\n          style: {\n            width: paperSize,\n            height: paperSize\n
},\n          viewBox: '0 0 ' + VIEWBOX_SIZE + ' ' + VIEWBOX_SIZE\n        },
_react2.default.createElement('circle', (0, _extends3.default)({\n          style: prepareStyles(_circleStyle.style)\n
}, _circleStyle.attr)), _react2.default.createElement('polygon', (0, _extends3.default)({\n          style:
prepareStyles(polygonStyle.style)\n        }, polygonStyle.attr)));\n      }\n\n      return childrenCmp;\n    }\n  }, {\n
key: 'getTheme',\n    value: function getTheme() {\n      return this.context.muiTheme.refreshIndicator;\n    }\n  },
{\n    key: 'getPaddingSize',\n    value: function getPaddingSize() {\n      var padding = this.props.size * 0.1;\n
return padding;\n    }\n  }, {\n    key: 'getPaperSize',\n    value: function getPaperSize() {\n      return this.props.size -
this.getPaddingSize() * 2;\n    }\n  }, {\n    key: 'getCircleAttr',\n
    value: function getCircleAttr() {\n      return {\n        radiu: VIEWBOX_SIZE / 2 - 5,\n        originX:
VIEWBOX_SIZE / 2,\n        originY: VIEWBOX_SIZE / 2,\n        strokeWidth: 3\n      };\n    }\n  }, {\n    key:
'getArcDeg',\n    value: function getArcDeg() {\n      var p = this.props.percentage / 100;\n      var beginDeg = p *
120;\n      var endDeg = p * 410;\n      return [beginDeg, endDeg];\n    }\n  }, {\n    key: 'getFactor',\n    value:
function getFactor() {\n      var p = this.props.percentage / 100;\n      var p1 = Math.min(1, p / 0.4);\n      return p1;\n
 }\n  }, {\n    key: 'getCircleStyle',\n    value: function getCircleStyle() {\n      var isLoading = this.props.status ===
'loading';\n      var p1 = isLoading ? 1 : this.getFactor();\n      var circle = this.getCircleAttr();\n      var perimeter =
Math.PI * 2 * circle.radiu;\n\n      var _getArcDeg = this.getArcDeg(),\n          _getArcDeg2 = (0,
_slicedToArray3.default)(_getArcDeg, 2),\n          beginDeg
 = _getArcDeg2[0],\n          endDeg = _getArcDeg2[1];\n\n      var arcLen = (endDeg - beginDeg) * perimeter /
360;\n      var dashOffset = -beginDeg * perimeter / 360;\n      var theme = this.getTheme();\n      return {\n
style: {\n          strokeDasharray: arcLen + ', ' + (perimeter - arcLen),\n          strokeDashoffset: dashOffset,\n
stroke: isLoading || this.props.percentage === 100 ? this.props.loadingColor || theme.loadingStrokeColor :
this.props.color || theme.strokeColor,\n          strokeLinecap: 'round',\n          opacity: p1,\n          strokeWidth:
circle.strokeWidth * p1,\n          fill: 'none'\n        },\n        attr: {\n          cx: circle.originX,\n          cy:
circle.originY,\n          r: circle.radiu\n        }\n      };\n    }\n  }, {\n    key: 'getPolygonStyle',\n    value: function
getPolygonStyle() {\n      var p1 = this.getFactor();\n      var circle = this.getCircleAttr();\n      var triangleCx =
circle.originX + circle.radiu;\n
   var triangleCy = circle.originY;\n      var dx = circle.strokeWidth * 7 / 4 * p1;\n      var trianglePath = triangleCx -
dx + ',' + triangleCy + ' ' + (triangleCx + dx) + ',' + triangleCy + ' ' + triangleCx + ',' + (triangleCy + dx);\n\n      var
_getArcDeg3 = this.getArcDeg(),\n          _getArcDeg4 = (0, _slicedToArray3.default)(_getArcDeg3, 2),\n
endDeg = _getArcDeg4[1];\n\n      var theme = this.getTheme();\n      return {\n        style: {\n          fill:
this.props.percentage === 100 ? this.props.loadingColor || theme.loadingStrokeColor : this.props.color ||
theme.strokeColor,\n          transform: 'rotate(' + endDeg + 'deg)',\n          transformOrigin: circle.originX + 'px ' +
circle.originY + 'px',\n          opacity: p1\n        },\n        attr: {\n          points: trianglePath\n        }\n      };\n    }\n  },
```

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{\n    key: 'scalePath',\n    value: function scalePath(path, step) {\n      var _this2 = this;\n\n      if (this.props.status
!== 'loading') return;\n
     var currStep = (step || 0) % 3;\n      var circle = this.getCircleAttr();\n      var perimeter = Math.PI * 2 *
circle.radiu;\n      var arcLen = perimeter * 0.64;\n      var strokeDasharray = void 0;\n      var strokeDashoffset =
void 0;\n      var transitionDuration = void 0;\n\n      if (currStep === 0) {\n        strokeDasharray = '1, 200';\n
strokeDashoffset = 0;\n        transitionDuration = '0ms';\n      } else if (currStep === 1) {\n        strokeDasharray =
arcLen + ', 200';\n        strokeDashoffset = -15;\n        transitionDuration = '750ms';\n      } else {\n
strokeDasharray = arcLen + ', 200';\n        strokeDashoffset = -(perimeter - 1);\n        transitionDuration = '850ms';\n
   }\n\n      _autoPrefix2.default.set(path.style, 'strokeDasharray', strokeDasharray);\n\n
_autoPrefix2.default.set(path.style, 'strokeDashoffset', strokeDashoffset);\n\n      _autoPrefix2.default.set(path.style,
'transitionDuration', transitionDuration);\n\n      this.scalePathTimer
 = setTimeout(function () {\n        return _this2.scalePath(path, currStep + 1);\n      }, currStep ? 750 : 250);\n    }\n
}, {\n    key: 'rotateWrapper',\n    value: function rotateWrapper(wrapper) {\n      var _this3 = this;\n\n      if
(this.props.status !== 'loading') return;\n\n      _autoPrefix2.default.set(wrapper.style, 'transform', null);\n\n
_autoPrefix2.default.set(wrapper.style, 'transform', 'rotate(0deg)');\n\n      _autoPrefix2.default.set(wrapper.style,
'transitionDuration', '0ms');\n\n      this.rotateWrapperSecondTimer = setTimeout(function () {\n
_autoPrefix2.default.set(wrapper.style, 'transform', 'rotate(1800deg)');\n\n
_autoPrefix2.default.set(wrapper.style, 'transitionDuration', '10s');\n\n        _autoPrefix2.default.set(wrapper.style,
'transitionTimingFunction', 'linear');\n      }, 50);\n      this.rotateWrapperTimer = setTimeout(function () {\n
return _this3.rotateWrapper(wrapper);\n      }, 10050);\n    }\n  }, {\n    key:
 'render',\n    value: function render() {\n      var _props = this.props,\n          style = _props.style,\n          top =
_props.top,\n          left = _props.left,\n          percentage = _props.percentage,\n          status = _props.status,\n
loadingColor = _props.loadingColor,\n          other = (0, _objectWithoutProperties3.default)(_props, ['style', 'top',
'left', 'percentage', 'status', 'loadingColor']);\n      var styles = getStyles(this.props, this.context);\n      return
_react2.default.createElement(_Paper2.default, (0, _extends3.default)({\n        circle: true,\n        style: (0,
_simpleAssign2.default)(styles.root, style)\n      }, other), this.renderChildren());\n    }\n  }]);\n  return
RefreshIndicator;\n}(_react.Component);\n\nRefreshIndicator.defaultProps = {\n  percentage: 0,\n  size: 40,\n
status: 'hide'\n};\nRefreshIndicator.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nRefreshIndicator.propTypes = process.env.NODE_ENV !==
 \"production\" ? {\n  /**\n   * Override the theme's color of the indicator while it's status is\n   * \"ready\" and it's
percentage is less than 100.\n   */\n  color: _propTypes2.default.string,\n\n  /**\n   * The absolute left position of the
indicator in pixels.\n   */\n  left: _propTypes2.default.number.isRequired,\n\n  /**\n   * Override the theme's color of
the indicator while\n   * it's status is \"loading\" or when it's percentage is 100.\n   */\n  loadingColor:
_propTypes2.default.string,\n\n  /**\n   * The confirmation progress to fetch data. Max value is 100.\n   */\n
percentage: _propTypes2.default.number,\n\n  /**\n   * Size in pixels.\n   */\n  size:
_propTypes2.default.number,\n\n  /**\n   * The display status of the indicator. If the status is\n   * \"ready\", the
indicator will display the ready state\n   * arrow. If the status is \"loading\", it will display\n   * the loading progress
indicator. If the status is \"hide\",\n   * the indicator will be hidden.\n   */\n
  status: _propTypes2.default.oneOf(['ready', 'loading', 'hide']),\n\n  /**\n   * Override the inline-styles of the root
element.\n   */\n  style: _propTypes2.default.object,\n\n  /**\n   * The absolute top position of the indicator in
pixels.\n   */\n  top: _propTypes2.default.number.isRequired\n} : {};\nexports.default =
RefreshIndicator;","module.exports = {\n  \"default\": require(\"core-js/library/fn/is-iterable\"),\n  __esModule:
true\n};","require('../modules/web.dom.iterable');\n\nrequire('../modules/es6.string.iterator');\n\nmodule.exports =
require('../modules/core.is-iterable');","var classof = require('./_classof');\n\nvar ITERATOR =
require('./_wks')('iterator');\n\nvar Iterators = require('./_iterators');\n\nmodule.exports = require('./_core').isIterable
= function (it) {\n  var O = Object(it);\n  return O[ITERATOR] !== undefined || '@@iterator' in O // eslint-disable-
next-line no-prototype-builtins\n  || Iterators.hasOwnProperty(classof(O));\n};","module.exports = {\n  \"default\":
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require(\"core-js/library/fn/get-iterator\"),\n __esModule: true\n};","require('../modules/web.dom.iterable');\n\nrequire('../modules/es6.string.iterator');\n\nmodule.exports = require('../modules/core.get-iterator');","var anObject = require('./_an-object');\n\nvar get = require('./core.get-iterator-method');\n\nmodule.exports = require('./_core').getIterator = function (it) {\n var iterFn = get(it);\n if (typeof iterFn != 'function') throw TypeError(it + ' is not iterable!');\n return anObject(iterFn.call(it));\n};","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _TextField = require('../TextField');\n\nvar _TextField2 = _interopRequireDefault(_TextField);\n\nvar _DropDownMenu = require('../DropDownMenu');\n\nvar _DropDownMenu2 = _interopRequireDefault(_DropDownMenu);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n default: obj\n };\n}\n\nfunction getStyles(props) {\n return {\n label: {\n paddingLeft: 0,\n top: props.floatingLabelText ? 6 : -4\n },\n icon: {\n right: 0,\n top: props.floatingLabelText ? 8 : 0\n },\n hideDropDownUnderline: {\n borderTop: 'none'\n },\n dropDownMenu: {\n display: 'block'\n }\n };\n}\n\nvar SelectField = function (_Component) {\n (0, _inherits3.default)(SelectField, _Component);\n\n function SelectField() {\n (0, _classCallCheck3.default)(this, SelectField);\n return (0, _possibleConstructorReturn3.default)(this, (SelectField.__proto__ || (0, _getPrototypeOf2.default)(SelectField)).apply(this, arguments));\n }\n\n (0, _createClass3.default)(SelectField, [{\n key: 'render',\n value: function render() {\n var _props = this.props,\n autoWidth = _props.autoWidth,\n multiple = _props.multiple,\n children = _props.children,\n style = _props.style,\n labelStyle = _props.labelStyle,\n iconStyle = _props.iconStyle,\n id = _props.id,\n underlineDisabledStyle = _props.underlineDisabledStyle,\n underlineFocusStyle = _props.underlineFocusStyle,\n menuItemStyle = _props.menuItemStyle,\n selectedMenuItemStyle = _props.selectedMenuItemStyle,\n underlineStyle = _props.underlineStyle,\n dropDownMenuProps = _props.dropDownMenuProps,\n errorStyle = _props.errorStyle,\n disabled = _props.disabled,\n floatingLabelFixed = _props.floatingLabelFixed,\n floatingLabelText = _props.floatingLabelText,\n floatingLabelStyle = _props.floatingLabelStyle,\n hintStyle = _props.hintStyle,\n hintText = _props.hintText,\n fullWidth = _props.fullWidth,\n errorText = _props.errorText,\n listStyle = _props.listStyle,\n maxHeight = _props.maxHeight,\n menuStyle = _props.menuStyle,\n onFocus = _props.onFocus,\n onBlur = _props.onBlur,\n onChange = _props.onChange,\n selectionRenderer = _props.selectionRenderer,\n value = _props.value,\n other = (0, _objectWithoutProperties3.default)(_props, ['autoWidth', 'multiple', 'children', 'style', 'labelStyle', 'iconStyle', 'id', 'underlineDisabledStyle', 'underlineFocusStyle', 'menuItemStyle', 'selectedMenuItemStyle', 'underlineStyle', 'dropDownMenuProps', 'errorStyle', 'disabled', 'floatingLabelFixed', 'floatingLabelText', 'floatingLabelStyle', 'hintStyle', 'hintText', 'fullWidth', 'errorText', 'listStyle', 'maxHeight', 'menuStyle', 'onFocus', 'onBlur', 'onChange',

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'selectionRenderer', 'value']);\n      var styles = getStyles(this.props,
 this.context);\n      return _react2.default.createElement(_TextField2.default, (0, _extends3.default)({}, other, {\n
 style: style,\n        disabled: disabled,\n        floatingLabelFixed: floatingLabelFixed,\n        floatingLabelText:
floatingLabelText,\n        floatingLabelStyle: floatingLabelStyle,\n        hintStyle: hintStyle,\n        hintText:
!hintText && !floatingLabelText ? ' ' : hintText,\n        fullWidth: fullWidth,\n        errorText: errorText,\n
underlineStyle: underlineStyle,\n        errorStyle: errorStyle,\n        onFocus: onFocus,\n        onBlur: onBlur,\n
id: id,\n        underlineDisabledStyle: underlineDisabledStyle,\n        underlineFocusStyle: underlineFocusStyle\n
}), _react2.default.createElement(_DropDownMenu2.default, (0, _extends3.default)({\n        disabled: disabled,\n
 style: (0, _simpleAssign2.default)(styles.dropDownMenu, menuStyle),\n        labelStyle: (0,
_simpleAssign2.default)(styles.label, labelStyle),\n
        iconStyle: (0, _simpleAssign2.default)(styles.icon, iconStyle),\n        menuItemStyle: menuItemStyle,\n
selectedMenuItemStyle: selectedMenuItemStyle,\n        underlineStyle: styles.hideDropDownUnderline,\n
listStyle: listStyle,\n        autoWidth: autoWidth,\n        value: value,\n        onChange: onChange,\n        maxHeight:
maxHeight,\n        multiple: multiple,\n        selectionRenderer: selectionRenderer\n      }, dropDownMenuProps),
children));\n    }\n  }]);\n  return SelectField;\n}(_react.Component);\n\nSelectField.defaultProps = {\n  autoWidth:
false,\n  disabled: false,\n  fullWidth: false,\n  multiple: false\n};\nSelectField.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nSelectField.propTypes = process.env.NODE_ENV !== \"production\" ?
{\n  /**\n   * If true, the width will automatically be set according to the\n   * items inside the menu.\n   * To control
the width in CSS instead, leave this prop set to `false`.\n
 */\n  autoWidth: _propTypes2.default.bool,\n\n  /**\n   * The `MenuItem` elements to populate the select field
with.\n   * If the menu items have a `label` prop, that value will\n   * represent the selected menu item in the
rendered select field.\n   */\n  children: _propTypes2.default.node,\n\n  /**\n   * If true, the select field will be
disabled.\n   */\n  disabled: _propTypes2.default.bool,\n\n  /**\n   * Object that can handle and override any property
of component DropDownMenu.\n   */\n  dropDownMenuProps: _propTypes2.default.object,\n\n  /**\n   * Override
the inline-styles of the error element.\n   */\n  errorStyle: _propTypes2.default.object,\n\n  /**\n   * The error content
to display.\n   */\n  errorText: _propTypes2.default.node,\n\n  /**\n   * If true, the floating label will float even when
no value is selected.\n   */\n  floatingLabelFixed: _propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles
of the floating label.\n   */\n  floatingLabelStyle: _propTypes2.default.object,\n\n
  /**\n   * The content of the floating label.\n   */\n  floatingLabelText: _propTypes2.default.node,\n\n  /**\n   * If
true, the select field will take up the full width of its container.\n   */\n  fullWidth: _propTypes2.default.bool,\n\n
/**\n   * Override the inline-styles of the hint element.\n   */\n  hintStyle: _propTypes2.default.object,\n\n  /**\n   *
The hint content to display.\n   */\n  hintText: _propTypes2.default.node,\n\n  /**\n   * Override the inline-styles of
the icon element.\n   */\n  iconStyle: _propTypes2.default.object,\n\n  /**\n   * The id prop for the text field.\n   */\n
id: _propTypes2.default.string,\n\n  /**\n   * Override the label style when the select field is inactive.\n   */\n
labelStyle: _propTypes2.default.object,\n\n  /**\n   * Override the inline-styles of the underlying `List` element.\n
*/\n  listStyle: _propTypes2.default.object,\n\n  /**\n   * Override the default max-height of the underlying
`DropDownMenu` element.\n
   */\n  maxHeight: _propTypes2.default.number,\n\n  /**\n   * Override the inline-styles of menu items.\n   */\n
menuItemStyle: _propTypes2.default.object,\n\n  /**\n   * Override the inline-styles of the underlying
`DropDownMenu` element.\n   */\n  menuStyle: _propTypes2.default.object,\n\n  /**\n   * If true, `value` must be an
array and the menu will support\n   * multiple selections.\n   */\n  multiple: _propTypes2.default.bool,\n\n  /**
@ignore */\n  onBlur: _propTypes2.default.func,\n\n  /**\n   * Callback function fired when a menu item is
selected.\n   *\n   * @param {object} event Click event targeting the menu item\n   * that was selected.\n   *
@param {number} key The index of the selected menu item, or undefined\n   * if `multiple` is true.\n   * @param
{any} payload If `multiple` is true, the menu's `value`\n   * array with either the menu item's `value` added (if\n   * it
wasn't already selected) or omitted (if it was already selected).\n   * Otherwise, the `value` of the
 menu item.\n   */\n  onChange: _propTypes2.default.func,\n\n  /** @ignore */\n  onFocus:
_propTypes2.default.func,\n\n  /**\n   * Override the inline-styles of selected menu items.\n   */\n
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selectedMenuItemStyle: _propTypes2.default.object,\n\n /**\n   * Customize the rendering of the selected item.\n
*\n   * @param {any} value If `multiple` is true, the menu's `value`\n   * array with either the menu item's `value`
added (if\n   * it wasn't already selected) or omitted (if it was already selected).\n   * Otherwise, the `value` of the
menu item.\n   * @param {any} menuItem The selected `MenuItem`.\n   * If `multiple` is true, this will be an array
with the `MenuItem`s matching the `value`s parameter.\n   */\n selectionRenderer: _propTypes2.default.func,\n\n
/**\n   * Override the inline-styles of the root element.\n   */\n style: _propTypes2.default.object,\n\n /**\n   *
Override the inline-styles of the underline element when the select\n   * field is disabled.\n   */\n
underlineDisabledStyle:
_propTypes2.default.object,\n\n /**\n   * Override the inline-styles of the underline element when the select field\n
* is focused.\n   */\n underlineFocusStyle: _propTypes2.default.object,\n\n /**\n   * Override the inline-styles of
the underline element.\n   */\n underlineStyle: _propTypes2.default.object,\n\n /**\n   * If `multiple` is true, an
array of the `value`s of the selected\n   * menu items. Otherwise, the `value` of the selected menu item.\n   * If
provided, the menu will be a controlled component.\n   */\n value: _propTypes2.default.any\n} :
{};\nexports.default = SelectField;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value:
true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar
_getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _defineProperty2 =
require('babel-runtime/helpers/defineProperty');\n\nvar _defineProperty3 =
_interopRequireDefault(_defineProperty2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2
= _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _keycode = require('keycode');\n\nvar
_keycode2 = _interopRequireDefault(_keycode);\n\nvar _warning = require('warning');\n\nvar _warning2 =
_interopRequireDefault(_warning);\n\nvar _transitions = require('../styles/transitions');\n\nvar _transitions2 =
_interopRequireDefault(_transitions);\n\nvar _FocusRipple = require('../internal/FocusRipple');\n\nvar
_FocusRipple2 = _interopRequireDefault(_FocusRipple);\n\nfunction _interopRequireDefault(obj) {\n return obj
&& obj.__esModule ? obj : {\n   default: obj\n };\n}\n/**\n * Verifies min/max range.\n * @param   {Object}
props   Properties of the React component.\n * @param   {String} propName   Name of the property to
validate.\n * @param   {String} componentName Name of the component whose property is being validated.\n *
@returns {Object} Returns
an Error if min >= max otherwise null.\n */\n\n\nvar minMaxPropType = function minMaxPropType(props,
propName, componentName) {\n for (var _len = arguments.length, rest = Array(_len > 3 ? _len - 3 : 0), _key = 3;
_key < _len; _key++) {\n   rest[_key - 3] = arguments[_key];\n }\n\n var error =
_propTypes2.default.number.apply(_propTypes2.default, [props, propName, componentName].concat(rest));\n\n if
(error !== null) {\n   return error;\n }\n\n if (props.min >= props.max) {\n   var errorMsg = propName === 'min' ?
'min should be less than max' : 'max should be greater than min';\n   return new Error(errorMsg);\n }\n};\n/**\n *
Verifies value is within the min/max range.\n * @param   {Object} props   Properties of the React component.\n
* @param   {String} propName   Name of the property to validate.\n * @param   {String} componentName Name
of the component whose property is being validated.\n * @returns {Object} Returns an Error if the value is not

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within the range
 otherwise null.\n */\n\n\nvar valueInRangePropType = function valueInRangePropType(props, propName,
componentName) {\n  for (var _len2 = arguments.length, rest = Array(_len2 > 3 ? _len2 - 3 : 0), _key2 = 3; _key2 <
_len2; _key2++) {\n    rest[_key2 - 3] = arguments[_key2];\n  }\n\n  var error =
_propTypes2.default.number.apply(_propTypes2.default, [props, propName, componentName].concat(rest));\n\n  if
(error !== null) {\n    return error;\n  }\n\n  var value = props[propName];\n\n  if (value < props.min || props.max <
value) {\n    return new Error(propName + ' should be within the range specified by min and max');\n  }\n};\n\nvar
crossAxisProperty = {\n  x: 'height',\n  'x-reverse': 'height',\n  y: 'width',\n  'y-reverse': 'width'\n};\nvar
crossAxisOffsetProperty = {\n  x: 'top',\n  'x-reverse': 'top',\n  y: 'left',\n  'y-reverse': 'left'\n};\nvar mainAxisProperty
= {\n  x: 'width',\n  'x-reverse': 'width',\n  y: 'height',\n  'y-reverse': 'height'\n};\nvar mainAxisMarginFromEnd = {\n
  x: 'marginRight',\n  'x-reverse': 'marginLeft',\n  y: 'marginTop',\n  'y-reverse': 'marginBottom'\n};\nvar
mainAxisMarginFromStart = {\n  x: 'marginLeft',\n  'x-reverse': 'marginRight',\n  y: 'marginBottom',\n  'y-reverse':
'marginTop'\n};\nvar mainAxisOffsetProperty = {\n  x: 'left',\n  'x-reverse': 'right',\n  y: 'bottom',\n  'y-reverse':
'top'\n};\nvar mainAxisClientProperty = {\n  x: 'clientWidth',\n  'x-reverse': 'clientWidth',\n  y: 'clientHeight',\n  'y-
reverse': 'clientHeight'\n};\nvar mainAxisClientOffsetProperty = {\n  x: 'clientX',\n  'x-reverse': 'clientX',\n  y:
'clientY',\n  'y-reverse': 'clientY'\n};\nvar reverseMainAxisOffsetProperty = {\n  x: 'right',\n  'x-reverse': 'left',\n  y:
'top',\n  'y-reverse': 'bottom'\n};\n\nvar isMouseControlInverted = function isMouseControlInverted(axis) {\n  return
axis === 'x-reverse' || axis === 'y';\n};\n\nvar calculateAxis = function calculateAxis(axis, isRtl) {\n  if (isRtl) {\n
switch (axis) {\n      case 'x':\n        return
 'x-reverse';\n\n      case 'x-reverse':\n        return 'x';\n    }\n  }\n\n  return axis;\n};\n\nfunction getPercent(value,
min, max) {\n  var percent = (value - min) / (max - min);\n\n  if (isNaN(percent)) {\n    percent = 0;\n  }\n\n  return
percent;\n}\n\nvar getStyles = function getStyles(props, context, state) {\n  var _slider, _track,
_filledAndRemaining, _handle, _objectAssign2, _objectAssign3;\n\n  var axis = props.axis,\n      disabled =
props.disabled,\n      max = props.max,\n      min = props.min;\n  var _context$muiTheme = context.muiTheme,\n
isRtl = _context$muiTheme.isRtl,\n      _context$muiTheme$sli = _context$muiTheme.slider,\n      handleColorZero
= _context$muiTheme$sli.handleColorZero,\n      handleFillColor = _context$muiTheme$sli.handleFillColor,\n
handleSize = _context$muiTheme$sli.handleSize,\n      handleSizeDisabled =
_context$muiTheme$sli.handleSizeDisabled,\n      handleSizeActive = _context$muiTheme$sli.handleSizeActive,\n
    trackSize = _context$muiTheme$sli.trackSize,\n
      trackColor = _context$muiTheme$sli.trackColor,\n      trackColorSelected =
_context$muiTheme$sli.trackColorSelected,\n      rippleColor = _context$muiTheme$sli.rippleColor,\n
selectionColor = _context$muiTheme$sli.selectionColor;\n  var fillGutter = handleSize / 2;\n  var disabledGutter =
trackSize + handleSizeDisabled / 2;\n  var calcDisabledSpacing = disabled ? ' - ' + disabledGutter + 'px' : '';\n  var
percent = getPercent(state.value, min, max);\n  var calculatedAxis = calculateAxis(axis, isRtl);\n  var styles = {\n
slider: (_slider = {\n      touchCallout: 'none',\n      userSelect: 'none',\n      cursor: 'default'\n    }, (0,
_defineProperty3.default)(_slider, crossAxisProperty[calculatedAxis], handleSizeActive), (0,
_defineProperty3.default)(_slider, mainAxisProperty[calculatedAxis], '100%'), (0, _defineProperty3.default)(_slider,
'position', 'relative'), (0, _defineProperty3.default)(_slider, 'marginTop', 24), (0, _defineProperty3.default)(_slider,
 'marginBottom', 48), _slider),\n    track: (_track = {\n      position: 'absolute'\n    }, (0,
_defineProperty3.default)(_track, crossAxisOffsetProperty[calculatedAxis], (handleSizeActive - trackSize) / 2), (0,
_defineProperty3.default)(_track, mainAxisOffsetProperty[calculatedAxis], 0), (0, _defineProperty3.default)(_track,
mainAxisProperty[calculatedAxis], '100%'), (0, _defineProperty3.default)(_track,
crossAxisProperty[calculatedAxis], trackSize), _track),\n    filledAndRemaining: (_filledAndRemaining = {\n
directionInvariant: true,\n      position: 'absolute'\n    }, (0, _defineProperty3.default)(_filledAndRemaining,
crossAxisOffsetProperty, 0), (0, _defineProperty3.default)(_filledAndRemaining,
crossAxisProperty[calculatedAxis], '100%'), (0, _defineProperty3.default)(_filledAndRemaining, 'transition',
_transitions2.default.easeOut(null, 'margin')), _filledAndRemaining),\n    handle: (_handle = {\n
directionInvariant: true,\n      boxSizing: 'border-box',\n
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      position: 'absolute',\n      cursor: 'pointer',\n      pointerEvents: 'inherit'\n    }, (0,
_defineProperty3.default)(_handle, crossAxisOffsetProperty[calculatedAxis], 0), (0,
_defineProperty3.default)(_handle, mainAxisOffsetProperty[calculatedAxis], percent === 0 ? '0%' : percent * 100 +
'%'), (0, _defineProperty3.default)(_handle, 'zIndex', 1), (0, _defineProperty3.default)(_handle, 'margin', {\n      x:
trackSize / 2 + 'px 0 0 0',\n      'x-reverse': trackSize / 2 + 'px 0 0 0',\n      y: '0 0 0 ' + trackSize / 2 + 'px',\n      'y-
reverse': '0 0 0 ' + trackSize / 2 + 'px'\n    }[calculatedAxis]), (0, _defineProperty3.default)(_handle, 'width',
handleSize), (0, _defineProperty3.default)(_handle, 'height', handleSize), (0, _defineProperty3.default)(_handle,
'backgroundColor', selectionColor), (0, _defineProperty3.default)(_handle, 'backgroundClip', 'padding-box'), (0,
_defineProperty3.default)(_handle, 'border', '0px solid transparent'), (0, _defineProperty3.default)(_handle,
'borderRadius',
 '50%'), (0, _defineProperty3.default)(_handle, 'transform', {\n      x: 'translate(-50%, -50%)',\n      'x-reverse':
'translate(50%, -50%)',\n      y: 'translate(-50%, 50%)',\n      'y-reverse': 'translate(-50%, -50%)'\n
}[calculatedAxis]), (0, _defineProperty3.default)(_handle, 'transition', _transitions2.default.easeOut('450ms',
'background') + ', ' + _transitions2.default.easeOut('450ms', 'border-color') + ', ' +
_transitions2.default.easeOut('450ms', 'width') + ', ' + _transitions2.default.easeOut('450ms', 'height')), (0,
_defineProperty3.default)(_handle, 'overflow', 'visible'), (0, _defineProperty3.default)(_handle, 'outline', 'none'),
_handle),\n    handleWhenDisabled: {\n      boxSizing: 'content-box',\n      cursor: 'not-allowed',\n
backgroundColor: trackColor,\n      width: handleSizeDisabled,\n      height: handleSizeDisabled,\n      border:
'none'\n    },\n    handleWhenPercentZero: {\n      border: trackSize + 'px solid ' + handleColorZero,\n
backgroundColor:
 handleFillColor,\n      boxShadow: 'none'\n    },\n    handleWhenPercentZeroAndDisabled: {\n      cursor: 'not-
allowed',\n      width: handleSizeDisabled,\n      height: handleSizeDisabled\n    },\n
handleWhenPercentZeroAndFocused: {\n      border: trackSize + 'px solid ' + trackColorSelected\n    },\n
handleWhenActive: {\n      width: handleSizeActive,\n      height: handleSizeActive\n    },\n    ripple: {\n      height:
handleSize,\n      width: handleSize,\n      overflow: 'visible'\n    },\n    rippleWhenPercentZero: {\n      top: -
trackSize,\n      left: -trackSize\n    },\n    rippleInner: {\n      height: '300%',\n      width: '300%',\n      top: -
handleSize,\n      left: -handleSize\n    },\n    rippleColor: {\n      fill: percent === 0 ? handleColorZero :
rippleColor\n    }\n  };\n  styles.filled = (0, _simpleAssign2.default)({}, styles.filledAndRemaining, (_objectAssign2
= {}, (0, _defineProperty3.default)(_objectAssign2, mainAxisOffsetProperty[calculatedAxis],
 0), (0, _defineProperty3.default)(_objectAssign2, 'backgroundColor', disabled ? trackColor : selectionColor), (0,
_defineProperty3.default)(_objectAssign2, mainAxisMarginFromEnd[calculatedAxis], fillGutter), (0,
_defineProperty3.default)(_objectAssign2, mainAxisProperty[calculatedAxis], 'calc(' + percent * 100 + '%' +
calcDisabledSpacing + ')'), _objectAssign2));\n  styles.remaining = (0, _simpleAssign2.default)({},
styles.filledAndRemaining, (_objectAssign3 = {}, (0, _defineProperty3.default)(_objectAssign3,
reverseMainAxisOffsetProperty[calculatedAxis], 0), (0, _defineProperty3.default)(_objectAssign3,
'backgroundColor', (state.hovered || state.focused) && !disabled ? trackColorSelected : trackColor), (0,
_defineProperty3.default)(_objectAssign3, mainAxisMarginFromStart[calculatedAxis], fillGutter), (0,
_defineProperty3.default)(_objectAssign3, mainAxisProperty[calculatedAxis], 'calc(' + (1 - percent) * 100 + '%' +
calcDisabledSpacing + ')'), _objectAssign3));\n  return styles;\n};\n\nvar
 Slider = function (_Component) {\n  (0, _inherits3.default)(Slider, _Component);\n\n  function Slider() {\n    var
_ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this, Slider);\n\n    for (var _len3 =
arguments.length, args = Array(_len3), _key3 = 0; _key3 < _len3; _key3++) {\n      args[_key3] =
arguments[_key3];\n    }\n\n    return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref =
Slider.__proto__ || (0, _getPrototypeOf2.default)(Slider)).call.apply(_ref, [this].concat(args))), _this), _this.state =
{\n      active: false,\n      dragging: false,\n      focused: false,\n      hovered: false,\n      value: 0\n    }, _this.track =
null, _this.handle = null, _this.resolveValue = function (value, min, max) {\n      if (value > max) {\n        return
max;\n      }\n\n      if (value < min) {\n        return min;\n      }\n\n      return value;\n    }, _this.handleKeyDown =
function (event) {\n      var _this$props = _this.props,\n
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      axis = _this$props.axis,\n        min = _this$props.min,\n        max = _this$props.max,\n        step =
_this$props.step;\n    var isRtl = _this.context.muiTheme.isRtl;\n    var calculatedAxis = calculateAxis(axis,
isRtl);\n    var action = void 0;\n\n    switch ((0, _keycode2.default)(event)) {\n      case 'page down':\n      case
'down':\n        if (calculatedAxis === 'y-reverse') {\n          action = 'increase';\n        } else {\n          action =
'decrease';\n        }\n\n        break;\n\n      case 'left':\n        if (calculatedAxis === 'x-reverse') {\n          action =
'increase';\n        } else {\n          action = 'decrease';\n        }\n\n        break;\n\n      case 'page up':\n      case
'up':\n        if (calculatedAxis === 'y-reverse') {\n          action = 'decrease';\n        } else {\n          action =
'increase';\n        }\n\n        break;\n\n      case 'right':\n        if
 (calculatedAxis === 'x-reverse') {\n          action = 'decrease';\n        } else {\n          action = 'increase';\n
}\n\n        break;\n\n      case 'home':\n        action = 'min';\n        break;\n\n      case 'end':\n        action =
'max';\n        break;\n    }\n\n    if (action) {\n      var newValue = void 0; // Cancel scroll\n\n
event.preventDefault();\n\n      switch (action) {\n        case 'decrease':\n          newValue = _this.state.value -
step;\n          break;\n\n        case 'increase':\n          newValue = _this.state.value + step;\n          break;\n\n
case 'min':\n          newValue = min;\n          break;\n\n        case 'max':\n          newValue = max;\n
break;\n      } // We need to use toFixed() because of float point errors.\n      // For example, 0.01 + 0.06 =
0.06999999999999999\n\n\n      newValue = _this.resolveValue(parseFloat(newValue.toFixed(5)), min, max);\n\n
      if (_this.state.value !== newValue) {\n        _this.setState({\n          value: newValue\n        });\n\n        if
(_this.props.onChange) {\n          _this.props.onChange(event, newValue);\n        }\n      }\n    }\n  },
_this.handleDragMouseMove = function (event) {\n    _this.onDragUpdate(event, 'mouse');\n  },
_this.handleTouchMove = function (event) {\n    _this.onDragUpdate(event, 'touch');\n  }, _this.handleMouseEnd
= function (event) {\n    document.removeEventListener('mousemove', _this.handleDragMouseMove);\n
document.removeEventListener('mouseup', _this.handleMouseEnd);\n\n    _this.onDragStop(event);\n  },
_this.handleTouchEnd = function (event) {\n    document.removeEventListener('touchmove',
_this.handleTouchMove);\n    document.removeEventListener('touchup', _this.handleTouchEnd);\n
document.removeEventListener('touchend', _this.handleTouchEnd);\n
document.removeEventListener('touchcancel', _this.handleTouchEnd);\n\n
    _this.onDragStop(event);\n  }, _this.handleTouchStart = function (event) {\n    var _this$props2 =
_this.props,\n        axis = _this$props2.axis,\n        disabled = _this$props2.disabled;\n    var isRtl =
_this.context.muiTheme.isRtl;\n\n    if (disabled) {\n      return;\n    }\n\n    var calculatedAxis =
calculateAxis(axis, isRtl);\n    var position = void 0;\n\n    if (isMouseControlInverted(calculatedAxis)) {\n
position = _this.getTrackOffset() - event.touches[0][mainAxisClientOffsetProperty[calculatedAxis]];\n    } else {\n
    position = event.touches[0][mainAxisClientOffsetProperty[calculatedAxis]] - _this.getTrackOffset();\n    }\n\n
  _this.setValueFromPosition(event, position);\n\n    document.addEventListener('touchmove',
_this.handleTouchMove);\n    document.addEventListener('touchup', _this.handleTouchEnd);\n
document.addEventListener('touchend', _this.handleTouchEnd);\n    document.addEventListener('touchcancel',
 _this.handleTouchEnd);\n\n    _this.onDragStart(event); // Cancel scroll and context menu\n\n\n
event.preventDefault();\n  }, _this.handleFocus = function (event) {\n    _this.setState({\n      focused: true\n
});\n\n    if (_this.props.onFocus) {\n      _this.props.onFocus(event);\n    }\n  }, _this.handleBlur = function
(event) {\n    _this.setState({\n      focused: false,\n      active: false\n    });\n\n    if (_this.props.onBlur) {\n
_this.props.onBlur(event);\n    }\n  }, _this.handleMouseDown = function (event) {\n    var _this$props3 =
_this.props,\n        axis = _this$props3.axis,\n        disabled = _this$props3.disabled;\n    var isRtl =
_this.context.muiTheme.isRtl;\n\n    if (disabled) {\n      return;\n    }\n\n    var calculatedAxis =
calculateAxis(axis, isRtl);\n    var position = void 0;\n\n    if (isMouseControlInverted(calculatedAxis)) {\n
position = _this.getTrackOffset() - event[mainAxisClientOffsetProperty[calculatedAxis]];\n
    } else {\n      position = event[mainAxisClientOffsetProperty[calculatedAxis]] - _this.getTrackOffset();\n
}\n\n    _this.setValueFromPosition(event, position);\n\n    document.addEventListener('mousemove',
_this.handleDragMouseMove);\n    document.addEventListener('mouseup', _this.handleMouseEnd); // Cancel text
selection\n\n    event.preventDefault(); // Set focus manually since we called preventDefault()\n\n
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_this.handle.focus();\n\n      _this.onDragStart(event);\n    }, _this.handleMouseUp = function () {\n      if
(!_this.props.disabled) {\n        _this.setState({\n          active: false\n        });\n      }\n    }, _this.handleMouseEnter =
function () {\n      _this.setState({\n        hovered: true\n      });\n    }, _this.handleMouseLeave = function () {\n
_this.setState({\n        hovered: false\n      });\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n
}\n\n  (0, _createClass3.default)(Slider,
 [{\n    key: 'componentWillMount',\n    value: function componentWillMount() {\n      var _props = this.props,\n
  defaultValue = _props.defaultValue,\n          min = _props.min,\n          max = _props.max;\n      var value =
this.props.value;\n\n      if (value === undefined) {\n        value = defaultValue !== undefined ? defaultValue :
min;\n      }\n\n      this.setState({\n        value: this.resolveValue(value, min, max)\n      });\n    }\n  }, {\n    key:
'componentWillReceiveProps',\n    value: function componentWillReceiveProps(nextProps) {\n      if
(nextProps.value !== undefined && !this.state.dragging) {\n        var _nextProps$min = nextProps.min,\n
min = _nextProps$min === undefined ? this.props.min : _nextProps$min,\n            _nextProps$max =
nextProps.max,\n            max = _nextProps$max === undefined ? this.props.max : _nextProps$max;\n
this.setState({\n          value: this.resolveValue(nextProps.value, min, max)\n
       });\n      }\n    }\n  }, {\n    key: 'getValue',\n    value: function getValue() {\n      process.env.NODE_ENV !==
\"production\" ? (0, _warning2.default)(false, 'Material-UI Slider: getValue() method is deprecated.\\n      Use the
onChange callbacks instead.\\n      It will be removed with v0.17.0.') : void 0;\n      return this.state.value;\n    }\n  },
{\n    key: 'clearValue',\n    value: function clearValue() {\n      process.env.NODE_ENV !== \"production\" ? (0,
_warning2.default)(false, 'Material-UI Slider: clearValue() method is deprecated.\\n      Use the value property to
control the component instead.\\n      It will be removed with v0.17.0.') : void 0;\n      this.setState({\n        value:
this.props.min\n      });\n    }\n  }, {\n    key: 'getTrackOffset',\n    value: function getTrackOffset() {\n      var axis =
this.props.axis;\n      var isRtl = this.context.muiTheme.isRtl;\n      var calculatedAxis = calculateAxis(axis, isRtl);\n
   if (!this.track) return
 0;\n      return this.track.getBoundingClientRect()[mainAxisOffsetProperty[calculatedAxis]];\n    }\n  }, {\n    key:
'onDragStart',\n    value: function onDragStart(event) {\n      this.setState({\n        dragging: true,\n        active: true\n
    });\n\n      if (this.props.onDragStart) {\n        this.props.onDragStart(event);\n      }\n    }\n  }, {\n    key:
'onDragUpdate',\n    value: function onDragUpdate(event, type) {\n      var _this2 = this;\n\n      var _props2 =
this.props,\n          axis = _props2.axis,\n          disabled = _props2.disabled;\n      var isRtl =
this.context.muiTheme.isRtl;\n\n      if (this.dragRunning) {\n        return;\n      }\n\n      this.dragRunning = true;\n
requestAnimationFrame(function () {\n        _this2.dragRunning = false;\n        var calculatedAxis =
calculateAxis(axis, isRtl);\n        var source = type === 'touch' ? event.touches[0] : event;\n        var position = void
0;\n\n        if (isMouseControlInverted(calculatedAxis))
 {\n          position = _this2.getTrackOffset() - source[mainAxisClientOffsetProperty[calculatedAxis]];\n        } else
{\n          position = source[mainAxisClientOffsetProperty[calculatedAxis]] - _this2.getTrackOffset();\n        }\n\n
 if (!disabled) {\n          _this2.setValueFromPosition(event, position);\n        }\n      });\n    }\n  }, {\n    key:
'onDragStop',\n    value: function onDragStop(event) {\n      this.setState({\n        dragging: false,\n        active:
false\n      });\n\n      if (this.props.onDragStop) {\n        this.props.onDragStop(event);\n      }\n    }\n  }, {\n    key:
'setValueFromPosition',\n    value: function setValueFromPosition(event, position) {\n      var _props3 =
this.props,\n          axis = _props3.axis,\n          step = _props3.step,\n          min = _props3.min,\n          max =
_props3.max;\n      var isRtl = this.context.muiTheme.isRtl;\n      var calculatedAxis = calculateAxis(axis, isRtl);\n
 var positionMax = this.track[mainAxisClientProperty[calculatedAxis]];\n
      var value = void 0;\n\n      if (position <= 0) {\n        value = min;\n      } else if (position >= positionMax) {\n
 value = max;\n      } else {\n        value = position / positionMax * (max - min);\n        value = Math.round(value /
step) * step + min;\n        value = parseFloat(value.toFixed(5));\n      }\n\n      value = this.resolveValue(value, min,
max);\n\n      if (this.state.value !== value) {\n        this.setState({\n          value: value\n        });\n\n        if
(this.props.onChange) {\n          this.props.onChange(event, value);\n        }\n      }\n    }\n  }, {\n    key: 'render',\n
value: function render() {\n      var _this3 = this;\n\n      var _props4 = this.props,\n          axis = _props4.axis,\n
disabled = _props4.disabled,\n          disableFocusRipple = _props4.disableFocusRipple,\n          max =
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_props4.max,\n      min = _props4.min,\n      name = _props4.name,\n      onBlur
 = _props4.onBlur,\n      onChange = _props4.onChange,\n      onDragStart = _props4.onDragStart,\n
onDragStop = _props4.onDragStop,\n      onFocus = _props4.onFocus,\n      required = _props4.required,\n
sliderStyle = _props4.sliderStyle,\n      step = _props4.step,\n      style = _props4.style,\n      propValue =
_props4.value,\n      other = (0, _objectWithoutProperties3.default)(_props4, ['axis', 'disabled',
'disableFocusRipple', 'max', 'min', 'name', 'onBlur', 'onChange', 'onDragStart', 'onDragStop', 'onFocus', 'required',
'sliderStyle', 'step', 'style', 'value']);\n    var _state = this.state,\n      active = _state.active,\n      focused =
_state.focused,\n      hovered = _state.hovered,\n      value = _state.value;\n    var prepareStyles =
this.context.muiTheme.prepareStyles;\n    var styles = getStyles(this.props, this.context, this.state);\n    var percent
= getPercent(value, min, max);\n    var handleStyles
 = {};\n\n    if (percent === 0) {\n      handleStyles = (0, _simpleAssign2.default)({}, styles.handle,
styles.handleWhenPercentZero, active && styles.handleWhenActive, (hovered || focused) && !disabled &&
styles.handleWhenPercentZeroAndFocused, disabled && styles.handleWhenPercentZeroAndDisabled);\n    } else
{\n      handleStyles = (0, _simpleAssign2.default)({}, styles.handle, active && styles.handleWhenActive, disabled
&& styles.handleWhenDisabled);\n    }\n\n    var rippleStyle = (0, _simpleAssign2.default)({}, styles.ripple,
percent === 0 && styles.rippleWhenPercentZero);\n    return _react2.default.createElement('div', (0,
_extends3.default)({}, other, {\n      style: prepareStyles((0, _simpleAssign2.default)({}, style))\n    }),
_react2.default.createElement('div', {\n      style: prepareStyles((0, _simpleAssign2.default)({}, styles.slider,
sliderStyle)),\n      onFocus: this.handleFocus,\n      onBlur: this.handleBlur,\n      onMouseDown:
this.handleMouseDown,\n
      onMouseEnter: this.handleMouseEnter,\n      onMouseLeave: this.handleMouseLeave,\n      onMouseUp:
this.handleMouseUp,\n      onTouchStart: this.handleTouchStart,\n      onKeyDown: !disabled ?
this.handleKeyDown : undefined\n    }, _react2.default.createElement('div', {\n      ref: function ref(node) {\n
return _this3.track = node;\n      },\n      style: prepareStyles(styles.track)\n    },
_react2.default.createElement('div', {\n      style: prepareStyles(styles.filled)\n    }),
_react2.default.createElement('div', {\n      style: prepareStyles(styles.remaining)\n    }),
_react2.default.createElement('div', {\n      ref: function ref(node) {\n        return _this3.handle = node;\n      },\n
    style: prepareStyles(handleStyles),\n      tabIndex: 0\n    }, !disabled && !disableFocusRipple &&
_react2.default.createElement(_FocusRipple2.default, {\n      style: rippleStyle,\n      innerStyle:
styles.rippleInner,\n
      show: (hovered || focused) && !active,\n      color: styles.rippleColor.fill\n    })))),
_react2.default.createElement('input', {\n      type: 'hidden',\n      name: name,\n      value: value,\n      required:
required,\n      min: min,\n      max: max,\n      step: step\n    }));\n  }\n }]);\n  return
Slider;\n}(_react.Component);\n\nSlider.defaultProps = {\n  axis: 'x',\n  disabled: false,\n  disableFocusRipple:
false,\n  max: 1,\n  min: 0,\n  required: true,\n  step: 0.01,\n  style: {}\n};\nSlider.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nSlider.propTypes = process.env.NODE_ENV !== \"production\" ? {\n
/**\n   * The axis on which the slider will slide.\n   */\n  axis: _propTypes2.default.oneOf(['x', 'x-reverse', 'y', 'y-
reverse']),\n\n  /**\n   * The default value of the slider.\n   */\n  defaultValue: valueInRangePropType,\n\n  /**\n   *
Disables focus ripple if set to true.\n   */\n  disableFocusRipple: _propTypes2.default.bool,\n\n
  /**\n   * If true, the slider will not be interactable.\n   */\n  disabled: _propTypes2.default.bool,\n\n  /**\n   * The
maximum value the slider can slide to on\n   * a scale from 0 to 1 inclusive. Cannot be equal to min.\n   */\n  max:
minMaxPropType,\n\n  /**\n   * The minimum value the slider can slide to on a scale\n   * from 0 to 1 inclusive.
Cannot be equal to max.\n   */\n  min: minMaxPropType,\n\n  /**\n   * The name of the slider. Behaves like the
name attribute\n   * of an input element.\n   */\n  name: _propTypes2.default.string,\n\n  /** @ignore */\n  onBlur:
_propTypes2.default.func,\n\n  /**\n   * Callback function that is fired when the slider's value changed.\n   *\n   *
@param {object} event KeyDown event targeting the slider.\n   * @param {number} newValue The new value of
the slider.\n   */\n  onChange: _propTypes2.default.func,\n\n  /**\n   * Callback function that is fired when the slider
has begun to move.\n   *\n   * @param {object} event MouseDown
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 or TouchStart event targeting the slider.\n   */\n  onDragStart: _propTypes2.default.func,\n\n  /**\n   * Callback
function that is fired when the slide has stopped moving.\n   *\n   * @param {object} event MouseEnd or TouchEnd
event targeting the slider.\n   */\n  onDragStop: _propTypes2.default.func,\n\n  /** @ignore */\n  onFocus:
_propTypes2.default.func,\n\n  /**\n   * Whether or not the slider is required in a form.\n   */\n  required:
_propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the inner slider element.\n   */\n  sliderStyle:
_propTypes2.default.object,\n\n  /**\n   * The granularity the slider can step through values.\n   */\n  step:
_propTypes2.default.number,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object,\n\n  /**\n   * The value of the slider.\n   */\n  value: valueInRangePropType\n} :
{};\nexports.default = Slider;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\",
 {\n  value: true\n});\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _pure
= require('recompose/pure');\n\nvar _pure2 = _interopRequireDefault(_pure);\n\nvar _SvgIcon =
require('../../SvgIcon');\n\nvar _SvgIcon2 = _interopRequireDefault(_SvgIcon);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar
ActionCheckCircle = function ActionCheckCircle(props) {\n  return
_react2.default.createElement(_SvgIcon2.default, props, _react2.default.createElement('path', {\n    d: 'M12 2C6.48
2 2 6.48 2 12s4.48 10 10 10 10-4.48 10-10S17.52 2 12 2zm-2 15l-5-5 1.41-1.41L10 14.17l7.59-7.59L19 8l-9 9z'\n
}));\n};\n\nActionCheckCircle = (0, _pure2.default)(ActionCheckCircle);\nActionCheckCircle.displayName =
'ActionCheckCircle';\nActionCheckCircle.muiName = 'SvgIcon';\nexports.default = ActionCheckCircle;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar
 _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
 _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _TransitionGroup = require('react-
transition-group/TransitionGroup');\n\nvar _TransitionGroup2 = _interopRequireDefault(_TransitionGroup);\n\nvar
_ExpandTransitionChild = require('./ExpandTransitionChild');\n\nvar _ExpandTransitionChild2 =
_interopRequireDefault(_ExpandTransitionChild);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar ExpandTransition = function (_Component) {\n  (0,
_inherits3.default)(ExpandTransition, _Component);\n\n  function ExpandTransition() {\n    (0,
_classCallCheck3.default)(this, ExpandTransition);\n    return (0, _possibleConstructorReturn3.default)(this,
(ExpandTransition.__proto__
 || (0, _getPrototypeOf2.default)(ExpandTransition)).apply(this, arguments));\n  }\n\n  (0,
_createClass3.default)(ExpandTransition, [{\n    key: 'renderChildren',\n    value: function renderChildren(children)
{\n      var _props = this.props,\n          enterDelay = _props.enterDelay,\n          transitionDelay =
_props.transitionDelay,\n          transitionDuration = _props.transitionDuration,\n          expandTransitionChildStyle
= _props.expandTransitionChildStyle;\n      return _react2.default.Children.map(children, function (child) {\n
return _react2.default.createElement(_ExpandTransitionChild2.default, {\n          enterDelay: enterDelay,\n
transitionDelay: transitionDelay,\n          transitionDuration: transitionDuration,\n          key: child.key,\n          style:
expandTransitionChildStyle\n        }, child);\n      }, this);\n    }\n  }, {\n    key: 'render',\n    value: function render()
```

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{\n      var _props2 = this.props,\n          children = _props2.children,\n
         enterDelay = _props2.enterDelay,\n          loading = _props2.loading,\n          open = _props2.open,\n
style = _props2.style,\n          transitionDelay = _props2.transitionDelay,\n          transitionDuration =
_props2.transitionDuration,\n          expandTransitionChildStyle = _props2.expandTransitionChildStyle,\n
other = (0, _objectWithoutProperties3.default)(_props2, ['children', 'enterDelay', 'loading', 'open', 'style',
'transitionDelay', 'transitionDuration', 'expandTransitionChildStyle']);\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var mergedRootStyles = (0, _simpleAssign2.default)({}, {\n
position: 'relative',\n        overflow: 'hidden',\n        height: 'auto'\n      }, style);\n      var newChildren = loading ? [] :
this.renderChildren(children);\n      return _react2.default.createElement(_TransitionGroup2.default, (0,
_extends3.default)({\n        style: prepareStyles(mergedRootStyles),\n
     component: 'div'\n      }, other), open && newChildren);\n    }\n  }]);\n  return
ExpandTransition;\n}(_react.Component);\n\nExpandTransition.defaultProps = {\n  enterDelay: 0,\n
transitionDelay: 0,\n  transitionDuration: 450,\n  loading: false,\n  open: false\n};\nExpandTransition.contextTypes
= {\n  muiTheme: _propTypes2.default.object.isRequired\n};\nExpandTransition.propTypes =
process.env.NODE_ENV !== \"production\" ? {\n  children: _propTypes2.default.node,\n  enterDelay:
_propTypes2.default.number,\n  expandTransitionChildStyle: _propTypes2.default.object,\n  loading:
_propTypes2.default.bool,\n  open: _propTypes2.default.bool,\n  style: _propTypes2.default.object,\n
transitionDelay: _propTypes2.default.number,\n  transitionDuration: _propTypes2.default.number\n} :
{};\nexports.default = ExpandTransition;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n
value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar
 _objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2
 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-dom');\n\nvar _reactDom2 =
_interopRequireDefault(_reactDom);\n\nvar _transitions = require('../styles/transitions');\n\nvar _transitions2 =
_interopRequireDefault(_transitions);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule
? obj : {\n    default: obj\n  };\n}\n\nvar reflow = function reflow(elem) {\n  return elem.offsetHeight;\n};\n\nvar
ExpandTransitionChild = function (_Component) {\n  (0, _inherits3.default)(ExpandTransitionChild,
_Component);\n\n  function ExpandTransitionChild() {\n    (0, _classCallCheck3.default)(this,
ExpandTransitionChild);\n    return (0, _possibleConstructorReturn3.default)(this,
(ExpandTransitionChild.__proto__ || (0, _getPrototypeOf2.default)(ExpandTransitionChild)).apply(this,
 arguments));\n  }\n\n  (0, _createClass3.default)(ExpandTransitionChild, [{\n    key: 'componentWillUnmount',\n
value: function componentWillUnmount() {\n      clearTimeout(this.enterTimer);\n
clearTimeout(this.enteredTimer);\n      clearTimeout(this.leaveTimer);\n    }\n  }, {\n    key:
'componentWillAppear',\n    value: function componentWillAppear(callback) {\n      this.open();\n      callback();\n
}\n  }, {\n    key: 'componentDidAppear',\n    value: function componentDidAppear() {\n      this.setAutoHeight();\n
 }\n  }, {\n    key: 'componentWillEnter',\n    value: function componentWillEnter(callback) {\n      var _this2 =
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this;\n\n var _props = this.props,\n enterDelay = _props.enterDelay,\n transitionDelay =
_props.transitionDelay,\n transitionDuration = _props.transitionDuration;\n\n var element =
_reactDom2.default.findDOMNode(this);\n\n element.style.height = 0;\n this.enterTimer =
setTimeout(function
() {\n return _this2.open();\n }, enterDelay);\n this.enteredTimer = setTimeout(function () {\n return
callback();\n }, enterDelay + transitionDelay + transitionDuration);\n }\n }, {\n key: 'componentDidEnter',\n
value: function componentDidEnter() {\n this.setAutoHeight();\n }\n }, {\n key: 'componentWillLeave',\n
value: function componentWillLeave(callback) {\n var _props2 = this.props,\n transitionDelay =
_props2.transitionDelay,\n transitionDuration = _props2.transitionDuration;\n\n var element =
_reactDom2.default.findDOMNode(this); // Set fixed height first for animated property value\n\n\n
element.style.height = this.refs.wrapper.clientHeight + 'px';\n reflow(element);\n
element.style.transitionDuration = transitionDuration + 'ms';\n element.style.height = 0;\n this.leaveTimer =
setTimeout(function () {\n return callback();\n }, transitionDelay + transitionDuration);\n
}\n }, {\n key: 'setAutoHeight',\n value: function setAutoHeight() {\n var _ReactDOM$findDOMNode =
_reactDom2.default.findDOMNode(this),\n style = _ReactDOM$findDOMNode.style;\n\n
style.transitionDuration = 0;\n style.height = 'auto';\n }\n }, {\n key: 'open',\n value: function open() {\n
var element = _reactDom2.default.findDOMNode(this);\n\n element.style.height = this.refs.wrapper.clientHeight
+ 'px';\n }\n }, {\n key: 'render',\n value: function render() {\n var _props3 = this.props,\n children =
_props3.children,\n enterDelay = _props3.enterDelay,\n style = _props3.style,\n transitionDelay =
_props3.transitionDelay,\n transitionDuration = _props3.transitionDuration,\n other = (0,
_objectWithoutProperties3.default)(_props3, ['children', 'enterDelay', 'style', 'transitionDelay',
'transitionDuration']);\n var prepareStyles = this.context.muiTheme.prepareStyles;\n
var mergedRootStyles = (0, _simpleAssign2.default)({\n position: 'relative',\n height: 0,\n width:
'100%',\n top: 0,\n left: 0,\n overflow: 'hidden',\n transition:
_transitions2.default.easeOut(transitionDuration + 'ms', ['height'], transitionDelay + 'ms')\n }, style);\n return
_react2.default.createElement('div', (0, _extends3.default)({}, other, {\n style:
prepareStyles(mergedRootStyles)\n }), _react2.default.createElement('div', {\n ref: 'wrapper'\n },
children));\n }\n }]);\n return
ExpandTransitionChild;\n}(_react.Component);\n\nExpandTransitionChild.defaultProps = {\n enterDelay: 0,\n
transitionDelay: 0,\n transitionDuration: 450\n};\nExpandTransitionChild.contextTypes = {\n muiTheme:
_propTypes2.default.object.isRequired\n};\nExpandTransitionChild.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n children: _propTypes2.default.node,\n enterDelay: _propTypes2.default.number,\n
style: _propTypes2.default.object,\n transitionDelay: _propTypes2.default.number,\n transitionDuration:
_propTypes2.default.number\n} : {};\nexports.default = ExpandTransitionChild;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\nexports.PlainStepConnector =
undefined;\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes =
require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _pure =
require('recompose/pure');\n\nvar _pure2 = _interopRequireDefault(_pure);\n\nfunction _interopRequireDefault(obj)
{\n return obj && obj.__esModule ? obj : {\n default: obj\n };\n}\n\nvar propTypes = {\n /**\n * Override the
inline-style of the root element.\n */\n style: _propTypes2.default.object\n};\nvar contextTypes = {\n muiTheme:
_propTypes2.default.object.isRequired,\n stepper: _propTypes2.default.object\n};\n\nvar StepConnector = function
StepConnector(props,
context) {\n var muiTheme = context.muiTheme,\n stepper = context.stepper;\n var styles = {\n wrapper: {\n
flex: '1 1 auto'\n },\n line: {\n display: 'block',\n borderColor: muiTheme.stepper.connectorLineColor\n
}\n };\n /**\n * Clean up once we can use CSS pseudo elements\n */\n\n if (stepper.orientation === 'horizontal')
{\n styles.line.marginLeft = -6;\n styles.line.borderTopStyle = 'solid';\n styles.line.borderTopWidth = 1;\n }
else if (stepper.orientation === 'vertical') {\n styles.wrapper.marginLeft = 14 + 11; // padding + 1/2 icon\n\n
styles.line.borderLeftStyle = 'solid';\n styles.line.borderLeftWidth = 1;\n styles.line.minHeight = 28;\n }\n\n var

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prepareStyles = muiTheme.prepareStyles;\n  return _react2.default.createElement('div', {\n    style:
prepareStyles(styles.wrapper)\n  }, _react2.default.createElement('span', {\n    style: prepareStyles(styles.line)\n
}));\n};\n\nStepConnector.propTypes
 = process.env.NODE_ENV !== \"production\" ? propTypes : {};\nStepConnector.contextTypes =
contextTypes;\nexports.PlainStepConnector = StepConnector;\nexports.default = (0,
_pure2.default)(StepConnector);","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
 _possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _transitions =
require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nvar
_ClickAwayListener = require('../internal/ClickAwayListener');\n\nvar _ClickAwayListener2 =
_interopRequireDefault(_ClickAwayListener);\n\nvar _SnackbarBody = require('./SnackbarBody');\n\nvar
_SnackbarBody2 = _interopRequireDefault(_SnackbarBody);\n\nfunction _interopRequireDefault(obj)
 {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context, state) {\n
var _context$muiTheme = context.muiTheme,\n      desktopSubheaderHeight =
_context$muiTheme.baseTheme.spacing.desktopSubheaderHeight,\n      zIndex = _context$muiTheme.zIndex;\n
var open = state.open;\n  var styles = {\n    root: {\n      position: 'fixed',\n      left: '50%',\n      display: 'flex',\n
bottom: 0,\n      zIndex: zIndex.snackbar,\n      visibility: open ? 'visible' : 'hidden',\n      transform: open ? 'translate(-
50%, 0)' : 'translate(-50%, ' + desktopSubheaderHeight + 'px)',\n      transition:
_transitions2.default.easeOut('400ms', 'transform') + ', ' + _transitions2.default.easeOut('400ms', 'visibility')\n    }\n
};\n  return styles;\n}\n\nvar Snackbar = function (_Component) {\n  (0, _inherits3.default)(Snackbar,
_Component);\n\n  function Snackbar() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0,
_classCallCheck3.default)(this,
 Snackbar);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n
args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = Snackbar.__proto__ || (0,
_getPrototypeOf2.default)(Snackbar)).call.apply(_ref, [this].concat(args))), _this), _this.componentClickAway =
function () {\n      if (_this.timerTransitionId) {\n        // If transitioning, don't close the snackbar.\n        return;\n
}\n\n      if (_this.props.open !== null && _this.props.onRequestClose) {\n
_this.props.onRequestClose(Snackbar.reasons.CLICKAWAY);\n      } else {\n        _this.setState({\n          open:
false\n        });\n      }\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0,
_createClass3.default)(Snackbar, [{\n    key: 'componentWillMount',\n    value: function componentWillMount() {\n
    this.setState({\n        open: this.props.open,\n
        message: this.props.message,\n        action: this.props.action\n      });\n    }\n  }, {\n    key:
'componentDidMount',\n    value: function componentDidMount() {\n      if (this.state.open) {\n
this.setAutoHideTimer();\n        this.setTransitionTimer();\n      }\n    }\n  }, {\n    key:
'componentWillReceiveProps',\n    value: function componentWillReceiveProps(nextProps) {\n      var _this2 =
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this;\n\n      if (this.props.open && nextProps.open && (nextProps.message !== this.props.message ||
nextProps.action !== this.props.action)) {\n        this.setState({\n          open: false\n        });\n
clearTimeout(this.timerOneAtTheTimeId);\n        this.timerOneAtTheTimeId = setTimeout(function () {\n
_this2.setState({\n            message: nextProps.message,\n            action: nextProps.action,\n            open: true\n
});\n        }, 400);\n      } else {\n        var open = nextProps.open;\n        this.setState({\n          open:
 open !== null ? open : this.state.open,\n          message: nextProps.message,\n          action: nextProps.action\n
});\n      }\n    }\n  }, {\n    key: 'componentDidUpdate',\n    value: function componentDidUpdate(prevProps,
prevState) {\n      if (prevState.open !== this.state.open) {\n        if (this.state.open) {\n
this.setAutoHideTimer();\n          this.setTransitionTimer();\n        } else {\n
clearTimeout(this.timerAutoHideId);\n        }\n      }\n    }\n  }, {\n    key: 'componentWillUnmount',\n    value:
function componentWillUnmount() {\n      clearTimeout(this.timerAutoHideId);\n
clearTimeout(this.timerTransitionId);\n      clearTimeout(this.timerOneAtTheTimeId);\n    }\n  }, {\n    key:
'setAutoHideTimer',\n    // Timer that controls delay before snackbar auto hides\n    value: function
setAutoHideTimer() {\n      var _this3 = this;\n\n      var autoHideDuration = this.props.autoHideDuration;\n\n      if
(autoHideDuration > 0) {\n
     clearTimeout(this.timerAutoHideId);\n        this.timerAutoHideId = setTimeout(function () {\n          if
(_this3.props.open !== null && _this3.props.onRequestClose) {\n
_this3.props.onRequestClose(Snackbar.reasons.TIMEOUT);\n          } else {\n            _this3.setState({\n
open: false\n            });\n          }\n        }, autoHideDuration);\n      }\n    } // Timer that controls delay before click-
away events are captured (based on when animation completes)\n\n  }, {\n    key: 'setTransitionTimer',\n    value:
function setTransitionTimer() {\n      var _this4 = this;\n\n      this.timerTransitionId = setTimeout(function () {\n
_this4.timerTransitionId = undefined;\n      }, 400);\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n
var _props = this.props,\n          autoHideDuration = _props.autoHideDuration,\n          contentStyle =
_props.contentStyle,\n          bodyStyle = _props.bodyStyle,\n          messageProp =
 _props.message,\n          onRequestClose = _props.onRequestClose,\n          onActionClick =
_props.onActionClick,\n          style = _props.style,\n          other = (0, _objectWithoutProperties3.default)(_props,
['autoHideDuration', 'contentStyle', 'bodyStyle', 'message', 'onRequestClose', 'onActionClick', 'style']);\n      var
_state = this.state,\n          action = _state.action,\n          message = _state.message,\n          open = _state.open;\n
var prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context,
this.state);\n      return _react2.default.createElement(_ClickAwayListener2.default, {\n        onClickAway: open ?
this.componentClickAway : null\n      }, _react2.default.createElement('div', (0, _extends3.default)({}, other, {\n
style: prepareStyles((0, _simpleAssign2.default)(styles.root, style))\n      }),
_react2.default.createElement(_SnackbarBody2.default, {\n        action: action,\n        contentStyle:
 contentStyle,\n        message: message,\n        open: open,\n        onActionClick: onActionClick,\n        style:
bodyStyle\n      })));\n    }\n  }]);\n  return Snackbar;\n}(_react.Component);\n\nSnackbar.contextTypes = {\n
muiTheme: _propTypes2.default.object.isRequired\n};\nSnackbar.reasons = {\n  CLICKAWAY: 'clickaway',\n
TIMEOUT: 'timeout'\n};\nSnackbar.propTypes = process.env.NODE_ENV !== \"production\" ? {\n  /**\n   * The
label for the action on the snackbar.\n   */\n  action: _propTypes2.default.node,\n\n  /**\n   * The number of
milliseconds to wait before automatically dismissing.\n   * If no value is specified the snackbar will dismiss
normally.\n   * If a value is provided the snackbar can still be dismissed normally.\n   * If a snackbar is dismissed
before the timer expires, the timer will be cleared.\n   */\n  autoHideDuration: _propTypes2.default.number,\n\n
/**\n   * Override the inline-styles of the body element.\n   */\n  bodyStyle: _propTypes2.default.object,\n\n
  /**\n   * The css class name of the root element.\n   */\n  className: _propTypes2.default.string,\n\n  /**\n   *
Override the inline-styles of the content element.\n   */\n  contentStyle: _propTypes2.default.object,\n\n  /**\n   *
The message to be displayed.\n   *\n   * (Note: If the message is an element or array, and the `Snackbar` may re-
render while it is still open,\n   * ensure that the same object remains as the `message` property if you want to avoid
the `Snackbar` hiding and\n   * showing again)\n   */\n  message: _propTypes2.default.node.isRequired,\n\n  /**\n
* Fired when the action button is clicked.\n   *\n   * @param {object} event Action button event.\n   */\n
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onActionClick: _propTypes2.default.func,\n\n  /**\n   * Fired when the `Snackbar` is requested to be closed by a
click outside the `Snackbar`, or after the\n   * `autoHideDuration` timer expires.\n   *\n   * Typically
`onRequestClose` is used to set state in the parent component, which is used to control
 the `Snackbar`\n   * `open` prop.\n   *\n   * The `reason` parameter can optionally be used to control the response to
`onRequestClose`,\n   * for example ignoring `clickaway`.\n   *\n   * @param {string} reason Can be:`\"timeout\"`
(`autoHideDuration` expired) or: `\"clickaway\"`\n   */\n  onRequestClose: _propTypes2.default.func,\n\n  /**\n   *
Controls whether the `Snackbar` is opened or not.\n   */\n  open: _propTypes2.default.bool.isRequired,\n\n  /**\n   *
Override the inline-styles of the root element.\n   */\n  style: _propTypes2.default.object\n} : {};\nexports.default =
Snackbar;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\nexports.SnackbarBody = undefined;\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar
_extends3 = _interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar
 _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _transitions =
require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nvar _withWidth =
require('../utils/withWidth');\n\nvar _withWidth2 = _interopRequireDefault(_withWidth);\n\nvar _FlatButton =
require('../FlatButton');\n\nvar _FlatButton2 = _interopRequireDefault(_FlatButton);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction
getStyles(props, context) {\n  var open = props.open,\n      width = props.width;\n  var _context$muiTheme =
context.muiTheme,\n      _context$muiTheme$bas = _context$muiTheme.baseTheme,\n
_context$muiTheme$bas2 = _context$muiTheme$bas.spacing,\n
      desktopGutter = _context$muiTheme$bas2.desktopGutter,\n      desktopSubheaderHeight =
_context$muiTheme$bas2.desktopSubheaderHeight,\n      fontFamily = _context$muiTheme$bas.fontFamily,\n
_context$muiTheme$sna = _context$muiTheme.snackbar,\n      backgroundColor =
_context$muiTheme$sna.backgroundColor,\n      textColor = _context$muiTheme$sna.textColor,\n      actionColor
= _context$muiTheme$sna.actionColor,\n      borderRadius = _context$muiTheme.borderRadius;\n  var isSmall =
width === _withWidth.SMALL;\n  var styles = {\n    root: {\n      fontFamily: fontFamily,\n      backgroundColor:
backgroundColor,\n      padding: '0 ' + desktopGutter + 'px',\n      height: desktopSubheaderHeight,\n      lineHeight:
desktopSubheaderHeight + 'px',\n      borderRadius: isSmall ? 0 : borderRadius,\n      maxWidth: isSmall ? 'inherit' :
568,\n      minWidth: isSmall ? 'inherit' : 288,\n      width: isSmall ? 'calc(100vw - ' + desktopGutter * 2 + 'px)' :
'auto',\n      flexGrow:
 isSmall ? 1 : 0\n    },\n    content: {\n      fontSize: 14,\n      color: textColor,\n      opacity: open ? 1 : 0,\n
transition: open ? _transitions2.default.easeOut('500ms', 'opacity', '100ms') : _transitions2.default.easeOut('400ms',
'opacity')\n    },\n    action: {\n      color: actionColor,\n      float: 'right',\n      marginTop: 6,\n      marginRight: -16,\n
    marginLeft: desktopGutter,\n      backgroundColor: 'transparent'\n    }\n  };\n  return styles;\n}\n\nvar
SnackbarBody = function SnackbarBody(props, context) {\n  var action = props.action,\n      contentStyle =
props.contentStyle,\n      message = props.message,\n      open = props.open,\n      onActionClick =
props.onActionClick,\n      style = props.style,\n      other = (0, _objectWithoutProperties3.default)(props, ['action',
'contentStyle', 'message', 'open', 'onActionClick', 'style']);\n  var prepareStyles = context.muiTheme.prepareStyles;\n
var styles = getStyles(props, context);\n\n  var actionButton
 = action && _react2.default.createElement(_FlatButton2.default, {\n    style: styles.action,\n    label: action,\n
onClick: onActionClick\n  });\n\n  return _react2.default.createElement('div', (0, _extends3.default)({}, other, {\n
style: prepareStyles((0, _simpleAssign2.default)(styles.root, style))\n  }), _react2.default.createElement('div', {\n
style: prepareStyles((0, _simpleAssign2.default)(styles.content, contentStyle))\n  },
_react2.default.createElement('span', null, message), actionButton));\n};\n\nexports.SnackbarBody =
SnackbarBody;\nSnackbarBody.propTypes = process.env.NODE_ENV !== \"production\" ? {\n  /**\n   * The label
```

for the action on the snackbar.\n */\n action: _propTypes2.default.node,\n\n /**\n * Override the inline-styles of the content element.\n */\n contentStyle: _propTypes2.default.object,\n\n /**\n * The message to be displayed.\n *\n * (Note: If the message is an element or array, and the `Snackbar` may re-render while it is still open,\n * ensure that the same object remains as the `message` property if you want to avoid the `Snackbar` hiding and\n * showing again)\n */\n message: _propTypes2.default.node.isRequired,\n\n /**\n * Fired when the action button is clicked.\n *\n * @param {object} event Action button event.\n */\n onActionClick: _propTypes2.default.func,\n\n /**\n * @ignore\n * Controls whether the `Snackbar` is opened or not.\n */\n open: _propTypes2.default.bool.isRequired,\n\n /**\n * Override the inline-styles of the root element.\n */\n style: _propTypes2.default.object,\n\n /**\n * @ignore\n * Width of the screen.\n */\n width: _propTypes2.default.number.isRequired\n} : {};\nSnackbarBody.contextTypes = {\n muiTheme: _propTypes2.default.object.isRequired\n};\nexports.default = (0, _withWidth2.default)()(SnackbarBody);","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\nexports.LARGE = exports.MEDIUM = exports.SMALL = undefined;\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nexports.default = withWidth;\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _reactEventListener = require('react-event-listener');\n\nvar _reactEventListener2 = _interopRequireDefault(_reactEventListener);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n default: obj\n };\n}\n\nvar SMALL = exports.SMALL = 1;\nvar MEDIUM = exports.MEDIUM = 2;\nvar LARGE = exports.LARGE = 3;\n\nfunction withWidth() {\n var options = arguments.length > 0 && arguments[0] !== undefined ? arguments[0] : {};\n var _options$largeWidth = options.largeWidth,\n largeWidth = _options$largeWidth === undefined ? 992 : _options$largeWidth,\n _options$mediumWidth = options.mediumWidth,\n mediumWidth = _options$mediumWidth === undefined ? 768 : _options$mediumWidth,\n _options$resizeInterv = options.resizeInterval,\n resizeInterval = _options$resizeInterv === undefined ? 166 : _options$resizeInterv;\n return function (MyComponent) {\n return function (_Component) {\n (0, _inherits3.default)(WithWidth, _Component);\n\n function WithWidth() {\n var _ref;\n\n var _temp, _this, _ret;\n\n (0, _classCallCheck3.default)(this, WithWidth);\n\n for (var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n args[_key] = arguments[_key];\n }\n\n return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = WithWidth.__proto__ || (0, _getPrototypeOf2.default)(WithWidth)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n width: null\n }, _this.handleResize = function () {\n clearTimeout(_this.deferTimer);\n _this.deferTimer = setTimeout(function () {\n _this.updateWidth();\n }, resizeInterval);\n }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n }\n\n (0, _createClass3.default)(WithWidth, [{\n key: 'componentDidMount',\n value: function componentDidMount() {\n this.updateWidth();\n }\n }, {\n key: 'componentWillUnmount',\n value: function componentWillUnmount() {\n clearTimeout(this.deferTimer);\n }\n }, {\n key: 'updateWidth',\n value: function updateWidth() {\n var innerWidth = window.innerWidth;\n var width = void 0;\n\n if (innerWidth >= largeWidth) {\n width = LARGE;\n } else if (innerWidth >= mediumWidth) {\n width = MEDIUM;\n } else {\n // innerWidth < 768\n width = SMALL;\n }\n\n if (width !== this.state.width) {\n

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this.setState({\n            width: width\n          });\n        }\n      }\n    }, {\n      key: 'render',\n      value:
function render() {\n        var width = this.state.width;\n        /**\n         * When rendering the component on the
server,\n         * we have no idea about the screen width.\n         * In order to prevent blinks and help the
reconciliation\n
         * we are not rendering the component.\n         *\n         * A better alternative would be to send client
hints.\n         * But the browser support of this API is low:\n         * http://caniuse.com/#search=client%20hint\n
   */\n\n        if (width === null) {\n          return null;\n        }\n\n        return
_react2.default.createElement(_reactEventListener2.default, {\n          target: 'window',\n          onResize:
this.handleResize\n        }, _react2.default.createElement(MyComponent, (0, _extends3.default)({\n          width:
width\n        }, this.props)));\n      }\n    }]);\n    return WithWidth;\n  }(_react.Component);\n  };\n}","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
 _objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar
 _propTypes = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _warning
= require('warning');\n\nvar _warning2 = _interopRequireDefault(_warning);\n\nvar _TabTemplate =
require('./TabTemplate');\n\nvar _TabTemplate2 = _interopRequireDefault(_TabTemplate);\n\nvar _InkBar =
require('./InkBar');\n\nvar _InkBar2 = _interopRequireDefault(_InkBar);\n\nfunction _interopRequireDefault(obj)
{\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var
tabs = context.muiTheme.tabs;\n  return {\n    tabItemContainer: {\n      width: '100%',\n      backgroundColor:
tabs.backgroundColor,\n      whiteSpace: 'nowrap',\n      display: 'flex'\n    }\n  };\n}\n\nvar Tabs = function
(_Component) {\n  (0, _inherits3.default)(Tabs, _Component);\n\n  function Tabs() {\n    var _ref;\n\n    var _temp,
_this, _ret;\n\n    (0, _classCallCheck3.default)(this, Tabs);\n\n    for (var _len = arguments.length,
 args = Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret =
(_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = Tabs.__proto__ || (0,
_getPrototypeOf2.default)(Tabs)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      selectedIndex: 0\n
 }, _this.handleTabClick = function (value, event, tab) {\n      var valueLink = _this.getValueLink(_this.props);\n\n
 var index = tab.props.index;\n\n      if (valueLink.value && valueLink.value !== value || _this.state.selectedIndex
!== index) {\n        valueLink.requestChange(value, event, tab);\n      }\n\n      _this.setState({\n        selectedIndex:
index\n      });\n\n      if (tab.props.onActive) {\n        tab.props.onActive(tab);\n      }\n    }, _temp), (0,
_possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(Tabs, [{\n    key:
'componentWillMount',\n    value: function componentWillMount()
 {\n      var valueLink = this.getValueLink(this.props);\n      var initialIndex = this.props.initialSelectedIndex;\n
this.setState({\n        selectedIndex: valueLink.value !== undefined ? this.getSelectedIndex(this.props) : initialIndex
< this.getTabCount() ? initialIndex : 0\n      });\n    }\n  }, {\n    key: 'componentWillReceiveProps',\n    value:
function componentWillReceiveProps(newProps, nextContext) {\n      var valueLink =
this.getValueLink(newProps);\n      var newState = {\n        muiTheme: nextContext.muiTheme ||
this.context.muiTheme\n      };\n\n      if (valueLink.value !== undefined) {\n        newState.selectedIndex =
```

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this.getSelectedIndex(newProps);\n      }\n\n      this.setState(newState);\n    }\n  }, {\n    key: 'getTabs',\n    value:
function getTabs() {\n      var props = arguments.length > 0 && arguments[0] !== undefined ? arguments[0] :
this.props;\n      var tabs = [];\n\n      _react.Children.forEach(props.children, function (tab) {\n        if ((0,
 _react.isValidElement)(tab)) {\n          tabs.push(tab);\n        }\n      });\n\n      return tabs;\n    }\n  }, {\n    key:
'getTabCount',\n    value: function getTabCount() {\n      return this.getTabs().length;\n    } // Do not use outside of
this component, it will be removed once valueLink is deprecated\n\n  }, {\n    key: 'getValueLink',\n    value:
function getValueLink(props) {\n      return props.valueLink || {\n        value: props.value,\n        requestChange:
props.onChange\n      };\n    }\n  }, {\n    key: 'getSelectedIndex',\n    value: function getSelectedIndex(props) {\n
var valueLink = this.getValueLink(props);\n      var selectedIndex = -1;\n      this.getTabs(props).forEach(function
(tab, index) {\n        if (valueLink.value === tab.props.value) {\n          selectedIndex = index;\n        }\n      });\n
return selectedIndex;\n    }\n  }, {\n    key: 'getSelected',\n    value: function getSelected(tab, index) {\n      var
valueLink = this.getValueLink(this.props);\n
      return valueLink.value ? valueLink.value === tab.props.value : this.state.selectedIndex === index;\n    }\n  },
{\n    key: 'render',\n    value: function render() {\n      var _this2 = this;\n\n      var _props = this.props,\n
contentContainerClassName = _props.contentContainerClassName,\n          contentContainerStyle =
_props.contentContainerStyle,\n          initialSelectedIndex = _props.initialSelectedIndex,\n          inkBarStyle =
_props.inkBarStyle,\n          inkBarContainerStyle = _props.inkBarContainerStyle,\n          onChange =
_props.onChange,\n          style = _props.style,\n          tabItemContainerStyle = _props.tabItemContainerStyle,\n
  tabTemplate = _props.tabTemplate,\n          tabTemplateStyle = _props.tabTemplateStyle,\n          other = (0,
_objectWithoutProperties3.default)(_props, ['contentContainerClassName', 'contentContainerStyle',
'initialSelectedIndex', 'inkBarStyle', 'inkBarContainerStyle', 'onChange', 'style', 'tabItemContainerStyle',
 'tabTemplate', 'tabTemplateStyle']);\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n      var styles
= getStyles(this.props, this.context);\n      var valueLink = this.getValueLink(this.props);\n      var tabValue =
valueLink.value;\n      var tabContent = [];\n      var width = 100 / this.getTabCount();\n      var tabs =
this.getTabs().map(function (tab, index) {\n        process.env.NODE_ENV !== \"production\" ? (0,
_warning2.default)(tab.type && tab.type.muiName === 'Tab', 'Material-UI: Tabs only accepts Tab Components as
children.\\n        Found ' + (tab.type.muiName || tab.type) + ' as child number ' + (index + 1) + ' of Tabs') : void 0;\n
   process.env.NODE_ENV !== \"production\" ? (0, _warning2.default)(!tabValue || tab.props.value !== undefined,
'Material-UI: Tabs value prop has been passed, but Tab ' + index + '\\n        does not have a value prop. Needs value
if Tabs is going\\n        to be a controlled component.') : void 0;\n
        tabContent.push(tab.props.children ? (0, _react.createElement)(tabTemplate || _TabTemplate2.default, {\n
key: index,\n          selected: _this2.getSelected(tab, index),\n          style: tabTemplateStyle\n        },
tab.props.children) : undefined);\n        return (0, _react.cloneElement)(tab, {\n          key: index,\n          index:
index,\n          selected: _this2.getSelected(tab, index),\n          width: width + '%',\n          onClick:
_this2.handleTabClick\n        });\n      });\n      var realSelectedIndex = valueLink.value ?
this.getSelectedIndex(this.props) : this.state.selectedIndex;\n      var inkBar = realSelectedIndex !== -1 ?
_react2.default.createElement(_InkBar2.default, {\n        left: width * realSelectedIndex + '%',\n        width: width +
'%',\n        style: inkBarStyle\n      }) : null;\n      var inkBarContainerWidth = tabItemContainerStyle ?
tabItemContainerStyle.width : '100%';\n      return _react2.default.createElement('div', (0, _extends3.default)({\n
        style: prepareStyles((0, _simpleAssign2.default)({}, style))\n      }, other), _react2.default.createElement('div',
{\n        style: prepareStyles((0, _simpleAssign2.default)(styles.tabItemContainer, tabItemContainerStyle))\n      },
tabs), _react2.default.createElement('div', {\n        style: prepareStyles((0, _simpleAssign2.default)({\n          width:
inkBarContainerWidth\n        }, inkBarContainerStyle))\n      }, inkBar), _react2.default.createElement('div', {\n
style: prepareStyles((0, _simpleAssign2.default)({}, contentContainerStyle)),\n        className:
contentContainerClassName\n      }, tabContent));\n    }\n  }]);\n  return
Tabs;\n}(_react.Component);\n\nTabs.defaultProps = {\n  initialSelectedIndex: 0,\n  onChange: function
onChange() {}\n};\nTabs.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nTabs.propTypes = process.env.NODE_ENV !== \"production\" ? {\n
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/**\n   * Should be used to pass `Tab` components.\n   */\n children: _propTypes2.default.node,\n\n /**\n   * The css class name of the root element.\n   */\n className: _propTypes2.default.string,\n\n /**\n   * The css class name of the content's container.\n   */\n contentContainerClassName: _propTypes2.default.string,\n\n /**\n   * Override the inline-styles of the content's container.\n   */\n contentContainerStyle: _propTypes2.default.object,\n\n /**\n   * Specify initial visible tab index.\n   * If `initialSelectedIndex` is set but larger than the total amount of specified tabs,\n   * `initialSelectedIndex` will revert back to default.\n   * If `initialSelectedIndex` is set to any negative value, no tab will be selected intially.\n   */\n initialSelectedIndex: _propTypes2.default.number,\n\n /**\n   * Override the inline-styles of the InkBar.\n   */\n inkBarStyle: _propTypes2.default.object,\n\n /**\n   * Override the inline-styles of the InkBar container.\n   */\n inkBarContainerStyle: _propTypes2.default.object,\n\n /**\n   * Called when the selected value change.\n   */\n onChange: _propTypes2.default.func,\n\n /**\n   * Override the inline-styles of the root element.\n   */\n style: _propTypes2.default.object,\n\n /**\n   * Override the inline-styles of the tab-labels container.\n   */\n tabItemContainerStyle: _propTypes2.default.object,\n\n /**\n   * Override the default tab template used to wrap the content of each tab element.\n   */\n tabTemplate: _propTypes2.default.func,\n\n /**\n   * Override the inline-styles of the tab template.\n   */\n tabTemplateStyle: _propTypes2.default.object,\n\n /**\n   * Makes Tabs controllable and selects the tab whose value prop matches this prop.\n   */\n value: _propTypes2.default.any\n} : {};\nexports.default = Tabs;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nvar styles = {\n width: '100%',\n position: 'relative',\n textAlign: 'initial'\n};\n\nvar TabTemplate = function TabTemplate(_ref) {\n var children = _ref.children,\n   selected = _ref.selected,\n   style = _ref.style;\n var templateStyle = (0, _simpleAssign2.default)({}, styles, style);\n\n if (!selected) {\n   templateStyle.height = 0;\n   templateStyle.overflow = 'hidden';\n }\n\n return _react2.default.createElement('div', {\n   style: templateStyle\n }, children);\n};\n\nTabTemplate.propTypes = process.env.NODE_ENV !== \"production\" ? {\n children: _propTypes2.default.node,\n selected: _propTypes2.default.bool,\n style: _propTypes2.default.object\n} : {};\nexports.default = TabTemplate;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _transitions = require('../styles/transitions');\n\nvar _transitions2 = _interopRequireDefault(_transitions);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nfunction getStyles(props, context) {\n var _context$muiTheme = context.muiTheme,\n   inkBar = _context$muiTheme.inkBar,\n   isRtl = _context$muiTheme.isRtl;\n return {\n   root: {\n   left: props.left,\n   width: props.width,\n   bottom: 0,\n   display: 'block',\n   backgroundColor: props.color || inkBar.backgroundColor,\n   height: 2,\n   marginTop: -2,\n   position: 'relative',\n   transition: _transitions2.default.easeOut('1s', isRtl ? 'right' : 'left')\n   }\n };\n}\n\nvar InkBar = function (_Component) {\n (0,

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_inherits3.default)(InkBar, _Component);\n\n  function InkBar() {\n    (0, _classCallCheck3.default)(this, InkBar);\n
    return (0, _possibleConstructorReturn3.default)(this, (InkBar.__proto__ || (0,
_getPrototypeOf2.default)(InkBar)).apply(this, arguments));\n  }\n\n  (0, _createClass3.default)(InkBar, [{\n    key:
'render',\n    value: function render() {\n      var style = this.props.style;\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n      return
_react2.default.createElement('div', {\n        style: prepareStyles((0, _simpleAssign2.default)(styles.root, style))\n
});\n    }\n  }]);\n  return InkBar;\n}(_react.Component);\n\nInkBar.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nInkBar.propTypes = process.env.NODE_ENV !== \"production\" ? {\n
color: _propTypes2.default.string,\n  left: _propTypes2.default.string.isRequired,\n\n  /**\n   * Override the inline-
styles of the root element.\n   */\n  style: _propTypes2.default.object,\n  width:
_propTypes2.default.string.isRequired\n} : {};\nexports.default
 = InkBar;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar
_getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar
 _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _warning = require('warning');\n\nvar _warning2 =
_interopRequireDefault(_warning);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var _context$muiTheme =
context.muiTheme,\n      baseTheme = _context$muiTheme.baseTheme,\n      table = _context$muiTheme.table;\n
return {\n    root: {\n      backgroundColor: table.backgroundColor,\n      width: '100%',\n      borderCollapse:
'collapse',\n      borderSpacing: 0,\n      tableLayout: 'fixed',\n      fontFamily: baseTheme.fontFamily\n    },\n
bodyTable: {\n      height: props.fixedHeader || props.fixedFooter ? props.height : 'auto',\n      overflowX: 'hidden',\n
   overflowY: 'auto'\n    },\n    tableWrapper: {\n      height: props.fixedHeader || props.fixedFooter ? 'auto' :
props.height,\n
      overflow: 'auto'\n    }\n  };\n}\n\nvar Table = function (_Component) {\n  (0, _inherits3.default)(Table,
_Component);\n\n  function Table() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0,
_classCallCheck3.default)(this, Table);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0; _key <
_len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = Table.__proto__ || (0,
_getPrototypeOf2.default)(Table)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      allRowsSelected:
false\n    }, _this.onCellClick = function (rowNumber, columnNumber, event) {\n      if (_this.props.onCellClick)
_this.props.onCellClick(rowNumber, columnNumber, event);\n    }, _this.onCellHover = function (rowNumber,
columnNumber, event) {\n      if (_this.props.onCellHover) _this.props.onCellHover(rowNumber, columnNumber,
event);\n    }, _this.onCellHoverExit = function
 (rowNumber, columnNumber, event) {\n      if (_this.props.onCellHoverExit)
_this.props.onCellHoverExit(rowNumber, columnNumber, event);\n    }, _this.onRowHover = function
(rowNumber) {\n      if (_this.props.onRowHover) _this.props.onRowHover(rowNumber);\n    },
_this.onRowHoverExit = function (rowNumber) {\n      if (_this.props.onRowHoverExit)
_this.props.onRowHoverExit(rowNumber);\n    }, _this.onRowSelection = function (selectedRows) {\n      if
(_this.state.allRowsSelected) {\n        _this.setState({\n          allRowsSelected: false\n        });\n      }\n\n      if
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(_this.props.onRowSelection) {\n        _this.props.onRowSelection(selectedRows);\n      }\n    }, _this.onSelectAll =
function () {\n      if (_this.props.onRowSelection) {\n        if (!_this.state.allRowsSelected) {\n
_this.props.onRowSelection('all');\n        } else {\n          _this.props.onRowSelection('none');\n        }\n      }\n\n
_this.setState({\n        allRowsSelected: !_this.state.allRowsSelected\n
      });\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0,
_createClass3.default)(Table, [{\n    key: 'componentWillMount',\n    value: function componentWillMount() {\n
if (this.props.allRowsSelected) {\n        this.setState({\n          allRowsSelected: true\n        });\n      }\n    }\n  }, {\n
key: 'componentWillReceiveProps',\n    value: function componentWillReceiveProps(nextProps) {\n      if
(this.props.allRowsSelected !== nextProps.allRowsSelected) {\n        this.setState({\n          allRowsSelected:
nextProps.allRowsSelected\n        });\n      }\n    }\n  }, {\n    key: 'isScrollbarVisible',\n    value: function
isScrollbarVisible() {\n      var tableDivHeight = this.refs.tableDiv.clientHeight;\n      var tableBodyHeight =
this.refs.tableBody.clientHeight;\n      return tableBodyHeight > tableDivHeight;\n    }\n  }, {\n    key:
'createTableHeader',\n    value: function createTableHeader(base) {\n      return
 _react2.default.cloneElement(base, {\n        enableSelectAll: base.props.enableSelectAll && this.props.selectable
&& this.props.multiSelectable,\n        onSelectAll: this.onSelectAll,\n        selectAllSelected:
this.state.allRowsSelected\n      });\n    }\n  }, {\n    key: 'createTableBody',\n    value: function
createTableBody(base) {\n      return _react2.default.cloneElement(base, {\n        allRowsSelected:
this.state.allRowsSelected,\n        multiSelectable: this.props.multiSelectable,\n        onCellClick: this.onCellClick,\n
      onCellHover: this.onCellHover,\n        onCellHoverExit: this.onCellHoverExit,\n        onRowHover:
this.onRowHover,\n        onRowHoverExit: this.onRowHoverExit,\n        onRowSelection: this.onRowSelection,\n
   selectable: this.props.selectable\n      });\n    }\n  }, {\n    key: 'createTableFooter',\n    value: function
createTableFooter(base) {\n      return base;\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n
  var _this2 = this;\n\n      var _props = this.props,\n          children = _props.children,\n          className =
_props.className,\n          fixedFooter = _props.fixedFooter,\n          fixedHeader = _props.fixedHeader,\n
style = _props.style,\n          wrapperStyle = _props.wrapperStyle,\n          headerStyle = _props.headerStyle,\n
bodyStyle = _props.bodyStyle,\n          footerStyle = _props.footerStyle;\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context);\n      var tHead = void
0;\n      var tFoot = void 0;\n      var tBody = void 0;\n\n      _react2.default.Children.forEach(children, function
(child) {\n        if (!_react2.default.isValidElement(child)) return;\n        var muiName = child.type.muiName;\n\n
 if (muiName === 'TableBody') {\n          tBody = _this2.createTableBody(child);\n        } else if (muiName ===
'TableHeader') {\n          tHead = _this2.createTableHeader(child);\n
        } else if (muiName === 'TableFooter') {\n          tFoot = _this2.createTableFooter(child);\n        } else {\n
process.env.NODE_ENV !== \"production\" ? (0, _warning2.default)(false, 'Material-UI: Children of the Table
component must be TableBody or TableHeader or TableFooter.\\n           Nothing is rendered.') : void 0;\n        }\n
}); // If we could not find a table-header and a table-body, do not attempt to display anything.\n\n\n      if (!tBody
&& !tHead) return null;\n      var mergedTableStyle = (0, _simpleAssign2.default)(styles.root, style);\n      var
headerTable = void 0;\n      var footerTable = void 0;\n      var inlineHeader = void 0;\n      var inlineFooter = void
0;\n\n      if (fixedHeader) {\n        headerTable = _react2.default.createElement('div', {\n          style:
prepareStyles((0, _simpleAssign2.default)({}, headerStyle))\n        }, _react2.default.createElement('table', {\n
className: className,\n          style: mergedTableStyle\n
        }, tHead));\n      } else {\n        inlineHeader = tHead;\n      }\n\n      if (tFoot !== undefined) {\n        if
(fixedFooter) {\n          footerTable = _react2.default.createElement('div', {\n            style: prepareStyles((0,
_simpleAssign2.default)({}, footerStyle))\n          }, _react2.default.createElement('table', {\n            className:
className,\n            style: prepareStyles(mergedTableStyle)\n          }, tFoot));\n        } else {\n          inlineFooter =
tFoot;\n        }\n      }\n\n      return _react2.default.createElement('div', {\n        style: prepareStyles((0,
_simpleAssign2.default)(styles.tableWrapper, wrapperStyle))\n      }, headerTable,
_react2.default.createElement('div', {\n        style: prepareStyles((0, _simpleAssign2.default)(styles.bodyTable,
bodyStyle)),\n        ref: 'tableDiv'\n      }, _react2.default.createElement('table', {\n        className: className,\n
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style: mergedTableStyle,\n        ref: 'tableBody'\n
      }, inlineHeader, inlineFooter, tBody)), footerTable);\n    }\n  }]);\n  return
Table;\n}(_react.Component);\n\nTable.defaultProps = {\n  allRowsSelected: false,\n  fixedFooter: true,\n
fixedHeader: true,\n  height: 'inherit',\n  multiSelectable: false,\n  selectable: true\n};\nTable.contextTypes = {\n
muiTheme: _propTypes2.default.object.isRequired\n};\nTable.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  /**\n   * Set to true to indicate that all rows should be selected.\n   */\n  allRowsSelected:
_propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the body's table element.\n   */\n  bodyStyle:
_propTypes2.default.object,\n\n  /**\n   * Children passed to table.\n   */\n  children: _propTypes2.default.node,\n\n
/**\n   * The css class name of the root element.\n   */\n  className: _propTypes2.default.string,\n\n  /**\n   * If
true, the footer will appear fixed below the table.\n   * The default value is true.\n   */\n  fixedFooter:
_propTypes2.default.bool,\n\n
  /**\n   * If true, the header will appear fixed above the table.\n   * The default value is true.\n   */\n  fixedHeader:
_propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the footer's table element.\n   */\n  footerStyle:
_propTypes2.default.object,\n\n  /**\n   * Override the inline-styles of the header's table element.\n   */\n
headerStyle: _propTypes2.default.object,\n\n  /**\n   * The height of the table.\n   */\n  height:
_propTypes2.default.string,\n\n  /**\n   * If true, multiple table rows can be selected.\n   * CTRL/CMD+Click and
SHIFT+Click are valid actions.\n   * The default value is false.\n   */\n  multiSelectable:
_propTypes2.default.bool,\n\n  /**\n   * Called when a row cell is clicked.\n   * rowNumber is the row number and
columnId is\n   * the column number or the column key.\n   */\n  onCellClick: _propTypes2.default.func,\n\n  /**\n
* Called when a table cell is hovered.\n   * rowNumber is the row number of the hovered row\n
   * and columnId is the column number or the column key of the cell.\n   */\n  onCellHover:
_propTypes2.default.func,\n\n  /**\n   * Called when a table cell is no longer hovered.\n   * rowNumber is the row
number of the row and columnId\n   * is the column number or the column key of the cell.\n   */\n
onCellHoverExit: _propTypes2.default.func,\n\n  /**\n   * Called when a table row is hovered.\n   * rowNumber is
the row number of the hovered row.\n   */\n  onRowHover: _propTypes2.default.func,\n\n  /**\n   * Called when a
table row is no longer hovered.\n   * rowNumber is the row number of the row that is no longer hovered.\n   */\n
onRowHoverExit: _propTypes2.default.func,\n\n  /**\n   * Called when a row is selected.\n   * selectedRows is an
array of all row selections.\n   * IF all rows have been selected, the string \"all\"\n   * will be returned instead to
indicate that all rows have been selected.\n   */\n  onRowSelection: _propTypes2.default.func,\n\n  /**\n   * If true,
table
 rows can be selected.\n   * If multiple row selection is desired, enable multiSelectable.\n   * The default value is
true.\n   */\n  selectable: _propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the root element.\n
*/\n  style: _propTypes2.default.object,\n\n  /**\n   * Override the inline-styles of the table's wrapper element.\n
*/\n  wrapperStyle: _propTypes2.default.object\n} : {};\nexports.default = Table;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2
 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
_react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
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types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _TimePickerDialog =
require('./TimePickerDialog');\n\nvar _TimePickerDialog2 = _interopRequireDefault(_TimePickerDialog);\n\nvar
_TextField =
 require('../TextField');\n\nvar _TextField2 = _interopRequireDefault(_TextField);\n\nvar _timeUtils =
require('./timeUtils');\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n
default: obj\n  };\n}\n\nvar emptyTime = new
Date();\nemptyTime.setHours(0);\nemptyTime.setMinutes(0);\nemptyTime.setSeconds(0);\nemptyTime.setMillisec
onds(0);\n\nvar TimePicker = function (_Component) {\n  (0, _inherits3.default)(TimePicker, _Component);\n\n
function TimePicker() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this,
TimePicker);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n
args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = TimePicker.__proto__ || (0,
_getPrototypeOf2.default)(TimePicker)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      time: null,\n
    dialogTime:
 new Date()\n    }, _this.handleAcceptDialog = function (time) {\n      _this.setState({\n        time: time\n      });\n\n
 if (_this.props.onChange) _this.props.onChange(null, time);\n    }, _this.handleFocusInput = function (event) {\n
event.target.blur();\n\n      if (_this.props.onFocus) {\n        _this.props.onFocus(event);\n      }\n    },
_this.handleClickInput = function (event) {\n      event.preventDefault();\n\n      if (!_this.props.disabled) {\n
_this.openDialog();\n      }\n\n      if (_this.props.onClick) {\n        _this.props.onClick(event);\n      }\n    }, _temp),
(0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(TimePicker, [{\n    key:
'componentWillMount',\n    value: function componentWillMount() {\n      this.setState({\n        time:
this.isControlled() ? this.getControlledTime() : this.props.defaultTime\n      });\n    }\n  }, {\n    key:
'componentWillReceiveProps',\n    value: function componentWillReceiveProps(nextProps)
 {\n      if (nextProps.value !== this.props.value) {\n        this.setState({\n          time:
this.getControlledTime(nextProps)\n        });\n      }\n    }\n    /**\n     * Alias for `openDialog()` for an api consistent
with TextField.\n     */\n\n  }, {\n    key: 'focus',\n    value: function focus() {\n      this.openDialog();\n    }\n  }, {\n
key: 'openDialog',\n    value: function openDialog() {\n      this.setState({\n        dialogTime: this.state.time\n
});\n      this.refs.dialogWindow.show();\n    }\n  }, {\n    key: 'isControlled',\n    value: function isControlled() {\n
return this.props.value !== null;\n    }\n  }, {\n    key: 'getControlledTime',\n    value: function getControlledTime()
{\n      var props = arguments.length > 0 && arguments[0] !== undefined ? arguments[0] : this.props;\n      var result
= null;\n\n      if (props.value instanceof Date) {\n        result = props.value;\n      }\n\n      return result;\n    }\n  },
{\n
    key: 'render',\n    value: function render() {\n      var _props = this.props,\n          autoOk = _props.autoOk,\n
cancelLabel = _props.cancelLabel,\n          defaultTime = _props.defaultTime,\n          dialogBodyStyle =
_props.dialogBodyStyle,\n          dialogStyle = _props.dialogStyle,\n          format = _props.format,\n          okLabel
= _props.okLabel,\n          onFocus = _props.onFocus,\n          onClick = _props.onClick,\n          onShow =
_props.onShow,\n          onDismiss = _props.onDismiss,\n          pedantic = _props.pedantic,\n          style =
_props.style,\n          textFieldStyle = _props.textFieldStyle,\n          minutesStep = _props.minutesStep,\n          other
= (0, _objectWithoutProperties3.default)(_props, ['autoOk', 'cancelLabel', 'defaultTime', 'dialogBodyStyle',
'dialogStyle', 'format', 'okLabel', 'onFocus', 'onClick', 'onShow', 'onDismiss', 'pedantic', 'style', 'textFieldStyle',
'minutesStep']);\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n
      var time = this.state.time;\n      return _react2.default.createElement('div', {\n        style: prepareStyles((0,
_simpleAssign2.default)({}, style))\n      }, _react2.default.createElement(_TextField2.default, (0,
_extends3.default)({}, other, {\n        style: textFieldStyle,\n        ref: 'input',\n        value: time === emptyTime ?
null : (0, _timeUtils.formatTime)(time, format, pedantic),\n        onFocus: this.handleFocusInput,\n        onClick:
this.handleClickInput\n      })), _react2.default.createElement(_TimePickerDialog2.default, {\n        ref:
'dialogWindow',\n        bodyStyle: dialogBodyStyle,\n        initialTime: this.state.dialogTime,\n        onAccept:
this.handleAcceptDialog,\n        onShow: onShow,\n        onDismiss: onDismiss,\n        format: format,\n
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okLabel: okLabel,\n        cancelLabel: cancelLabel,\n        autoOk: autoOk,\n        style: dialogStyle,\n
minutesStep: minutesStep\n      }));\n    }\n  }]);\n
 return TimePicker;\n}(_react.Component);\n\nTimePicker.defaultProps = {\n  autoOk: false,\n  cancelLabel:
'Cancel',\n  defaultTime: null,\n  disabled: false,\n  format: 'ampm',\n  okLabel: 'OK',\n  pedantic: false,\n  style:
{},\n  value: null,\n  minutesStep: 1\n};\nTimePicker.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nTimePicker.propTypes = process.env.NODE_ENV !== \"production\" ?
{\n  /**\n   * If true, automatically accept and close the picker on set minutes.\n   */\n  autoOk:
_propTypes2.default.bool,\n\n  /**\n   * Override the label of the 'Cancel' button.\n   */\n  cancelLabel:
_propTypes2.default.node,\n\n  /**\n   * The initial time value of the TimePicker.\n   */\n  defaultTime:
_propTypes2.default.object,\n\n  /**\n   * Override the inline-styles of TimePickerDialog's body element.\n   */\n
dialogBodyStyle: _propTypes2.default.object,\n\n  /**\n   * Override the inline-styles of TimePickerDialog's root
element.\n   */\n  dialogStyle: _propTypes2.default.object,\n\n
  /**\n   * If true, the TimePicker is disabled.\n   */\n  disabled: _propTypes2.default.bool,\n\n  /**\n   * Tells the
component to display the picker in `ampm` (12hr) format or `24hr` format.\n   */\n  format:
_propTypes2.default.oneOf(['ampm', '24hr']),\n\n  /**\n   * How many minutes should be added/subtracted when
moving the clock pointer.\n   */\n  minutesStep: _propTypes2.default.number,\n\n  /**\n   * Override the label of the
'OK' button.\n   */\n  okLabel: _propTypes2.default.node,\n\n  /**\n   * Callback function that is fired when the time
value changes. The time value is passed in a Date Object.\n   * Since there is no particular event associated with the
change the first argument will always be null\n   * and the second argument will be the new Date instance.\n   */\n
onChange: _propTypes2.default.func,\n\n  /**\n   * Callback function fired when the TimePicker is tapped or
clicked.\n   */\n  onClick: _propTypes2.default.func,\n\n  /**\n   * Callback
 function fired when the TimePicker dialog is dismissed.\n   */\n  onDismiss: _propTypes2.default.func,\n\n  /**\n
* Callback function fired when the TimePicker `TextField` gains focus.\n   */\n  onFocus:
_propTypes2.default.func,\n\n  /**\n   * Callback function fired when the TimePicker dialog is shown.\n   */\n
onShow: _propTypes2.default.func,\n\n  /**\n   * If true, uses (\"noon\" / \"midnight\") instead of (\"12 a.m.\" / \"12
p.m.\").\n   *\n   * It's technically more correct to refer to \"12 noon\" and \"12 midnight\" rather than \"12 a.m.\" and
\"12 p.m.\"\n   * and it avoids confusion between different locales. By default (for compatibility reasons)
TimePicker uses\n   * (\"12 a.m.\" / \"12 p.m.\").\n   */\n  pedantic: _propTypes2.default.bool,\n\n  /**\n   * Override
the inline-styles of the root element.\n   */\n  style: _propTypes2.default.object,\n\n  /**\n   * Override the inline-
styles of TimePicker's TextField element.\n   */\n  textFieldStyle: _propTypes2.default.object,\n\n
  /**\n   * Sets the time for the Time Picker programmatically.\n   */\n  value: _propTypes2.default.object\n} :
{};\nexports.default = TimePicker;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2
 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _reactEventListener = require('react-event-
listener');\n\nvar _reactEventListener2 = _interopRequireDefault(_reactEventListener);\n\nvar _keycode =
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require('keycode');\n\nvar _keycode2 = _interopRequireDefault(_keycode);\n\nvar _Clock =
require('./Clock');\n\nvar _Clock2 = _interopRequireDefault(_Clock);\n\nvar _Dialog = require('../Dialog');\n\nvar
_Dialog2 = _interopRequireDefault(_Dialog);\n\nvar _FlatButton = require('../FlatButton');\n\nvar
 _FlatButton2 = _interopRequireDefault(_FlatButton);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar TimePickerDialog = function (_Component) {\n  (0,
_inherits3.default)(TimePickerDialog, _Component);\n\n  function TimePickerDialog() {\n    var _ref;\n\n    var
_temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this, TimePickerDialog);\n\n    for (var _len =
arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n
}\n\n    return _ret = (_temp = (_this = (0, _possibleConstructorReturn3.default)(this, (_ref =
TimePickerDialog.__proto__ || (0, _getPrototypeOf2.default)(TimePickerDialog)).call.apply(_ref,
[this].concat(args))), _this), _this.state = {\n      open: false\n    }, _this.handleRequestClose = function () {\n
_this.dismiss();\n    }, _this.handleClickCancel = function () {\n      _this.dismiss();\n    }, _this.handleClickOK
 = function () {\n      if (_this.props.onAccept) {\n        _this.props.onAccept(_this.refs.clock.getSelectedTime());\n
 }\n\n      _this.setState({\n        open: false\n      });\n    }, _this.handleKeyUp = function (event) {\n      switch ((0,
_keycode2.default)(event)) {\n        case 'enter':\n          _this.handleClickOK();\n\n          break;\n      }\n    },
_temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(TimePickerDialog,
[{\n    key: 'show',\n    value: function show() {\n      if (this.props.onShow && !this.state.open)
this.props.onShow();\n      this.setState({\n        open: true\n      });\n    }\n  }, {\n    key: 'dismiss',\n    value: function
dismiss() {\n      if (this.props.onDismiss && this.state.open) this.props.onDismiss();\n      this.setState({\n
open: false\n      });\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n      var _props = this.props,\n
bodyStyle = _props.bodyStyle,\n
          initialTime = _props.initialTime,\n          onAccept = _props.onAccept,\n          format = _props.format,\n
autoOk = _props.autoOk,\n          okLabel = _props.okLabel,\n          cancelLabel = _props.cancelLabel,\n          style
= _props.style,\n          minutesStep = _props.minutesStep,\n          other = (0,
_objectWithoutProperties3.default)(_props, ['bodyStyle', 'initialTime', 'onAccept', 'format', 'autoOk', 'okLabel',
'cancelLabel', 'style', 'minutesStep']);\n      var styles = {\n        root: {\n          fontSize: 14,\n          color:
this.context.muiTheme.timePicker.clockColor\n        },\n        dialogContent: {\n          width: 280\n        },\n
body: {\n          padding: 0\n        }\n      };\n      var actions = [_react2.default.createElement(_FlatButton2.default,
{\n        key: 0,\n        label: cancelLabel,\n        primary: true,\n        onClick: this.handleClickCancel\n      }),
_react2.default.createElement(_FlatButton2.default,
 {\n        key: 1,\n        label: okLabel,\n        primary: true,\n        onClick: this.handleClickOK\n      })];\n      var
onClockChangeMinutes = autoOk === true ? this.handleClickOK : undefined;\n      var open = this.state.open;\n
return _react2.default.createElement(_Dialog2.default, (0, _extends3.default)({}, other, {\n        style: (0,
_simpleAssign2.default)(styles.root, style),\n        bodyStyle: (0, _simpleAssign2.default)(styles.body, bodyStyle),\n
     actions: actions,\n        contentStyle: styles.dialogContent,\n        repositionOnUpdate: false,\n        open: open,\n
    onRequestClose: this.handleRequestClose\n      }), open &&
_react2.default.createElement(_reactEventListener2.default, {\n        target: 'window',\n        onKeyUp:
this.handleKeyUp\n      }), open && _react2.default.createElement(_Clock2.default, {\n        ref: 'clock',\n
format: format,\n        initialTime: initialTime,\n        onChangeMinutes: onClockChangeMinutes,\n
        minutesStep: minutesStep\n      }));\n    }\n  }]);\n  return
TimePickerDialog;\n}(_react.Component);\n\nTimePickerDialog.defaultProps = {\n  okLabel: 'OK',\n  cancelLabel:
'Cancel'\n};\nTimePickerDialog.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nTimePickerDialog.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  autoOk: _propTypes2.default.bool,\n  bodyStyle: _propTypes2.default.object,\n  cancelLabel:
_propTypes2.default.node,\n  format: _propTypes2.default.oneOf(['ampm', '24hr']),\n  initialTime:
_propTypes2.default.object,\n  minutesStep: _propTypes2.default.number,\n  okLabel: _propTypes2.default.node,\n
onAccept: _propTypes2.default.func,\n  onDismiss: _propTypes2.default.func,\n  onShow:
_propTypes2.default.func,\n  style: _propTypes2.default.object\n} : {};\nexports.default = TimePickerDialog;","'use
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strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar
 _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _TimeDisplay = require('./TimeDisplay');\n\nvar
_TimeDisplay2 = _interopRequireDefault(_TimeDisplay);\n\nvar _ClockHours = require('./ClockHours');\n\nvar
 _ClockHours2 = _interopRequireDefault(_ClockHours);\n\nvar _ClockMinutes = require('./ClockMinutes');\n\nvar
_ClockMinutes2 = _interopRequireDefault(_ClockMinutes);\n\nfunction _interopRequireDefault(obj) {\n  return
obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar Clock = function (_Component) {\n  (0,
_inherits3.default)(Clock, _Component);\n\n  function Clock() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0,
_classCallCheck3.default)(this, Clock);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0; _key <
_len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = Clock.__proto__ || (0,
_getPrototypeOf2.default)(Clock)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n      selectedTime:
null,\n      mode: 'hour'\n    }, _this.setMode = function (mode) {\n      setTimeout(function () {\n
_this.setState({\n
         mode: mode\n        });\n      }, 100);\n    }, _this.handleSelectAffix = function (affix) {\n      if (affix ===
_this.getAffix()) return;\n\n      var hours = _this.state.selectedTime.getHours();\n\n      if (affix === 'am') {\n
_this.handleChangeHours(hours - 12, affix);\n\n        return;\n      }\n\n      _this.handleChangeHours(hours + 12,
affix);\n    }, _this.handleChangeHours = function (hours, finished) {\n      var time = new
Date(_this.state.selectedTime);\n      var affix = void 0;\n\n      if (typeof finished === 'string') {\n        affix =
finished;\n        finished = undefined;\n      }\n\n      if (!affix) {\n        affix = _this.getAffix();\n      }\n\n      if (affix
=== 'pm' && hours < 12) {\n        hours += 12;\n      }\n\n      time.setHours(hours);\n\n      _this.setState({\n
selectedTime: time\n      });\n\n      if (finished) {\n        setTimeout(function () {\n          _this.setState({\n
mode: 'minute'\n
        });\n\n          var onChangeHours = _this.props.onChangeHours;\n\n          if (onChangeHours) {\n
onChangeHours(time);\n          }\n        }, 100);\n      }\n    }, _this.handleChangeMinutes = function (minutes,
finished) {\n      var time = new Date(_this.state.selectedTime);\n      time.setMinutes(minutes);\n\n
_this.setState({\n        selectedTime: time\n      });\n\n      var onChangeMinutes = _this.props.onChangeMinutes;\n\n
    if (onChangeMinutes && finished) {\n        setTimeout(function () {\n          onChangeMinutes(time);\n        },
0);\n      }\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0,
_createClass3.default)(Clock, [{\n    key: 'componentWillMount',\n    value: function componentWillMount() {\n
var selectedTime = this.props.initialTime || new Date();\n      var minutes = selectedTime.getMinutes();\n
selectedTime.setMinutes(minutes - minutes % this.props.minutesStep);\n      this.setState({\n
        selectedTime: selectedTime\n      });\n    }\n  }, {\n    key: 'getAffix',\n    value: function getAffix() {\n      if
(this.props.format !== 'ampm') return '';\n      var hours = this.state.selectedTime.getHours();\n\n      if (hours < 12)
{\n        return 'am';\n      }\n\n      return 'pm';\n    }\n  }, {\n    key: 'getSelectedTime',\n    value: function
getSelectedTime() {\n      return this.state.selectedTime;\n    }\n  }, {\n    key: 'render',\n    value: function render()
{\n      var clock = null;\n      var _context$muiTheme = this.context.muiTheme,\n          prepareStyles =
_context$muiTheme.prepareStyles,\n          timePicker = _context$muiTheme.timePicker;\n      var styles = {\n
root: {\n          userSelect: 'none'\n        },\n        container: {\n          height: 280,\n          padding: 10,\n
position: 'relative',\n          boxSizing: 'content-box'\n        },\n        circle: {\n          position: 'absolute',\n          top:
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20,\n
    width: 260,\n        height: 260,\n        borderRadius: '100%',\n        backgroundColor:
timePicker.clockCircleColor\n      }\n    };\n\n    if (this.state.mode === 'hour') {\n      clock =
_react2.default.createElement(_ClockHours2.default, {\n        key: 'hours',\n        format: this.props.format,\n
onChange: this.handleChangeHours,\n        initialHours: this.state.selectedTime.getHours()\n      });\n    } else
{\n      clock = _react2.default.createElement(_ClockMinutes2.default, {\n        key: 'minutes',\n        onChange:
this.handleChangeMinutes,\n        initialMinutes: this.state.selectedTime.getMinutes(),\n        step:
this.props.minutesStep\n      });\n    }\n\n    return _react2.default.createElement('div', {\n      style:
prepareStyles(styles.root)\n    }, _react2.default.createElement(_TimeDisplay2.default, {\n      selectedTime:
this.state.selectedTime,\n      mode: this.state.mode,\n      format: this.props.format,\n
      affix: this.getAffix(),\n      onSelectAffix: this.handleSelectAffix,\n      onSelectHour: this.setMode.bind(this,
'hour'),\n      onSelectMin: this.setMode.bind(this, 'minute')\n    }), _react2.default.createElement('div', {\n
style: prepareStyles(styles.container)\n    }, _react2.default.createElement('div', {\n      style:
prepareStyles(styles.circle)\n    }), clock));\n  }\n }]);\n return
Clock;\n}(_react.Component);\n\nClock.defaultProps = {\n initialTime: new Date()\n};\nClock.contextTypes = {\n
muiTheme: _propTypes2.default.object.isRequired\n};\nClock.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n format: _propTypes2.default.oneOf(['ampm', '24hr']),\n initialTime:
_propTypes2.default.object,\n minutesStep: _propTypes2.default.number,\n onChangeHours:
_propTypes2.default.func,\n onChangeMinutes: _propTypes2.default.func\n} : {};\nexports.default = Clock;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\",
 {\n value: true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _slicedToArray2 = require('babel-
runtime/helpers/slicedToArray');\n\nvar _slicedToArray3 = _interopRequireDefault(_slicedToArray2);\n\nvar
_objectWithoutProperties2 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar
_objectWithoutProperties3 = _interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf =
require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 =
_interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3
 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _simpleAssign =
require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n return obj &&
obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nvar TimeDisplay = function (_Component) {\n (0,
_inherits3.default)(TimeDisplay, _Component);\n\n function TimeDisplay() {\n   var _ref;\n\n   var _temp, _this,
_ret;\n\n   (0, _classCallCheck3.default)(this, TimeDisplay);\n\n   for (var _len = arguments.length, args =
Array(_len), _key = 0; _key < _len; _key++) {\n     args[_key] = arguments[_key];\n   }\n\n   return _ret = (_temp
= (_this
 = (0, _possibleConstructorReturn3.default)(this, (_ref = TimeDisplay.__proto__ || (0,
_getPrototypeOf2.default)(TimeDisplay)).call.apply(_ref, [this].concat(args))), _this), _this.state = {\n
transitionDirection: 'up'\n   }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n }\n\n (0,
_createClass3.default)(TimeDisplay, [{\n   key: 'componentWillReceiveProps',\n   value: function
componentWillReceiveProps(nextProps) {\n     if (nextProps.selectedTime !== this.props.selectedTime) {\n       var
direction = nextProps.selectedTime > this.props.selectedTime ? 'up' : 'down';\n       this.setState({\n
transitionDirection: direction\n       });\n     }\n   }\n }, {\n   key: 'sanitizeTime',\n   value: function sanitizeTime()
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{\n   var hour = this.props.selectedTime.getHours();\n   var min = this.props.selectedTime.getMinutes().toString();\n\n   if (this.props.format === 'ampm') {\n   hour %= 12;\n   hour = hour || 12;\n   }\n\n   hour = hour.toString();\n   if (hour.length < 2) hour = '0' + hour;\n   if (min.length < 2) min = '0' + min;\n\n   return [hour, min];\n   }\n }, {\n   key: 'render',\n   value: function render() {\n   var _props = this.props,\n   affix = _props.affix,\n   format = _props.format,\n   mode = _props.mode,\n   onSelectAffix = _props.onSelectAffix,\n   onSelectHour = _props.onSelectHour,\n   onSelectMin = _props.onSelectMin,\n   selectedTime = _props.selectedTime,\n   other = (0, _objectWithoutProperties3.default)(_props, ['affix', 'format', 'mode', 'onSelectAffix', 'onSelectHour', 'onSelectMin', 'selectedTime']);\n   var _context$muiTheme = this.context.muiTheme,\n   prepareStyles = _context$muiTheme.prepareStyles,\n   timePicker = _context$muiTheme.timePicker;\n   var styles = {\n   root: {\n   padding: '14px 0',\n   borderTopLeftRadius: 2,\n   borderTopRightRadius: 2,\n   backgroundColor: timePicker.headerColor,\n   color: timePicker.textColor\n   },\n   text: {\n   margin: '6px 0',\n   lineHeight: '58px',\n   height: 58,\n   fontSize: 58,\n   display: 'flex',\n   justifyContent: 'center',\n   alignItems: 'baseline'\n   },\n   time: {\n   margin: '0 10px'\n   },\n   affix: {\n   flex: 1,\n   position: 'relative',\n   lineHeight: '17px',\n   height: 17,\n   fontSize: 17\n   },\n   affixTop: {\n   position: 'absolute',\n   top: -20,\n   left: 0\n   },\n   clickable: {\n   cursor: 'pointer'\n   },\n   inactive: {\n   opacity: 0.7\n   }\n   };\n\n   var _sanitizeTime = this.sanitizeTime(),\n   _sanitizeTime2 = (0, _slicedToArray3.default)(_sanitizeTime, 2),\n   hour = _sanitizeTime2[0],\n   min = _sanitizeTime2[1];\n\n   var buttons = [];\n\n   if (format === 'ampm') {\n   buttons = [_react2.default.createElement('div', {\n   key: 'pm',\n   style: prepareStyles((0, _simpleAssign2.default)({}, styles.clickable, affix === 'pm' ? {} : styles.inactive)),\n   onClick: function onClick() {\n   return onSelectAffix('pm');\n   }\n   }, 'PM'), _react2.default.createElement('div', {\n   key: 'am',\n   style: prepareStyles((0, _simpleAssign2.default)({}, styles.affixTop, styles.clickable, affix === 'am' ? {} : styles.inactive)),\n   onClick: function onClick() {\n   return onSelectAffix('am');\n   }\n   }, 'AM')];\n   }\n\n   return _react2.default.createElement('div', (0, _extends3.default)({}, other, {\n   style: prepareStyles(styles.root)\n   }), _react2.default.createElement('div', {\n   style: prepareStyles(styles.text)\n   }, _react2.default.createElement('div', {\n   style: prepareStyles((0, _simpleAssign2.default)({}, styles.affix))\n   }), _react2.default.createElement('div', {\n   style: prepareStyles(styles.time)\n   }, _react2.default.createElement('span', {\n   style: prepareStyles((0, _simpleAssign2.default)({}, styles.clickable, mode === 'hour' ? {} : styles.inactive)),\n   onClick: onSelectHour\n   }, hour), _react2.default.createElement('span', null, ':'), _react2.default.createElement('span', {\n   style: prepareStyles((0, _simpleAssign2.default)({}, styles.clickable, mode === 'minute' ? {} : styles.inactive)),\n   onClick: onSelectMin\n   }, min)), _react2.default.createElement('div', {\n   style: prepareStyles((0, _simpleAssign2.default)({}, styles.affix))\n   }, buttons)));\n   }\n }]);\n return TimeDisplay;\n}(_react.Component);\n\nTimeDisplay.defaultProps = {\n affix: '',\n mode: 'hour'\n};\nTimeDisplay.contextTypes = {\n muiTheme: _propTypes2.default.object.isRequired\n};\nTimeDisplay.propTypes = process.env.NODE_ENV !== \"production\" ? {\n affix: _propTypes2.default.oneOf(['', 'pm', 'am']),\n format: _propTypes2.default.oneOf(['ampm', '24hr']),\n mode: _propTypes2.default.oneOf(['hour', 'minute']),\n onSelectAffix: _propTypes2.default.func,\n onSelectHour: _propTypes2.default.func,\n onSelectMin: _propTypes2.default.func,\n selectedTime: _propTypes2.default.object.isRequired\n} : {};\nexports.default = TimeDisplay;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-

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runtime/helpers/possibleConstructorReturn');\n\nvar
 _possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _reactDom = require('react-dom');\n\nvar _reactDom2
= _interopRequireDefault(_reactDom);\n\nvar _ClockNumber = require('./ClockNumber');\n\nvar _ClockNumber2
= _interopRequireDefault(_ClockNumber);\n\nvar _ClockPointer = require('./ClockPointer');\n\nvar _ClockPointer2
= _interopRequireDefault(_ClockPointer);\n\nvar _timeUtils = require('./timeUtils');\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nvar
ClockHours = function (_Component) {\n  (0, _inherits3.default)(ClockHours, _Component);\n\n
  function ClockHours() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this,
ClockHours);\n\n    for (var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n
args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = ClockHours.__proto__ || (0,
_getPrototypeOf2.default)(ClockHours)).call.apply(_ref, [this].concat(args))), _this), _this.handleUp = function
(event) {\n      event.preventDefault();\n\n      _this.setClock(event.nativeEvent, true);\n    }, _this.handleMove =
function (event) {\n      event.preventDefault();\n      if (_this.isMousePressed(event) !== 1) return;\n\n
_this.setClock(event.nativeEvent, false);\n    }, _this.handleTouchMove = function (event) {\n
event.preventDefault();\n\n      _this.setClock(event.changedTouches[0], false);\n    }, _this.handleTouchEnd =
function (event) {\n      event.preventDefault();\n\n
      _this.setClock(event.changedTouches[0], true);\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this,
_ret);\n  }\n\n  (0, _createClass3.default)(ClockHours, [{\n    key: 'componentDidMount',\n    value: function
componentDidMount() {\n      var clockElement = _reactDom2.default.findDOMNode(this.refs.mask);\n\n
this.center = {\n        x: clockElement.offsetWidth / 2,\n        y: clockElement.offsetHeight / 2\n      };\n
this.basePoint = {\n        x: this.center.x,\n        y: 0\n      };\n    }\n  }, {\n    key: 'isMousePressed',\n    value:
function isMousePressed(event) {\n      if (typeof event.buttons === 'undefined') {\n        return
event.nativeEvent.which;\n      }\n\n      return event.buttons;\n    }\n  }, {\n    key: 'setClock',\n    value: function
setClock(event, finish) {\n      if (typeof event.offsetX === 'undefined') {\n        var offset = (0,
_timeUtils.getTouchEventOffsetValues)(event);\n        event.offsetX = offset.offsetX;\n        event.offsetY
 = offset.offsetY;\n      }\n\n      var hours = this.getHours(event.offsetX, event.offsetY);\n
this.props.onChange(hours, finish);\n    }\n  }, {\n    key: 'getHours',\n    value: function getHours(offsetX, offsetY)
{\n      var step = 30;\n      var x = offsetX - this.center.x;\n      var y = offsetY - this.center.y;\n      var cx =
this.basePoint.x - this.center.x;\n      var cy = this.basePoint.y - this.center.y;\n      var atan = Math.atan2(cx, cy) -
Math.atan2(x, y);\n      var deg = (0, _timeUtils.rad2deg)(atan);\n      deg = Math.round(deg / step) * step;\n      deg
%= 360;\n      var value = Math.floor(deg / step) || 0;\n      var delta = Math.pow(x, 2) + Math.pow(y, 2);\n      var
distance = Math.sqrt(delta);\n      value = value || 12;\n\n      if (this.props.format === '24hr') {\n        if (distance <
90) {\n          value += 12;\n          value %= 24;\n        }\n      } else {\n        value %= 12;\n      }\n\n      return
value;\n    }\n  }, {\n    key:
 'getSelected',\n    value: function getSelected() {\n      var hour = this.props.initialHours;\n\n      if (this.props.format
=== 'ampm') {\n        hour %= 12;\n        hour = hour || 12;\n      }\n\n      return hour;\n    }\n  }, {\n    key:
'getHourNumbers',\n    value: function getHourNumbers() {\n      var _this2 = this;\n\n      var style = {\n
pointerEvents: 'none'\n      };\n      var hourSize = this.props.format === 'ampm' ? 12 : 24;\n      var hours = [];\n\n
for (var i = 1; i <= hourSize; i++) {\n        hours.push(i % 24);\n      }\n\n      return hours.map(function (hour) {\n
 var isSelected = _this2.getSelected() === hour;\n        return
_react2.default.createElement(_ClockNumber2.default, {\n          key: hour,\n          style: style,\n          isSelected:
isSelected,\n          type: 'hour',\n          value: hour\n        });\n      });\n    }\n  }, {\n    key: 'render',\n    value:
function render() {\n      var styles = {\n        root: {\n
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      height: '100%',\n        width: '100%',\n        borderRadius: '100%',\n        position: 'relative',\n
pointerEvents: 'none',\n        boxSizing: 'border-box'\n      },\n      hitMask: {\n        height: '100%',\n
width: '100%',\n        pointerEvents: 'auto'\n      }\n    };\n    var prepareStyles =
this.context.muiTheme.prepareStyles;\n    var hours = this.getSelected();\n    var numbers =
this.getHourNumbers();\n    return _react2.default.createElement('div', {\n      ref: 'clock',\n      style:
prepareStyles(styles.root)\n    }, _react2.default.createElement(_ClockPointer2.default, {\n      hasSelected: true,\n
    value: hours,\n      type: 'hour'\n    }), numbers, _react2.default.createElement('div', {\n      ref: 'mask',\n
style: prepareStyles(styles.hitMask),\n      onTouchMove: this.handleTouchMove,\n      onTouchEnd:
this.handleTouchEnd,\n      onMouseUp: this.handleUp,\n      onMouseMove: this.handleMove\n
    }));\n  }\n  }]);\n  return ClockHours;\n}(_react.Component);\n\nClockHours.defaultProps = {\n  initialHours:
new Date().getHours(),\n  onChange: function onChange() {},\n  format: 'ampm'\n};\nClockHours.contextTypes =
{\n  muiTheme: _propTypes2.default.object.isRequired\n};\nClockHours.propTypes = process.env.NODE_ENV
!== \"production\" ? {\n  format: _propTypes2.default.oneOf(['ampm', '24hr']),\n  initialHours:
_propTypes2.default.number,\n  onChange: _propTypes2.default.func\n} : {};\nexports.default =
ClockHours;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar
_getPrototypeOf = require('babel-runtime/core-js/object/get-prototype-of');\n\nvar _getPrototypeOf2 =
_interopRequireDefault(_getPrototypeOf);\n\nvar _classCallCheck2 = require('babel-
runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 = _interopRequireDefault(_classCallCheck2);\n\nvar
_createClass2 = require('babel-runtime/helpers/createClass');\n\nvar
 _createClass3 = _interopRequireDefault(_createClass2);\n\nvar _possibleConstructorReturn2 = require('babel-
runtime/helpers/possibleConstructorReturn');\n\nvar _possibleConstructorReturn3 =
_interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 = require('babel-
runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar _react =
require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar
_propTypes2 = _interopRequireDefault(_propTypes);\n\nvar _ClockNumber = require('./ClockNumber');\n\nvar
_ClockNumber2 = _interopRequireDefault(_ClockNumber);\n\nvar _ClockPointer =
require('./ClockPointer');\n\nvar _ClockPointer2 = _interopRequireDefault(_ClockPointer);\n\nvar _timeUtils =
require('./timeUtils');\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n
default: obj\n  };\n}\n\nvar ClockMinutes = function (_Component) {\n  (0, _inherits3.default)(ClockMinutes,
 _Component);\n\n  function ClockMinutes() {\n    var _ref;\n\n    var _temp, _this, _ret;\n\n    (0,
_classCallCheck3.default)(this, ClockMinutes);\n\n    for (var _len = arguments.length, args = Array(_len), _key =
0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp = (_this = (0,
_possibleConstructorReturn3.default)(this, (_ref = ClockMinutes.__proto__ || (0,
_getPrototypeOf2.default)(ClockMinutes)).call.apply(_ref, [this].concat(args))), _this), _this.handleUp = function
(event) {\n      event.preventDefault();\n\n      _this.setClock(event.nativeEvent, true);\n    }, _this.handleMove =
function (event) {\n      event.preventDefault();\n\n      if (_this.isMousePressed(event) !== 1) {\n        return;\n
}\n\n      _this.setClock(event.nativeEvent, false);\n    }, _this.handleTouch = function (event) {\n
event.preventDefault();\n\n      _this.setClock(event.changedTouches[0], event.type === 'touchend');\n    }, _temp),
 (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(ClockMinutes, [{\n    key:
'componentDidMount',\n    value: function componentDidMount() {\n      var clockElement = this.refs.mask;\n
this.center = {\n        x: clockElement.offsetWidth / 2,\n        y: clockElement.offsetHeight / 2\n      };\n
this.basePoint = {\n        x: this.center.x,\n        y: 0\n      };\n    }\n  }, {\n    key: 'isMousePressed',\n    value:
function isMousePressed(event) {\n      if (typeof event.buttons === 'undefined') {\n        return
event.nativeEvent.which;\n      }\n\n      return event.buttons;\n    }\n  }, {\n    key: 'setClock',\n    value: function
setClock(event, finish) {\n      if (typeof event.offsetX === 'undefined') {\n        var offset = (0,
_timeUtils.getTouchEventOffsetValues)(event);\n        event.offsetX = offset.offsetX;\n        event.offsetY =
offset.offsetY;\n      }\n\n      var minutes = this.getMinutes(event.offsetX, event.offsetY);\n
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    this.props.onChange(minutes, finish);\n    }\n  }, {\n    key: 'getMinutes',\n    value: function getMinutes(offsetX,
offsetY) {\n      var step = 6 * this.props.step;\n      var x = offsetX - this.center.x;\n      var y = offsetY -
this.center.y;\n      var cx = this.basePoint.x - this.center.x;\n      var cy = this.basePoint.y - this.center.y;\n      var
atan = Math.atan2(cx, cy) - Math.atan2(x, y);\n      var deg = (0, _timeUtils.rad2deg)(atan);\n      deg =
Math.round(deg / step) * step;\n      deg %= 360;\n      var value = Math.floor(deg / step) || 0;\n      return value *
this.props.step;\n    }\n  }, {\n    key: 'getMinuteNumbers',\n    value: function getMinuteNumbers() {\n      var
minutes = [];\n\n      for (var i = 0; i < 12; i++) {\n        minutes.push(i * 5);\n      }\n\n      var selectedMinutes =
this.props.initialMinutes;\n      var hasSelected = false;\n      var numbers = minutes.map(function (minute) {\n
var isSelected = selectedMinutes ===
 minute;\n\n        if (isSelected) {\n          hasSelected = true;\n        }\n\n        return
_react2.default.createElement(_ClockNumber2.default, {\n          key: minute,\n          isSelected: isSelected,\n
type: 'minute',\n          value: minute\n        });\n      });\n      return {\n        numbers: numbers,\n        hasSelected:
hasSelected,\n        selected: selectedMinutes\n      };\n    }\n  }, {\n    key: 'render',\n    value: function render() {\n
var styles = {\n        root: {\n          height: '100%',\n          width: '100%',\n          borderRadius: '100%',\n
position: 'relative',\n          pointerEvents: 'none',\n          boxSizing: 'border-box'\n        },\n        hitMask: {\n
height: '100%',\n          width: '100%',\n          pointerEvents: 'auto'\n        }\n      };\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var minutes = this.getMinuteNumbers();\n      return
_react2.default.createElement('div',
 {\n        ref: 'clock',\n        style: prepareStyles(styles.root)\n      },
_react2.default.createElement(_ClockPointer2.default, {\n        value: minutes.selected,\n        type: 'minute',\n
hasSelected: minutes.hasSelected\n      }), minutes.numbers, _react2.default.createElement('div', {\n        ref:
'mask',\n        style: prepareStyles(styles.hitMask),\n        onTouchMove: this.handleTouch,\n        onTouchEnd:
this.handleTouch,\n        onMouseUp: this.handleUp,\n        onMouseMove: this.handleMove\n      }));\n    }\n  }]);\n
return ClockMinutes;\n}(_react.Component);\n\nClockMinutes.defaultProps = {\n  initialMinutes: new
Date().getMinutes(),\n  onChange: function onChange() {},\n  step: 1\n};\nClockMinutes.contextTypes = {\n
muiTheme: _propTypes2.default.object.isRequired\n};\nClockMinutes.propTypes = process.env.NODE_ENV !==
\"production\" ? {\n  initialMinutes: _propTypes2.default.number,\n  onChange: _propTypes2.default.func,\n  step:
_propTypes2.default.number\n}
 : {};\nexports.default = ClockMinutes;","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value:
true\n});\n\nvar _extends2 = require('babel-runtime/helpers/extends');\n\nvar _extends3 =
_interopRequireDefault(_extends2);\n\nvar _objectWithoutProperties2 = require('babel-
runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar
 _inherits2 = require('babel-runtime/helpers/inherits');\n\nvar _inherits3 =
_interopRequireDefault(_inherits2);\n\nvar _simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 =
_interopRequireDefault(_simpleAssign);\n\nvar _react = require('react');\n\nvar _react2 =
_interopRequireDefault(_react);\n\nvar _propTypes = require('prop-types');\n\nvar _propTypes2 =
_interopRequireDefault(_propTypes);\n\nvar _transitions = require('../styles/transitions');\n\nvar _transitions2 =
_interopRequireDefault(_transitions);\n\nvar _Paper = require('../Paper');\n\nvar _Paper2 =
_interopRequireDefault(_Paper);\n\nvar _EnhancedSwitch = require('../internal/EnhancedSwitch');\n\nvar
_EnhancedSwitch2 = _interopRequireDefault(_EnhancedSwitch);\n\nfunction _interopRequireDefault(obj) {\n
return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context, state) {\n  var
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disabled = props.disabled,\n      elementStyle
 = props.elementStyle,\n      trackSwitchedStyle = props.trackSwitchedStyle,\n      thumbSwitchedStyle =
props.thumbSwitchedStyle,\n      trackStyle = props.trackStyle,\n      thumbStyle = props.thumbStyle,\n      iconStyle
= props.iconStyle,\n      rippleStyle = props.rippleStyle,\n      labelStyle = props.labelStyle;\n  var
_context$muiTheme = context.muiTheme,\n      baseTheme = _context$muiTheme.baseTheme,\n      toggle =
_context$muiTheme.toggle;\n  var toggleSize = 20;\n  var toggleTrackWidth = 36;\n  var styles = {\n    icon: {\n
width: 36,\n      padding: '4px 0px 6px 2px'\n    },\n    ripple: {\n      top: -10,\n      left: -10,\n      color: state.switched
? toggle.thumbOnColor : baseTheme.palette.textColor\n    },\n    toggleElement: {\n      width: toggleTrackWidth\n
},\n    track: {\n      transition: _transitions2.default.easeOut(),\n      width: '100%',\n      height: 14,\n
borderRadius: 30,\n      backgroundColor: toggle.trackOffColor\n    },\n    thumb: {\n
      transition: _transitions2.default.easeOut(),\n      position: 'absolute',\n      top: 1,\n      left: 0,\n      width:
toggleSize,\n      height: toggleSize,\n      lineHeight: '24px',\n      borderRadius: '50%',\n      backgroundColor:
toggle.thumbOffColor\n    },\n    trackWhenSwitched: {\n      backgroundColor: toggle.trackOnColor\n    },\n
thumbWhenSwitched: {\n      backgroundColor: toggle.thumbOnColor,\n      left: '100%'\n    },\n
trackWhenDisabled: {\n      backgroundColor: toggle.trackDisabledColor\n    },\n    thumbWhenDisabled: {\n
backgroundColor: toggle.thumbDisabledColor\n    },\n    label: {\n      color: disabled ? toggle.labelDisabledColor :
toggle.labelColor,\n      width: 'calc(100% - ' + (toggleTrackWidth + 10) + 'px)'\n    }\n  };\n  (0,
_simpleAssign2.default)(styles.track, trackStyle, state.switched && styles.trackWhenSwitched, state.switched &&
trackSwitchedStyle, disabled && styles.trackWhenDisabled);\n  (0, _simpleAssign2.default)(styles.thumb,
 thumbStyle, state.switched && styles.thumbWhenSwitched, state.switched && thumbSwitchedStyle, disabled &&
styles.thumbWhenDisabled);\n\n  if (state.switched) {\n    styles.thumb.marginLeft = 0 - styles.thumb.width;\n
}\n\n  (0, _simpleAssign2.default)(styles.icon, iconStyle);\n  (0, _simpleAssign2.default)(styles.ripple,
rippleStyle);\n  (0, _simpleAssign2.default)(styles.label, labelStyle);\n  (0,
_simpleAssign2.default)(styles.toggleElement, elementStyle);\n  return styles;\n}\n\nvar Toggle = function
(_Component) {\n  (0, _inherits3.default)(Toggle, _Component);\n\n  function Toggle() {\n    var _ref;\n\n    var
_temp, _this, _ret;\n\n    (0, _classCallCheck3.default)(this, Toggle);\n\n    for (var _len = arguments.length, args =
Array(_len), _key = 0; _key < _len; _key++) {\n      args[_key] = arguments[_key];\n    }\n\n    return _ret = (_temp
= (_this = (0, _possibleConstructorReturn3.default)(this, (_ref = Toggle.__proto__ || (0,
_getPrototypeOf2.default)(Toggle)).call.apply(_ref,
 [this].concat(args))), _this), _this.state = {\n      switched: false\n    }, _this.handleStateChange = function
(newSwitched) {\n      _this.setState({\n        switched: newSwitched\n      });\n    }, _this.handleToggle = function
(event, isInputChecked) {\n      if (_this.props.onToggle) {\n        _this.props.onToggle(event, isInputChecked);\n
}\n    }, _temp), (0, _possibleConstructorReturn3.default)(_this, _ret);\n  }\n\n  (0, _createClass3.default)(Toggle,
[{\n    key: 'componentWillMount',\n    value: function componentWillMount() {\n      var _props = this.props,\n
 toggled = _props.toggled,\n          defaultToggled = _props.defaultToggled,\n          valueLink =
_props.valueLink;\n\n      if (toggled || defaultToggled || valueLink && valueLink.value) {\n        this.setState({\n
  switched: true\n        });\n      }\n    }\n  }, {\n    key: 'isToggled',\n    value: function isToggled() {\n      return
this.refs.enhancedSwitch.isSwitched();\n    }\n
  }, {\n    key: 'setToggled',\n    value: function setToggled(newToggledValue) {\n
this.refs.enhancedSwitch.setSwitched(newToggledValue);\n    }\n  }, {\n    key: 'render',\n    value: function render()
{\n      var _props2 = this.props,\n          defaultToggled = _props2.defaultToggled,\n          elementStyle =
_props2.elementStyle,\n          onToggle = _props2.onToggle,\n          trackSwitchedStyle =
_props2.trackSwitchedStyle,\n          thumbSwitchedStyle = _props2.thumbSwitchedStyle,\n          toggled =
_props2.toggled,\n          other = (0, _objectWithoutProperties3.default)(_props2, ['defaultToggled', 'elementStyle',
'onToggle', 'trackSwitchedStyle', 'thumbSwitchedStyle', 'toggled']);\n      var prepareStyles =
this.context.muiTheme.prepareStyles;\n      var styles = getStyles(this.props, this.context, this.state);\n\n      var
toggleElement = _react2.default.createElement('div', {\n        style: prepareStyles((0, _simpleAssign2.default)({},
styles.toggleElement))\n
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      }, _react2.default.createElement('div', {\n        style: prepareStyles((0, _simpleAssign2.default)({},
styles.track))\n      }), _react2.default.createElement(_Paper2.default, {\n        style: styles.thumb,\n        circle:
true,\n        zDepth: 1\n      }));\n\n      var enhancedSwitchProps = {\n        ref: 'enhancedSwitch',\n        inputType:
'checkbox',\n        switchElement: toggleElement,\n        rippleStyle: styles.ripple,\n        rippleColor:
styles.ripple.color,\n        iconStyle: styles.icon,\n        trackStyle: styles.track,\n        thumbStyle: styles.thumb,\n
labelStyle: styles.label,\n        switched: this.state.switched,\n        onSwitch: this.handleToggle,\n
onParentShouldUpdate: this.handleStateChange,\n        labelPosition: this.props.labelPosition\n      };\n\n      if
(this.props.hasOwnProperty('toggled')) {\n        enhancedSwitchProps.checked = toggled;\n      } else if
(this.props.hasOwnProperty('defaultToggled')) {\n        enhancedSwitchProps.defaultChecked
 = defaultToggled;\n      }\n\n      return _react2.default.createElement(_EnhancedSwitch2.default, (0,
_extends3.default)({}, other, enhancedSwitchProps));\n    }\n  }]);\n  return
Toggle;\n}(_react.Component);\n\nToggle.defaultProps = {\n  defaultToggled: false,\n  disabled: false,\n
labelPosition: 'left'\n};\nToggle.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nToggle.propTypes = process.env.NODE_ENV !== \"production\" ? {\n
/**\n   * Determines whether the Toggle is initially turned on.\n   * **Warning:** This cannot be used in
conjunction with `toggled`.\n   * Decide between using a controlled or uncontrolled input element and remove one
of these props.\n   * More info: https://fb.me/react-controlled-components\n   */\n  defaultToggled:
_propTypes2.default.bool,\n\n  /**\n   * Will disable the toggle if true.\n   */\n  disabled:
_propTypes2.default.bool,\n\n  /**\n   * Overrides the inline-styles of the Toggle element.\n
  */\n  elementStyle: _propTypes2.default.object,\n\n  /**\n   * Overrides the inline-styles of the Icon element.\n
*/\n  iconStyle: _propTypes2.default.object,\n\n  /**\n   * Overrides the inline-styles of the input element.\n   */\n
inputStyle: _propTypes2.default.object,\n\n  /**\n   * Label for toggle.\n   */\n  label: _propTypes2.default.node,\n\n
/**\n   * Where the label will be placed next to the toggle.\n   */\n  labelPosition: _propTypes2.default.oneOf(['left',
'right']),\n\n  /**\n   * Overrides the inline-styles of the Toggle element label.\n   */\n  labelStyle:
_propTypes2.default.object,\n\n  /**\n   * Callback function that is fired when the toggle switch is toggled.\n   *\n   *
@param {object} event Change event targeting the toggle.\n   * @param {bool} isInputChecked The new value of
the toggle.\n   */\n  onToggle: _propTypes2.default.func,\n\n  /**\n   * Override style of ripple.\n   */\n  rippleStyle:
_propTypes2.default.object,\n\n  /**\n   * Override the inline-styles
 of the root element.\n   */\n  style: _propTypes2.default.object,\n\n  /**\n   * Override style for thumb.\n   */\n
thumbStyle: _propTypes2.default.object,\n\n  /**\n  * Override the inline styles for thumb when the toggle switch is
toggled on.\n  */\n  thumbSwitchedStyle: _propTypes2.default.object,\n\n  /**\n   * Toggled if set to true.\n   */\n
toggled: _propTypes2.default.bool,\n\n  /**\n   * Override style for track.\n   */\n  trackStyle:
_propTypes2.default.object,\n\n  /**\n  * Override the inline styles for track when the toggle switch is toggled on.\n
*/\n  trackSwitchedStyle: _propTypes2.default.object,\n\n  /**\n   * ValueLink prop for when using controlled
toggle.\n   */\n  valueLink: _propTypes2.default.object\n} : {};\nexports.default = Toggle;","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends2 = require('babel-
runtime/helpers/extends');\n\nvar _extends3 = _interopRequireDefault(_extends2);\n\nvar
_objectWithoutProperties2
 = require('babel-runtime/helpers/objectWithoutProperties');\n\nvar _objectWithoutProperties3 =
_interopRequireDefault(_objectWithoutProperties2);\n\nvar _getPrototypeOf = require('babel-runtime/core-
js/object/get-prototype-of');\n\nvar _getPrototypeOf2 = _interopRequireDefault(_getPrototypeOf);\n\nvar
_classCallCheck2 = require('babel-runtime/helpers/classCallCheck');\n\nvar _classCallCheck3 =
_interopRequireDefault(_classCallCheck2);\n\nvar _createClass2 = require('babel-
runtime/helpers/createClass');\n\nvar _createClass3 = _interopRequireDefault(_createClass2);\n\nvar
_possibleConstructorReturn2 = require('babel-runtime/helpers/possibleConstructorReturn');\n\nvar
_possibleConstructorReturn3 = _interopRequireDefault(_possibleConstructorReturn2);\n\nvar _inherits2 =
require('babel-runtime/helpers/inherits');\n\nvar _inherits3 = _interopRequireDefault(_inherits2);\n\nvar
_simpleAssign = require('simple-assign');\n\nvar _simpleAssign2 = _interopRequireDefault(_simpleAssign);\n\nvar
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 _react = require('react');\n\nvar _react2 = _interopRequireDefault(_react);\n\nvar _propTypes = require('prop-
types');\n\nvar _propTypes2 = _interopRequireDefault(_propTypes);\n\nfunction _interopRequireDefault(obj) {\n
return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction getStyles(props, context) {\n  var
noGutter = props.noGutter;\n  var _context$muiTheme = context.muiTheme,\n      baseTheme =
_context$muiTheme.baseTheme,\n      toolbar = _context$muiTheme.toolbar;\n  return {\n    root: {\n      boxSizing:
'border-box',\n      WebkitTapHighlightColor: 'rgba(0,0,0,0)',\n      // Remove mobile color flashing (deprecated)\n
backgroundColor: toolbar.backgroundColor,\n      height: toolbar.height,\n      padding: noGutter ? 0 : '0px ' +
baseTheme.spacing.desktopGutter + 'px',\n      display: 'flex',\n      justifyContent: 'space-between'\n    }\n
};\n}\n\nvar Toolbar = function (_Component) {\n  (0, _inherits3.default)(Toolbar, _Component);\n\n
 function Toolbar() {\n    (0, _classCallCheck3.default)(this, Toolbar);\n    return (0,
_possibleConstructorReturn3.default)(this, (Toolbar.__proto__ || (0, _getPrototypeOf2.default)(Toolbar)).apply(this,
arguments));\n  }\n\n  (0, _createClass3.default)(Toolbar, [{\n    key: 'render',\n    value: function render() {\n      var
_props = this.props,\n          children = _props.children,\n          className = _props.className,\n          noGutter =
_props.noGutter,\n          style = _props.style,\n          other = (0, _objectWithoutProperties3.default)(_props,
['children', 'className', 'noGutter', 'style']);\n      var prepareStyles = this.context.muiTheme.prepareStyles;\n      var
styles = getStyles(this.props, this.context);\n      return _react2.default.createElement('div', (0, _extends3.default)({},
other, {\n        className: className,\n        style: prepareStyles((0, _simpleAssign2.default)({}, styles.root,
style))\n      }), children);\n    }\n  }]);\n  return Toolbar;\n}(_react.Component);\n\nToolbar.defaultProps
 = {\n  noGutter: false\n};\nToolbar.contextTypes = {\n  muiTheme:
_propTypes2.default.object.isRequired\n};\nToolbar.propTypes = process.env.NODE_ENV !== \"production\" ? {\n
/**\n   * Can be a `ToolbarGroup` to render a group of related items.\n   */\n  children:
_propTypes2.default.node,\n\n  /**\n   * The css class name of the root element.\n   */\n  className:
_propTypes2.default.string,\n\n  /**\n   * Do not apply `desktopGutter` to the `Toolbar`.\n   */\n  noGutter:
_propTypes2.default.bool,\n\n  /**\n   * Override the inline-styles of the root element.\n   */\n  style:
_propTypes2.default.object\n} : {};\nexports.default = Toolbar;","'use strict';\n\nObject.defineProperty(exports,
\"__esModule\", {\n  value: true\n});\n\nvar _extends = Object.assign || function (target) {\n  for (var i = 1; i <
arguments.length; i++) {\n    var source = arguments[i];\n\n    for (var key in source) {\n      if
(Object.prototype.hasOwnProperty.call(source,
 key)) {\n        target[key] = source[key];\n      }\n    }\n  }\n\n  return target;\n};\n\nvar _Toggle = require('material-
ui/Toggle');\n\nvar _Toggle2 = _interopRequireDefault(_Toggle);\n\nvar _createComponent =
require('./createComponent');\n\nvar _createComponent2 =
_interopRequireDefault(_createComponent);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction _objectWithoutProperties(obj, keys) {\n  var target =
{};\n\n  for (var i in obj) {\n    if (keys.indexOf(i) >= 0) continue;\n    if (!Object.prototype.hasOwnProperty.call(obj,
i)) continue;\n    target[i] = obj[i];\n  }\n\n  return target;\n}\n\nexports.default = (0,
_createComponent2.default)(_Toggle2.default, function (_ref) {\n  var _ref$input = _ref.input,\n      onChange =
_ref$input.onChange,\n      value = _ref$input.value,\n      inputProps = _objectWithoutProperties(_ref$input,
['onChange', 'value']),\n      defaultToggled = _ref.defaultToggled,\n
      meta = _ref.meta,\n      props = _objectWithoutProperties(_ref, ['input', 'defaultToggled', 'meta']);\n\n  return
_extends({}, inputProps, props, {\n    onToggle: onChange,\n    toggled: !!value\n  });\n});","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends = Object.assign ||
function (target) {\n  for (var i = 1; i < arguments.length; i++) {\n    var source = arguments[i];\n\n    for (var key in
source) {\n      if (Object.prototype.hasOwnProperty.call(source, key)) {\n        target[key] = source[key];\n      }\n
}\n  }\n\n  return target;\n};\n\nvar _Slider = require('material-ui/Slider');\n\nvar _Slider2 =
_interopRequireDefault(_Slider);\n\nvar _createComponent = require('./createComponent');\n\nvar
_createComponent2 = _interopRequireDefault(_createComponent);\n\nfunction _interopRequireDefault(obj) {\n
return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction _objectWithoutProperties(obj, keys) {\n
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  var target = {};\n\n  for (var i in obj) {\n    if (keys.indexOf(i) >= 0) continue;\n    if
(!Object.prototype.hasOwnProperty.call(obj, i)) continue;\n    target[i] = obj[i];\n  }\n\n  return
target;\n}\n\nexports.default = (0, _createComponent2.default)(_Slider2.default, function (_ref) {\n  var _ref$input =
_ref.input,\n      onDragStart = _ref$input.onDragStart,\n      _onChange = _ref$input.onChange,\n      name =
_ref$input.name,\n      value = _ref$input.value,\n      onChangeFromField = _ref.onChange,\n      defaultValue =
_ref.defaultValue,\n      meta = _ref.meta,\n      props = _objectWithoutProperties(_ref, ['input', 'onChange',
'defaultValue', 'meta']);\n\n  return _extends({}, props, {\n    name: name,\n    value: value,\n    onChange: function
onChange(event, value) {\n      _onChange(value);\n\n      if (onChangeFromField) {\n
onChangeFromField(value);\n      }\n    }\n  });\n});","'use strict';\n\nObject.defineProperty(exports, \"__esModule\",
{\n  value: true\n});\n\nvar
 _extends = Object.assign || function (target) {\n  for (var i = 1; i < arguments.length; i++) {\n    var source =
arguments[i];\n\n    for (var key in source) {\n      if (Object.prototype.hasOwnProperty.call(source, key)) {\n
target[key] = source[key];\n      }\n    }\n  }\n\n  return target;\n};\n\nvar _Checkbox = require('material-
ui/Checkbox');\n\nvar _Checkbox2 = _interopRequireDefault(_Checkbox);\n\nvar _createComponent =
require('./createComponent');\n\nvar _createComponent2 =
_interopRequireDefault(_createComponent);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction _objectWithoutProperties(obj, keys) {\n  var target =
{};\n\n  for (var i in obj) {\n    if (keys.indexOf(i) >= 0) continue;\n    if (!Object.prototype.hasOwnProperty.call(obj,
i)) continue;\n    target[i] = obj[i];\n  }\n\n  return target;\n}\n\nexports.default = (0,
_createComponent2.default)(_Checkbox2.default, function (_ref)
 {\n  var _ref$input = _ref.input,\n      onChange = _ref$input.onChange,\n      value = _ref$input.value,\n
inputProps = _objectWithoutProperties(_ref$input, ['onChange', 'value']),\n      meta = _ref.meta,\n      _onCheck =
_ref.onCheck,\n      defaultChecked = _ref.defaultChecked,\n      props = _objectWithoutProperties(_ref, ['input',
'meta', 'onCheck', 'defaultChecked']);\n\n  return _extends({}, inputProps, props, {\n    checked: value ? true :
false,\n    onCheck: function onCheck(event, isInputChecked) {\n      onChange(isInputChecked);\n\n      if
(_onCheck) {\n        _onCheck(isInputChecked);\n      }\n    }\n  });\n});","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _TextField =
require('material-ui/TextField');\n\nvar _TextField2 = _interopRequireDefault(_TextField);\n\nvar
_createComponent = require('./createComponent');\n\nvar _createComponent2 =
_interopRequireDefault(_createComponent);\n\nvar _mapError = require('./mapError');\n\nvar
 _mapError2 = _interopRequireDefault(_mapError);\n\nfunction _interopRequireDefault(obj) {\n  return obj &&
obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction _objectWithoutProperties(obj, keys) {\n  var target =
{};\n\n  for (var i in obj) {\n    if (keys.indexOf(i) >= 0) continue;\n    if (!Object.prototype.hasOwnProperty.call(obj,
i)) continue;\n    target[i] = obj[i];\n  }\n\n  return target;\n}\n\nexports.default = (0,
_createComponent2.default)(_TextField2.default, function (_ref) {\n  var defaultValue = _ref.defaultValue,\n
props = _objectWithoutProperties(_ref, ['defaultValue']);\n\n  return (0, _mapError2.default)(props);\n});","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends = Object.assign ||
function (target) {\n  for (var i = 1; i < arguments.length; i++) {\n    var source = arguments[i];\n\n    for (var key in
source) {\n      if (Object.prototype.hasOwnProperty.call(source, key))
 {\n        target[key] = source[key];\n      }\n    }\n  }\n\n  return target;\n};\n\nvar _TimePicker = require('material-
ui/TimePicker');\n\nvar _TimePicker2 = _interopRequireDefault(_TimePicker);\n\nvar _createComponent =
require('./createComponent');\n\nvar _createComponent2 = _interopRequireDefault(_createComponent);\n\nvar
_mapError = require('./mapError');\n\nvar _mapError2 = _interopRequireDefault(_mapError);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction
_objectWithoutProperties(obj, keys) {\n  var target = {};\n\n  for (var i in obj) {\n    if (keys.indexOf(i) >= 0)
continue;\n    if (!Object.prototype.hasOwnProperty.call(obj, i)) continue;\n    target[i] = obj[i];\n  }\n\n  return
target;\n}\n\nexports.default = (0, _createComponent2.default)(_TimePicker2.default, function (_ref) {\n  var
_ref$input = _ref.input,\n      onBlur = _ref$input.onBlur,\n      inputProps = _objectWithoutProperties(_ref$input,
```

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 ['onBlur']),\n      defaultTime = _ref.defaultTime,\n      _onChange = _ref.onChange,\n      props =
_objectWithoutProperties(_ref, ['input', 'defaultTime', 'onChange']);\n\n  return _extends({}, inputProps, (0,
_mapError2.default)(props), {\n    onChange: function onChange(event, value) {\n
inputProps.onChange(value);\n\n      if (_onChange) {\n        _onChange(value);\n      }\n    }\n  });\n});","'use
strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends = Object.assign ||
function (target) {\n  for (var i = 1; i < arguments.length; i++) {\n    var source = arguments[i];\n\n    for (var key in
source) {\n      if (Object.prototype.hasOwnProperty.call(source, key)) {\n        target[key] = source[key];\n      }\n
}\n  }\n\n  return target;\n};\n\nvar _DatePicker = require('material-ui/DatePicker');\n\nvar _DatePicker2 =
_interopRequireDefault(_DatePicker);\n\nvar _createComponent = require('./createComponent');\n\nvar
_createComponent2
 = _interopRequireDefault(_createComponent);\n\nvar _mapError = require('./mapError');\n\nvar _mapError2 =
_interopRequireDefault(_mapError);\n\nfunction _interopRequireDefault(obj) {\n  return obj && obj.__esModule ?
obj : {\n    default: obj\n  };\n}\n\nfunction _objectWithoutProperties(obj, keys) {\n  var target = {};\n\n  for (var i in
obj) {\n    if (keys.indexOf(i) >= 0) continue;\n    if (!Object.prototype.hasOwnProperty.call(obj, i)) continue;\n
target[i] = obj[i];\n  }\n\n  return target;\n}\n\nexports.default = (0,
_createComponent2.default)(_DatePicker2.default, function (_ref) {\n  var _ref$input = _ref.input,\n      onBlur =
_ref$input.onBlur,\n      inputProps = _objectWithoutProperties(_ref$input, ['onBlur']),\n      defaultDate =
_ref.defaultDate,\n      _onChange = _ref.onChange,\n      props = _objectWithoutProperties(_ref, ['input',
'defaultDate', 'onChange']);\n\n  return _extends({}, inputProps, (0, _mapError2.default)(props), {\n    onChange:
function onChange(event,
 value) {\n      inputProps.onChange(value);\n\n      if (_onChange) {\n        _onChange(value);\n      }\n    }\n
});\n});","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _extends =
Object.assign || function (target) {\n  for (var i = 1; i < arguments.length; i++) {\n    var source = arguments[i];\n\n
for (var key in source) {\n      if (Object.prototype.hasOwnProperty.call(source, key)) {\n        target[key] =
source[key];\n      }\n    }\n  }\n\n  return target;\n};\n\nvar _SelectField = require('material-ui/SelectField');\n\nvar
_SelectField2 = _interopRequireDefault(_SelectField);\n\nvar _createComponent =
require('./createComponent');\n\nvar _createComponent2 = _interopRequireDefault(_createComponent);\n\nvar
_mapError = require('./mapError');\n\nvar _mapError2 = _interopRequireDefault(_mapError);\n\nfunction
_interopRequireDefault(obj) {\n  return obj && obj.__esModule ? obj : {\n    default: obj\n  };\n}\n\nfunction
 _objectWithoutProperties(obj, keys) {\n  var target = {};\n\n  for (var i in obj) {\n    if (keys.indexOf(i) >= 0)
continue;\n    if (!Object.prototype.hasOwnProperty.call(obj, i)) continue;\n    target[i] = obj[i];\n  }\n\n  return
target;\n}\n\nexports.default = (0, _createComponent2.default)(_SelectField2.default, function (_ref) {\n  var
_ref$input = _ref.input,\n      _onChange = _ref$input.onChange,\n      value = _ref$input.value,\n      _onBlur =
_ref$input.onBlur,\n      inputProps = _objectWithoutProperties(_ref$input, ['onChange', 'value', 'onBlur']),\n
onChangeFromField = _ref.onChange,\n      props = _objectWithoutProperties(_ref, ['input', 'onChange']);\n\n
return _extends({}, (0, _mapError2.default)(props), inputProps, {\n    value: value,\n    onChange: function
onChange(event, index, value) {\n      _onChange(value);\n\n      if (onChangeFromField) {\n
onChangeFromField(value);\n      }\n    },\n    onBlur: function onBlur() {\n      return _onBlur(value);\n
    }\n  });\n});","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n  value: true\n});\n\nvar _typeof
= typeof Symbol === \"function\" && typeof Symbol.iterator === \"symbol\" ? function (obj) {\n  return typeof
obj;\n} : function (obj) {\n  return obj && typeof Symbol === \"function\" && obj.constructor === Symbol && obj
!== Symbol.prototype ? \"symbol\" : typeof obj;\n};\n\nvar _extends = Object.assign || function (target) {\n  for (var
i = 1; i < arguments.length; i++) {\n    var source = arguments[i];\n\n    for (var key in source) {\n      if
(Object.prototype.hasOwnProperty.call(source, key)) {\n        target[key] = source[key];\n      }\n    }\n  }\n\n  return
target;\n};\n\nvar _AutoComplete = require('material-ui/AutoComplete');\n\nvar _AutoComplete2 =
_interopRequireDefault(_AutoComplete);\n\nvar _createComponent = require('./createComponent');\n\nvar
_createComponent2 = _interopRequireDefault(_createComponent);\n\nvar _mapError =
require('./mapError');\n\nvar
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_mapError2 = _interopRequireDefault(_mapError);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nfunction _objectWithoutProperties(obj, keys) {\n var target = {};\n\n for (var i in obj) {\n   if (keys.indexOf(i) >= 0) continue;\n   if (!Object.prototype.hasOwnProperty.call(obj, i)) continue;\n   target[i] = obj[i];\n }\n\n return target;\n}\n\nexports.default = (0, _createComponent2.default)(_AutoComplete2.default, function (_ref) {\n var _ref$input = _ref.input,\n   onChange = _ref$input.onChange,\n   value = _ref$input.value,\n   _onNewRequest = _ref.onNewRequest,\n   dataSourceConfig = _ref.dataSourceConfig,\n   dataSource = _ref.dataSource,\n   props = _objectWithoutProperties(_ref, ['input', 'onNewRequest', 'dataSourceConfig', 'dataSource']);\n\n return _extends({}, (0, _mapError2.default)(props), {\n   dataSourceConfig: dataSourceConfig,\n   dataSource: dataSource,\n   searchText:
dataSourceConfig && dataSource ? (dataSource.find(function (item) {\n   return item[dataSourceConfig.value] === value;\n   }) || {})[dataSourceConfig.text] : value,\n   onNewRequest: function onNewRequest(value, index) {\n   onChange((typeof value === 'undefined' ? 'undefined' : _typeof(value)) === 'object' && dataSourceConfig ? value[dataSourceConfig.value] : value);\n\n   if (_onNewRequest) {\n   _onNewRequest(value, index);\n   }\n   },\n   onUpdateInput: function onUpdateInput(value) {\n   if (!dataSourceConfig) {\n   onChange(value);\n   }\n   }\n });\n});","'use strict';\n\nObject.defineProperty(exports, \"__esModule\", {\n value: true\n});\n\nvar _extends = Object.assign || function (target) {\n for (var i = 1; i < arguments.length; i++) {\n   var source = arguments[i];\n\n   for (var key in source) {\n   if (Object.prototype.hasOwnProperty.call(source, key)) {\n   target[key] = source[key];\n   }\n   }\n }\n\n return target;\n};\n\nvar
_RadioButton = require('material-ui/RadioButton');\n\nvar _createComponent = require('./createComponent');\n\nvar _createComponent2 = _interopRequireDefault(_createComponent);\n\nvar _mapError = require('./mapError');\n\nvar _mapError2 = _interopRequireDefault(_mapError);\n\nfunction _interopRequireDefault(obj) {\n return obj && obj.__esModule ? obj : {\n   default: obj\n };\n}\n\nfunction _objectWithoutProperties(obj, keys) {\n var target = {};\n\n for (var i in obj) {\n   if (keys.indexOf(i) >= 0) continue;\n   if (!Object.prototype.hasOwnProperty.call(obj, i)) continue;\n   target[i] = obj[i];\n }\n\n return target;\n}\n\nvar mapValueToValueSelected = function mapValueToValueSelected(_ref, errorProp) {\n var inputProps = _objectWithoutProperties(_ref.input, []),\n   props = _objectWithoutProperties(_ref, ['input']);\n\n return (0, _mapError2.default)(_extends({}, props, {\n   input: _extends({}, inputProps, {\n   valueSelected: inputProps.value\n
  })\n }), errorProp);\n};\n\nexports.default = (0, _createComponent2.default)(_RadioButton.RadioButtonGroup, mapValueToValueSelected);","var arrayWithHoles = require(\"./arrayWithHoles\");\n\nvar iterableToArrayLimit = require(\"./iterableToArrayLimit\");\n\nvar nonIterableRest = require(\"./nonIterableRest\");\n\nfunction _slicedToArray(arr, i) {\n return arrayWithHoles(arr) || iterableToArrayLimit(arr, i) || nonIterableRest();\n}\n\nmodule.exports = _slicedToArray;","function _arrayWithHoles(arr) {\n if (Array.isArray(arr)) return arr;\n}\n\nmodule.exports = _arrayWithHoles;","function _iterableToArrayLimit(arr, i) {\n var _arr = [];\n var _n = true;\n var _d = false;\n var _e = undefined;\n\n try {\n   for (var _i = arr[Symbol.iterator](), _s; !(_n = (_s = _i.next()).done); _n = true) {\n   _arr.push(_s.value);\n\n   if (i && _arr.length === i) break;\n   }\n } catch (err) {\n   _d = true;\n   _e = err;\n } finally {\n   try {\n   if (!_n && _i[\"return\"] !=
null) _i[\"return\"]();\n   } finally {\n   if (_d) throw _e;\n   }\n }\n\n return _arr;\n}\n\nmodule.exports = _iterableToArrayLimit;","function _nonIterableRest() {\n throw new TypeError(\"Invalid attempt to destructure non-iterable instance\");\n}\n\nmodule.exports = _nonIterableRest;","var arrayWithoutHoles = require(\"./arrayWithoutHoles\");\n\nvar iterableToArray = require(\"./iterableToArray\");\n\nvar nonIterableSpread = require(\"./nonIterableSpread\");\n\nfunction _toConsumableArray(arr) {\n return arrayWithoutHoles(arr) || iterableToArray(arr) || nonIterableSpread();\n}\n\nmodule.exports = _toConsumableArray;","function _arrayWithoutHoles(arr) {\n if (Array.isArray(arr)) {\n   for (var i = 0, arr2 = new Array(arr.length); i < arr.length; i++) {\n   arr2[i] = arr[i];\n   }\n\n   return arr2;\n }\n}\n\nmodule.exports = _arrayWithoutHoles;","function _iterableToArray(iter) {\n if (Symbol.iterator in Object(iter) || Object.prototype.toString.call(iter) === \"[object

Arguments]\") return Array.from(iter);\n}\n\nmodule.exports = _iterableToArray;","function _nonIterableSpread() {\n throw new TypeError(\"Invalid attempt to spread non-iterable instance\");\n}\n\nmodule.exports = _nonIterableSpread;","'use strict';\n\nmodule.exports = function (str) {\n return encodeURIComponent(str).replace(/[!'()*]/g, function (x) {\n   return \"%\".concat(x.charCodeAt(0).toString(16).toUpperCase());\n });\n};","'use strict';\n\nvar token = '%[a-f0-9]{2}';\nvar singleMatcher = new RegExp(token, 'gi');\nvar multiMatcher = new RegExp('(' + token + ')+', 'gi');\n\nfunction decodeComponents(components, split) {\n try {\n   // Try to decode the entire string first\n return decodeURIComponent(components.join(''));\n } catch (err) {// Do nothing\n }\n\n if (components.length === 1) {\n   return components;\n }\n\n split = split || 1; // Split the array in 2 parts\n\n var left = components.slice(0, split);\n var right = components.slice(split);\n return Array.prototype.concat.call([], decodeComponents(left), decodeComponents(right));\n}\n\nfunction decode(input) {\n try {\n   return decodeURIComponent(input);\n } catch (err) {\n   var tokens = input.match(singleMatcher);\n\n   for (var i = 1; i < tokens.length; i++) {\n   input = decodeComponents(tokens, i).join('');\n   tokens = input.match(singleMatcher);\n   }\n\n   return input;\n }\n}\n\nfunction customDecodeURIComponent(input) {\n // Keep track of all the replacements and prefill the map with the `BOM`\n var replaceMap = {\n   '%FE%FF': \"\\uFFFD\\uFFFD\",\n   '%FF%FE': \"\\uFFFD\\uFFFD\"\n };\n var match = multiMatcher.exec(input);\n\n while (match) {\n   try {\n   // Decode as big chunks as possible\n replaceMap[match[0]] = decodeURIComponent(match[0]);\n   } catch (err) {\n   var result = decode(match[0]);\n\n   if (result !== match[0]) {\n   replaceMap[match[0]] = result;\n   }\n   }\n\n   match = multiMatcher.exec(input);\n
  } // Add `%C2` at the end of the map to make sure it does not replace the combinator before everything else\n\n\n replaceMap['%C2'] = \"\\uFFFD\";\n var entries = Object.keys(replaceMap);\n\n for (var i = 0; i < entries.length; i++) {\n   // Replace all decoded components\n   var key = entries[i];\n   input = input.replace(new RegExp(key, 'g'), replaceMap[key]);\n }\n\n return input;\n}\n\nmodule.exports = function (encodedURI) {\n if (typeof encodedURI !== 'string') {\n   throw new TypeError('Expected `encodedURI` to be of type `string`, got `' + typeof encodedURI + '`');\n }\n\n try {\n   encodedURI = encodedURI.replace(/\\+/g, ' '); // Try the built in decoder first\n\n   return decodeURIComponent(encodedURI);\n } catch (err) {\n   // Fallback to a more advanced decoder\n   return customDecodeURIComponent(encodedURI);\n }\n};","'use strict';\n\nmodule.exports = function (string, separator) {\n if (!(typeof string === 'string' && typeof separator === 'string'))
 {\n   throw new TypeError('Expected the arguments to be of type `string`');\n }\n\n if (separator === '') {\n return [string];\n }\n\n var separatorIndex = string.indexOf(separator);\n\n if (separatorIndex === -1) {\n   return [string];\n }\n\n return [string.slice(0, separatorIndex), string.slice(separatorIndex + separator.length)];\n};","'use strict';\n\nmodule.exports = function (obj, predicate) {\n var ret = {};\n var keys = Object.keys(obj);\n var isArr = Array.isArray(predicate);\n\n for (var i = 0; i < keys.length; i++) {\n   var key = keys[i];\n   var val = obj[key];\n\n if (isArr ? predicate.indexOf(key) !== -1 : predicate(key, val, obj)) {\n   ret[key] = val;\n   }\n }\n\n return ret;\n};","import baseAssignValue from './_baseAssignValue.js';\nimport eq from './eq.js';\n/**\n * This function is like `assignValue` except that it doesn't assign\n * `undefined` values.\n *\n * @private\n * @param {Object} object The object to modify.\n * @param {string}
 key The key of the property to assign.\n * @param {*} value The value to assign.\n */\n\nfunction assignMergeValue(object, key, value) {\n if (value !== undefined && !eq(object[key], value) || value === undefined && !(key in object)) {\n   baseAssignValue(object, key, value);\n }\n}\n\nexport default assignMergeValue;","import Uint8Array from './_Uint8Array.js';\n/**\n * Creates a clone of `arrayBuffer`.\n *\n * @private\n * @param {ArrayBuffer} arrayBuffer The array buffer to clone.\n * @returns {ArrayBuffer} Returns the cloned array buffer.\n */\n\nfunction cloneArrayBuffer(arrayBuffer) {\n var result = new arrayBuffer.constructor(arrayBuffer.byteLength);\n new Uint8Array(result).set(new Uint8Array(arrayBuffer));\n return result;\n}\n\nexport default cloneArrayBuffer;","import cloneArrayBuffer from './_cloneArrayBuffer.js';\n/**\n * Creates a clone of `typedArray`.\n *\n * @private\n * @param {Object} typedArray The typed array to clone.\n * @param {boolean} [isDeep] Specify

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 a deep clone.\n * @returns {Object} Returns the cloned typed array.\n */\n\nfunction cloneTypedArray(typedArray,
isDeep) {\n  var buffer = isDeep ? cloneArrayBuffer(typedArray.buffer) : typedArray.buffer;\n  return new
typedArray.constructor(buffer, typedArray.byteOffset, typedArray.length);\n}\n\nexport default
cloneTypedArray;","import isObject from './isObject.js';\n/** Built-in value references. */\n\nvar objectCreate =
Object.create;\n/**\n * The base implementation of `_.create` without support for assigning\n * properties to the
created object.\n *\n * @private\n * @param {Object} proto The object to inherit from.\n * @returns {Object}
Returns the new object.\n */\n\nvar baseCreate = function () {\n  function object() {}\n\n  return function (proto) {\n
 if (!isObject(proto)) {\n      return {};\n    }\n\n    if (objectCreate) {\n      return objectCreate(proto);\n    }\n\n
object.prototype = proto;\n    var result = new object();\n    object.prototype = undefined;\n    return
 result;\n  };\n}();\n\nexport default baseCreate;","import overArg from './_overArg.js';\n/** Built-in value
references. */\n\nvar getPrototype = overArg(Object.getPrototypeOf, Object);\nexport default
getPrototype;","import baseCreate from './_baseCreate.js';\nimport getPrototype from './_getPrototype.js';\nimport
isPrototype from './_isPrototype.js';\n/**\n * Initializes an object clone.\n *\n * @private\n * @param {Object}
object The object to clone.\n * @returns {Object} Returns the initialized clone.\n */\n\nfunction
initCloneObject(object) {\n  return typeof object.constructor == 'function' && !isPrototype(object) ?
baseCreate(getPrototype(object)) : {};\n}\n\nexport default initCloneObject;","import isArrayLike from
'./isArrayLike.js';\nimport isObjectLike from './isObjectLike.js';\n/**\n * This method is like `_.isArrayLike` except
that it also checks if `value`\n * is an object.\n *\n * @static\n * @memberOf _\n * @since 4.0.0\n * @category
Lang\n * @param {*} value The value
 to check.\n * @returns {boolean} Returns `true` if `value` is an array-like object,\n *  else `false`.\n * @example\n
*\n * _.isArrayLikeObject([1, 2, 3]);\n * // => true\n *\n * _.isArrayLikeObject(document.body.children);\n * // =>
true\n *\n * _.isArrayLikeObject('abc');\n * // => false\n *\n * _.isArrayLikeObject(_.noop);\n * // => false\n
*/\n\nfunction isArrayLikeObject(value) {\n  return isObjectLike(value) && isArrayLike(value);\n}\n\nexport
default isArrayLikeObject;","import baseGetTag from './_baseGetTag.js';\nimport getPrototype from
'./_getPrototype.js';\nimport isObjectLike from './isObjectLike.js';\n/** `Object#toString` result references. */\n\nvar
objectTag = '[object Object]';\n/** Used for built-in method references. */\n\nvar funcProto = Function.prototype,\n
 objectProto = Object.prototype;\n/** Used to resolve the decompiled source of functions. */\n\nvar funcToString =
funcProto.toString;\n/** Used to check objects for own properties. */\n\nvar hasOwnProperty
 = objectProto.hasOwnProperty;\n/** Used to infer the `Object` constructor. */\n\nvar objectCtorString =
funcToString.call(Object);\n/**\n * Checks if `value` is a plain object, that is, an object created by the\n * `Object`
constructor or one with a `[[Prototype]]` of `null`.\n *\n * @static\n * @memberOf _\n * @since 0.8.0\n *
@category Lang\n * @param {*} value The value to check.\n * @returns {boolean} Returns `true` if `value` is a
plain object, else `false`.\n * @example\n *\n * function Foo() {\n *   this.a = 1;\n * }\n *\n * _.isPlainObject(new
Foo);\n * // => false\n *\n * _.isPlainObject([1, 2, 3]);\n * // => false\n *\n * _.isPlainObject({ 'x': 0, 'y': 0 });\n * //
=> true\n *\n * _.isPlainObject(Object.create(null));\n * // => true\n */\n\nfunction isPlainObject(value) {\n  if
(!isObjectLike(value) || baseGetTag(value) != objectTag) {\n    return false;\n  }\n\n  var proto =
getPrototype(value);\n\n  if (proto === null) {\n    return true;\n  }\n\n  var Ctor = hasOwnProperty.call(proto,
 'constructor') && proto.constructor;\n  return typeof Ctor == 'function' && Ctor instanceof Ctor &&
funcToString.call(Ctor) == objectCtorString;\n}\n\nexport default isPlainObject;","/**\n * Gets the value at `key`,
unless `key` is \"__proto__\" or \"constructor\".\n *\n * @private\n * @param {Object} object The object to
query.\n * @param {string} key The key of the property to get.\n * @returns {*} Returns the property value.\n
*/\nfunction safeGet(object, key) {\n  if (key === 'constructor' && typeof object[key] === 'function') {\n    return;\n
}\n\n  if (key == '__proto__') {\n    return;\n  }\n\n  return object[key];\n}\n\nexport default safeGet;","import
baseAssignValue from './_baseAssignValue.js';\nimport eq from './eq.js';\n/** Used for built-in method references.
*/\n\nvar objectProto = Object.prototype;\n/** Used to check objects for own properties. */\n\nvar hasOwnProperty
= objectProto.hasOwnProperty;\n/**\n * Assigns `value` to `key` of `object` if the existing
 value is not equivalent\n * using [`SameValueZero`](http://ecma-international.org/ecma-262/7.0/#sec-
samevaluezero)\n * for equality comparisons.\n *\n * @private\n * @param {Object} object The object to modify.\n
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* @param {string} key The key of the property to assign.\n * @param {*} value The value to assign.\n */\n\nfunction assignValue(object, key, value) {\n var objValue = object[key];\n\n if (!(hasOwnProperty.call(object, key) && eq(objValue, value)) || value === undefined && !(key in object)) {\n baseAssignValue(object, key, value);\n }\n}\n\nexport default assignValue;","import assignValue from './_assignValue.js';\nimport baseAssignValue from './_baseAssignValue.js';\n/**\n * Copies properties of `source` to `object`.\n *\n * @private\n * @param {Object} source The object to copy properties from.\n * @param {Array} props The property identifiers to copy.\n * @param {Object} [object={}] The object to copy properties to.\n * @param {Function} [customizer] The function

to customize copied values.\n * @returns {Object} Returns `object`.\n */\n\nfunction copyObject(source, props, object, customizer) {\n var isNew = !object;\n object || (object = {});\n var index = -1,\n   length = props.length;\n\n while (++index < length) {\n   var key = props[index];\n   var newValue = customizer ? customizer(object[key], source[key], key, object, source) : undefined;\n\n   if (newValue === undefined) {\n newValue = source[key];\n   }\n\n   if (isNew) {\n   baseAssignValue(object, key, newValue);\n   } else {\n assignValue(object, key, newValue);\n   }\n }\n\n return object;\n}\n\nexport default copyObject;","/**\n * This function is like\n * [`Object.keys`](http://ecma-international.org/ecma-262/7.0/#sec-object.keys)\n * except that it includes inherited enumerable properties.\n *\n * @private\n * @param {Object} object The object to query.\n * @returns {Array} Returns the array of property names.\n */\nfunction nativeKeysIn(object) {\n

var result = [];\n\n if (object != null) {\n   for (var key in Object(object)) {\n   result.push(key);\n   }\n }\n\n return result;\n}\n\nexport default nativeKeysIn;","import isObject from './isObject.js';\nimport isPrototype from './_isPrototype.js';\nimport nativeKeysIn from './_nativeKeysIn.js';\n/** Used for built-in method references. */\n\nvar objectProto = Object.prototype;\n/** Used to check objects for own properties. */\n\nvar hasOwnProperty = objectProto.hasOwnProperty;\n/**\n * The base implementation of `_.keysIn` which doesn't treat sparse arrays as dense.\n *\n * @private\n * @param {Object} object The object to query.\n * @returns {Array} Returns the array of property names.\n */\n\nfunction baseKeysIn(object) {\n if (!isObject(object)) {\n   return nativeKeysIn(object);\n }\n\n var isProto = isPrototype(object),\n   result = [];\n\n for (var key in object) {\n   if (!(key == 'constructor' && (isProto || !hasOwnProperty.call(object, key)))) {\n

result.push(key);\n   }\n }\n\n return result;\n}\n\nexport default baseKeysIn;","import arrayLikeKeys from './_arrayLikeKeys.js';\nimport baseKeysIn from './_baseKeysIn.js';\nimport isArrayLike from './isArrayLike.js';\n/**\n * Creates an array of the own and inherited enumerable property names of `object`.\n *\n * **Note:** Non-object values are coerced to objects.\n *\n * @static\n * @memberOf _\n * @since 3.0.0\n * @category Object\n * @param {Object} object The object to query.\n * @returns {Array} Returns the array of property names.\n * @example\n *\n * function Foo() {\n *   this.a = 1;\n *   this.b = 2;\n * }\n *\n * Foo.prototype.c = 3;\n *\n * _.keysIn(new Foo);\n * // => ['a', 'b', 'c'] (iteration order is not guaranteed)\n */\n\nfunction keysIn(object) {\n return isArrayLike(object) ? arrayLikeKeys(object, true) : baseKeysIn(object);\n}\n\nexport default keysIn;","import copyObject from './_copyObject.js';\nimport keysIn from './keysIn.js';\n/**\n * Converts `value` to

a plain object flattening inherited enumerable string\n * keyed properties of `value` to own properties of the plain object.\n *\n * @static\n * @memberOf _\n * @since 3.0.0\n * @category Lang\n * @param {*} value The value to convert.\n * @returns {Object} Returns the converted plain object.\n * @example\n *\n * function Foo() {\n * this.b = 2;\n * }\n *\n * Foo.prototype.c = 3;\n *\n * _.assign({ 'a': 1 }, new Foo);\n * // => { 'a': 1, 'b': 2 }\n *\n * _.assign({ 'a': 1 }, _.toPlainObject(new Foo));\n * // => { 'a': 1, 'b': 2, 'c': 3 }\n */\n\nfunction toPlainObject(value) {\n return copyObject(value, keysIn(value));\n}\n\nexport default toPlainObject;","import assignMergeValue from './_assignMergeValue.js';\nimport cloneBuffer from './_cloneBuffer.js';\nimport cloneTypedArray from './_cloneTypedArray.js';\nimport copyArray from './_copyArray.js';\nimport initCloneObject from './_initCloneObject.js';\nimport isArguments from './isArguments.js';\nimport isArray from './isArray.js';\nimport

isArrayLikeObject from './isArrayLikeObject.js';\nimport isBuffer from './isBuffer.js';\nimport isFunction from './isFunction.js';\nimport isObject from './isObject.js';\nimport isPlainObject from './isPlainObject.js';\nimport isTypedArray from './isTypedArray.js';\nimport safeGet from './_safeGet.js';\nimport toPlainObject from

'./toPlainObject.js';\n/**\n * A specialized version of `baseMerge` for arrays and objects which performs\n * deep merges and tracks traversed objects enabling objects with circular\n * references to be merged.\n *\n * @private\n * @param {Object} object The destination object.\n * @param {Object} source The source object.\n * @param {string} key The key of the value to merge.\n * @param {number} srcIndex The index of `source`.\n * @param {Function} mergeFunc The function to merge values.\n * @param {Function} [customizer] The function to customize assigned values.\n * @param {Object} [stack] Tracks traversed source values and their merged\n * counterparts.\n */\n\nfunction baseMergeDeep(object, source, key, srcIndex, mergeFunc, customizer, stack) {\n var objValue = safeGet(object, key),\n srcValue = safeGet(source, key),\n stacked = stack.get(srcValue);\n\n if (stacked) {\n assignMergeValue(object, key, stacked);\n return;\n }\n\n var newValue = customizer ? customizer(objValue, srcValue, key + '', object, source, stack) : undefined;\n var isCommon = newValue === undefined;\n\n if (isCommon) {\n var isArr = isArray(srcValue),\n isBuff = !isArr && isBuffer(srcValue),\n isTyped = !isArr && !isBuff && isTypedArray(srcValue);\n newValue = srcValue;\n\n if (isArr || isBuff || isTyped) {\n if (isArray(objValue)) {\n newValue = objValue;\n } else if (isArrayLikeObject(objValue)) {\n newValue = copyArray(objValue);\n } else if (isBuff) {\n isCommon = false;\n newValue = cloneBuffer(srcValue, true);\n } else if (isTyped) {\n isCommon = false;\n newValue = cloneTypedArray(srcValue, true);\n } else {\n newValue = [];\n }\n } else if (isPlainObject(srcValue) || isArguments(srcValue)) {\n newValue = objValue;\n\n if (isArguments(objValue)) {\n newValue = toPlainObject(objValue);\n } else if (!isObject(objValue) || isFunction(objValue)) {\n newValue = initCloneObject(srcValue);\n }\n } else {\n isCommon = false;\n }\n }\n\n if (isCommon) {\n // Recursively merge objects and arrays (susceptible to call stack limits).\n stack.set(srcValue, newValue);\n mergeFunc(newValue, srcValue, srcIndex, customizer, stack);\n stack['delete'](srcValue);\n }\n\n assignMergeValue(object, key, newValue);\n}\n\nexport default baseMergeDeep;","import Stack from './_Stack.js';\nimport assignMergeValue from './_assignMergeValue.js';\nimport baseFor from './_baseFor.js';\nimport baseMergeDeep from './_baseMergeDeep.js';\nimport isObject from './isObject.js';\nimport keysIn from './keysIn.js';\nimport safeGet from './_safeGet.js';\n/**\n * The base implementation of `_.merge` without support for multiple sources.\n *\n * @private\n * @param {Object} object The destination object.\n * @param {Object} source The source object.\n * @param {number} srcIndex The index of `source`.\n * @param {Function} [customizer] The function to customize merged values.\n * @param {Object} [stack] Tracks traversed source values and their merged\n * counterparts.\n */\n\nfunction baseMerge(object, source, srcIndex, customizer, stack) {\n if (object === source) {\n return;\n }\n\n baseFor(source, function (srcValue, key) {\n stack || (stack = new Stack());\n\n if (isObject(srcValue)) {\n baseMergeDeep(object, source, key, srcIndex, baseMerge, customizer, stack);\n } else {\n var newValue = customizer ? customizer(safeGet(object, key), srcValue, key + '', object, source, stack) : undefined;\n\n if (newValue === undefined) {\n newValue = srcValue;\n }\n\n assignMergeValue(object, key, newValue);\n }\n }, keysIn);\n}\n\nexport default baseMerge;","/**\n * A faster alternative to `Function#apply`, this function invokes `func`\n * with the `this` binding of `thisArg` and the arguments of `args`.\n *\n * @private\n * @param {Function} func The function to invoke.\n * @param {*} thisArg The `this` binding of `func`.\n * @param {Array} args The arguments to invoke `func` with.\n * @returns {*} Returns the result of `func`.\n */\nfunction apply(func, thisArg, args) {\n switch (args.length) {\n case 0:\n return func.call(thisArg);\n\n case 1:\n return func.call(thisArg, args[0]);\n\n case 2:\n return func.call(thisArg, args[0], args[1]);\n\n case 3:\n return func.call(thisArg, args[0], args[1], args[2]);\n }\n\n return func.apply(thisArg, args);\n}\n\nexport default apply;","import apply from './_apply.js';\n/* Built-in method references for those with the same name as other `lodash` methods. */\n\nvar nativeMax = Math.max;\n/**\n * A specialized version of `baseRest` which transforms the rest array.\n *\n * @private\n * @param {Function} func The function to apply a rest parameter to.\n * @param {number} [start=func.length-1] The start position of the rest parameter.\n * @param {Function} transform The rest array transform.\n * @returns {Function} Returns the new function.\n */\n\nfunction overRest(func, start, transform) {\n start = nativeMax(start === undefined ? func.length - 1 : start, 0);\n return function () {\n var args = arguments,\n index = -1,\n length = nativeMax(args.length - start, 0),\n array = Array(length);\n\n while (++index < length) {\n array[index] = args[start + index];\n }\n\n index = -1;\n var otherArgs = Array(start + 1);\n\n while (++index < start) {\n otherArgs[index] = args[index];\n }\n\n otherArgs[start] = transform(array);\n return apply(func, this, otherArgs);\n };\n}\n\nexport default overRest;","/**\n * Creates a function that returns `value`.\n *\n * @static\n * @memberOf _\n * @since 2.4.0\n * @category Util\n * @param {*} value The value to return from the new function.\n * @returns {Function} Returns the new constant function.\n * @example\n *\n * var objects = _.times(2, _.constant({ 'a': 1 }));\n *\n * console.log(objects);\n * // => [{ 'a': 1 }, { 'a': 1 }]\n *\n * console.log(objects[0] === objects[1]);\n * // => true\n */\nfunction constant(value) {\n return function () {\n return value;\n };\n}\n\nexport default constant;","import constant from './constant.js';\nimport defineProperty from './_defineProperty.js';\nimport identity from './identity.js';\n/**\n * The base implementation of `setToString` without support for hot loop shorting.\n *\n * @private\n * @param {Function} func The function to modify.\n * @param {Function} string The `toString` result.\n * @returns {Function} Returns `func`.\n */\n\nvar baseSetToString = !defineProperty ? identity : function (func, string) {\n return defineProperty(func, 'toString', {\n 'configurable': true,\n 'enumerable': false,\n 'value': constant(string),\n 'writable': true\n });\n};\nexport default baseSetToString;","/** Used to detect hot functions by number of calls within a span of milliseconds. */\nvar HOT_COUNT = 800,\n HOT_SPAN = 16;\n/* Built-in method references for those with the same name as other `lodash` methods. */\n\nvar nativeNow = Date.now;\n/**\n * Creates a function that'll short out and invoke `identity` instead\n * of `func` when it's called `HOT_COUNT` or more times in `HOT_SPAN`\n * milliseconds.\n *\n * @private\n * @param {Function} func The function to restrict.\n * @returns {Function} Returns the new shortable function.\n */\n\nfunction shortOut(func) {\n var count = 0,\n lastCalled = 0;\n return function () {\n var stamp = nativeNow(),\n remaining = HOT_SPAN - (stamp - lastCalled);\n lastCalled = stamp;\n\n if (remaining > 0) {\n if (++count >= HOT_COUNT) {\n return arguments[0];\n }\n } else {\n count = 0;\n }\n\n return func.apply(undefined, arguments);\n };\n}\n\nexport default shortOut;","import baseSetToString from './_baseSetToString.js';\nimport shortOut from './_shortOut.js';\n/**\n * Sets the `toString` method of `func` to return `string`.\n *\n * @private\n * @param {Function} func The function to modify.\n * @param {Function} string The `toString` result.\n * @returns {Function} Returns `func`.\n */\n\nvar setToString = shortOut(baseSetToString);\nexport default setToString;","import identity from './identity.js';\nimport overRest from './_overRest.js';\nimport setToString from './_setToString.js';\n/**\n * The base implementation of `_.rest` which doesn't validate or coerce arguments.\n *\n * @private\n * @param {Function} func The function to apply a rest parameter to.\n * @param {number} [start=func.length-1] The start position of the rest parameter.\n * @returns {Function} Returns the new function.\n */\n\nfunction baseRest(func, start) {\n return setToString(overRest(func, start, identity), func + '');\n}\n\nexport default baseRest;","import eq from './eq.js';\nimport isArrayLike from './isArrayLike.js';\nimport isIndex from './_isIndex.js';\nimport isObject from './isObject.js';\n/**\n * Checks if the given arguments are from an iteratee call.\n *\n * @private\n * @param {*} value The potential iteratee value argument.\n * @param {*} index The potential iteratee index or key argument.\n * @param {*} object The potential iteratee object argument.\n * @returns {boolean} Returns `true` if the arguments are from an iteratee call,\n * else `false`.\n */\n\nfunction isIterateeCall(value, index, object) {\n if (!isObject(object)) {\n return false;\n }\n\n var type = typeof index;\n\n if (type == 'number' ? isArrayLike(object) && isIndex(index, object.length) : type == 'string' && index in object) {\n return eq(object[index], value);\n }\n\n return false;\n}\n\nexport default isIterateeCall;","import baseRest from './_baseRest.js';\nimport isIterateeCall from './_isIterateeCall.js';\n/**\n * Creates a function like `_.assign`.\n *\n * @private\n * @param {Function} assigner The function to assign values.\n * @returns {Function} Returns the new assigner function.\n */\n\nfunction createAssigner(assigner) {\n return baseRest(function (object, sources) {\n var index = -1,\n length = sources.length,\n customizer = length > 1 ? sources[length - 1] : undefined,\n guard = length > 2 ? sources[2] : undefined;\n customizer = assigner.length > 3 && typeof customizer == 'function' ? (length--, customizer) : undefined;\n\n if (guard && isIterateeCall(sources[0], sources[1], guard)) {\n customizer = length < 3 ? undefined : customizer;\n length = 1;\n }\n\n object = Object(object);\n\n while

(++index < length) {\n   var source = sources[index];\n\n
      if (source) {\n   assigner(object, source, index, customizer);\n   }\n   }\n\n   return object;\n
});\n}\n\nexport default createAssigner;","import baseMerge from './_baseMerge.js';\nimport createAssigner from
'./_createAssigner.js';\n/**\n * This method is like `_.assign` except that it recursively merges own and\n * inherited
enumerable string keyed properties of source objects into the\n * destination object. Source properties that resolve to
`undefined` are\n * skipped if a destination value exists. Array and plain object properties\n * are merged
recursively. Other objects and value types are overridden by\n * assignment. Source objects are applied from left to
right. Subsequent\n * sources overwrite property assignments of previous sources.\n *\n * **Note:** This method
mutates `object`.\n *\n * @static\n * @memberOf _\n * @since 0.5.0\n * @category Object\n * @param {Object}
object The destination object.\n * @param {...Object} [sources] The source objects.\n
 * @returns {Object} Returns `object`.\n * @example\n *\n * var object = {\n *   'a': [{ 'b': 2 }, { 'd': 4 }]\n * };\n *\n
* var other = {\n *   'a': [{ 'c': 3 }, { 'e': 5 }]\n * };\n *\n * _.merge(object, other);\n * // => { 'a': [{ 'b': 2, 'c': 3 }, { 'd':
4, 'e': 5 }] }\n */\n\nvar merge = createAssigner(function (object, source, srcIndex) {\n baseMerge(object, source,
srcIndex);\n});\nexport default merge;","var _extends = Object.assign || function (target) {\n for (var i = 1; i <
arguments.length; i++) {\n   var source = arguments[i];\n\n   for (var key in source) {\n   if
(Object.prototype.hasOwnProperty.call(source, key)) {\n   target[key] = source[key];\n   }\n   }\n }\n\n return
target;\n};\n\nimport { ARRAY_INSERT, ARRAY_MOVE, ARRAY_POP, ARRAY_PUSH, ARRAY_REMOVE,
ARRAY_REMOVE_ALL, ARRAY_SHIFT, ARRAY_SPLICE, ARRAY_SWAP, ARRAY_UNSHIFT,
AUTOFILL, BLUR, CHANGE, CLEAR_SUBMIT, CLEAR_SUBMIT_ERRORS, CLEAR_ASYNC_ERROR,
DESTROY, FOCUS, INITIALIZE, REGISTER_FIELD, RESET,
 RESET_SECTION, CLEAR_FIELDS, SET_SUBMIT_FAILED, SET_SUBMIT_SUCCEEDED,
START_ASYNC_VALIDATION, START_SUBMIT, STOP_ASYNC_VALIDATION, STOP_SUBMIT,
SUBMIT, TOUCH, UNREGISTER_FIELD, UNTOUCH, UPDATE_SYNC_ERRORS,
UPDATE_SYNC_WARNINGS } from './actionTypes';\n\nvar arrayInsert = function arrayInsert(form, field, index,
value) {\n return {\n   type: ARRAY_INSERT,\n   meta: {\n   form: form,\n   field: field,\n   index: index\n
},\n   payload: value\n };\n};\n\nvar arrayMove = function arrayMove(form, field, from, to) {\n return {\n   type:
ARRAY_MOVE,\n   meta: {\n   form: form,\n   field: field,\n   from: from,\n   to: to\n   }\n };\n};\n\nvar
arrayPop = function arrayPop(form, field) {\n return {\n   type: ARRAY_POP,\n   meta: {\n   form: form,\n
field: field\n   }\n };\n};\n\nvar arrayPush = function arrayPush(form, field, value) {\n return {\n   type:
ARRAY_PUSH,\n   meta: {\n   form: form,\n   field: field\n   },\n   payload: value\n
  };\n};\n\nvar arrayRemove = function arrayRemove(form, field, index) {\n return {\n   type:
ARRAY_REMOVE,\n   meta: {\n   form: form,\n   field: field,\n   index: index\n   }\n };\n};\n\nvar
arrayRemoveAll = function arrayRemoveAll(form, field) {\n return {\n   type: ARRAY_REMOVE_ALL,\n
meta: {\n   form: form,\n   field: field\n   }\n };\n};\n\nvar arrayShift = function arrayShift(form, field) {\n
return {\n   type: ARRAY_SHIFT,\n   meta: {\n   form: form,\n   field: field\n   }\n };\n};\n\nvar arraySplice =
function arraySplice(form, field, index, removeNum, value) {\n var action = {\n   type: ARRAY_SPLICE,\n
meta: {\n   form: form,\n   field: field,\n   index: index,\n   removeNum: removeNum\n   }\n };\n\n if (value
!== undefined) {\n   action.payload = value;\n }\n\n return action;\n};\n\nvar arraySwap = function
arraySwap(form, field, indexA, indexB) {\n if (indexA === indexB) {\n   throw new Error('Swap indices
 cannot be equal');\n }\n\n if (indexA < 0 || indexB < 0) {\n   throw new Error('Swap indices cannot be negative');\n
}\n\n return {\n   type: ARRAY_SWAP,\n   meta: {\n   form: form,\n   field: field,\n   indexA: indexA,\n
indexB: indexB\n   }\n };\n};\n\nvar arrayUnshift = function arrayUnshift(form, field, value) {\n return {\n   type:
ARRAY_UNSHIFT,\n   meta: {\n   form: form,\n   field: field\n   },\n   payload: value\n };\n};\n\nvar autofill
= function autofill(form, field, value) {\n return {\n   type: AUTOFILL,\n   meta: {\n   form: form,\n   field:
field\n   },\n   payload: value\n };\n};\n\nvar blur = function blur(form, field, value, touch) {\n return {\n   type:
BLUR,\n   meta: {\n   form: form,\n   field: field,\n   touch: touch\n   },\n   payload: value\n };\n};\n\nvar
change = function change(form, field, value, touch, persistentSubmitErrors) {\n return {\n   type: CHANGE,\n
meta: {\n   form: form,\n

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  field: field,\n      touch: touch,\n      persistentSubmitErrors: persistentSubmitErrors\n    },\n    payload: value\n
};\n};\n\nvar clearSubmit = function clearSubmit(form) {\n  return {\n    type: CLEAR_SUBMIT,\n    meta: {\n
form: form\n    }\n  };\n};\n\nvar clearSubmitErrors = function clearSubmitErrors(form) {\n  return {\n    type:
CLEAR_SUBMIT_ERRORS,\n    meta: {\n      form: form\n    }\n  };\n};\n\nvar clearAsyncError = function
clearAsyncError(form, field) {\n  return {\n    type: CLEAR_ASYNC_ERROR,\n    meta: {\n      form: form,\n
field: field\n    }\n  };\n};\n\nvar clearFields = function clearFields(form, keepTouched, persistentSubmitErrors) {\n
for (var _len = arguments.length, fields = Array(_len > 3 ? _len - 3 : 0), _key = 3; _key < _len; _key++) {\n
fields[_key - 3] = arguments[_key];\n  }\n\n  return {\n    type: CLEAR_FIELDS,\n    meta: {\n      form: form,\n
keepTouched: keepTouched,\n      persistentSubmitErrors: persistentSubmitErrors,\n
     fields: fields\n    }\n  };\n};\n\nvar destroy = function destroy() {\n  for (var _len2 = arguments.length, form =
Array(_len2), _key2 = 0; _key2 < _len2; _key2++) {\n    form[_key2] = arguments[_key2];\n  }\n\n  return {\n
type: DESTROY,\n    meta: {\n      form: form\n    }\n  };\n};\n\nvar focus = function focus(form, field) {\n  return
{\n    type: FOCUS,\n    meta: {\n      form: form,\n      field: field\n    }\n  };\n};\n\nvar initialize = function
initialize(form, values, keepDirty) {\n  var otherMeta = arguments.length > 3 && arguments[3] !== undefined ?
arguments[3] : {};\n\n  if (keepDirty instanceof Object) {\n    otherMeta = keepDirty;\n    keepDirty = false;\n  }\n\n
return {\n    type: INITIALIZE,\n    meta: _extends({\n      form: form,\n      keepDirty: keepDirty\n    },
otherMeta),\n    payload: values\n  };\n};\n\nvar registerField = function registerField(form, name, type) {\n  return
{\n    type: REGISTER_FIELD,\n    meta: {\n      form: form\n    },\n
 payload: {\n      name: name,\n      type: type\n    }\n  };\n};\n\nvar reset = function reset(form) {\n  return {\n
type: RESET,\n    meta: {\n      form: form\n    }\n  };\n};\n\nvar resetSection = function resetSection(form) {\n  for
(var _len3 = arguments.length, sections = Array(_len3 > 1 ? _len3 - 1 : 0), _key3 = 1; _key3 < _len3; _key3++) {\n
sections[_key3 - 1] = arguments[_key3];\n  }\n\n  return {\n    type: RESET_SECTION,\n    meta: {\n      form:
form,\n      sections: sections\n    }\n  };\n};\n\nvar startAsyncValidation = function startAsyncValidation(form,
field) {\n  return {\n    type: START_ASYNC_VALIDATION,\n    meta: {\n      form: form,\n      field: field\n    }\n
};\n};\n\nvar startSubmit = function startSubmit(form) {\n  return {\n    type: START_SUBMIT,\n    meta: {\n
form: form\n    }\n  };\n};\n\nvar stopAsyncValidation = function stopAsyncValidation(form, errors) {\n  return {\n
type: STOP_ASYNC_VALIDATION,\n    meta: {\n      form: form\n
 },\n    payload: errors,\n    error: !!(errors && Object.keys(errors).length)\n  };\n};\n\nvar stopSubmit = function
stopSubmit(form, errors) {\n  return {\n    type: STOP_SUBMIT,\n    meta: {\n      form: form\n    },\n    payload:
errors,\n    error: !!(errors && Object.keys(errors).length)\n  };\n};\n\nvar submit = function submit(form) {\n
return {\n    type: SUBMIT,\n    meta: {\n      form: form\n    }\n  };\n};\n\nvar setSubmitFailed = function
setSubmitFailed(form) {\n  for (var _len4 = arguments.length, fields = Array(_len4 > 1 ? _len4 - 1 : 0), _key4 = 1;
_key4 < _len4; _key4++) {\n    fields[_key4 - 1] = arguments[_key4];\n  }\n\n  return {\n    type:
SET_SUBMIT_FAILED,\n    meta: {\n      form: form,\n      fields: fields\n    },\n    error: true\n  };\n};\n\nvar
setSubmitSucceeded = function setSubmitSucceeded(form) {\n  for (var _len5 = arguments.length, fields =
Array(_len5 > 1 ? _len5 - 1 : 0), _key5 = 1; _key5 < _len5; _key5++) {\n    fields[_key5 - 1] = arguments[_key5];\n
  }\n\n  return {\n    type: SET_SUBMIT_SUCCEEDED,\n    meta: {\n      form: form,\n      fields: fields\n    },\n
error: false\n  };\n};\n\nvar touch = function touch(form) {\n  for (var _len6 = arguments.length, fields =
Array(_len6 > 1 ? _len6 - 1 : 0), _key6 = 1; _key6 < _len6; _key6++) {\n    fields[_key6 - 1] = arguments[_key6];\n
}\n\n  return {\n    type: TOUCH,\n    meta: {\n      form: form,\n      fields: fields\n    }\n  };\n};\n\nvar
unregisterField = function unregisterField(form, name) {\n  var destroyOnUnmount = arguments.length > 2 &&
arguments[2] !== undefined ? arguments[2] : true;\n  return {\n    type: UNREGISTER_FIELD,\n    meta: {\n
form: form\n    },\n    payload: {\n      name: name,\n      destroyOnUnmount: destroyOnUnmount\n    }\n
};\n};\n\nvar untouch = function untouch(form) {\n  for (var _len7 = arguments.length, fields = Array(_len7 > 1 ?
_len7 - 1 : 0), _key7 = 1; _key7 < _len7; _key7++) {\n    fields[_key7 - 1] = arguments[_key7];\n  }\n\n
  return {\n    type: UNTOUCH,\n    meta: {\n      form: form,\n      fields: fields\n    }\n  };\n};\n\nvar
updateSyncErrors = function updateSyncErrors(form) {\n  var syncErrors = arguments.length > 1 && arguments[1]
!== undefined ? arguments[1] : {};\n  var error = arguments[2];\n  return {\n    type: UPDATE_SYNC_ERRORS,\n
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 meta: {\n      form: form\n    },\n    payload: {\n      syncErrors: syncErrors,\n      error: error\n    }\n  };\n};\n\nvar
updateSyncWarnings = function updateSyncWarnings(form) {\n  var syncWarnings = arguments.length > 1 &&
arguments[1] !== undefined ? arguments[1] : {};\n  var warning = arguments[2];\n  return {\n    type:
UPDATE_SYNC_WARNINGS,\n    meta: {\n      form: form\n    },\n    payload: {\n      syncWarnings:
syncWarnings,\n      warning: warning\n    }\n  };\n};\n\nvar actions = {\n  arrayInsert: arrayInsert,\n  arrayMove:
arrayMove,\n  arrayPop: arrayPop,\n  arrayPush: arrayPush,\n  arrayRemove: arrayRemove,\n  arrayRemoveAll:
arrayRemoveAll,\n
  arrayShift: arrayShift,\n  arraySplice: arraySplice,\n  arraySwap: arraySwap,\n  arrayUnshift: arrayUnshift,\n
autofill: autofill,\n  blur: blur,\n  change: change,\n  clearFields: clearFields,\n  clearSubmit: clearSubmit,\n
clearSubmitErrors: clearSubmitErrors,\n  clearAsyncError: clearAsyncError,\n  destroy: destroy,\n  focus: focus,\n
initialize: initialize,\n  registerField: registerField,\n  reset: reset,\n  resetSection: resetSection,\n
startAsyncValidation: startAsyncValidation,\n  startSubmit: startSubmit,\n  stopAsyncValidation:
stopAsyncValidation,\n  stopSubmit: stopSubmit,\n  submit: submit,\n  setSubmitFailed: setSubmitFailed,\n
setSubmitSucceeded: setSubmitSucceeded,\n  touch: touch,\n  unregisterField: unregisterField,\n  untouch:
untouch,\n  updateSyncErrors: updateSyncErrors,\n  updateSyncWarnings: updateSyncWarnings\n};\nexport default
actions;","import isPromise from 'is-promise';\n\nvar asyncValidation = function asyncValidation(fn, start, stop,
field) {\n
  start(field);\n  var promise = fn();\n\n  if (!isPromise(promise)) {\n    throw new Error('asyncValidate function
passed to reduxForm must return a promise');\n  }\n\n  var handleErrors = function handleErrors(rejected) {\n
return function (errors) {\n      if (rejected) {\n        if (errors && Object.keys(errors).length) {\n          stop(errors);\n
        return errors;\n        } else {\n          stop();\n          throw new Error('Asynchronous validation promise was
rejected without errors.');\n        }\n      }\n\n      stop();\n      return Promise.resolve();\n    };\n  };\n\n  return
promise.then(handleErrors(false), handleErrors(true));\n};\n\nexport default asyncValidation;","var
defaultShouldAsyncValidate = function defaultShouldAsyncValidate(_ref) {\n  var initialized = _ref.initialized,\n
trigger = _ref.trigger,\n      pristine = _ref.pristine,\n      syncValidationPasses = _ref.syncValidationPasses;\n\n  if
(!syncValidationPasses) {\n    return false;\n  }\n\n
  switch (trigger) {\n    case 'blur':\n    case 'change':\n      // blurring\n      return true;\n\n    case 'submit':\n      //
submitting, so only async validate if form is dirty or was never initialized\n      // conversely, DON'T async validate
if the form is pristine just as it was initialized\n      return !pristine || !initialized;\n\n    default:\n      return false;\n
}\n};\n\nexport default defaultShouldAsyncValidate;","var defaultShouldValidate = function
defaultShouldValidate(_ref) {\n  var values = _ref.values,\n      nextProps = _ref.nextProps,\n      initialRender =
_ref.initialRender,\n      lastFieldValidatorKeys = _ref.lastFieldValidatorKeys,\n      fieldValidatorKeys =
_ref.fieldValidatorKeys,\n      structure = _ref.structure;\n\n  if (initialRender) {\n    return true;\n  }\n\n  return
!structure.deepEqual(values, nextProps && nextProps.values) || !structure.deepEqual(lastFieldValidatorKeys,
fieldValidatorKeys);\n};\n\nexport default defaultShouldValidate;","var
 defaultShouldError = function defaultShouldError(_ref) {\n  var values = _ref.values,\n      nextProps =
_ref.nextProps,\n      initialRender = _ref.initialRender,\n      lastFieldValidatorKeys = _ref.lastFieldValidatorKeys,\n
    fieldValidatorKeys = _ref.fieldValidatorKeys,\n      structure = _ref.structure;\n\n  if (initialRender) {\n    return
true;\n  }\n\n  return !structure.deepEqual(values, nextProps && nextProps.values) ||
!structure.deepEqual(lastFieldValidatorKeys, fieldValidatorKeys);\n};\n\nexport default defaultShouldError;","var
defaultShouldWarn = function defaultShouldWarn(_ref) {\n  var values = _ref.values,\n      nextProps =
_ref.nextProps,\n      initialRender = _ref.initialRender,\n      lastFieldValidatorKeys = _ref.lastFieldValidatorKeys,\n
    fieldValidatorKeys = _ref.fieldValidatorKeys,\n      structure = _ref.structure;\n\n  if (initialRender) {\n    return
true;\n  }\n\n  return !structure.deepEqual(values, nextProps && nextProps.values) ||
!structure.deepEqual(lastFieldValidatorKeys,
 fieldValidatorKeys);\n};\n\nexport default defaultShouldWarn;","import isEvent from './isEvent';\n\nvar
silenceEvent = function silenceEvent(event) {\n  var is = isEvent(event);\n\n  if (is) {\n    event.preventDefault();\n
}\n\n  return is;\n};\n\nexport default silenceEvent;","import silenceEvent from './silenceEvent';\n\nvar
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silenceEvents = function silenceEvents(fn) {\n  return function (event) {\n    for (var _len = arguments.length, args =
Array(_len > 1 ? _len - 1 : 0), _key = 1; _key < _len; _key++) {\n      args[_key - 1] = arguments[_key];\n    }\n\n
return silenceEvent(event) ? fn.apply(undefined, args) : fn.apply(undefined, [event].concat(args));\n
};\n};\n\nexport default silenceEvents;","import plain from './structure/plain';\n\nvar toArray = function
toArray(value) {\n  return Array.isArray(value) ? value : [value];\n};\n\nvar getError = function getError(value,
values, props, validators, name) {\n  var array = toArray(validators);\n\n
  for (var i = 0; i < array.length; i++) {\n    var error = array[i](value, values, props, name);\n\n    if (error) {\n
return error;\n    }\n  }\n};\n\nvar generateValidator = function generateValidator(validators, _ref) {\n  var getIn =
_ref.getIn;\n  return function (values, props) {\n    var errors = {};\n    Object.keys(validators).forEach(function
(name) {\n      var value = getIn(values, name);\n      var error = getError(value, values, props, validators[name],
name);\n\n      if (error) {\n        errors = plain.setIn(errors, name, error);\n      }\n    });\n    return errors;\n
};\n};\n\nexport default generateValidator;","function _classCallCheck(instance, Constructor) {\n  if (!(instance
instanceof Constructor)) {\n    throw new TypeError(\"Cannot call a class as a function\");\n  }\n}\n\nfunction
_possibleConstructorReturn(self, call) {\n  if (!self) {\n    throw new ReferenceError(\"this hasn't been initialised -
super() hasn't been called\");\n  }\n\n  return call
 && (typeof call === \"object\" || typeof call === \"function\") ? call : self;\n}\n\nfunction _inherits(subClass,
superClass) {\n  if (typeof superClass !== \"function\" && superClass !== null) {\n    throw new TypeError(\"Super
expression must either be null or a function, not \" + typeof superClass);\n  }\n\n  subClass.prototype =
Object.create(superClass && superClass.prototype, {\n    constructor: {\n      value: subClass,\n      enumerable:
false,\n      writable: true,\n      configurable: true\n    }\n  });\n  if (superClass) Object.setPrototypeOf ?
Object.setPrototypeOf(subClass, superClass) : subClass.__proto__ = superClass;\n}\n\nfunction
_extendableBuiltin(cls) {\n  function ExtendableBuiltin() {\n    cls.apply(this, arguments);\n  }\n\n
ExtendableBuiltin.prototype = Object.create(cls.prototype, {\n    constructor: {\n      value: cls,\n      enumerable:
false,\n      writable: true,\n      configurable: true\n    }\n  });\n\n  if (Object.setPrototypeOf) {\n
Object.setPrototypeOf(ExtendableBuiltin,
 cls);\n  } else {\n    ExtendableBuiltin.__proto__ = cls;\n  }\n\n  return ExtendableBuiltin;\n}\n\nvar
ExtendableError = function (_extendableBuiltin2) {\n  _inherits(ExtendableError, _extendableBuiltin2);\n\n
function ExtendableError() {\n    var message = arguments.length > 0 && arguments[0] !== undefined ?
arguments[0] : '';\n\n    _classCallCheck(this, ExtendableError); // extending Error is weird and does not propagate
`message`\n\n\n    var _this = _possibleConstructorReturn(this, (ExtendableError.__proto__ ||
Object.getPrototypeOf(ExtendableError)).call(this, message));\n\n    Object.defineProperty(_this, 'message', {\n
configurable: true,\n      enumerable: false,\n      value: message,\n      writable: true\n    });\n
Object.defineProperty(_this, 'name', {\n      configurable: true,\n      enumerable: false,\n      value:
_this.constructor.name,\n      writable: true\n    });\n\n    if (Error.hasOwnProperty('captureStackTrace')) {\n
  Error.captureStackTrace(_this, _this.constructor);\n      return _possibleConstructorReturn(_this);\n    }\n\n
Object.defineProperty(_this, 'stack', {\n      configurable: true,\n      enumerable: false,\n      value: new
Error(message).stack,\n      writable: true\n    });\n    return _this;\n  }\n\n  return
ExtendableError;\n}(_extendableBuiltin(Error));\n\nexport default ExtendableError;","function
_classCallCheck(instance, Constructor) {\n  if (!(instance instanceof Constructor)) {\n    throw new
TypeError(\"Cannot call a class as a function\");\n  }\n}\n\nfunction _possibleConstructorReturn(self, call) {\n  if
(!self) {\n    throw new ReferenceError(\"this hasn't been initialised - super() hasn't been called\");\n  }\n\n  return
call && (typeof call === \"object\" || typeof call === \"function\") ? call : self;\n}\n\nfunction _inherits(subClass,
superClass) {\n  if (typeof superClass !== \"function\" && superClass !== null) {\n    throw new TypeError(\"Super
expression must either
 be null or a function, not \" + typeof superClass);\n  }\n\n  subClass.prototype = Object.create(superClass &&
superClass.prototype, {\n    constructor: {\n      value: subClass,\n      enumerable: false,\n      writable: true,\n
configurable: true\n    }\n  });\n  if (superClass) Object.setPrototypeOf ? Object.setPrototypeOf(subClass,
superClass) : subClass.__proto__ = superClass;\n}\n\nimport ExtendableError from 'es6-error';\n\nvar
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SubmissionError = function (_ExtendableError) {\n  _inherits(SubmissionError, _ExtendableError);\n\n  function
SubmissionError(errors) {\n    _classCallCheck(this, SubmissionError);\n\n    var _this =
_possibleConstructorReturn(this, (SubmissionError.__proto__ || Object.getPrototypeOf(SubmissionError)).call(this,
'Submit Validation Failed'));\n\n    _this.errors = errors;\n    return _this;\n  }\n\n  return
SubmissionError;\n}(ExtendableError);\n\nexport default SubmissionError;","var _extends = Object.assign ||
function (target) {\n  for (var i
 = 1; i < arguments.length; i++) {\n    var source = arguments[i];\n\n    for (var key in source) {\n      if
(Object.prototype.hasOwnProperty.call(source, key)) {\n        target[key] = source[key];\n      }\n    }\n  }\n\n  return
target;\n};\n\nfunction _toConsumableArray(arr) {\n  if (Array.isArray(arr)) {\n    for (var i = 0, arr2 =
Array(arr.length); i < arr.length; i++) {\n      arr2[i] = arr[i];\n    }\n\n    return arr2;\n  } else {\n    return
Array.from(arr);\n  }\n}\n\nimport isPromise from 'is-promise';\nimport SubmissionError from
'./SubmissionError';\n\nvar handleSubmit = function handleSubmit(submit, props, valid, asyncValidate, fields) {\n
var dispatch = props.dispatch,\n      onSubmitFail = props.onSubmitFail,\n      onSubmitSuccess =
props.onSubmitSuccess,\n      startSubmit = props.startSubmit,\n      stopSubmit = props.stopSubmit,\n
setSubmitFailed = props.setSubmitFailed,\n      setSubmitSucceeded = props.setSubmitSucceeded,\n      syncErrors
= props.syncErrors,\n
      asyncErrors = props.asyncErrors,\n      touch = props.touch,\n      values = props.values,\n
persistentSubmitErrors = props.persistentSubmitErrors;\n  touch.apply(undefined, _toConsumableArray(fields)); //
mark all fields as touched\n\n  if (valid || persistentSubmitErrors) {\n    var doSubmit = function doSubmit() {\n
var result = void 0;\n\n      try {\n        result = submit(values, dispatch, props);\n      } catch (submitError) {\n
var error = submitError instanceof SubmissionError ? submitError.errors : undefined;\n        stopSubmit(error);\n
setSubmitFailed.apply(undefined, _toConsumableArray(fields));\n\n        if (onSubmitFail) {\n
onSubmitFail(error, dispatch, submitError, props);\n        }\n\n        if (error || onSubmitFail) {\n          // if you've
provided an onSubmitFail callback, don't re-throw the error\n          return error;\n        } else {\n          throw
submitError;\n        }\n      }\n\n      if (isPromise(result))
 {\n        startSubmit();\n        return result.then(function (submitResult) {\n          stopSubmit();\n
setSubmitSucceeded();\n\n          if (onSubmitSuccess) {\n            onSubmitSuccess(submitResult, dispatch,
props);\n          }\n\n          return submitResult;\n        }, function (submitError) {\n          var error = submitError
instanceof SubmissionError ? submitError.errors : undefined;\n          stopSubmit(error);\n
setSubmitFailed.apply(undefined, _toConsumableArray(fields));\n\n          if (onSubmitFail) {\n
onSubmitFail(error, dispatch, submitError, props);\n          }\n\n          if (error || onSubmitFail) {\n            // if you've
provided an onSubmitFail callback, don't re-throw the error\n            return error;\n          } else {\n            throw
submitError;\n          }\n        });\n      } else {\n        setSubmitSucceeded();\n\n        if (onSubmitSuccess) {\n
onSubmitSuccess(result, dispatch, props);\n
        }\n      }\n\n      return result;\n    };\n\n    var asyncValidateResult = asyncValidate && asyncValidate();\n\n
if (asyncValidateResult) {\n      return asyncValidateResult.then(function (asyncErrors) {\n        if (asyncErrors) {\n
      throw asyncErrors;\n        }\n\n        return doSubmit();\n      }).catch(function (asyncErrors) {\n
setSubmitFailed.apply(undefined, _toConsumableArray(fields));\n\n        if (onSubmitFail) {\n
onSubmitFail(asyncErrors, dispatch, null, props);\n        }\n\n        return Promise.reject(asyncErrors);\n      });\n    }
else {\n      return doSubmit();\n    }\n  } else {\n    setSubmitFailed.apply(undefined,
_toConsumableArray(fields));\n\n    var errors = _extends({}, asyncErrors, syncErrors);\n\n    if (onSubmitFail) {\n
  onSubmitFail(errors, dispatch, null, props);\n    }\n\n    return errors;\n  }\n};\n\nexport default handleSubmit;","var
getErrorKeys = function getErrorKeys(name, type) {\n  switch (type) {\n
    case 'Field':\n      return [name, name + '._error'];\n\n    case 'FieldArray':\n      return [name + '._error'];\n\n
default:\n      throw new Error('Unknown field type');\n  }\n};\n\nvar createHasError = function createHasError(_ref)
{\n  var getIn = _ref.getIn;\n\n  var hasError = function hasError(field, syncErrors, asyncErrors, submitErrors) {\n
if (!syncErrors && !asyncErrors && !submitErrors) {\n      return false;\n    }\n\n    var name = getIn(field,
'name');\n    var type = getIn(field, 'type');\n    return getErrorKeys(name, type).some(function (key) {\n      return
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getIn(syncErrors, key) || getIn(asyncErrors, key) || getIn(submitErrors, key);\n    });\n  };\n\n  return
hasError;\n};\n\nexport default createHasError;","import createHasError from '../hasError';\n\nvar createIsValid =
function createIsValid(structure) {\n  var getIn = structure.getIn,\n      keys = structure.keys;\n  var hasError =
createHasError(structure);\n  return function (form, getFormState)
 {\n    var ignoreSubmitErrors = arguments.length > 2 && arguments[2] !== undefined ? arguments[2] : false;\n
return function (state) {\n      var nonNullGetFormState = getFormState || function (state) {\n        return getIn(state,
'form');\n      };\n\n      var formState = nonNullGetFormState(state);\n      var syncError = getIn(formState, form +
'.syncError');\n\n      if (syncError) {\n        return false;\n      }\n\n      if (!ignoreSubmitErrors) {\n        var error =
getIn(formState, form + '.error');\n\n        if (error) {\n          return false;\n        }\n      }\n\n      var syncErrors =
getIn(formState, form + '.syncErrors');\n      var asyncErrors = getIn(formState, form + '.asyncErrors');\n      var
submitErrors = ignoreSubmitErrors ? undefined : getIn(formState, form + '.submitErrors');\n\n      if (!syncErrors
&& !asyncErrors && !submitErrors) {\n        return true;\n      }\n\n      var registeredFields = getIn(formState, form
+ '.registeredFields');\n\n
 if (!registeredFields) {\n        return true;\n      }\n\n      return !keys(registeredFields).filter(function (name) {\n
return getIn(registeredFields, '[\\'' + name + '\\'].count') > 0;\n      }).some(function (name) {\n        return
hasError(getIn(registeredFields, '[\\'' + name + '\\']'), syncErrors, asyncErrors, submitErrors);\n      });\n    };\n
};\n};\n\nexport default createIsValid;","var getDisplayName = function getDisplayName(Comp) {\n  return
Comp.displayName || Comp.name || 'Component';\n};\n\nexport default getDisplayName;","import _merge from
'lodash-es/merge';\nimport _mapValues from 'lodash-es/mapValues';\n\nvar _createClass = function () {\n  function
defineProperties(target, props) {\n    for (var i = 0; i < props.length; i++) {\n      var descriptor = props[i];\n
descriptor.enumerable = descriptor.enumerable || false;\n      descriptor.configurable = true;\n      if (\"value\" in
descriptor) descriptor.writable = true;\n      Object.defineProperty(target,
 descriptor.key, descriptor);\n    }\n  }\n\n  return function (Constructor, protoProps, staticProps) {\n    if
(protoProps) defineProperties(Constructor.prototype, protoProps);\n    if (staticProps) defineProperties(Constructor,
staticProps);\n    return Constructor;\n  };\n}();\n\nvar _extends = Object.assign || function (target) {\n  for (var i = 1;
i < arguments.length; i++) {\n    var source = arguments[i];\n\n    for (var key in source) {\n      if
(Object.prototype.hasOwnProperty.call(source, key)) {\n        target[key] = source[key];\n      }\n    }\n  }\n\n  return
target;\n};\n\nvar _typeof = typeof Symbol === \"function\" && typeof Symbol.iterator === \"symbol\" ? function
(obj) {\n  return typeof obj;\n} : function (obj) {\n  return obj && typeof Symbol === \"function\" &&
obj.constructor === Symbol && obj !== Symbol.prototype ? \"symbol\" : typeof obj;\n};\n\nfunction
_defineProperty(obj, key, value) {\n  if (key in obj) {\n    Object.defineProperty(obj, key, {\n
   value: value,\n      enumerable: true,\n      configurable: true,\n      writable: true\n    });\n  } else {\n    obj[key] =
value;\n  }\n\n  return obj;\n}\n\nfunction _classCallCheck(instance, Constructor) {\n  if (!(instance instanceof
Constructor)) {\n    throw new TypeError(\"Cannot call a class as a function\");\n  }\n}\n\nfunction
_possibleConstructorReturn(self, call) {\n  if (!self) {\n    throw new ReferenceError(\"this hasn't been initialised -
super() hasn't been called\");\n  }\n\n  return call && (typeof call === \"object\" || typeof call === \"function\") ? call
: self;\n}\n\nfunction _inherits(subClass, superClass) {\n  if (typeof superClass !== \"function\" && superClass !==
null) {\n    throw new TypeError(\"Super expression must either be null or a function, not \" + typeof superClass);\n
}\n\n  subClass.prototype = Object.create(superClass && superClass.prototype, {\n    constructor: {\n      value:
subClass,\n      enumerable: false,\n      writable: true,\n
   configurable: true\n    }\n  });\n  if (superClass) Object.setPrototypeOf ? Object.setPrototypeOf(subClass,
superClass) : subClass.__proto__ = superClass;\n}\n\nfunction _toConsumableArray(arr) {\n  if (Array.isArray(arr))
{\n    for (var i = 0, arr2 = Array(arr.length); i < arr.length; i++) {\n      arr2[i] = arr[i];\n    }\n\n    return arr2;\n  }
else {\n    return Array.from(arr);\n  }\n}\n\nfunction _objectWithoutProperties(obj, keys) {\n  var target = {};\n\n
for (var i in obj) {\n    if (keys.indexOf(i) >= 0) continue;\n    if (!Object.prototype.hasOwnProperty.call(obj, i))
continue;\n    target[i] = obj[i];\n  }\n\n  return target;\n}\n\nimport * as React from 'react';\nimport { polyfill } from
'react-lifecycles-compat';\nimport hoistStatics from 'hoist-non-react-statics';\nimport invariant from
'invariant';\nimport isPromise from 'is-promise';\nimport PropTypes from 'prop-types';\nimport { Component,
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createElement } from 'react';\nimport { connect } from 'react-redux';\nimport
 { bindActionCreators } from 'redux';\nimport importedActions from './actions';\nimport asyncValidation from
'./asyncValidation';\nimport defaultShouldAsyncValidate from './defaultShouldAsyncValidate';\nimport
defaultShouldValidate from './defaultShouldValidate';\nimport defaultShouldError from
'./defaultShouldError';\nimport defaultShouldWarn from './defaultShouldWarn';\nimport silenceEvent from
'./events/silenceEvent';\nimport silenceEvents from './events/silenceEvents';\nimport generateValidator from
'./generateValidator';\nimport handleSubmit from './handleSubmit';\nimport createIsValid from
'./selectors/isValid';\nimport plain from './structure/plain';\nimport getDisplayName from
'./util/getDisplayName';\nimport isHotReloading from './util/isHotReloading';\n\nvar isClassComponent = function
isClassComponent(Component) {\n  return Boolean(Component && Component.prototype &&
_typeof(Component.prototype.isReactComponent) === 'object');\n}; // extract field-specific actions\n\n\nvar
 arrayInsert = importedActions.arrayInsert,\n    arrayMove = importedActions.arrayMove,\n    arrayPop =
importedActions.arrayPop,\n    arrayPush = importedActions.arrayPush,\n    arrayRemove =
importedActions.arrayRemove,\n    arrayRemoveAll = importedActions.arrayRemoveAll,\n    arrayShift =
importedActions.arrayShift,\n    arraySplice = importedActions.arraySplice,\n    arraySwap =
importedActions.arraySwap,\n    arrayUnshift = importedActions.arrayUnshift,\n    blur = importedActions.blur,\n
change = importedActions.change,\n    focus = importedActions.focus,\n    formActions =
_objectWithoutProperties(importedActions, ['arrayInsert', 'arrayMove', 'arrayPop', 'arrayPush', 'arrayRemove',
'arrayRemoveAll', 'arrayShift', 'arraySplice', 'arraySwap', 'arrayUnshift', 'blur', 'change', 'focus']);\n\nvar arrayActions
= {\n  arrayInsert: arrayInsert,\n  arrayMove: arrayMove,\n  arrayPop: arrayPop,\n  arrayPush: arrayPush,\n
arrayRemove: arrayRemove,\n  arrayRemoveAll: arrayRemoveAll,\n
  arrayShift: arrayShift,\n  arraySplice: arraySplice,\n  arraySwap: arraySwap,\n  arrayUnshift: arrayUnshift\n};\nvar
propsToNotUpdateFor = [].concat(_toConsumableArray(Object.keys(importedActions)), ['array', 'asyncErrors',
'initialValues', 'syncErrors', 'syncWarnings', 'values', 'registeredFields']);\n\nvar checkSubmit = function
checkSubmit(submit) {\n  if (!submit || typeof submit !== 'function') {\n    throw new Error('You must either pass
handleSubmit() an onSubmit function or pass onSubmit as a prop');\n  }\n\n  return submit;\n};\n/**\n * The
decorator that is the main API to redux-form\n */\n\n\nvar createReduxForm = function createReduxForm(structure)
{\n  var deepEqual = structure.deepEqual,\n      empty = structure.empty,\n      getIn = structure.getIn,\n      setIn =
structure.setIn,\n      keys = structure.keys,\n      fromJS = structure.fromJS;\n  var isValid =
createIsValid(structure);\n  return function (initialConfig) {\n    var config = _extends({\n      touchOnBlur:
 true,\n      touchOnChange: false,\n      persistentSubmitErrors: false,\n      destroyOnUnmount: true,\n
shouldAsyncValidate: defaultShouldAsyncValidate,\n      shouldValidate: defaultShouldValidate,\n      shouldError:
defaultShouldError,\n      shouldWarn: defaultShouldWarn,\n      enableReinitialize: false,\n
keepDirtyOnReinitialize: false,\n      updateUnregisteredFields: false,\n      getFormState: function
getFormState(state) {\n        return getIn(state, 'form');\n      },\n      pure: true,\n      forceUnregisterOnUnmount:
false\n    }, initialConfig);\n\n    return function (WrappedComponent) {\n      var Form = function (_Component)
{\n        _inherits(Form, _Component);\n\n        function Form() {\n          var _ref;\n\n          var _temp, _this,
_ret;\n\n          _classCallCheck(this, Form);\n\n          for (var _len = arguments.length, args = Array(_len), _key =
0; _key < _len; _key++) {\n            args[_key] = arguments[_key];\n          }\n\n
   return _ret = (_temp = (_this = _possibleConstructorReturn(this, (_ref = Form.__proto__ ||
Object.getPrototypeOf(Form)).call.apply(_ref, [this].concat(args))), _this), _this.destroyed = false, _this.fieldCounts
= {}, _this.fieldValidators = {}, _this.lastFieldValidatorKeys = [], _this.fieldWarners = {},
_this.lastFieldWarnerKeys = [], _this.innerOnSubmit = undefined, _this.submitPromise = undefined,
_this.getValues = function () {\n            return _this.props.values;\n          }, _this.isValid = function () {\n
return _this.props.valid;\n          }, _this.isPristine = function () {\n            return _this.props.pristine;\n          },
_this.register = function (name, type, getValidator, getWarner) {\n            var lastCount = _this.fieldCounts[name];\n
         var nextCount = (lastCount || 0) + 1;\n            _this.fieldCounts[name] = nextCount;\n\n
_this.props.registerField(name, type);\n\n            if (getValidator) {\n              _this.fieldValidators[name]
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 = getValidator;\n            }\n\n            if (getWarner) {\n              _this.fieldWarners[name] = getWarner;\n            }\n
        }, _this.unregister = function (name) {\n            var lastCount = _this.fieldCounts[name];\n            if (lastCount
=== 1) delete _this.fieldCounts[name];else if (lastCount != null) _this.fieldCounts[name] = lastCount - 1;\n\n
if (!_this.destroyed) {\n              var _this$props = _this.props,\n                  _destroyOnUnmount =
_this$props.destroyOnUnmount,\n                  _forceUnregisterOnUnmount =
_this$props.forceUnregisterOnUnmount,\n                  _unregisterField = _this$props.unregisterField;\n\n              if
(_destroyOnUnmount || _forceUnregisterOnUnmount) {\n                _unregisterField(name,
_destroyOnUnmount);\n\n                if (!_this.fieldCounts[name]) {\n                  delete
_this.fieldValidators[name];\n                  delete _this.fieldWarners[name];\n
 _this.lastFieldValidatorKeys = _this.lastFieldValidatorKeys.filter(function (key) {\n                    return key !==
name;\n                  });\n                }\n              } else {\n                _unregisterField(name, false);\n              }\n
}\n          }, _this.getFieldList = function (options) {\n            var registeredFields = _this.props.registeredFields;\n
      var list = [];\n\n            if (!registeredFields) {\n              return list;\n            }\n\n            var keySeq =
keys(registeredFields);\n\n            if (options && options.excludeFieldArray) {\n              keySeq =
keySeq.filter(function (name) {\n                return getIn(registeredFields, '[\\'' + name + '\\'].type') !== 'FieldArray';\n
          });\n            }\n\n            return fromJS(keySeq.reduce(function (acc, key) {\n              acc.push(key);\n
 return acc;\n            }, list));\n          }, _this.getValidators = function () {\n
          var validators = {};\n            Object.keys(_this.fieldValidators).forEach(function (name) {\n              var
validator = _this.fieldValidators[name]();\n\n              if (validator) {\n                validators[name] = validator;\n
    }\n            });\n            return validators;\n          }, _this.generateValidator = function () {\n            var validators =
_this.getValidators();\n\n            return Object.keys(validators).length ? generateValidator(validators, structure) :
undefined;\n          }, _this.getWarners = function () {\n            var warners = {};\n
Object.keys(_this.fieldWarners).forEach(function (name) {\n              var warner = _this.fieldWarners[name]();\n\n
         if (warner) {\n                warners[name] = warner;\n              }\n            });\n            return warners;\n          },
_this.generateWarner = function () {\n            var warners = _this.getWarners();\n\n            return
Object.keys(warners).length
 ? generateValidator(warners, structure) : undefined;\n          }, _this.asyncValidate = function (name, value, trigger)
{\n            var _this$props2 = _this.props,\n                asyncBlurFields = _this$props2.asyncBlurFields,\n
asyncChangeFields = _this$props2.asyncChangeFields,\n                asyncErrors = _this$props2.asyncErrors,\n
    asyncValidate = _this$props2.asyncValidate,\n                dispatch = _this$props2.dispatch,\n                initialized
= _this$props2.initialized,\n                pristine = _this$props2.pristine,\n                shouldAsyncValidate =
_this$props2.shouldAsyncValidate,\n                startAsyncValidation = _this$props2.startAsyncValidation,\n
  stopAsyncValidation = _this$props2.stopAsyncValidation,\n                syncErrors = _this$props2.syncErrors,\n
       values = _this$props2.values;\n            var submitting = !name;\n\n            var fieldNeedsValidation = function
 fieldNeedsValidation() {\n              var fieldNeedsValidationForBlur = asyncBlurFields && name &&
~asyncBlurFields.indexOf(name.replace(/\\[[0-9]+\\]/g, '[]'));\n              var fieldNeedsValidationForChange =
asyncChangeFields && name && ~asyncChangeFields.indexOf(name.replace(/\\[[0-9]+\\]/g, '[]'));\n              var
asyncValidateByDefault = !(asyncBlurFields || asyncChangeFields);\n              return submitting ||
asyncValidateByDefault || (trigger === 'blur' ? fieldNeedsValidationForBlur : fieldNeedsValidationForChange);\n
       };\n\n            if (asyncValidate) {\n              var valuesToValidate = submitting ? values : setIn(values, name,
value);\n              var syncValidationPasses = submitting || !getIn(syncErrors, name);\n\n              if
(fieldNeedsValidation() && shouldAsyncValidate({\n                asyncErrors: asyncErrors,\n                initialized:
initialized,\n                trigger: submitting ? 'submit' : trigger,\n
  blurredField: name,\n                pristine: pristine,\n                syncValidationPasses: syncValidationPasses\n
})) {\n                return asyncValidation(function () {\n                  return asyncValidate(valuesToValidate, dispatch,
_this.props, name);\n                }, startAsyncValidation, stopAsyncValidation, name);\n              }\n            }\n
}, _this.submitCompleted = function (result) {\n            delete _this.submitPromise;\n            return result;\n          },
_this.submitFailed = function (error) {\n            delete _this.submitPromise;\n            throw error;\n          },
```

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_this.listenToSubmit = function (promise) {\n            if (!isPromise(promise)) {\n              return promise;\n
}\n\n            _this.submitPromise = promise;\n            return promise.then(_this.submitCompleted,
_this.submitFailed);\n          }, _this.submit = function (submitOrEvent) {\n            var _this$props3 = _this.props,\n
              onSubmit = _this$props3.onSubmit,\n                blur = _this$props3.blur,\n                change =
_this$props3.change,\n                dispatch = _this$props3.dispatch;\n\n            if (!submitOrEvent ||
silenceEvent(submitOrEvent)) {\n              // submitOrEvent is an event: fire submit if not already submitting\n
   if (!_this.submitPromise) {\n                // avoid recursive stack trace if use Form with onSubmit as handleSubmit\n
            if (_this.innerOnSubmit && _this.innerOnSubmit !== _this.submit) {\n                  // will call
\"submitOrEvent is the submit function\" block below\n                  return _this.innerOnSubmit();\n                } else
{\n                  return _this.listenToSubmit(handleSubmit(checkSubmit(onSubmit), _extends({}, _this.props,
bindActionCreators({\n                    blur: blur,\n                    change: change\n                  }, dispatch)),
_this.props.validExceptSubmit, _this.asyncValidate,
 _this.getFieldList({\n                    excludeFieldArray: true\n                  })));\n                }\n              }\n            } else
{\n              // submitOrEvent is the submit function: return deferred submit thunk\n              return
silenceEvents(function () {\n                return !_this.submitPromise &&
_this.listenToSubmit(handleSubmit(checkSubmit(submitOrEvent), _extends({}, _this.props,
bindActionCreators({\n                  blur: blur,\n                  change: change\n                }, dispatch)),
_this.props.validExceptSubmit, _this.asyncValidate, _this.getFieldList({\n                  excludeFieldArray: true\n
      })));\n              });\n            }\n          }, _this.reset = function () {\n            return _this.props.reset();\n          },
_this.saveRef = function (ref) {\n            _this.wrapped = ref;\n          }, _temp), _possibleConstructorReturn(_this,
_ret);\n        }\n\n        _createClass(Form, [{\n          key:
 'getChildContext',\n          value: function getChildContext() {\n            var _this2 = this;\n\n            return {\n
 _reduxForm: _extends({}, this.props, {\n                getFormState: function getFormState(state) {\n                  return
getIn(_this2.props.getFormState(state), _this2.props.form);\n                },\n                asyncValidate:
this.asyncValidate,\n                getValues: this.getValues,\n                sectionPrefix: undefined,\n                register:
this.register,\n                unregister: this.unregister,\n                registerInnerOnSubmit: function
registerInnerOnSubmit(innerOnSubmit) {\n                  return _this2.innerOnSubmit = innerOnSubmit;\n
}\n              })\n            };\n          }\n        }, {\n          key: 'initIfNeeded',\n          value: function
initIfNeeded(nextProps) {\n            var enableReinitialize = this.props.enableReinitialize;\n\n            if (nextProps)
{\n
       if ((enableReinitialize || !nextProps.initialized) && !deepEqual(this.props.initialValues,
nextProps.initialValues)) {\n                var _keepDirty = nextProps.initialized &&
this.props.keepDirtyOnReinitialize;\n\n                this.props.initialize(nextProps.initialValues, _keepDirty, {\n
     keepValues: nextProps.keepValues,\n                  lastInitialValues: this.props.initialValues,\n
updateUnregisteredFields: nextProps.updateUnregisteredFields\n                });\n              }\n            } else if
(this.props.initialValues && (!this.props.initialized || enableReinitialize)) {\n
this.props.initialize(this.props.initialValues, this.props.keepDirtyOnReinitialize, {\n                keepValues:
this.props.keepValues,\n                updateUnregisteredFields: this.props.updateUnregisteredFields\n              });\n
    }\n          }\n        }, {\n          key: 'updateSyncErrorsIfNeeded',\n          value: function
 updateSyncErrorsIfNeeded(nextSyncErrors, nextError, lastSyncErrors) {\n            var _props = this.props,\n
 error = _props.error,\n                updateSyncErrors = _props.updateSyncErrors;\n            var noErrors =
(!lastSyncErrors || !Object.keys(lastSyncErrors).length) && !error;\n            var nextNoErrors = (!nextSyncErrors ||
!Object.keys(nextSyncErrors).length) && !nextError;\n\n            if (!(noErrors && nextNoErrors) &&
(!plain.deepEqual(lastSyncErrors, nextSyncErrors) || !plain.deepEqual(error, nextError))) {\n
updateSyncErrors(nextSyncErrors, nextError);\n            }\n          }\n        }, {\n          key:
'clearSubmitPromiseIfNeeded',\n          value: function clearSubmitPromiseIfNeeded(nextProps) {\n            var
submitting = this.props.submitting;\n\n            if (this.submitPromise && submitting && !nextProps.submitting) {\n
          delete this.submitPromise;\n            }\n          }\n        }, {\n          key:
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'submitIfNeeded',\n value: function submitIfNeeded(nextProps) {\n var _props2 = this.props,\n clearSubmit = _props2.clearSubmit,\n triggerSubmit = _props2.triggerSubmit;\n\n if (!triggerSubmit && nextProps.triggerSubmit) {\n clearSubmit();\n this.submit();\n }\n }\n }, {\n key: 'shouldErrorFunction',\n value: function shouldErrorFunction() {\n var _props3 = this.props,\n shouldValidate = _props3.shouldValidate,\n shouldError = _props3.shouldError;\n var shouldValidateOverridden = shouldValidate !== defaultShouldValidate;\n var shouldErrorOverridden = shouldError !== defaultShouldError;\n return shouldValidateOverridden && !shouldErrorOverridden ? shouldValidate : shouldError;\n }\n }, {\n key: 'validateIfNeeded',\n value: function validateIfNeeded(nextProps) {\n var _props4 = this.props,\n validate = _props4.validate,\n values = _props4.values;\n var shouldError = this.shouldErrorFunction();\n var fieldLevelValidate = this.generateValidator();\n\n if (validate || fieldLevelValidate) {\n var initialRender = nextProps === undefined;\n var fieldValidatorKeys = Object.keys(this.getValidators());\n var validateParams = {\n values: values,\n nextProps: nextProps,\n props: this.props,\n initialRender: initialRender,\n lastFieldValidatorKeys: this.lastFieldValidatorKeys,\n fieldValidatorKeys: fieldValidatorKeys,\n structure: structure\n };\n\n if (shouldError(validateParams)) {\n var propsToValidate = initialRender || !nextProps ? this.props : nextProps;\n\n var _merge2 = _merge(validate ? validate(propsToValidate.values, propsToValidate) || {} : {}, fieldLevelValidate ? fieldLevelValidate(propsToValidate.values, propsToValidate) || {} : {}),\n _error = _merge2._error,\n nextSyncErrors = _objectWithoutProperties(_merge2, ['_error']);\n\n this.lastFieldValidatorKeys = fieldValidatorKeys;\n this.updateSyncErrorsIfNeeded(nextSyncErrors, _error, propsToValidate.syncErrors);\n }\n } else {\n this.lastFieldValidatorKeys = [];\n }\n }\n }, {\n key: 'updateSyncWarningsIfNeeded',\n value: function updateSyncWarningsIfNeeded(nextSyncWarnings, nextWarning, lastSyncWarnings) {\n var _props5 = this.props,\n warning = _props5.warning,\n syncWarnings = _props5.syncWarnings,\n updateSyncWarnings = _props5.updateSyncWarnings;\n var noWarnings = (!syncWarnings || !Object.keys(syncWarnings).length) && !warning;\n var nextNoWarnings = (!nextSyncWarnings || !Object.keys(nextSyncWarnings).length) && !nextWarning;\n\n if (!(noWarnings && nextNoWarnings) && (!plain.deepEqual(lastSyncWarnings, nextSyncWarnings) || !plain.deepEqual(warning, nextWarning))) {\n updateSyncWarnings(nextSyncWarnings, nextWarning);\n }\n }\n }, {\n key: 'shouldWarnFunction',\n value: function shouldWarnFunction() {\n var _props6 = this.props,\n shouldValidate = _props6.shouldValidate,\n shouldWarn = _props6.shouldWarn;\n var shouldValidateOverridden = shouldValidate !== defaultShouldValidate;\n var shouldWarnOverridden = shouldWarn !== defaultShouldWarn;\n return shouldValidateOverridden && !shouldWarnOverridden ? shouldValidate : shouldWarn;\n }\n }, {\n key: 'warnIfNeeded',\n value: function warnIfNeeded(nextProps) {\n var _props7 = this.props,\n warn = _props7.warn,\n values = _props7.values;\n var shouldWarn = this.shouldWarnFunction();\n var fieldLevelWarn = this.generateWarner();\n\n if (warn || fieldLevelWarn) {\n var initialRender = nextProps === undefined;\n var fieldWarnerKeys = Object.keys(this.getWarners());\n var validateParams = {\n values: values,\n nextProps: nextProps,\n props: this.props,\n initialRender: initialRender,\n lastFieldValidatorKeys: this.lastFieldWarnerKeys,\n fieldValidatorKeys: fieldWarnerKeys,\n structure: structure\n };\n\n if (shouldWarn(validateParams)) {\n var propsToWarn = initialRender || !nextProps ? this.props : nextProps;\n\n var _merge3 = _merge(warn ? warn(propsToWarn.values, propsToWarn) : {}, fieldLevelWarn ? fieldLevelWarn(propsToWarn.values, propsToWarn) : {}),\n _warning = _merge3._warning,\n nextSyncWarnings = _objectWithoutProperties(_merge3, ['_warning']);\n\n this.lastFieldWarnerKeys = fieldWarnerKeys;\n this.updateSyncWarningsIfNeeded(nextSyncWarnings, _warning, propsToWarn.syncWarnings);\n }\n }\n }\n }, {\n key: 'componentWillMount',\n value: function componentWillMount() {\n

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    if (!isHotReloading()) {\n            this.initIfNeeded();\n            this.validateIfNeeded();\n
this.warnIfNeeded();\n          }\n\n          invariant(this.props.shouldValidate, 'shouldValidate() is deprecated and
will be removed in v8.0.0. Use shouldWarn() or shouldError() instead.');\n        }\n      }, {\n        key:
'componentWillReceiveProps',\n        value: function componentWillReceiveProps(nextProps)
 {\n          this.initIfNeeded(nextProps);\n          this.validateIfNeeded(nextProps);\n
this.warnIfNeeded(nextProps);\n          this.clearSubmitPromiseIfNeeded(nextProps);\n
this.submitIfNeeded(nextProps);\n          var onChange = nextProps.onChange,\n              values =
nextProps.values,\n              dispatch = nextProps.dispatch;\n\n          if (onChange && !deepEqual(values,
this.props.values)) {\n            onChange(values, dispatch, nextProps, this.props.values);\n          }\n        }\n
}, {\n        key: 'shouldComponentUpdate',\n        value: function shouldComponentUpdate(nextProps) {\n
var _this3 = this;\n\n          if (!this.props.pure) return true;\n          var _config$immutableProp =
config.immutableProps,\n              immutableProps = _config$immutableProp === undefined ? [] :
_config$immutableProp; // if we have children, we MUST update in React 16\n
          // https://twitter.com/erikras/status/915866544558788608\n\n          return !!(this.props.children ||
nextProps.children || Object.keys(nextProps).some(function (prop) {\n            // useful to debug rerenders\n
// if (!plain.deepEqual(this.props[ prop ], nextProps[ prop ])) {\n            //   console.info(prop, 'changed', this.props[
prop ], '==>', nextProps[ prop ])\n            // }\n            if (~immutableProps.indexOf(prop)) {\n              return
_this3.props[prop] !== nextProps[prop];\n            }\n\n            return !~propsToNotUpdateFor.indexOf(prop) &&
!deepEqual(_this3.props[prop], nextProps[prop]);\n          }));\n        }\n      }, {\n        key:
'componentDidMount',\n        value: function componentDidMount() {\n          if (!isHotReloading()) {\n
this.initIfNeeded(this.props);\n            this.validateIfNeeded();\n            this.warnIfNeeded();\n          }\n\n
invariant(this.props.shouldValidate,
 'shouldValidate() is deprecated and will be removed in v8.0.0. Use shouldWarn() or shouldError() instead.');\n
}\n      }, {\n        key: 'componentWillUnmount',\n        value: function componentWillUnmount() {\n          var
_props8 = this.props,\n              destroyOnUnmount = _props8.destroyOnUnmount,\n              destroy =
_props8.destroy;\n\n          if (destroyOnUnmount && !isHotReloading()) {\n            this.destroyed = true;\n
  destroy();\n          }\n        }\n      }, {\n        key: 'render',\n        value: function render() {\n          // remove
some redux-form config-only props\n\n          /* eslint-disable no-unused-vars */\n          var _props9 =
this.props,\n              anyTouched = _props9.anyTouched,\n              array = _props9.array,\n              arrayInsert
= _props9.arrayInsert,\n              arrayMove = _props9.arrayMove,\n              arrayPop = _props9.arrayPop,\n
              arrayPush = _props9.arrayPush,\n              arrayRemove = _props9.arrayRemove,\n
arrayRemoveAll = _props9.arrayRemoveAll,\n              arrayShift = _props9.arrayShift,\n              arraySplice =
_props9.arraySplice,\n              arraySwap = _props9.arraySwap,\n              arrayUnshift =
_props9.arrayUnshift,\n              asyncErrors = _props9.asyncErrors,\n              asyncValidate =
_props9.asyncValidate,\n              asyncValidating = _props9.asyncValidating,\n              blur = _props9.blur,\n
        change = _props9.change,\n              clearSubmit = _props9.clearSubmit,\n              destroy =
_props9.destroy,\n              destroyOnUnmount = _props9.destroyOnUnmount,\n
forceUnregisterOnUnmount = _props9.forceUnregisterOnUnmount,\n              dirty = _props9.dirty,\n
dispatch = _props9.dispatch,\n              enableReinitialize = _props9.enableReinitialize,\n
              error = _props9.error,\n              focus = _props9.focus,\n              form = _props9.form,\n
getFormState = _props9.getFormState,\n              immutableProps = _props9.immutableProps,\n              initialize
= _props9.initialize,\n              initialized = _props9.initialized,\n              initialValues = _props9.initialValues,\n
          invalid = _props9.invalid,\n              keepDirtyOnReinitialize = _props9.keepDirtyOnReinitialize,\n
 keepValues = _props9.keepValues,\n              updateUnregisteredFields = _props9.updateUnregisteredFields,\n
       pristine = _props9.pristine,\n              propNamespace = _props9.propNamespace,\n              registeredFields
= _props9.registeredFields,\n              registerField = _props9.registerField,\n              reset = _props9.reset,\n
    resetSection = _props9.resetSection,\n              setSubmitFailed = _props9.setSubmitFailed,\n
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            setSubmitSucceeded = _props9.setSubmitSucceeded,\n            shouldAsyncValidate =
_props9.shouldAsyncValidate,\n            shouldValidate = _props9.shouldValidate,\n            shouldError =
_props9.shouldError,\n            shouldWarn = _props9.shouldWarn,\n            startAsyncValidation =
_props9.startAsyncValidation,\n            startSubmit = _props9.startSubmit,\n            stopAsyncValidation =
_props9.stopAsyncValidation,\n            stopSubmit = _props9.stopSubmit,\n            submitting =
_props9.submitting,\n            submitFailed = _props9.submitFailed,\n            submitSucceeded =
_props9.submitSucceeded,\n            touch = _props9.touch,\n            touchOnBlur = _props9.touchOnBlur,\n
      touchOnChange = _props9.touchOnChange,\n            persistentSubmitErrors =
_props9.persistentSubmitErrors,\n            syncErrors = _props9.syncErrors,\n
      syncWarnings = _props9.syncWarnings,\n            unregisterField = _props9.unregisterField,\n
untouch = _props9.untouch,\n            updateSyncErrors = _props9.updateSyncErrors,\n
updateSyncWarnings = _props9.updateSyncWarnings,\n            valid = _props9.valid,\n
validExceptSubmit = _props9.validExceptSubmit,\n            values = _props9.values,\n            warning =
_props9.warning,\n            rest = _objectWithoutProperties(_props9, ['anyTouched', 'array', 'arrayInsert',
'arrayMove', 'arrayPop', 'arrayPush', 'arrayRemove', 'arrayRemoveAll', 'arrayShift', 'arraySplice', 'arraySwap',
'arrayUnshift', 'asyncErrors', 'asyncValidate', 'asyncValidating', 'blur', 'change', 'clearSubmit', 'destroy',
'destroyOnUnmount', 'forceUnregisterOnUnmount', 'dirty', 'dispatch', 'enableReinitialize', 'error', 'focus', 'form',
'getFormState', 'immutableProps', 'initialize', 'initialized', 'initialValues', 'invalid', 'keepDirtyOnReinitialize',
 'keepValues', 'updateUnregisteredFields', 'pristine', 'propNamespace', 'registeredFields', 'registerField', 'reset',
'resetSection', 'setSubmitFailed', 'setSubmitSucceeded', 'shouldAsyncValidate', 'shouldValidate', 'shouldError',
'shouldWarn', 'startAsyncValidation', 'startSubmit', 'stopAsyncValidation', 'stopSubmit', 'submitting', 'submitFailed',
'submitSucceeded', 'touch', 'touchOnBlur', 'touchOnChange', 'persistentSubmitErrors', 'syncErrors', 'syncWarnings',
'unregisterField', 'untouch', 'updateSyncErrors', 'updateSyncWarnings', 'valid', 'validExceptSubmit', 'values',
'warning']);\n          /* eslint-enable no-unused-vars */\n\n\n          var reduxFormProps = _extends({\n
array: array,\n            anyTouched: anyTouched,\n            asyncValidate: this.asyncValidate,\n
asyncValidating: asyncValidating\n          }, bindActionCreators({\n            blur: blur,\n            change: change\n
      }, dispatch), {\n
            clearSubmit: clearSubmit,\n            destroy: destroy,\n            dirty: dirty,\n            dispatch: dispatch,\n
      error: error,\n            form: form,\n            handleSubmit: this.submit,\n            initialize: initialize,\n
 initialized: initialized,\n            initialValues: initialValues,\n            invalid: invalid,\n            pristine: pristine,\n
       reset: reset,\n            resetSection: resetSection,\n            submitting: submitting,\n            submitFailed:
submitFailed,\n            submitSucceeded: submitSucceeded,\n            touch: touch,\n            untouch: untouch,\n
      valid: valid,\n            warning: warning\n          });\n\n          var propsToPass = _extends({},
propNamespace ? _defineProperty({}, propNamespace, reduxFormProps) : reduxFormProps, rest);\n\n          if
(isClassComponent(WrappedComponent)) {\n            ;\n
 propsToPass.ref = this.saveRef;\n          }\n\n          return createElement(WrappedComponent, propsToPass);\n
    }\n        }]);\n\n        return Form;\n      }(Component);\n\n      Form.displayName = 'Form(' +
getDisplayName(WrappedComponent) + ')';\n      Form.WrappedComponent = WrappedComponent;\n
Form.childContextTypes = {\n        _reduxForm: PropTypes.object.isRequired\n      };\n      Form.propTypes = {\n
  destroyOnUnmount: PropTypes.bool,\n        forceUnregisterOnUnmount: PropTypes.bool,\n        form:
PropTypes.string.isRequired,\n        immutableProps: PropTypes.arrayOf(PropTypes.string),\n        initialValues:
PropTypes.oneOfType([PropTypes.array, PropTypes.object]),\n        getFormState: PropTypes.func,\n
onSubmitFail: PropTypes.func,\n        onSubmitSuccess: PropTypes.func,\n        propNamespace:
PropTypes.string,\n        validate: PropTypes.func,\n        warn: PropTypes.func,\n        touchOnBlur:
PropTypes.bool,\n        touchOnChange:
 PropTypes.bool,\n        triggerSubmit: PropTypes.bool,\n        persistentSubmitErrors: PropTypes.bool,\n
registeredFields: PropTypes.any\n      };\n      var connector = connect(function (state, props) {\n        var form =
props.form,\n            getFormState = props.getFormState,\n            initialValues = props.initialValues,\n
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enableReinitialize = props.enableReinitialize,\n keepDirtyOnReinitialize = props.keepDirtyOnReinitialize;\n var formState = getIn(getFormState(state) || empty, form) || empty;\n var stateInitial = getIn(formState, 'initial');\n var initialized = !!stateInitial;\n var shouldUpdateInitialValues = enableReinitialize && initialized && !deepEqual(initialValues, stateInitial);\n var shouldResetValues = shouldUpdateInitialValues && !keepDirtyOnReinitialize;\n var initial = initialValues || stateInitial || empty;\n\n if (shouldUpdateInitialValues) {\n initial = stateInitial || empty;\n }\n\n var values = getIn(formState, 'values') || initial;\n\n if (shouldResetValues) {\n values = initial;\n }\n\n var pristine = shouldResetValues || deepEqual(initial, values);\n var asyncErrors = getIn(formState, 'asyncErrors');\n var syncErrors = getIn(formState, 'syncErrors') || plain.empty;\n var syncWarnings = getIn(formState, 'syncWarnings') || plain.empty;\n var registeredFields = getIn(formState, 'registeredFields');\n var valid = isValid(form, getFormState, false)(state);\n var validExceptSubmit = isValid(form, getFormState, true)(state);\n var anyTouched = !!getIn(formState, 'anyTouched');\n var submitting = !!getIn(formState, 'submitting');\n var submitFailed = !!getIn(formState, 'submitFailed');\n var submitSucceeded = !!getIn(formState, 'submitSucceeded');\n var error = getIn(formState, 'error');\n var warning = getIn(formState, 'warning');\n var triggerSubmit = getIn(formState, 'triggerSubmit');\n return {\n anyTouched: anyTouched,\n asyncErrors: asyncErrors,\n asyncValidating: getIn(formState, 'asyncValidating') || false,\n dirty: !pristine,\n error: error,\n initialized: initialized,\n invalid: !valid,\n pristine: pristine,\n registeredFields: registeredFields,\n submitting: submitting,\n submitFailed: submitFailed,\n submitSucceeded: submitSucceeded,\n syncErrors: syncErrors,\n syncWarnings: syncWarnings,\n triggerSubmit: triggerSubmit,\n values: values,\n valid: valid,\n validExceptSubmit: validExceptSubmit,\n warning: warning\n };\n }, function (dispatch, initialProps) {\n var bindForm = function bindForm(actionCreator) {\n return actionCreator.bind(null, initialProps.form);\n }; // Bind the first parameter on `props.form`\n\n\n var boundFormACs = _mapValues(formActions, bindForm);\n\n var boundArrayACs = _mapValues(arrayActions, bindForm);\n\n var boundBlur = function boundBlur(field, value) {\n return blur(initialProps.form, field, value, !!initialProps.touchOnBlur);\n };\n\n var boundChange = function boundChange(field, value) {\n return change(initialProps.form, field, value, !!initialProps.touchOnChange, !!initialProps.persistentSubmitErrors);\n };\n\n var boundFocus = bindForm(focus); // Wrap action creators with `dispatch`\n\n var connectedFormACs = bindActionCreators(boundFormACs, dispatch);\n var connectedArrayACs = {\n insert: bindActionCreators(boundArrayACs.arrayInsert, dispatch),\n move: bindActionCreators(boundArrayACs.arrayMove, dispatch),\n pop: bindActionCreators(boundArrayACs.arrayPop, dispatch),\n push: bindActionCreators(boundArrayACs.arrayPush, dispatch),\n remove: bindActionCreators(boundArrayACs.arrayRemove, dispatch),\n removeAll: bindActionCreators(boundArrayACs.arrayRemoveAll, dispatch),\n shift: bindActionCreators(boundArrayACs.arrayShift, dispatch),\n splice: bindActionCreators(boundArrayACs.arraySplice, dispatch),\n swap: bindActionCreators(boundArrayACs.arraySwap, dispatch),\n unshift: bindActionCreators(boundArrayACs.arrayUnshift, dispatch)\n };\n\n var computedActions = _extends({}, connectedFormACs, boundArrayACs, {\n blur: boundBlur,\n change: boundChange,\n array: connectedArrayACs,\n focus: boundFocus,\n dispatch: dispatch\n });\n\n return function () {\n return computedActions;\n };\n }, undefined, {\n withRef: true\n });\n var ConnectedForm = hoistStatics(connector(Form), WrappedComponent);\n ConnectedForm.defaultProps = config; // build outer component to expose instance api\n\n var ReduxForm = function (_Component2) {\n _inherits(ReduxForm, _Component2);\n\n function ReduxForm() {\n _classCallCheck(this, ReduxForm);\n\n return _possibleConstructorReturn(this, (ReduxForm.__proto__ || Object.getPrototypeOf(ReduxForm)).apply(this, arguments));\n }\n\n _createClass(ReduxForm, [{\n

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key: 'submit',\n          value: function submit() {\n            return this.ref &&
this.ref.getWrappedInstance().submit();\n          }\n        }, {\n          key: 'reset',\n          value: function reset() {\n
    if (this.ref) {\n              this.ref.getWrappedInstance().reset();\n            }\n          }\n        }, {\n          key:
'render',\n          value: function render() {\n            var _this5 = this;\n\n            var _props10 = this.props,\n
initialValues = _props10.initialValues,\n                rest = _objectWithoutProperties(_props10,
 ['initialValues']);\n\n            return createElement(ConnectedForm, _extends({}, rest, {\n              ref: function
ref(_ref3) {\n                _this5.ref = _ref3;\n              },\n              // convert initialValues if need to\n
initialValues: fromJS(initialValues)\n            }));\n          }\n        }, {\n          key: 'valid',\n          get: function get()
{\n            return !!(this.ref && this.ref.getWrappedInstance().isValid());\n          }\n        }, {\n          key: 'invalid',\n
       get: function get() {\n            return !this.valid;\n          }\n        }, {\n          key: 'pristine',\n          get: function
get() {\n            return !!(this.ref && this.ref.getWrappedInstance().isPristine());\n          }\n        }, {\n          key:
'dirty',\n          get: function get() {\n            return !this.pristine;\n          }\n        }, {\n          key: 'values',\n          get:
function get() {\n            return this.ref
 ? this.ref.getWrappedInstance().getValues() : empty;\n          }\n        }, {\n          key: 'fieldList',\n          get:
function get() {\n            // mainly provided for testing\n            return this.ref ?
this.ref.getWrappedInstance().getFieldList() : [];\n          }\n        }, {\n          key: 'wrappedInstance',\n          get:
function get() {\n            // for testing\n            return this.ref && this.ref.getWrappedInstance().wrapped;\n          }\n
      }]);\n\n        return ReduxForm;\n      }(Component);\n\n      polyfill(ReduxForm);\n      return
hoistStatics(ReduxForm, WrappedComponent);\n    };\n  };\n};\n\nexport default createReduxForm;","import
createReduxForm from './createReduxForm';\nimport plain from './structure/plain';\nexport default
createReduxForm(plain);","var _extends = Object.assign || function (target) {\n  for (var i = 1; i < arguments.length;
i++) {\n    var source = arguments[i];\n\n    for (var key in source) {\n      if
(Object.prototype.hasOwnProperty.call(source,
 key)) {\n        target[key] = source[key];\n      }\n    }\n  }\n\n  return target;\n};\n\nfunction
_objectWithoutProperties(obj, keys) {\n  var target = {};\n\n  for (var i in obj) {\n    if (keys.indexOf(i) >= 0)
continue;\n    if (!Object.prototype.hasOwnProperty.call(obj, i)) continue;\n    target[i] = obj[i];\n  }\n\n  return
target;\n}\n\nvar processProps = function processProps(type, props, _value, deepEqual) {\n  var value =
props.value;\n\n  if (type === 'checkbox') {\n    return _extends({}, props, {\n      checked: !!value\n    });\n  }\n\n  if
(type === 'radio') {\n    return _extends({}, props, {\n      checked: deepEqual(value, _value),\n      value: _value\n
});\n  }\n\n  if (type === 'select-multiple') {\n    return _extends({}, props, {\n      value: value || []\n    });\n  }\n\n  if
(type === 'file') {\n    return _extends({}, props, {\n      value: value || undefined\n    });\n  }\n\n  return
props;\n};\n\nvar createFieldProps
 = function createFieldProps(_ref2, name, _ref) {\n  var getIn = _ref2.getIn,\n      toJS = _ref2.toJS,\n      deepEqual
= _ref2.deepEqual;\n\n  var asyncError = _ref.asyncError,\n      asyncValidating = _ref.asyncValidating,\n      onBlur
= _ref.onBlur,\n      onChange = _ref.onChange,\n      onDrop = _ref.onDrop,\n      onDragStart =
_ref.onDragStart,\n      dirty = _ref.dirty,\n      dispatch = _ref.dispatch,\n      onFocus = _ref.onFocus,\n      form =
_ref.form,\n      format = _ref.format,\n      initial = _ref.initial,\n      parse = _ref.parse,\n      pristine =
_ref.pristine,\n      props = _ref.props,\n      state = _ref.state,\n      submitError = _ref.submitError,\n      submitFailed
= _ref.submitFailed,\n      submitting = _ref.submitting,\n      syncError = _ref.syncError,\n      syncWarning =
_ref.syncWarning,\n      validate = _ref.validate,\n      value = _ref.value,\n      _value = _ref._value,\n      warn =
_ref.warn,\n      custom = _objectWithoutProperties(_ref, ['asyncError',
 'asyncValidating', 'onBlur', 'onChange', 'onDrop', 'onDragStart', 'dirty', 'dispatch', 'onFocus', 'form', 'format', 'initial',
'parse', 'pristine', 'props', 'state', 'submitError', 'submitFailed', 'submitting', 'syncError', 'syncWarning', 'validate',
'value', '_value', 'warn']);\n\n  var error = syncError || asyncError || submitError;\n  var warning = syncWarning;\n\n
var formatFieldValue = function formatFieldValue(value, format) {\n    if (format === null) {\n      return value;\n
}\n\n    var defaultFormattedValue = value == null ? '' : value;\n    return format ? format(value, name) :
defaultFormattedValue;\n  };\n\n  var formattedFieldValue = formatFieldValue(value, format);\n  return {\n    input:
processProps(custom.type, {\n      name: name,\n      onBlur: onBlur,\n      onChange: onChange,\n      onDragStart:
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onDragStart,\n      onDrop: onDrop,\n      onFocus: onFocus,\n      value: formattedFieldValue\n    }, _value,
deepEqual),\n    meta: _extends({}, toJS(state),
 {\n      active: !!(state && getIn(state, 'active')),\n      asyncValidating: asyncValidating,\n      autofilled: !!(state &&
getIn(state, 'autofilled')),\n      dirty: dirty,\n      dispatch: dispatch,\n      error: error,\n      form: form,\n      initial:
initial,\n      warning: warning,\n      invalid: !!error,\n      pristine: pristine,\n      submitting: !!submitting,\n
submitFailed: !!submitFailed,\n      touched: !!(state && getIn(state, 'touched')),\n      valid: !error,\n      visited:
!!(state && getIn(state, 'visited'))\n    }),\n    custom: _extends({}, custom, props)\n  };\n};\n\nexport default
createFieldProps;","import isEvent from './isEvent';\n\nvar getSelectedValues = function getSelectedValues(options)
{\n  var result = [];\n\n  if (options) {\n    for (var index = 0; index < options.length; index++) {\n      var option =
options[index];\n\n      if (option.selected) {\n        result.push(option.value);\n      }\n    }\n  }\n\n  return
result;\n};\n\nvar
 getValue = function getValue(event, isReactNative) {\n  if (isEvent(event)) {\n    if (!isReactNative &&
event.nativeEvent && event.nativeEvent.text !== undefined) {\n      return event.nativeEvent.text;\n    }\n\n    if
(isReactNative && event.nativeEvent !== undefined) {\n      return event.nativeEvent.text;\n    }\n\n    var
detypedEvent = event;\n    var _detypedEvent$target = detypedEvent.target,\n        type =
_detypedEvent$target.type,\n        value = _detypedEvent$target.value,\n        checked =
_detypedEvent$target.checked,\n        files = _detypedEvent$target.files,\n        dataTransfer =
detypedEvent.dataTransfer;\n\n    if (type === 'checkbox') {\n      return !!checked;\n    }\n\n    if (type === 'file') {\n
    return files || dataTransfer && dataTransfer.files;\n    }\n\n    if (type === 'select-multiple') {\n      return
getSelectedValues(event.target.options);\n    }\n\n    return value;\n  }\n\n  return event;\n};\n\nexport default
getValue;","var isReactNative
 = typeof window !== 'undefined' && window.navigator && window.navigator.product &&
window.navigator.product === 'ReactNative';\nexport default isReactNative;","import getValue from
'./getValue';\nimport isReactNative from '../isReactNative';\n\nvar onChangeValue = function
onChangeValue(event, _ref) {\n  var name = _ref.name,\n      parse = _ref.parse,\n      normalize = _ref.normalize; //
read value from input\n\n  var value = getValue(event, isReactNative); // parse value if we have a parser\n\n  if
(parse) {\n    value = parse(value, name);\n  } // normalize value\n\n\n  if (normalize) {\n    value = normalize(name,
value);\n  }\n\n  return value;\n};\n\nexport default onChangeValue;","export var dataKey = 'text';","var _extends =
Object.assign || function (target) {\n  for (var i = 1; i < arguments.length; i++) {\n    var source = arguments[i];\n\n
for (var key in source) {\n      if (Object.prototype.hasOwnProperty.call(source, key)) {\n        target[key] =
source[key];\n
     }\n    }\n  }\n\n  return target;\n};\n\nvar _createClass = function () {\n  function defineProperties(target, props)
{\n    for (var i = 0; i < props.length; i++) {\n      var descriptor = props[i];\n      descriptor.enumerable =
descriptor.enumerable || false;\n      descriptor.configurable = true;\n      if (\"value\" in descriptor)
descriptor.writable = true;\n      Object.defineProperty(target, descriptor.key, descriptor);\n    }\n  }\n\n  return
function (Constructor, protoProps, staticProps) {\n    if (protoProps) defineProperties(Constructor.prototype,
protoProps);\n    if (staticProps) defineProperties(Constructor, staticProps);\n    return Constructor;\n  };\n}();\n\nvar
_typeof = typeof Symbol === \"function\" && typeof Symbol.iterator === \"symbol\" ? function (obj) {\n  return
typeof obj;\n} : function (obj) {\n  return obj && typeof Symbol === \"function\" && obj.constructor === Symbol
&& obj !== Symbol.prototype ? \"symbol\" : typeof obj;\n};\n\nfunction _objectWithoutProperties(obj,
 keys) {\n  var target = {};\n\n  for (var i in obj) {\n    if (keys.indexOf(i) >= 0) continue;\n    if
(!Object.prototype.hasOwnProperty.call(obj, i)) continue;\n    target[i] = obj[i];\n  }\n\n  return
target;\n}\n\nfunction _classCallCheck(instance, Constructor) {\n  if (!(instance instanceof Constructor)) {\n    throw
new TypeError(\"Cannot call a class as a function\");\n  }\n}\n\nfunction _possibleConstructorReturn(self, call) {\n
if (!self) {\n    throw new ReferenceError(\"this hasn't been initialised - super() hasn't been called\");\n  }\n\n  return
call && (typeof call === \"object\" || typeof call === \"function\") ? call : self;\n}\n\nfunction _inherits(subClass,
superClass) {\n  if (typeof superClass !== \"function\" && superClass !== null) {\n    throw new TypeError(\"Super
expression must either be null or a function, not \" + typeof superClass);\n  }\n\n  subClass.prototype =
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Object.create(superClass && superClass.prototype, {\n    constructor: {\n
   value: subClass,\n      enumerable: false,\n      writable: true,\n      configurable: true\n    }\n  });\n  if (superClass)
Object.setPrototypeOf ? Object.setPrototypeOf(subClass, superClass) : subClass.__proto__ =
superClass;\n}\n\nimport React, { Component, createElement } from 'react';\nimport PropTypes from 'prop-
types';\nimport { connect } from 'react-redux';\nimport createFieldProps from './createFieldProps';\nimport
onChangeValue from './events/onChangeValue';\nimport { dataKey } from './util/eventConsts';\nimport plain from
'./structure/plain';\nimport isReactNative from './isReactNative';\nvar propsToNotUpdateFor =
['_reduxForm'];\n\nvar isObject = function isObject(entity) {\n  return entity && (typeof entity === 'undefined' ?
'undefined' : _typeof(entity)) === 'object';\n};\n\nvar isFunction = function isFunction(entity) {\n  return entity &&
typeof entity === 'function';\n};\n\nvar eventPreventDefault = function eventPreventDefault(event) {\n  if
(isObject(event) && isFunction(event.preventDefault))
 {\n    event.preventDefault();\n  }\n};\n\nvar eventDataTransferGetData = function
eventDataTransferGetData(event, key) {\n  if (isObject(event) && isObject(event.dataTransfer) &&
isFunction(event.dataTransfer.getData)) {\n    return event.dataTransfer.getData(key);\n  }\n};\n\nvar
eventDataTransferSetData = function eventDataTransferSetData(event, key, value) {\n  if (isObject(event) &&
isObject(event.dataTransfer) && isFunction(event.dataTransfer.setData)) {\n    event.dataTransfer.setData(key,
value);\n  }\n};\n\nvar createConnectedField = function createConnectedField(structure) {\n  var deepEqual =
structure.deepEqual,\n      getIn = structure.getIn;\n\n  var getSyncError = function getSyncError(syncErrors, name)
{\n    var error = plain.getIn(syncErrors, name); // Because the error for this field might not be at a level in the error
structure where\n    // it can be set directly, it might need to be unwrapped from the _error property\n\n    return error
 && error._error ? error._error : error;\n  };\n\n  var getSyncWarning = function getSyncWarning(syncWarnings,
name) {\n    var warning = getIn(syncWarnings, name); // Because the warning for this field might not be at a level
in the warning structure where\n    // it can be set directly, it might need to be unwrapped from the _warning
property\n\n    return warning && warning._warning ? warning._warning : warning;\n  };\n\n  var ConnectedField =
function (_Component) {\n    _inherits(ConnectedField, _Component);\n\n    function ConnectedField() {\n      var
_ref;\n\n      var _temp, _this, _ret;\n\n      _classCallCheck(this, ConnectedField);\n\n      for (var _len =
arguments.length, args = Array(_len), _key = 0; _key < _len; _key++) {\n        args[_key] = arguments[_key];\n
}\n\n      return _ret = (_temp = (_this = _possibleConstructorReturn(this, (_ref = ConnectedField.__proto__ ||
Object.getPrototypeOf(ConnectedField)).call.apply(_ref, [this].concat(args))), _this), _this.saveRef
 = function (ref) {\n        return _this.ref = ref;\n      }, _this.isPristine = function () {\n        return
_this.props.pristine;\n      }, _this.getValue = function () {\n        return _this.props.value;\n      }, _this.handleChange
= function (event) {\n        var _this$props = _this.props,\n            name = _this$props.name,\n            dispatch =
_this$props.dispatch,\n            parse = _this$props.parse,\n            normalize = _this$props.normalize,\n
onChange = _this$props.onChange,\n            _reduxForm = _this$props._reduxForm,\n            previousValue =
_this$props.value;\n        var newValue = onChangeValue(event, {\n          name: name,\n          parse: parse,\n
normalize: normalize\n        });\n        var defaultPrevented = false;\n\n        if (onChange) {\n          // Can't seem to
find a way to extend Event in React Native,\n          // thus I simply avoid adding preventDefault() in a RN
environment\n          // to prevent
 the following error:\n          // `One of the sources for assign has an enumerable key on the prototype chain`\n
// Reference: https://github.com/facebook/react-native/issues/5507\n          if (!isReactNative) {\n
onChange(_extends({}, event, {\n              preventDefault: function preventDefault() {\n                defaultPrevented
= true;\n                return eventPreventDefault(event);\n              }\n            }), newValue, previousValue, name);\n
    } else {\n            onChange(event, newValue, previousValue, name);\n          }\n        }\n\n        if
(!defaultPrevented) {\n          // dispatch change action\n          dispatch(_reduxForm.change(name, newValue)); //
call post-change callback\n\n          if (_reduxForm.asyncValidate) {\n            _reduxForm.asyncValidate(name,
newValue, 'change');\n          }\n        }\n      }, _this.handleFocus = function (event) {\n        var _this$props2 =
_this.props,\n            name = _this$props2.name,\n
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dispatch = _this$props2.dispatch,\n onFocus = _this$props2.onFocus,\n _reduxForm = _this$props2._reduxForm;\n var defaultPrevented = false;\n\n if (onFocus) {\n if (!isReactNative) {\n onFocus(_extends({}, event, {\n preventDefault: function preventDefault() {\n defaultPrevented = true;\n return eventPreventDefault(event);\n }\n }), name);\n } else {\n onFocus(event, name);\n }\n }\n\n if (!defaultPrevented) {\n dispatch(_reduxForm.focus(name));\n }\n }, _this.handleBlur = function (event) {\n var _this$props3 = _this.props,\n name = _this$props3.name,\n dispatch = _this$props3.dispatch,\n parse = _this$props3.parse,\n normalize = _this$props3.normalize,\n onBlur = _this$props3.onBlur,\n _reduxForm =

_this$props3._reduxForm,\n _value = _this$props3._value,\n previousValue = _this$props3.value;\n var newValue = onChangeValue(event, {\n name: name,\n parse: parse,\n normalize: normalize\n }); // for checkbox and radio, if the value property of checkbox or radio equals\n // the value passed by blur event, then fire blur action with previousValue.\n\n if (newValue === _value && _value !== undefined) {\n newValue = previousValue;\n }\n\n var defaultPrevented = false;\n\n if (onBlur) {\n if (!isReactNative) {\n onBlur(_extends({}, event, {\n preventDefault: function preventDefault() {\n defaultPrevented = true;\n return eventPreventDefault(event);\n }\n }), newValue, previousValue, name);\n } else {\n onBlur(event, newValue, previousValue, name);\n }\n }\n\n

if (!defaultPrevented) {\n // dispatch blur action\n dispatch(_reduxForm.blur(name, newValue)); // call post-blur callback\n\n if (_reduxForm.asyncValidate) {\n _reduxForm.asyncValidate(name, newValue, 'blur');\n }\n }\n }, _this.handleDragStart = function (event) {\n var _this$props4 = _this.props,\n name = _this$props4.name,\n onDragStart = _this$props4.onDragStart,\n value = _this$props4.value;\n eventDataTransferSetData(event, dataKey, value == null ? '' : value);\n\n if (onDragStart) {\n onDragStart(event, name);\n }\n }, _this.handleDrop = function (event) {\n var _this$props5 = _this.props,\n name = _this$props5.name,\n dispatch = _this$props5.dispatch,\n onDrop = _this$props5.onDrop,\n _reduxForm = _this$props5._reduxForm,\n previousValue = _this$props5.value;\n var newValue

= eventDataTransferGetData(event, dataKey);\n var defaultPrevented = false;\n\n if (onDrop) {\n onDrop(_extends({}, event, {\n preventDefault: function preventDefault() {\n defaultPrevented = true;\n return eventPreventDefault(event);\n }\n }), newValue, previousValue, name);\n }\n\n if (!defaultPrevented) {\n // dispatch change action\n dispatch(_reduxForm.change(name, newValue));\n eventPreventDefault(event);\n }\n }, _temp), _possibleConstructorReturn(_this, _ret);\n }\n\n _createClass(ConnectedField, [{\n key: 'shouldComponentUpdate',\n value: function shouldComponentUpdate(nextProps) {\n var _this2 = this;\n\n var nextPropsKeys = Object.keys(nextProps);\n var thisPropsKeys = Object.keys(this.props); // if we have children, we MUST update in React 16\n // https://twitter.com/erikras/status/915866544558788608\n\n

return !!(this.props.children || nextProps.children || nextPropsKeys.length !== thisPropsKeys.length || nextPropsKeys.some(function (prop) {\n if (~(nextProps.immutableProps || []).indexOf(prop)) {\n return _this2.props[prop] !== nextProps[prop];\n }\n\n return !~propsToNotUpdateFor.indexOf(prop) && !deepEqual(_this2.props[prop], nextProps[prop]);\n }));\n }\n }, {\n key: 'getRenderedComponent',\n value: function getRenderedComponent() {\n return this.ref;\n }\n }, {\n key: 'render',\n value: function render() {\n var _props = this.props,\n component = _props.component,\n withRef = _props.withRef,\n name = _props.name,\n _reduxForm = _props._reduxForm,\n normalize = _props.normalize,\n onBlur = _props.onBlur,\n onChange = _props.onChange,\n onFocus = _props.onFocus,\n onDragStart =

_props.onDragStart,\n onDrop = _props.onDrop,\n immutableProps = _props.immutableProps,\n rest = _objectWithoutProperties(_props, ['component', 'withRef', 'name', '_reduxForm', 'normalize', 'onBlur', 'onChange', 'onFocus', 'onDragStart', 'onDrop', 'immutableProps']);\n\n var _createFieldProps =

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createFieldProps(structure, name, _extends({}, rest, {\n          form: _reduxForm.form,\n          onBlur:
this.handleBlur,\n          onChange: this.handleChange,\n          onDrop: this.handleDrop,\n          onDragStart:
this.handleDragStart,\n          onFocus: this.handleFocus\n        })),\n            custom = _createFieldProps.custom,\n
      props = _objectWithoutProperties(_createFieldProps, ['custom']);\n\n        if (withRef) {\n          custom.ref =
this.saveRef;\n        }\n\n        if (typeof component === 'string') {\n          var input = props.input,\n              meta =
props.meta; // eslint-disable-line no-unused-vars\n
    // flatten input into other props\n\n          return createElement(component, _extends({}, input, custom));\n        }
else {\n          return createElement(component, _extends({}, props, custom));\n        }\n      }\n    }]);\n\n    return
ConnectedField;\n  }(Component);\n\n  ConnectedField.propTypes = {\n    component:
PropTypes.oneOfType([PropTypes.func, PropTypes.string, PropTypes.node]).isRequired,\n    props:
PropTypes.object\n  };\n  var connector = connect(function (state, ownProps) {\n    var name = ownProps.name,\n
  _ownProps$_reduxForm = ownProps._reduxForm,\n        initialValues = _ownProps$_reduxForm.initialValues,\n
    getFormState = _ownProps$_reduxForm.getFormState;\n    var formState = getFormState(state);\n    var
initialState = getIn(formState, 'initial.' + name);\n    var initial = initialState !== undefined ? initialState :
initialValues && getIn(initialValues, name);\n    var value = getIn(formState, 'values.' + name);\n    var submitting =
getIn(formState,
 'submitting');\n    var syncError = getSyncError(getIn(formState, 'syncErrors'), name);\n    var syncWarning =
getSyncWarning(getIn(formState, 'syncWarnings'), name);\n    var pristine = deepEqual(value, initial);\n    return {\n
    asyncError: getIn(formState, 'asyncErrors.' + name),\n      asyncValidating: getIn(formState, 'asyncValidating')
=== name,\n      dirty: !pristine,\n      pristine: pristine,\n      state: getIn(formState, 'fields.' + name),\n
submitError: getIn(formState, 'submitErrors.' + name),\n      submitFailed: getIn(formState, 'submitFailed'),\n
submitting: submitting,\n      syncError: syncError,\n      syncWarning: syncWarning,\n      initial: initial,\n      value:
value,\n      _value: ownProps.value // save value passed in (for checkboxes)\n\n    };\n  }, undefined, undefined, {\n
 withRef: true\n  });\n  return connector(ConnectedField);\n};\n\nexport default createConnectedField;","import
_isEqualWith from 'lodash-es/isEqualWith';\n\nvar
 customizer = function customizer(objectValue, otherValue, indexOrkey, object, other, stack) {\n  //
https://lodash.com/docs/4.17.4#isEqualWith\n  if (stack) {\n    // Shallow compares\n    // For 1st level, stack ===
undefined.\n    //   -> Do nothing (and implicitly return undefined so that it goes to compare 2nd level)\n    // For 2nd
level and up, stack !== undefined.\n    //   -> Compare by === operator\n    return objectValue === otherValue;\n
}\n};\n\nvar shallowCompare = function shallowCompare(instance, nextProps, nextState) {\n  var propsEqual =
_isEqualWith(instance.props, nextProps, customizer);\n\n  var stateEqual = _isEqualWith(instance.state, nextState,
customizer);\n\n  return !propsEqual || !stateEqual;\n};\n\nexport default shallowCompare;","var _extends =
Object.assign || function (target) {\n  for (var i = 1; i < arguments.length; i++) {\n    var source = arguments[i];\n\n
for (var key in source) {\n      if (Object.prototype.hasOwnProperty.call(source, key))
 {\n        target[key] = source[key];\n      }\n    }\n  }\n\n  return target;\n};\n\nvar _createClass = function () {\n
function defineProperties(target, props) {\n    for (var i = 0; i < props.length; i++) {\n      var descriptor = props[i];\n
   descriptor.enumerable = descriptor.enumerable || false;\n      descriptor.configurable = true;\n      if (\"value\" in
descriptor) descriptor.writable = true;\n      Object.defineProperty(target, descriptor.key, descriptor);\n    }\n  }\n\n
return function (Constructor, protoProps, staticProps) {\n    if (protoProps) defineProperties(Constructor.prototype,
protoProps);\n    if (staticProps) defineProperties(Constructor, staticProps);\n    return Constructor;\n
};\n}();\n\nfunction _classCallCheck(instance, Constructor) {\n  if (!(instance instanceof Constructor)) {\n    throw
new TypeError(\"Cannot call a class as a function\");\n  }\n}\n\nfunction _possibleConstructorReturn(self, call) {\n
if (!self) {\n    throw new ReferenceError(\"this
 hasn't been initialised - super() hasn't been called\");\n  }\n\n  return call && (typeof call === \"object\" || typeof
call === \"function\") ? call : self;\n}\n\nfunction _inherits(subClass, superClass) {\n  if (typeof superClass !==
\"function\" && superClass !== null) {\n    throw new TypeError(\"Super expression must either be null or a
function, not \" + typeof superClass);\n  }\n\n  subClass.prototype = Object.create(superClass &&
superClass.prototype, {\n    constructor: {\n      value: subClass,\n      enumerable: false,\n      writable: true,\n
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configurable: true\n    }\n  });\n  if (superClass) Object.setPrototypeOf ? Object.setPrototypeOf(subClass,
superClass) : subClass.__proto__ = superClass;\n}\n\nimport React, { Component, createElement } from
'react';\nimport { polyfill } from 'react-lifecycles-compat';\nimport PropTypes from 'prop-types';\nimport invariant
from 'invariant';\nimport createConnectedField from './ConnectedField';\nimport shallowCompare from
'./util/shallowCompare';\nimport
 prefixName from './util/prefixName';\nimport plain from './structure/plain';\n\nvar createField = function
createField(structure) {\n  var ConnectedField = createConnectedField(structure);\n  var setIn = structure.setIn;\n\n
var Field = function (_Component) {\n    _inherits(Field, _Component);\n\n    function Field(props, context) {\n
_classCallCheck(this, Field);\n\n      var _this = _possibleConstructorReturn(this, (Field.__proto__ ||
Object.getPrototypeOf(Field)).call(this, props, context));\n\n      _this.saveRef = function (ref) {\n        return
_this.ref = ref;\n      };\n\n      _this.normalize = function (name, value) {\n        var normalize =
_this.props.normalize;\n\n        if (!normalize) {\n          return value;\n        }\n\n        var previousValues =
_this.context._reduxForm.getValues();\n\n        var previousValue = _this.value;\n        var nextValues =
setIn(previousValues, name, value);\n        return normalize(value, previousValue,
 nextValues, previousValues);\n      };\n\n      if (!context._reduxForm) {\n        throw new Error('Field must be
inside a component decorated with reduxForm()');\n      }\n\n      return _this;\n    }\n\n    _createClass(Field, [{\n
key: 'componentDidMount',\n      value: function componentDidMount() {\n        var _this2 = this;\n\n
this.context._reduxForm.register(this.name, 'Field', function () {\n          return _this2.props.validate;\n        },
function () {\n          return _this2.props.warn;\n        });\n      }\n    }, {\n      key: 'shouldComponentUpdate',\n
value: function shouldComponentUpdate(nextProps, nextState) {\n        return shallowCompare(this, nextProps,
nextState);\n      }\n    }, {\n      key: 'componentWillReceiveProps',\n      value: function
componentWillReceiveProps(nextProps, nextContext) {\n        var oldName = prefixName(this.context,
this.props.name);\n        var newName = prefixName(nextContext, nextProps.name);\n\n
        if (oldName !== newName || // use deepEqual here because they could be a function or an array of functions\n
    !plain.deepEqual(this.props.validate, nextProps.validate) || !plain.deepEqual(this.props.warn, nextProps.warn))
{\n          // unregister old name\n          this.context._reduxForm.unregister(oldName); // register new name\n\n\n
  this.context._reduxForm.register(newName, 'Field', function () {\n            return nextProps.validate;\n          },
function () {\n            return nextProps.warn;\n          });\n        }\n      }\n    }, {\n      key:
'componentWillUnmount',\n      value: function componentWillUnmount() {\n
this.context._reduxForm.unregister(this.name);\n      }\n    }, {\n      key: 'getRenderedComponent',\n      value:
function getRenderedComponent() {\n        invariant(this.props.withRef, 'If you want to access
getRenderedComponent(), ' + 'you must specify a withRef prop to Field');\n        return this.ref ?
this.ref.getWrappedInstance().getRenderedComponent()
 : undefined;\n      }\n    }, {\n      key: 'render',\n      value: function render() {\n        return
createElement(ConnectedField, _extends({}, this.props, {\n          name: this.name,\n          normalize:
this.normalize,\n          _reduxForm: this.context._reduxForm,\n          ref: this.saveRef\n        }));\n      }\n    }, {\n
key: 'name',\n      get: function get() {\n        return prefixName(this.context, this.props.name);\n      }\n    }, {\n
key: 'dirty',\n      get: function get() {\n        return !this.pristine;\n      }\n    }, {\n      key: 'pristine',\n      get: function
get() {\n        return !!(this.ref && this.ref.getWrappedInstance().isPristine());\n      }\n    }, {\n      key: 'value',\n
get: function get() {\n        return this.ref && this.ref.getWrappedInstance().getValue();\n      }\n    }]);\n\n    return
Field;\n  }(Component);\n\n  Field.propTypes = {\n    name: PropTypes.string.isRequired,\n    component:
 PropTypes.oneOfType([PropTypes.func, PropTypes.string, PropTypes.node]).isRequired,\n    format:
PropTypes.func,\n    normalize: PropTypes.func,\n    onBlur: PropTypes.func,\n    onChange: PropTypes.func,\n
onFocus: PropTypes.func,\n    onDragStart: PropTypes.func,\n    onDrop: PropTypes.func,\n    parse:
PropTypes.func,\n    props: PropTypes.object,\n    validate: PropTypes.oneOfType([PropTypes.func,
PropTypes.arrayOf(PropTypes.func)]),\n    warn: PropTypes.oneOfType([PropTypes.func,
PropTypes.arrayOf(PropTypes.func)]),\n    withRef: PropTypes.bool,\n    immutableProps:
PropTypes.arrayOf(PropTypes.string)\n  };\n  Field.contextTypes = {\n    _reduxForm: PropTypes.object\n  };\n
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polyfill(Field);\n  return Field;\n};\n\nexport default createField;","import createField from './createField';\nimport
plain from './structure/plain';\nexport default createField(plain);","var _extends = Object.assign || function (target)
{\n  for (var i = 1; i < arguments.length; i++) {\n    var source
 = arguments[i];\n\n    for (var key in source) {\n      if (Object.prototype.hasOwnProperty.call(source, key)) {\n
target[key] = source[key];\n      }\n    }\n  }\n\n  return target;\n};\n\nfunction _objectWithoutProperties(obj, keys)
{\n  var target = {};\n\n  for (var i in obj) {\n    if (keys.indexOf(i) >= 0) continue;\n    if
(!Object.prototype.hasOwnProperty.call(obj, i)) continue;\n    target[i] = obj[i];\n  }\n\n  return target;\n}\n\nvar
createFieldArrayProps = function createFieldArrayProps(_ref2, name, form, sectionPrefix, getValue, _ref) {\n  var
getIn = _ref2.getIn;\n\n  var arrayInsert = _ref.arrayInsert,\n      arrayMove = _ref.arrayMove,\n      arrayPop =
_ref.arrayPop,\n      arrayPush = _ref.arrayPush,\n      arrayRemove = _ref.arrayRemove,\n      arrayRemoveAll =
_ref.arrayRemoveAll,\n      arrayShift = _ref.arrayShift,\n      arraySplice = _ref.arraySplice,\n      arraySwap =
_ref.arraySwap,\n      arrayUnshift = _ref.arrayUnshift,\n      asyncError = _ref.asyncError,\n
      dirty = _ref.dirty,\n      length = _ref.length,\n      pristine = _ref.pristine,\n      submitError = _ref.submitError,\n
  state = _ref.state,\n      submitFailed = _ref.submitFailed,\n      submitting = _ref.submitting,\n      syncError =
_ref.syncError,\n      syncWarning = _ref.syncWarning,\n      value = _ref.value,\n      props = _ref.props,\n      rest =
_objectWithoutProperties(_ref, ['arrayInsert', 'arrayMove', 'arrayPop', 'arrayPush', 'arrayRemove', 'arrayRemoveAll',
'arrayShift', 'arraySplice', 'arraySwap', 'arrayUnshift', 'asyncError', 'dirty', 'length', 'pristine', 'submitError', 'state',
'submitFailed', 'submitting', 'syncError', 'syncWarning', 'value', 'props']);\n\n  var error = syncError || asyncError ||
submitError;\n  var warning = syncWarning;\n  var fieldName = sectionPrefix ? name.replace(sectionPrefix + '.', '') :
name;\n\n  var finalProps = _extends({\n    fields: {\n      _isFieldArray: true,\n      forEach: function
forEach(callback) {\n
        return (value || []).forEach(function (item, index) {\n          return callback(fieldName + '[' + index + ']', index,
finalProps.fields);\n        });\n      },\n      get: getValue,\n      getAll: function getAll() {\n        return value;\n      },\n
   insert: arrayInsert,\n      length: length,\n      map: function map(callback) {\n        return (value || []).map(function
(item, index) {\n          return callback(fieldName + '[' + index + ']', index, finalProps.fields);\n        });\n      },\n
move: arrayMove,\n      name: name,\n      pop: function pop() {\n        arrayPop();\n        return getIn(value,
String(length - 1));\n      },\n      push: arrayPush,\n      reduce: function reduce(callback, initial) {\n        return (value
|| []).reduce(function (accumulator, item, index) {\n          return callback(accumulator, fieldName + '[' + index + ']',
index, finalProps.fields);\n        }, initial);\n      },\n      remove: arrayRemove,\n      removeAll: arrayRemoveAll,\n
      shift: function shift() {\n        arrayShift();\n        return getIn(value, '0');\n      },\n      splice: arraySplice,\n
swap: arraySwap,\n      unshift: arrayUnshift\n    },\n    meta: {\n      dirty: dirty,\n      error: error,\n      form: form,\n
   warning: warning,\n      invalid: !!error,\n      pristine: pristine,\n      submitting: submitting,\n      submitFailed:
submitFailed,\n      valid: !error\n    }\n  }, props, rest);\n\n  return finalProps;\n};\n\nexport default
createFieldArrayProps;","import _mapValues from 'lodash-es/mapValues';\n\nvar _createClass = function () {\n
function defineProperties(target, props) {\n    for (var i = 0; i < props.length; i++) {\n      var descriptor = props[i];\n
   descriptor.enumerable = descriptor.enumerable || false;\n      descriptor.configurable = true;\n      if (\"value\" in
descriptor) descriptor.writable = true;\n      Object.defineProperty(target, descriptor.key, descriptor);\n    }\n  }\n\n
return
 function (Constructor, protoProps, staticProps) {\n    if (protoProps) defineProperties(Constructor.prototype,
protoProps);\n    if (staticProps) defineProperties(Constructor, staticProps);\n    return Constructor;\n
};\n}();\n\nfunction _objectWithoutProperties(obj, keys) {\n  var target = {};\n\n  for (var i in obj) {\n    if
(keys.indexOf(i) >= 0) continue;\n    if (!Object.prototype.hasOwnProperty.call(obj, i)) continue;\n    target[i] =
obj[i];\n  }\n\n  return target;\n}\n\nfunction _classCallCheck(instance, Constructor) {\n  if (!(instance instanceof
Constructor)) {\n    throw new TypeError(\"Cannot call a class as a function\");\n  }\n}\n\nfunction
_possibleConstructorReturn(self, call) {\n  if (!self) {\n    throw new ReferenceError(\"this hasn't been initialised -
super() hasn't been called\");\n  }\n\n  return call && (typeof call === \"object\" || typeof call === \"function\") ? call
: self;\n}\n\nfunction _inherits(subClass, superClass) {\n  if (typeof superClass !== \"function\"
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 && superClass !== null) {\n    throw new TypeError(\"Super expression must either be null or a function, not \" +
typeof superClass);\n  }\n\n  subClass.prototype = Object.create(superClass && superClass.prototype, {\n
constructor: {\n      value: subClass,\n      enumerable: false,\n      writable: true,\n      configurable: true\n    }\n  });\n
if (superClass) Object.setPrototypeOf ? Object.setPrototypeOf(subClass, superClass) : subClass.__proto__ =
superClass;\n}\n\nimport * as React from 'react';\nimport PropTypes from 'prop-types';\nimport { connect } from
'react-redux';\nimport { bindActionCreators } from 'redux';\nimport createFieldArrayProps from
'./createFieldArrayProps';\nimport plain from './structure/plain';\nvar propsToNotUpdateFor = ['_reduxForm',
'value'];\n\nvar createConnectedFieldArray = function createConnectedFieldArray(structure) {\n  var deepEqual =
structure.deepEqual,\n      getIn = structure.getIn,\n      size = structure.size;\n\n  var getSyncError
 = function getSyncError(syncErrors, name) {\n    // For an array, the error can _ONLY_ be under _error.\n    // This
is why this getSyncError is not the same as the\n    // one in Field.\n    return plain.getIn(syncErrors, name +
'._error');\n  };\n\n  var getSyncWarning = function getSyncWarning(syncWarnings, name) {\n    // For an array, the
warning can _ONLY_ be under _warning.\n    // This is why this getSyncError is not the same as the\n    // one in
Field.\n    return getIn(syncWarnings, name + '._warning');\n  };\n\n  var ConnectedFieldArray = function
(_React$Component) {\n    _inherits(ConnectedFieldArray, _React$Component);\n\n    function
ConnectedFieldArray() {\n      var _ref;\n\n      var _temp, _this, _ret;\n\n      _classCallCheck(this,
ConnectedFieldArray);\n\n      for (var _len = arguments.length, args = Array(_len), _key = 0; _key < _len; _key++)
{\n        args[_key] = arguments[_key];\n      }\n\n      return _ret = (_temp = (_this =
_possibleConstructorReturn(this,
 (_ref = ConnectedFieldArray.__proto__ || Object.getPrototypeOf(ConnectedFieldArray)).call.apply(_ref,
[this].concat(args))), _this), _this.saveRef = function (ref) {\n        _this.ref = ref;\n      }, _this.getValue = function
(index) {\n        return _this.props.value && getIn(_this.props.value, String(index));\n      }, _temp),
_possibleConstructorReturn(_this, _ret);\n    }\n\n    _createClass(ConnectedFieldArray, [{\n      key:
'shouldComponentUpdate',\n      value: function shouldComponentUpdate(nextProps) {\n        var _this2 = this; //
Update if the elements of the value array was updated.\n\n\n        var thisValue = this.props.value;\n        var
nextValue = nextProps.value;\n\n        if (thisValue && nextValue) {\n          var nextValueItemsSame =
nextValue.every(function (val) {\n            return ~thisValue.indexOf(val);\n          });\n          var
nextValueItemsOrderChanged = nextValue.some(function (val, index) {\n            return val !== thisValue[index];\n
          });\n\n          if (thisValue.length !== nextValue.length || nextValueItemsSame &&
nextValueItemsOrderChanged || nextProps.rerenderOnEveryChange && thisValue.some(function (val, index) {\n
      return !deepEqual(val, nextValue[index]);\n          })) {\n            return true;\n          }\n        }\n\n        var
nextPropsKeys = Object.keys(nextProps);\n        var thisPropsKeys = Object.keys(this.props); // if we have children,
we MUST update in React 16\n        // https://twitter.com/erikras/status/915866544558788608\n\n        return
!!(this.props.children || nextProps.children || nextPropsKeys.length !== thisPropsKeys.length ||
nextPropsKeys.some(function (prop) {\n          // useful to debug rerenders\n          // if (!plain.deepEqual(this.props[
prop ], nextProps[ prop ])) {\n          //   console.info(prop, 'changed', this.props[ prop ], '==>', nextProps[ prop ])\n
    // }\n          return !~propsToNotUpdateFor.indexOf(prop) && !deepEqual(_this2.props[prop],
 nextProps[prop]);\n        }));\n      }\n    }, {\n      key: 'getRenderedComponent',\n      value: function
getRenderedComponent() {\n        return this.ref;\n      }\n    }, {\n      key: 'render',\n      value: function render() {\n
     var _props = this.props,\n            component = _props.component,\n            withRef = _props.withRef,\n
name = _props.name,\n            _reduxForm = _props._reduxForm,\n            validate = _props.validate,\n            warn
= _props.warn,\n            rerenderOnEveryChange = _props.rerenderOnEveryChange,\n            rest =
_objectWithoutProperties(_props, ['component', 'withRef', 'name', '_reduxForm', 'validate', 'warn',
'rerenderOnEveryChange']);\n\n        var props = createFieldArrayProps(structure, name, _reduxForm.form,
_reduxForm.sectionPrefix, this.getValue, rest);\n\n        if (withRef) {\n          props.ref = this.saveRef;\n        }\n\n
  return React.createElement(component, props);\n      }\n
   }, {\n      key: 'dirty',\n      get: function get() {\n        return this.props.dirty;\n      }\n    }, {\n      key: 'pristine',\n
 get: function get() {\n        return this.props.pristine;\n      }\n    }, {\n      key: 'value',\n      get: function get() {\n
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return this.props.value;\n      }\n    }]);\n\n    return ConnectedFieldArray;\n  }(React.Component);\n\n
ConnectedFieldArray.propTypes = {\n    component: PropTypes.oneOfType([PropTypes.func, PropTypes.string,
PropTypes.node]).isRequired,\n    props: PropTypes.object,\n    rerenderOnEveryChange: PropTypes.bool\n  };\n
ConnectedFieldArray.defaultProps = {\n    rerenderOnEveryChange: false\n  };\n
ConnectedFieldArray.contextTypes = {\n    _reduxForm: PropTypes.object\n  };\n  var connector = connect(function
(state, ownProps) {\n    var name = ownProps.name,\n        _ownProps$_reduxForm = ownProps._reduxForm,\n
initialValues = _ownProps$_reduxForm.initialValues,\n        getFormState =
_ownProps$_reduxForm.getFormState;\n
    var formState = getFormState(state);\n    var initial = getIn(formState, 'initial.' + name) || initialValues &&
getIn(initialValues, name);\n    var value = getIn(formState, 'values.' + name);\n    var submitting = getIn(formState,
'submitting');\n    var syncError = getSyncError(getIn(formState, 'syncErrors'), name);\n    var syncWarning =
getSyncWarning(getIn(formState, 'syncWarnings'), name);\n    var pristine = deepEqual(value, initial);\n    return {\n
    asyncError: getIn(formState, 'asyncErrors.' + name + '._error'),\n      dirty: !pristine,\n      pristine: pristine,\n
state: getIn(formState, 'fields.' + name),\n      submitError: getIn(formState, 'submitErrors.' + name + '._error'),\n
submitFailed: getIn(formState, 'submitFailed'),\n      submitting: submitting,\n      syncError: syncError,\n
syncWarning: syncWarning,\n      value: value,\n      length: size(value)\n    };\n  }, function (dispatch, ownProps)
{\n    var name = ownProps.name,\n
        _reduxForm = ownProps._reduxForm;\n    var arrayInsert = _reduxForm.arrayInsert,\n        arrayMove =
_reduxForm.arrayMove,\n        arrayPop = _reduxForm.arrayPop,\n        arrayPush = _reduxForm.arrayPush,\n
arrayRemove = _reduxForm.arrayRemove,\n        arrayRemoveAll = _reduxForm.arrayRemoveAll,\n        arrayShift
= _reduxForm.arrayShift,\n        arraySplice = _reduxForm.arraySplice,\n        arraySwap =
_reduxForm.arraySwap,\n        arrayUnshift = _reduxForm.arrayUnshift;\n    return _mapValues({\n      arrayInsert:
arrayInsert,\n      arrayMove: arrayMove,\n      arrayPop: arrayPop,\n      arrayPush: arrayPush,\n      arrayRemove:
arrayRemove,\n      arrayRemoveAll: arrayRemoveAll,\n      arrayShift: arrayShift,\n      arraySplice: arraySplice,\n
 arraySwap: arraySwap,\n      arrayUnshift: arrayUnshift\n    }, function (actionCreator) {\n      return
bindActionCreators(actionCreator.bind(null, name), dispatch);\n    });\n  }, undefined, {\n    withRef:
 true\n  });\n  return connector(ConnectedFieldArray);\n};\n\nexport default createConnectedFieldArray;","var
_extends = Object.assign || function (target) {\n  for (var i = 1; i < arguments.length; i++) {\n    var source =
arguments[i];\n\n    for (var key in source) {\n      if (Object.prototype.hasOwnProperty.call(source, key)) {\n
target[key] = source[key];\n      }\n    }\n  }\n\n  return target;\n};\n\nvar _createClass = function () {\n  function
defineProperties(target, props) {\n    for (var i = 0; i < props.length; i++) {\n      var descriptor = props[i];\n
descriptor.enumerable = descriptor.enumerable || false;\n      descriptor.configurable = true;\n      if (\"value\" in
descriptor) descriptor.writable = true;\n      Object.defineProperty(target, descriptor.key, descriptor);\n    }\n  }\n\n
return function (Constructor, protoProps, staticProps) {\n    if (protoProps) defineProperties(Constructor.prototype,
protoProps);\n    if (staticProps) defineProperties(Constructor,
 staticProps);\n    return Constructor;\n  };\n}();\n\nfunction _classCallCheck(instance, Constructor) {\n  if
(!(instance instanceof Constructor)) {\n    throw new TypeError(\"Cannot call a class as a function\");\n
}\n}\n\nfunction _possibleConstructorReturn(self, call) {\n  if (!self) {\n    throw new ReferenceError(\"this hasn't
been initialised - super() hasn't been called\");\n  }\n\n  return call && (typeof call === \"object\" || typeof call ===
\"function\") ? call : self;\n}\n\nfunction _inherits(subClass, superClass) {\n  if (typeof superClass !== \"function\"
&& superClass !== null) {\n    throw new TypeError(\"Super expression must either be null or a function, not \" +
typeof superClass);\n  }\n\n  subClass.prototype = Object.create(superClass && superClass.prototype, {\n
constructor: {\n      value: subClass,\n      enumerable: false,\n      writable: true,\n      configurable: true\n    }\n  });\n
if (superClass) Object.setPrototypeOf ? Object.setPrototypeOf(subClass,
 superClass) : subClass.__proto__ = superClass;\n}\n\nfunction _defineProperty(obj, key, value) {\n  if (key in obj)
{\n    Object.defineProperty(obj, key, {\n      value: value,\n      enumerable: true,\n      configurable: true,\n
writable: true\n    });\n  } else {\n    obj[key] = value;\n  }\n\n  return obj;\n}\n\nimport React, { Component,
createElement } from 'react';\nimport { polyfill } from 'react-lifecycles-compat';\nimport PropTypes from 'prop-
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types';\nimport invariant from 'invariant';\nimport createConnectedFieldArray from
'./ConnectedFieldArray';\nimport prefixName from './util/prefixName';\n\nvar toArray = function toArray(value) {\n
return Array.isArray(value) ? value : [value];\n};\n\nvar wrapError = function wrapError(fn, key) {\n  return fn &&
function () {\n    var validators = toArray(fn);\n\n    for (var i = 0; i < validators.length; i++) {\n      var result =
validators[i].apply(validators, arguments);\n\n      if (result) {\n        return _defineProperty({},
 key, result);\n      }\n    }\n  };\n};\n\nvar createFieldArray = function createFieldArray(structure) {\n  var
ConnectedFieldArray = createConnectedFieldArray(structure);\n\n  var FieldArray = function (_Component) {\n
_inherits(FieldArray, _Component);\n\n    function FieldArray(props, context) {\n      _classCallCheck(this,
FieldArray);\n\n      var _this = _possibleConstructorReturn(this, (FieldArray.__proto__ ||
Object.getPrototypeOf(FieldArray)).call(this, props, context));\n\n      _this.saveRef = function (ref) {\n        _this.ref
= ref;\n      };\n\n      if (!context._reduxForm) {\n        throw new Error('FieldArray must be inside a component
decorated with reduxForm()');\n      }\n\n      return _this;\n    }\n\n    _createClass(FieldArray, [{\n      key:
'componentDidMount',\n      value: function componentDidMount() {\n        var _this2 = this;\n\n
this.context._reduxForm.register(this.name, 'FieldArray', function () {\n          return
wrapError(_this2.props.validate,
 '_error');\n        }, function () {\n          return wrapError(_this2.props.warn, '_warning');\n        });\n      }\n    }, {\n
 key: 'componentWillReceiveProps',\n      value: function componentWillReceiveProps(nextProps, nextContext) {\n
     var oldName = prefixName(this.context, this.props.name);\n        var newName = prefixName(nextContext,
nextProps.name);\n\n        if (oldName !== newName) {\n          // unregister old name\n
this.context._reduxForm.unregister(oldName); // register new name\n\n\n
this.context._reduxForm.register(newName, 'FieldArray');\n        }\n      }\n    }, {\n      key:
'componentWillUnmount',\n      value: function componentWillUnmount() {\n
this.context._reduxForm.unregister(this.name);\n      }\n    }, {\n      key: 'getRenderedComponent',\n      value:
function getRenderedComponent() {\n        invariant(this.props.withRef, 'If you want to access
getRenderedComponent(), ' + 'you must specify
 a withRef prop to FieldArray');\n        return this.ref && this.ref.getWrappedInstance().getRenderedComponent();\n
    }\n    }, {\n      key: 'render',\n      value: function render() {\n        return createElement(ConnectedFieldArray,
_extends({}, this.props, {\n          name: this.name,\n          _reduxForm: this.context._reduxForm,\n          ref:
this.saveRef\n        }));\n      }\n    }, {\n      key: 'name',\n      get: function get() {\n        return
prefixName(this.context, this.props.name);\n      }\n    }, {\n      key: 'dirty',\n      get: function get() {\n        return
!this.ref || this.ref.getWrappedInstance().dirty;\n      }\n    }, {\n      key: 'pristine',\n      get: function get() {\n
return !!(this.ref && this.ref.getWrappedInstance().pristine);\n      }\n    }, {\n      key: 'value',\n      get: function
get() {\n        return this.ref ? this.ref.getWrappedInstance().value : undefined;\n      }\n    }]);\n\n    return
FieldArray;\n  }(Component);\n\n
  FieldArray.propTypes = {\n    name: PropTypes.string.isRequired,\n    component:
PropTypes.oneOfType([PropTypes.func, PropTypes.string, PropTypes.node]).isRequired,\n    props:
PropTypes.object,\n    validate: PropTypes.oneOfType([PropTypes.func, PropTypes.arrayOf(PropTypes.func)]),\n
warn: PropTypes.oneOfType([PropTypes.func, PropTypes.arrayOf(PropTypes.func)]),\n    withRef:
PropTypes.bool\n  };\n  FieldArray.contextTypes = {\n    _reduxForm: PropTypes.object\n  };\n
polyfill(FieldArray);\n  return FieldArray;\n};\n\nexport default createFieldArray;","import createFieldArray from
'./createFieldArray';\nimport plain from './structure/plain';\nexport default createFieldArray(plain);","import _toPath
from 'lodash-es/toPath';\n\nfunction createDeleteInWithCleanUp(structure) {\n  var shouldDeleteDefault = function
shouldDeleteDefault(structure) {\n    return function (state, path) {\n      return structure.getIn(state, path) !==
undefined;\n    };\n  };\n\n  var deepEqual = structure.deepEqual,\n
      empty = structure.empty,\n      getIn = structure.getIn,\n      deleteIn = structure.deleteIn,\n      setIn =
structure.setIn;\n  return function () {\n    var shouldDelete = arguments.length > 0 && arguments[0] !== undefined
? arguments[0] : shouldDeleteDefault;\n\n    var deleteInWithCleanUp = function deleteInWithCleanUp(state, path)
{\n      if (path[path.length - 1] === ']') {\n        // array path\n        var pathTokens = _toPath(path);\n\n
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pathTokens.pop();\n        var parent = getIn(state, pathTokens.join('.'));\n        return parent ? setIn(state, path) :
state;\n      }\n\n      var result = state;\n\n      if (shouldDelete(structure)(state, path)) {\n        result = deleteIn(state,
path);\n      }\n\n      var dotIndex = path.lastIndexOf('.');\n\n      if (dotIndex > 0) {\n        var parentPath =
path.substring(0, dotIndex);\n\n        if (parentPath[parentPath.length - 1] !== ']') {\n          var _parent = getIn(result,
parentPath);\n\n
          if (deepEqual(_parent, empty)) {\n            return deleteInWithCleanUp(result, parentPath);\n          }\n        }\n
    }\n\n      return result;\n    };\n\n    return deleteInWithCleanUp;\n  };\n}\n\nexport default
createDeleteInWithCleanUp;","function _defineProperty(obj, key, value) {\n  if (key in obj) {\n
Object.defineProperty(obj, key, {\n      value: value,\n      enumerable: true,\n      configurable: true,\n      writable:
true\n    });\n  } else {\n    obj[key] = value;\n  }\n\n  return obj;\n}\n\nfunction _objectWithoutProperties(obj, keys)
{\n  var target = {};\n\n  for (var i in obj) {\n    if (keys.indexOf(i) >= 0) continue;\n    if
(!Object.prototype.hasOwnProperty.call(obj, i)) continue;\n    target[i] = obj[i];\n  }\n\n  return target;\n}\n\nimport
{ ARRAY_INSERT, ARRAY_MOVE, ARRAY_POP, ARRAY_PUSH, ARRAY_REMOVE,
ARRAY_REMOVE_ALL, ARRAY_SHIFT, ARRAY_SPLICE, ARRAY_SWAP, ARRAY_UNSHIFT,
AUTOFILL, BLUR, CHANGE, CLEAR_ASYNC_ERROR, CLEAR_SUBMIT, CLEAR_SUBMIT_ERRORS,
 DESTROY, FOCUS, INITIALIZE, prefix, REGISTER_FIELD, RESET, RESET_SECTION,
SET_SUBMIT_FAILED, SET_SUBMIT_SUCCEEDED, START_ASYNC_VALIDATION, START_SUBMIT,
STOP_ASYNC_VALIDATION, STOP_SUBMIT, SUBMIT, TOUCH, UNREGISTER_FIELD, UNTOUCH,
UPDATE_SYNC_ERRORS, CLEAR_FIELDS, UPDATE_SYNC_WARNINGS } from './actionTypes';\nimport
createDeleteInWithCleanUp from './deleteInWithCleanUp';\nimport plain from './structure/plain';\n\nvar
shouldDelete = function shouldDelete(_ref) {\n  var getIn = _ref.getIn;\n  return function (state, path) {\n    var
initialValuesPath = null;\n\n    if (path.startsWith('values')) {\n      initialValuesPath = path.replace('values',
'initial');\n    }\n\n    var initialValueComparison = initialValuesPath ? getIn(state, initialValuesPath) === undefined
: true;\n    return getIn(state, path) !== undefined && initialValueComparison;\n  };\n};\n\nvar isReduxFormAction
= function isReduxFormAction(action) {\n  return action && action.type && action.type.length > prefix.length
 && action.type.substring(0, prefix.length) === prefix;\n};\n\nfunction createReducer(structure) {\n  var
_behaviors;\n\n  var deepEqual = structure.deepEqual,\n      empty = structure.empty,\n      forEach =
structure.forEach,\n      getIn = structure.getIn,\n      setIn = structure.setIn,\n      deleteIn = structure.deleteIn,\n
fromJS = structure.fromJS,\n      keys = structure.keys,\n      size = structure.size,\n      some = structure.some,\n
splice = structure.splice;\n  var deleteInWithCleanUp = createDeleteInWithCleanUp(structure)(shouldDelete);\n  var
plainDeleteInWithCleanUp = createDeleteInWithCleanUp(plain)(shouldDelete);\n\n  var doSplice = function
doSplice(state, key, field, index, removeNum, value, force) {\n    var existing = getIn(state, key + '.' + field);\n
return existing || force ? setIn(state, key + '.' + field, splice(existing, index, removeNum, value)) : state;\n  };\n\n  var
doPlainSplice = function doPlainSplice(state, key, field, index, removeNum,
 value, force) {\n    var slice = getIn(state, key);\n    var existing = plain.getIn(slice, field);\n    return existing || force
? setIn(state, key, plain.setIn(slice, field, plain.splice(existing, index, removeNum, value))) : state;\n  };\n\n  var
rootKeys = ['values', 'fields', 'submitErrors', 'asyncErrors'];\n\n  var arraySplice = function arraySplice(state, field,
index, removeNum, value) {\n    var result = state;\n    var nonValuesValue = value != null ? empty : undefined;\n
result = doSplice(result, 'values', field, index, removeNum, value, true);\n    result = doSplice(result, 'fields', field,
index, removeNum, nonValuesValue);\n    result = doPlainSplice(result, 'syncErrors', field, index, removeNum,
undefined);\n    result = doPlainSplice(result, 'syncWarnings', field, index, removeNum, undefined);\n    result =
doSplice(result, 'submitErrors', field, index, removeNum, undefined);\n    result = doSplice(result, 'asyncErrors',
field, index, removeNum, undefined);\n
    return result;\n  };\n\n  var behaviors = (_behaviors = {}, _defineProperty(_behaviors, ARRAY_INSERT,
function (state, _ref2) {\n    var _ref2$meta = _ref2.meta,\n        field = _ref2$meta.field,\n        index =
_ref2$meta.index,\n        payload = _ref2.payload;\n    return arraySplice(state, field, index, 0, payload);\n  }),
_defineProperty(_behaviors, ARRAY_MOVE, function (state, _ref3) {\n    var _ref3$meta = _ref3.meta,\n        field
= _ref3$meta.field,\n        from = _ref3$meta.from,\n        to = _ref3$meta.to;\n    var array = getIn(state, 'values.' +
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field);\n    var length = array ? size(array) : 0;\n    var result = state;\n\n    if (length) {\n
rootKeys.forEach(function (key) {\n        var path = key + '.' + field;\n\n        if (getIn(result, path)) {\n          var
value = getIn(result, path + '[' + from + ']');\n          result = setIn(result, path, splice(getIn(result, path), from, 1)); //
remove\n\n          result = setIn(result, path, splice(getIn(result,
 path), to, 0, value)); // insert\n        }\n      });\n    }\n\n    return result;\n  }), _defineProperty(_behaviors,
ARRAY_POP, function (state, _ref4) {\n    var field = _ref4.meta.field;\n    var array = getIn(state, 'values.' +
field);\n    var length = array ? size(array) : 0;\n    return length ? arraySplice(state, field, length - 1, 1) : state;\n  }),
_defineProperty(_behaviors, ARRAY_PUSH, function (state, _ref5) {\n    var field = _ref5.meta.field,\n
payload = _ref5.payload;\n    var array = getIn(state, 'values.' + field);\n    var length = array ? size(array) : 0;\n
return arraySplice(state, field, length, 0, payload);\n  }), _defineProperty(_behaviors, ARRAY_REMOVE, function
(state, _ref6) {\n    var _ref6$meta = _ref6.meta,\n        field = _ref6$meta.field,\n        index = _ref6$meta.index;\n
return arraySplice(state, field, index, 1);\n  }), _defineProperty(_behaviors, ARRAY_REMOVE_ALL, function
(state, _ref7) {\n    var field = _ref7.meta.field;\n
  var array = getIn(state, 'values.' + field);\n    var length = array ? size(array) : 0;\n    return length ?
arraySplice(state, field, 0, length) : state;\n  }), _defineProperty(_behaviors, ARRAY_SHIFT, function (state, _ref8)
{\n    var field = _ref8.meta.field;\n    return arraySplice(state, field, 0, 1);\n  }), _defineProperty(_behaviors,
ARRAY_SPLICE, function (state, _ref9) {\n    var _ref9$meta = _ref9.meta,\n        field = _ref9$meta.field,\n
index = _ref9$meta.index,\n        removeNum = _ref9$meta.removeNum,\n        payload = _ref9.payload;\n    return
arraySplice(state, field, index, removeNum, payload);\n  }), _defineProperty(_behaviors, ARRAY_SWAP, function
(state, _ref10) {\n    var _ref10$meta = _ref10.meta,\n        field = _ref10$meta.field,\n        indexA =
_ref10$meta.indexA,\n        indexB = _ref10$meta.indexB;\n    var result = state;\n    rootKeys.forEach(function
(key) {\n      var valueA = getIn(result, key + '.' + field + '[' + indexA + ']');\n
 var valueB = getIn(result, key + '.' + field + '[' + indexB + ']');\n\n      if (valueA !== undefined || valueB !==
undefined) {\n        result = setIn(result, key + '.' + field + '[' + indexA + ']', valueB);\n        result = setIn(result, key
+ '.' + field + '[' + indexB + ']', valueA);\n      }\n    });\n    return result;\n  }), _defineProperty(_behaviors,
ARRAY_UNSHIFT, function (state, _ref11) {\n    var field = _ref11.meta.field,\n        payload = _ref11.payload;\n
return arraySplice(state, field, 0, 0, payload);\n  }), _defineProperty(_behaviors, AUTOFILL, function (state,
_ref12) {\n    var field = _ref12.meta.field,\n        payload = _ref12.payload;\n    var result = state;\n    result =
deleteInWithCleanUp(result, 'asyncErrors.' + field);\n    result = deleteInWithCleanUp(result, 'submitErrors.' +
field);\n    result = setIn(result, 'fields.' + field + '.autofilled', true);\n    result = setIn(result, 'values.' + field,
payload);\n    return result;\n  }), _defineProperty(_behaviors,
 BLUR, function (state, _ref13) {\n    var _ref13$meta = _ref13.meta,\n        field = _ref13$meta.field,\n        touch =
_ref13$meta.touch,\n        payload = _ref13.payload;\n    var result = state;\n    var initial = getIn(result, 'initial.' +
field);\n\n    if (initial === undefined && payload === '') {\n      result = deleteInWithCleanUp(result, 'values.' +
field);\n    } else if (payload !== undefined) {\n      result = setIn(result, 'values.' + field, payload);\n    }\n\n    if
(field === getIn(result, 'active')) {\n      result = deleteIn(result, 'active');\n    }\n\n    result = deleteIn(result, 'fields.'
+ field + '.active');\n\n    if (touch) {\n      result = setIn(result, 'fields.' + field + '.touched', true);\n      result =
setIn(result, 'anyTouched', true);\n    }\n\n    return result;\n  }), _defineProperty(_behaviors, CHANGE, function
(state, _ref14) {\n    var _ref14$meta = _ref14.meta,\n        field = _ref14$meta.field,\n        touch =
_ref14$meta.touch,\n
        persistentSubmitErrors = _ref14$meta.persistentSubmitErrors,\n        payload = _ref14.payload;\n    var result =
state;\n    var initial = getIn(result, 'initial.' + field);\n\n    if (initial === undefined && payload === '') {\n      result
= deleteInWithCleanUp(result, 'values.' + field);\n    } else if (payload !== undefined) {\n      result = setIn(result,
'values.' + field, payload);\n    }\n\n    result = deleteInWithCleanUp(result, 'asyncErrors.' + field);\n\n    if
(!persistentSubmitErrors) {\n      result = deleteInWithCleanUp(result, 'submitErrors.' + field);\n    }\n\n    result =
deleteInWithCleanUp(result, 'fields.' + field + '.autofilled');\n\n    if (touch) {\n      result = setIn(result, 'fields.' +
field + '.touched', true);\n      result = setIn(result, 'anyTouched', true);\n    }\n\n    return result;\n  }),
_defineProperty(_behaviors, CLEAR_SUBMIT, function (state) {\n    return deleteIn(state, 'triggerSubmit');\n  }),
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_defineProperty(_behaviors, CLEAR_SUBMIT_ERRORS,
 function (state) {\n    var result = state;\n    result = deleteInWithCleanUp(result, 'submitErrors');\n    result =
deleteIn(result, 'error');\n    return result;\n  }), _defineProperty(_behaviors, CLEAR_ASYNC_ERROR, function
(state, _ref15) {\n    var field = _ref15.meta.field;\n    return deleteIn(state, 'asyncErrors.' + field);\n  }),
_defineProperty(_behaviors, CLEAR_FIELDS, function (state, _ref16) {\n    var _ref16$meta = _ref16.meta,\n
keepTouched = _ref16$meta.keepTouched,\n        persistentSubmitErrors = _ref16$meta.persistentSubmitErrors,\n
   fields = _ref16$meta.fields;\n    var result = state;\n    fields.forEach(function (field) {\n      result =
deleteInWithCleanUp(result, 'values.' + field);\n      result = deleteInWithCleanUp(result, 'asyncErrors.' + field);\n\n
   if (!persistentSubmitErrors) {\n        result = deleteInWithCleanUp(result, 'submitErrors.' + field);\n      }\n\n
result = deleteInWithCleanUp(result, 'fields.' + field
 + '.autofilled');\n\n      if (!keepTouched) {\n        result = deleteIn(result, 'fields.' + field + '.touched');\n      }\n
});\n    var anyTouched = some(keys(getIn(result, 'registeredFields')), function (key) {\n      return getIn(result,
'fields.' + key + '.touched');\n    });\n    result = anyTouched ? setIn(result, 'anyTouched', true) : deleteIn(result,
'anyTouched');\n    return result;\n  }), _defineProperty(_behaviors, FOCUS, function (state, _ref17) {\n    var field =
_ref17.meta.field;\n    var result = state;\n    var previouslyActive = getIn(state, 'active');\n    result = deleteIn(result,
'fields.' + previouslyActive + '.active');\n    result = setIn(result, 'fields.' + field + '.visited', true);\n    result =
setIn(result, 'fields.' + field + '.active', true);\n    result = setIn(result, 'active', field);\n    return result;\n  }),
_defineProperty(_behaviors, INITIALIZE, function (state, _ref18) {\n    var payload = _ref18.payload,\n
_ref18$meta = _ref18.meta,\n
        keepDirty = _ref18$meta.keepDirty,\n        keepSubmitSucceeded = _ref18$meta.keepSubmitSucceeded,\n
updateUnregisteredFields = _ref18$meta.updateUnregisteredFields,\n        keepValues = _ref18$meta.keepValues;\n
  var mapData = fromJS(payload);\n    var result = empty; // clean all field state\n    // persist old warnings, they will
get recalculated if the new form values are different from the old values\n\n    var warning = getIn(state,
'warning');\n\n    if (warning) {\n      result = setIn(result, 'warning', warning);\n    }\n\n    var syncWarnings =
getIn(state, 'syncWarnings');\n\n    if (syncWarnings) {\n      result = setIn(result, 'syncWarnings', syncWarnings);\n
} // persist old errors, they will get recalculated if the new form values are different from the old values\n\n\n    var
error = getIn(state, 'error');\n\n    if (error) {\n      result = setIn(result, 'error', error);\n    }\n\n    var syncErrors =
getIn(state, 'syncErrors');\n\n    if (syncErrors)
 {\n      result = setIn(result, 'syncErrors', syncErrors);\n    }\n\n    var registeredFields = getIn(state,
'registeredFields');\n\n    if (registeredFields) {\n      result = setIn(result, 'registeredFields', registeredFields);\n
}\n\n    var previousValues = getIn(state, 'values');\n    var previousInitialValues = getIn(state, 'initial');\n    var
newInitialValues = mapData;\n    var newValues = previousValues;\n\n    if (keepDirty && registeredFields) {\n
if (!deepEqual(newInitialValues, previousInitialValues)) {\n        //\n        // Keep the value of dirty fields while
updating the value of\n        // pristine fields. This way, apps can reinitialize forms while\n        // avoiding stomping
on user edits.\n        //\n        // Note 1: The initialize action replaces all initial values\n        // regardless of
keepDirty.\n        //\n        // Note 2: When a field is dirty, keepDirty is enabled, and the field\n        // value is the
same as the new initial
 value for the field, the\n        // initialize action causes the field to become pristine. That effect\n        // is what we
want.\n        //\n        var overwritePristineValue = function overwritePristineValue(name) {\n          var
previousInitialValue = getIn(previousInitialValues, name);\n          var previousValue = getIn(previousValues,
name);\n\n          if (deepEqual(previousValue, previousInitialValue)) {\n            // Overwrite the old pristine value
with the new pristine value\n            var newInitialValue = getIn(newInitialValues, name); // This check prevents
any 'setIn' call that would create useless\n            // nested objects, since the path to the new field value would\n
  // evaluate to the same (especially for undefined values)\n\n            if (getIn(newValues, name) !==
newInitialValue) {\n              newValues = setIn(newValues, name, newInitialValue);\n            }\n          }\n
};\n\n        if (!updateUnregisteredFields) {\n
        forEach(keys(registeredFields), function (name) {\n            return overwritePristineValue(name);\n          });\n
    }\n\n        forEach(keys(newInitialValues), function (name) {\n          var previousInitialValue =
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getIn(previousInitialValues, name);\n\n          if (typeof previousInitialValue === 'undefined') {\n            // Add new
values at the root level.\n            var newInitialValue = getIn(newInitialValues, name);\n            newValues =
setIn(newValues, name, newInitialValue);\n          }\n\n          if (updateUnregisteredFields) {\n
overwritePristineValue(name);\n          }\n        });\n      }\n    } else {\n      newValues = newInitialValues;\n    }\n\n
if (keepValues) {\n      forEach(keys(previousValues), function (name) {\n        var previousValue =
getIn(previousValues, name);\n        newValues = setIn(newValues, name, previousValue);\n      });\n
forEach(keys(previousInitialValues), function (name) {\n        var previousInitialValue
 = getIn(previousInitialValues, name);\n        newInitialValues = setIn(newInitialValues, name,
previousInitialValue);\n      });\n    }\n\n    if (keepSubmitSucceeded && getIn(state, 'submitSucceeded')) {\n
result = setIn(result, 'submitSucceeded', true);\n    }\n\n    result = setIn(result, 'values', newValues);\n    result =
setIn(result, 'initial', newInitialValues);\n    return result;\n  }), _defineProperty(_behaviors, REGISTER_FIELD,
function (state, _ref19) {\n    var _ref19$payload = _ref19.payload,\n        name = _ref19$payload.name,\n        type
= _ref19$payload.type;\n    var key = 'registeredFields[\\'' + name + '\\']';\n    var field = getIn(state, key);\n\n    if
(field) {\n      var count = getIn(field, 'count') + 1;\n      field = setIn(field, 'count', count);\n    } else {\n      field =
fromJS({\n        name: name,\n        type: type,\n        count: 1\n      });\n    }\n\n    return setIn(state, key, field);\n  }),
_defineProperty(_behaviors,
 RESET, function (state) {\n    var result = empty;\n    var registeredFields = getIn(state, 'registeredFields');\n\n    if
(registeredFields) {\n      result = setIn(result, 'registeredFields', registeredFields);\n    }\n\n    var values =
getIn(state, 'initial');\n\n    if (values) {\n      result = setIn(result, 'values', values);\n      result = setIn(result, 'initial',
values);\n    }\n\n    return result;\n  }), _defineProperty(_behaviors, RESET_SECTION, function (state, _ref20) {\n
 var sections = _ref20.meta.sections;\n    var result = state;\n    sections.forEach(function (section) {\n      result =
deleteInWithCleanUp(result, 'asyncErrors.' + section);\n      result = deleteInWithCleanUp(result, 'submitErrors.' +
section);\n      result = deleteInWithCleanUp(result, 'fields.' + section);\n      var values = getIn(state, 'initial.' +
section);\n      result = values ? setIn(result, 'values.' + section, values) : deleteInWithCleanUp(result, 'values.' +
section);\n    });\n
 var anyTouched = some(keys(getIn(result, 'registeredFields')), function (key) {\n      return getIn(result, 'fields.' +
key + '.touched');\n    });\n    result = anyTouched ? setIn(result, 'anyTouched', true) : deleteIn(result,
'anyTouched');\n    return result;\n  }), _defineProperty(_behaviors, SUBMIT, function (state) {\n    return
setIn(state, 'triggerSubmit', true);\n  }), _defineProperty(_behaviors, START_ASYNC_VALIDATION, function
(state, _ref21) {\n    var field = _ref21.meta.field;\n    return setIn(state, 'asyncValidating', field || true);\n  }),
_defineProperty(_behaviors, START_SUBMIT, function (state) {\n    return setIn(state, 'submitting', true);\n  }),
_defineProperty(_behaviors, STOP_ASYNC_VALIDATION, function (state, _ref22) {\n    var payload =
_ref22.payload;\n    var result = state;\n    result = deleteIn(result, 'asyncValidating');\n\n    if (payload &&
Object.keys(payload).length) {\n      var _error = payload._error,\n          fieldErrors =
_objectWithoutProperties(payload,
 ['_error']);\n\n      if (_error) {\n        result = setIn(result, 'error', _error);\n      }\n\n      if
(Object.keys(fieldErrors).length) {\n        result = setIn(result, 'asyncErrors', fromJS(fieldErrors));\n      }\n    } else
{\n      result = deleteIn(result, 'error');\n      result = deleteIn(result, 'asyncErrors');\n    }\n\n    return result;\n  }),
_defineProperty(_behaviors, STOP_SUBMIT, function (state, _ref23) {\n    var payload = _ref23.payload;\n    var
result = state;\n    result = deleteIn(result, 'submitting');\n    result = deleteIn(result, 'submitFailed');\n    result =
deleteIn(result, 'submitSucceeded');\n\n    if (payload && Object.keys(payload).length) {\n      var _error =
payload._error,\n          fieldErrors = _objectWithoutProperties(payload, ['_error']);\n\n      if (_error) {\n        result =
setIn(result, 'error', _error);\n      } else {\n        result = deleteIn(result, 'error');\n      }\n\n      if
(Object.keys(fieldErrors).length)
 {\n        result = setIn(result, 'submitErrors', fromJS(fieldErrors));\n      } else {\n        result = deleteIn(result,
'submitErrors');\n      }\n\n      result = setIn(result, 'submitFailed', true);\n    } else {\n      result = deleteIn(result,
'error');\n      result = deleteIn(result, 'submitErrors');\n    }\n\n    return result;\n  }), _defineProperty(_behaviors,
SET_SUBMIT_FAILED, function (state, _ref24) {\n    var fields = _ref24.meta.fields;\n    var result = state;\n
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result = setIn(result, 'submitFailed', true);\n    result = deleteIn(result, 'submitSucceeded');\n    result =
deleteIn(result, 'submitting');\n    fields.forEach(function (field) {\n      return result = setIn(result, 'fields.' + field +
'.touched', true);\n    });\n\n    if (fields.length) {\n      result = setIn(result, 'anyTouched', true);\n    }\n\n    return
result;\n  }), _defineProperty(_behaviors, SET_SUBMIT_SUCCEEDED, function (state) {\n    var result = state;\n
result = deleteIn(result, 'submitFailed');\n
    result = setIn(result, 'submitSucceeded', true);\n    return result;\n  }), _defineProperty(_behaviors, TOUCH,
function (state, _ref25) {\n    var fields = _ref25.meta.fields;\n    var result = state;\n    fields.forEach(function (field)
{\n      return result = setIn(result, 'fields.' + field + '.touched', true);\n    });\n    result = setIn(result, 'anyTouched',
true);\n    return result;\n  }), _defineProperty(_behaviors, UNREGISTER_FIELD, function (state, _ref26) {\n    var
_ref26$payload = _ref26.payload,\n        name = _ref26$payload.name,\n        destroyOnUnmount =
_ref26$payload.destroyOnUnmount;\n    var result = state;\n    var key = 'registeredFields[\\'' + name + '\\']';\n    var
field = getIn(result, key);\n\n    if (!field) {\n      return result;\n    }\n\n    var count = getIn(field, 'count') - 1;\n\n    if
(count <= 0 && destroyOnUnmount) {\n      // Note: Cannot use deleteWithCleanUp here because of the flat nature
of registeredFields\n      result
 = deleteIn(result, key);\n\n      if (deepEqual(getIn(result, 'registeredFields'), empty)) {\n        result =
deleteIn(result, 'registeredFields');\n      }\n\n      var syncErrors = getIn(result, 'syncErrors');\n\n      if (syncErrors)
{\n        syncErrors = plainDeleteInWithCleanUp(syncErrors, name);\n\n        if (plain.deepEqual(syncErrors,
plain.empty)) {\n          result = deleteIn(result, 'syncErrors');\n        } else {\n          result = setIn(result, 'syncErrors',
syncErrors);\n        }\n      }\n\n      var syncWarnings = getIn(result, 'syncWarnings');\n\n      if (syncWarnings) {\n
   syncWarnings = plainDeleteInWithCleanUp(syncWarnings, name);\n\n        if (plain.deepEqual(syncWarnings,
plain.empty)) {\n          result = deleteIn(result, 'syncWarnings');\n        } else {\n          result = setIn(result,
'syncWarnings', syncWarnings);\n        }\n      }\n\n      result = deleteInWithCleanUp(result, 'submitErrors.' +
name);\n      result = deleteInWithCleanUp(result,
 'asyncErrors.' + name);\n    } else {\n      field = setIn(field, 'count', count);\n      result = setIn(result, key, field);\n
}\n\n    return result;\n  }), _defineProperty(_behaviors, UNTOUCH, function (state, _ref27) {\n    var fields =
_ref27.meta.fields;\n    var result = state;\n    fields.forEach(function (field) {\n      return result = deleteIn(result,
'fields.' + field + '.touched');\n    });\n    var anyTouched = some(keys(getIn(result, 'registeredFields')), function (key)
{\n      return getIn(result, 'fields.' + key + '.touched');\n    });\n    result = anyTouched ? setIn(result, 'anyTouched',
true) : deleteIn(result, 'anyTouched');\n    return result;\n  }), _defineProperty(_behaviors,
UPDATE_SYNC_ERRORS, function (state, _ref28) {\n    var _ref28$payload = _ref28.payload,\n        syncErrors =
_ref28$payload.syncErrors,\n        error = _ref28$payload.error;\n    var result = state;\n\n    if (error) {\n      result =
setIn(result, 'error', error);\n      result
 = setIn(result, 'syncError', true);\n    } else {\n      result = deleteIn(result, 'error');\n      result = deleteIn(result,
'syncError');\n    }\n\n    if (Object.keys(syncErrors).length) {\n      result = setIn(result, 'syncErrors', syncErrors);\n
} else {\n      result = deleteIn(result, 'syncErrors');\n    }\n\n    return result;\n  }), _defineProperty(_behaviors,
UPDATE_SYNC_WARNINGS, function (state, _ref29) {\n    var _ref29$payload = _ref29.payload,\n
syncWarnings = _ref29$payload.syncWarnings,\n        warning = _ref29$payload.warning;\n    var result = state;\n\n
  if (warning) {\n      result = setIn(result, 'warning', warning);\n    } else {\n      result = deleteIn(result, 'warning');\n
}\n\n    if (Object.keys(syncWarnings).length) {\n      result = setIn(result, 'syncWarnings', syncWarnings);\n    } else
{\n      result = deleteIn(result, 'syncWarnings');\n    }\n\n    return result;\n  }), _behaviors);\n\n  var reducer =
function reducer() {\n    var
 state = arguments.length > 0 && arguments[0] !== undefined ? arguments[0] : empty;\n    var action =
arguments[1];\n    var behavior = behaviors[action.type];\n    return behavior ? behavior(state, action) : state;\n
};\n\n  var byForm = function byForm(reducer) {\n    return function () {\n      var state = arguments.length > 0 &&
arguments[0] !== undefined ? arguments[0] : empty;\n      var action = arguments.length > 1 && arguments[1] !==
undefined ? arguments[1] : {\n        type: 'NONE'\n      };\n      var form = action && action.meta &&
action.meta.form;\n\n      if (!form || !isReduxFormAction(action)) {\n        return state;\n      }\n\n      if (action.type
=== DESTROY && action.meta && action.meta.form) {\n        return action.meta.form.reduce(function (result,
```

form) {\n return deleteInWithCleanUp(result, form);\n }, state);\n }\n\n var formState = getIn(state, form);\n var result = reducer(formState, action);\n return result === formState
 ? state : setIn(state, form, result);\n };\n };\n /**\n * Adds additional functionality to the reducer\n */\n\n\n function decorate(target) {\n target.plugin = function (reducers) {\n var _this = this; // use 'function' keyword to enable 'this'\n\n\n return decorate(function () {\n var state = arguments.length > 0 && arguments[0] !== undefined ? arguments[0] : empty;\n var action = arguments.length > 1 && arguments[1] !== undefined ? arguments[1] : {\n type: 'NONE'\n };\n\n var callPlugin = function callPlugin(processed, key) {\n var previousState = getIn(processed, key);\n var nextState = reducers[key](previousState, action, getIn(state, key));\n return nextState !== previousState ? setIn(processed, key, nextState) : processed;\n };\n\n var processed = _this(state, action); // run through redux-form reducer\n\n\n var form = action && action.meta && action.meta.form;\n\n
 if (form) {\n // this is an action aimed at forms, so only give it to the specified form's plugin\n return reducers[form] ? callPlugin(processed, form) : processed;\n } else {\n // this is not a form-specific action, so send it to all the plugins\n return Object.keys(reducers).reduce(callPlugin, processed);\n }\n });\n };\n\n return target;\n }\n\n return decorate(byForm(reducer));\n}\n\nexport default createReducer;","import createReducer from './createReducer';\nimport plain from './structure/plain';\nexport default createReducer(plain);","import invariant from 'invariant';\nimport plain from './structure/plain';\n\nvar createFormValueSelector = function createFormValueSelector(_ref) {\n var getIn = _ref.getIn;\n return function (form, getFormState) {\n invariant(form, 'Form value must be specified');\n\n var nonNullGetFormState = getFormState || function (state) {\n return getIn(state, 'form');\n };\n\n
 return function (state) {\n for (var _len = arguments.length, fields = Array(_len > 1 ? _len - 1 : 0), _key = 1; _key < _len; _key++) {\n fields[_key - 1] = arguments[_key];\n }\n\n invariant(fields.length, 'No fields specified');\n return fields.length === 1 ? // only selecting one field, so return its value\n getIn(nonNullGetFormState(state), form + '.values.' + fields[0]) : // selecting many fields, so return an object of field values\n fields.reduce(function (accumulator, field) {\n var value = getIn(nonNullGetFormState(state), form + '.values.' + field);\n return value === undefined ? accumulator : plain.setIn(accumulator, field, value);\n }, {});\n };\n };\n};\n\nexport default createFormValueSelector;","import createFormValueSelector from './createFormValueSelector';\nimport plain from './structure/plain';\nexport default createFormValueSelector(plain);"],"sourceRoot":""}

Found in path(s):
* /opt/cola/permits/1701385382_1685525723.1625257/0/mockserver-netty-5-14-0-sources-1-jar/org/mockserver/dashboard/static/js/2.d40871cb.chunk.js.map
No license file was found, but licenses were detected in source scan.

/opt/cola/permits/1701385382_1685525723.1625257/0/mockserver-netty-5-14-0-sources-1-jar/org/mockserver/dashboard/AveriaSansLibre-Regular.ttf: binary file matches

Found in path(s):
* /bin/grep

1.559 swagger-parser 1.0.61

1.559.1 Available under license :

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1.560 swagger-parser-core 2.1.2

1.560.1 Available under license :

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1.561 swagger-parser-v2-converter 2.1.2

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1.562 mockserver-core 5.14.0

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Found in path(s):
* /opt/cola/permits/1701385291_1685525712.1988056/0/mockserver-core-5-14-0-sources-2-jar/org/mockserver/openapi/examples/XmlExampleSerializer.java
* /opt/cola/permits/1701385291_1685525712.1988056/0/mockserver-core-5-14-0-sources-2-jar/org/mockserver/openapi/examples/models/DoubleExample.java
* /opt/cola/permits/1701385291_1685525712.1988056/0/mockserver-core-5-14-0-sources-2-jar/org/mockserver/openapi/examples/models/Example.java
*
 /opt/cola/permits/1701385291_1685525712.1988056/0/mockserver-core-5-14-0-sources-2-jar/org/mockserver/openapi/examples/models/ArrayExample.java
* /opt/cola/permits/1701385291_1685525712.1988056/0/mockserver-core-5-14-0-sources-2-jar/org/mockserver/openapi/examples/JsonNodeExampleSerializer.java
* /opt/cola/permits/1701385291_1685525712.1988056/0/mockserver-core-5-14-0-sources-2-jar/org/mockserver/openapi/examples/models/DecimalExample.java

* /opt/cola/permits/1701385291_1685525712.1988056/0/mockserver-core-5-14-0-sources-2-jar/org/mockserver/openapi/examples/models/AbstractExample.java
* /opt/cola/permits/1701385291_1685525712.1988056/0/mockserver-core-5-14-0-sources-2-jar/org/mockserver/openapi/examples/models/FloatExample.java
* /opt/cola/permits/1701385291_1685525712.1988056/0/mockserver-core-5-14-0-sources-2-jar/org/mockserver/openapi/examples/models/StringExample.java
*
 /opt/cola/permits/1701385291_1685525712.1988056/0/mockserver-core-5-14-0-sources-2-jar/org/mockserver/openapi/examples/ExampleBuilder.java
* /opt/cola/permits/1701385291_1685525712.1988056/0/mockserver-core-5-14-0-sources-2-jar/org/mockserver/openapi/examples/JsonExampleDeserializer.java
* /opt/cola/permits/1701385291_1685525712.1988056/0/mockserver-core-5-14-0-sources-2-jar/org/mockserver/openapi/examples/models/IntegerExample.java
* /opt/cola/permits/1701385291_1685525712.1988056/0/mockserver-core-5-14-0-sources-2-jar/org/mockserver/openapi/examples/models/BooleanExample.java
* /opt/cola/permits/1701385291_1685525712.1988056/0/mockserver-core-5-14-0-sources-2-jar/org/mockserver/openapi/examples/models/BigIntegerExample.java
* /opt/cola/permits/1701385291_1685525712.1988056/0/mockserver-core-5-14-0-sources-2-jar/org/mockserver/openapi/examples/models/LongExample.java
* /opt/cola/permits/1701385291_1685525712.1988056/0/mockserver-core-5-14-0-sources-2-jar/org/mockserver/openapi/examples/models/ObjectExample.java
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Found in path(s):
* /opt/cola/permits/1701385291_1685525712.1988056/0/mockserver-core-5-14-0-sources-2-jar/org/mockserver/openapi/mock-server-openapi-embedded-model.yaml

1.563 nimbus-jose-jwt 9.24.2

1.563.1 Available under license :

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* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/factories/DefaultJWSSignerFactory.java
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* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/CriticalHeaderParamsDeferral.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/CipherHelper.java
*
 /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/ECDH.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/EdDSAProvider.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/AESKW.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/IllegalHeaderException.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/RSACryptoProvider.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/source/JWKSetWithTimestamp.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jwt/proc/JWTClaimsSetAwareJWSKeySelector.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/source/DefaultJWKSetCache.java

*
 /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/util/JSONStringUtils.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/proc/JWKSecurityContext.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/RSA_OAEP_SHA2.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/ThumbprintURI.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/util/IntegerOverflowException.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/AESEncrypter.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/BaseJWEProvider.java
*
 /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/Curve.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/BaseJWSProvider.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/opts/AllowWeakRSAKey.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/util/KeyUtils.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/PasswordBasedCryptoProvider.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/RSASSAProvider.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/MACProvider.java
*
 /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/package-info.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/RSAKeyUtils.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/RSA1_5.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/HeaderValidation.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/CurveBasedJWK.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/AlgorithmSupportMessage.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/AESCBC.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/util/IOUtils.java
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/opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/RSASSA.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/utils/ConstantTimeUtils.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/LegacyConcatKDF.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/source/JWKSetCache.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/proc/DefaultJOSEObjectTypeVerifier.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/gen/JWKGenerator.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/utils/ECChecks.java
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/opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/JWKException.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/produce/package-info.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/utils/package-info.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/opts/UserAuthenticationRequired.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/ContentCryptoProvider.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/AuthenticatedCipherText.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/CompositeKey.java
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* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/JWSSignerOption.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/ActionRequiredForJWSCompletionException.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/AESGCM.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/CompletableJWSObjectSigning.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/produce/JWSSignerFactory.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/ConcatKDF.java
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* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-

jar/com/nimbusds/jose/crypto/impl/AlgorithmParametersHelper.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/OctetKeyPair.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/gen/ECKeyGenerator.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/AAD.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/AESCryptoProvider.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/RSA_OAEP.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/util/BoundedInputStream.java
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/opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/HMAC.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/gen/RSAKeyGenerator.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/opts/package-info.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/gen/OctetSequenceKeyGenerator.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/PRFParams.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/opts/OptionUtils.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/gen/package-info.java
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/opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/PEMEncodedKeyParser.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/util/Container.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/LegacyAESGCM.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/ECDSA.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/DeflateHelper.java
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* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-

jar/com/nimbusds/jose/proc/JOSEMatcher.java
*
 /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jca/JCAAware.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/JWSProvider.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/AsymmetricJWK.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jwt/EncryptedJWT.java
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* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jwt/proc/DefaultJWTClaimsVerifier.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/Requirement.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/AlgorithmFamily.java
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 /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/RSASSASigner.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/MACVerifier.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jwt/proc/package-info.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/proc/JWSKeySelector.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/JWEHeader.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/proc/SimpleSecurityContext.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/util/DateUtils.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/package-info.java
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* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/KeyType.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/RSAEncrypter.java

* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/KeySourceException.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/Algorithm.java
*
/opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/proc/package-info.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jwt/JWTClaimsSetTransformer.java
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* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/util/StandardCharset.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/source/RemoteJWKSet.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jwt/PlainJWT.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/util/Base64.java
*
/opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/ECDHDecrypter.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/ECParameterTable.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/PasswordBasedDecrypter.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/util/DeflateUtils.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/JOSEProvider.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/package-info.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jwt/package-info.java
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* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/X25519Decrypter.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/util/Base64Codec.java
*
/opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/Ed25519Signer.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/Ed25519Verifier.java
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* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/impl/ECDHCryptoProvider.java
*
 /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/proc/JOSEObjectTypeVerifier.java
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* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/crypto/ECDHEncrypter.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/proc/JWSAlgorithmFamilyJWSKeySelector.java
*
 /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/proc/JWSVerificationKeySelector.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-

jar/com/nimbusds/jose/proc/JOSEProcessorConfiguration.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jwt/proc/DefaultJWTProcessor.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/proc/DefaultJOSEProcessor.java
* /opt/cola/permits/1701385359_1685525728.9622877/0/nimbus-jose-jwt-9-24-2-sources-1-jar/com/nimbusds/jose/jwk/JWKMatcher.java

1.564 swagger-parser-v3 2.1.2

1.564.1 Available under license :

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1.565 jmespath-java 1.12.330

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* /opt/cola/permits/1701385315_1685525726.656383/0/jmespath-java-1-12-330-jar/META-INF/maven/com.amazonaws/jmespath-java/pom.xml

1.566 aws-java-sdk-kms 1.12.330

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1.567 swagger-parser 2.1.2

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1.568 mockserver-client-java 5.14.0

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1.569 swagger-compat-spec-parser 1.0.61

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/opt/cola/permits/1701385284_1685525710.1254845/0/swagger-compat-spec-parser-1-0-61-1-jar/io/swagger/models/resourcelisting/ApiInfo.class: binary file matches

Found in path(s):
* /bin/grep

1.570 snappy 0.4

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contains portions of the Library), rather than a "work that uses the
library". The executable is therefore covered by this License.
Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file
that is part of the Library, the object code for the work may be a
derivative work of the Library even though the source code is not.
Whether this is true is especially significant if the work can be
linked without the Library, or if the work is itself a library. The
threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data
structure layouts and accessors, and small macros and small inline
functions (ten lines or less in length), then the use of the
object
file is unrestricted, regardless of whether it is legally a derivative
work. (Executables containing this object code plus portions of the
Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may
distribute the object code for the work under the terms of Section 6.
Any executables containing that work also fall under Section 6,
whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or
link a "work that uses the Library" with the Library to produce a
work containing portions of the Library, and distribute that work
under terms of your choice, provided that the terms permit
modification of the work for the customer's own use and reverse
engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you

distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

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If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

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END OF TERMS AND CONDITIONS

Appendix: How to Apply These Terms to Your New Libraries

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To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>
Copyright (C) <year>
<name of author>

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Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

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@center Version 2.1, February 1999

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@end display

@subheading Preamble

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This license, the Lesser General Public License, applies to some specially designated software---typically libraries---of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the @dfn{Lesser} General Public License because it does @emph{Less} to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a ``work based on the library'' and a ``work that uses the library''. The former
contains code derived from the library, whereas the latter must be combined with the library in order to run.

@subheading TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

@enumerate 0
@item
This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called ``this License''). Each licensee is addressed as ``you''.

A ``library'' means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The ``Library'', below, refers to any such software library or work which has been distributed under these terms. A ``work based on the Library'' means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it,
either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term ``modification''.)

``Source code'' for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

@item
You may copy and distribute
verbatim copies of the Library's
complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

@item
You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

@enumerate a
@item
The modified work must itself be a software library.

@item
You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

@item
You must
cause the whole of the work to be licensed at no
charge to all third parties under the terms of this License.

@item
If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or

table, the facility still operates, and performs whatever part of
its purpose remains meaningful.

(For example, a function in a library to compute square roots has
a purpose that is entirely well-defined independent of the
application. Therefore, Subsection 2d requires that any
application-supplied function or table used by this function must
be optional: if the application does not supply it, the square
root function must still compute square roots.)
@end enumerate

These requirements apply to the modified work as a whole. If
identifiable sections
of that work are not derived from the Library,
and can be reasonably considered independent and separate works in
themselves, then this License, and its terms, do not apply to those
sections when you distribute them as separate works. But when you
distribute the same sections as part of a whole which is a work based
on the Library, the distribution of the whole must be on the terms of
this License, whose permissions for other licensees extend to the
entire whole, and thus to each and every part regardless of who wrote
it.

Thus, it is not the intent of this section to claim rights or contest
your rights to work written entirely by you; rather, the intent is to
exercise the right to control the distribution of derivative or
collective works based on the Library.

In addition, mere aggregation of another work not based on the Library
with the Library (or with a work based on the Library) on a volume of
a storage or distribution medium does not bring the other work under
the scope of this
License.

@item
You may opt to apply the terms of the ordinary GNU General Public
License instead of this License to a given copy of the Library. To do
this, you must alter all the notices that refer to this License, so
that they refer to the ordinary GNU General Public License, version 2,
instead of to this License. (If a newer version than version 2 of the
ordinary GNU General Public License has appeared, then you can specify
that version instead if you wish.) Do not make any other change in
these notices.

Once this change is made in a given copy, it is irreversible for
that copy, so the ordinary GNU General Public License applies to all
subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

@item
You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

@item
A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a ``work that uses the Library''. Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a ``work that uses the Library'' with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a ``work that uses the library''. The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a ``work that uses the Library'' uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise,

if the work is a derivative of the Library, you may
distribute the object code for the work under the terms of Section 6.
Any executables containing that work also fall under Section 6,
whether or not they are linked directly with the Library itself.

@item
As an exception to the Sections above, you may also combine or
link a ``work that uses the Library'' with the Library to produce a
work containing portions of the Library, and distribute that work
under terms of your choice, provided that the terms permit
modification of the work for the customer's own use and reverse
engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the
Library is used in it and that the Library and its use are covered by
this License. You must supply a copy of this License. If the work
during execution displays copyright notices, you must include the
copyright notice for the Library among them, as well as a reference
directing the user to the copy of
this License. Also, you must do one
of these things:

@enumerate a
@item
Accompany the work with the complete corresponding
machine-readable source code for the Library including whatever
changes were used in the work (which must be distributed under
Sections 1 and 2 above); and, if the work is an executable linked
with the Library, with the complete machine-readable ``work that
uses the Library'', as object code and/or source code, so that the
user can modify the Library and then relink to produce a modified
executable containing the modified Library. (It is understood
that the user who changes the contents of definitions files in the
Library will not necessarily be able to recompile the application
to use the modified definitions.)

@item
Use a suitable shared library mechanism for linking with the Library. A
suitable mechanism is one that (1) uses at run time a copy of the
library already present on the user's computer system, rather than
copying library functions into the executable,
and (2) will operate
properly with a modified version of the library, if the user installs
one, as long as the modified version is interface-compatible with the
version that the work was made with.

@item
Accompany the work with a written offer, valid for at

least three years, to give the same user the materials
specified in Subsection 6a, above, for a charge no more
than the cost of performing this distribution.

@item
If distribution of the work is made by offering access to copy
from a designated place, offer equivalent access to copy the above
specified materials from the same place.

@item
Verify that the user has already received a copy of these
materials or that you have already sent this user a copy.
@end enumerate

For an executable, the required form of the ``work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

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@enumerate a
@item
Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

@item
Give prominent notice with the combined library of the fact

that part of it is a work based on the Library, and explaining
where to find the accompanying uncombined form of the same work.
@end enumerate

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This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

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@end enumerate

@subheading END OF TERMS AND CONDITIONS

@page
@subheading How to Apply These Terms to Your New Libraries

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possible use to the public, we recommend making it free software that
everyone can redistribute and change. You can do so by permitting
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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work
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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute
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Because of
this blurred distinction, using the ordinary General
Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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library does the
same job as widely used non-free libraries. In this
case, there is little to gain by limiting the free library to free
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@enumerate a
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@item
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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the

application. Therefore, Subsection 2d requires that any
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be optional: if the application does not supply it, the square
root function must still compute square roots.)
@end enumerate

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@item
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2 above provided that you accompany
it with the complete corresponding machine-readable source code, which
must be distributed under the terms of Sections 1 and 2 above on a
medium customarily used for software interchange.

If distribution of object code is made by offering access to copy
from a designated place, then offering equivalent access to copy the
source code from the same place satisfies the requirement to
distribute the source code, even though third parties are not
compelled to copy the source along with the object code.

@item
A program that contains no derivative of any portion of the
Library, but is designed to work with the Library by being compiled or
linked with it, is called a ``work that uses the Library''. Such a
work, in isolation, is not a derivative work of the Library, and
therefore falls outside the scope of this License.

However, linking a ``work that uses the Library'' with the Library
creates an executable that is a derivative of the Library (because
it
contains portions of the Library), rather than a ``work that uses the
library''. The executable is therefore covered by this License.
Section 6 states terms for distribution of such executables.

When a ``work that uses the Library'' uses material from a header file
that is part of the Library, the object code for the work may be a
derivative work of the Library even though the source code is not.
Whether this is true is especially significant if the work can be
linked without the Library, or if the work is itself a library. The
threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data
structure layouts and accessors, and small macros and small inline
functions (ten lines or less in length), then the use of the object
file is unrestricted, regardless of whether it is legally a derivative
work. (Executables containing this object code plus portions of the
Library will still fall under Section 6.)

Otherwise,
if the work is a derivative of the Library, you may
distribute the object code for the work under the terms of Section 6.
Any executables containing that work also fall under Section 6,
whether or not they are linked directly with the Library itself.

@item

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link a ``work that uses the Library'' with the Library to produce a
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directing the user to the copy of
this License. Also, you must do one
of these things:

@enumerate a
@item
Accompany the work with the complete corresponding
machine-readable source code for the Library including whatever
changes were used in the work (which must be distributed under
Sections 1 and 2 above); and, if the work is an executable linked
with the Library, with the complete machine-readable ``work that
uses the Library'', as object code and/or source code, so that the
user can modify the Library and then relink to produce a modified
executable containing the modified Library. (It is understood
that the user who changes the contents of definitions files in the
Library will not necessarily be able to recompile the application
to use the modified definitions.)

@item
Use a suitable shared library mechanism for linking with the Library. A
suitable mechanism is one that (1) uses at run time a copy of the
library already present on the user's computer system, rather than
copying library functions into the executable,
and (2) will operate
properly with a modified version of the library, if the user installs
one, as long as the modified version is interface-compatible with the
version that the work was made with.

@item
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least three years, to give the same user the materials
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@item
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specified materials from the same place.

@item
Verify that the user has already received a copy of these
materials or that you have already sent this user a copy.
@end enumerate

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@enumerate a
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@end enumerate

@subheading END OF TERMS AND CONDITIONS

@page
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@end
 smallexample

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@var{signature of Ty Coon}, 1 April 1990
Ty Coon, President of Vice
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Version 2, June 1991

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This option is useful when you wish to copy part of the code of
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If distribution of object code is made by offering access to copy
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5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute
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1.573 okio 3.0.0

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* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/nonJvmMain/okio/HashingSink.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/commonMain/okio/Path.kt
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* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/commonTest/okio/UnsafeCursorTest.kt
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* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/commonTest/okio/HashingSinkTest.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmMain/okio/HashingSink.kt
*
 /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/commonTest/okio/HashingSourceTest.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/commonMain/okio/Options.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/LargeStreamsTest.java
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmMain/okio/Pipe.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/WaitUntilNotifiedTest.java
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmMain/okio/HashingSource.kt
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* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmMain/okio/Throttler.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/commonTest/okio/Utf8KotlinTest.kt
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 /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/NioTest.java
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/ByteStringKotlinTest.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/ForwardingTimeoutKotlinTest.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/GzipKotlinTest.kt
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* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/DeflateKotlinTest.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/ThrottlerTakeTest.kt
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* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/ForwardingTimeoutTest.java
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/Stopwatch.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/ThrottlerTest.kt
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* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/BufferCursorKotlinTest.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/BufferKotlinTest.kt
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* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/BufferCursorTest.java
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* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/commonTest/okio/ByteStringFactory.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/nonJvmMain/okio/ByteString.kt
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* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/FixedLengthSourceTest.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmMain/okio/internal/ResourceFileSystem.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/ZipFileSystemTest.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/nativeMain/okio/FileSystem.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmMain/okio/FileSystem.kt
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* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/TimeoutTest.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/FileHandleTestingFileSystem.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/unixMain/okio/UnixFileHandle.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/internal/ResourceFileSystemTest.kt
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* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/ZipBuilder.kt
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* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/GzipSourceTest.java
*
/opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmMain/okio/BufferedSink.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/Utf8Test.java
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmMain/okio/RealBufferedSink.kt

* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/nonJvmMain/okio/RealBufferedSource.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/BufferedSourceTest.java
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/InflaterSourceTest.java
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*/
```

Found in path(s):
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/commonMain/okio/internal/RealBufferedSink.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/commonMain/okio/internal/RealBufferedSource.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/commonMain/okio/internal/SegmentedByteString.kt
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Found in path(s):
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/commonTest/okio/HashingTest.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmMain/okio/ByteString.kt
* /opt/cola/permits/1778740542_1692969172.4917657/0/okio-3-0-0-sources-6-jar/jvmTest/okio/ByteStringJavaTest.java

1.574 libpkit 0.23.5-3.el7

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1.575 snappy-java 1.1.8.4

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- Alec Wysoker
  - Performance and memory usage improvement

1.576 jsonpatch 1.13

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1.577 jackson-coreutils 2.0

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